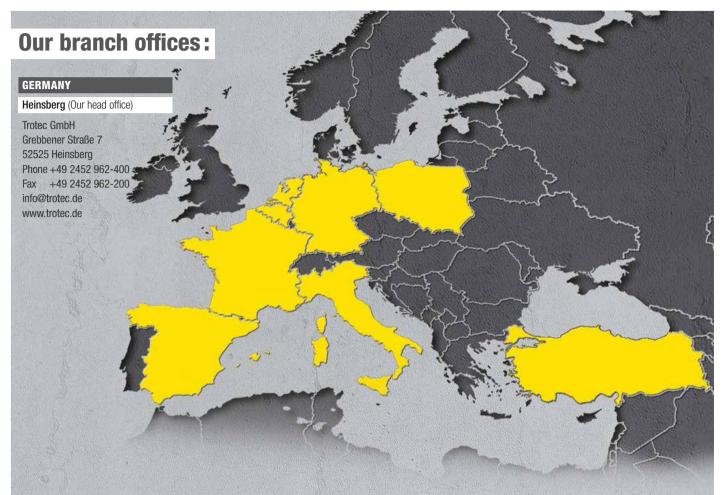


# CONDITION CONTROL

AIR HANDLING SOLUTIONS

**INNOVATIONS 1 | 2023** 





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### Trotec: Innovations made in Germany. We establish best conditions for your success.

















#### Success has a story. And trust has a name. Trotec.

We have been an owner-managed company from the time we started. We work efficiently thanks to short decision-making paths. Our roots are deeply anchored in the craft sector and on the construction site where our company history began almost three decades ago. In the craft sector and on the construction site, solidity and reliability are just as important as speed and endurance. The practical experience we have gained there taught us that a project will only be perfectly successful if good team players are on board. Coordinating all trades and seeing which machines, which materials, which climatic conditions lead to which result is something Trotec has in its DNA. We simply know what works because our knowledge is based on experience from real life.

#### **Experience and competence "at work"**

We place great emphasis on experience-based product development. Our experience is based on life practice, and we know that every product has to solve a problem that has been an obstacle for a smooth workflow. Innovative technology with real relevance for everyday life that has to prove successful again and again - under the toughest conditions and in very different situations. Only when we get positive feedback from the working world that everything is alright, we are sure that we have kept our Trotec promise: Selling solutions, not just products.

#### International, German quality and technology.

Nowadays, Trotec and its subsidiaries on different continents supply industry, tradesmen and craft enterprises worldwide with professional product solutions for climate conditioning. The assortment of innovative solutions we offer ranges from machines for climate conditioning and measuring devices to special work tents and screen fences.

In the past decades our leitmotif of offering innovative technology at the best possible rates has not only made us one of the leading industrial equipment suppliers but by now also a successful provider of corresponding product solutions for private usage.

#### **Our constant incentive?** Being measurably better.

In the fields of portable measuring equipment, too, we are one of the global prime addresses. Trotec develops, produces and distributes innovative measuring devices for climate, building technology, quality and emission control, industrial maintenance as well as detection and localisation.

#### **Trotec turn money into ideas:** 10 % for research

We have become big as high-quality supplier - and would like to keep it that way. Therefore, we rely on qualified and motivated employees and invest in a future-proof development. 10 % of our turnover is principally reinvested in research and development. Employing this strategy, Trotec ensures its customers a brisk pace of product innovation as well as futureproof technology of tomorrow's problem solvers.

#### More than 90 % in-house production and always 100 % problem solving

As long as there are problems without solutions, we will continue to develop new products. Each of them must be uncompromisingly easy to use and always deliver consistent performance while withstanding a wide range of conditions. This is the Trotec standard: precision and effectiveness. That is why our focus is on the continuously growing number of products we develop and manufacture in-house - everything from a single source. Upon opening our Heinsberg production facility in 2013, 70 % of the machines of the professional range had already been developed and produced along the lines of "made in Germany". Today's rate is more than 90 %.

#### We like to share what we know

Our experts are not only here to advise you; as part of the Trotec Academy, they also offer you active knowhow transfer for many tasks: In our training courses and seminars we convey theoretical and practical expertise.



# Because we are working hand in hand, your advantages with Trotec are not far to seek and can be counted on the fingers of two hands ...

#### 1 Field-tested engineering

Heinsberg accommodates the R&D department, prototype construction and state-of-the-art test rooms on 1,500 m<sup>2</sup> where more than 20 employees develop new products whilst closely working together with users and specialised suppliers. This allows us to offer you solutions that are field-tested to 100 %.

#### 3 Manufactured in Germany

Think globally – act locally! In case of many measuring devices, too, we have deliberately decided in favour of manufacturing in Germany, because here we can rely on outstandingly qualified employees and a well-organised workflow. And only these factors guarantee the development of high-quality products!

#### 5 Everything directly from the manufacturer

Because all of our devices, components and accessories are coming from a single source Trotec solutions are highly functional: They are exceedingly well-matched in terms of appearance and technology. These sophisticated products make an impression – on our users and also on your clients.

#### 7 Independent repair and maintenance service

You can rely on qualified service staff – no matter where you are. Trotec has their own service vehicle fleet and specialist workshops in Germany, the Netherlands, Belgium, Poland, France, Italy, Spain and Turkey.

#### 9 Optimum value-for-money ratio

For nearly 30 years now our customers have bought our products, which are giving a good return. What is more: Trotec also offers fiscal solutions when purchasing, renting or leasing. Benefit from solely Trotec financing – without involvement of a bank.

#### Solutions at the click of a mouse – twenty-four-seven $\dots$

Via our online portals (www.trotec.com) you can benefit from our various offers 24/7.

Make use of the convenient shopping opportunity in the Trotec shop:
Here industrial customers, craftsmen and private users equally get their money's worth, for in the Trotec shops you'll find new equipment for all needs with an optimum value-for-money ratio, promotional offers at particularly favourable budget prices, attractive package combinations and inexpensive samples or remaining stock. Always worth a visit:

www.trotec.com

**IRT-KAT-ITVA-WM-12-EN** 

#### 2 10 % for research – 100 % for you

With Trotec you have always cutting-edge technology, since 10 % of our turnover goes into research and development. Which means that every year you can benefit from clearly more product innovations than many a competitor has launched throughout his entire company history.

#### 4 German industrial design

Trotec solutions are impressive in every respect: They stand out from the crowd by the visually appealing clarity, practicality and functionality of German industrial designs and impress with technical superiority and outstanding quality.

#### 6 Permanent availability

It is normal for us to ship 15,000 parcels a day. That's why we basically have everything in stock all the time. Whatever you need from the Trotec range, quick delivery is no problem for us: 250,000 machines and measuring devices are permanently available for you.

#### 8 Long-term availability of spare parts

We guarantee the value retention of your investments. Trotec can supply you now and in future with spare parts for all requirements. We have more than 100,000 spare parts constantly in stock. Count on it!

#### 10 Comprehensive services

Along with our products you obtain important services, which ensure the functionality of your devices: Training, testers, trial operation, consultancy service and more. Furthermore available for you is the on-site service in all Trotec subsidiaries.





#### A FEW PRACTICAL BENEFITS:

Professional quality "made in Germany" originally produced by Trotec

Configurable air direction reversal for all models

Equipped with manifold functions and extensive features as standard

High economic efficiency due to modular assembly design

Can be configured individually for any application due to a wide range of equipment options

# TTR industrial desiccant dehumidifiers

Durable, low-maintenance, extremely flexible and modularly configurable with high dehumidification performance even at low dew points





#### **Online Capacity Calculation**



Which dehumidifier optimally fits your room moisture? Simply use our professional online capacity calculator for exact calculations!

With our robust high-performance dehumidifiers you constantly benefit from a perfect solution with regard to drying applications. The TTR units ensure efficient and permanent dehumidification with a high capacity, even at low dew points.



The application possibilities for these industrial desiccant dehumidifiers are as versatile as their comprehensive standard equipment and the numerous additional equipment options facilitate a virtually custom-tailored adaptation of these devices to meet any requirement.

All industrial dehumidifiers of the TTR series are developed and manufactured in Germany according to the highest quality standards. They exclusively consist of efficient branded components of the latest generation of technology supplied by leading component manufacturers.

Thanks to the internal heat recycling process as well as the high level of resilience and performance of their special sorption rotors, the desiccant dehumidifiers of the TTR series are among the most economical dehumidifiers of their kind!



Industrial desiccant dehumidifiers – further information . . .

Standard equipment features of the TTR industrial desiccant dehumidifiers	00 8 EL	TTR 1400	TTR 2000	TTR 2800	TTR 3700	TTR 5200	TTR 6600	TTR 8200	TTR 10000	TTR 12000	TTR 13500
Stainless steel housing		-	-	-	-						
Steel housing, galvanized and painted	_	-	-	-	-	-	-	•	-	-	•
Wide-range voltage		-	-	-	•	-	•	•	-	•	-
Rotor rotation control (rotor and drive)		-	-	-	-	-	-	•	-	•	•
Overtemperature protection system with restart lock (regeneration air)		-	-	-	•	-	•	•	-	•	-
Operating temperature management (regeneration air)		-	-	-	•	-	•	•	-	•	•
Filter monitoring (per air current and collective warning light)		-	-	-	•	-	•	•	-	•	-
Duoventic control <sup>1</sup>		-	-	-	•	-	•	•	-	•	•
PLC control module Millenium						-	•	•	•	•	•
FlowMatic volumetric flow control						-	-	•	-	-	•
Configurable air direction reversal		-	-	-	-	-	-	•	-	-	-
Terminals external 0n/0ff		-	-	-		-	•		-	•	-
Terminals hygrostat		-	-	•	•	-	•	•	-	•	-
Potential-free contacts (operation, fault, filter)											

- Duoventic allows the independent adjustment of each fan's performance via a potentiometer without the need for customer-provided throttle units;
- standard equipment; □ optional equipment

As standard, all TTR units are equipped with numerous functions and features guaranteeing reliable operation, easy handling and long lifetime with low maintenance effort.

Both air volume and the degree of humidity can also be adjusted independently for all devices as required by means of the integrated Duoventic control.



All TTR units operate according to the TTR Trisorp Dual principle with dual air circulation for pressure-neutral recirculation operation. Each of these air circuits has a separate fan that can be adjusted independently via an infinitely variable electronic regulation.

This enables the fine adjustment of moisture content and volumetric flow of the dry air required without the need to e.g. install energy-wasting throttle valves to regulate the air volume as has often been customary so far.

Due to Duoventic you can configure the device to meet any requirement quickly and in line with demand without the need for conversions: Extremely dry air with a low air flow rate, larger volumes of dry air or maximum circulating air performance with a moderate ratio of dry air.

Further available to optimally adjust the devices to your specific application requirements is a comprehensive range of additional equipment options.

An overview of all options is listed in tabular form on the catalogue pages 10 and 11.



modules with altogether eleven devices of different performance classes ensures a maximum of quality and cost-effectiveness.



#### On request, we also readily provide custom-tailored special solutions:

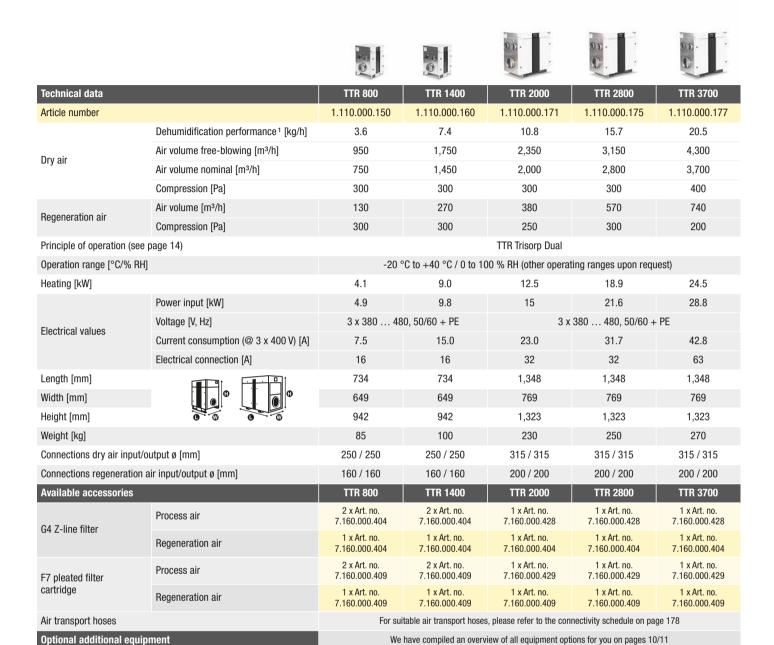
- TTR industrial desiccant dehumidifiers with hygienic design
- TTR industrial desiccant dehumidifiers for PWIS-free dry air
- TTR industrial desiccant dehumidifiers for extremely low dew points

You can find more information at www.trotec.com/ttr-special-models or via the QR code on the right.



Industrial desiccant dehumidifiers - further information . . .

TROTEC



<sup>&</sup>lt;sup>1</sup> Nominal data at 20 °C/60 % RH

#### Configurable air direction reversal

Another practical detail for stationary industrial applications,

especially with pipe connections, is the configurable air direction reversal of the TTR units, for especially in those cases it must be possible to integrate new or additional devices flexibly into existing process sequences.

With the operator side always facing the user, the air flow direction can easily be adjusted to your individual procedures as needed by means of a modular conversion. Blowing out dry air to the right and discharging humid air to the left - or the other way round not a problem thanks to the air direction reversal.

All models are optionally also available with a stackable transport frame up to and including the TTR 3700 also with castors. Optionally, wheels can be supplied for the larger models and, on demand, every TTR unit can also be delivered in a special weather-proof design. An overview of all equipment options is provided on the following catalogue pages.



Trotec



Industrial desiccant dehumidifiers – further information . . .



Technical data		TTR 5200	TTR 6600	TTR 8200	TTR 10000	TTR 12000	TTR 13500	
Article number		1.110.000.182	1.110.000.187	1.110.000.190	1.110.000.192	1.110.000.195	1.110.000.197	
	Dehumidification performance 1 [kg/h]	29.1	37.2	46.2	55.1	66.5	74.6	
Dry oir	Air volume free-blowing [m³/h]	5,800	7,200	9,000	10,500	12,500	14,700	
Dry air	Air volume nominal [m³/h]	5,200	6,600	8,200	9,800	11,800	13,300	
	Compression [Pa]	400	400	400	300	300	400	
Degeneration oir	Air volume [m³/h]	1,050	1,330	1,660	1,970	2,380	2,670	
Regeneration air	Compression [Pa]	300	300	300	300	300	200	
Principle of operation (se	e page 14)			TTR Tris	orp Dual			
Operation range [°C/% R	H]	=	20 °C to +40 °C /	0 to 100 % RH (o	ther operating rar	nges upon request	)	
Heating [kW]		36.0	45.0	57.0	66.0	81.0	90.0	
	Power input [kW]	40	50.5	64.5	74.0	89.0	103.0	
Electrical values	Voltage [V, Hz]	3 x 3	80 480, 50/60	+ PE	3 x 3	880 480, 50/60	+ PE	
Ciectifical values	Current consumption (@ 3 x 400 V) [A]	60	73.5	93.5	108.0	129.0	150.0	
	Electrical connection [A]	63	100	125	160	160	250	
Length [mm]		1,919	1,919	1,919	2,032	2,032	2,032	
Width [mm]		1,100	1,100	1,100	1,460	1,460	1,460	
Height [mm]		1,680	1,680	1,680	1,802	1,802	1,802	
Weight [kg]		680	720	750	900	1,000	1,100	
Connections dry air input	/output ø [mm]	500 / 500	500 / 500	500 / 500	Rectangular du	ict connection (op	tional 2 x 500 ²)	
Connections regeneration	n air input/output ø [mm]	300 / 300	300 / 300	300 / 300	400 / 400	400 / 400	400 / 400	
Available accessories		TTR 5200	TTR 6600	TTR 8200	TTR 10000	TTR 12000	TTR 13500	
G4 Z-line filter	Process air	2 x Art. no. 7.160.000.448	2 x Art. no. 7.160.000.448	2 x Art. no. 7.160.000.448	2 x Art. no. 7.160.000.495	2 x Art. no. 7.160.000.495	2 x Art. no. 7.160.000.495	
u4 Z-iiile liitei	Regeneration air	1 x Art. no. 7.160.000.448	1 x Art. no. 7.160.000.448	1 x Art. no. 7.160.000.448	1 x Art. no. 7.160.000.475	1 x Art. no. 7.160.000.475	1 x Art. no. 7.160.000.475	
F7 pleated filter	Process air	2 x Art. no. 7.160.000.449	2 x Art. no. 7.160.000.449	2 x Art. no. 7.160.000.449	2 x Art. no. 7.160.000.496	2 x Art. no. 7.160.000.496	2 x Art. no. 7.160.000.496	
cartridge	Regeneration air	1 x Art. no. 7.160.000.449	1 x Art. no. 7.160.000.449	1 x Art. no. 7.160.000.449	1 x Art. no. 7.160.000.476	1 x Art. no. 7.160.000.476	1 x Art. no. 7.160.000.476	
Air transport hoses		For suitable air transport hoses, please refer to the connectivity schedule on page 178						
Optional additional equ	ipment .	We have compiled an overview of all equipment options for you on pages 10/11						

<sup>1</sup> Nominal data at 20 °C/60 % RH



All TTR units comes equipped ex works with separate G4 air filters in Z-line design, both for process and regeneration air. A corresponding filter monitoring unit with warning light is also fitted as standard.



<sup>2</sup> 2 x ø 500 mm with accessory hose adapter, see equipment options page 11



The service-friendly design of the TTR industrial desiccant dehumidifiers invariably accommodates efficient branded components of the latest generation of technology supplied by leading component manufacturers and leaves room for numerous extension options. We have compiled an overview of all additional equipment options for you on the following catalogue pages.

←

Industrial desiccant dehumidifiers – further information . . .

## Trotec's TTR industrial desiccant dehumidifiers allow for customer-tailored optional configurations

#### PLC control module Millenium (1)

Microprocessor control with four-line plain text display for status or fault messages. Enables precise energy management as well as humidity and temperature control of the dry air (sensors optional).

#### FlowMatic S (2)

Registers and compensates sensor-supported automatic pressure losses and maintains a constant pressure / volume flow as per nominal value pre-set. Two fixed nominal values can be stored for this purpose. Starting with the TTR 2000, the volume flow and pressure regulation can be freely adjusted via the control signal (0 ... 10 V).

## Humidity (3) and temperature control (4)

Extension modules for Millenium (1) for the signal conversion of connected humidity (3) and temperature sensors (4) including controller programming.

#### Dew point sensor (5)

Together with the Millenium control (1) and the humidity control unit (3) it allows to control the dry air depending on the dew point.

Dew point +20 °C ... -80 °C, 4 - 20 mA.

#### Pt100 temperature sensor (6)

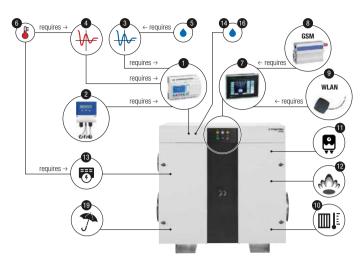
With transmitter 4 - 20 mA. Combined with recooler/reheater (13), Millenium control (1) and temperature control unit (4) this sensor permits the regulation of the dry air temperature.

#### Touchscreen (7)

Enables a convenient control of the entire unit via touchscreen instead of manual control.

#### **GSM** remote connection (8)

Enables the control of the TTR industrial desiccant dehumidifiers via GSM.



#### WLAN remote connection (9)

Enables the control of the TTR industrial desiccant dehumidifiers via WLAN.

## Heat exchanger module stainless steel (10)

Integrated module for cooling or heating dry air by means of cold or hot water available on site; requires an indication of the media's temperature.

#### Steam heater (11)

For heating the regeneration air by means of saturated vapour.

#### Gas heater (12)

For heating the regeneration air by means of a gas burner.

#### Electric reheater (13)

For heating the dry air additionally.

Add	itional equipment options (Article number)	TTR 800	TTR 1400	TTR 2000	TTR 2800	TTR 3700
1	PLC control module Millenium	6.100.010.401	6.100.010.401	6.100.010.401	6.100.010.401	6.100.010.401
2	FlowMatic S (requires 1)	6.100.010.405	6.100.010.405	6.100.010.405	6.100.010.405	6.100.010.405
3	Humidity control (requires 1)	6.100.010.415	6.100.010.415	6.100.010.415	6.100.010.415	6.100.010.415
4	Temperature control (requires 1)	6.100.010.416	6.100.010.416	6.100.010.416	6.100.010.416	6.100.010.416
5	Dew point sensor, -80 °C +20 °C (requires 3)	6.100.010.455	6.100.010.455	6.100.010.455	6.100.010.455	6.100.010.455
6	Pt100 temperature sensor (requires 4 and 14)	6.100.010.460	6.100.010.460	6.100.010.461	6.100.010.461	6.100.010.461
7	Touchscreen for device operation (requires 1)	on request				
8	GSM remote connection (requires 7)	on request				
9	WLAN remote connection (requires 7)	on request				
10	Integrated heat exchanger module stainless steel	-	-	6.100.010.437	6.100.010.437	6.100.010.437
11	Steam heater for regeneration air	-	-	6.100.010.440	6.100.010.440	6.100.010.440
12	Gas heater for regeneration air	-	-	6.100.010.445	6.100.010.445	6.100.010.445
13	Electric reheater for dry air	6.100.010.450	6.100.010.450	6.100.010.451	6.100.010.451	6.100.010.451
14	External hygrostat HG 120	6.100.002.040	6.100.002.040	6.100.002.040	6.100.002.040	6.100.002.040
15	4-pin connector coupling for HG 120	6.100.002.039	6.100.002.039	6.100.002.039	6.100.002.039	6.100.002.039
16	External thermohygrostat HG 125, electronic	6.100.002.042	6.100.002.042	6.100.002.042	6.100.002.042	6.100.002.042
17	7-pin connector coupling for HG 125	6.100.002.046	6.100.002.046	6.100.002.046	6.100.002.046	6.100.002.046
18	Wheels (4 swivel castors with brake)	6.100.010.510	6.100.010.510	6.100.010.511	6.100.010.511	6.100.010.511
19	Weather protection equipment	6.100.010.520	6.100.010.520	6.100.010.521	6.100.010.521	6.100.010.521
20	Protective and transport frame, stackable, without castors	-	-	-	-	-
21	Castors for transport frame	-	-	-	-	-
22	Transport frame, stackable, with castors	6.100.010.480	6.100.010.480	6.100.010.485	6.100.010.485	6.100.010.485
23	Filterbox (external) for HEPA air filtration	7.240.000.015	7.240.000.015	7.240.000.015	7.240.000.015	7.240.000.015

🔳 standard equipment; 🗆 optional equipment; further equipment available upon request, e.g. frost-protected version for outdoor installation, cold room insulation and much more







#### Hygrostat control (14, 16)

External hygrostat HG 120 (14) for humidity-dependent control of the TTR industrial desiccant dehumidifiers, optionally with or without permanent ventilation. A 4-pin coupling is required for connecting the HG 120 (15).

The electronic thermohygrostat HG 125 (16) is also available. It can be used starting at a temperature of -30 °C and is also suited for continuous control if combined with the Millenium control (1). A 7-pin coupling is required for connecting the HG 125 (17).

Both connector couplings (15, 17) come with cable and cable inlet for the connection to the terminal.

Weather protection equipment (19) Weather protection grids at air inlets, additional seals, exhaust pipe arc for humid air, Plexiglas flap protecting the operating elements.

#### TTR filter box 610 (23)

For HEPA filtration of process or dry air. Can be combined with all TTR drying units. Max. Air flow 4,000 m³/h per filter box. A detailed description can be found on catalogue page 12.

#### Hose adapter (24)

Attachment plate with 2 x  $\emptyset$  500 mm connecting piece (A) from TTR 10000 upwards. Can be screwed on to the standard grille (B) on the dry air outlet and process air intake side.





Addi	tional equipment options (Article number)	TTR 5200	TTR 6600	TTR 8200	TTR 10000	TTR 12000	TTR 13500
1	PLC control module Millenium		-	•	•	•	-
2	FlowMatic S (requires 1)		•	•		•	
3	Humidity control (requires 1)	6.100.010.415	6.100.010.415	6.100.010.415	6.100.010.415	6.100.010.415	6.100.010.415
4	Temperature control (requires 1)	6.100.010.416	6.100.010.416	6.100.010.416	6.100.010.416	6.100.010.416	6.100.010.416
5	Dew point sensor, -80 °C +20 °C (requires 3)	6.100.010.455	6.100.010.455	6.100.010.455	6.100.010.455	6.100.010.455	6.100.010.455
6	Pt100 temperature sensor (requires 4 and 14)	6.100.010.462	6.100.010.462	6.100.010.462	6.100.010.463	6.100.010.463	6.100.010.463
7	Touchscreen for device operation (requires 1)	on request					
8	GSM remote connection (requires 7)	on request					
9	WLAN remote connection (requires 7)	on request					
10	Integrated heat exchanger module stainless steel	6.100.010.438	6.100.010.438	6.100.010.438	6.100.010.439	6.100.010.439	6.100.010.439
11	Steam heater for regeneration air	6.100.010.441	6.100.010.441	6.100.010.441	6.100.010.442	6.100.010.442	6.100.010.442
12	Gas heater for regeneration air	6.100.010.445	6.100.010.445	6.100.010.445	6.100.010.445	6.100.010.445	6.100.010.44
13	Electric reheater for dry air	6.100.010.452	6.100.010.452	6.100.010.452	6.100.010.453	6.100.010.453	6.100.010.45
14	External hygrostat HG 120	6.100.002.040	6.100.002.040	6.100.002.040	6.100.002.040	6.100.002.040	6.100.002.040
15	4-pin connector coupling for HG 120	6.100.002.039	6.100.002.039	6.100.002.039	6.100.002.039	6.100.002.039	6.100.002.039
16	External thermohygrostat HG 125, electronic	6.100.002.042	6.100.002.042	6.100.002.042	6.100.002.042	6.100.002.042	6.100.002.042
17	7-pin connector coupling for HG 125	6.100.002.046	6.100.002.046	6.100.002.046	6.100.002.046	6.100.002.046	6.100.002.046
18	Wheels (4 swivel castors with brake)	6.100.010.512	6.100.010.512	6.100.010.512	6.100.010.513	6.100.010.513	6.100.010.513
19	Weather protection equipment	6.100.010.522	6.100.010.522	6.100.010.522	6.100.010.523	6.100.010.523	6.100.010.523
20	Protective and transport frame, stackable, without castors	6.100.010.490	6.100.010.490	6.100.010.490	6.100.010.495	6.100.010.495	6.100.010.495
21	Castors for transport frame	6.100.010.501	6.100.010.501	6.100.010.501	6.100.010.502	6.100.010.502	6.100.010.502
22	Transport frame, stackable, with castors	-	-	-	-	-	-
23	Filterbox (external) for HEPA air filtration	7.240.000.015	7.240.000.015	7.240.000.015	7.240.000.015	7.240.000.015	7.240.000.015
24	Hose adapter (2 x ø 500 mm)	-	-	-	6.100.010.524	6.100.010.524	6.100.010.524

+49 2452 962-200

Industrial desiccant dehumidifiers – further information...

#### A FEW PRACTICAL BENEFITS:

Professional quality "made in Germany" originally produced by Trotec

Flexible and relocatable solution for HEPA filtration of process air

Trouble-free parallel operation of several filter boxes connected to one industrial desiccant dehumidifier with a higher air flow rate

HEPA filter level indication for external voltage supply

# **TTR filter box 610**

For HEPA filtration of process air can be combined with TTR industrial desiccant dehumidifiers and other air treatment units





The filter box with its hygiene-friendly stainless steel design accommodates two filter compartments: an H13 HEPA filter and a pre-filter. Additionally, it is equipped with a HEPA filter level indication for external voltage supply.

with special air purity requirements.



The filter box was specially developed for use with industrial desiccant dehumidifiers of the TTR series. However, it can also be combined with other dry air generators as well as with all air treatment units the air of which is released into rooms with specific purity requirements.

Each TTR filter box is designed for a maximum air flow rate of 4,000 m<sup>3</sup>/h and can easily be complemented with additional TTR filter boxes installed in parallel to allow for operation with more powerful air treatment units.



Desiccant dehumidifiers - further information ...





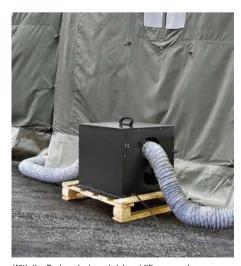
Technical data		TTR filter box 610
Article number		7.240.000.015
Max. air flow rate [m³/h]		4,000
Air transport hose connector [ø mm]	Suction side	500
All transport nose connector [9 mm]	Blow-out side	500
Dimensions L x W x H [mm]	605 x 655 x 730	
Weight (without filters) [kg]		33
Filter elements (accessory consumables)		TTR filter box 610
G4 Z-line filter	THILLIA	Article number 7.160.000.454
	MILLION TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TO SERVICE AND ADDRESS O	
F7 pleated filter cartridge		Article number 7.160.000.476
H13 high-efficiency particulate air filter		Article number 7.160.000.478
Available accessories		TTR filter box 610
Air transport hose Tronect SP-T <sup>1</sup> , length 7.6 m		Article number 6.100.001.216
Reducer from 500 mm to 300 mm		Article number 6.100.001.445



# **Drybox**



Weatherproof outdoor installation of the desiccant dehumidifiers TTR 400 D and TTR 500 D for drying indoor air through circulation



With the Drybox desiccant dehumidifiers can also be used out of doors, so as to enable an undisturbed dry keeping of accommodations or storage facilities via air circulation.

To avoid the formation of condensate and consequential problems, the air in accommodations and storage facilities needs to be permanently dehumidified to a level below dew point.

<sup>1</sup> These and other air transport hoses are described starting on catalogue page 176.

Powerful desiccant dehumidifiers such as Trotec's high-quality devices TTR 400 D or TTR 500 D with separate internal air flow ducts are the ideal solution for these requirements.

In many cases an indoor installation of the devices is not permitted, undesirable due to the noise, or impossible to realize for other reasons. In such cases, the Drybox, which was specially developed for the TTR 400 D and TTR 500 D, allows for the weatherproof outdoor installation of the dehumidifiers.

Via an air transport hose, the humid indoor air is sucked in, reliably dehumidified to below the interior dew point and then transported back into the room as dry air via a second connected hose in the recirculation air cycle.

**Drybox:** L 600 x W 590 x H 490 mm, 10 kg, EDP-coated sheet metal, Art. no. 6.100.010.350

#### A FEW PRACTICAL BENEFITS:

Professional quality "made in Germany" – originally produced by Trotec

Especially developed for drying indoor air from outside by way of circulation using the desiccant dehumidifiers TTR 400 D and TTR 500 D

Weatherproof construction with lockable service flap



The Drybox has a lockable service flap for configuring the devices.



Optionally available for the connection to the dryer's humid air outlet is a flue pipe with rain cap which can be screwed to the Drybox (Art. no. 6.100.010.351).



#### A FEW PRACTICAL BENEFITS:

Professional quality
"made in Germany" –
originally produced by Trotec

Electronic regulation of air amount – infinitely adjustable

Duoventic principle: Separate, infinite adjustment of moisture content and volumetric flow of the required dry air (TTR-D models)

Two separate air circuits for a pressure-neutral circulatory air operation (TTR-D models)

Up to 30 % lighter than competitive models with the same performance  $% \left( 1\right) =\left( 1\right) \left( 1\right$ 

Maximum of performance with minimum of dimensions and weight

Extremely low in maintenance

Stackable to save space

Practice-optimized German industrial design – protected design patent

# **Desiccant dehumidifiers** of the TTR series





Weatherproof Drybox for the interior convection drying with TTR 400 D and 500 D TTR for when outdoor installation required. All information about the Drybox on catalogue page 13...

#### Dry air on or off.

Conventional desiccant dehumidifiers often have no other options on offer. However, the TTR series does – significantly more:

Due to high-quality components and an innovative housing design our TTR dehumidifiers are the lightest devices of their performance class. The powder-coated steel sheet construction is extremely durable.

The combination of smart equipment features and remarkable performance data turns these devices into universal all-purpose desiccant dehumidifiers for industry and construction.

The TTR dehumidifiers achieve far lower dew points than refrigerator dryers and ensure a high dehumidification performance even at low air and component temperatures. Competitive machines cannot keep up with them when directly compared with regard to performance and weight.

The infinitely electronically adjustable air amount regulation allows the variable definition of the dehumidification performance and therefore, of the power consumption and noise emission.

Trotec



Desiccant dehumidifiers - further information ...

Duoventic:

O

#### D marking: professional quality "made in Germany" with twice the flexibility due to Duoventic

Monoventic:



The Duoventic principle of the TTR-D models allows the separate electronic regulation of both fans of the separate air circuits. This enables the fine adjustment of the moisture content (C1) and volume flow (C2) of the required dry air.

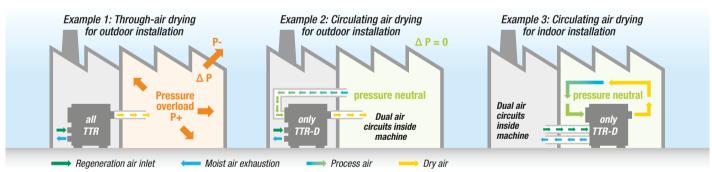
This is how you can configure any climate scenario in a fast and needs-oriented way.

Extremely dry air with a low air flow rate, larger volumes of dry air or maximum circulating air performance with a moderate ratio of dry air.



**The model differences at a glance:** On the left: a TTR 400 with Monoventic air volume regulation (A) and a common inlet for both air flows (B); on the right: a TTR 400 D with Duoventic regulation (C1, C2) and separate inlets for dry air (D) and regeneration air (E).

#### **Convincing process advantages through the TTR Trisorp Dual principle – application examples:**



Basically, conventional desiccant dehumidifiers are equipped with a common air inlet (mono) for dry and regeneration air, e.g. all Trotec devices operating according to the Trisorp-mono or Bisorp-mono principle.

These dehumidifiers are not suitable for through-air drying directly in the respective room as a process-related low pressure is generated and therefore drawing air from the outside is blown into the room, whose moisture content cannot be controlled.

An outdoor installation, e,g in near rooms can be done with all TTR models (example 1). Due to the ventilation with drier fresh air, a pressure overload is generated, which leads moist air to the outside.

However, with this version the dehumidification rate always depends on the moisture content of the sucked "outdoor air". With a nominal amount of dry air it achieves a reduction in the dew point temperature by approx. 5 to 10 °C (depending on the device).

#### Power-saving dehumidification and higher drying rates thanks to circulatory air operation with dual air circuits

The D models operate according to the TTR Trisorp Dual principle with two separate air flows and separate fans for each circuit.

This means that circulatory air operation is also possible with an outdoor installation supplied by a process air circuit that is separated from the "outdoor air" (example 2).

Even if the D models are installed indoor in a room that is to be treated with dry air, a pressure-neutral circulatory air operation is possible by streaming incoming regeneration air and outgoing moist air out of the room by means of a hose or pipe connection (example 3).

## Variable circulating air drying with TTR-D models have decisive advantages for users:

If there is a nominal amount of dry air, up to 30 °C lower dew point temperatures can be achieved compared to the "outdoor air" that supplies the regeneration air, in contrast to conventional through-air operation.

Therefore, dew points far below 0 °C can be achieved, which results in considerably low drying stages and in a significantly energy-efficient operation!

Desiccant dehumidifiers - further information ...

> TROTEC

# Smart equipment options – comprehensive system accessories

As standard, all TTR desiccant dehumidifiers are on the suction side equipped with plug-on filter covers with a handy clip fastener for quick filter changes without having to open the device.

For a separate air supply a matching hose adapter is available as accessory for each filter cover. It can simply be attached to the filter cover.

A complete overview of all TTR system accessories incl. a schematic representation of all configuration options can be found on the subsequent catalogue pages 18 and 19.



Thanks to the clip fastener, the filter cover at the rear of the device with inserted filter mat can be removed quickly and without the need for tools.

# 

On the left: a TTR 400 with standard filter cover at the rear and a connected hose for the discharge of humid air. On the right: a TTR 400 D with optional hose adapters for the separate process air and regeneration air supply.

Also available as order option instead of the standard operating hours counter is an MID-compliant <sup>5)</sup> dual counter with additional recording of the energy consumption.



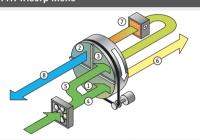
Optionally, all filter covers can be replaced by filter boxes with integrated pipe connection — also ideal for fixed installations. In addition, the filter boxes enable the flexible usage of different Z-line filters of class G4 or F7. For a filter change the filter box can be opened quickly and easily via the screw cap.

# Operation principles of the TTR desiceant dehumidifiers:

# TTR Bisorp Mono

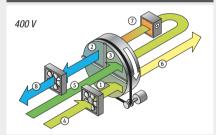
A fan located in front of the rotor for process and regeneration air. For regeneration a partial flow of the dry air is used.

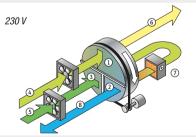
#### **TTR Trisorp Mono**



A fan located in front of the rotor for both air circuits. With purging sector for the heat recycling process for incoming regeneration air.

#### TTR Trisorp Dual





Separate air flows of process and regeneration air implemented by one fan each.
With purging sector for the heat recycling process for incoming regeneration air.

#### Key for operation principles:

- 1. Dehumidification sector
- 4. Process air
- tor 5. Regeneration air
- 2. Regeneration sector 6. Dry air
  - 7. Heating
- 3. Purging sector for heat recovery
- 8. Damp air

Trotec



Desiccant dehumidifiers - further information ...













Technical data		TTR 200	TTR 300	TTR 400	TTR 400 D	TTR 500 D
Article number		1.110.000.010	1.110.000.015	1.110.000.020	1.110.000.021	1.110.000.025
	Dehumidification <sup>1</sup> [kg/h]	0.35	0.7	1.2	1.6	2.2
Dry air	Range [m³/h]	40 - 120	80 - 280	130 - 450	130 - 450	180 - 550
Dry air	Air volume <sup>2</sup> [m <sup>3</sup> /h]	80	200	350	350	480
	Ext. Compression [Pa]	50	100	150	200	150
Paganaration air	Air volume [m³/h]	15	30	50	65	80
Regeneration air	Ext. Compression [Pa]	30	50	80	80	80
Principle of operation (fo	or details see page 16)	TTR Biso	orp Mono	TTR Trisorp Mono	TTR Tris	orp Dual
Operating range	Temperature [°C]	-15 to +35	-15 to +35	-15 to +35	-15 to +35	-15 to +35
Operating range	Humidity [RH]	0 to 100	0 to 100	0 to 100	0 to 100	0 to 100
Connection voltage [V /	Hz]	230 / 50/60	230 / 50/60	230 / 50/60	230 / 50/60	230 / 50/60
Power input	Total [kW]	0.45	0.9	1.5	2.2	3.0
Power input	Heating [kW]	0.4	0.85	1.35	1.95	2.7
Sound level (distance 1	m) [dB(A)]	60	61	63	63	74
Length [mm]	ength [mm]		355	400	400	443
Width [mm]	0	260	310	350	350	400
Height [mm]	• • • • • • • • • • • • • • • • • • • •	285	355	405	405	452
Weight [kg]		9	12	17	20	25
0 "	Dry air outlet ø [mm]	80	100	125	125	125
Connection	Humid air outlet ø [mm]	38 / 50	50	80	80	80
Equipment features		TTR 200	TTR 300	TTR 400	TTR 400 D	TTR 500 D
Powder-coated steel she	eet housing	-	•	-	-	-
Stainless steel housing						
Fan		1 x	1 x	1 x	2 x	2 x
Air volumo roculation	Monoventic <sup>3</sup>	-	•	-	-	_
Air volume regulation	Duoventic 4	-	-	-		
Operating hours counter	•	-	•	-	•	•
Dual counter (MID-comp	oliant <sup>5</sup> ) [h/kWh]	-				
Hose adapter	Process air					
HOSE AUAPIEI	Regeneration air	-	-	-		
Filter box	Process air					
I IIIGI DUX	Regeneration air	-	-	-		
Function monitoring		_	_	0	0	0
Ammeter						
DIN socket for external s	switchings	4-pin	4-pin	4-pin	4-pin	4-pin
Hygrostat						
Self-regulating PTC elec	tric heating	-	•	-	•	•
Additional heating proce	ess air	-	-			
Integrated heat recovery	1	-		-		

- Standard equipment; □ optional equipment; equipment option to be stated at the time of order, not subsequently installable; further versions upon request
- <sup>1</sup> Nominal data at 20 °C/60 % RH; <sup>2</sup> nominal

Ex-proof version

- <sup>3</sup> Monoventic: Advanced control electronics allow a precise and infinite adjustment of the dry air volume
- 4 **Duoventic:** Both air flows can be infinitely electronically regulated, independently of each other. This enables a separate adjustment of the moisture content and volume flow of the required dry air.
- 5 What does MID-compliant mean? In some areas, the Measuring Instruments Directive (MID) replaces the previous regulation of national authorization and subsequent calibration. As a result, all energy meters in Europe used for energy consumption-based billing have to be MID-compliant from now on.

Desiccant dehumidifiers - further information ...

#### 1 **Function monitoring**

Microprocessor control with multi-line plain text display for status or fault messages. With potential-free contacts for external indication. Available as configuration option at the time of order, not subsequently installable.

#### 2, 3 Hose adapter

For assembly onto the standard filter cover; comes with a supply air hose connection.

#### 4.5 Filter box

Permits the usage of G4 / F7 filters and the connection of supply air hoses at the process air or regeneration air inlet. Also ideal for fixed installations with pipe connections.

#### 6, 7 Filter mat

For filtering process or regeneration air (included in the scope of delivery).

- Z-line filter G4 process air 8
- 9 Z-line filter G4 regeneration air
- 10 Z-line filter F7 process air
- Z-line filter F7 regeneration air 11

#### 12 Dry air heating

Heating system mountable to the dry air outlet for the additional heating of dry air. Adjustable be tween 30 and 90°C. Integrated hose connection ø 125 mm.

#### **Quad distributor** 13

Connection for up to four 50 mm hoses that can be mounted to the dry air outlet using a reducer fitting (14), also with ø 38 mm. For a dry air supply specifically directed at different areas. Incl. sealing caps.

#### Reducer fitting

With screw thread so as to be screwed onto the quad distributor (13). Permits the connection of 38 mm hoses.

#### 15 Sealing caps 50 mm

For sealing the air outlets of the quad distributor.

#### Sealing caps 38 mm

Air outlet seal for the mounted reducer fitting (14) in case no hose is connected.

#### **Hygrostat control**

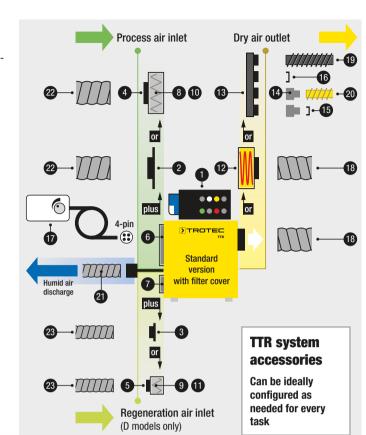
External hygrostat HG 120 with 4-pin plug and 2 m connecting cable for the humidity-dependent two-point control of the devices. (Alternatively: external thermohygrostat HG 125, Art. number 6.100.002.042,

with additional adapter transformer,

#### Air transport hoses:

Art. number 6.100.002.043)

- For standard dry air exhaust. 18
- For standard dry air exhaust with mounted quad distributor (13).
- For standard dry air exhaust with mounted guad distributor (13) and screwed-on reducer fitting (14).
- For humid air discharge.
- 22 For process air intake.
- For regeneration air intake.











For the purpose of clarification the figure shows the hose adapters (2, 3) already mounted onto a filter cover, which however is not included in the hose adapter's scope of delivery





 $<sup>^{\</sup>star}$  The air transport hoses recommended as accessory and others, too, are described starting on catalogue page 176.









# Desiccant dehumidifiers made of stainless steel from the TTR series



# Noble, steel and good: Low-maintenance compact items with high dehumidification performance also in low-temperature ranges

These low-maintenance desiccant dehumidifiers are made of stainless steel and do not only guarantee high dehumidification values especially at low dew-points. Their housings are known for a high resistance to corrosion and good hygiene characteristics.

Therefore, these machines are perfectly suitable for operational environments where special hygienic standards apply or for extremely material-straining atmospheres.

This is why TTR stainless steel models are the perfect solution for numerous drying applications in the chemical, pharmaceutical, food and candy manufacturing industry. Furthermore, it can also be used

to prevent condensation and corrosion during painting and sandblasting works in ships' holds or tank facilities.

As a standard the dehumidifiers have an integrated heat recovery and a connecting socket with protective cap for external switchings (TTR 160 / 250) to which the optionally available hygrostat HG 120 TTR can be connected for moisture-dependent controlling.

The standard equipment includes also a self-regulating, electronic regeneration air heating consisting of thermistor elements (PTC) whose performance capacity depends on the air intake temperature and the regeneration air volume.

The advantage of this solution lies for one in an optimal performance matching and in the fact that overheating is not possible, making a safety thermostat superfluous.

All stainless steel desiccant dehumidifiers in the TTR series are developed and manufactured according to the highest of quality standards in Germany.



TTR 250 HP

6.100.001.115 4)

6.100.001.020 5)





External hygrostat HG 120 TTR with 4-pin DIN socket for connection to TTR 160 and TTR 250, available as accessory.

Article number 6.100.002.040

# Model HP for use over long distances in combination with specially constructed hoses...



The TTR 250 HP is not only standardequipped with a radial fan but also with an additional extra-powerful fan motor which allows an especially high compression.

This makes this air dehumidifier especially well-suited for applications where air has to be transported over long distances or several levels, for example ships' rooms, cellars or bunkers.

The standard ex factory configuration of the TTR 250 HP is designed for the transportation of moist air. The dryer can be set by the customer to a different configuration, should the need arise for high-pressure dry air to be conducted away instead of moist.

\* What does MID compliant mean? The European Measuring Instruments Directive (MID) has replaced the existing rules of national approval and subsequent calibration in some areas. As a result, all power meters, which are used for energy consumption billing, must be MID compliant in the future.



Operation panel of the models TTR 160 and TTR 250 with standard ampere meter, operating hours counter and with a DIN socket with protective cap for external switchings.



Instead of the standard operating hours counter, a dual counter with additional MID-compliant \* acquisition of the current consumption is available as an option.

Special Features		TTR 160	TTR 250	TTR 250 Ex	TTR 250 HP
Powder-coated steel	sheet housing	_	_	_	_
Stainless steel housing	ng	•	-	-	-
Fan		1 x	1 x	1 x	1 x
High-pressure fan		-	_	_	1 x
Air volume	Monoventic	-	_	_	_
regulation	Duoventic	-	-	-	_
Operating hours cour	-	-	-	-	
Dual counter h/kWh	Dual counter h/kWh (MID compliant*)				
Uses adaptes	Process air	-	-	-	-
Hose adapter	Regeneration air	-	_	_	_
Filter bes	Process air	_	_	_	_
Filter box	Regeneration air	-	_	_	_
Ampere meter		-	-	-	-
DIN socket for extern	al switchings	4-pin	4-pin	_	_
Hygrostat				-	-
Self-regulating PTC e	electric heating	-	-	-	-
Internal heat recyclin	g process		•	•	•
Ex protection version		-	-	•	-
■ Standard equipment;	□ Optional equipment; furthe	r versions up	on request		

Technical data		TTR 160	TTR 250	TTR 250 Ex	TTR 250 HP 3)
Article number		1.110.000.120	1.110.000.130	1.110.000.132	1.110.000.135
	Dehumidification <sup>1)</sup> [kg/h]	0.5	1.1	1.1	1.0
Dentain	Range [m³/h]	60 - 160	130 - 300	130 - 200	130 - 220 (80 - 140) <sup>3)</sup>
Dry air	Amount of air 2) [m3/h]	155	250	180	200 (120) 3)

Dry air	0 1 1				,
Di y ali	Amount of air 2) [m3/h]	155	250	180	200 (120) 3)
	Ext. Compression [Pa]	50	100	400	200 (2,500) 3)
Degeneration six	Amount of air [m³/h]	35	50	50	100 (50) 3)
Regeneration air	Ext. Compression [Pa]	25	100	100	5,500 (100) 3)

Principle of opera	ation (for details see page 16)	TTR-Bisorp-Mono							
Operation range	[°C / % RH]		-20 to +35 / 0 to 100						
Connection voltage [V / Hz]		230 / 50 / 60	230 / 50 / 60	230 / 50 / 60	230 / 50 / 60				
Power input	Total [kW]	0.65	1.3	1.3	3.0 (2.1) 3)				
rowei iliput	Heating [kW]	0.6	1.2	1.2	2.0 (1.1) 3)				
Sound level (dista	ance 1 m) [dB(A)]	56	57	57	62				
Length [mm]		375	410	500	410				
Width [mm]		300	350	350	350				
Height [mm]		385	435	435	850				
Weight [kg]	0	14	19	21	45				
Connection dry a	ir output ø [mm]	100	100	100	100 (50) <sup>3)</sup>				
Connection mois	t air output ø [mm]	63	80	80	50 (100) <sup>3)</sup>				
Filter mat (acces	sories consumable article)	TTR 160	TTR 250	TTR 250 Ex	TTR 250 HP				
LxWxH[mm]	(a)	20 x 210 x 295	20 x 210 x 345	-	20 x 210 x 345				
Article number	0, 0	7.710.000.060	7.710.000.061	-	7.710.000.061				

TTR 250

6.100.001.115 4)

6.100.001.110 4)

TTR 250 Ex

on request

on request

1) Nominal data at 20 °C/60 % r.H.; 2) nominal;

Recommended air transport hoses

Dry air output

Moist air output

- The values in brackets comply with the alternative configuration for dry air transportation with high compression;
- 4) Article number for air transport hose Tronect TF-L (length 6 m); 5) Article number for air transport hose Tronect PV-A 51 (length 15 m); You can find the recommended as well as additional air transport hoses beginning on catalogue page 176...

TTR 160

6.100.001.115 4)

6.100.001.105 4)

+49 2452 962-200

#### A FEW PRACTICAL BENEFITS:

Development, Design, Production: 100 % Trotec

Independent drying systems for recirculation operation

High dehumidification performance even at low temperatures

Robust, corrosion-protected construction

Fully automatic operation

Professional hot gas automatic defrosting

Can be used starting at -0.5 °C (depending on the model)

Subsequently installable

High level of efficiency with simultaneously low energy consumption

Reduction of energy costs by means of process heat-assisted air heating

# **Industrial Condenser Dryer** of the DH Series

Professional drying systems for permanent stationary operation in industrial and utility companies



Strong drying performance, hardwearing exterior, long lifetime, low operating costs – and can be geared up for every possible challenge...

Industrial dryers of the DH series are professional dehumidification systems with highquality and especially resistant components for a continuous dehumidification application in aggressive, industrial surroundings. Due to the fact that they are working based on the principle of condensation, DH devices not only feature a high dehumidification performance, but are also particularly economical.

Combined with their large operating range, the practice-oriented equipment options and the optional integration in existing production and storage surroundings, the industrial dryers of the DH series are the first choice in solving all sorts of high-capacity problems caused by

Always going strong be it positioned on the floor or mounted to the wall

In addition to the large pedestal devices DH 15, 30 and 60 can also be purchased as suspended models for wall mounting - professional industrial dryers "made in Germany" originally produced by Trotec.







#### **Protection against moisture at its best**

The condenser dryers of the DH series unite great variance with high economic efficiency in reliable dehumidification solutions for industrial demands.



#### The problem: Excessive, unrestricted humidity levels

Unless effectively controlled, humidity can lead to manifold problems for production processes, furniture and equipment, building structures or production machinery – even jeopardize the health of the persons present.

For not only rust, rot, material decomposition or a reduced quality in processing and storing goods can be the direct consequences of an excessively high humidity level; mould, too, thrives and prospers chiefly in humid surroundings.

# Consequences of uncontrolled humidity are:

- Corrosion
- Condensate formation
- Decline in product quality
- Biocontamination of food and lubricants (cooling lubricants)
- Quality problems during the storage and dry keeping of hygroscopic material
- Increased maintenance effort on machines and buildings
- Faster damaging of the building structure
- Higher heating costs caused by reduced insulation values of the structural shell
- Reduced employee productivity
- Unwelcome odours



#### The solution: Flexible equipment options or retrofitting with DH drying systems

Be it as original equipment or to assist existing dehumidification systems, the industrial dryers of the DH series can be used either way without difficulty and are our best recommendation for the perfect humidity control in demanding, stationary continuous operation in commercial application environments.

Due to changed demands in terms of product quality, new manufacturing techniques and regulations or more complex logistic processes when storing and transporting, somewhat older existing installations quickly reach their limits under full load and therefore necessitate a moisture management adapted to current requirements.

With their autonomous recirculation operation and maintenance-friendly, robust design requiring only little floor space the stationary industrial dryers of the DH series can also be subsequently integrated into any working environment.

No further fresh air supply is required and they are placed directly in the rooms to be dehumidified or connected to existing ducted air systems. Many models already have a factory-provided wall installation preparation.

Besides the available basic designs and optional extras we can easily realize individual special equipment for your specific tasks. Please contact us for a personal consultation!



#### Your benefits: The assets of our industrial dryers of the DH series

- These corrosion-protected drying systems can be installed immediately without a great deal of technical effort or additional construction work – for use in hygienic areas they are also available as stainless steel version
- Very high dehumidification performance for quick and cost-efficient dry keeping in fully automatic hygrostat-controlled operation
- Compression refrigeration drying for maximum profitability in temperature surroundings from 5 to 40 °C owing to a high efficiency level and simultaneously low energy consumption



On the exhaust side the larger standing units of the DH series come with a rectangular duct connection for the simply integration in existing ventilation systems. There fan hoses can be optionally connected and upon request we can also realize individual special constructions such as ventilation shrouds.

#### **Industrial dryers of the DH series for wall-mounted operation**

Installing these dehumidifiers that are supplied prepared for wall mounting is as simple as their fully automatic operation for the permanent dry keeping of workspaces, storage facilities and productions halls. All three wall-mounted DH models are hygrostat-controlled and regulate the humidity to an ideal level at which corrosion, condensation and mould stand no chance.



The most compact DH version is a cost-effective solution for fully automatic humidity control in small and unheated business rooms by means of a hygrostat control. Owing to the characteristic design and the horizontally conducted recirculation air flow the readyfor-use DH 15 is particularly well suited for the assembly above doors.

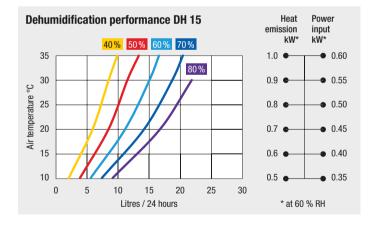


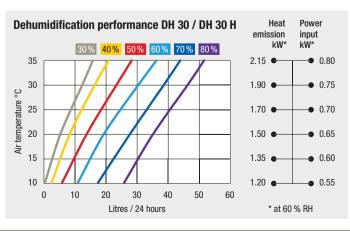
Evaporator and condenser of the extremely hardwearing DH 30 have a separate CDC coating. Therefore. the device comes optimally prepared for use in unfavourable surrounding conditions with particularly reactive air mixtures. Moreover, this model accommodates an equally powerful and silent radial fan perfect for the dehumidification of staff or production rooms.

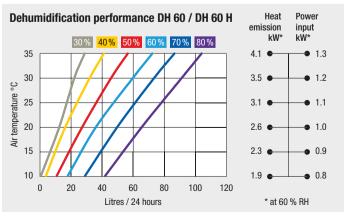


Thanks to the additional CDC coating of evaporator and condenser even especially reactive air mixtures cannot harm the DH 60 in any way. For this reason, the powerful DH model can withstand even the harshest of surrounding conditions and with its especially powerful, yet silent radial fan it keeps even larger rooms reliably dry.

- Professional quality "made in Germany" originally produced by Trotec
- High dehumidification performance even at low temperatures
- Corrosion-protected design
- Fully automatic operation
- Professional hot gas automatic defrosting
- Powerful air circulating radial fan (DH 30 and DH 60)
- Operating elements protected against unauthorized access
- Optionally available with condensate pump









#### **Industrial dryers of the DH series for stationary operation**

The industrial dryers DH 160 and DH 310 that can also be supplied in a stainless steel housing are equally characterized by a high dehumidification capacity, reliable continuous operation properties and practice-oriented equipment options. Designed for the operation whilst positioned on the floor, the devices – given on-site preparation – can also easily be used when mounted to the wall or ceiling. Also they can be connected to existing ducted air systems.



The standing models DH 160 and DH 310 come with a smoothly running scroll compressor for constant, pulsation-free pressure to ensure an energy-efficient refrigeration. Combined with the self-regulating EC radial fan these robust industrial dryers allow for a constantly high dehumidification performance during continuous operation even at low temperatures.

- Development, Design, Production: 100 % Trotec
- High dehumidification performance even at low temperatures
- Corrosion-protected design
- Fully automatic operation
- Professional hot gas automatic defrosting
- Optionally usable from -0.5 °C
- Steplessly self-regulating EC double-flow radial fan
- Integrated condensate pump



# application environment Due to the galvanized, powder-

Ideal solutions for any

Due to the galvanized, powdercoated steel construction even the standard version of DH 160 and DH 310 is highly resistant to corrosion and environmental influences. Furthermore, they can be adjusted for especially sensitive operating environments:

- Stainless steel version Ideal for the application in hygiene-sensitive areas.
- Heat exchanger with CDC coating

Cathodic dip coating (CDC) resistant to solvents and corrosion as well as to acids and alkalis.





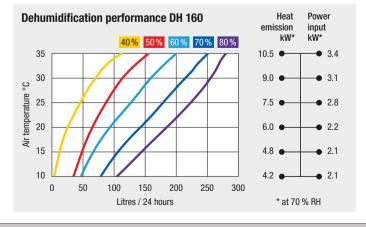
#### Simply switch over to permanent dehumidification

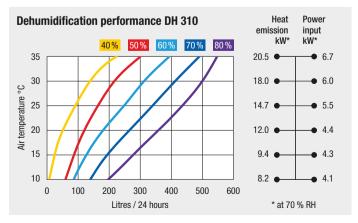
When put into operation via the central control panel the compression refrigeration systems enable a reliable, hygrostat-controlled continuous operation for permanent dry keeping with a long service life.

The hot gas automatic defrosting based on the bypass procedure guarantees extremely brief defrost phases even in cold surroundings.



The integrated MID-compliant energy consumption meter comes equipped with and additional service menu providing information for maintenance.





#### In top form manufactured in Germany

With the models DH 15, DH 30 and DH 60 you also benefit from professional drying devices originally produced by Trotec quality "made in Germany" in an exclusive Trotec design.









Ex works DH 15, DH 30 and DH 60 come prepared for wall mounting and the DH 15 is optionally also available for rear panel installation.

Technical data		DH 15	DH 30	DH 30 H	DH 60	DH 60 H		
Article number		1.125.000.111	1.125.000.116	1.125.000.117	1.125.000.121	1.125.000.123		
Dehumidification performance		see performance charts on page 24						
Heating capacity [kW]		-	- 2.8		_	2.8		
Voltage [V/Hz]		220-240/50	220-240/50	220-240/50	220-240/50	220-240/50		
Nominal current consumption [A]		3.7	4.2	4.4 + 12.2	7.5	7.5 +12.2		
Starting current [A]		18	15.8	15.8	30	30		
Fuse [A]		10	16	2 x 16	16	2 x 16		
Electrical connection (plug)		CEE 7/7	CEE 7/7	Clamp	CEE 7/7	Clamp		
Power input [kW]		0.66	0.92	0.98 + 2.8	1.52	1.73 + 2.8		
Heat emission 1 [kW]		0.9	1.9		3.5			
Coefficient of performance (COP) 1		1.6	2.5		2	.9		
Refrigerant <sup>3</sup>	Type	R-407C	R-407C		R-4	07C		
nemgeram	Amount [g]	480	500		800			
GWP factor <sup>3</sup>		1,774	1,774		1,774			
CO <sub>2</sub> -equivalent <sup>3</sup> [t]		0.85	0.	89	1.42			
Air volume freely blowing [m³/h]		225	63	35	1,1	65		
Sound level (distance 3 m) [dB(A)	)]	49	5	2	5	4		
Operating range temperature [°C	]	5 to 40	5 to	40	5 to	40		
Operation range max. RH [%]		90	9	0	9	0		
Length [mm]		365	25	55	25	55		
Width [mm]		840	790		1,2	253		
Height [mm]	•	330	651		65	51		
Weight [kg]		37	47		70			
Condensate discharge connection	n [mm]	10	10		10			

Standard equipment and options	DH 15	DH 30	DH 30 H	DH 60	DH 60 H
Compressor	reciprocating piston	reciprocating piston	reciprocating piston	reciprocating piston	reciprocating piston
Fan	AC axial fan	EC radial fan	EC radial fan	AC radial fan	AC radial fan
Automatic hot gas defrosting		-		-	
Integrated hygrostat / thermostat	■ / -	■ / -	■/■	■ / -	■ / ■
Heat exchanger with CDC coating	-	-			
Condensate pump <sup>5</sup>	pump height 10 m, Art. no. 6.100.000.015	pump height 10 m, Art. no. 6.100.000.020			ght 15 m, 00.000.025

Design option	DH 15	DH 30	DH 30 H	DH 60	DH 60 H
Kit for rear panel installation	on request	_	-	_	-

- Standard equipment  $\hfill\Box$  Optional equipment
- 1 at 30 °C and 75 % RH
- at 30 °C and 70 % RH
- Functionally, this device contains a hermetic system with fluorinated greenhouse gas as a refrigerant in the specified specifications and with a greenhouse gas potential corresponding to the indicated GWP factor.
- What does MID compliant mean? The European Measuring Instruments Directive (MID) has replaced the existing rules of national approval and subsequent calibration in some areas. As a result, all power meters, which are used for energy consumption billing, must  $% \left( \frac{1}{2}\right) =\frac{1}{2}\left( \frac{1}{2}\right) \left( \frac{$ be MID compliant in the future.
- Equipment options to be stated at the time of order, not subsequently installable
- With hose adapter as accessory





Technical data		DH 160	DH 310	
Article number		1.125.000.161	1.125.000.175	
Dehumidification performance		see performance charts on page 25		
Voltage [V/Hz]		400/50	400/50	
Nominal current consumption [A]		9.5	11	
Starting current [A]		50	75	
Fuse [A]		16	25	
Electrical connection (plug)		CEE 16 A	CEE 32 A	
Power input [kW]		3.5	6.9	
Heat emission 1 [kW]		9	18	
Coefficient of performance (COP) 1		2.9	3	
Refrigerant <sup>3</sup>	Туре	R-407C	R-407C	
	Amount [g]	2,250	3,200	
GWP factor <sup>3</sup>		1,774	1,774	
CO <sub>2</sub> -equivalent <sup>3</sup> [t]		3.99	5.68	
Air volume freely blowing [m³/h]		2,200	4,600	
Sound level (distance 3 m) [dB(A	)]	59	60	
Operating range temperature [°C	]	1.5 to 42	1.5 to 42	
Operation range max. RH [%]		95	95	
Length [mm]		560	690	
Width [mm]	<b>O</b>	700	1,080	
Height [mm]		1,355	1,715	
Weight [kg]		150	260	
Condensate discharge connectio	n [mm]	16	16	
Dry air outlet connection ø [mm]		rectangular duct connection (optional 1 x ø 410 mm) <sup>6</sup>	rectangular duct connection (optional x ø 510 mm) <sup>6</sup>	

Standard equipment and options	DH 160	DH 310
Compressor	scroll compressor	scroll compressor
Fan	EC double-flow radial fan	EC double-flow radial fan
Automatic hot gas defrosting	•	•
Integrated hygrostat		
Condensate pump		
Energy consumption meter, MID-compliant <sup>4</sup>		
DIN socket for external switchings	4-pin	4-pin
Potential-free contact for remote switching	•	
Enhanced temperature range <sup>5</sup> for an operating range between -0.5 °C and 42 °C	Art. no. 1.125.000.164	Art. no. 1.125.000.178
Electric reheater <sup>5</sup> for heating the dry air additionally		0
Static pressure increase <sup>5</sup> (200 Pa)	Art. no. 1.125.000.163	Art. no. 1.125.000.177
Heat exchanger with CDC coating <sup>4</sup>		

Design option	DH 160	DH 310
Stainless steel AISI 316	Art. no. 1.125.000.162	Art. no. 1.125.000.176
Wheeled transport frame	Art. no. 6.100.003.120	-

Available accessories (detailed description on the rig	ht)	
External hygrostat HG 120	Art. no. 6.100.002.040	Art. no. 6.100.002.040
Hose adapter for outlet duct	Art. no. 7.299.000.008	Art. no. 7.299.000.021
Air filter (consumables)	Art. no. 7.710.000.397	Art. no. 7.710.000.398

#### **Available accessories**

#### External hygrostat HG 120

With 4-pin plug and 2 m connecting cable for the humidity-dependent two-point control of the devices.



#### Hose adapter

For the attachment to the rectangular duct connection of the dry air outlet.

Adapter for DH 160 ø 410 mm Art. no. 7.299.000.008

Adapter for DH 310 ø 510 mm Art. no. 7.299.000.021



#### Air transport hose Tronect SP-T

Length: 7.6 m; for a specifically directed admission of dry air via hose adapter.

For DH 160 ø 425 mm Art. no. 6.100.001.212

For DH 310 ø 525 mm Art. no. 6.100.001.216

These and other air transport hoses are described starting on catalogue page 176 ...



The DH 160 is optionally available as a transportable mobile version with a wheel-equipped transport frame.

#### A FEW PRACTICAL BENEFITS:

Reliable dryers with high dehumidification capacity

Particularly economical solution for typical dry keeping in production facilities and storerooms

Pressure gauge indicators\* for a maintenance-friendly early detection of faults

Modular refinement of electrical equipment and components containing water according to European standard – handmade in Germany

DH 25 S / DH 65 S with aluminum tube evaporator for an effective dehumidification performance also, when the humidity in the room is low

**Excellent value for money** 

Exclusively at Trotec!

# **Industrial condenser dryers of the DH-S series**

Because the simplest solutions are often the best.



The DH-S standard series allows you the cost-effective protection of stored goods, production facilities, building structure and inventory against moisture damage...

DH-S condenser dryers successfully combine global procurement management with local production refinement at the production location Germany. That is how they provide two decided advantages in one device:

The attractive value for money of an international standard solution for many traditional dry keeping applications and modular refinement of electrical systems and components containing water according to European standard – all manually finished and quality-controlled at Trotec in Germany.

So with Trotec condenser dryers of the DH-S series you can benefit from reliable standard solutions for cost-effective dehumidification whenever you need it for protection against corrosion and condensation in production and storage areas for industry, logistics or supply.



Control panel DH 25 S, DH 65 S



Control panel DH 95 S, DH 105 S, DH 115 S



Control elements DH 145 SH





# With DH-S condenser dryers you have humidity under complete control – easily.

The efficient humidity control allows the economical prevention of condensation, mould and corrosion damage, increased reliability of electrical systems, optimised process conditions for manufacture and production as well as stable climate conditions in storerooms and archives.

Not to forget about the fact that drier air can be heated more easily resulting in reduced heating costs.

With all condenser dryers of the DH-S series, humidity control can be humidity-dependent by means of target value specification at the internal hygrostat or humidity-independent in continuous operation. For flexible use at different locations, DH-S devices are provided with stable swivel casters\* and a residual water draining function\*.

The integrated hot gas automatic defrosting ensures efficient dry keeping without breaks for defrosting at certain intervals in which dehumidification pauses. Condensate can be drained through the external outlet across stories because the standard condensate pump\* is designed for a pump head of four metres.



In the bigger products the pressure and the suction side of refrigerant pressure is measured separately for each compres-

sor and is shown on an easy to read manometer\*. Thanks to that all potential disorders detected early and the maintenance intervals may be planned earlier.

Thanks to their sturdy frame construction the condenser dryer of the DH-S series are distinguished by their high casing stability.

\* Depending on the model, for more details see technical data

Relevant differences between the DH-S standard series and the DH professional series in direct comparison:	DH-S series	DH professional series
Corrosion-protected housing design	_	$\Box$
Optional stainless steel model	-	₫
Scalable drying solutions	-	$\square$
Various pressure and air levels available	-	₫
High-quality and particularly resistant components	-	$\Box$
Optional heat recovery or process heat-assisted heating	-	
Preparation for wall mounting or optional rear wall mounting ex works	-	ď
Integrated condensate pump*	₫	₫
Hot gas automatic defrosting	$\overline{\mathbf{Z}}$	$\Box$
Dehumidification for moisture damage protection in production and civil protection facilities	ď	ď
Dry keeping of storage and production halls, magazines and archives	ď	ď













Technical data		DH 25 S	DH 65 S	DH 95 S	DH 105 S	DH 115 S	DH 145 SH
Article number		1.125.000.204	1.125.000.207	1.125.000.210	1.125.000.216	1.125.000.221	1.125.000.224
Dehumidification	at 30 °C / 80 % RH	40	80	130	175	245	485
performance / 24 h [litres]	at 20 °C / 60 % RH	16	30	35	70	97	193
Suitable for keeping dry room	ns up to [m³]	600	1,200	1,600	2,500	3,200	4,500
Air volume [m³/h]		450	1,100	1,100	1,700	2,150	4,300
Hygrostat	electronic	•		-	•		-
пууговас	analog	-	-	-	-	-	-
Operation range [°C]		1 to 35	1 to 35	5 to 32	5 to 32	5 to 35	5 to 32
Input voltage [V/Hz]		230 / 50	230 / 50	230 / 50	380 / 50	380 / 50	400 / 50
Max. power input [kW]		0.7	1.48	2.77	3.0	4.9	9.8
Nominal capacity [kW]		0.57	1.05	1.7	3.3	4.2	9.4
Nominal current (Protection) [A]		3.1 (16)	7.6 (16)	13.2 (16)	5.2 (16)	8.5 (25)	16.6 (32)
Refrigerant <sup>1</sup> Type / Amount [g]		R-290/152	R-1234yf/750	R-410A/1,350	R-410A/1,400	R-410A/1,730	R-407C/3,200
GWP factor 1 / CO <sub>2</sub> equivalent 1 [t]		3 / 0.000456	4 / 0.003	2,088 / 2.82	2,088 / 2.92	2,088 / 3.61	1,774 / 5.68
Refrigerant pressure		-	-				
Integrated condensate pump		-	-	•	•	•	•
Residual water emptying fund	ction	-	-				•
Tube evaporator / Fin evapora	ator	■ / —	■ / —	<b>-/</b> ■	<b>-/</b> ■	<b>-/</b> ■	<b>-/</b> ■
Sound level (Distance 3 m) [d	B(A)]	51	56	53	56	56	56
Mobility [wheels / forklift truck]		■ / —	■/■	□/■	□ / ■	□/■	□ / ■
Length [mm]		580	662	465	470	470	460
Width [mm]		350	510	600	615	775	1,195
Height [mm]		455	525	910	1,635	1,635	1,730
Weight [kg]	0 0	32	53	65	124	150	235

<sup>■</sup> Standard equipment □ Equipment options to be stated at the time of order

<sup>1</sup> Functionally, this device contains a hermetic system with fluorinated greenhouse gas as a refrigerant in the specified specifications and with a greenhouse gas potential corresponding to the indicated GWP factor.

#### A FEW PRACTICAL BENEFITS:

Unique in the world: Active climate management with a 4-in-1 protective function fighting moisture, odour, air pollutants and dust

Professional quality "made in Germany" originally produced by Trotec

Especially designed to preserve the value of precious exhibits, objects and movables.

Ideal dehumidification performance even at low temperatures of about 5 °C

Two-component filter for dust and soot - especially for the application in garages

Air filters for dust and cleaning the air from pollen and allergens

High-quality industrial ionizer for an efficient odour elimination

Corrosion-protected design

Hygrostat-controlled automatic operation

Effective hot gas automatic defrost system

Integrated condensate pump

At request also available in every variation of material and colour



#### **Capacity calculation** Suitability for room volumes (max.)

min. ø temp. winter*	DH 15 VPR+	DH 30 VPR+	DH 60 VPR+
> 19 °C	160 m <sup>3</sup>	320 m <sup>3</sup>	650 m <sup>3</sup>
16 - 19 °C	120 m <sup>3</sup>	270 m <sup>3</sup>	550 m <sup>3</sup>
12 - 15 °C	80 m <sup>3</sup>	200 m <sup>3</sup>	400 m <sup>3</sup>
8 - 11 °C	50 m <sup>3</sup>	120 m <sup>3</sup>	250 m <sup>3</sup>
4 - 7 °C	-	80 m <sup>3</sup>	150 m <sup>3</sup>

When used in garages: Average daily period of opening the garage door: max. 15 minutes

# **DH dehumidifiers VPR+**

Intelligent climate managers for the all-round protection of your valuables -ThinC!



With the latest DH-VPR generation Trotec developed a series of climate managers that leaves nothing to be desired both in terms of technology and aesthetics. More multifunctionality and individual designs - et voilà: a DH-VPR+ with intelligent ThinC! climate technology.

This solution is unique in the world: Active climate management with a 4-in-1 protective function fighting moisture, odour, air pollutants and dust.

#### **Conservation rather than** loss of value

The ThinC! climate management guarantees consistency. In favour of values and valuables. Because every material comes with special properties and every room with different conditions. Our climate managers guarantee a constant room climate in all circumstances. And so efficiently maintain various articles of value in their top condition.



What laid the foundation for the innovative ThinC! climate managers were the DH dehumidifiers from our HighPerformance product range – ensuring a reliable protection against moisture even in unheated rooms and at low temperatures of about 5°C. They were expanded with effective air purification modules and filters complying with industrial standards.

This turns every room into a climate vault: the air conditioned and cleaned from irritants, the dust formation significantly reduced and annoying smells eliminated.

Even so, all ThinC! models are characterized by simple handling, intelligent humidity requlation and odour neutralisation. Room air to suit your individual needs, achieved fully automatically via hygrostat and intensity controller. Dust-free, soot-free, hygienic and energy-efficient - always at the right level.

With ThinC! design becomes a mission. The colour and material of the faceplates can optionally be selected variably to suit a special style or your personal preferences.

Perfect room climate at its best. For everything of value.

IRT-KAT-DVPR-WM-09-EN



Climate managers VPR+ - further information...

#### A perfect room climate is a fine art

#### With DH-VPR+ you can protect your valuables



#### Masterpieces

They hang on the wall and please the owner. Works of art. Paintings.

VPR+ helps to preserve these unique objects of value. To avoid that the paintings have to be cleaned extensively over and over again, to prevent frames from warping and colours from fading. After all, alternating humidity values cause the materials to expand and shrink and promote craquelure.

DH-VPR+ preserves art and value ranging from van Gogh to Picasso.



#### **First editions**

For the fervent reader and collector of books every page is precious.

The climate concept for bibliophiles adjusts the room air to the required storage conditions for paper and filters out corrosive pollutants.

Cracks, material tensions, ink corrosion, mould and musty smells can be avoided this way. And the precious contents are retained

DH-VPR+ preserves paper, knowledge and valuables.



#### **Rare wines**

Premium wines are characterized by their bouquet and value. In order to maintain its quality, the wine requires an ideal climate management. Ideal, that means a constant humidity of 75 to 80 %. The DH-VPR+ prevents corks from drying out, oxygen from pressing into the bottles, mould from spreading on the bottles' labels and odours from affecting the bouquet.

DH-VPR+ supports the storage of grand crus.



#### **Antiques**

Old furniture and valuable instruments create a homey atmosphere. Wood interacts with excessive humidity levels and needs consistency. Shrinkage cracks, swelling veneer, discolouration and decomposition might be a consequence of problematic room air. Antique furniture is beautiful. But it should not reek of the stench imbibed

DH-VPR+ protects the values of the past for the future.

over the past centuries.

#### **Protective climate for collectors' garages**

#### Conservation instead of restoration



Cold surroundings, soot and oil in the air, a fluctuating humidity level, unpleasant odours, mould potential, the risk of decomposition for materials of value.

In all these conditions the ThinC! climate managers guarantee a perfect garage climate.

What takes action within is not only a high-class industrial dehumidifer defrosted by use of hot gas for operating environments from 5 °C, but also a powerful NTP air purification unit.

So, on the one hand the humidity is maintained at an ideal level in order to reliably protect against corrosion, mould, porosity and decomposition.



# ThinC! climate management – complete protection against all hazards lurking in a garage:

#### ■ Rust

A constantly maintained ideal humidity level reliably prevents corrosion damage.

#### Odours

A high-quality industrial ionizer to eliminate unwelcome odours.

#### ■ Bacteria

Bacteria are harmful to health. But they also damage valuable collectibles. The principle of oxidative air purification ensures a room climate unconducive to decomposition.

#### Dust

The ThinC! technology effectively reduces the formation of dust.

#### ■ Soo

An integrated special filter reduces deposits and residues difficult to remove.

#### Mould

Owing to an active room air management room and inventory stand no chance of going mouldy.

At the same time, the high-quality industrial ionizer creates an agreeably non-irritating environment, free from airborne odours, pollutants and microorganisms that are corrosive to the material. The processes of air cleaning and dehumidifying may be performed independently. In combination with the special twocomponent filter for dust and soot the dehumidifier DH VPR+ becomes a perfect climate manager and an active protector of values and valuables in collector garages. Climate managers VPR+ - further information...











Technical data		DH 15 VPR+	DH 30 VPR+	DH 60 VPR+
Article number		1.125.000.410	1.125.000.415	1.125.000.420
Dehumidification performance		see performance chart	see performance chart	see performance chart
Voltage [V]		230	230	230
Current [A]		3.8	4.4	7.5
Starting current [A]		18	15.8	30
Fusing [A]		10	16	16
Electrical connection (plug)		CEE 7/7, length 3.5 m	CEE 7/7, length 3.5 m	CEE 7/7, length 3.5 m
Power input [kW]		0.43	0.75	1.2
Heat emission 1 [kW]		0.9	1.9	3.5
Refrigerant* Type / Amount	[g]	R-407C / 340	R-407C / 500	R-407C / 800
GWP factor* / CO <sub>2</sub> equivalent* [t]		1,774 / 0.60	1,774 / 0.89	1,774 / 1.42
Air volume freely blowing [m³/h]	Step 1	250	502	745
	Step 2	_	745	1,065
Sound level (distance 3 m) [	[dB(A)]	50	50 52	
Operating range temperatur	re [°C]	5 to 40	5 to 40	5 to 40
Operation range max. RH [%	6]	90	90	90
Length [mm]		395	280	280
Width [mm]		829	787	1,255
Height [mm]	• • • • • • • • • • • • • • • • • • • •	339	690	690
Weight [kg] <sup>2</sup>		47	57	90
Pump height condensate pu	ımp [m]	10	10	15
Hot gas automatic defrostin	g	•	•	•
Integrated hygrostat		•	•	•
Integrated NTP air purification	on unit	•	•	•
Condensate discharge conn	ection [Ø outside mm]	8	8	8
Standard faceplate			Steel, white, powder-coated (RAL 9010	)

Consumable accessories	DH 15 VPR+	DH 30 VPR+	DH 60 VPR+
Combination filer dust/soot (pack of 5)	Art. no. 7.710.000.921	Art. no. 7.710.000.926	Art. no. 7.710.000.929
Standard air filter	Art. no. 7.710.000.920	Art. no. 7.710.000.925	Art. no. 7.710.000.930
Acoustic decoupling set	Art. no. 6.100.003.090	-	-

Optionally available equipment		DH 15 VPR+ DH 30 VPR+		DH 60 VPR+		
Special designs faceplate	stainless steel, brushed	Art. no. 1.125.000.411 Art. no. 1.125.000.416		Art. no. 1.125.000.421		
	special colour	finish in the colour of your choice available upon request				
	carbon	Art. no. 1.125.000.413	Art. no. 1.125.000.423			
	individual	e.g. gold-plated faceplate and much else available upon request				

<sup>■</sup> Standard equipment

 $<sup>^{\</sup>rm 1}$  at 30 °C and 75 % RH

<sup>&</sup>lt;sup>2</sup> weight incl. standard faceplate

<sup>\*</sup> Functionally, this device contains a hermetic system with fluorinated greenhouse gas as a refrigerant in the specified specifications and with a greenhouse gas potential corresponding to the indicated GWP factor.









#### With VPR+ every room becomes a climate vault and design becomes a mission

Whether a garage, wine cellar, museum or library, with VPR+ every room becomes a climate vault, for VPR+ conditions the air in four ways: the air is dehumidified and cleaned from irritants, while at the same time the dust formation is reduced and annoying smells are eliminated if required. Entirely individual, depending on your preferences.

With VPR+ design becomes a mission. In addition to the standard design, the faceplates can be supplied in almost every combination of colour and material upon request as shown on the left.

**Faceplates Brushed stainless steel** design











**Faceplates** Special colour design





#### Special colour examples:









Other colours are available upon request.



**Faceplates** Individual design, for example gold-plated

ပ္ 30

temperature 20

₽ 15

Dehumidification performance DH 15 VPR+ emission kW\*



• 0.50

0.45

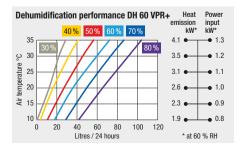
0.40

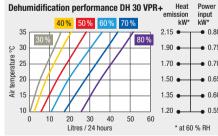
• 0.35

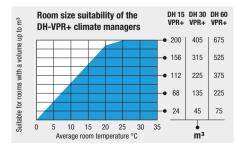
\* at 60 % RH



#### Heat emission Dehumidification performance DH 30 VPR+ kW<sup>3</sup> 0.80 ပ္ 30 25 1.70 • 0.70 20 1.50 - 0.65 15 1.35 • 0.60 10 • 0.55







#### **Easy handling**

Chiefly developed for the operation of climate managers in garages with sooty surroundings, a special two-component combination filter for an efficient filtration of dust and soot is also available.

When applied outside garages, the standard filter may be used for air purification.



nation filter DH 15 VPR+



The devices' filter compartment is easily accessible and equipped with user-friendly spring locks so that the filter can be exchanged quickly and without the need for tools. The hygrostat and ionizer can also be

accessed conveniently via this compartment.



#### A FEW PRACTICAL BENEFITS:

Development, design, production: 100 % Trotec

High dehumidification capacity – optimized for low temperatures of less than 15 °C during construction drying

Powerful rotation compressor

Professional automatic hot gas defrost system based on bypass procedure

Innovative central chassis, easy to remove for fast cleaning and inspections

Particularly maintenance-friendly: Plug-in electronics modules, easy to replace without tools

Stackable to save space

Robust and highly mobile with large wheels – transportable both in vertical and horizontal position

Connection for external hygrostat

Adjustable push handle

#### ADDITIONAL BENEFITS TTK 900 MP:

VarioDry technology – unique in the world: The optimal setup for maximum drying performance in any operating environment

Two-point hot gas defrosting for extremely shortened defrosting times and thus considerably longer drying cycles

# 100 % construction dryer: the name says it all

It's not just a name that turns a commercial dehumidifier into a true construction dryer. The name is an obligation: the device must be able to dry large amounts of air in continuous operation, on the construction site, in cool environments.

This is why the construction dryers TTK 500 and TTK 900 MP have been consistently designed for a long lifetime and an extremely high dehumidification performance at low temperatures.

The air flow rate of both devices is optimally adapted to the dehumidification requirements of construction drying. On top of that, both devices are characterized by the lowest energy factor per litre in their class!

# **Construction dryers of the TTK professional series**

Professional TTK type construction dryer – synonym for pioneering drying technology,



#### **Trotec's standard for professional construction dryers**

Durability, robustness, reliability, high dehumidification performance and value retention, these characteristics define the coordinate system of an outstanding construction dryer – and our current TTK pro series follows this concept more uncompromisingly than ever before!

The construction dryers TTK 500 and TTK 900 MP have everything a pro's heart desires – and nothing you don't really need!

No superfluous "bells and whistles" to increase costs, reduce reliability or complicate maintenance or cleaning. Instead we focus on the essen-

tials: robust technology that is equally characterized by high reliability, mobility and dehumidification capacity, especially in cool environments.

No plastics, but an almost indestructible steel sheet construction for tough everyday use with optimum handling characteristics and an innovative central chassis for easy disassembly – and with plug-in electronics modules that can easily be replaced on site.

All contributing to maximum operating times and minimized service times!

#### Refrigerant R-454C - less GWP, more efficiency and safety



The non-toxic R-454C is ideally suited for the hermetically sealed refrigeration systems of the TTK construction dryers, is only flammable with high ignition energy and is not only characterized by a high COP (coefficient of performance), but also by a very low GWP (global warming potential) of less than 150 and an ODP (ozone depletion potential) of 0. This means that R-454C contributes at least10 times less to the greenhouse effect than commonly used refrigerants.

TRT-KAT-KTTK-WM-29-EN



Construction dryers - further information ...

### **Construction dryer TTK 500**

Powerful even at low temperatures – high-performance professional condenser dryer in robust carriage design



The TTK 500 has been consistently designed to provide maximum mobility for ever-changing sites of operation and to withstand rough working conditions. This is why this construction dryer features not only a carriage with adjustable push handle, but also large

push handle, but also large wheels with non-marking rubber tyres – all combined in a robust metal housing.

# Universal construction dryer – newly defined

For storage or transport, the design of the TTK 500 allows the devices to be positioned closely together, so that many construction dryers can be transported to the site of operation with only one trip. In the warehouse, up to three devices can be stacked on top of one another, thus requiring even less floor space.

# Effective process for high dehumidification performance of up to max. 70 l/h

For an effective dehumidification, the TTK 500 comes equipped with a powerful automatic hot gas defrost system based on the bypass procedure. This system only requires very short defrost

phases, which increases the performance level and makes the device ide-



The push handle of the TTK 500 can be locked in the horizontal or vertical position as required. This feature guarantees an ideal transport position at all times, for example for transport over larger distances or in staircases.



ally suited for an effective dehumidification in low-temperature surroundings such as unheated rooms.

The combination of a high dehumidification performance together with a minimized energy demand and a great mobility with a low floor space requirement makes the TTK 500 the ideal dehumidification solution even at low temperatures — for continuous operations also optionally available with a hygrostat and condensate pump.



#### Innovative central chassis – low-maintenance modular design

The TTK 500 has an innovative central chassis from which the robust metal housing can be quickly and easily removed. Ideal for service, maintenance and cleaning tasks.

And the entire electronic equipment is not only specially enclosed and thus reliably protected against harmful deposits – it is also designed in a modular fashion and all individual electronics modules are provided with maintenance-friendly plug connections.

The replacement of individual modules is therefore quick and easy, even on site: unplug, replace module, plug back in – done.

Maintenance-related periods of non-use can thus be reduced to a minimum.



#### Also available as stainless steel version TTK 500 ES



For dehumidification or permanent dry keeping applications in areas with special hygienic requirements or particularly reactive air environments the TTK 500 is also available as stainless steel version TTK 500 ES.

The stainless steel material features a very high corrosion resistance, is easy to clean and particularly resistant to various chemical solutions.

Just like the basic model, the TTK 500 ES, too, can optionally be equipped with an MID-compliant dual counter and controlled via an external hygrostat if required.



Construction drvers - further information ...

TROTEC



Designed as reference class of professional construction dryers the TTK 900 MP practically leaves nothing to be desired. Its tough design and robust components ensure a permanently maximum dehumidification performance and value retention.

## **Construction dryer TTK 900 MP**

Easy to transport, hard to beat – but ultimate condenser dryer for professional drying applications

Owing to a perfect combination of an especially powerful and efficient rotation compressor, an utterly robust high-pressure radial fan as well as high-quality electronic and mechanical components, the TTK 900 MP can impress

with an excellent dehumidification capacity, especially at low ambient temperatures.

#### Powerful air-circulating radial fan with dry air outlet on both sides

In order to quickly distribute the dry, dehumidified air in the entire room, the TTK 900 MP is fitted with a dry air outlet on both sides. This way, the dry air is blown out at a high volume by the high-pressure radial fan via two air out-

let sides without dynamic pressure and can flow evenly through the room – an enormous practical advantage for the fast drying of large rooms!

> At the same time, the TTK 900 MP has been consistently designed to provide maximum mobility for everchanging sites of operation and

to withstand rough working conditions. This is why the TTK 900 MP features not only a carriage with ad-



The push handle of the TTK 900 MP can be locked in the horizontal or vertical position as required. This feature guarantees an ideal transport position at all times, for example for transport over larger distances or in staircases.



justable push handle, but also large wheels with non-marking rubber tyres – all combined in a robust metal housing.

For an effective dehumidification, the TTK 900 MP comes equipped with a powerful automatic hot gas defrost system based on the bypass procedure. This system only requires very short defrost phases, which increases the performance level and makes the device ideally suited for an effective dehumidification in low-temperature surroundings such as unheated rooms.

# TTK 900 MP with VarioDry technology – unique in the world!

The unique combination of an innovative heat exchanger design with optimised evaporator circuit and highly efficient EC radial fan makes it possible:

The TTK 900 MP can be easily adjusted to the desired operating environment and obtains the optimum setup for the respective type of application by means of just one switch setting. Both high relative humidity levels and lower temperatures (e.g. when drying new buildings) or lower relative humidity levels in warmer environments for water damage restorations are perfectly suitable for the device.



Simply select the construction drying or water damage restoration mode via the VarioDry function switch, and the TTK 900 MP automatically adjusts its device setup to the maximum drying performance in this operating mode!

#### Benefit now from 20 % more efficiency than before

The TTK 900 MP impresses with 10 % more performance at 10 % less energy consumption compared to the predecessor model TTK 800. Thus, it can boast the best energy coefficient in its class as a result of an elaborately balanced energy management system! In plain words: No other dryer in this area achieves a higher kW output in litres than the TTK 900 MP – across all fields of application, water damage restoration and drying new buildings.

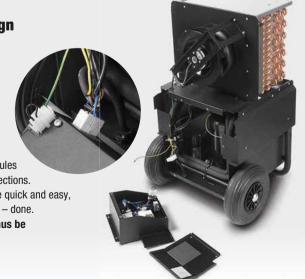


#### Innovative central chassis – low-maintenance modular design

The TTK 900 MP has an innovative central chassis from which the robust metal housing can be quickly and easily removed. Ideal for service, maintenance and cleaning tasks.

And the entire electronic equipment is not only specially enclosed and thus reliably protected against harmful deposits — it is also designed in a modular fashion and all individual electronics modules are provided with maintenance-friendly plug connections. The replacement of individual modules is therefore quick and easy, even on site: unplug, replace module, plug back in — done.

Maintenance-related periods of non-use can thus be reduced to a minimum.





# Practical tip for quicker construction drying



# You can halve drying time by combining fans and construction dryers:

Each dryer is supplemented with a fan, which has a significant influence on the drying performance and therefore also the duration of the drying process.

The increased air circulation causes a quicker evaporation, for the higher the flow rate at the material surface, the sooner will the drying process be completed.

Combinable axial fans can be found starting on page 96 ...



### You need even more mobile construction drying power?

If so, we recommend the version of the DH 160 with a wheeled transport frame.

Whilst featuring an otherwise identical design this industrial dryer is additionally equipped with a wheeled frame construction permitting quick site changes. The mobile model is optionally also available as stainless steel version.

More information about the industrial condenser dryer DH 160 can be found starting on catalogue page 22 ...

#### Power consumption billing?



For commercial billing the electricity consumption must be determined by means of an MID meter. Device without an MID meter? Then the

socket outlet meter BX50 MID provides the optimum solution — further information can be found on page  $167\ldots$ 

Technical data		TTK 500	TTK 900 MP
Article number		1.120.000.410	1.120.000.802
D 1 110 11	At 20 °C / 60 % RH	30	49
Dehumidification performance / 24 h [litres]	At 30 °C / 80 % RH	64	96
portormando / 2 : m [mado]	Max.	76	110
Air volume [m³/h]		400	660 to 850 <sup>1</sup>
Suitable for room sizes	Construction drying	470	800
of up to [m³]	Dry keeping	940	1,600
Operating range Temperature	[°C] / Humidity [% RH]	5 to 35 / 35 to 90	3 to 40 / 25 to 90
Input voltage [V/Hz]		220 - 240 / 50	220 - 240 / 50
Power input [kW]		1.6	2.1
Nominal current consumption	n [A]	7.3	9.8
Refrigerant <sup>2</sup> Type / Amount [g	9]	R-454C / 650	R-454C / 900
GWP factor <sup>2</sup> / CO <sub>2</sub> equivalent	.² [t]	146 / 0.095	146 / 0.13
Sound level (distance 3 m) [d	B(A)]	58	59
Length [mm]		438	500
Width [mm]		470	565
Height [mm]		870	960
Weight [kg]		52	69
Standard equipment (extra	ct) and options	TTK 500	TTK 900 MP
Compressor	<i>,</i> .	Rotating piston	Rotating piston
Fan		Axial fan	Radial fan
Automatic hot gas defrosting			
Two-point hot gas defrosting		_	
VarioDry technology		_	
Hygrostat			
Condensate pump			
Operating hours counter			
Energy consumption meter, N	MD-compliant 3	Art. no. 7.140.000.903	_
Plug connection for external s	•		
Cable holder			
Low-maintenance modular de	esian		
Adjustable push handle	ooign	-	-
Carriage design			
Stackable construction		-	
Design option		TTK 500	TTK 900 MP
Stainless steel AISI 316		Art. no. 1.120.000.414	- TTK 500 WII
	es / recommended accessories	TTK 500	TTK 900 MP
·		1111 000	7 11 COO IIII
Air filter (consumables)		Art. no. 7.160.000.008	Art. no. 7.160.000.013
Condensate pump with automatic switch-off function max. pump height 4.3 m		Art. no. 6.100.003.030	Art. no. 6.100.003.030
External hygrostat HG 110	0	Art. no. 6.100.002.044	Art. no. 6.100.002.044
Professional extension cable (230 V, 16 A)		Art. no. 7.333.000.376	Art. no. 7.333.000.376
Cable drum PVD2 Further cable drums and power distributors starting on page 172		Art. no. 7.333.000.367	Art. no. 7.333.000.367
0			3.5

■ Standard equipment; □ Optionally available equipment; ¹ depending on the preselected VarioDry operating mode; ² Functionally, this device contains a hermetic system with fluorinated greenhouse gas as a refrigerant in the specified specifications and with a greenhouse gas potential corresponding to the indicated GWP factor. ³ What does MID-compliant mean? In some areas, the Measuring Instruments Directive (MID) replaces the previous regulation of national authorization and subsequent calibration. As a result, all energy meters in Europe used for energy consumption-based billing have to be MID-compliant from now on.

Development, Design, Production: 100 % Trotec

High dehumidification performance even at low temperatures

Maximum dust and dampness protection for all electrical components

Compressor overheating protection with automatic switch-off function

Very easy to maintain construction

Portable and easily stored anywhere thanks to its rotary compressor

Practical stacking groove for stable, space-saving storage and transport

Stackable with equally dimensioned models

MID-compliant<sup>4</sup> dual counter for operating and kilowatt hours optionally available

Practice-optimized German industrial design – protected design patent

# **Commercial dehumidifiers** of the TTK-S series

### The standard class – top of the class



Whether for use in a workshop, in construction, in storage or in a laboratory – the portable, commercial dehumidifiers of the TTK-S series are the perfect industrial condenser dryers for changing applications, even in rough conditions.

- Robust metal housings
- Powerful rotary compressors
- Low-maintenance construction
- High air flow rate and dehumidification performance
- Large operating range
- Integrated compressor heating protection with automatic switch-off function



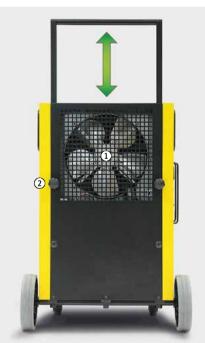


Commercial dehumidifiers of the TTK-S series – further information...



# TTK-S – the standard for modern, mobile commercial dehumidifiers used in rough operating environments

With the pioneering TTK-S commercial dehumidifiers, you can benefit from a variety of detailed solutions which save you time, enhance your performance and secure value retention – attractively combined in the practice-optimized German industrial design – protected design patent.



- A special enclosure protects the dehumidifier electronics from anything dangerous which may enter.
- ② The height of the transport bar handle can be flexibly adjusted.

Also protected – from dust and dampness, that is – are all electrical components of the devices.

A special enclosure improves the protection of the electronic equipment from anything dangerous which may enter and impair the functionality and durability. This enclosure makes the commercial dehumidifier predestined for use in harsh conditions.

Due to its extremely low-maintenance construction, this advanced dehumidifier generation is easier to clean than ever before and due to its favourable power to weight ratio and its clever mobility features, it is easy to transport.

Nevertheless, in terms of dehumidification capacity, these dryers are no lightweights:

The entire heat exchange system from high-quality components was designed to work in harmony and guarantees the maximum drying efficiency of the devices in all temperature ranges – for example, even under 15 °C in unheated rooms.

As well as this, compared with other defrost systems, the high-quality hot gas automatic defrost guarantees a much more efficient dehumidification performance without defrost pauses on a time interval during which no defrosting occurs!

Even in storage, these commercial dehumidifiers make a good impression — while taking up surprisingly little space. Because they are equipped with two practical stacking grooves on their tops, equally sized TTK-S devices can be safely stacked to save space during transport and storage.



3 Two stacking grooves make it possible to stack equally sized TTK-S devices stably to save space.



Commercial dehumidifiers of the TTK-S series – further information...





### Well-arranged operating panel:

- Bars protecting the operating elements
- 2 Operating hours counter integrated as standard
- ③ Optionally also available as dual counter for operating hours and energy consumption (MID-compliant<sup>4</sup>)
- 4 Dehumidification performance selection switch
- 5 Compressor overheating protection indicator
- 6 Filling level warning light (except TTK 655 S)



Their compact construction that is both easy-to-transport and robust as well as their high dehumidification performance turn the commercial dehumidifiers of the TTK-S series into the universal standard solution for virtually all commercial drying applications.





# Active value retention thanks to integrated compressor heating protection with automatic switch-off function

In drying applications with extremely high humidity levels and simultaneously high temperatures — for instance during water damage restoration — refrigerant dryers are quickly brought to the limits of their capacity (red range). This is where the catchy "rule of 35" applies: drying water damages with more than 35 degrees reduces the lifetime of the dryer to less than 35 %!

This is however not a question of component quality, but pure physics, which applies to all refrigerant dryers on the market regardless of the manufacturer.

Whilst at a moderate humidity level of about 70 % RH most professional condenser dryers can operate in

temperatures of up to 35 °C without difficulty, very high humidity values at a simultaneously high room temperature cause considerably more energy to be fed to the humid room air, which

then also has to be "worked off" by the refrigerant.

Consequently, the refrigerant pressure in the system is increased enormously leading to destructive load on the compressor.

To be sure, the dehumidifiers will at first continue to operate, but noticeably above their limit "deep in the dark red range", resulting in an extremely shortened remaining lifetime.

All the same, there is no way around the application of a condenser dryer for such drying tasks – desiccant dehumidifiers need considerably more energy to achieve the same level of drying performance and are therefore not a viable alternative, especially in terms of economics.

This is why the commercial dehumidifiers of the TTK-S series have an integrated compressor heating protection ensuring active value retention of your devices:

Sensors permanently monitor the thermal load of the compressor. If the temperature is within the defined operating range, the integrated heating protection indicator emits long pulses

to indicate that the dehumidifier is operating ideally.

As soon as the temperature exceed the critical threshold of 35 °C, the automatic function

switches the compressor off in order to protect it while the fan keeps on running. The compressor is automatically activated again once the temperature falls below the 35 °C threshold.

OFF

This protection not only significantly extends the lifetime of your dehumidifiers, it also prevents thermal damages to materials located in the room and the building structure.





Technical data		TTK 125 S	TTK 175 S	TTK 355 S	TTK 655 S
Article number		1.120.000.124	1.120.000.157	1.120.000.163	1.120.000.174
Dehumidification performance /	At 30 °C / 80 % RH	28	40	55	91
24 h [litres]	Max.	32	50	70	150
Air volume [m³/h]		250	580	1,000	1,000
perating range	Temperature [°C]	5 to 32	5 to 32	5 to 32	5 to 32
peraulig range	Humidity [% RH]	50 to 90	50 to 90	50 to 90	50 to 90
nput voltage [V/Hz]		220-240 / 50	220-240 / 50	220-240 / 50	220-240 / 50
Max. power input [kW]		0.5	0.6	1.4	1.9
Refrigerant* Type / Amount [g]		R-290 / 150	R-290 / 150	R-454C / 650	R-454C / 1,050
GWP factor* / CO <sub>2</sub> equivalent* [t]		3 / 0.00045	3 / 0.00045	146 / 0.09490	146 / 0.15
Vater tank [litres]		6 ¹	6 <sup>1</sup>	6 <sup>1</sup>	-
ound level [dB(A)]		52	52	54	56
ength [mm]	п	375	390	390	620
Vidth [mm]		345	380	380	515
leight [mm]		603	643	725	858
Veight [kg]		26	35	39	55
quipment and functions		TTK 125 S	TTK 175 S	TTK 355 S	TTK 655 S
ot gas automatic defrosting		•	-	•	-
	Adjustable analogue hygrostat				-
Automatic dehumidification	Electronic hygrostat with digital display	-	_	-	EH <sup>2</sup>
illing level warning light to indicate a full	water tank	•			-
verflow protection with automatic switch	-off				_
/ashable air filter			-		-
perating hours counter		•	-		-
ual counter for operating and kilowatt ho	ours <sup>3</sup> (MID-compliant <sup>4</sup> )	7.140.000.903	7.140.000.903	7.140.000.903	7.140.000.903
ompressor overheating protection with a	utomatic switch-off function				
rotective bars for the control panel					-
arry / transport handle(s)					•
lon-marking full-rubber wheels			-		-
wivel casters with wheel lock			-	-	_
arriage design		-	-		-
ertically adjustable transport handle		-			
tackable			-	-	-
Connection for external condensate drain					-
accessories (consumables)		TTK 125 S	TTK 175 S	TTK 355 S	TTK 655 S
ir filter (article number)		7.160.000.006	7.160.000.007	7.160.000.008	7.160.000.009
vailable accessories		TTK 125 S	TTK 175 S	TTK 355 S	TTK 655 S
Condensate pump with automatic witch-off function, max. pump height 4.3	m O	Art. no. 6.100.003.030	Art. no. 6.100.003.030	Art. no. 6.100.003.030	Art. no. 6.100.003.030
Protective cover with Velcro® side compar nent for easy access to recessed handles		Art. no. 6.100.003.101	Art. no. 6.100.003.105	Art. no. 6.100.003.110	Art. no. 6.100.003.115

Standard equipment

<sup>1</sup> This is the "switch-off value", generally the containers hold approx. 7 to 8 litres of water to avoid spilling when transporting a full tank.

 $<sup>^{\</sup>rm 2}~$  Available as the model TTK 655 S EH, Art. no. 1.120.000.175

<sup>&</sup>lt;sup>3</sup> Optional accessories

What does MID compliant mean? The European Measuring Instruments Directive (MID) has replaced the existing rules of national approval and subsequent calibration in some areas. As a result, all power meters, which are used for energy consumption billing, must be MID compliant in the future.

<sup>\*</sup> Functionally, this device contains a hermetic system with fluorinated greenhouse gas as a refrigerant in the specified specifications and with a greenhouse gas potential corresponding to the indicated GWP factor.

Development, design, production: 100 % Trotec

High dehumidification performance even at low temperatures

Professional condenser dryer with powerful rotation compressor

No "china product" – professional quality made in EU

Comfort function for quiet dehumidification operation

Maximum protection against dust and moisture for all electrical components

Compressor overheating protection with automatic switch-off function

Super-compact construction, easy to carry, simple to stack

Integrated condensate pump with a delivery head of max. 10 m

Extremely maintenance-friendly design

MID-compliant dual counter for operating and kilowatt hours





Multi-stackable construction with four recesses on the upper side of the housing to accommodate the feet

# **Compact commercial dehumidifier TTK Qube**

Low-noise "power cube" from EU manufacturing for professional drying applications — ultra-compact, efficient, quiet



# The TTK Qube combines all performance requirements of a professional living space dryer – condensed in an ultra-compact design

Particularly in the case of water damage restoration, the aim is to remove moisture from the highly humid air in the shortest possible time. What restoration companies need for this purpose are professional condenser dryers for continuous use with a high dehumidification performance, lifetime and reliability.

What restoration companies no longer need are large, heavy devices that can only be manoeuvred across storeys with great effort and also take up a lot of space in the service vehicle, which sometimes requires driving to the site of operation several times.

#### TTK Qube - reduction to the maximum

The TTK Qube does not make water damage drying itself any easier — but much easier to handle. The TTK Qube is a high-quality, powerful condenser dryer whose development has been based on three priorities: Maximum dehumidification performance and easy maintenance, minimum dimensions and weight, lowest possible noise emission for use in inhabited surroundings.

All these requirements are met by the TTK Qube with flying colours!

TRT-KAT-TKQU-WM-01-EN





Technical data		TTK Qube			
Article number		1.120.000.117			
Dehumidification	At 30 °C / 80 % RH	16			
performance / 24 h [litres]	Max.	20			
Air volume [m³/h]	283				
	Temperature [°C]	5 to 35			
Operating range	Humidity [% RH]	40 to 90			
Input voltage [V/Hz]	Input voltage [V/Hz]				
Power input [kW]		0.362			
Nominal current consumption [A]		1.6			
Refrigerant <sup>1</sup> Type / Amount [g]		R-1234yf / 140			
GWP factor 1 / CO2 equivalent 1 [t]		4 / 0.001			
Sound level (distance 1 m) [dB(A)	] standard / comfort mode	53 / 50			
Length [mm]	+ <b>-</b>	315			
Width [mm]	0	367			
Height [mm]		340			
Weight [kg]	0 0	16			
Standard equipment (extract) a	and options	TTK Qube			
Automatic hot gas defrosting		•			
Hygrostat		•			
Comfort function for quiet dehum	nidification operation	•			
Integrated condensate pump		•			
MID <sup>2</sup> -compliant dual counter for	operating and kilowatt hours	•			
Compressor overheating protecti	on with automatic switch-off function	•			
Protective bars for the control pa	nel	•			
Cable holder		•			
Stackable construction		•			
Available system accessories /	recommended accessories	TTK Qube			
Air filter		Art. no.			
(consumables)		7.160.000.014			
Professional extension cable		Art. no.			
(230 V, 16 A)		7.333.000.376			
Cable drum PVD2 Further cable drums and power		Art. no.			
distributors from page 172		7.333.000.367			

The TTK Qube's high-quality rotation compressor is able to offer higher performance at a comparatively lower power consumption – while also having reserves for high dehumidification performance, even in unheated rooms. Additionally supported by a comfort function for extra-quiet dehumidification operation – ideal for water damage restoration in inhabited surroundings.

Moreover, the professional automatic hot gas defrost system of the TTK Qube guarantees a much more efficient dehumidification performance compared to other defrost systems as there are no defrost pauses at regular intervals during which no dehumidification takes place.

The condensate can be drained through the external outlet even across storeys because the standard condensate pump is designed for a delivery head of up to 10 metres.

A special enclosure of the electronic components improves the protection against harmful deposits which may enter and impair the functionality and durability. This enclosure makes the compact condenser dryer predestined for use in harsh conditions

It goes without saying that the TTK Qube is supplied ex works with an MID-compliant combined counter for power consumption and operating hours so that billing can be carried out according to the regulations.



- Standard equipment
- □ Optionally available equipment
- Functionally, this device contains a hermetic system with fluorinated greenhouse gas as a refrigerant in the specified specifications and with a greenhouse gas potential corresponding to the indicated GWP factor.
- What does MID-compliant mean? In some areas, the Measuring Instruments Directive (MID) replaces the previous regulation of national authorization and subsequent calibration. As a result, all energy meters in Europe used for energy consumption-based billing have to be MIDcompliant from now on.

Development, Design, Production: 100 % Trotec

Quality hot gas automatic defrosting\*

High dehumidification performance even at low temperatures

Robust plastic-coated metal housing

Portable and easily stored anywhere thanks to its rotary compressor

Automatic hygrostat controlled dehumidification

MID compliant dual counter<sup>4</sup> for active hours and kilowatt hours available as an option\*

\*except TTK 105 S



### Power consumption billing?

For commercial billing the electricity consumption must be determined by means of an MID meter. Device without an MID meter?



The BX50 MID provides the solution - further information can be found on page 167...

# **Commercial dehumidifiers** TTK-S standard series white



### Simple. Good. Robust and reliable. That is what you get from us in black and white.

The dehumidifiers of our "white fleet" are going equally strong in both price and performance. Therefore, with this series you can benefit from prices on a Far Eastern level without having to cut back on workmanship and reliability.

For the quality of these dehumidifiers is no accident - but traditional EU manufacturing.

All devices are designed to be robust and durable - the plastic-coated metal housing is hardwearing, ideal for rough everyday usage. A professional hot gas automatic defrost system ensures effective dehumidification results even at low temperatures. Frequently changing sites are not a problem either:

Owing to its low weight and the ultracompact design the TTK 105 S equipped with carry handle can be carried comfortably. The model next in size, the

TTK 140 S, comes with steerable, rubber-tyred steel wheels as well as with practical recessed handles and can therefore be easily transported from one operating site to another.

### The TTK 105 S is a highquality device of German manufacturing originally produced by Trotec.

The hard-wearing power pack is provided with a stackable aluminium housing making this commercial dehumidifier light and robust in

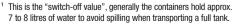




Tried and tested robust technology that runs and runs and runs. Easy-care, low-maintenance, reasonably priced. This is what defines our TTK-S commercial dehumidifiers of the white series.



Technical data		TTK 105 S	TTK 140 S	TTK 170 S	TTK 350 S	TTK 650 S
Article number		1.120.000.109	1.120.000.141	1.120.000.155	1.120.000.160	1.120.000.171
Dehumidification perfor-	at 30 °C / 80 % RH	28	35	40	55	91
mance / 24 h [litres]	max.	30	40	50	70	150
Air volume [m³/h]		240	580	580	1,000	1,000
Operating range	Temperature [°C]	5 to 35	5 to 32	5 to 32	5 to 32	5 to 32
	Humidity [% RH]	30 to 100	50 to 90	50 to 90	50 to 90	50 to 90
Input voltage [V/Hz]		230 / 50	220-240 / 50	220-240 / 50	220-240 / 50	220-240 / 50
Max. power input [kW]		0.52	0.6	0.6	1.4	2.1
Refrigerant**	Туре	R-290	R-290	R-290	R-454C	R-454C
	Amount [g]	125	150	150	650	1,050
GWP factor **		3	3	3	146	146
CO <sub>2</sub> equivalent** [t]		0.00038	0.00045	0.00045	0.09490	0.15
Water tank [litres]		5.2	6 ¹	6 ¹	6 ¹	-
Sound level (distance 1 m)	[dB(A)]	55	52	52	54	56
Length [mm]		250	400	540	530	616
Width [mm]		342	400	490	500	511
Height [mm]		517	605	963	965	1,022
Weight [kg]	000	14.5	29	32	39	52
Equipment and functions	;	TTK 105 S	TTK 140 S	TTK 170 S	TTK 350 S	TTK 650 S
Automatic defrosting	Hot gas	-	-	•	-	-
ratematic democratig	Air circulation / electronic	•	-	-	-	-
Automatic	Adjustable analogue hygrostat	_	•	•	•	•
dehumidification	Electronic hygrostat with digital display	•	-	-	-	-
Filling level warning light i that the water tank is full	ndicating	•	•	•	•	-
Overflow protection with a	utomatic switch-off	•	•	•	•	-
Washable air filter		•	•	•	•	•
Operating hours counter <sup>3</sup>		7.140.000.899	7.140.000.313	7.140.000.313	7.140.000.313	7.140.000.313
Dual counter for operating (MID compliant <sup>4</sup> )	and kilowatt hours <sup>3</sup>	-	7.140.000.903	7.140.000.903	7.140.000.903	7.140.000.903
Protective bars for the concontrol panel recessed for		-/■	-/-	-/-	-/-	-/-
Transport handle(s)						•
Non-marking full-rubber w	rheels	-	•	•	•	•
Swivel castors with wheel	lock	-		-	-	-
Carriage design		-	-			
Stackable		•	_	-	_	_
Connection for external co	ndensation draining					
Optional condensate pump	assembly	-				
Accessories (consumable	es)	TTK 105 S	TTK 140 S	TTK 170 S	TTK 350 S	TTK 650 S
Air filter (filter fleece)		7.160.000.006	7.710.000.332	7.710.000.332	7.710.000.334	7.710.000.335
Available accessories		TTK 105 S	TTK 140 S	TTK 170 S	TTK 350 S	TTK 650 S
			6.100.003.020	6.100.003.020		



<sup>&</sup>lt;sup>3</sup> Equipment options to be stated at the time of order, not subsequently installable

□ Optional equipment



From the TTK 140 S upwards integrated recessed handles make it easier for you to transport and position your devices. The larger models starting from the TTK 170 S and bigger are further delivered in a carriage design with additional bar handle and large wheels.



Thanks to the standard external condensate drain all dehumidifiers are also suited for longer unattended continuous drying applications



Operating switch and filling level warning light (except TTK 105/650 S) are protected from dust and spray water by a protective cap, and a slotted hygrostat rotary switch protects against inadvertent misadjustment of the switch position.

All models are available with an optional hours counter – from TTK 140 S upwards with MID compliant <sup>4</sup> dual counter for active hours and kilowatt hours ①.



In case of the TTK 105 S the desired humidity value can be entered directly via the digital display. Furthermore, the current temperature and humidity values of the room air can be read at any time. A timecontrolled application is also possible using the timer function.

Standard equipment

Without auto switch-off of the dehumidifier

<sup>4</sup> What does MID compliant mean? The European Measuring Instruments Directive (MID) has replaced the existing rules of national approval and subsequent calibration in some areas. As a result, all power meters, which are used for energy consumption billing, must be MID compliant in the future.

<sup>\*\*</sup>Functionally, this device contains a hermetic system with fluorinated greenhouse gas as a refrigerant in the specified specifications and with a greenhouse gas potential corresponding to the indicated GWP factor.

Particularly economical solution for typical dehumidification applications in the commercial sector

High dehumidification performance even at low temperatures

Robust steel construction

Portable and easily stored anywhere thanks to its rotary compressor

# **Commercial dehumidifiers** of the TTK-ECO series

**Economy-priced dehumidification** and dry keeping



For commercial billing the electricity consumption must be determined by means of an MID meter. Device without an MID meter? The BX50 MID provides the solution - further information can be found on page 167...

TTK-ECO dehumidifiers are the reliable budget solution for typical dehumidification applications in craft and trade

The TTK-ECO is our pragmatic solution when an equally low-cost and high-quality constructions dryer is required. All TTK-ECO dehumidifiers come with a solid steel construction, which cannot be harmed by the rough operating environment on construction sites.

For an efficient dehumidification even at low ambient temperatures the models TTK 75, 170, 380 and 570 ECO are further equipped with a hot gas automatic defrost system integrated as standard.

With the ECO dehumidifiers a quick change of location from one building site to another is no problem at all. For transport safety all devices are not only equipped with a cable holder, the larger models are also delivered in carriage design with large wheels at no extra charge. With these longer distances and also stairs can be overcome without difficulty.

Thanks to the efficient rotary piston compressor the maintenance-friendly devices can be transported and stored in any position.

Trotec



TTK-ECO series - further information ...

### Highly efficient. Extremely robust. Incredibly low-priced. Simply ECO.

Excepting the easily portable TTK 75 ECO all TTK-ECO models are supplied in a carriage design ideal for use on construction sites.

As a result frequent site changes or the application in rough surroundings or on difficult terrain does not pose a problem for these condenser dryers:

The robust steel construction in carriage design with transport handle and big wheels can withstand a fair bit and can easily be transported to any operating site.

To make sure you are always aware of the respective usage duration the display-less versions in the









Neat solution: As standard all ECO models are delivered with a washable air filter and have an integrated cable holder permitting the transportation without trip hazard.



### Timer and memory function

The models TTK 166 / 171 ECO are provided with a low-maintenance control panel with digital display of all functions. For hygrostat-controlled automatic operation the target value can be selected in percentage steps, this value will then be indicated along with the current actual value.

By means of the timer switch-on and switch-off time can be configured and owing to the integrated memory function the settings are saved even after a power interruption.



### TTK 171 ECO additionally with air hose connection for the selective admission of dry air

As the TTK 171 ECO is equipped with a special pressure fan, the device can also be used for the selective admission of dry air or for drying hollows. To do so, simply attach an air hose to the optionally available adapter connecting piece.



### Under the heading of hot gas defrosting and construction drying

Why every construction dryer is a commercial dehumidifier, but not every commercial dehumidifier equals a proper construction dryer:

Both device classes withdraw moisture from the air by cooling it to dew point temperature and discharging the resulting condensate.

For intensive cooling a pressure-reduced refrigerant flows through the evaporator, which on the other hand would ice it up completely in next to no time without regular defrosting operations, thus reducing the dehumidification performance to zero.

Commercial dehumidifiers mostly defrost by way of circulating air: The compressor switches off while the fan keeps running and circulates the compressor's waste heat around the evaporator for defrosting.

In surroundings below 15 °C this technique increasingly reaches its limits owing to the lower dew point with more ice forming on the evaporator. Under these conditions a circulating air defrost device has to run

in defrost mode virtually non-stop, generating no dehumidification performance whatsoever.

Professional construction dryers defrost more effectively by means of hot gas – that is what makes the difference:

With a hot gas defrosting system, hot refrigerant is briefly conducted to the evaporator via a bypass, it quickly defrosts the evaporator and then returns to the normal circuit for drying operation.

Unlike air circulation, the hot gas method allows for radically briefer defrost phases in cold surroundings below 10-12 °C – which is a mandatory requirement for the effective dehumidification of unheated rooms, especially during the cold season. After all, the actual dehumidification process only takes place when defrosting is not in progress!

Conclusion: Without hot gas defrosting effective construction drying cannot take place at temperatures below 10 °C!

#### TTK-ECO series - further information ...

TROTEC









					0	
Technical data			TTK 75 ECO	TTK 165 ECO	TTK 166 EC0	TTK 170 ECO
Article number			1.120.001.110	1.120.001.115	1.120.001.116	1.120.001.120
Dehumidification per	rformance /	At 30 °C / 80 % RH	20	50	50	50
24 h [litres]		max.	21	52	52	52
Air volume [m³/h]			260	350	300	350
0		Temperature [°C]	5 to 32	5 to 32	5 to 35	5 to 32
Operating range		Humidity [% RH]	30 to 90	30 to 90	10 to 95	30 to 90
Input voltage [V/Hz]			220-240/50	230/50	220-240/50	230/50
Max. power input [l	kW]		0.35	0.82	0.95	0.82
Nominal current / re	ecommended fusi	ing [A]	1.5/10	3.7/10	4/10	3.7/10
Refrigerant* Type /	Amount [g]		R-290/100	R-290/230	R-290/200	R-290/230
GWP factor* / CO <sub>2</sub> e	equivalent* [t]		3/0.0003	3/0.00069	3/0.0006	3/0.00069
Water tank [litres]			4	5	7	5
Sound level (distan	ce 1 m) [dB(A)]		46	56	56	56
Length [mm]		1	295	495	480	495
Width [mm]			305	455	450	455
Height [mm]			562	900	910	900
Weight [kg]			19	31	30	31
Equipment and fun	octions		TTK 75 ECO	TTK 165 ECO	TTK 166 ECO	TTK 170 ECO
	Hot gas		•	-	-	
laforation.	Air circulation/ele	ctronic	_			_
Automatic	Adjustable analog	ue hygrostat	_	_	_	
	Electronic hygrost	tat with digital display	_	_		_
Filling level warning	g light indicating t	hat the water tank is full				
Overflow protection						
Washable air filter						
Operating hours co	unter			_	_	
Dual counter for op	erating and kilow	att hours	_	-	_	_
· Γimer function / Me			-/-	-/-	■/■	<b>-/</b> ■
Protective bars for t	•		_	_	_	_
Cable holder	·					
Carry / transport ha	andle(s)					
Rubber feet / Full-r			■/-	■/■	■/■	■/■
Swivel castors with	wheel lock		-	-	-	-
Carriage design			_			
Stackable			-	-	-	-
Connection for exte	ernal condensation	n draining				
Optional condensat			0	0	0	
Accessories (consu			TTK 75 ECO	TTK 165 ECO	TTK 166 ECO	TTK 170 ECO
Air filter (filter fleece			Art. no. 7.710.000.825	Art. no. 7.710.000.827	Art. no. 7.710.000.850	Art. no. 7.710.000.82
Available accessor			TTK 75 ECO	TTK 165 ECO	TTK 166 ECO	TTK 170 ECO
Condensate pump <sup>1</sup>			Art. no. 6.100.003.020	Art. no. 6.100.003.020	Art. no. 6.100.003.020	Art. no. 6.100.003.02
External hygrostat		detailed description	_	-	integrated hygrostat	Art. no. 6.100.002.04
Hose adapter conne	cting piece	on the right	_	_	-	_
,	J 1					









					V
Technical data			TTK 171 ECO	TTK 380 ECO	TTK 570 ECO
Article number			1.120.001.125	1.120.001.160	1.120.001.180
Dehumidification p	erformance /	At 30 °C / 80 % RH	51	79	100
24 h [litres]		max.	52	80	110
Air volume [m³/h]			450	950	1,000
Onevetine venue		Temperature [°C]	5 to 30	5 to 32	5 to 32
Operating range		Humidity [% RH]	20 to 90	30 to 90	30 to 90
Input voltage [V/H	z]		220-240/50	220-240/50	220-240/50
Max. power input	[kW]		0.7	0.95	1.95
Nominal current /	recommended fusi	ng [A]	3.6/16	4.2/10	8.1/16
Refrigerant* Type	/ Amount [g]		R-290/230	R-290/300	R-454C/1,000
GWP factor* / CO <sub>2</sub>	equivalent* [t]		3/0.00069	3/0.00069	146/0.146
Water tank [litres]			5.5	9.5	-
Sound level (dista	nce 1 m) [dB(A)]		52	65	67
Length [mm]		i	525	530	538
Width [mm]			450	575	698
Height [mm]			900	1,060	1,006
Weight [kg]			36.5	50	64
Equipment and fu	unctions		TTK 171 EC0	TTK 380 ECO	TTK 570 ECO
Automatic	Hot gas		-		
defrosting	Air circulation/ele	ctronic		-	-
Automatic	Adjustable analog	ue hygrostat	_		
dehumidification	Electronic hygrost	tat with digital display		_	_
Filling level warning light indicating that the water tank is full		-		-	
Overflow protection	on with automatic s	witch-off			
Washable air filter			-		
Operating hours c	counter		_		
	perating and kilow	att hours	_	-	-
Timer function / M			<b>=</b> / <b>=</b>	<b>-/</b> ■	-/-
	r the control panel			-	-
Cable holder					
Carry / transport h	nandle(s)		-		
Rubber feet / Full-			=/=	-/-	=/=
Swivel castors wit			_		_
Carriage design					
Stackable			_	_	_
Connection for external condensation draining					
Optional condensate pump assembly					
Accessories (con			TTK 171 ECO	TTK 380 ECO	TTK 570 ECO
Air filter (filter fleed	•		7.710.000.826	7.710.000.851	7.710.000.852
Available accesso	,		TTK 171 EC0	TTK 380 EC0	TTK 570 ECO
Condensate pump			6.100.003.020	6.100.003.020	6.100.003.020
External hygrostat		detailed description	integrated hygrostat	6.100.002.044	6.100.002.044
Hose adapter conn		on the right	7.331.001.160	_	_
Air transport hose	• .		6.100.001.125	_	_
a anoport mode			000.001.120		

### **Available accessories**

### Condensate pump

Suitable for external connection to all dehumidifiers of the series TTK-ECO.



- Voltage: 220 V (50/60 Hz)
- Performance 58/55 watts
- Max. pumping height 5 m
- Internal control valve
- Max. outer ø of feed hose: 25 mm
- Inner ø of discharge hose: 5 mm

Art. no.: 6.100.003.020

### Room hygrostat HG 110

Suitable for external connection to TTK 170 / 380 / 570 ECO.



- Measuring range 30 to 100 % RH
- Operating range 0 to 60 °C, 35 to 100 % RH
- Cable length 3 m

Art. no.: 6.100.002.044

#### Hose connection for TTK 171 ECO

Hose adapter connecting piece dry air outlet (Ø 160 mm)

Art. no.: 7.331.001.160



Air transport hose Tronect T-FL, length 6 m, ø 160 mm

Art. no.: 6.100.001.125

- Standard equipment
- □ Optionally available equipment
- Without automatic dehumidifier switch-off
- \* Functionally, this device contains a hermetic system with fluorinated greenhouse gas as a refrigerant in the specified specifications and with a greenhouse gas potential corresponding to the indicated GWP factor.



Professional quality "made in Germany" originally produced by Trotec

Dehumidifiers especially developed for use in wet rooms

High dehumidification performance with optimum heat recovery

Low specific energy consumption extremely high economic efficiency

Corrosion-protected design with maintenance-friendly housing

Powerful air circulating radial fan

Heat exchanger with corrosion-resistant CDC coating

Infinitely adjustable hygrostat

Fully automatic operation

High and low pressure switch

Prepared for wall mounting

Optionally available with external condensate pump



The dehumidifiers of the DS series are also ideally suited for use in fitness areas.

# **Ideal for indoor swimming** pools and whirlpools

Pool dehumidifiers of the DS series

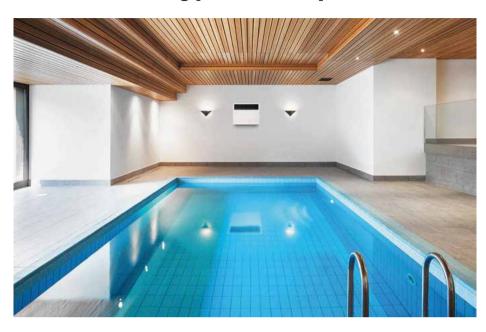


**Trotec** 



Pool dehumidifiers - further information . . .

### Highly efficient moisture control and heat recovery in indoor swimming pools or whirlpools



### Too much moisture in the wet room – a problem with serious consequences

Particularly in wet rooms such as private indoor swimming pools the humidity rises significantly due to the high degree of water evaporation.

The decisive factor for the amount of evaporated water is the pool size. Depending on the temperature of the room and the water typically 1.2 litres of water per square metre of the pool size evaporate each day.

For a pool sized 5 x 4 metres that means 24 litres emitted to the air every day and if the pool is highly frequented, this evaporation rate increases significantly.

Here the critical limit can quickly be exceeded resulting not only in circulatory problems affecting our well-being but also in rot, corrosion or mould formation, thus causing severe problems for the building structure.

### So what to do with the excessive moisture in the air?

Ventilation alone cannot provide the remedy, for this not only squanders precious energy, which would have had to be spent for heating first. When introducing cold air, it can also absorb less moisture, causing the dew point temperature to drop to a critical level.

Mostly, when considering the prevailing temperatures, the ambient air is already saturated to a degree, that sufficient moisture evacuation simply cannot be ensured.

### The solution: Pool dehumidifiers of the DS series

These dehumidifiers are developed and manufactured in Germany according to the highest quality standards and have been specifically designed for the dehumidification of wet rooms to ensure that they can permanently guarantee an equally economical and high-performance dehumidification of indoor swimming pools.

The dehumidifiers of the DS series are designed to be hard-wearing, to operate fully automatically and to withdraw large amounts of moisture from the room air in continuous operation. With their autonomous recirculation operation these wall-mounted devices, delivered ready-to-connect, can be immediately integrated into every working environment without difficulty or the need for any additional structural measures.

### DS as in doubtlessly sturdy

The continuous operation in wet rooms requires excellent material quality to ensure a long, failurefree service life. Dehumidifiers of the DS series are optimally prepared since they were specifically designed for the unfavourable surrounding conditions in indoor swimming pools.

Their solid metal construction for wall mounting is integrated in a maintenance-friendly plastic casing that protects it against corrosion. And the aluminium surfaces of evaporator and condenser on the inside are additionally CDC-coated. This cathodic dip coating (CDC) is resistant to solvents and corrosion as well as to acids and alkalis rendering the heat exchanger extremely resistant even to particularly reactive air mixtures such as chloramines.

### DS as in dependable strength

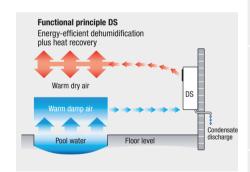
Dehumidifiers of the DS series are powerful compression refrigeration dryers with a high-quality automatic hot gas defrost system. In this process, the sucked-in humid air is fed through an evaporator, there cooled below dew point and condensed. The condensate is discharged and the cold, dry air led past the cooling block's heating element where it is warmed by the released process energy and then fed back to the room as warm, dry air. The professional hot gas defrost system allows for brief defrost phases and an uninterrupted continuous operation.

#### DS as in determined saver

the pool air dehumidification!

Owing to their low energy consumption the dehumidifiers of the DS series permit a fully automatic operation that is also economical. With their closed refrigerant compression circuit the devices additionally have the effect of a heat pump:

Whilst the dehumidifiers withdraw large amounts of moisture from the room air, they absorb the potential energy and emit up to 1.9 kW (DS 30) or 3.5 kW (DS 60) of useful heat to the room air for each kilowatt previously spent for dehumidification. This way, heating costs can be reduced along with



In case of a higher heating demand the devices can optionally also be equipped with an additional electric heating.

#### DS as in divine silence

The fans of the DS series have been specifically designed for the use in occupied wet rooms:

On the one hand, these powerful air circulating radial fans can suck in large amounts of humidity from the ambient air with their aluminium fan wheel. On the other, they are characterized by particularly quiet running properties for a dehumidification operation in delightful tranquillity.

+49 2452 962-200



Pool dehumidifiers - further information ...

### Simple installation immediately ready for use

The pool dehumidifiers of the DS series are delivered completely ready-to-install. Before start-up you only have to assemble the supplied wall mount.







Technical data		DS 30	DS 60	
Article number		1.125.000.319	1.125.000.335	
Dehumidification performance	е	see performance charts	see performance charts	
Suitable for tank sizes of up to	to [m²] <sup>1</sup>	25	50	
Air volume freely blowing [m	<sup>3</sup> /h]	700	1,280	
Input voltage [V/Hz]		230 / 50	230 / 50	
Nominal current / Fuse [A]		4.4 / 16	7.5 / 16	
Electrical connection (plug)		CEE 7/7	CEE 7/7	
Power input [kW]		0.75	1.2	
Heat emission <sup>2</sup> [kW]		1.9	3.5	
Coefficient of performance (C	C.O.P.) <sup>2</sup>	2.5	2.9	
Refrigerant <sup>3</sup> Type / Amount [	g]	R-407C / 500	R-407C / 800	
GWP factor <sup>3</sup> / CO <sub>2</sub> equivalent <sup>3</sup> [t]		1,774 / 0.89	1,774 / 1.42	
Sound level (distance 3 m) [d	B(A)]	50	52	
0	Temperature [°C]	0 to 40	0 to 40	
Operating range	max. RH [%]	90	90	
Length [mm]	1	265	265	
Width [mm]	0	800	1,265	
Height [mm]	0 0	665	665	
Weight [kg]		46	70	
Type of protection		IP45	IP45	
Condensate discharge conne	ction [mm]	10	10	
Standard features		DS 30	DS 60	
Automatic hot gas defrosting		•	•	
Integrated hygrostat (infinitel	y variable)	•	•	
Smoothly running radial fan		•	•	
Corrosion-resistant plastic ho	ousing	•		
Heat exchanger with CDC coa	ating	•	•	
Preparation for wall mounting	9	•		
Optional accessories		DS 30	DS 60	
External condensate pump		Article number 6.100.000.019	Article number 6.100.000.019	
Heating capacity [kW]		2	4	

■ Standard equipment



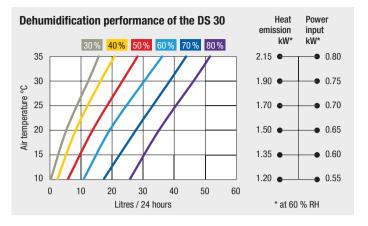
for private indoor swimming pools; calculation basis: evaporation of 1.2 litres per square metre of pool per day (room temperature 30  $^{\circ}$ C, humidity 60  $^{\circ}$ RH, water temperature 27  $^{\circ}$ C). Changing parameters such as the frequency of use or the type of pool cover require an individual recalculation of capacity requirements.

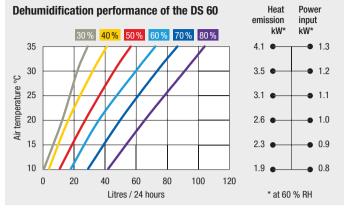
at 30 °C and 75 % RH (The energy efficiency ratio COP ["coefficient of performance"] indicates the ratio between the generated cooling performance and the electrical power input)

Functionally, this device contains a hermetic system with fluorinated greenhouse gas as a refrigerant in the specified specifications and with a greenhouse gas potential corresponding to the indicated GWP factor.



### **Performance charts of the DS series**













① operating control lamp, ② connector for direct supply, ③ service socket, ④ feed hose connection, ③ discharge hose connection

### **External condensate pump**

With its extremely robust and hard-wearing V4A housing this external condensate pump was designed specifically for the failure-free continuous operation in combination with pool dehumidifiers of the DS series, but can also be used with other dehumidifiers without a hitch.

The power for the dehumidifier can be supplied via the pump's service socket. Another option is the direct supply; provided for this purpose are a female connector and internal plug connections ready to install.

### Special features:

- Professional quality "made in Germany" originally produced by Trotec
- Designed for continuous operation when used in combination with pool dehumidifiers
- ☑ Robust construction made of high-quality V4A stainless steel with additional protective coating
- ☑ Effective V4A corrosion protection extremely resistant even to particularly reactive air mixtures such as chloramines
- Adaptive operational control of the connected dehumidifier
- Flexible application when mounted to the wall or positioned on the floor

### Unique – adaptive operational control of the dehumidifier

For a failure-free continuous operation the pump comes equipped with a safety function for the automatic switch-off of the connected dehumidifier in case of overload. Should the condensate supply tem-



porarily exceed the pump's capacity, the pump automatically switches the dehumidifier off and back on once the load range is again reached.

Owing to the rubber feet at the bottom and the suspension slots at the rear the condensate pump can be flexibly applied both when mounted to the wall or positioned on the floor.

Technical data of the external condensate pump							
Article number		6.100.000.019					
Hose connector	Feed	½ inch *					
[ø mm]	Drain	12					
Tank volume [l]	0.8						
Pump height [m]	4.3						
Feed rate [I/h]	160						
Input voltage [V/Hz]		230/50					
Type of protection		IP44					
Length [mm]		152					
Width [mm]	421						
Height [mm]	292						
Weight [kg]	8.45						
* Dy magne of the supplied adepter alcove can be adjusted							

\* By means of the supplied adapter sleeve can be adjusted for ø between 9 and 20 mm

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### A FEW PRACTICAL BENEFITS:

Preservation of value thanks to humidity optimisation

Optimum value for money in every device class

# **Mobile humidifiers**

for the optimum automatic regulation of humidity in homes and offices, bookshops, museums, etc.



**Trotec** 



Mobile humidifiers - further information . . .



- 1) adjustable vent;
- 2) filter disc;
- 3) ton un water 4) replace filter.
- 5) fan:
- 6) drawn-in ambient air:
- 7) wet area

evaporation principle:

The air is drawn in through a filter, cleaned and directed through a rotating moistened filter disc, where it absorbs the required moisture which is then evenly distributed back into the air in the room, with no condensation.

#### **Humidity control**

The current relative humidity is indicated by an electronic sensor: Simply set the desired humidity level in the device and the B 250 takes control automatically.

by entering a key combination.

#### Water level indicator

The water level is indicated on the operating panel. If the water tank is empty, the B 250 switches off automatically and a flashing lamp indicates that the water tank should be refilled.

Additionally, an alternative version of the B 250 is available with an integrated automatic water supply (Article number 1.160.000.251).

Other feature options like water monitor or safety pressure hose are available on request.

### **B 250 - BENEFITS IN PRACTICE:**

Fully electronic control

Clearly-designed operating panel with indicators for nominal and actual R.H. in %, water level and fan speed

Air filtration via separate filter in the intake area

2-speed fan and automatic operation

Adjustable vent

Consumable article (accessories): Air filter (Article number 6.100.004.060), Filter disc (Article number 6.100.004.010).

Correctly humidified and temperature-controlled air prevents damage!

### Loss of value as a result of dry air:

Particularly in closed, heated rooms, the relative humidity often falls well below the optimum value of 45 - 55 %.

Furniture, antiques, paintings, musical instruments and books can suffer serious damage if the air is too dry.

In call centres and computer rooms, electrostatically charged data storage devices can cause costly errors.

Reliable humidification and filtration of the ambient air can protect and preserve valuable or delicate works of art or items of furniture!

The humidifiers do not only humidify the air, they also filter it, clean it of dust and prevent the formation of electrostatic charge.

### Our recommendation for accessories for the hygienic use of humidifiers:

The humidifiers from Trotec only require tap water for the humidification process. Other manufacturers' models generally require distilled water.

We strongly recommend that you use a suitable hygiene agent to prevent germs, algae, mould or bacteria from forming in the humidifier's water tank. Such formations are often accompanied by strong smells which can be especially pungent or nauseating.

The choice of hygiene agent depends on the water quality (chalk content), the effective evaporation performance and very much on one's own personal standards of hygiene. As a rule, one hygiene agent is enough though.

We do, however, recommend that you use a combination of both the SecoSan® Stick and LiQVit in rooms which are subjected to high levels of dust or other forms of contamination.



### SecoSan® Stick

The convenient solution for safe water conservation: simply place the Seco-San® Stick into your water tank where it will reliably prevent germs, algae, mould and bacteria (bio film) from growing for 6 months - tested by leading German testing institutes. When you wish to replace the water, just take out the Stick and use it again whenever you need it.

Only the SecoSan® active agent has a patent produced ion reservoir whose microporous surface has a self-renewing and self-regulating effect that guarantees a constant long-term effect in the treated water - and no chance of over or underdosing!

In contrast to classic refill products the SecoSan® Stick, which is available

in different sizes, only incurs costs once every 6 months.

"SecoSan® Stick 20" Article number 6.100.004.115

#### LiQVit

Like the SecoSan® Stick, "LiQVit" prevents the formation of germs and algae. This hygiene agent also reduces the surface tension of the water which in turn leads to an increase in evaporation performance.

The product life of the evaporation filter can be extended by reducing the number of mineral deposits.

"LiQVit" is very yielding: one cap (25 ml) is enough for 10 litres (2.2 gals) of water.



1,000 ml, Article no. 6.100.004.185 250 ml, Article no. 6.100.004.181

Mobile humidifiers - further information ...

TROTEC



perfect design matched with cutting edge humidification technology "made in Germany". Its highly decorative design harmonizes effortlessly with any environment allowing it to blend seamlessly into its surroundings.

The cutting-edge technology behind the sophisticated exterior design ensures high humidification performance and an extremely quiet operating mode.

The B 300 works according to the natural principle of evaporation; scale or condensation formation cannot occur and the air cannot

be oversaturated.

### Humidification, cleaning, disinfection - all fully automatically ...

The B 300's intelligent control technology makes it possible:

It only takes two key settings and the appliance automatically takes over confunction to achieve the desired level of relative humidity. The integrated humidity sensor constantly checks the existing climate data before then switching the appliance on or off.

> The key lock allows you to protect the appliance against unauthorized use - ideal for use in public places, practices etc.

The clearly arranged operating panel delivers detailed information regarding the existing and the

targeted relative humidity value, the selected fan stage and the current liquid level in the water tank.

The appliance switches off automatically when it has reached a minimum level and an optical signal signifies that the appliance has to be filled up again.

B 400

1.40/0

for large rooms

Powerful disc humidifier

multistage filter system

The humidifier is not only equipped with an evaporation filter, but also an air filter in the air intake area and an integrated UV lamp whose UV-C rays effectively disinfect and clean the service reservoir and kill germs in the suctioned in ambient air.



The humidifier is built with corrosionproof materials and is especially easy to clean: because of the well thought through construction, the humidifier can be disassembled for cleaning and servicing without using tools.

#### **B 300 - BENEFITS IN PRACTICE:**

High-performance humidifier with multistage fan and large-sized water tank

UV lamp for the effective disinfection of the service reservoir

Fully-automatic operation electronic control via moisture sensor

Easy to clean, corrosion-proof construction in a superior design

Clearly arranged operating panel with displays for the actual value and the target value, RH, fan stage and water level

High evaporation performance

No scale deposits on furniture

Keypad lock to protect adjustments to settings by unauthorized personnel

Consumable article (accessories): filter disc (Article number 6.100.004.055), evaporation filter (Article number 6.100.004.050). Other feature options like automatic water supply via solenoid valve, water monitor or safety pressure hose on request

### **B 400 – BENEFITS IN PRACTICE:**

Clearly designed operating panel with hygrostat and fan control and level indicators

Rotating evaporation fleece cleans and washes the air

2-speed fan

Automatic power-off

Adjustable vent grid

Robust, powder-coated sheet steel construction

With built-in brace for optimal air circulation





The hygrostatically controlled disc humidifier directs the drawn-in air through a rotating, fleece-covered humidifying drum which moves through a water bath. Thanks to the permanent rotation,

Consumable article (accessories): Filter disc (Article number 6.100.004.040), Filter oblong (Article number 6.100.004.020). Other feature options like automatic water supply on request.

the air is effectively washed and at the same time humidified before being evenly distributed back into the air in the room without condensation, by means of a 2-speed fan.

The B 400's quiet-running synchronous motor enables even large rooms to be humidified without running up large electricity bills.

Thanks to the rotation technology and evaporation fleece, regular maintenance can be carried out quickly and easily.

All parts are easily removable and can be washed out under running water.

The water level is indicated on the operating panel. If the water tank is empty, the B 400 switches off automatically and a status lamp indicates that the water tank should be refilled. Refilling is carried out via the convenient filler tube on top with quick fastening cap.







### cleaning and filtration ...

The B 500 operates by the evaporation principle. Lime scale and condensation cannot occur, and excessive humidification of the air is impossible.

The electronically controlled humidifier is virtually silent in opera-tion. Its particularly quiet radial fan can be controlled manually with four output levels, or fully automatically. An integrated hygrostat, which can be calibrated, regulates the desired humi-dity. The infrared remotecontrol ensures safe operation of the humidifier: unauthorised personnel cannot tamper with the settings on the device!

### Added safety thanks to the self-diagnosis system ...

The clearly designed operating display with user-controlled menu provides information about all operating settings such as water level, fan speed and relative humidity. The self-diagnostic system indicates necessary filter replacement and any faults, including error

layed directly to an external or central alarm system if required by means of an integrated alarm relay.

Besides thoroughly moistening the air, the device also cleans and filters the air, removes dust and prevents the build-up of electrostatic charges.

#### Radio sensor measurements up to a distance of 30 m

The wireless radio sensor system is able to provide even more accurate and stabile mea-

The battery-powered sensor is simply placed somewhere in the measuring area1) where it can go unnoticed - on a wall or a ceiling, for example - where it can then carry out reqular readings and monitor the humidifier up to a distance of 30 metres.

An alarm signal sounds automatically when the batteries are low to remind the user that they need replacing.

### thanks to modular construction ...

The B 500's plastic housing is antistatic, resistant to acids and alkalis, and is corrosion-resistant and sturdy. Due to the modular design, the individual assemblies can be easily removed for cleaning and maintenance without the use of tools - moving parts are protected behind grilles.

Furthermore the device is fitted with baffles in the water tank and

switches off automatically when the tank is empty. The B 500 can also be optionally equipped with a manual or automatic flushing device to reduce salt concentrations and to prevent scaling.

### B 500 RADIO – BENEFITS IN PRACTICE:

from appliance 2 m

IR remote control for secure operation: unauthorised personnel cannot tamper with the settings

UV lamp for the effective disinfection of the service reservoir (accessory)

Accurate radio sensor measurement for precise humidity control

Central operating panel with an overview of all operating settings

Self-diagnostic system

**Built-in baffles** 

Labyrinth filter system and cleaning filter set for air cleaning

Additionally, an alternative version of the B 500 is available with an integrated automatic water supply (Article number 1.160.000.501). Other feature options like UV sterilisation unit, water monitor, safety collecting basin, safety pressure hose, safety water sensor, activated char-coal cleaning filter set, air hood, automatic or manual flushing device with flushing pump on request. Consumable article (accessories): bio filter (Article number 6.100.004.030).

Technical data	B 250	B 300	B 400	B 500 radio
Article number	1.160.000.250	1.160.000.300	1.160.000.400	1.160.000.500
Air flow rate max. [m³/h]	500	600	800	800
Input voltage [V/Hz]	230 / 50	230 / 50	220-240 / 50	230 / 50
Power input [kW]	0.050	0.058	0.053	0.125
Evaporation rate approx. [I/24 h max.]	28.8 *	33.6	60	60
Fan stages	2	2	2	4
Suitable for rooms [m³]	up to approx. 450	up to approx. 600	up to approx. 900	up to approx. 1,050
RH control	Hygrostat, internal	Moisture sensor, internal	Hygrostat, internal	Radio sensor
Water reservoir approx. [1]	25	25	34	50
Air filter	integrated	integrated	integrated**	integrated
JV lamp	-	integrated	_	Accessories
Remote control	-	-	-	yes
Sound level (distance 3 m) [dB(A)]	34 - 40***	32 - 42***	29 - 42***	32 - 44***
Mobility		Transpor	t rollers	
Length [mm]	300	410	316	365
Width [mm]	600	740	625	755
Height [mm]	670	710	720	620
Neight (empty) approx. [kg]	20	21	19	24
Available colours	grey-white	silver-grey	grey-white	white / light grey / anthracit
Recommended accessories		LiQVit, Seco	San® Stick	

<sup>\*</sup> at 23 °C / 45% RH \*\* air filtering/cleaning via rotating evaporation fleece \*\*\* depending on fan stage



Integrated oil burner with Danfoss® pump (except for IDS 900)

Electronic flame trap

Overheating thermostat

Stainless steel combustion chamber

Heat exchanger (high-temperature resistant from IDS 45 onward)

Fully automatic after-cooling

Double-walled housing for optimum soundproofing and insulation

Integrated fuel tank (except for IDS 30 F)

Suitable for the fully automated use with external thermostat or timer switch (except for IDS 20 D)

Oil pre-warming (optional, from IDS 45 onward)

Connection facility for air transport hose



More information regarding the different types of heating devices including a functional description and application focus can be

uk.trotec.com/heater\_guide



## **IDS** oil heater fans

The oil heaters of the IDS series also impress by their attractive value-for-money ratio and are particularly suited for quick, uncomplicated heating of storage spaces, workshops, construction sites, greenhouses or stables.



### Just set it up, switch it on and start heating...

The oil heater fans of the IDS series with their robust and simple design have everything you need for an immediate economic heating application:

The integrated fuel tank renders additional external oil tanks redundant and provides you with a high degree of flexibility when choosing the operating site. Owing to the carriage with large wheels, transport and a quick set-up can be carried out easily by one person even on building sites or uneven terrain.

Due to their sound and ingeniously simple design, these devices guarantee

high reliability with a minimum amount of maintenance required.

# Evidently, safety comes first also with the oil heater fans of the IDS

The devices as standard come equipped with an electronic flame trap, safety thermostat for overheating protection and fully automatic after-cooling. The double-walled housing with protective coating offers an effective soundproofing and increased safety at work, for the surface temperature of the outer casing and thus the risk of injuries is minimized.

The oil heater fans of the IDS series are prepared for the fully automatic operation controlled by a thermostat. A comprehensive range of accessories is available to you for many a challenge.

### Direct (non-storage) heating models:

IDS 20 D and IDS 30 D provide mobile heating power with 100 % efficiency – exactly where needed. Both direct heaters are ideally suited for heating well-ventilated stables or construction sites in winter and also for defrosting machines, vehicles or pipes.





IDS oil heater fans - further information ...

### **Indirect (via storage medium) oil heater fan IDS 900**

The greatest model of the IDS series was especially designed for heating individual halls or several rooms and comes equipped with a flow-optimized stainless steel combustion chamber for a particularly high efficiency and with an exceptionally powerful axial fan.



The compact construction comprises a robust, epoxy coated steel frame with double-walled housing for optimum soundproofing and insulation.



Function related, the delivery of oil heater fan IDS 900 does not include an inte-grated fuel container, which is why the use of an external tank is

recommended for automated continuous heating.

> Optionally available is also an oil tank pedestal with a capacity of 208 litres.

### ADDITIONAL ADVANTAGES IDS 900:

Automatic ventilation controlled by thermostat

Oil filter

Electric control box

Robust steel frame with epoxy coating

High efficiency by means of flow-optimized stainless steel combustion chamber

Fully automatic after-cooling

Combustion chamber pre-heating

Summer/winter selection switch for an optional ventilation without heating function

### Mobile tent heater IDS 30 F

### A FEW PRACTICAL BENEFITS:

100 % clean heat

High level of efficiency

Stainless steel combustion chamber

Electronic flame trap

Overheating thermostat

Double-walled housing for optimum soundproofing and insulation

No integrated tank

Robust frame with shock protection, standing feet and 4 handles

Mounted hose connector

Flue pipe and rain cap included in the scope of delivery

The indirect oil heater fan IDS 30 F was specifically developed for the mobile application as tent heater.

This easily portable device has a robust frame with shock protection and han-

We deliberately decided against integrating a tank in the IDS 30 F so that users can benefit from not only the lesser weight but also from time-saving loading since it is not necessary to drain the tank completely of residues. The absent tank also means that no additional

transport or insurance documents are

The fuel supply of the oil heater fan IDS 30 F can be effected either via a large external tank or jerrycan - appropriate accessories for both types of ap-

Its robust construction, the many practice-oriented handling characteristics and flexible application, transport and storage possibilities render the tent heater IDS 30 F the ideal solution for emergency and rescue services or municipal support organizations.



#### IDS oil heater fans - further information ...

Technical data		IDS 20	IDS 20 D	IDS 30	IDS 30 D	IDS 30 F
Article number		1.430.000.120	1.430.000.020	1.430.000.125	1.430.000.025	1.430.000.128
Method of heating		indirect	direct	indirect	direct	indirect
Amount of air [m³/h]		550	350	1,150	605	1,150
<del>-</del> an		Axial fan	Axial fan	Axial fan	Axial fan	Axial fan
Max. nominal heat input [kW]		23.4	20	34.1	38.4	34.1
Nominal heat output [kW (kca	al)]	19.6 (16,853)	20 (17,200)	28.8 (24,764)	38.4 (33,020)	28.8 (24,764)
ncrease in temperature <sup>3</sup> Δ <sup>-</sup>	T [°C]	95	100	70	75	70
nput voltage [V/Hz]		230/50	230/50	230/50	230/50	230/50
Current consumption [A]		1.25	1.0	1.56	1.25	1.56
Max. oil consumption [I/h]		2.23	2.04	3.25	3.66	3.25
Air transport hose connector	ø [mm]	-	-	300 <sup>1</sup>	-	300
Chimney connection ø [mm]		120	_	150	-	150
Thermostat connection		Series	-	Series	Series	Series
ank capacity [1]		42	17	42	42	_
Sound level (distance 1 m) [d	B(A)1	70	67	75.3	69	75.3
ength [mm]	- 1 7 1	1,075	720	1,175	1,050	1,270
Vidth [mm]		440	300	400	400	470
leight [mm]	<b>6</b>	615	450	605	520	720
Veight [kg]	1 0 0	36	20	48	20	56
Available accessories		IDS 20	IDS 20 D	IDS 30	IDS 30 D	IDS 30 F
Hose connector		-	- ID3 20 D	1 x ø 300 mm, Article no. 6.100.006.163		1 x ø 300 mm, Standard equipme
wo-way lose distributor	19	-	-	_	-	
our-way lose distributor		-	-	-	-	-
Thermostat with		Article no. 6.100.007.016	-	Article no. 6.100.007.016	Article no. 6.100.007.016	Article no. 6.100.007.016
Connection kit or external oil tank	- 1 V	-	-	Article no. 6.100.006.185	-	Article no. 6.100.006.185
Oil pre-warming	4 T	-	-	-	-	-
Adapter set ank set-oil hose		-	-	Article no. 7.210.000.003	-	Article no. 7.210.000.003
ank line with quick couplings, length 5 m		-	-	Article no. 6.100.006.037 <sup>4</sup>	-	Article no. 6.100.006.037
Connection kit for external canister tank		-	-	-	-	Article no. 6.100.006.184
ank liquid evel indication		Article no. 6.100.006.160	Article no. 6.100.006.160	Article no. 6.100.006.160	Article no. 6.100.006.160	Article no. 6.100.006.160
iller neck oil filter	60	Article no. 6.100.006.161	Article no. 6.100.006.161	Article no. 6.100.006.161	Article no. 6.100.006.161	Article no. 6.100.006.161
Dil tank pedestal IDS 900, capacity 208 litres		-	-	-	-	-
exhaust gas pipe rigid, ength 1 m		Article no. 6.100.006.212	-	Article no. 6.100.006.210	-	Standard equipme
0° arc connection or exhaust gas pipe	E	Article no. 6.100.006.218	_	Article no. 6.100.006.216	_	Article no. 6.100.006.216
xhaust gas pipe ain cover	8	Article no. 6.100.006.224	-	Article no. 6.100.006.222	-	Standard equipme
Crane lifting eyelets four included in set)		-	_	-	_	_
Air hose Tronect SP-C <sup>2</sup> , ength 7.6 m		-	-	Article no. 6.100.001.265	-	Article no. 6.100.001.265

<sup>&</sup>lt;sup>1</sup> optionally available accessories required; <sup>2</sup>Further air transport hoses can be found starting from catalogue page 176.

 $<sup>^3</sup>$   $\Delta T$  indicates the temperature increase. The outlet air temperature is calculated from  $\Delta T$  + ambient temperature. Example calculation for IDS 100 oil heater fan at an ambient temperature of 20 °C:  $\Delta T$  (75) + 20 = 95. Thus, the example gives an outlet air temperature of 95 °C.



Technical data		IDS 45	IDS 80	IDS 100	IDS 900
Article number		1.430.000.130	1.430.000.135	1.430.000.140	1.430.000.161
Method of heating		indirect	indirect	indirect	indirect
Amount of air [m³/h]		2,500	4,300	5,500	17,000
an		Axial fan	Axial fan	Axial fan	Axial fan
/lax. nominal heat input [kW		58.6	91	117.26	236
lominal heat output [kW (kca		52.5 (45,142)	80.2 (68,960)	105.54 (90,748)	217 (186,586)
ncrease in temperature 3 $\Delta$	/-	66	77	75	55
nput voltage [V/Hz]	. [ -]	230/50	230/50	230/50	230/50
current consumption [A]		3.8	6.4	8.35	11.2
fax. oil consumption [I/h]		5.59	8.64	10.79	21.69
ir transport hose connector	ø [mm]	350 <sup>1</sup>	400 <sup>1</sup>	500 <sup>1</sup>	700
Chimney connection ø [mm]	s [mm]	150	150	150	200
hermostat connection		Series	Series	Series	Series
ank capacity [1]		65	105	135	200 <sup>1</sup>
, , , , ,	<b>Ω</b> (Λ\1	72	75		69
ound level (distance 1 m) [d	D(H)]			76 1.870	
ength [mm]		1,310	1,690	1,870	2,245
/idth [mm]	0	510	620	660	982
eight [mm]		965	1,050	1,210	1,584
Veight [kg]	Φ Ψ	81	110	149	351
Available accessories		IDS 45	IDS 80	IDS 100	IDS 900
lose connector		1 x ø 350 mm, Article no. 6.100.006.164	1 x ø 400 mm, Article no. 6.100.006.165	1 x ø 500 mm, Article no. 6.100.006.171	1 x ø 700 mm, Standard equipment
wo-way ose distributor		2 x ø 300 mm, Article no. 6.100.006.166	2 x ø 300 mm, Article no. 6.100.006.167	2 x ø 400 mm, Article no. 6.100.006.172	2 x ø 600 mm, Article no. 6.100.006.174
our-way ose distributor		-	-	-	4 x ø 400 mm, Article no. 6.100.006.175
hermostat with 0 m cable		Article no. 6.100.007.016	Article no. 6.100.007.016	Article no. 6.100.007.016	Article no. 6.100.007.016
Connection kit or external oil tank	P. 10	Article no. 6.100.006.168	Article no. 6.100.006.168	Article no. 6.100.006.168	Standard equipment
il pre-warming	1 To	Article no. 6.100.006.169	Article no. 6.100.006.169	Article no. 6.100.006.173	Article no. 6.100.006.177
dapter set ank set-oil hose		Article no. 7.210.000.003	Article no. 7.210.000.003	Article no. 7.210.000.003	-
ank line with quick ouplings, length 5 m		Article no. 6.100.006.037 <sup>4</sup>	Article no. 6.100.006.037 <sup>4</sup>	Article no. 6.100.006.037 <sup>4</sup>	-
Connection kit for external canister tank	0	-	-	-	-
ank liquid evel indication		Article no. 6.100.006.160	Article no. 6.100.006.160	Article no. 6.100.006.170	-
iller neck oil filter	60/	Article no. 6.100.006.161	Article no. 6.100.006.161	Article no. 6.100.006.161	Article no. 6.100.006.161
oil tank pedestal IDS 900, apacity 208 litres		-	-	-	Article no. 6.100.006.176
xhaust gas pipe rigid, ength 1 m		Article no. 6.100.006.210	Article no. 6.100.006.210	Article no. 6.100.006.210	Article no. 6.100.006.214
0° arc connection or exhaust gas pipe	E	Article no. 6.100.006.216	Article no. 6.100.006.216	Article no. 6.100.006.216	Article no. 6.100.006.220
xhaust gas pipe ain cover	1	Article no. 6.100.006.222	Article no. 6.100.006.222	Article no. 6.100.006.222	Article no. 6.100.006.226
Crane lifting eyelets four included in set)		Article no. 6.100.006.162	Article no. 6.100.006.162	-	-
Air hose Tronect SP-C ², ength 7.6 m		Article no. 6.100.001.266	Article no. 6.100.001.267	Article no. 6.100.001.270	Article no. 6.100.001.275

Accessories

Trotec

Dehumidification

Humidification

Ventilation

Air conditioning

Air cleaning

Disinfection and Odour neutralization

www.trotec.com





#### A FEW PRACTICAL BENEFITS:

Particularly economic solution for standard oil heating

Durable housing made of doubly coated sheet steel

Integrated fuel tank with filling level indication

Electronic flame trap

Overheating protection

Stainless steel combustion chamber

Integrated thermostat

Connection for external thermostat

Carriage for an easy change of location (except IDE 20 D)

## **IDE** oil heater fans

Space heater and sensational bargain in one – the reliable, cost-effective solution for typical oil heating applications on construction sites, in halls and workshops or in agriculture.



### Heating know-how:



More information regarding the different types of heating devices including a functional description and application focus can be

uk.trotec.com/heater guide





### **IDE OIL HEATER FANS**

The oil heater fans of the IDE series are costeffective solutions with sound technology for typical standard heating tasks with direct, on-site warmth.



### IDS OIL HEATER FANS

In contrast, the robust oil heater fans of the IDS pro series with their high air flow rates were also designed for flexible heating applications over longer distances covered by warm air hoses.

IDS oil heater fans can be found from page 58 onwards.

Trotec



IDE oil heater fans - further information ...

### Whether direct or indirect - Trotec's IDE series offers you maximum heating power for any heating applications at all times

### Direct oil heaters of the IDE series

The direct oil heaters of the IDE series are optimally suited for outdoor use, e.g. for heating outdoor construction sites and agricultural areas, or for use inside well-ventilated interior spaces, for they emit 100% of the heat they produce. Hence, direct heaters also have no chimney. Or in other words, this process yields a heating power efficiency of 100%.

In a directly heated system the fan blowing out the heated air also brings along combustion air.

First, fuel is atomised, ignited and burned in the combustion chamber. Then the hot gases are admixed to the main air current of the fan in accurate proportions.

In addition to heat, direct heaters thus also emit combustion gases directly into the room. For this reason, they are unsuitable for poorly ventilated, closed rooms used by people or animals.

Since plenty of moisture is released during combustion, direct heaters should never be used for construction drying.

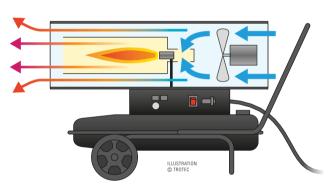
### Indirect oil heaters of the IDE series

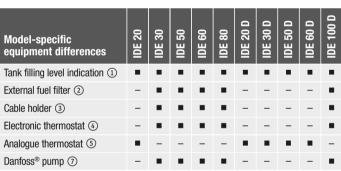
The indirect oil heaters are ideally suited for rooms in which ventilation is only possible to a certain extent, but which are still used by people or animals. They are also a good choice for speeding up construction drying as well as in rooms where there is a fire hazard due to combustible substances.

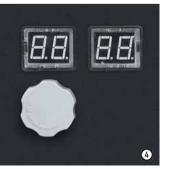
In case of indirect heaters, the air to be heated is completely isolated from the combustion chamber. The air is heated while flowing past the enlarged area of the combustion chamber, the heat exchanger. To be sure, the fan blowing out warm air also provides the required combustion air, but the combustion products are led away into the open air through a chimney.

Thus, in order to obtain both clean and dry warmth, we recommend using an indirect heater.

Unlike direct heaters, they do not emit any combustion products or water vapour into the room air, provided that the optionally available flue gas discharge is used.

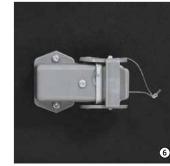


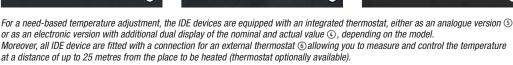


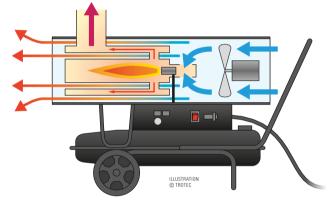


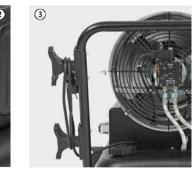














To ensure constant firing of the stainless steel combustion chamber, the fuel supply of many IDE devices is effected by means of a high-quality Danfoss® injection pump 3.

IDE oil heater fans - further information ...

TROTEC

### **Indirectly fired IDE** oil heater fans











		-				
Technical data		IDE 20	IDE 30	IDE 50	IDE 60	IDE 80
Article number		1.430.000.215	1.430.000.220	1.430.000.230	1.430.000.235	1.430.000.240
Method of heating		indirect	indirect	indirect	indirect	indirect
Amount of air [m³/h]		600	780	2,000	2,000	2,000
Fan		Axial fan	Axial fan	Axial fan	Axial fan	Axial fan
Nominal heat output [kW (kcal)]		20 (17,200)	30 (25,800)	50 (44,100)	60 (51,600)	80 (68,800)
Increase in temperature ¹ △T [°C]		90	95	95	90	105
Input voltage [V/Hz]		230 / 50	230 / 50	230/50	230/50	230/50
Current consumption [A]		1.1	1.5	3.2	3.2	3.3
Max. oil consumption [I/h]		1.9	2.4	4.8	5.7	7.6
Outlet nozzle / hose connection ø [mm]		-	300 ²	400 / 440 ²	400 / 440 <sup>2</sup>	400 / 440 ²
Chimney connection ø [mm]		120	120	150	150	150
Integrated thermostat		Series	Series	Series	Series	Series
Connection for external thermostat		Series	Series	Series	Series	Series
Fuel feed		Compressor	Danfoss® pump	Danfoss® pump	Danfoss® pump	Danfoss® pump
Fuel filter		Series	Series	Series	Series	Series
Tank capacity [I]		24	50	69	69	69
Sound level (distance 1 m) [dB(A)]		79	75	79	79	80
Length [mm] <sup>3</sup>	t 8	900	1,107	1,365	1,370	1,370
Width [mm]		450	498	600	560	560
Height [mm]		645	766	985	995	995
Weight [kg]	0	22.2	34.5	60.5	59	59
Available accessories		IDE 20	IDE 30	IDE 50	IDE 60	IDE 80
Hose connector		-	ø 300 mm, Article no. 6.100.006.180	ø 440 mm, Article no. 6.100.006.179	ø 440 mm, Article no. 6.100.006.179	ø 440 mm, Article no. 6.100.006.179
External thermostat with 25 m cable	Q.	Article no. 6.100.006.113	Article no. 6.100.006.112	Article no. 6.100.006.112	Article no. 6.100.006.112	Article no. 6.100.006.112
Exhaust gas pipe rigid, length 1 m		Article no. 6.100.006.212	Article no. 6.100.006.212	Article no. 6.100.006.210	Article no. 6.100.006.210	Article no. 6.100.006.210
90° arc connection for exhaust gas pipe	C	Article no. 6.100.006.218	Article no. 6.100.006.218	Article no. 6.100.006.216	Article no. 6.100.006.216	Article no. 6.100.006.216
Exhaust gas pipe rain cover	T	Article no. 6.100.006.224	Article no. 6.100.006.224	Article no. 6.100.006.222	Article no. 6.100.006.222	Article no. 6.100.006.222
Air hose Tronect SP-C <sup>5</sup>		-	Article no. 6.100.001.265	Article no. 6.100.001.270	Article no. 6.100.001.270	Article no. 6.100.001.270
Connection kit for external oil tank	10 W	-	Article no. 6.100.006.183	Article no. 6.100.006.183	Article no. 6.100.006.183	Article no. 6.100.006.183
Adapter set tank set-oil hose		-	Article no. 7.210.000.003	Article no. 7.210.000.003	Article no. 7.210.000.003	Article no. 7.210.000.003
Tank line with quick couplings, length 5 m		-	Article no. 6.100.006.037 <sup>4</sup>	Article no. 6.100.006.037 <sup>4</sup>	Article no. 6.100.006.037 <sup>4</sup>	Article no. 6.100.006.037 <sup>4</sup>



### **Directly fired IDE** oil heater fans (D)











Technical data		IDE 20 D	IDE 30 D	IDE 50 D	IDE 60 D	IDE 100 D
Article number		1.430.000.050	1.430.000.065	1.430.000.070	1.430.000.074	1.430.000.090
Method of heating		direct	direct	direct	direct	direct
Amount of air [m³/h]		550	720	750	1,100	1,300
Fan		Axial fan	Axial fan	Axial fan	Axial fan	Axial fan
Nominal heat output [kW (kcal)]		20 (17,200)	30 (25,800)	51 (43,000)	60 (51,600)	100 (85,985)
Increase in temperature <sup>1</sup> $\Delta T$ [°C]		140	210	180	150	350
Input voltage [V/Hz]		230/50	230 / 50	220-240 / 50	230/50	220-240/50
Current consumption [A]		0.71	1.25	1.25	1.5	2.7
Max. oil consumption [I/h]		1.9	2.8	4.8	5.7	9.5
Outlet nozzle / hose connection ø [mm]		_	-	_	-	_
Chimney connection ø [mm]		-	-	-	-	-
Integrated thermostat		Series	Series	Series	Series	Series
Connection for external thermostat		Series	Series	Series	Series	Series
Fuel feed		Compressor	Compressor	Compressor	Compressor	Danfoss® pump
Fuel filter		-	-	-	-	Series
Tank capacity [I]		12	19	38	56	69
Sound level (distance 1 m) [dB(A)]		76	76	77	70	80
Length [mm] <sup>3</sup>	t	650	830	860	1,050	1,210
Width [mm]	0	265	430	456	490	582
Height [mm]		395	560	600	615	718
Weight [kg]	0 0	10	18	22	27.5	41
Available accessories		IDE 20 D	IDE 30 D	IDE 50 D	IDE 60 D	IDE 100 D
External thermostat with 25 m cable	·Q	Article no. 6.100.006.113	Article no. 6.100.006.113	Article no. 6.100.006.113	Article no. 6.100.006.113	Article no. 6.100.006.113
Connection kit for external oil tank		-	Article no. 6.100.006.183	Article no. 6.100.006.183	Article no. 6.100.006.183	Article no. 6.100.006.183
Adapter set tank set-oil hose		-	Article no. 7.210.000.003	Article no. 7.210.000.003	Article no. 7.210.000.003	Article no. 7.210.000.003
Tank line with quick couplings, length 5 m		-	Article no. 6.100.006.037 <sup>4</sup>	Article no. 6.100.006.037 <sup>4</sup>	Article no. 6.100.006.037 <sup>4</sup>	Article no. 6.100.006.037 <sup>4</sup>

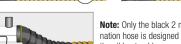
 $<sup>^{\</sup>rm 1}$   $\Delta T$  marks the temperature increase. The outlet air temperature is calculated from  $\Delta T$  + ambient temperature. Example calculation for IDE 50 oil heater fan at an ambient temperature of 20 °C:  $\Delta T$  (62) + 20 = 82.

Thus, the example gives an outlet air temperature of 82 °C.;

Tronec hoses with standard usable length of 7,6 m lead to forced switch-off and have to be shortened from the used side of max. 4 m.







Note: Only the black 2 m PVC part of the Tronect SP-C combination hose is designed for the high outlet air temperatures at the oil heaters' hose connection.

Therefore, only connect the black PVC hose end directly to the heater!

<sup>&</sup>lt;sup>2</sup> optionally avaliable accesories by request; <sup>3</sup> mounted;

<sup>&</sup>lt;sup>4</sup> in conjuction with adapter set tank set-oil hose (required accessories)

<sup>&</sup>lt;sup>5</sup> more air transport hoses you can find at page 176 of the catalogue; Important: The hose usable length of a forementioned device is for max. 4 m restricted!

+49 2452 962-200

### A FEW PRACTICAL BENEFITS:

Effective radiant heat without air circulation

Quiet burner technology

Robust and compact design

Thermostatically regulated

LED display for room temperatures and desired temperatures

Thermally insulated carrying handle

Exchangeable, external fuel filter

Safety thermostat and overheating protection

Tank filling level indication



# **Infrared radiant** oil heater IRO 15

### Powerful spot heating by radiant heat without air circulation

The compact IRO 15 is the ideal heating device for the economical spot heating of well-ventilated areas.

The 20 kW infrared oil heater IRO 15 generates effective radiant heat which is not transported via the air, but via light waves and which heats up objects and surfaces immediately.

As no air circulation takes place when this type of heating is used, no dust is raised either - which makes it perfect for the use in dusty rooms with large amounts of liquid or for drying coatings and paint.

Also benefit from the quick heating effect of this device:

In contrast to air heaters, which only warm the air slowly, the heat radiation of the IRO 15 directly starts after switch-on - without any preheating costs and waiting period, 100 % of radiant heat go from the heating device to the object that is heated - almost without any losses.

This infrared radiant oil heater not only heats especially efficiently, but also very quietly, since the IRO 15 only generates half the noise of a comparable direct oil heater fan!

### Possible use:

- Targeted spot heating in wellventilated rooms or storage areas
- Dust-free drying of walls, coatings and paint
- De-icing of machinery and pipes
- Construction site heating



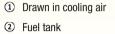


### **Effective spot heating with radiant heat**

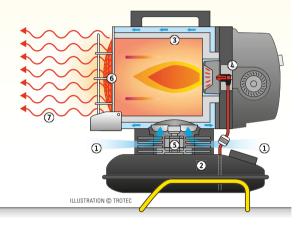
Just like other direct oil heaters the IRO 15 can be fired with Diesel, which is often more cost-effective as gas or electricity. In contrast to direct heaters, the heat generated, however, is not emitted directly into the air, but is used to heat a radiant panel.

While the cooling fan cools the ceramic insulation chamber from the outside with drawn-in ambient air, the burner is supplied with air via the integrated fan, which, together with fuel sucked in from the tank, is sprayed into the combustion chamber through a nozzle under high pressure and is burnt at maximum heat generation. As a result, the radiant panel heats up to such an extent that it emits targeted IR radiant heat.

By means of short infrared waves, the IRO 15 in this way supplies effective heat without air circulation directly to the places where it is needed, since infrared radiation directly heats the corresponding spots and not the ambient air.



- 3 Combustion chamber of ceramic fibre
- Burner unit with injection nozzle, pump and burner fan
- 5 Cooling fan
- 6 Radiant panel
- Infrared radiant heat



Technical data		IRO 15		
Article number		1.430.000.310		
Method of heating		Direct and infrared		
Max. heating capacity [kW]		20		
	Mains connection [V/Hz]	220 - 240/50		
Current	Nominal current [A]	0.48		
	Max. power input [kW]	0.11		
Operation range [°C]		-20 to 40		
Max. fuel consumption [l/h]		1.9		
Tank capacity [I]		10.5		
Sound level (distance 1 m) [c	IB(A)]	65		
Type of protection		IPX4		
Length [mm]		575		
Width [mm]	0	340		
Height [mm]		635		
Weight [kg]		18		
Functions and features		IRO 15		
Thermostatically regulated		•		
LED display showing the root and the desired temperature	m temperature	•		
Tank filling level indication				
Overheating protection	Safety thermostat			
Overheating protection	Overheating fuse			
Burner	Control	Flame monitoring with automatic post cooling		
	System	High-pressure atomization burner		
Scope of delivery	IRO 15, partially assembled, incl. transport handle, fuel filter, protective grid, protective plate, foot and mounting screws			



By means of the integrated thermostat the desired temperature can be set via the LED display in the form of numerical values. In heating operation the display indicates the room temperature.



Thanks to its compact design and its robust carrying handle the IRO 15 can be conveniently carried to its place of installation.



The IRO 15 is equipped with an easily accessible tank filling nozzle, a fuel filter and an easy-to-read level indicator.





Mobile propane heater fans with a heating capacity of up to 30 kW

Thermostatic and sensor-controlled safety devices for maximum protection

Individual buttons for gas flow and piezo ignition to prevent unintentional activation

Hard-wearing, robust metal construction

Thermally insulated carrying handle

Space heater in powder-coated corrugated sheet metal design

Secure footing due to slip-proof rubber feet

Turbo blower for a maximum of hot air current

Fan operation also possible without heating function

Pressure reducer and gas line already included in the scope of delivery



The gas-fired direct heaters of the TGH-E series suck in the ambient air through a turbo blower, then heat the main air current using a gas burner and finally discharge the heated air to the room.

# **TGH-E** gas heater fans

Budget-friendly instant heat produced by a heating capacity of up to 30 kW



When it comes to affordable instant heat for construction sites, workshops, stables or greenhouses, there is practically no other way than using a gas heating device. For gas is a low-priced energy source - and combined with the inexpensive heater fans of the TGH-E series it makes for one of the most economic and simultaneously effective instant heating solutions.

These robust branded gas heater fans not only impress with their outstanding value-for-money ratio, it goes without saying that safety is also a major priority with these propane heaters:

An integrated temperature sensor serves as flame failure protection and prevents the emission of unburnt gas.

Moreover, the standard equipment includes a safety thermostat for overheating protection which automatically interrupts the gas supply in case of overheating while the fan continues to run to ensure the necessary cooling.

The specially shaped discharge grille of the TGH-E models prevents direct contact with the flame whilst ensuring an optimally swirled, high-volume current of warm air. Last but not least, the thermally insulated transport handle permits the safe and simple transportation to the next operating site where thanks to additionally fitted slip-proof  $rubber\ feet-the\ gas\ heater\ fan\ can\ be$ set up safely.

Owing to their extremely compact design, the heating devices can easily be transported even in the smallest of car boots.

The long connection cable increases your flexibility in selecting the installation site. Once in operation, agreeable warmth begins to spread immediately,

seeing as the integrated turbo blower ensures an effective air flow made up of sucked in ambient air and blown out warm air. Even larger rooms can quickly be heated in this manner.

For instance, you can use the gas heater fans of the TGH-E series for mobile spot heating of well-ventilated construction sites, workshops, storage spaces, garages, stables, greenhouses or else roofed outdoor areas, tents and marquees.

Rough operating conditions hardly matter to these heating devices, as they come with a hard-wearing, robust metal construction including space heater in powder-coated corrugated sheet metal design.

Heating know-how: More information regarding the different types of heating devices including a functional description and application focus can be found at uk.trotec.com/heater\_guide





The gas heater fans of the TGH-E series are easy-tohandle devices with individual buttons for gas flow and piezo ignition. The thermally insulated carrying handle also allows for simple transportation.



All gas heater fans of the TGH-E series come equipped with a robust and powerful metal-blade axial fan that can also be used for ventilation only, i.e. without heating.



Trotec

Dehumidification

Humidification

Heating

Ventilation

Air conditioning

Air cleaning

Disinfection and Odour neutralization

Since connection hose and pressure reducer for connecting the gas cylinder are already included in the scope of delivery of each gas heating device, nothing more than a socket and a propane cylinder is required for the heating operation.

### Gas heater fans of the TGH-E series the compact and versatile solution for safe and effective instant heating







Technical data		TGH 11 E	TGH 16 E	TGH 31 E	
Article number		1.420.000.011	1.420.000.021	1.420.000.031	
Heating capacity [kW]		10	15	30	
Gas	Туре	propane	propane	propane	
	Consumption [g/h]	730	1,090	2,180	
	Gas cylinder capacity [kg]	≤ 33	≤ 33	≤ 33	
Operating pressure [bar]		0.7	0.7	0.7	
Fan stages		1	1	1	
Air volume [m³/h]		580	580	1,000	
Input voltage [V/Hz]		230/50	230/50	230/50	
Nominal current consumption [A]		0.33	0.33	0.32	
Max. power input [kW]		0.07	0.07	0.07	
Protection class		I	I	I	
F	Connection plug	CEE 7/4	CEE 7/4	CEE 7/4	
Electric connection	Cable length [m]	1.3	1.3	1.3	
Ignition head		Piezo igniter	Piezo igniter	Piezo igniter	
Flame failure protection		integrated	integrated	integrated	
Overheating protection		95 °C	95 °C	110 °C	
Mobility		portable	portable	portable	
Length [mm]		380	380	475	
Width [mm]		190	190	243	
Height [mm]	0 0	305	305	375	
Weight [kg]		4	4	6	
Standard scope of delivery		gas heater fan, pressure reducer and gas line			
Australia		TOU 44 F	T0U 40 F	T011 04 F	

**Available accessories** TGH 11 E **TGH 16 E TGH 31 E** Professional 230 V, 2.5 mm2, L 20 m, 230 V, 2.5 mm<sup>2</sup>, L 20 m, 230 V, 2.5 mm<sup>2</sup>, L 20 m, Article number 7.333.000.376 extension cable Article number 7.333.000.376 Article number 7.333.000.376

Accessories



Professional quality "made in Germany" originally produced by Trotec

Unique 4-in-1 devices:

- fully automatic room heating
- high-performance air purification and virus filtration - also with combined heating mode
- thermal decontamination of rooms and surfaces
- professional pest control

Ideally balanced system component programme provides a solution for various applications

Programmable touch display and USB-updateable control software

Simple operation:

Fully automatic and low-maintenance operation around the clock

Resource-efficient: 100 % environmentally friendly, no chemicals, no staff expenses



Both models are equipped with two power connections each for a cumulative heating output of max. 18 kW or 27 kW.

### **Stainless steel version** for hygiene-sensitive areas

For areas with specific hygiene requirements, the TAC XT multi air handler is also available in stainless steel design.



### Multi air handler TAC XT

The unique mobile 4-in-1 all-rounders for professional H14-HEPA air purification, high-performance room heating, thermal decontamination and thermal disinfestation.



### Heat, treat, repeat. **HighPerformance for four different applications**

The concept of a basic device that can be combined with variable equipment variations - all "made in Germany" - makes the TAC XT an ultimate air handler offering a brand new range of applications, and therefore the maximum investment security possible.

Up to 27 kW heating capacity, a ventilation performance up to 2,500 m3 that can be adjusted by means of several stages and an outlet temperature that can be flexibly set to 75 °C max. make the TAC XT an optimal device for many specific tasks.

### Touchscreen and automatic control system for standard and special use

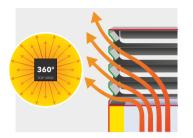
Each TAC XT comes equipped with different application programmes for HEPA air purification, room heating, thermal disinfestation and thermal decontamination of rooms and surfaces. All programmes can be adapted to the application purpose, e.g. to the respective room size, treatment type and duration or target temperature.



Multi air handler TAC XT - further information ...

### **Application area 'room air heating'**

The TAC XT as a mobile solution for a draught-free 360° heating of business rooms, emergency camps, halls, tents or ships' holds









Even distribution of warm air and clean air: The specific flap structure of the blowing-out towers (DualDecon and DualHeat) ensures an even and room-filling distribution of warm or clean air and also provides for surface cleaning. During the heating process, the all-directional airflow principle provides for pleasant and draught-free all-round warmth in every room. During decontamination, the room will be completely filled with hot air, even in hard-to-reach places.

### Universal heating options – perfectly suited for rental companies of machines and events

With a TAC XT you can benefit from clean, filtered air and electric heat that is free from smoke and condensate.

In contrast to heating devices whose air current is horizontally focused, the TAC XT multi air handlers provide pleasant warm air more efficiently with vertical heat distribution.

The perfect solution for closed rooms. No oil tank, complicated installations or hose connections, but 100 % recirculation heat.

Also ideal for all areas where the existing heating system is not sufficient or not even available.

Fan performance, outlet temperature and further room parameters can be easily configured on the TAC XT by using the touchscreen. If required, you can also connect an external thermostat.







As standard, the DualDecon blowing-out tower ① provides for draught-free warm air throughout the room with a working radius of 360°. The attachment hood for hose connection is optionally available and can be used for central room heating, e.g. of workshops or warehouses, by connecting an optional fabric air distributor ② or the TAC XT to existing ventilation systems ③.

### **Application area 'HEPA air purification'**



The TAC XT as a 100 % mobile solution for high-performance air purification and virus filtration – also in combined room heating applications or alternating with decontamination treatments



Just like any other TAC high-performance air purifier (from page 130), the TAC XT can optionally also be equipped with a heat-resistant high-efficiency HEPA filter of class H14, which ensures effective bacteria and virus filtration from the room air.

This is the perfect way to combine room heating and HEPA air purification, which

makes the device ideally suitable for the use in mobile hospitals or military hospitals and emergency camps, workshops and especially in festival and party tents or at other indoor events.

As a "compensation heater", the thermostat-controlled TAC XT automatically fills the surrounding cold areas with draught-free warmth evenly and pleasantly. This way, the heater can either be used autonomously or to complement existing heating systems.

The additional HEPA air purification function of the TAC XT does not only prevent the air from excessive cooling but also from polluted and germ-laden air:

Multi air handler TAC XT - further information ...

Which system components are for which purpose?		DualDecon blowing-out tower	Attachment hood for hose connection	H14 HEPA Heat Resistant Filter	DualHeat blowing-out tower
Central room heating with optional air purification		-		•	
High-performance HEPA air purification as per EN 1822		-		•	
Central room heating					-
Decentralised room heating /			•		
air purification via	air purification via existing ventilation systems or textile air distributors				•
Thermal decontamination	incl. air purification in target room	-		-	
	in target room	-			
	in target form				•
	incl. air purification via supply air from installation in another room		-		
	via supply air from installation in another room				-
Thermal disinfestation / pest control		•			
					-

### **Application area thermal disinfestation**

The TAC XT as a mobile solution for thermal pest control and vermin elimination



Instead of eliminating undesirable parasites with traditional pest control and toxic substances and environmentally hazardous materials, this can now be done with the TAC XT — more effectively than by means of conventional procedures and 100% environmentally friendly, without any chemicals or insecticides!

### The TAC XT serves as your pest exterminator 2.0

Incremental heat treatment with the TAC XT is a highly efficient procedure for pest control, for example of bedbugs, mites, meal beetles, cockroaches and clothes or food moths. With the mobile

- Efficient programme automation for a 360° pest control
- Suitable for organic farms
- No complex approval procedures or restrictions
- No reconstruction and dismantling works required
- Rooms can be used immediately after disinfestation

TAC XT, time-consuming separation measures of the infested areas or complicated reconstruction and dismantling work will be unnecessary.

Moreover, complex approval procedures or restrictions are no longer required when using the TAC XT. Set up, select programme automation and disinsectise efficiently — too easy with the TAC XT!

### **Application area thermal decontamination**

The TAC XT as powerful thermal disinfector for mobile virus inactivation in rooms and on objects

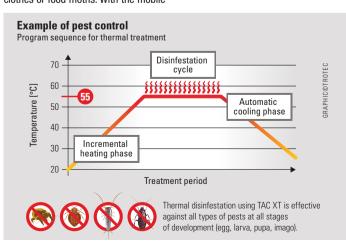


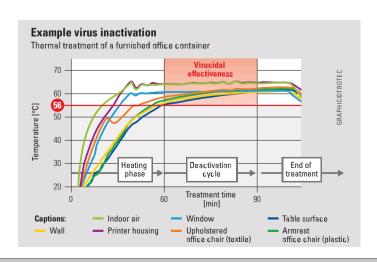
Thermal disinfectors are reliable means for cleaning and decontamination, for example for disinfecting medical devices as part of a sterilisation process, or for keeping AC systems germ-free in hygienically sensitive areas.

Compared to stationary thermal disinfectors, the multi air handler TAC XT is a mobile solution for thermal room and surface decontamination with integrated H14-HEPA air filtration! Rather than being installed in only one room, the TAC XT can be used to variably treat different rooms.

- Mobile thermal disinfector also effective against SARS coronavirus, influenza and hepatitis viruses
- Flexible combined operation possible: as a room heater or virus air cleaner during the day, for decontaminating rooms and equipment at night
- 360° inactivation entirely avoids "blind areas" as they appear during a manual cleaning procedure with disinfection chemicals
- Rooms can be used immediately after decontamination

Once decontamination process is complete, the TAC XT can simply be transported to the next location to be treated – this flexible and mobile solution is unique in the world!









#### **System components**

An ideal system of various combinable equipment options ensures maximum versatility for your TAC XT.

#### 

Optional blowing-out tower with turning option: A tower side to be used to distribute warm air in the room, a connector side for connecting a hose to existing ventilation systems.

#### **Attachment hood**

for hose connection ②

Option to connect the attachment to existing ventilation systems, also suitable when using the H14 HEPA filter simultaneously.

**DualDecon blowing-out tower** ③

Standard scope of delivery of the TAC XT for an even 360° heat distribution in the room.

HighFlow H14 HEPA filter 4

Optional particulate air filter for combined H14 air purification and room heating or thermal decontamination.

Many system components can also be combined with the TAC high-performance air cleaners, which is why you can find a detailed description on catalogue page 137.

Technical data			TAC XT 18	TAC XT 27	
Article number			1.410.000.183	1.410.000.182	
	Prefilter		G4 Z-Line (EN 779:2002)		
HEPA air	HEPA filter		Trotec HEPA H14 Hig	hFlow Heat Resistant	
ourification and virus filtration	Max. air volume flo	w (with HighFlow H14 HEPA)	$H14 \le 1,200 \text{ m}^3/\text{h}$	$, H13 \le 2,100 \text{ m}^3/\text{h}$	
	Filter change interv	/al	approx. 2	to 3 years <sup>2</sup>	
	Max. air flow rate h	neating (without HEPA filter)	2,500	) m³/h	
High-perfor-	Max. heating capa	city	18 kW (9 + 9 kW)	27 kW (18 + 9 kW	
mance interior heating and	Outlet temperature		preselectable u	ip to max. 95 °C	
thermal disinfestation/	Room / surface tar	get temperature	adjustable up	to max. 75 °C	
decontamination	Treatment cycle the thermal decontami	ermal disinfestation / nation		10 min. to 16 h, the application	
	Thermal filter deco	ntamination and regeneration			
	FlowMatic volumet	ric flow control		-	
	Heating function w	ith 18 kW / 27 kW	■ / -	=/=	
	Mobile carriage de	sign			
	Usage-related filter	r change indication			
	Programmable tou	ch display			
	USB-updateable control software		-		
Equipment and functions	Display of operating mode, outlet temperature, air volume flow		•	-	
	Timer switch for th	ermal filter decontamination			
	Sensor connection		7-pin DIN socket	7-pin DIN socket	
	Display lock with PIN protection			-	
	Timer operation and weekly timer				
	Operating hours counter			•	
	Presence detection				
	Stainless steel version				
	Mains connection		2 x 380 - 48	0 V 50 / 60 Hz	
	Device connector 1		CEE 16 A (9 kW)	CEE 32 A (18 kW)	
	Device connector 2		CEE 16 A (9 kW)	CEE 16 A (9 kW)	
	ø Power	Air purification	0.16 kW	<sup>1</sup> , 2.5 kW <sup>3</sup>	
General	consumption	Heating	max. 18 kW	max. 27 kW	
echnical data	Sound pressure lev	vel (according to ISO 11203)	35 - 5	9 dB(A)	
	Length [mm]		690	690	
	Width [mm]		630	630	
	Height [mm]		1,300 - 2,300 <sup>5</sup>	1,300 - 2,300 <sup>5</sup>	
	Weight [kg] <sup>4</sup>	0 0	93.1	96	
	Sound protection of	aps	Art. no. 6.100.007.072	Art. no. 6.100.007.07	
	HighFlow-H14-HEF	PA-Filter (EN 1822)	Art. no. 7.160.000.106	Art. no. 7.160.000.10	
Optional system	Prefilter F7 (EN 779	9:2002), ePM10 85 % (ISO 16890)	Art. no. 7.160.000.449	Art. no. 7.160.000.44	
components, available	FlowStop shutter		Art. no. 6.100.007.063	Art. no. 6.100.007.06	
accessories for detailed	DualHeat blowing-	out tower	Art. no. 6.100.007.060	Art. no. 6.100.007.06	
description	Attachment hood for	or hose connection	Art. no. 6.100.007.061	Art. no. 6.100.007.06	
see catalogue	FlaveFurtandan Cilan	ICR+	Art. no. 6.100.007.066	Art. no. 6.100.007.06	
•	FlowExtender Silence+				
page 137)	Mobile power distr		Art. no. 6.100.002.081	_	

<sup>■</sup> Standard features; □ Optional equipment; ¹ for a 5-day week with 10 h operating time per day and 900 m³ air volume; ² depending on the application when performing regular thermal decontamination: in very dusty environments, shorter filter change intervals are also possible; ³ short-term peak load, e.g. once a week during thermal decontamination; ⁴ weight (filter included); ⁵ with FlowExtender Silence+



Professional quality "made in Germany" – originally produced by Trotec

Up to 120 kW of heating performance

Air flow rate of up to 9,000 m³/h at 600 Pa

Reliable, mobile "Plug & Play" solution: set them up, install them properly, switch them on – and off you go!

Electronically-controlled multi-stage controls for air volume and air temperature

Suitable for transporting air through hoses over distances of up to 100 metres

Stackable

Standard equipped with protecting frame, crane eyes, fork lift slits and casters with parking brake

## On request also with thermostat control

All TEH models are also available as an option with thermostat control including externally connected thermostat



# **Electric heating units of the TEH series**



### **High-performance heating made in Germany**



## The world's most powerful mobile heavy-duty electric heating unit series sets new standards in the field of mobile electric heating!

These extremely robust heating units "made in Germany" deliver excellent performance even under the harshest of working conditions and were designed and developed especially for mobile use for large-scale heating scenarios, corrosion protection processes and load tests.

A powerful radial fan circulates up to 9,000 cubic metres of hot air per hour with an air pressure of up to 600 Pa.

Therefore, the TEH high-performance heating devices are suited for the connection of air transport hoses of a

length of up to 100 metres.

The electronically-controlled multi-stage controls for air volume and air temperature ensure that constant temperatures can be maintained during blasting, coating and painting or any other surface processing work both indoors

The TEH units provide industrial users with surplus energy capacities and independent power supplies ideal conditions to carry out large-scale mobile heating operations completely free of smoke, flames and condensated air.

TROTEC

And apart from that the TEH high-performance heating units are especially well-suited to all applications which require large amounts of warm air when indirect oil heating units cannot be used.

## TEH high-performance electric heating units are ideal for:

- ☑ Electricity suppliers and other power supply companies
- ☑ Processing industries
- Refineries and petrochemical plants
- ☑ Steel and aluminium works
- **☑** Military installations
- ☑ Big events

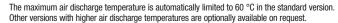
**Heating know-how:** More information regarding the different types of heating devices including a functional description and application focus can be found at **uk.trotec.com/heater\_guide** 







Technica	al data	TEH 200	TEH 300	TEH 400
Article number		1.410.000.150	1.410.000.155	1.410.000.160
	rate max. [m³/h]	3,000		
	capacity [kW/kcal]	40 / 34,394	80 / 68,788	9,000 120 / 103,181
Air press	, ,, ,	600	600	600
	arge temperature max. 1 [°C]	65	65	65
	ture increase (ΔT) max. [°C]	60	60	60
Fan [kW]	, , , ,	1.7	3	5.4
Controls			ht stages for air volume and	
Oontrolo	Air flow rate [m³/h]	3,000	6,000	9.000
Stage 0	Temperature increase ( $\Delta T$ ) [°C]	-	-	_
	Air flow rate [m³/h]	3,000	6,000	9,000
Stage 1	Temperature increase (ΔT) [°C]	15	15	15
	Air flow rate [m³/h]	3,000	6,000	9,000
Stage 2	Temperature increase ( $\Delta T$ ) [°C]	25	25	25
	Air flow rate [m³/h]	3,000	6,000	9.000
Stage 3	Temperature increase (ΔT) [°C]	40	40	40
	Air flow rate [m³/h]	2,000	4,000	6,000
Stage 4	Temperature increase ( $\Delta T$ ) [°C]	2,000	4,000	0,000
	Air flow rate [m³/h]	2.000	4.000	6,000
Stage 5	Temperature increase (ΔT) [°C]	20	20	15
	Air flow rate [m³/h]	2,000	4,000	6,000
Stage 6	Temperature increase ( $\Delta T$ ) [°C]	40	40	40
	Air flow rate [m³/h]	2,000	4,000	6,000
Stage 7	Temperature increase (ΔT) [°C]	60	60	60
Input vol	tage [V/Hz]	400 / 50-60	400 / 50-60	400 / 50-60
•	consumption max. [A/kW]	61 / 41.5	123 / 84	182 / 125.5
		63 / CEE 63 A, 125 / CEE 125 A,		200 / direct
Fuse pro	tection [A] / plug	5-pole 5-pole		connection
Sound le	evel (distance 3 m) [dB(A)]	75	76	78
Hose cor	nnector ø [mm]	450	450	600
Suitable	for hose lengths up to [m]	100	100	100
Mobility		,	wheelable / fork lifter / crane	9
Lenght [		1,625	1,625	1,920
Width [m		800	800	950
Height [r	nm]	1,270	1,270	1,450
Weight [	••	280	310	460
Minimum cable diameter [mm²]		16	50	95
Overheating protection		yes	yes	yes
Accessories (consumables)		TEH 200	TEH 300	TEH 400
Air filter		Article no. 7.710.001.218	Article no. 7.710.001.218	Article no. 7.710.001.219
Available accessories		TEH 200	TEH 300	TEH 400
Integrate	ed thermostat control <sup>3</sup>	on request	on request	on request
	ose Tronect ength 7.6 m	Article no. 6.100.001.214	Article no. 6.100.001.214	Article no. 6.100.001.218
Universa lashing s		Article no. 6.100.001.995	Article no. 6.100.001.995	Article no. 6.100.001.995



<sup>&</sup>lt;sup>2</sup> You will find this and other air transport hoses from page 176.



For space-saving storage all TEH electric heating units can be stacked in threes. For transportation in a truck two air heaters may be stacked on top of one another.



Only electronic components of the highest quality are used in TEH electric heating units. All switching devices, operating elements, indicator lights, safety devices and the control unit are integrated by hand and undergo elaborate quality tests, before the devices leave the Trotec production line with safety approval.



All TEH heating units are extremely maintenance-friendly. The bag air filter is easily accessible behind the lockable air inlet with weather protection grid.

<sup>&</sup>lt;sup>3</sup> Equipment option with order, not subsequently installed. Externally connected thermostat with 25 m cable connection included, other lengths optional).



Development, Design, Production: 100 % Trotec

Particularly durable steel sheet construction with resistant protective

Flow-optimised chassis for a focussed current of non-turbulent warm air

Practical stacking groove for stable, space-saving storage and transport

Extra thermally insulated hose connections with supporting ring for additional grip

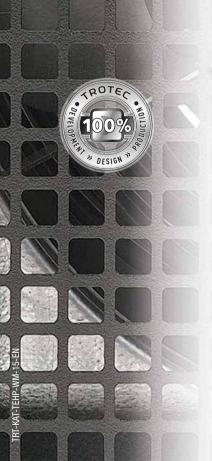
Minimised outer sleeve heating with double-walled housing model

Very easy to maintain design

Robust Trotec ergonomic recessed handles with an inner Grip-Clip, for the best hold while carrying

Tried and tested German industrial design - protected prototype

Stackable with equally dimensioned models



# **Robust pro electric heaters** of the TEH series

Striking, compact and tough – the high-quality processed TEH series sets new standards for professional electric heating.



hoses from page The tried and tested German industrial design of these innovative electric heating devices guarantees users uninterrupted continuous operation, high value retention and long product lifetime.

#### Heating know-how:



More information regarding the different types of heating devices including a functional description and application focus can be

Find air transport

uk.trotec.com/heater\_guide

The stackable TEH electric heaters are pro devices and are especially designed for the hardest material and performance requirements with a range of various applications - perfect for industrial use or construction machine

Due to the focussed current of heating air and the high performance fan (1,785 m3 for the TEH 100), even large rooms are quickly heated.

For use indoors, no inlet or outlet openings are needed, because no oxygen is used in the heating process of the TEH series.

Thus, the condensation-free heating air from the TEH electric heaters are perfect for heating non-ventilated rooms - or for accelerating the speed of construction drying when used together with a condenser dryer.





# TEH electric heaters' resistant construction and high quality workmanship, with numerous tried and tested solutions make them the best heating solution on construction sites, as well as industry and agriculture.





#### High level of system efficiency

What good is a high level of heating power, if the heat doesn't reach the area where it is needed? All TEH chassis have been optimised for current so that focussed heating air without turbulence losses can even flow up to 15 m through hoses.



#### TEH gives you complete control, always

TEH electric heaters are designed to be moved around. For ease of transport, they are equipped with specially developed Trotec ergonomic recessed handles with an inner Grip-Clip, providing you with the best hold while carrying.



## Thermally insulated discharge opening with supporting ring

The extra thermally insulated hose connections with discharge grill for directing a current of warm air is equipped with a special supporting ring which offers the air transport hoses additional grip.



#### Clever groove – simply good

All TEH models are equipped with two practical stacking grooves on the top side of the device, which allow the device to be stacked stably, while saving space for transport and storage.



#### TEH 30 T with stepless thermostat control

The heating elements of the TEH 30 T are thermostatcontrolled only when required in addition to the permanent fan. A red control lamp shows you at a glance when the heating elements are active.



#### Multitalented and stackable

TEH models of the same size can be stacked, but not just for transport and storage. They can also be used to form modular heating installations, for example 180 degree stacks for combined air transport in various directions.

The wheels of the larger 400 V models can be turned in all directions, making quick site changes a breeze. When stacked again and with the RollStop catch arrested in the stacking groove, the wheels give a stable hold again.



#### Flexible, four step performance control

The robust step switches of the large 400 V models make it possible to choose the right heating capacity for your needs. Step one activates the fan, while steps two to four each raise the heating capacity, up to the maximum.

Notes a series of the series	maximum.			
Technical data		TEH 30 T	TEH 70	TEH 100
Article number		1.410.000.205	1.410.000.215	1.410.000.220
	Step 1	3.3	Fan only	Fan only
Heating capacity kW	Step 2	-	6	9
Tibaling capacity KW	Step 3	_	9	13.5
	Step 4	-	12	18
Heating capacity [kcal]		2,837	max. 10,300	max. 15,400
Amount of air [m³/h]		300	1,258	1,785
Air pressure [Pa]		40	110	130
Temperature increase △T [°C	[]	75	50	38
Fan speeds		1	1	1
Power consumption / fuse [A]		15/16	18.2/32	27.3/32
Power socket		Safety plug (CEE 7/7)	CEE 32 A, 5-pin	CEE 32 A, 5-pin
Supply voltage [V/Hz]		230/50	400/50	400/50
Electric cable		Built in (length 2.75 m)	Accessories	Accessories
Thermostat		Built in	Accessories	Accessories
Mobility		Portable	Wheeled	Wheeled
Sound level [dB(A)]		63	72	73
Length [mm]		325	465	465
Width [mm]	<b>6</b>	260	425	425
Height [mm]		332	555	555
Weight [kg]	0 0	10.5	29.5	29.5
Hose connection [ø mm]		155	300	300
Suitable for hose lengths to [	m]	7	15	15
Overheating protection		yes	yes	yes
Available accessories		TEH 30 T	TEH 70	TEH 100
Room thermostat		(already integrated)	Art. no. 6.100.007.011	Art. no. 6.100.007.011
Air transport hose Tronect SP	-T, L 7.6 m	Art. no. 6.100.001.155	Art. no. 6.100.001.205	Art. no. 6.100.001.205
Universal lashing strap		Art. no. 6.100.001.995	Art. no. 6.100.001.995	Art. no. 6.100.001.995
Professional extension cable	20 m	Art. no. 7.333.000.376	Art. no. 7.333.000.379	Art. no. 7.333.000.379



Development, design, production: 100 % Trotec

Non-condensing warmth no oxygen consumption, therefore suited for use in closed rooms

Double-walled construction no heating of the outer shell

## **Professional electric heaters** of the TDE series

Safe to operate, reliable and hardwearing – simple, classic, good



Heating know-how:



More information regarding the different types of heating devices including a functional description and application focus can be

uk.trotec.com/heater\_guide

Their double-walled construction prevents heating of the outer shell made of 1.5 mm thick Zincor steel with hardened protective coating. This leaves the reliable corrosion protection of the housing intact, even if the coating is damaged. Ideal for fields of application with extreme requirements, for example rentals or frequently changing construction sites.

All TDE electric heaters are further equipped with a stainless steel air inlet grille and a galvanized discharge grille. This focalizes the hot air flow and reduces losses from irradiation.

for the construction and rental business.

Thus owing to the high heating capacity even large rooms can be heated quickly, they do not even have to be ventilated, because no oxygen is consumed when heating electrically using the TDE devices.

Since the TDE electric heaters generate warmth without condensation, they are suited particularly well for advancing the construction drying process when used in combination with construction dryers.

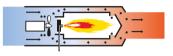




#### TECHNOLOGY INFO | DISTINCTIONS IN THE VARIOUS METHODS OF HEATING

#### Direct and indirect heaters

In a direct heating system, e.g. gas heaters or simple oil heaters, the warm air fan simultaneously conveys combustion air. The fuel is atomised, ignited and burned in the combustion chamber. Then the hot gases are admixed to the main air current of the fan in accurate proportions.



This process is therefore also termed 100% performance, for all of the developed warmth is actually available in the room to be heated.

Attention: Sufficient ventilation must be ensured in closed rooms, for direct heaters also emit exhaust gases directly to the room in addition to the warmth. And moisture — for each litre of fuel approx. 1.64 kg of water vapour is generated as well. Therefore, direct heaters are absolutely unfit for construction drying — the site would continually be "humidified forcibly"!

The generation of clean, dry heat without exhaust gases or water vapour fed to the room air requires the application of indirect heaters, for their warm air flow is separated from the combustion chamber.

Indirect heaters are ideally suited for rooms, in which only a limited ventilation is possible or when there is a fire hazard due to combustibles.

#### Electric heaters

These heating devices constitute the safest, quickest and most convenient

method for uncomplicated heating, for all it takes is a power connection. The warmth is generated electrically, emitted to the ambient air and then evenly distributed in the room by means of an integrated fan.

As opposed to directly fired gas or oil heating devices, electric heaters neither consume oxygen, nor do they produce any combustion waste gases. Therefore, they are ideally suited for heating internal spaces, especially to assist dehumidifiers in an accelerated drying of buildings.

Technical data		TDE 25	TDE 65	TDE 95
Article number		1.410.000.101	1.410.000.117	1.410.000.121
	Level 1	3	fan only	fan only
Ligating canacity I/M	Level 2	-	6	9
Heating capacity kW	Level 3	-	9	13.5
	Level 4	-	12	18
Heating capacity [kcal]		2,586	max. 10,300	max. 15,400
Air volume [m³/h]		206	1,094	1,074
Air pressure [Pa]		35	95	105
Temperature increase ΔT [°C]		43	32	49
Fan stages		1	1	1
Current consumption / fuse [A]		13 / 16	18 / 32	27 / 32
Electrical connection		safety plug (CEE 7/7)	CEE 32 A, 5-pole	CEE 32 A, 5-pole
Connection voltage [V / Hz]		230 / 50	400 / 50	400 / 50
Connection cable		Built-in (length 2.7 m)	Accessories	Accessories
Thermostat		-	Accessories	Accessories
Mobility		portable	wheeled	wheeled
Sound level [dB(A)], distance 1 m		65	65	65
Length [mm]		340	475	475
Width [mm]		260	403	403
Height [mm]		345	582	582
Weight [kg]	0 0	10	27	30
Hose connector [ø mm]		155	300	300
Overheating protection		yes	yes	yes
Available accessories		TDE 25	TDE 65	TDE 95
External room thermostat		-	Article number 6.100.007.011	Article number 6.100.007.011
Air transport hose Tronect SP-T <sup>1</sup> , L 7.6 m		Article number 6.100.001.155	Article number 6.100.001.205	Article number 6.100.001.205
Universal tension belt	A	Article number 6.100.001.995	Article number 6.100.001.995	Article number 6.100.001.995
Professional extension cable, length 20 m	Q O	230 V, 2.5 mm <sup>2</sup> Article number 7.333.000.376	400 V, 6 mm <sup>2</sup> Article number 7.333.000.379	400 V, 6 mm <sup>2</sup> Article number 7.333.000.379

<sup>&</sup>lt;sup>1</sup> An overview of our air transport hoses, including this one, is provided to you in our catalogue starting from page 176.

Development, Design, Production: 100 % Trotec

Multi-stage temperature control with up to three heating levels

Integrated thermostat for a constant warm air flow

Overheating protection

Fan motor with thermal protection

Fan rundown function for cooling down the components (from TDS 30 onward)

Non-condensing warmth - no oxygen consumption - thus ideally suited for the heating of interior spaces

Fan function (except for TDS 10)

#### **Special features:**

Mounting preparation for wall or ceiling assembly

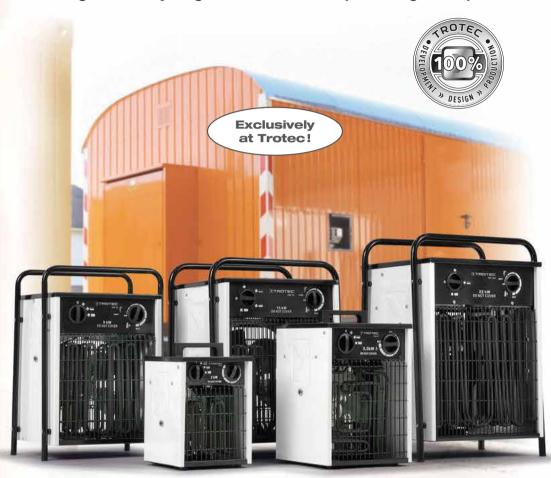
400 V models stackable space-saving and stable (from TDS 50 onward)

With standard built-in air baffle

Recessed controls

## **TDS Electrical heater fans**

Perfect for mainly stationary heating, e.g. in the building industry, agriculture or for painting companies.



#### Heating know-how:



found at

More information regarding the different types of heating devices including a functional description and application focus can be

uk.trotec.com/heater\_guide

#### Reliable heating solutions with an optimum value-for-money ratio – suited for manifold fields of application:

- Construction trailers
- Greenhouses
- **Boathouses**
- Garages
- Booths
- Workshops

- Catering trade
- Warehouses and halls
- Shipbuilding



The large 400 V models, starting with TDS 50. are stable multi stackable through their trapezoidal mounted handles



The air baffle installed as standard optimizes the heat emission and quarantees maximum efficiency.



100 % Trotec - the electrical heater fans of the TDS series are exclusively available only at Trotec!







Practical accessories: The flexibly usable wall and ceiling holders are optionally available for all TDS models.

# TDS – practical electric heater fans for effective temporary heating applications

In contrast to the directly fired gas or oil heating devices, the electric heater fans of the TDS series neither consume oxygen nor do they produce combustion waste gases, so they can be used practically anywhere and are especially suited for the temperature control in cold rooms.

The option of its' being mounted to wall or ceiling presents a wide range of diverse application fields, e.g. for heating construction trailers, booths, green-



houses, small halls, garages, workshops, boathouses or during construction jobs.

Thanks to the integrated thermostat control, the produced warm air flow can be indefinitely adjusted to the desired temperature on all TDS models.

With respect to the TDS 10, based on the thermostat control, the heating elements only switch on if required in addition to the permanent fan.

All other TDS appliances can furthermore be used in fan operation without heating function and have an optimum temperature control achieved by a multistage power control for the metering of the heat output in line with demand.



		THE REAL PROPERTY.						-	
Technical dat	ta	TDS 10	TDS 20	TDS 30	TDS 50	TDS 75	TDS 100	TDS 120	
Article number	r	1.410.000.012	1.410.000.015	1.410.000.017	1.410.000.020	1.410.000.025	1.410.000.030	1.410.000.032	
	Step 1	0.65	Fan only	Fan only	Fan only	Fan only	Fan only	Fan only	
Heating capacity	Step 2	1.3	1.65	2.75	4.5	5	11	15	
[kW]	Step 3	2	3.3	5.5	9	10	22	30	
	Step 4	-	-	-	-	15	-	-	
Max. heating of	capacity [kcal]	1,720	2,840	4,730	7,740	12,900	18,920	25,795	
Amount of air	[m³/h]	186	335	458	708	1,293	1,632	1,980	
Fan stages		1	1	1	1	1	1	1	
Current consu	mption [A]	8.7	14.4	8	13	21.7	32	43	
Input voltage [	V/Hz]	230/50	230/50	400/50	400/50	400/50	400/50	400/50	
Connection for power supply	r	Safety plug (CEE 7/7)	Safety plug (CEE 7/7)	CEE 16 A, 5-pin	CEE 16 A, 5-pin	CEE 32 A, 5-pin	CEE 63 A, 5-pin	CEE 63 A, 5-pin	
Connecting ca	ble	Built in (length 1.35 m)	Built in (length 1.35 m)	Built in (length 1.35 m)	Accessories	Accessories	Accessories	Accessories	
Thermostat		Built in	Built in	Built in	Built in	Built in	Built in	Built in	
Mobility		Portable	Portable	Portable	Portable	Portable	Portable	Portable	
Sound level [d	B(A)], distance 1 m	46	46	51	52	60	73	73	
Overheating p	rotection	yes	yes	yes	yes	yes	yes	yes	7
Type of protec	tion	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	pro dipop
Length [mm]		210	265	270	283	332	430	485	94
Width [mm]	0	195	255	255	355	405	440	530	
Height [mm]	0 0 0	310	395	400	515	540	610	785	
Weight [kg]		3.5	5	6	9.5	14.9	20.2	25	
Available acc	essories	TDS 10	TDS 20	TDS 30	TDS 50	TDS 75	TDS 100	TDS 120	
Wall and ceilin	ng holder	Art. no. 6.100.007.022	Art. no. 6.100.007.022	Art. no. 6.100.007.022	Art. no. 6.100.007.023	Art. no. 6.100.007.023	Art. no. 6.100.007.024	Art. no. 6.100.007.024	
Professional ex length 20 m	xtension cable,	Art. no. 7.333.000.376	Art. no. 7.333.000.376	Art. no. 7.333.000.374	Art. no. 7.333.000.374	Art. no. 7.333.000.379	on request	on request	

Temperature control with two heating levels

Integrated thermostat for a constant warm air flow

Fan function

Hard-wearing double-walled housing with good thermal insulation

Overheating protection

Fan motor with thermal protection

Fan rundown function for cooling down the components (except for TDS 19 E)

Non-condensing heat - no oxygen consumption - thus ideally suited for heating interior spaces

Easy transport and operation

## **TDS-E Electrical heater fans**

The perfect heating solution for the building sector, for agriculture and the catering trade. And wherever oil and gas heating devices are prohibited.



#### Heating know-how:



found at

More information regarding the different types of heating devices including a functional description and application focus can be

uk.trotec.com/heater\_guide

#### Reliable heating solutions with an optimum value-for-money ratio – suited for manifold fields of application:

- Construction trailers
- Greenhouses
- **Boathouses**
- Garages
- Booths
- Workshops

- Catering trade
- Warehouses and halls
- Shipbuilding



Control panel for setting the fan function and two heating levels as well as the infinitely adjustable thermostat



TDS-F electrical heater fans can be carried to the operating site without effort.



Front view with air outlet for concentrated warm air flow





#### Clever energy-efficient solution:

Upon reaching the preselected temperature the integrated thermostat of the TDS 19 E not only switches off the heating coil, but also the fan and therefore all primary power consumers of the device.

In doing so, the TDS 19 E permits an extremely economic heating operation compared to conventional designs.

Naturally, heater and fan will be reactivated automatically when falling below the target temperature for as long the device is switched on.

# TDS-E electric heater fans are mobile and can be used everywhere

The effective electric heater fans of the TDS-E series are your first choice when it comes to mobile heating solutions.

Thanks to their convenient carrying handle, low weight and hard-wearing double-walled housing, the robust TDS-E heaters are particularly easy to handle. To start the heating operation, all it takes is a socket as the devices come equipped with an integrated power cable.

Unlike directly fired gas or oil heating devices, the electric heater fans of the TDS-E series neither consume oxygen

nor produce combustion gases. Therefore, these devices can be used almost anywhere and are perfectly suited for temperature control in unheated rooms – for instance for heating car workshops, small halls and site trailers, or during construction jobs.

All devices of the TDS-E series have an integrated thermostat control which constantly maintains the generated warm air flow at the desired temperature level.

Moreover, all models can also be used in fan mode without the heating function and are equipped with a multistage power control for regulating the heat output.

On top of that, a fan rundown function\* makes sure that when the device is switched off the heating elements switch off immediately while the fan continues to run for a certain time to cool down the components of the heating device.

\*except for TDS 19 E







Technical data		TDS 19 E	TDS 29 E	TDS 50 E
Article number		1.410.000.080	1.410.000.083	1.410.000.087
Heating	Step 1	Fan only	Fan only	Fan only
capacity	Step 2	1.5	2.5	4.5
[kW]	Step 3	3	5	9
Max. heating capa	icity [kcal]	2,580	4,299	7,740
Amount of air [m <sup>3</sup> /	/h]	320	430	845
Fan stages		1	1	1
Current consumpt	ion / fuse [A]	13/16	7.2/16	13/16
Input voltage [V/H	lz]	230/50	400/50	400/50
Connection for pov	wer supply	Safety plug (CEE 7/7)	CEE 16 A, 5-pin	CEE 16 A, 5-pin
Connecting cable		Built in (length 1.3 m)	Built in (length 1.2 m)	Built in (length 1.3 m)
Thermostat		built in	built in	Built in
Mobility		portable	portable	portable
Sound level [dB(A)	], distance 1 m	49	53	55
Overheating prote	ction	yes	yes	yes
Type of protection		-	IPX4	IPX4
Length [mm]		290	350	390
Width [mm]	0	210	240	300
Height [mm]	0	320	360	430
Weight [kg]		4.3	6.1	10
Available access	ories	TDS 19 E	TDS 29 E	TDS 50 E
Professional extension cable, length 20 m		230 V, 2,5 mm <sup>2</sup> Art. no. 7.333.000.376	400 V, 2.5 mm <sup>2</sup> Art. no. 7.333.000.374	400 V, 2.5 mm <sup>2</sup> Art. no. 7.333.000.374



Multi-stage temperature control with up to three heating levels

Integrated thermostat for a constant warm air flow

Overheating protection

Fan motor with thermal protection

Fan rundown function for cooling down the components (except for TDS 20 R)

Non-condensing warmth - no oxygen consumption - thus ideally suited for the heating of interior spaces

Easy transport and operation

## **Electrical space heaters**

TDS-R – a well-rounded solution for the easy and condensate-free warm air heating of workshops, structurally complete flats or halls.



uk.trotec.com/heater\_guide

More information regarding

Heating know-how:

Easy transport and operation the economic solution with many possibilities for use relating to the mobile electrical heating on site.

- Car workshops
- Construction jobs
- Warehouses and halls

- Building sites
- Catering trade
- Greenhouses





# TDS-R – the economic standard solution for mobile electrical heating

Wherever condensate-free warmth is required directly on site without long air transport routes and with immediate impact, the inexpensive electrical space heaters of the TDS-R series are the ideal choice.

Since, in contrast to the directly fired gas or oil heating devices, the appliances neither consume oxygen nor produce combustion waste gases, the TDS-R models are especially well suited for the temperature control in cold rooms, workshops or garages.

Thanks to the integrated thermostat control, the produced warm air flow can be indefinitely adjusted to the desired temperature on all TDS-R models.

With respect to the TDS 20 R, based on the thermostat control, the heating elements only switch on if required in addition to the permanent fan.

The large 400 V appliances are furthermore equipped with a multi-stage power control for the metering of the heat output in line with demand. Stage one activates the fan and, depending on the model, up to three available heating levels simultaneously increase the heating capacity to the maximum.

The electrical space heater TDS 120 R can be comfortably and stably transported via a carriage construction with ball-bearing wheels – the smaller models come equipped with a robust, ergonomic carrying handle.













						•
Technical data	1	TDS 20 R	TDS 30 R	TDS 50 R	TDS 75 R	TDS 120 R
Article number		1.410.000.002	1.410.000.003	1.410.000.008	1.410.000.009	1.410.000.011
	Step 1	Fan only	Fan only	Fan only	Fan only	Fan only
Heating	Step 2	1.5	2.5	4.5	5	15
capacity [kW]	Step 3	3	5	9	10	30
	Step 4	-	-	-	15	-
Max. heating ca	apacity [kcal]	2,580	4,300	7,740	12,900	25,795
Amount of air [	m³/h]	411	580	844	1,100	1,900
Fan stages		1	1	1	1	1
Current consun	nption [A]	13.04	7.22	13	21.7	43.3
nput voltage [\	//Hz]	230/50	400/50	400/50	400/50	400/50
Connection for	power supply	Safety plug (CEE 7/7)	CEE 16 A, 5-pin	CEE 16 A, 5-pin	CEE 32 A, 5-pin	CEE 63 A, 5-pin
Connecting cab	ole	Built in (length 1.37 m)	Built in (length 1.2 m)	Built in (length 1.2 m)	Accessories	Accessories
Thermostat		Built in	Built in	Built in	Built in	Built in
Vlobility		Portable	Portable	Portable	Portable	Wheelable
Sound level [dE	B(A)], distance 1 m	53	56	56	57	61
Overheating pro	otection	yes	yes	yes	yes	yes
Type of protect	ion	-	-	-	IPX4	-
_ength [mm]		210	275	315	495	860
Width [mm]		195	220	250	350	565
Height [mm]		270	330	370	520	645
Weight [kg]		3	5	6.5	19	32.5
Available acce	essories	TDS 20 R	TDS 30 R	TDS 50 R	TDS 75 R	TDS 120 R
Professional ex ength 20 m	tension cable,	Article no. 7.333.000.376	Article no. 7.333.000.374	Article no. 7.333.000.374	Article no. 7.333.000.379	on request

Development, Design, Production: 100 % Trotec

**Durable ceramic PTC heater battery** 

Multi-stage temperature control with two heating levels plus separate cold air level

Integrated thermostat for a constant warm air flow

Overheating protection

Fan motor with thermal protection

Non-condensing warmth without oxygen consumption - ideal for heating interior spaces

Stable, robust and silent

Easy transport and operation

Controllers recessed for protection

Fastening preparation for optional wall and ceiling holder



sector - compact, robust

and easily portable



With their metal housing painted in a striking signal red these solidly

manufactured electric heating devices point the way for mobile heating of non-ventilated interior spaces - immediately apparent from the brand logo

#### Heating know-how:



More information regarding the different types of heating devices including a functional description and application focus can be

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heavy weight. This is made possible by advanced PTC ceramic heating elements. The durable PTC ceramic of the TDS-C fan

The fan heaters of the TDS-C series have ev-

erything you could expect from a modern elec-

tric heating device for rough everyday use on

assembly or construction sites - except for

imprinted on the outside.

heaters offers numerous advantages as compared to the heating wire technology of conventional electric heating devices: a longer lifetime, less sensitive technology, shorter heat-up times, process-related overheating

protection - and no burning of dust during the heating process, which moreover renders these devices suitable for allergy sufferers.

Thanks to the smoothly running fan and the large heater battery surface, you can benefit from a pleasantly homogeneous, draught-free hot air current - which is, moreover, usually produced in a more silent way. As an additional plus in safety, the integrated ceramic heating element also increases the heating devices' stability.







With two heating levels that can be set separately the TDS-C fan heaters can be variably adjusted to the desired heat output and, in combination with their powerful axial fan, distribute pleasant warmth in cold rooms.

The desired temperature can be regulated as needed via the integrated infinitely variable thermostat.

If required, the fan can also be used in sole fan operation without heating function.

extension cable

Since the devices do not consume oxygen for heat generation and neither generate combustion gases nor condensate-laden warm air, they are suited particularly well for quickly heating closed, non-ventilated interior spaces.

### Can also be flexibly applied when mounted to wall or ceiling

Instead of positioning them on the floor, you can also flexibly mount the ceramic fan heaters of the TDS-C series to a wall or ceiling, for as they leave the

factory they are already fitted with two lateral fastening threads to hold the optionally available wall and ceiling holders. This way you can use the heating devices without creating a trip hazard or obstructing a passage, for instance when heating construction trailers, market stalls, greenhouses, small halls, garages, workshops or boathouses.

#### Asset ceramic heating element:

## Faster air heating – more uniform room temperature

Compared to the conventional heating coil technology the shorter heat-up times are not the only distinguishing feature of Trotec fan heaters with PTC ceramic heating elements. There are also process-related differences in the response behaviour of the heating elements.

More benefits of PTC heating elements for thermostat-controlled operation are outlined on catalogue page 91 ...



The ceramic fan heaters of the TDS-C series make for an easy-to-handle, ready-to-connect solution for the quick and effective heating of indoor spaces without burning dust.



Compact, lightweight construction with a low centre of gravity ensuring optimum stability – plus simple transport thanks to the thermally insulated carrying handle.



A high-performance axial fan in a robust metal design is integrated as standard for the distribution of pleasant warmth in cold rooms. (Depicted is the TDS 20 C)

Technical data		TDS 10 C	TDS 20 C
Article number		1.410.000.090	1.410.000.092
	Stage 1	fan only	fan only
Heating capacity [kW]	Stage 2	1	1.5
capacity []	Stage 3	2	3
Max. heating capacity [kc	al]	1,719	2,580
Air volume [m³/h]		140	180
Fan		axial	axial
Fan stages		1	1
Input voltage [V/Hz]		230/50	230/50
Current consumption / fus	sing [A]	8.7/10	13/16
Power input [kW]		2	3
Electric connection	Connection plug	safety plug (CEE 7/7)	safety plug (CEE 7/7)
LIECUIC COMMECTION	Cable length [m]	1.3	1.3
Thermostat		integrated integrated	
Mobility		portable	portable
Sound level (distance 1 m	n) [dB(A)]	52	55
Overheating protection		yes	yes
Protection type		IP 20	IP 20
Length [mm]		165	200
Width [mm]	• •	165	200
Height [mm]	0.0	225	250
Weight [kg]		2	3
Available accessories		TDS 10 C	TDS 20 C
Wall and ceiling holder		Art. no. 6.100.007.022	Art. no. 6.100.007.022
Professional		230 V, 2.5 mm², L 20 m,	230 V, 2.5 mm², L 20 m,

Art. no. 7.333.000.376

Art. no. 7.333.000.376

**Durable ceramic PTC heater battery** 

Multi-stage temperature control with two heating levels

Separate cold air level \*

Integrated thermostat \* for a constant warm air flow

Overheating protection

Fan motor with thermal protection

Fan rundown function \* for cooling down the components

Non-condensing warmth without oxygen consumption - ideal for heating interior spaces

Connection cable already integrated

Stable, robust and silent

Easy transport and operation

\* TDS 30 and 50 M only

## **Ceramic fan heaters** of the TDS-M series

Quick, effective and draught-free warmth without burning dust



#### **Tested for safety**

TDS 10 and 20 M:





Unlike conventional heating wire devices, the robust fan heaters of the TDS-M series use integrated PTC ceramic heating elements to quickly and effectively produce heat.

The durable PTC ceramic heating element offers numerous advantages as compared to conventional heating wire technology: PTC heater batteries are considerably more robust and heat up more quickly while they cannot overheat due to their functional principle. For if they become too hot, the conductivity and power output are automatically reduced by the material. This integrated temperature limiting effect protects the devices from overheating and thus offers a high level of operational safety.

For this reason, PTC heater batteries do not require a large air supply for cooling, which allows for installation of more smoothly running and hence silent fans. In combination with the large heater battery surface, TDS-M fan heaters therefore generate a pleasantly homogeneous, draught-free hot air current in a silent way. Moreover, no dust is burnt using this technology, which is why the room air is not contaminated with additional fine particulates ideal for use in inhabited rooms.

The fan of the larger models TDS 30 und 50 M is equipped with an automatic rundown function that keeps the fan in operation for a certain period of time after switch-off to ensure safe cool-down.

As an additional plus in terms of safety during the operation of all TDS-M devices, the integrated ceramic heating elements furthermore increase the fan heaters' stability.

#### Heating know-how:



More information regarding the different types of heating devices including a functional description and application focus can be

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#### **Asset ceramic heating element:** Faster air heating – more uniform room temperature

Compared to the conventional heating coil technology the shorter heat-up times are not the only distinguishing feature of Trotec fan heaters with PTC ceramic heating elements. There are also process-related differences in the response behaviour of the heating elements.

More benefits of PTC heating elements for thermostat-controlled operation are outlined on catalogue page 91 ...

TRT-KAT-TDSM-WM-05-EN



### TDS-M: Clean warmth for workshops, living or working spaces



Easy-to-handle, ready-for-use solution for quick, effective indoor heat — connection cable already integrated.



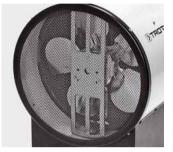
The TDS 10 and 20 M come equipped with two heating levels that can be set separately.



TDS 30 and 50 M are further provided with an individual cold air level and an integrated thermostat.



Owing to their thermally insulated carrying handle, all ceramic fan heaters of the TDS-M series can be easily transported.



At the heart of every TDS-M fan heater is a high-performance axial fan in robust metal design producing an agreeable warm air current



warm air current.					
Technical data		TDS 10 M	TDS 20 M	TDS 30 M	TDS 50 M
Article number		1.410.000.050	1.410.000.052	1.410.000.054	1.410.000.056
	Stage 1	1	1.5	fan only	fan only
Heating capacity [kW]	Stage 2	2	3	3.3	6
	Stage 3	-	-	5	9
Max. heating capac	city [kcal]	1,720	2,580	4,299	7,739
Air volume [m³/h]		100	290	575	1,180
Fan		axial	axial	axial	axial
Fan stages		1	1	1	1
Input voltage [V/Hz	·]	230/50	230/50	400/50	400/50
Current consumption	on/fusing [A]	8.69/10	13/16	7.6/10	13.7/16
Power input [kW]		2	3	5	9
Electric	Connection plug	safety plug (CEE 7/7)	safety plug (CEE 7/7)	CEE 16 A, 5-pin	CEE 16 A, 5-pin
connection	Cable length [m]	1.35	1.35	1.15	1.15
Thermostat		_	-	integrated	integrated
Mobility		portable	portable	portable	portable
Sound level (distan	ce 1 m) [dB(A)]	45	51	53	53
Overheating protec	tion	yes	yes	yes	yes
Length [mm]		130	170	250	347
Width [mm]	0	165	220	205	267
Height [mm]	0 0	225	290	360	455
Weight [kg]		1.5	2.5	4	7
Available accesso	ries	TDS 10 M	TDS 20 M	TDS 30 M	TDS 50 M
Professional extension cable	Q 0/	230 V, 2.5 mm², length 20 m, Article number 7.333.000.376	230 V, 2.5 mm², length 20 m, Article number 7.333.000.376	400 V, 2.5 mm², length 20 m, Article number 7.333.000.374	400 V, 2.5 mm², length 20 m Article number 7.333.000.374

Robust metal construction in a trend colour

**Durable ceramic PTC heater battery** 

Powerful radial fan guaranteeing high air exchange rates

Multi-stage temperature control with two heating levels plus separate cold air level

Infinitely variable thermostat temperature control

Tilt protection for safety shutdown

Overheating protection

Non-condensing warmth without oxygen consumption ideal for heating interior spaces

Easy transport and operation

## **Ceramic fan heaters** of the TDS-P series

Robust electric heating devices with metal construction and radial fan for quick, effective heat generation



#### Heating know-how:



found at

More information regarding the different types of heating devices including a functional description and application focus can be

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At first sight, what catches your eye when seeing these ceramic fan heaters is the cool, grey look of the solidly manufactured metal housing, the robust construction of which does not bother about rough surroundings or rugged handling. But immediately after switch-on you will find out how easy it is to warm up to these powerful heating devices.

#### PTC heating element impresses even tough calculators

Instead of conventional heating wire technology, the fan heaters of the TDS-P series use advanced PTC ceramic heating elements for heating the air.

Advantages of PTC as compared to heating wires: longer lifetime, less sensitive technology, shorter heat-up times - and no burning of dust during heating, which additionally makes these ceramic heaters suitable for allergy sufferers.

Since these devices neither produce condensate nor consume oxygen during operation, they are ideal for heating closed, non-venti-

Safe operation is ensured by an integrated overheating protection and an additional tilt protection that automatically deactivates the devices in case they are unintentionally tipped over.





Two air inlets at the front (1) and rear (2) of the heating device supply the powerful radial fan with a high volume of intake air that is then released to the room as warm air current blown through the lateral discharge grille (3).

#### Unique radial fan construction

While other heater fans of this class are fitted with customary axial fans, the fan heaters of the TDS-P series come equipped with powerful radial fans.

Radial fans convey the air much like a paddle wheel, which causes a higher air flow rate and higher pressure compared to axial constructions.

This is why rooms can be fully heated in less time using the fan heaters of the TDS-P series. At the same time, the radial fan runs considerably more quietly than a comparable axial fan.

Thus, you benefit in two ways: from an improved heat distribution and lower fan noises.

An integrated thermostat for infinitely variable temperature control and two separate heating levels allow for an individual adjustment of the desired heat output.

If required, the fan can also be used in sole fan operation without heating function.



Due to their thermally insulated carrying handle the fan heaters of the TDS-P series can easily be transported to the installation site, started up in thermostat-controlled automatic mode, and fine-adjusted by means of two selectable heating levels, while the cold air level additionally allows for ventilation without heating.

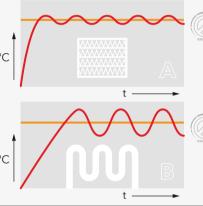
# Asset ceramic heating element: Faster air heating – more uniform room temperature

Compared to the conventional heating coil technology (B) the shorter heat-up times are not the only distinguishing feature of Trotec fan heaters with PTC ceramic heating elements (A). There are also process-related differences in the response behaviour of the heating elements.

Although both devices maintain the preselected target temperature (orange) by means of thermostat control using a two-position controller, the respective temperature adaptation takes place significantly more slowly and with greater deviations from the desired target temperature in case of devices with heating coils. The reason for this is the different conductivity behaviour of the heating elements:

if current flows through the heating coils, the coils will always

have the same temperature once they have heated up. For controlling the desired room temperature, the power supply is first interrupted, making the coil cool down, and then re-activated by the thermostat so that the coil heats up again completely before it is switched off again when the set target temperature is reached.



This "on/off process" causes significantly greater temperature fluctuations than with ceramic heating elements, for the material of the latter provides an integrated temperature self-regulation.

The hotter PTCs get, the higher is their electrical resistivity, resulting in less current flowing through the heating element and in a reduced

heating capacity, and thus in significantly lower temperature fluctuations and less switch-on and switch-off processes in thermostat-controlled operation.

For this reason, ceramic fan heaters are able to create more even room temperatures for temperature-sensitive manufacturing processes as well as a pleasant working climate.

		•	
Technical data		TDS 10 P	TDS 20 P
Article number		1.410.000.040	1.410.000.042
	Stage 1	fan only	fan only
Heating capacity [kW]	Stage 2	1.4	2
	Stage 3	2	3
Max. heating capacity [kcal]		1,719	2,580
Air volume [m³/h]		227	253
Fan		Radial	Radial
Fan stages		1	1
Input voltage [V/Hz]		230/50	230/50
Current consumption / fusing [A]		9.1/10	13.6/16
Power input [kW]		2	3
Electric connection	Connection plug	safety plug (CEE 7/7)	safety plug (CEE 7/7)
Liceure connection	Cable length [m]	1.4	1.4
Thermostat		integrated	integrated
Mobility		portable	portable
Sound level (distance 1 m) [dB	(A)]	48	48
Overheating protection		yes	yes
Length [mm]		160	160
Width [mm]	0	205	205
Height [mm]		322	378
Weight [kg]		3	3.5
Available accessories		TDS 10 P	TDS 20 P
Professional extension cable		230 V, 2.5 mm², L 20 m, Article number 7.333.000.376	230 V, 2.5 mm², L 20 m, Article number 7.333.000.376

Professional quality "made in Germany" originally produced by Trotec

Cutting-edge materials ensure that the heat is spread evenly throughout the entire area

Complete with rear-wall insulation to ensure maximum energy efficiency and that the heat is directed directly at the object

Highly-efficient heating method with environmentally-friendly IR-C-radiation for drying out brickwork quickly

Heat transfer via light waves - object is heated directly - no convective loss

Clean heat - no noise, no smell, no condensate, no oxygen needed

Can be stacked quickly and stably

Multi-stack capability

Robust aluminium composite construction with high torsional rigidity in maintenance-free Trotec quality

Feet can be assembled without the need for tools

Incorporated transport retainer for feet

Integrated energy consumption meter (MID-compliant)

#### Heating know-how:



More information regarding the different types of heating devices including a functional description and application focus can be

found at uk.trotec.com/heater\_guide

# Infrared heating panel TIH 650+



### For the drying of brickwork in new buildings, clearing water damage or the renovation of old buildings

The infrared heating panel is suitable for surface drying of walls in new buildings or after water damage.

Massive brickwork in particular can be dried out considerably faster than when using conventional drying methods.

The area can only be dried effectively when the heat is spread out evenly over the entire panel.

#### The TIH+ works to your advantage

In contrast to conventional infrared heating panels, which often only achieve inhomogeneous heat distribution, the use of innovative materials in the construction of our torsion-resistant professional TIH 650+ heating panel guarantees absolutely even radiation output over the entire surface.

The additional rear insulation of the heating plate ensures maximum energy efficiency and optimal object-oriented radiation performance.

Since the device works silently, it can also be used in inhabited environments without any problems.



High-quality infrared heating panel with genuine 650 watts of heating capacity



Infrared heating panel TIH 650+ - further information ...

#### Screwless foot construction

#### The compact feet of the TIH 650+ can be attached to the heating plate without tools.

Instead of a screw connection, a spring bolt is integrated into the base of the TIH 650+, which securely engages during installation and ensures a positive connection with the heating plate.

No additional tools are required for the assembly: Pull and remove or pull and attach – it's that simple. To save space during transportation the feet can be placed in the designated holder on the panel's heating side.

The feet are also useful aids for an optimal positioning. They are designed in such a way that when the feet touch the wall the optimum heating distance and efficiency is automatically ensured. Hence, a distance measuring prior to setup is not required.



#### Easily expandable application range

The optionally available mounting accessories allow you to also fasten the infrared heating panel TIH+ individually or collectively to customary assembly supports.



#### Easy to use

Installed vertically or horizontally, the TIH 650+ can easily be used either way - all you need to do is assemble the feet at the corresponding positions of the heating panel.





#### Foot transport position

At the rear TIH 650+ is provided with convenient mounting devices for both feet - during transport they are captively stored in the housing's runner by means of a plug connec-



#### Simple foot assembly

The foot for TIH 650+ is perfectly identical and fitted with an integrated spring bolt rendering additional assembly tools redundant. Pull and remove or pull and attach - it's



#### MID meter as standard

Ex works the TIH 650+ comes equipped with a MID-compliant energy consumption meter enabling a reliable documentation of the power consumption.

#### BASIC KNOW-HOW IN PRACTICE

#### Mechanisms for transporting moisture in mineral building materials

Porous, mineral building materials are made up of a network of diverse pores and capillaries. These vary in size and form and

are all basically designed with

the intention of transporting water. Depending on the moisture content of the building material, the water is in principle transported via two different means: diffusion and water flow.

When diffusion occurs, water vapour can pass through the whole pore space (A).

When the water content increases, a film of water forms on the surface of the larger pore spaces and the smaller pores are totally filled with water (B).

When the building material is saturated, there is so much water in the expanded pores that it can only be transported via water flow (C).

This liquid water transport phase is significantly more efficient than is the case with diffusion.

#### The following can be concluded with regard to the suitability of heating panels for drying out walls:

- 1. Infrared heating panels should only be used for drying out building materials which are highly porous with well-developed capillary systems, e.g. bricks and some types of natu-ral stone
- 2. Infrared heating panels are ineffective when used in combination with compressed building materials for walls with closed structures or small capillaries (concrete). The moisture is transported mainly via diffusion.

- 3. Drying can only be carried out effectively during the liquid phase. This is the only phase during which the moisture follows the heat flow.
- 4. When the water flow ceases be-cause of the increasing degree of dryness, the moisture transport occurs increasingly via diffusion. From this point on, heating panels will not have the slightest effect on the drying process!

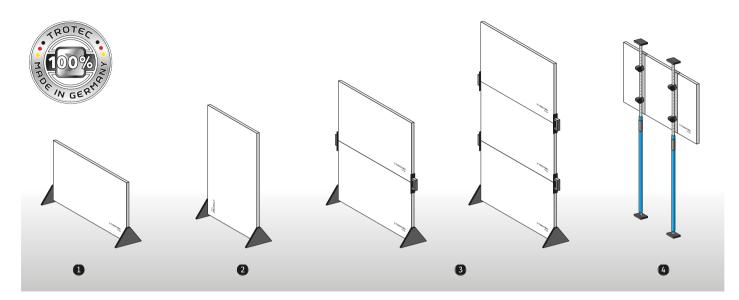
Conclusion: Infrared panels can help to accelerate the drying process as long as the moisture transport in saturated building materials occurs via water flow.

Infrared panels are, however, totally unsuitable as a sole substitute for dehumidifiers until the equilibrium moisture has been achieved!

Infrared heating panel TIH 650+ - further information ...

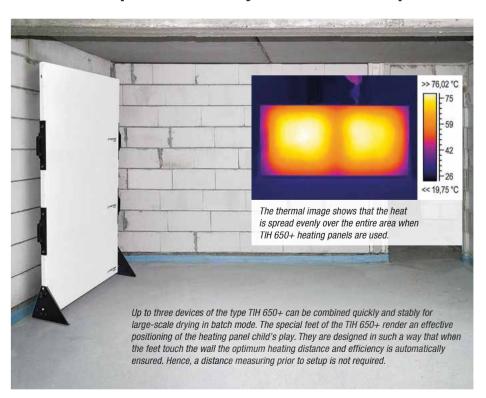
TROTEC

#### Flexibly adjustable professional system:



- Individual horizontal floor installation of the TIH 650+ by mounting the supplied feet.
- 2 Individual vertical floor installation of the TIH 650+ by mounting the supplied feet.
- Floor installation of the TIH 650+ by mounting the supplied feet and installed on top: a stack of other devices connected by means of stacking handles.
- With the optionally available assembly support connection set and the set of assembly support fastening clamps the TIH 650+ can also be fastened to customary assembly supports to enable surface drying specifically directed at elevated areas.

#### The TIH 650+ impresses with a very consistent radiation performance over the entire area



Thermographic inspections document that conventional infrared heating panels are often only able to spread the heat they generate unevenly, which means that surface areas cannot be dried evenly.

In addition, the heating performance of these models is often subject to fluctuations and the temperature at the heating elements is often far too high.

Certain building materials are extremely sensitive to heat build-ups. This can have particularly adverse effects.

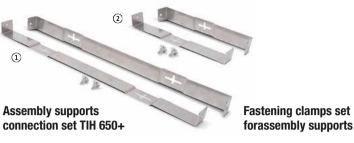
If gypsum plasterboard is subjected to too much heat, for example, then crystal water is driven out of the plasterboard causing it to become extremely instable.

By contrast, the professional TIH infrared heating panel is characterized by constant temperature values and a very consistent radiation performance over the entire area.

Heating capacity and wall distance of the TIH 650+ were assessed by the designers in a way that, even with gypsum building materials, there can be no material heating to structurally destabilising temperature ranges.



#### Optionally available accessories:



Article number 1.410.003.003

Fig. 1: With the two connection bars contained in this set, the TIH 650+ can be hooked into the optionally available fastening clamps for assembly supports horizontally or vertically, for example for a targeted heating of higher wall surfaces.



Article number 1.410.003.004

Two clamps in a set for fastening TIH heating panels to customary assembly supports.



#### Stacking handles set

Article number 1.410.003.009

Contains two fitting handles, applicable without the need for tools, for the stable combination of two TIH heating panels by stacking one on top of the other. Up to three panels can be installed as a selfsupporting stack.

#### **Transport bag**

Article number 1.410.003.005

Robust transport bag made of water-resistant, coated polyester fabric with extra-firmly sewed shoulder strap and additional zip compartment for the feet of the TIH 650+.



#### Radio-controlled socket thermostat BN35

Article number 6.100.007.008

Permits the regulation of temperature and operating time of one or more heating panels.

Via a radio transmitter covering a range of 20 m up to 100 thermostats can be individually configured. Adjustable temperature range between 0 and 70 °C, six programmable switching times per day.

One transmitter and one receiver included in the scope of delivery, additional receivers are optionally available (Art. no. 6.100.007.007).

Techical data		Infrared heating panel TIU CCO.		
		Infrared heating panel TIH 650+		
Article number		1.410.003.030		
Heating performance 1 [W]	]	650		
Effective range [m²]		0.85		
Power supply [V/Hz]		230 / 50		
	Plug type	CEE 7/7		
Electric connection	Cable length [m]	3		
	Overheating protection	yes		
Energy consumption meter	er (MID-compliant 2)	integrated		
Mobility		portable		
Length* [mm]		36		
Width [mm]	<b>O</b>	1,370		
Height* [mm]	0	625		
Weight* [kg]		10.7		
Standard scope of delivery	y:	heating panel and two separate feet		
* without feet- 1 at a film tem	nerature of 20 °C. The heating canacity v	aries depending on the film temperature at the heating element which can reach up to 85 °C		

without feet; 1 at a film temperature of 20 °C. The heating capacity varies depending on the film temperature at the heating element which can reach up to 85 °C.

<sup>2</sup> What does MID compliant mean? The European Measuring Instruments Directive (MID) has replaced the existing rules of national approval and subse-quent calibration in some areas As a result, all power meters, which are used for energy consumption billing, must be MID compliant in the future.

High-performance axial fans manufactured in keeping with high industrial standards

Extremely robust for the professional continuous operation even in the toughest of circumstances

Splashproof (IP55)

Space-saving stackability for transport and storage

Suitable for connection of a dust bag for the removal of dirt particles by suction

Variably usable hose adapter to connect air transport hoses for the purposes of ventilation, air distribution, dust collection and transport of cold or warm air

# **High-performance fans with an** air flow rate of up to 8,500 m<sup>3</sup>/h

The fans of the TTV series combine versatility with profitability on a professional level.



#### Power consumption billing?

For commercial billing the electricity consumption must be determined by means of an MID meter. Device



without an MID meter? The BX50 MID provides the solution – further information can be found on page 167 ... This is one of the reasons why the professional axial fans of the TTV series have been the first choice for tens of thousands of machine rental companies, restoration service providers, construction and industrial companies and craft businesses in their daily ventilation applications for many years.

The robustly designed devices are characterised by a high volume flow rate and come with protection type IP55, making them equally suitable for indoor and outdoor use.



In order to precisely direct the air current e.g. to high wall or ceiling areas, the tilt angle of all TTV models can be variably adjusted.



TTV fans can be carried to the operating site without effort. There are two vice grips attached to both sides of the frame by which the discharge direction can be variably



#### One adapter - manifold fields of application ...



On both sides, the TTV hose adapter can optionally be connected to the fan for suction or ventilation purposes. For ventilation over longer distances we recommend the combined application with the 160 Pa high-pressure fan TTV 4500 HP.

The use of two hose adapters enables the combined application of air transport hose and dust bag to remove dirt particles.

Technical data			TTV 4500	TTV 4500 HP	TTV 7000
Article number			1.510.000.010	1.510.000.012	1.510.000.030
	Step 1		2,300	2,000	3,800
Amount of air [m³/h]	Step 2		3,450	3,000	5,600
0. dii [iii /ii]	Step 3		5,300	4,500	8,500
Air current			b	lowing out / sucking ir	1
Air discharge	[m/s]		11	9	11
velocity	[km/h]		39.6	32.4	39.6
Discharge distance [m]	outdoors / indoors	;	15 / 50	25 / 60	20 / 65
Air pressure max. [P	a]		80	160	100
Max. transport medi	um temperature [°C	]	45	45	45
Input voltage [V/Hz	(A)]		230/50 (1.1)	230/50 (1.4)	230/50 (1.8)
Power input [kW]			0.25	0.33	0.41
Protection [A]			10	10	10
Type of protection			IP55	IP55	IP55
Max. sound level (dis	stance 3 m) [dB(A)]		53	64	58
Length [mm]	red (		358	358	365
Width [mm]		Θ	515	515	620
Height [mm]	3		520	520	620
Weight [kg]	J	•	14.5	15.5	18.5
Mobility			portable / stackable	portable / stackable	portable / stackable
Hose connector [ø m	nm]		450	450	560
Available Accessor	ries		TTV 4500	TTV 4500 HP	TTV 7000
Hose adapter		O	Art. no. 6.100.005.010	Art. no. 6.100.005.010	Art. no. 6.100.005.020
Dust bag 1	Length 3 m		Art. no. 7.160.000.110	Art. no. 7.160.000.110	-
class M	Length 5 m		Art. no. 7.160.000.112	Art. no. 7.160.000.112	Art. no. 7.160.000.112
Air transport hose Tronect SP-T L 7,6 n	Air transport hose Tronect SP-T L 7,6 m <sup>1</sup>		Art. no. 6.100.001.2142	Art. no. 6.100.001.214 <sup>2</sup>	Art. no. 6.100.001.217 <sup>2</sup>
Universal tension be	lt		Art. no. 6.100.001.995	Art. no. 6.100.001.995	Art. no. 6.100.001.995
		asian.			

<sup>&</sup>lt;sup>1</sup> hose adapter required; <sup>2</sup> you can find these and other air transport hoses from catalogue page 176 onward.

Professional extension cable,

230 V, 2.5 mm2, Length 20 m

## **Dust protection during restoration works:**

During restoration work, material processing and disposal dust is inevitable.

In this context the latest studies are alarming, which suggest, that the current peak values for dust at the workplace most likely are no sufficient protection against lung cancer.

Consequently affected are inter alia employees in the construction industry, who keep inhaling respirable fine particulates — even though the material itself might not be regarded as toxic.

# Hence, protect your staff and yourself from dangerous fine particulates at work!

A field-tested alternative to reduce dust exposure is the removal of dirt and dust particles by suction. Trotec's washable dust bags have a transmittance of less than 0.1 %, comply with dust class M and conform to DIN EN 60335-2-69 about the use of filters in machines and appliances removing dust.



#### No dust - no risk:

By attaching hose adapters on both sides, exhaust hoses and dust bag can be used in combination – also over long distances.

A simple, inexpensive, and yet highly effective dust collection system!



All TTV models can stably be stacked for transport and storage.

Art. no. 7.333.000.376

Art. no. 7.333.000.376

Art. no. 7.333.000.376

Robust compact housing with integrated hose connector and carrying handle

High air flow rate adjustable in two stages

Form-fit chain-linking of several devices possible to enhance the performance

Batch-mode operation with up to three devices - for storage up to five devices may be stacked on top of one another

Integrated service socket

Operating hours counter

Optionally also available with tilt frame

# **High-performance fan TTV 4500 S**

The new fan standard for construction and restoration work





#### TTV 4500 professional or standard?

While the professional axial fan TTV 4500 with its versatile system accessories and IP55 type of protection is ideally suited for flexible use in the rental business, the compact TTV 4500 S scores in the sector of construction and restoration work thanks to its robust integral housing and with the daisy chain option for linking several devices in order to concentrate and so to increase the performance.

Therefore, the ideal TTV construction fan to meet your requirements is always available! Axial, integral, capital!

With its high performance the TTV 4500 S brings a fresh breeze

Whether to speed up construction drying, for dust collection or the ventilation on construction sites, in storage spaces and workshops or the agriculture - the TTV 4500 S is a smart ventilation solution for all users looking for a budgetoptimized high-performance fan.

The particularly compact device is equipped with many practice-oriented details, making its application both convenient and simple. Its equally robust and lightweight integral housing can be stacked up to five times and comes equipped with hose connectors, carrying handle, cable holder and rubber feet for a secure footing.

During operation the adjustable 2-stage axial fan can impress with high pressure and an enormous air flow rate of up to 5,000 m<sup>3</sup>/h - this corresponds roughly to 1,388 litres of air per second. Therefore, the TTV 4500 S is the ideal fan type for the circulation of high air volumes.

Moreover, the air-pressure power can flexibly be increased by means of a device cascade: Thanks to the innovative series connection using locking lever and locating pin, several TTV 4500 S's can be combined to form a positive-fit connection. Alternatively, batch-mode operation of up to three fans is also an



Further a tilt frame for the TTV 4500 S is optionally available for the targeted aeration of higher wall or ceiling sec-



#### Power consumption billing?

For commercial billing the electricity consumption must be determined by means of an MID meter. Device without an MID meter? Then the socket outlet meter BX50 MID provides the optimum solution further information can be found on page 167...

TRT-KAT-TVDC-WM-04-EN

#### TTV 4500 S – cascadable construction fan with high-performance axial blower



> TROTEC

Either an air hose or a dust bag can be fastened to the connector integrated on the exhaust side.



Innovative series connection: Up to four devices may simply be linked in series to increase the air-pressure power.



Concentrated axial force: The TTV 4500 S conveys up to 1,388 litres of air per second!



#### Simply easy to handle

In addition to the splash-proof 2-step operating switch the control panel of the TTV 4500 S also accommodates a convenient operating hours counter and a 6 A service socket, by means of which up to four series-connected fans can be supplied with electricity.



#### Innovative series connection

Owing to a form-fit cascade of up to four devices you can flexibly increase the air-pressure power.

Every TTV 4500 S comes equipped with robust rubber locking levers on both sides, which can easily be thrown and fastened to the locating pins of the fan to be linked. With each blower added to the cascade, the available air-pressure power rises.

Alternatively, up to three TTV 4500 S's may be operated together when stacked for maximum area output.

Technical data		TTV 4500 S
Article number		1.510.000.013
Air volume [m³/h]	Step 1	4,350
	Step 2	5,000
	Step 3	-
Air current		blowing out / sucking in
Air discharge speed [m / s (km/h)]		11 / 39.6
Discharge distance outside / inside [m]		15 / 50
Air pressure max. [Pa]		130
Max. transport medium temperature [°C	1	45
Input voltage [V / Hz (A)]		230 / 50 (1.7)
Power input [kW]		0.325
Fusing [A]		10
Type of protection		IP44
Plug		CEE 7/7, cable length 4 m
Sound level (distance 3 m) [dB(A)]		74
Length [mm]		330
Width [mm]	[ O	530
Height [mm]	0 0	560
Weight [kg]		14.8
Hose connector [ø mm]		480
Equipment and functions		TTV 4500 S
Service socket		•

Multi-device linking	•
Carrying handle	•
Rubber feet	•
Stackable	•
Accessories	TTV 4500 S
Tilt frame	6.100.005.005
Air transport hose* Tronect SP-T, length 7.6 m	6.100.001.216
Dust bag class M, length 5 m	7.160.000.112
Universal tension belt	6.100.001.995
* Decembered and other air transport become are described a	torting on actalogue page 176

<sup>\*</sup> Recommended and other air transport hoses are described starting on catalogue page 176.

Operating hours counter



Development, Design, Production: 100 % Trotec

Hose connectors on blow-out and suction side

Robust housing made of polyethylene

Space-saving stackability for storage and transport

Ideally suited for many typical ventilation applications

Connection facility for a dust bag intended for dust collection

Tried and tested German industrial design – protected prototype

# Conveying fans with an air flow rate of up to 3,000 m<sup>3</sup>/h

TTV conveying fans are the economic solution for quick and easy ventilation or air transport.





#### Space-saving solution:

The compact and robust TTV conveying fans can be stored, used or transported while stacked on top of one another.

Whether for the fresh air supply in poorly ventilated rooms or the ventilation during channel construction or welding jobs — wherever large amounts of air have to be circulated moderately, quickly and easily in none too harsh circumstances, the axial TTV conveying fans take to it like a duck to water. Just set it up, switch it on, all done!

The easy-to-install combination of fan and air hose makes these appliances to universal air conveyors for the variable application under pressure or suction.

If required, a dust bag can be connected at the same time for the dust collection.



Air transport hoses can be attached on both sides for the fresh air supply or air extraction.

Thanks to the bilateral hose connectors on blow-out and suction side, the TTV conveying fans are perfectly suited for the supportive air transport in case of air conditioning or heating covering longer distances via a number of connected hoses.

To boost the air current the appliances are simply installed as link between two hoses.



#### Power consumption billing?

For commercial billing the electricity consumption must be determined by means of an MID meter. Device without an MID meter? Then the socket outlet meter BX50 MID provides the optimum solution – further information can be found on page 167...



## Hint: Quicker construction drying achieved by the additional utilization of TTV high-performance fans

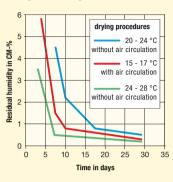


With rising temperature, the air's humidity absorption capacity increases. But optimized air exchange rates also substantially contribute to the acceleration of the drying process, as the adjoining diagram illustrates.

For an even faster drying you should therefore add an additional fan to every construction dryer as a rule.

Important: Due to their design TTV conveying fans are not suited for construction drying. Required are powerful air circulating fans, e.g. a TTV 4500 or 7000.

These high-performance units provide for a greater air circulation, even largescale, by which a quicker evaporation is caused. Namely because the higher the flow rate on the material surface is, the quicker can construction drying ensue. Depending on the construction design, you can halve drying time just by combining fan and dryer!



But beware: An overdimensioning of the dehumidification performance does not entail shorter, but longer drying periods and thus needlessly high electricity and lease costs.

This was verified by various testing institutes and universities.



Technical data	TTV 1500	TTV 3000
Article number	1.510.000.006	1.510.000.014
Amount of air [m <sup>3</sup> /h]	1,050	3,000
Air current	blowing out / sucking in	blowing out / sucking in
Max. hose length [m]	15	38
Air pressure max. [Pa]	225	360
Input voltage [V/Hz]	230/50	230/50
Power input [kW]	0.17	0.73
Protection [A]	10	10
Type of protection	IP44	IP44
Sound level (distance 3 m) [dB(A)]	71	77
Length [mm]	348	470
Width [mm]	285	390
Height [mm]	324	460
Weight [kg]	8	14.5
Mobility	portable / stackable	portable / stackable
Hose connector ø [mm]	200	300
Accessories	TTV 1500	TTV 3000
Air transport hose Tronect SP-T, length 7.6 m	Article number 6.100.001.200	Article number 6.100.001.205
Dust bag, length 3 m	Article number 7.160.000.108	Article number 7.160.000.109
Universal tension belt	Article number 6.100.001.995	Article number 6.100.001.995
Replacement hose connectors	Article number 7.310.000.007	Article number 7.310.000.008

## Air purification during work in dusty rooms:



In harsh, dusty work environments, high-performance air cleaners should be used to filter harmful fine particulates and suspended matter such as asbestos dust, mineral fibres or mould spores.

If you for instance carry out blasting operations or indoor restorations due to asbestos, water damage or mould, we recommend the application of our professional TAC air cleaner with certified system efficiency for suspended matter according to EN 1822.

More information can be found in chapter "Air cleaning" starting on catalogue page 130...



+49 2452 962-200

#### A FEW PRACTICAL BENEFITS:

Professional quality
"made in Germany" –
originally produced by Trotec

Extremely robust construction, ideal for rentals

Steplessly adjustable inclination angle of the flow direction (TTW 100000)

Air flow rate infinitely variable

# **Uber-wind machines** of the TTW series



The largest mobile fans for air circulation and theatrical ventilation across the globe





TTW 100000 also available as ex-proof version



#### Exclusively available only at Trotec: The world's most powerful mobile wind machine!

The TTW 400000 is unique in the world: blade diameter of just under three metres, maximum air pressure of 500 Pa and an unbelievable air flow rate of almost half a million m<sup>3</sup>/h.

### THE solution if you need maximum air flow rate!

The wind machines TTW 400000 and TTW 100000 are premium devices, completely manufactured in Germany, with an extremely robust transport frame construction and high-quality electronic and mechanical components.

This renders them virtually indestructible and ideally suited for mobile air circulation for machine rental companies, in the industry and the entertainment sector.

Owing to the standard frequency converter, the enormous performance of these units can be regulated precisely and steplessly. And with IP55 type of protection both wind machines are suited for flexible indoor and outdoor application.

The operating elements of the TTW 400000 are accommodated in a lockable control cabinet, thereby pro-



tected against unauthorized access. A separate material storage cabinet affords additional space for tools or disassembled swivel casters.

TRT-KAT-TTWG-WM-04-EN

#### Professional axial fans with XXL performance for maximum air circulation







The wind machine TTW 100000, also available as ex-proof version, comes equipped with an infinitely variable inclination regulator for the fan. Due to the adjustable flow direction, the air current can be aimed specifically at high wall or ceiling sections.

Technical data	TTW 100000	TTW 100000 Ex	TTW 400000
Article number	1.510.001.060	1.510.001.065	1.510.001.080
Air volume freely blowing max. [m³/h]	109,000	109,000	432,000
Air current	blowing out	blowing out	blowing out
Air discharge speed [m/s (km/h)]	24.6 (88.56)	24.6 (88.56)	28 (100.8)
Discharge distance outside / inside [m]	120 / 400	120 / 400	140 / 500
Fan stages	infinitely variable	infinitely variable	infinitely variable
Air pressure max. [Pa]	600	600	500
Max. transport medium temperature [°C]	40	40	40
Input voltage [V/Hz (A)]	400/50 (44)	400/50 (44)	400/50 (168)
Power input [kW]	22	22	90
Fusing [A]	63	63	200 (direct connection)
Plug	CEE 63 A, 5-pole	CEE 63 A, 5-pole	-
Type of protection	IP55	IP55	IP55
Explosion protection	-	ATEX zone 2 (Ex II 3 G), T4	-
Sound level (distance 3 m) [dB(A)]	88	88	92
Length [mm]	1,830	1,830	2,580
Width [mm]	1,620	1,620	1,800
Height [mm]	2,180	2,180	2,725
Weight [kg]	790	790	2,225
Equipment	TTW 100000	TTW 100000 Ex	TTW 400000
Inclination regulator (stepless)	-	-	-
Frequency converter	•	•	•
Crane lugs	-	-	•
Forklift pockets	•	•	•
Swivel casters with parking brake	-	-	•
Stackable frame	-	-	-







The frame of the TTW 100000 houses a frequency converter bracket with control panel at the rear ①. The holder, which can be secured for transport, can be variably unscrewed during operation for easy operating access.

Disinfection and Odour neutralization

Air conditioning

Air cleaning

Trotec

Dehumidification

Humidification

Accessories

■ Standard equipment

Development, Design, Production: 100 % Trotec

Powerful axial fans – manufactured to high industrial standards

Extremely robust for professional long-term operation even under hardest conditions or for rental applications

High air circulation capacity of up to 45,600 m<sup>3</sup>/h

Robust machines that can weather the harshest of conditions

Multiple stackability for ventilation stacking installations and space-saving storage

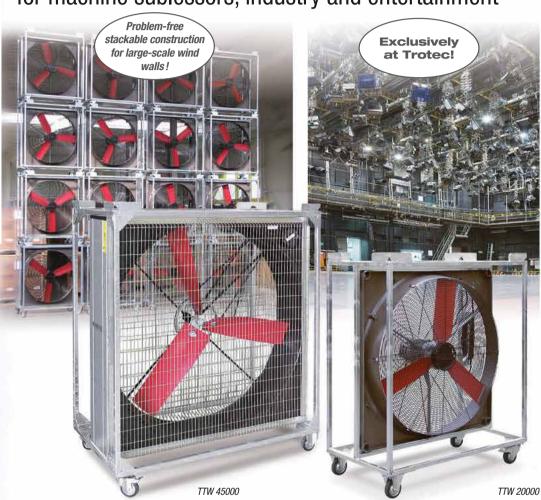
Easy handling

Quick relocation thanks to heavy-duty castors



# Wind machines of the TTW series

Professional fans for mobile air circulation for machine sublessors, industry and entertainment



#### The winds of change for firms, parties, film and photo shoots...

With these mobile fans you immediately know which way the wind blows – always from its most professional side. Because the high quality devices of the TTW series are uncompromisingly designed for the decisive requirements of industrial operators:

- Robustness
- Reliability
- Durability
- Investment security
- Value stability

You always know where the wind's blowing from with the mobile fans in the TTW Series. And if it's high air circulation and ventilation capacities you're looking for you won't find a better match than these highly-flexible wind machines that are especially well-suited to a whole host of individual situations and applications both indoors and out.

The wind machines in the TTW Series are ideal for both commercial and industrial use. There is no end to the number of possible applications: they can be used for traverse ventilation, for ex-

ample, or to cool machines as well as for cooling rooms.

TTW machines are simply a must for film and photo shoots and indispensable at events where effect ventilation is what you want.

The machines are so versatile that they can replicate a mild, mid-summer breeze in a photo studio, or be used to whip up winds for a raging storm on a film set — when it comes to creating wind, the TTW Series has just the right wind machine to match your needs.

- Traverse ventilation of larger rooms and halls
- Indoor and outdoor air circulation
- Effect ventilation for fairs, fashion shows, discotheques
- To cool machines, production sites, pavilions or showrooms
- Wind and storm simulation for film and photo shoots
- For drawing off smoke out of buildings
- And much, much more...



The TTW 20000 and TTW 45000 are professional wind machines designed for use in especially harsh and unforgiving conditions, which is why they



"When you've seen these amazing wind machines in action, you simply won't want to settle for less!"

are housed in an extremely robust and sturdy frame with a protective grid on both the high pressure and the low pressure side.

The four heavy-duty castors and parking brake give the machines just the right degree of mobility, allowing them to be moved around quickly from one place to another but without any concessions to stability.

Stackable wind machines that are more than just a storm in a teacup – they're a whole new dimension in the art of wind making...

The fact that the professional wind machines in the TTW Series can be stacked one on top of the other is not only a big plus when it comes to storing them. The truly remarkable thing about these wind machines is that they can also remain stacked when in operation, which means that they can be used to replicate a raging storm that audiences are unlikely to for-get with totally impressive air quantities of up to 45 600 m³/h

Benefit from this unique modular construction to build the full-size, largescale wind wall you have always wanted!



giving conditions, which is why they — ce	ssions to stability.	45,600 111711.	The state of
Technical data		TTW 20000	TTW 45000
Article number		1.510.001.020	1.510.001.040
Air flow rate [m³/h]		0 - 20,000	45,600
Air current		blow out	blow out
Air discharge speed [m/s (km/h)]		8.8 (31.68)	9.6 (34.56)
Discharge distance outdoor / indoor [m]		15 / 58	20 / 120
Fan stages		continuously variable	1
Air pressure max. [Pa]		110	70
Transport medium temperature max. [°C]		45	40
Input voltage [V/Hz (A)]		230 / 50 (3.8)	400 / 50 (2.8)
Power input [kW]		0.79	1.5
Protection [A]		10	10
Plug		safety plug (CEE 7/7)	CEE 16 A, 5-pole
Sound level (distance 3 m) [dB(A)]		50 - 80	65
Mobility		wheelable / stackable	wheelable / stackable
Length [mm]	<del>\</del> 1	1,070	1,395
Width [mm]		600	720
Height [mm]		1,300	1,625
Weight [kg]	0,00	52	88
Protection class		IP55	IP55

Dehumidification

Humidification

Heati

Ventilat

Air conditioning

Air cleaning

infection and ir neutralization

sories Od



#### **TTW-S Wind Machines** A FEW PRACTICAL BENEFITS:

semi-professional ventilation The economic standard solution for mobile air circulation Air circulation capacity to 32,600 m<sup>3</sup>/h

of the flow direction from horizontal to vertical position

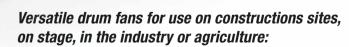
Plug-in devices easy to handle

Adjustable inclination angle

A cost-saving option for

applications

Flexible change of location by means of carriage construction



- Ventilation of marquees, industrial buildings and construction zones
- Temporary support of cooling or heating systems
- Theatrical ventilation on stage, at movie and photo sets
- Accelerated drying of great water damage
- Olfactory deaeration in agriculture and production

#### Reliable and powerful air-circulation device also for small budgets



As the economic alternative to the TTW professional series, these drum fans are suited for the most diverse semi-professional air circulation tasks for indoors and outdoors alike.

The ready-to-connect wind machines of the TTW-S series have a robust, galvanized steel case with chassis, which supports the adjustable two-stage fan in an inclinable drum.

Thanks to the adjustable inclination angle, both TTW-S models can be variably aligned up to a vertical flow position. In this manner the air current can be directed specifically at high wall or ceiling sections.

#### How many air changes are necessary?

Provided below is a list of typical air exchange rates for common application scenarios, so you can quickly calculate the required capacities for your demand

Room type	air change / h	Room type	air change / h
Office	4 - 8	Engine room	15 - 30
Garage	4 - 6	Restaurant	6 - 10
Inn	10 - 12	Acids cabinet	40 - 50
Foundry	8 - 15	Meeting room	5 - 10
Cafeteria	6 - 8	Gym	2 - 3
Laboratory	5 - 15	Theatre	5 - 8
Paint shop	20 - 50	Workshop	6 - 10
Storage facility	3 - 6	Living area	4 - 6



# Which wind machine is to be used for which type of application?



The appliances of the TTW-S series are cost-saving solutions with a solid technological background for typical standard ventilation tasks in the semi-professional sector.

By contrast, the wind machines of the TTW pro series were designed for a considerably higher air flow rate in continuous operation – and also for the stresses and strains resulting from frequently changing locations when rented out to be used in harsh environments.

If required, several TTW wind machines can be assembled to extensive ventilation installations in batch mode.

The professional wind machines of the TTW series can be found starting on page 102...

Living aroa	. 0		
Technical data		TTW 25000 S	TTW 35000 S
Article number		1.510.004.020	1.510.004.025
Amount of air [m3/h]	Step 1	21,000	24,600
Amount of air [m³/h]	Step 2	27,600	32,400
Power [W]	Step 1	520	620
I OWEI [W]	Step 2	650	750
Sound level [dB(A)]	Step 1	65	65
Souria level [ub(A)]	Step 2	75	75
Electrical connection [A]		16	16
Input voltage [V/Hz]		230 / 50	230 / 50
Plug		CEE 7/7	CEE 7/7
Mobility		Wheelable	Wheelable
Length [mm]		525	525
Width [mm]	0	1,060	1,230
Height [mm]	0	1,140	1,140
Weight [kg]		44	49
Available accessories		TTW 25000 S	TTW 35000 S
Professional extension cable, length 20 m, 230 V / 2.5 mm <sup>2</sup>	Q	Article number 7.333.000.376	Article number 7.333.000.376



Development, Design, Production: 100 % Trotec

Robust, high-quality units "made in Germany" with a high conveying capacity

Splash-proof model (IP55)

Can also be used in very dusty surroundings

Fan motor is situated outside of the main air current

Can be connected to both intake and exhaust ducts (TFV 1200 exhaust only)

Stable characteristics and constantly high pressure

Also available for application in ex-protection zones

# **High-pressure radial fans of the TFV series**

The perfect solution for all fields of application where air is transported over long distances.



The devices of the TFV series belong to the most powerful, mobile high-pressure radial fans on the market.

Hence, these robust units are suited for the most varied ventilation applications, for instance  $\dots$ 

- on a building site:
  for drainage works, welding
  work or bulldozing away
  contaminated soil
- during sealing and floor coating in underground working
- for the ventilation of tunnel systems
- ☑ in the industry and agriculture

- ✓ after fire damage to combat suffocation

All models of the TFV series, in addition to the standard version, are optionally also available as hiring model.

The hiring model offers maximum mobility and is optimally suited for use at frequently changing locations.

All the high-pressure radial fans of the TFV series were developed and manufactured according to the highest of quality standards in Germany.







# The Trotec TFV series: Particularly robust fans with capacities of up to 54,000 m<sup>3</sup>/h.

# Versatile high-pressure radial fans for long air transport routes

Harmful substances such as paint and welding fumes, dust particles, carbon monoxide, nitric oxide, carbon dioxide and water vapour are discharged by means of room ventilation.

The high-pressure radial fans of the TFV series are optimally prepared for such tasks, for they convey up to 54,000 m³ of air per hour even over long distances with high counter pressure and are designed in an extremely stable manner for rough operating environments

Because these fans suck in the air axially and blow it out radially, they are not only insensitive to polluted air with a high dust content, but moreover also ensure stable characteristics.

In the standard version the fans of the TFV series come with a robust, powder-coated steel housing with highly resistant two-component finish. These fans are optionally also available in all desired steel grades.

# Also available for application in explosion protection zones



All models save the TFV 1200 are also available as ex-proof versions. Further information can be found starting on catalogue page 112...

#### High feed pressure due to radial fan

In case of long air ducts or many bends in the transport hoses there is usually a high resistance causing the air capacity to be reduced drastically.

Design related, an effective application of axial fans is often not possible in such cases.

In contrast to axial fans, the radial fans of the TFV series convey air vertically to the rotor axle according to the operating principle of a centrifuge, where air is pressed to the outside and condensed in a helical housing.

This technique is particularly well suited for long transport routes with high counter pressure.



TFV units are perfectly suited for the ventilation on long air transport routes with high counter pressure.



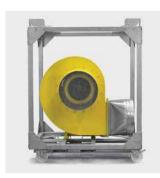
All hose connectors have double supporting rings for maximum support of the air hoses.



Robust IP55 construction made of a powder-coated steel housing with highly resistant two-component finish.



The optional frame provides optimum protection and maximum mobility.



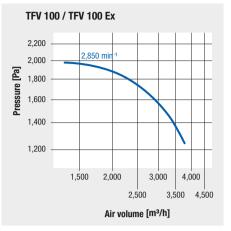
Crane lifting lugs and forklift pockets are attached to all sides of each frame.

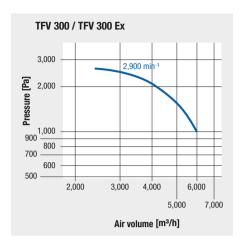


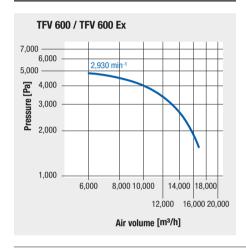
TFV 600 and TFV 900 are as standard equipped with a star-delta connection for smooth start-up.

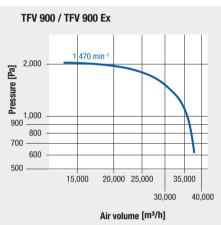


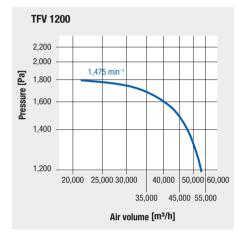
# **Performance characteristics** on the pressure side





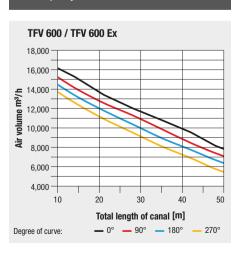


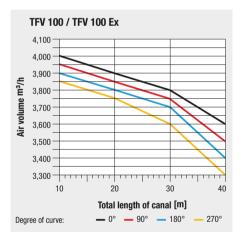


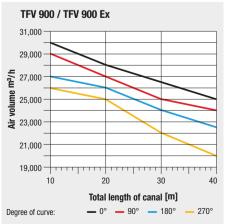


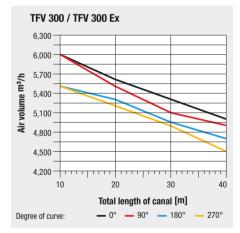
# Air volume in proportion to channel length and degree of curvature

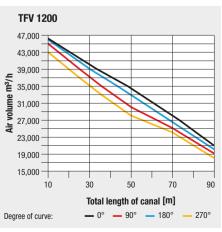
With increasing bends in air ducts or hoses the effective air volume is reduced, which is why these performance curves are helpful for a specific capacity calculation.













Standard model	TFV 100	TFV 300	TFV 600	TFV 900	TFV 1200	
Article number	1.510.002.010	1.510.002.030	1.510.002.040	1.510.002.050	1.510.002.070	
Air volume freely blowing [m³/h]	4,000	7,000	16,000	33,600	54,000	
Air volume (air pressure¹¹) [m³/h (Pa)]	2,000 (2,020)	5,000 (1,900)	10,000 (4,000)	25,000 (1,900)	45,000 (2,150)	
Operating characteristics	_,000 (_,0_0)	. , ,	racteristic curves on p	. , , ,	10,000 (=,100)	
Air current	blowing out / sucking in	blowing out / sucking in	blowing out / sucking in	blowing out / sucking in	blowing out	
Air discharge speed [m/s (km/h)]	17 (61.2)	27 (97.2)	21 (75.6)	34 (122.4)	38 (136.8)	
Fan stages	1	1	1	1	without steps (fre- quency controller)	
Max. air pressure <sup>1)</sup> [Pa]	2,080	2,800	4,900	2,150	2,650	
Max. transport medium temperature [°C]	80	80	80	80	80	
Surrounding conditions [°C]	-20 to 40	-20 to 40	-20 to 40	-20 to 40	-20 to 40	
Input voltage [V/Hz (A)]	400 / 50 (7.8)	400 / 50 (8.6)	400 / 50 (39)	400 / 50 (39)	400 / 50 (65)	
Power input [kW]	2.2	4.0	18.5	18.5	37	
Necessary fusing [A]	10	16	50	50	80	
Electrical connection	CEE 16, 5-pin	CEE 16, 5-pin	CEE 63, 5-pin	CEE 63, 5-pin	CEE 63, 5-pin	
Star-delta connection	_	_		•	_	
Suction nozzle ø [mm]	300	300	515	630	_	
Exhaust connection ø [mm]	300	450	515	630	630	
Sound level (distance 1 m) [dB(A)]	87.5	77	84	82	106	
Housing	steel, powder-coated, two-component finish					
Mobility	crane (lifting lugs), forklift (delivery on pallets)					
Type of protection	IP55	IP55	IP55	IP55	IP55	
Length [mm]	960	1,000	1,305	1,680	1,900	
Width [mm]	560	700	1,250	1,810	1,400	
Height [mm]	750	830	1,170	1,680	1,800	
Weight [kg]	120	150	233	450	750	
Optional frame	TFV 100	TFV 300	TFV 600	TFV 900	TFV 1200	
Article number	1.510.002.011	1.510.002.031	1.510.002.041	1.510.002.051	1.510.002.071	
Mobility		able frame with forklift				
Length [mm]	1,008	1,085	1,475	2,020	2,005	
Width [mm]	670	810	1,250	1,910	1,650	
Height [mm]	1,070	1,214	1,800	1,840	2,300	
	70	80	361	360	410	
Weight [kg]  Available accessories	70 TFV 100	TFV 300	TFV 600	TFV 900	TFV 1200	
and by AMM	Art. no.	Art. no.	Art. no.	Art. no.		
Recommended air transport hose suction side, L 7.6 m SP-T 2)	6.100.001.205	6.100.001.205	6.100.001.216	6.100.001.220	-	
Hose connection sleeve suction side	Art. no. 6.100.001.915	Art. no. 6.100.001.915	Art. no. 6.100.001.935	-	-	
Recommended air transport hose blow-out side, L 7.6 m Tronect SP-T 2)	Art. no. 6.100.001.205	Art. no. 6.100.001.214	Art. no. 6.100.001.216	Art. no. 6.100.001.220	Art. no. 6.100.001.220	
Universal tension belt	Art. no. 6.100.001.995	Art. no. 6.100.001.995	Art. no. 6.100.001.995	-	-	

Optionally available equipment: Hot air model with a max. transport medium temperature of up to 350 °C; housing material in all desired steel grades; for ambient temperatures between -40 °C and 80 °C to ISO class H; further equipment options on request.

<sup>&</sup>lt;sup>1)</sup> at 20 °C, 500 m above sea level; <sup>2)</sup> this and further air transport hoses can be found starting on catalogue page 176; ■ standard equipment

> TROTEC

# **TFV radial fans for explosion protection zones**



Due to their great air transport capacity with high air pressure, the ex-protection TFV models are suitable for manifold ventilation applications in class 2 ex-protection zones, e.g. for tank cleaning, in docks, refineries, shafts or silos.

These high-quality devices don't mind aggressive surroundings, for the radial fans designed according to ATEX directive 2014/34/EU are integrated in a robust, powder-coated steel housing with highly resistant two-component finish.

Switches, cables and plugs of the TFV Ex models are approved for use in explosion hazard conditions. Furthermore, appropriate connection plugs, approved for use in zones 1, 2, 21 and 22, are available for connection extensions.

In addition to the frameless standard version, all TFV Ex models are optionally also available as depicted incl. additional frame made of galvanized steel and with robust wheels, forklift slots and crane lifting lugs, affording you maximum mobility.

### Connection plugs for application in ex-protection zones

Special connection plugs are optionally available for connection extensions of the ex-proof TFV models in explosion protection zones.

The adapter couplings are licensed for use in zones 1 and 2 (gas explosion protection) as well as zones 21 and 22 (dust explosion protection).



Technical data	Adapter coupling 16A Ex	Adapter coupling 63A Ex
Article number	6.100.005.210	6.100.005.220
Applicable for model	TFV 100 Ex, TFV 300 Ex	TFV 600 Ex, TFV 900 Ex
Gas explosion protection	Ex II 2G EEx ed IIC T6	Ex II 2G EEx ed [ib] IIC T5
Dust explosion protection	Ex II 2D IP 66 T80 °C	Ex II 2D IP 66 T95 °C, T130 °C
Rated operating voltage max. [V]	690	690
Rated operating current [A]	16	63
Ambient temperature [°C]	-20 to +40	-20 to +40
Connection	five-pin, 3P+N+PE, 6 h	five-pin, 3P+N+PE





Standard model			TFV 100 Ex	TFV 300 Ex	TFV 600 Ex	TFV 900 Ex		
Article number			1.510.002.012	1.510.002.032	1.510.002.042	1.510.002.052		
Air volume freely blowing	[m³/h]		4,000	7,000	16,000	33,600		
Air volume (air pressure <sup>1)</sup> )	) [m³/h (Pa)]		2,000 (2,020)	5,000 (1,900)	10,000 (4,000)	25,000 (1,900)		
Operating characteristics			, , ,	see characteristic of	1.510.002.042			
Air current					/ sucking in			
Air discharge speed [m/s	(km/h)]		17 (61.2)	27 (97.2)	•	34 (122.4)		
Fan stages	/3		1	1				
Max. air pressure 1) [Pa]			2,800	2,800				
Max. transport medium to	emperature [°C]		60	60		·		
Surrounding conditions [°			-20 to 40	-20 to 40				
Input voltage [V/Hz (A)]	<b>∽</b> j		400 / 50 (7.8)	400 / 50 (8.6)				
Power input [kW]			2.2	4.0				
			10	16				
Necessary fusing [A] Electrical connection						-		
			CEE 16, 5-pin	CEE 16, 5-pin	, ,			
Suction nozzle ø [mm]			300	300				
Exhaust connection ø [mr	-		300	450				
Sound level (distance 1 m	n) [dB(A)]		87.5	77				
Housing					·			
Mobility				crane (lifting lugs), forklift (delivery on pallets)				
Type of protection		IP55						
Ex-protection <sup>3)</sup>			group II, category 3G, temperature class 4					
Length [mm]		$\downarrow \bigcirc$	960	1,000	1,305	1,680		
Width [mm]			560	700	1,250	1,810		
Height [mm]			750	830	1,170	1,680		
Weight [kg]		0 0	120	150	233	450		
Optional frame			TFV 100 Ex	TFV 300 Ex	TFV 600 Ex	TFV 900 Ex		
Article number			1.510.002.011	1.510.002.031	1.510.002.041	1.510.002.051		
Mobility			wheeled and stackable	frame with forklift slots and	lifting lugs; rubber-tyred whe	eels with parking brakes		
Length [mm]			1,008	1,085	1,475	2,020		
Width [mm]			670	810	1,250	1,910		
Height [mm]			1,070	1,214	1,800	1,840		
Weight [kg]		0 0	70	80	361	360		
Available accessories			TFV 100 Ex	TFV 300 Ex	TFV 600 Ex	TFV 900 Ex		
Recommended air transport hose suction	Tronect SP-AV, anti-static		Art. no. 6.100.001.460	Art. no. 6.100.001.460	-	Art. no. 6.100.001.480		
side, length 7.6 m	Tronect SP-AP, anti-static		Art. no. 6.100.001.410	-	-	Art. no. 6.100.001.430		
Recommended air transport hose blow-out	Tronect SP-AV, anti-static		Art. no. 6.100.001.460	Art. no. 6.100.001.470	-	Art. no. 6.100.001.480		
side, length 7.6 m	Tronect SP-AP, anti-static		Art. no. 6.100.001.410	Art. no. 6.100.001.420	-	Art. no. 6.100.001.430		
Adamtan - P	16 A Ex		Art. no. 6.100.005.210	Art. no. 6.100.005.210	-	-		
Adapter coupling	63 A Ex		-	-	Art. no. 6.100.005.220	Art. no. 6.100.005.220		
Star-delta contactor comb for ex-proof zone 22, 400		10	-	_	Art. no. on request	Art. no. on request		

Optionally available equipment: Hot air model with a max. transport medium temperature of up to 350 °C; housing material in all desired steel grades; further equipment options on request. <sup>1</sup> at 20 °C, 500 m above sea level; <sup>2</sup> optionally also available with 50 A fusing and star-delta contactor combination for ex-proof zone 22; <sup>3</sup> optionally also available for explosion group II, category 2G (zone 1), category 2D (zone 21) and category 3D (zone 2)

Accessories

Dehumidification

Humidification

Heating

Air conditioning

Air cleaning

Disinfection and Odour neutralization



Development, Design, Production: 100 % Trotec

Both robust and lightweight construction

Double-flow radial fans with extra large shaft

Slip-resistant skids all round

Multiple fan stages

Operation and storage possible in several angular positions

High energy efficiency, thus equally powerful and energy-saving

Multiple stackable

Robust, dense metal veneering of the engine to protect against dust

Tried and tested German industrial design - protected prototype

MID-compliant\* dual counter for operating hours and energy consumption (except TFV 10)

# Square, practical, efficient

The professional TFV turbo fans are perfectly fit for all types of drying ventilation operations







### Turbo fans - redefined

While standard fans for hollow spaces are for the most part identical in every respect, the professional turbo fans of our TFV series come with unparalleled features.

The distinctive cuboid design not only looks, in practice it also offers compelling advantages. The space requirements for storage and transport are much reduced – seeing as both devices can be stacked a number of times.

For dry-out ventilation, the all-round skid-resistant runners ensure maximum support even at full power level and in each of the three variably usable installation positions.

Both turbo fans accommodate doubleflow radial fans with an extra large shaft and especially formed air exhaust ducts, generating a broad near-ground air current over wet flooring or screeds. The room air is thus optimally distributed which perceptibly reduces drying time.

For carpet cleaning applications, accelerated drying not only saves time but also has the advantage that natural fiber surfaces can be warped much less and wave formation can be avoided.



A sturdy, dense metal veneer reliably seals the interior of the TFV turbo fan against the ingress of dust and dirt.

The professional TFV high-performance fans can be variably used to direct the air pressure in three different installation angles – horizontal, 45 ° and vertical.

Their non-slip feet ensure a secure footing in every position.







- 1 Integrated cable holder
- ② Convenient handle bar
- 3 Slip-resistant skids all round
- Operating hours counter
- ⑤ Bump stopper for easy stacking during transport and storage
- 6 Protection Recessed control panel with selector switches, service outlet and MID-compliant\* dual counter for operational hours and energy consumption (except TFV 10).
- Connection facility for optional three-way hose distributor (except TFV 10).









For TFV 20 and TFV 30, optional hose distributors are available to direct airflow to separate zones, whereas the un-hosed connections are reliably sealed by the supplied seal plug.





In addition to all conventional ventilation tasks these turbo fans are also suited particularly well for the quick elimination of moisture at the underbody after driving on wet roads.

	College Colleg			All States and All St
Technical data		TFV 10	TFV 20	TFV 30
Article number		1.510.003.021	1.510.003.024	1.510.003.041
Air volume	stage 1	310	850	1,600
Air volume [m³/h]	stage 2	380	1,185	1,850
	stage 3	-	-	2,200
Air current		blowing out	blowing out	blowing out
Fan stages		2	2	3
Max. air pressure	[Pa]	150	390	425
Max. transport medium temperat	ture [°C]	60	60	60
Input voltage [V/H	Hz (A)]	230/50 (0.39)	230/50 (2.15)	230/50 (3.8)
Max. power input [kW]		0.09	0.49	0.85
Electric	plug type	CEE 7/7	CEE 7/7	CEE 7/7
connection	cable length [m] 3		5	5
Necessary fusing	[A]	10	10	10
Service power so	cket	-	•	•
Operating hours of	counter	•	•	•
Dual counter for o kilowatt hours (M		-	•	•
Sound level (dista	nce 3 m) [dB(A)]	61.5	64/69	73.5/80.8/86.2
Mobility		portable / stackable	portable / stackable	portable / stackable
Type of protection	1	IP 22	IP 22	IP 22
Length [mm]		235	343	442
Width [mm]		247	335	426
Height [mm]	0 0	237	355	429
Weight [kg]		4.5	12	19
Available access	sories	TFV 10	TFV 20	TFV 30
Hose adapter (3 x incl. two sealing of		-	2 x ø 100 mm, Article number 6.100.005.055	3 x ø 100 mm, Article number 6.100.005.061

ø 100 mm, length 6 m ■ Standard equipment

Air tube Tronect TF-L,

#### What does MID compliant mean?

The European Measuring Instruments Directive (MID) has replaced the existing rules of national approval and subsequent calibration in some areas. As a result, all power meters, which are used for energy consumption billing, must be MID compliant in the future.

Heating

Dehumidification

Humidification

Article number

6.100.001.115

Article number

6.100.001.115



Professional quality
"made in Germany" –
originally produced by Trotec

Extremely powerful radial fan – max. 1,050 Pa – ideal for venting even over longer hose distances

Ideal for ventilating cavities and shafts

Air volume infinitely adjustable to a point of max. 1,250 m<sup>3</sup>/h

Portable and stackable construction

Equally light and stable construction

Rubber feet at the base and side for an adaptable vertical or horizontal operating position

Protective bars for the control panel

Dual counter for operating hours and energy consumption (MID compliant \*)

Cable holder

Washable air filter

Can be used with fan hoses of the following diameters: 100 mm, 50 mm and 38 mm



# **Radial fan TFV Pro 1**

# Extremely powerful high-performance blower for speeding up the drying process



# Robust, yet light, easily portable and stackable, extremely powerful and versatile: TFV Pro 1

With this multifunctional radial fan you will benefit from the smallest, lightest and most powerful high-performance blower on the market – universally applicable e.g. for the ventilation of hollows or speeding up the drying process.

For the TFV Pro 1 our ventilation specialists mustered all their engineering skill to incorporate the most powerful radial fan of its class in an equally light and robust device of the highest quality.

For this reason only the best components were used, all integrated in one powder-coated aluminium housing that is light and robust in equal measure.

In addition to the cable holder, protective bars for the control panel, carrying handle and washable air filter the standard equipment of the TFV Pro 1 also includes a dual counter for both operating hours and energy consumption. The counter's initial factory calibration complies with the MID\*, hence it may be used for billing purposes.

- ① Dual counter for operating hours and energy consumption ((MID compliant \*)
- Monoventic control for the infinite adjustment of air volume
- 3 Shock protection frame

A particular advantage is the integrated Monoventic control that can be used to steplessly regulate the air volume and so to adjust the device for every demand.

An extremely powerful fan ensures that plenty of fresh air arrives even at the end of long hose connections. With unrivalled 1,050 Pa the TFV Pro 1 is definitely a class winner on that score. No other device produces this much pressure! The same goes for the air volume in everyday operation for that matter.





# Radial fan TFV Pro 1 – no other device produces this much pressure!





### Stackable and versatile

In the standard set-up the TFV Pro 1 generates an optimally distributed broad, near-ground air current, rendering it an ideal accelerator when drying wet flooring or screeds.

Rubber feet at the base and side of the device further permit a vertical or horizontal operating position, so the air can be discharged either sideways or towards the ceiling.

The equally light and robust radial fan can either discharge the air freely, or it can be fitted with adapter plates to variably distribute the fresh air to different areas, hollows or ducts.

It is delivered from the factory for freeblowing operation without an additional adapter plate, which allows you to combine your TVF Pro 1 with the suitable accessories for your respective application requirement as needed. The optionally available adapter plates can

be used for connecting either three 100 mm hoses, eight 50 mm hoses or twelve 38 mm hoses.

> A complete set of sealing caps is already included in the scope of delivery of each adapter plate and also available separately as renlacement accessories.

What does MID compliant mean? The European Measuring Instruments Directive (MID) has replaced the existing rules of national approval and subsequent calibration in some areas. As a result, all power meters, which are used for energy consumption billing, must be MID compliant in the future.

Technical data		Radial fan TFV Pro 1
Article number		1.510.003.001
Max. air volume [m³/h]		1,250
Air current		Blowing out
Fan stages		Stepless
Max. air pressure [Pa]		1,050
Mains connection [V/Hz]		230/50
Power input [W]		170
Sound values (distance 1.5	m) [dB(A)]	73
Length [mm]	71· ( //	355
Width [mm]	θ	430
Height [mm]		235
Weight [kg]		6
Equipment and functions	_	Radial fan TFV Pro 1
Dual counter for operating h	ours and	nadiai ian ii viio i
energy consumption (MID co		
Carrying handle		•
Cable holder		•
Stackable		•
Protective bars for the control	ol panel	•
Monoventic air volume regu	lation	•
Washable air filter		•
Rubber feet at the base and	side of the device	•
Accessories		Radial fan TFV Pro 1
Hose adapter plate 3 x ø 100 mm with 3 sealing caps	000	Article number 6.100.005.069
Hose adapter plate 8 x ø 50 mm with 8 sealing caps	0000	Article number 6.100.005.070
Hose adapter plate 12 x ø 38 mm with 12 sealing caps	ODODOD	Article number 6.100.005.071
Spare air filter		Article number 7.160.000.008
Spare sealing caps 100 mm (3 pieces per set)	8	Article number 7.310.000.303
Spare sealing caps 50 mm (8 pieces per set)	-	Article number 7.310.000.302
Spare sealing caps 38 mm (12 pieces per set)	8	Article number 7.310.000.301
Air transport hose* Tronect TF-L, ø 100 mm, length 6 m		Article number 6.100.001.115
Air transport hose* Tronect PV-A, ø 51 mm, length 45 m (3 x 15)		Article number 6.100.001.020
Air transport hose* Tronect PV-A, ø 38 mm, length 60 m (4 x 15)		Article number 6.100.001.010
* These and other air transport I	noses are described starting on ca	ntalogue page 176.

Robust polyethylene housing

Double-flow radial fan with extra large shaft

Three fan stages (TFV 30 S)

Operation and storage possible in several angular positions

High energy efficiency, thus equally powerful and energy-saving

Stackable (TFV 30 S)

# **Turbo fans** TFV 10 S and TFV 30 S

Versatile turbo blower – ideal for drying carpets and hollows or to assist in the water damage restoration.







Whether at 0°, 45° or 90° - both high-performance fans can be used in three different installation angles and ensure a secure footing in either position.



Universally usable turbo blowers ideal for industrial cleaning, water damage restoration and building companies:

- Floor drying after maintenance cleaning
- Ventilation of hollow flooring in offices, gyms, bowling alleys etc.
- Drying out of timber beam ceiling constructions and movable walls
- Drying up of cement flooring and plaster surfaces
- Temporary air circulation assistance of cooling or heating appliances during full-load operation



Power consumption billing?

For commercial billing the electricity consumption must be determined by means of an MID meter. Device without an MID meter? Then the socket outlet meter BX50 MID provides the optimum solution further information can be found on page 167 ...



# **TFV-S – Your turbo to up the tempo in the drying ventilation process**



The flexibly utilizable turbo fans of the TFV-S series are ideal aids, for instance in drying carpets after wet cleaning and shampooing, or to assist in drying walls and floor after a water damage, or else to speed up the drying of screed and entire buildings.

Due to their especially formed air exha wi WE is ce

In the case of carpet cleaning, the accelerated drying besides time saving also brings along the advantage, that natural fibre fabrics distinctly less often lose their shape and corrugation can be avoided.

#### Extremely stable and hardwearing

The housing of the compact turbo fans consists of indestructible polyethylene and is therefore equally light and robust.

The combination of performance, robust, compact construction, high application flexibility and excellent valuefor-money ratio makes the turbo fans of the TFV-S series the perfect universal equipment for any business offering restoration, cleaning or craft services.

Due to its extremely compact dimensions, the TFV 10 S is perfectly suited for smaller areas and inaccessible hollows.



ide air current nea et flooring or scr thus optimally di	rbo fans produce a ar the ground above eeds. The room air stributed which per- rying time.	2.TROTEL		
Technical data		TFV 10 S	TFV 30 S	
Article number		1.510.003.011	1.510.003.031	
ide air current neal et flooring or scre thus optimally dis eptibly reduces dry fechnical data Article number	Step 1	355	1,350	
	Step 2	-	1,880	
	Step 3	-	2,250	
Air current		blowing out	blowing out	
an stages		1	3	

Article Hulliber		1.510.003.011	1.510.003.031
	Step 1	355	1,350
Air volume [m³/h]	Step 2	-	1,880
	Step 3	-	2,250
Air current		blowing out	blowing out
Fan stages		1	3
Air pressure max. [P	a]	90	525
Max. transport medi	um temperature [°C]	60	60
Input voltage [V/Hz	(A)]	230 / 50 (0.5)	230 / 50 (5.2)
Power input [kW]		0.07	max. 1.05
Cable length [m]		3	5
Necessary fusing [A	]	10	10
Service socket		-	•
Sound level (distance	e 3 m) [dB(A)]	61.5	73.5 / 80.8 / 86.2
Mobility		portable	portable / stackable
Type of protection		IP22	IP 22
Length [mm]		300	515
Width [mm]	(O) (O)	275	545
Height [mm]	6	330	490
Weight [kg]		3.5	16.5
Available accessor	ies	TFV 10 S	TFV 30 S
Hose adapter (3 x ø incl. two sealing cap		-	Article number 6.100.005.060
Air tube Tronect TF-I length 6 m	L, ø 100 mm,	-	Article number 6.100.001.115

Standard equipment



The stackable TFV 30 S comes with three variable power stages, so the air volume can always be optimally adjusted to the different requirements of the object.

#### Handy: Service power socket and optional three-way hose distributor

The integrated service power socket constitutes a rather helpful feature off the TFV 30 S. Even if there is no cable reel or further wall socket available, by this means a second turbo fan or an additional dehumidifier can be connected directly to the TFV 30 S to assist in drying.



Moreover, a three-way hose distributor is optionally also available which can be used to direct the air flow to up to three different spots in just one step.



If less than three hoses are connected, the supplied sealing plugs reliably seal the redundant hose connections.





Robust, slim and compact housing

Four possible installation positions to speed up the drying process according to the respective situation

Light construction - easy to handle

Multi-stackable for storage and transport to save space

Integrated service socket

MID-compliant1 dual counter for operating hours and energy consumption (optional)

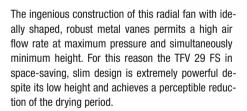
Several devices can be connected in series to just one power socket (daisy-chain connection)

# **Radial fan TFV 29 FS**

# Flexibly usable surface dryer in a space-saving slim design







The centre of gravity and shape of the TFV 29 FS were designed specifically in view of four different installation positions: near the ground, tilted, upright with the air discharge direction towards the sky or to the side. This versatility makes the turbo dryer the ideal solution for every task.

Owing to the flexibly adjustable operating position floor spaces can be dried off as quickly as walls, ceilings or entire stairwells and the resulting humid air

can be fed to an additional condenser dryer. The TFV 29 FS even fits into rather confined spaces without difficulty.

On account of the integrated service socket and the long connecting cable several devices can be connected in series.

The TFV 29 FS is equally powerful and easy-to-transport: as a result the drying operation is quickly completed and with its light weight and carrying handles on both sides as well as the integrated cable holder the device can be transported safely without trip hazard. Inside a service vehicle or equipment storage facility several specimens of TFV 29 FS can stacked on top of one another to save space.





Four drying positions, countless application possibilities – with the TFV 29 FS you are optimally prepared at all times 1

- ① tilted The stand bar integrated at the bottom can be folded out for tilting the TFV 29 FS, thus permitting the ventilation and drying of walls or entire stairwells.
- ② close to the ground In this position the discharged air is distributed at high speed in a broad, near-ground air current which leads to an accelerated surface drying.
- ③ upright with air discharge at the top For a dry air current specifically directed at the ceiling.
- (4) on edge with lateral air outlet Ideal for drying operations in confined spaces or of extensive wall surfaces.

Technical data		TFV 29 FS
Article number		1.510.003.025
Air volume [m³/h]		1,150
Air current		Blowing out
Max. air pressure [Pa]		290
Input voltage [V/Hz (A)]		230 / 50 (0.74)
Power input [kW]		0.17
Fusing [A]		10
Type of protection		IP44
Plug		CEE 7/7, cable length 5 m
Sound level (distance 3 m) [dB(A)]		64
Length [mm]	1	520
Width [mm]	0	450
Height [mm]	0	255
Weight [kg]		10.9
Equipment and functions		TFV 29 FS
Service socket		•
Operating hours counter		
Dual counter for operating and kilowatt hours <sup>1</sup>	(MID-compliant*)	Article number 7.140.000.903
Fold-out stand bar		
Carry handles		•
Cable holder		•
Rubber feet		•
Stackable		•
Standard equipment		

- Standard equipment
- <sup>1</sup> Equipment options to be stated at the time of order, not subsequently installable
- What does MID-compliant mean? In some areas, the Measuring Instruments Directive (MID) replaces the previous regulation of national authorization and subsequent calibration. As a result, all energy meters in Europe used for energy consumption-based billing have to be MID-compliant from now on.

### Simply easy to handle

In addition to the splash-proof operating switch the control panel of the TFV 29 FS also accommodates a MID-compliant dual counter for operating hours and energy consumption (optional) as well as a service socket, by means of multiple series-connected fans can be supplied with electricity.



#### Stackable to save space

The TFV 29 FS is an extremely light, stackable and compact blower. Due to the low design height a stack comprising 5 devices adds up to a storage height of only marginally more than one metre - perfect for space-saving transport and storage.



Development, Design, Production: 100 % Trotec

Robust construction, specifically designed for rental business

Slim - fits through every door and into every elevator

Simple installation without the need to consult specialists ready for use in a matter of minutes

All operating elements are easily accessible

Hot gas-controlled defrost unit for uninterrupted cooling operation

Owing to the high cooling capacity and air flow rate even large rooms can quickly be cooled down

Connecting lines extendable to up to 30 m by use of quick-lock couplings for cooling remote and windowless rooms

Adjustable air flow direction thanks to flow controller at the air outlet

Installation advantage: All devices come with a refrigerantfree connection line to the heat exchanger

Immediate effect: high temperatures and humidity levels are reduced significantly

### Possible use:

- Emergency cooling
- Trade fairs and exhibitions
- Laboratories
- Offices and shops
- Marquees
- Temporary shelter
- Storage and production facilities
- Measuring and control centres
- Cooling at peak times

# **Mobile Air conditioning** systems of the PT series

Powerful, robust and transport-friendly split air conditioners - ideal for rental business



# **Professional solutions for cool computers**

The robust air conditioners of the PT series have been specifically designed for temporary cooling applications in commercial environments. Whether we're talking about industrial applications, emergency cooling or air conditioning of trade fairs and events in halls and marquees - these cooling professionals convince by easy and quick commissioning in practically every location powerful and reliable.

#### Simple handling, simply convincing

With the PT series you're provided with the perfect air conditioner for almost any power requirement, even in environments with high temperatures. In these applications, the units are not only robust and powerful - owing to their compact design they also fit through every door and into every lift transport rolls makes them easier to be handled.

Thanks to the quick-lock couplings at the connection set the external heat exchangers can be connected in no time. Install, connect the heat exchangers, connect the power supply, ready for use – quickly in only a few minutes!

The connection line just contains circulating water mixed with glycol, so that there is no refrigerant loss when the air conditioner is connected and disconnected. By combining several connection sets the covered distance may be increased to maximally 30 metres, if required, which therefore also allows for the cooling of remote rooms.

TRT-KAT-KLPO-WM-33-EN

**Trotec** 

Practical benefits for

rental companies!



Air conditioning systems of the PT series – further information ...

# The PT series: offering an ideal air conditioner for every demand



The air conditioners of the PT series with their distinctive industrial Trotec design are consistently constructed to provide maximum mobility. Two integrated bar handles protect the front panel from

impact damages while simultaneously allowing easier transportation.



Compared to the PT 4500 S and PT 6500 S, the larger PT 15000 S air conditioner is supported by two heat exchangers as standard. The PT 23000 S is the most powerful mobile split air conditioner with refrigerant-free connecting lines on the market and is equipped with three heat exchangers. Both large air conditioners are additionally equipped with an MID-compliant\* energy consumption meter for the further calculation of the energy costs in accordance with the regulations.

Furthermore, specifically for high-temperature environments up to 60 °C, the mobile air conditioner PT 6500 HT has been designed. It is designed for the use under extreme summer conditions even in climatic zones T3 with ambient temperatures up to +55 °C, and by means of Duplex Cooling its application area can even be extended to temperature envi-

ronments up to +60 °C.



# High versatility even with higher ambient temperatures



Even if the ambient temperature exceeds the standard working range, the variable heat exchanger design of the PT series offers you customisation options that can be flexibly implemented!

# **Level 1:** Expansion of the working range through simple heat exchanger replacement

If required, the more powerful heat exchanger PT S+ of the air conditioners PT 15000 S and PT 23000 S can also be flexibly combined with the PT 4500 S or PT 6500 S models.

In this way, you can easily use these air conditioners even at an ambient temperature that is 4 °C higher than with the standard version, offering the decisive power reserves when they are needed!



Level 2: Duplex Cooling with DualHex coupling – perfect for extreme ambient temperatures



Benefit from Duplex Cooling by using the DualHex coupling to install two heat exchangers in series on one connection line in each case.

Duplex Cooling allows for a  $\Delta T$  increase of the upper working range limit value by 7  $^{\circ}\text{C}.$ 

With this technology, the PT air conditioning systems can even be used with ambient temperatures of up to 45 °C - or the devices do not run under full load at lower temperatures.

For Duplex Cooling operation, apart from the corresponding DualHex couplings, the air conditioning systems PT 4500 S and PT 6500 S / HT require one additional heat exchanger each, whereas two additional heat exchangers are required for the PT 15000 S and three for the PT 23000 S.

←

Air conditioning systems of the PT series - further information ...

# Connecting as quick as lightning thanks to water cooling circuit with quick release fastener

Installing connecting lines flexibly, quickly and easily – this feature is certainly a plus:



The air conditioning systems of the PT series come with two separate cooling circuits.

The refrigerant circuit of the basic device is hermetically sealed. By contrast, another circuit is installed between cooling unit and external heat exchanger for cooling the condenser as well as for heat removal using a connection set. In this additional circuit only water with a low glycol concentration circulates as cooling medium, thus ruling out a loss of refrigerant when conecting or disconnecting the devices in a professional fashion.

For a quick installation of the water and power lines between air conditioner and heat exchanger the connection sets of these air conditioning systems come equipped with high-class quicklock couplings. As a result, even longer connections over a distance of up to 30 metres can be realized without difficulty in a quick, clean and easy manner — ideal for office, server or production rooms, control centres or studios, where there is hardly ever any room to accommodate such heat dissipation measures.



Installation-friendly connection set with protectively-covered cables for cooling medium (quick-lock coupling), condensate discharge, power and grounding connection.

So far, one question remained, however:

# Which is the best way of laying the connecting line from inside to outside...

After all, the PT air conditioning system installed in the interior must somehow be connected to the heat exchanger that is placed outside.

Sometimes it helps to use intermediate ceilings, but usually the connecting line is laid in half-closed doors, tilted windows or other openings which are not only problematic from an energetic point of view but also with regard to matters of safety.



The clever solution:

# **PlanoPT**

# **Connection feedthrough**

The PlanoPT, exclusively available only at Trotec, is provided with all connections for quickly installing the connection feedthrough between the internal and external unit of the air conditioning systems PT.

Quick-lock couplings, plugs for the power line as well as condensation hose connections and grounding connections are provided on both sides for all air-conditioners of the PT series.

The flow design of the watertight multi-chamber system has been optimized specifically for the flow rates of PT air conditioners and – despite the centre section's height of only 6 millimetres – it guarantees a smooth and uninterrupted pass-through without counter-pressure.

Owing to its particularly flat centre section the PlanoPT can be installed under virtually any common type of internal or external door. The PlanoPT does not affect the closing characteristics. Consequently, external doors of functional rooms, for instance, can remain closed and locked.

#### A FEW PRACTICAL BENEFITS:

Professional quality
"made in Germany" –
originally produced by Trotec

Ultra-compact design with the centre section being no higher than 6 mm to permit flexible connections passing underneath doors

Completely ready-to-connect for a quick installation of PT connection lines

With the passage underneath, the doors can remain closed

Robust, flow-optimized construction

Watertight multi-chamber system





Air conditioning systems of the PT series – further information ...

# With PlanoPT, virtually all doors are open to you

Benefit from the unique possibility provided to you now by being able to utilise installation paths that have been denied to you so far without PlanoPT



# a kind -Trotec exclusive:

### **PlanoPT**

Quick-connect chamber system for the installation of PT connecting lines passing underneath doors

Patent-protected



With PlanoPT, the connecting lines can be easily laid directly through many common exterior doors, which remain lockable nevertheless.



PlanoPT can also be used for the installation underneath fire protection doors - perfect for the air conditioning of halls, for instance.



It is also possible to use roller shutters for installing the connection sets using one or several PlanoPT. In this process, the roller shutters can be closed as usual.



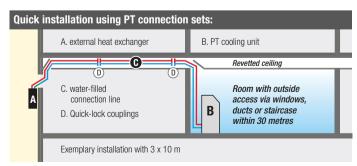
Even larger event spaces without a conventional installation access for the connecting lines required can be air-conditioned continuously by the use of PlanoPT.



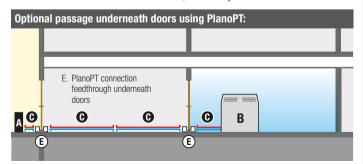
With the passage underneath using PlanoPT, the doors can remain closed, so that the connections to the night closure do not have to be dismounted and the air conditioners can remain active around the clock, if required.



In order to provide for a connection that is as short as possible between the external units and the internal units, naturally also interior doors can optionally be provided with a passage underneath using PlanoPT, so that they can remain closed, if necessary.



With the air conditioners of the PT series it is possible to install the external heat exchanger up to 30 m away from the cooled room by using connection kits. The hoses are simply led through ceilings, walls or along the floor.



With the PlanoPT connection feedthrough, which is available as accessory, connection sets can be installed and connected underneath doors. The connection sets of the PT models are optionally also available in a length of 5 m and can be flexibly combined with the 10 m lines to an overall length of 30 m.

Air conditioning systems of the PT series – further information ...

# Available accessories

TROTEC

#### PT connection sets with quick-lock couplings



Installation-friendly set with protectively-covered

connections for cooling medium (quick-lock coupling), condensate discharge, power and grounding connection. Combinable up to a max. overall length of 30 m.

Connection set, length 5 m Article number 1.210.000.134

Connection set, length 10 m Article number 1.210.000.133

#### **DualHex coupling** for Duplex Cooling



Provides for the connection of two heat exchang-

ers on one connection line and therefore a  $\Delta T$  increase of the upper working range limit value by 7 °C.

By means of Duplex Cooling using a DualHex coupling, for example airconditioners that are designed for a max. ambient temperature of 35 °C can still be utilised at 42 °C, or the devices do not run under full load at lower temperatures.

Article number 1.210.000.104

### PlanoPT feedthrough for PT connection sets underneath doors



Owing to its centre section height of only 6 mm,

it can be used in an extremely flexible fashion for the feedthrough of the PT connection sets underneath doors.

Article number 1.210.000.101



Adapter cable for the PlanoPT application with older as-built models of the PT 4500 W or PT 6500 W type.

Article number 1.210.000.102

#### Weather protection cover



For device protection in the case of out-door storage. Robust PVC tarpaulin (680 g/m<sup>2</sup>) with two-slide zipper on both sides; water-proof, mould-resistant, highly tear-proof, easy to clean.

The model-specific article numbers can be found in the table section "Accessories".

### **Spot-cooling attachments** for pipe-conducted spot-cooling



Spot cooling attachment for PT 4500 S, cooling air outlet ø 1 x 200 mm. Article number 1.210.000.149

Spot cooling attachment for PT 6500 S or PT 6500 HT, cooling air outlet ø 2 x 200 mm. Article number 1.210.000.151

Spot cooling attachment for PT 15000 S, cooling air outlet ø 2 x 300 mm. Article number 1.210.000.153

#### Air transport hose **Tronect SP-T**





For the spot cooling application, length 7.6 m.

For PT 4500 S / 6500 S / 6500 HT. ø 203 mm Article number 6.100.001.200

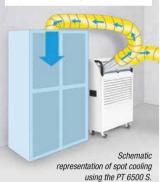
For PT 15000 S, ø 305 mm Article number 6.100.001.205

#### **Accessory tip:** Cable drums



Use our professional cable drums of the PVD series to extend the connection lines of the PT 4500 S or 6500 S / HT all information from catalogue page 174 onwards.

# Spot cooling option



The spot cooling option of the air conditioning systems PTE proves especially advantageous for the cooling application in sensitive areas like for instance CNC controls, server rooms or laboratories.

With the spot cooling exhaust distributor, that is available as accessory, the cool air can be led precisely via hoses to the target areas to be cooled.



#### **Professional extension cables**



■ Made in Germany PT 6500 S / HT, 230 V,

16 A, 2.5 mm<sup>2</sup>, L 20 m, H07RN-F 3GG2.5

Article number 7.333.000.376

For PT 15000 S, 400 V, 16 A, 2.5 mm<sup>2</sup>, L 20 m, H07RN-F 5G6 Article number 7.333.000.374

For PT 23000 S. 400 V. 32 A. 6 mm<sup>2</sup>, L 20 m, H07RN-F 5G6 Article number 7.333.000.379

■ Standard equipment; □ Optional accessories; ¹ at 25 °C and 60 % RH; ² at 26 °C and 55 % RH; ³ distance 3 m; ⁴ Depending on the operating conditions, the overall length of the connection set distance installed between the air conditioner and heat exchanger must be max. 30 m. \* What does MID-compliant mean? In some areas, the Measuring Instruments Directive (MID) replaces the previous regulation of national authorization and subsequent calibration. As a result, all energy meters in Europe used for energy consumption-based billing have to be MID-compliant from now on. \*\* This device is fitted with a hermetically sealed system containing flourinated greenhouse gas that serves as a refrigerant with the given specifications and a global warming potential in line with the stated GWP factor. This system is necessary for the device's functioning











						III III
Technical data		PT 4500 S	PT 6500 S	PT 6500 HT	PT 15000 S	PT 23000 S
Article number		1.210.001.065	1.210.001.070	1.210.001.072	1.210.001.075	1.210.001.080
Cooling capacity	at 25 °C [kW / Btu]	4.5 / 15,400	6.6 / 22,500	5.5 / 18,766	15 / 51,182	27.6 / 94,238
Max. cooling cap	pacity [kW / Btu]	5.5 / 18,800	7.1 / 24,226	6 / 20,472	16 / 54,594	29.4 / 100,384
Attainable room	temperature (min.) <sup>1</sup> [°C]	10	10	10	10	10
Standard model		+7 to +38	+7 to +38	+7 to +55	+7 to +38	+7 to +38
Surrounding conditions [°C]	with HEX upgrade option	+7 to +42	+7 to +42	-	-	-
	with Duplex Cooling option	+7 to +45	+7 to +45	+7 to +60	+7 to +45	+7 to +45
	Level 1	550	1,150	1,150	2,000	2,500
Air flow rate [m³/h]	Level 2	800	1,400	1,400	2,400	2,700
[ / 1.]	Level 3	-	1,500	1,500	2,600	3,200
Connection volta	age [V / Hz]	230 / 50	230 / 50	230 / 50	400 / 50	400 / 50
Nominal current	consumption [A]	8.7	13	13	9.5	22.8
Power consumpt	tion [kW]	1.6 <sup>1</sup>	2.65 <sup>2</sup>	3	5.7 <sup>2</sup>	9.5
Operating hours	counter					-
Energy consump	otion meter (MID-compliant*)				•	
<b>5</b> (1) 144	Туре	R-410A	R-410A	R-134a	R-410A	R-410A
Refrigerant**	Quantity [g]	760	900	1,000	1,650	2,300
GWP factor **		2,088	2,088	1,430	2,088	2,088
CO <sub>2</sub> equivalent**	* [t]	1.59	1.88	1.43	3.45	4.8
Condensate disc	charge	Automatically	Automatically	Automatic	Automatically	Automatically
Temperature control		Thermostat	Thermostat	Thermostat	Thermostat	Thermostat
Sound level 3 (Le	evel 1 / 2 / 3) [dB(A)]	47 / 54 / –	47 / 52 / 59	47 / 52 / 59	51 / 56 / 65	54 / 56 / 59
Length [mm]		363	360	360	460	560
Width [mm]		697	815	815	1,050	1,190
Height [mm]		997	1,200	1,200	1,570	1,840
Weight [kg]	0 7	93	114	114	206	260
External heat exc	changer	PT S	PT S	PT S+	PT S+	PT S+
Article number		1.210.000.111	1.210.000.111	1.210.000.112	2 x 1.210.000.112	3 x 1.210.000.11
Power input [kW	]	0.14	0.14	0.18	0.18	0.18
Max. sound leve	- ` ' I T	62	62	65	65	65
L x W x H [mm]		320 x 650 x 460	320 x 650 x 460	460 x 835 x 650	460 x 835 x 650	460 x 835 x 650
Weight [kg]	0.00	22	22	34	34	34
Connection sets '	4	PT S	PT S	PT S+	PT S+	PT S+
Article number (	cable length 5 m) <sup>4</sup>	1.210.000.134 (optional)	1.210.000.134 (optional)	1.210.000.134 (optional)	1.210.000.134 (optional)	1.210.000.134 (optional)
Article number (	cable length 10 m) <sup>4</sup>	1.210.000.133, 1 x in the scope of delivery	1.210.000.133, 1 x in the scope of delivery	1.210.000.133, 2 x in the scope of delivery	1.210.000.133, 2 x in the scope of delivery	1.210.000.133, 3 x in the scope of delivery
	ories (for detailed description see pa	,				
Spot cooling atta		1.210.000.149	1.210.000.151	1.210.000.151	1.210.000.153	on request
Air transport hos	66	6.100.001.200	6.100.001.200	6.100.001.200	6.100.001.205	-
PlanoPT		1.210.000.101	1.210.000.101	1.210.000.101	1.210.000.101	1.210.000.101
DualHex coupling	g	1.210.000.104	1.210.000.104	1.210.000.104	1.210.000.104	1.210.000.104
Weather protecti	ion cover	1.210.000.160	1.210.000.161	1.210.000.161	1.210.000.162	1.210.000.163

Budget-friendly spot coolers in solid Trotec brand quality for fast spot cooling

No installation work required. immediately ready for use

Adjustable cold air ducts for cooling areas precisely

Robust sheet steel construction, optimal for use even in rough surroundings environments

Great manoeuvrability and mobility thanks to compact design and stable swivel casters with wheel lock

Connection for external condensate drain (depending on the model)

Filling level warning light to indicate a full water tank

internal components from dirt

# **Spot coolers of the PT-SP series**

# Cooling straight to the point – wherever it is needed

Instead of cooling down the entire working environment in a cost-intensive way, the mobile spot coolers of the PT-SP series supply your workplace with pleasant cool air that gets straight to the point. Just set it up, switch it on and enjoy refreshing coolness immediately!

The combination of a robust construction, easiest handling and an attractive value-for-money ratio makes these spot coolers your first choice where spot cooling in workshops, halls, canteen kitchens and many other work environments is required.

> The spot coolers of the PT-SP series are out best recommendation when it comes to budget-friendly spot cooling applications.

> Compared to the two single-channel spot coolers PT 2000 SP and PT 2700 SP, the two larger models PT 3500 SP and PT 5300 SP cannot only be used for spot cooling several target areas at the same time, but also for room air cooling, ventilation without cooling function or dehumidification.



# Heat off, spot on – the mobile spot coolers of the PT-SP series offer you a wide range of application possibilities:

- Direct cooling of workplaces causing heat stress
- Spot cooling of end-of-line test stations or other production line workstations
- Rapid temperature reduction in rooms with servers, networks and heat-generating electronics
- Temporary support cooling for existing installations in unfavourable climate conditions
- Spot cooling of heat-generating machines and system parts
- Emergency cooling in case of failure of the primary system
- Spot cooling on ships, in tents or canteen kitchens



With the spot coolers of the PT-SP series, cool, dry air is quickly and immediately available at any location. All you need is a power socket!









Technical data		PT 2000 SP	PT 2700 SP	PT 3500 SP	PT 5300 SP
Article number		1.210.001.051	1.210.001.053	1.210.001.055	1.210.001.058
Max. cooling capacity	r [kW/Btu]	2.0 / 7,000	2.7 / 9,200	3.5 / 12,000	5.3 / 18,000
Max. amount of air [m	1 <sup>3</sup> /h]	230	400	600	800
Fan stages		1	2	2	2
Fan		axial	axial	axial	axial
Dehumidifying capaci	ity max. [l/h]	0.6	1.3	1.3	2.7
Surrounding condition	ns [°C]	20 - 43	18 - 45	18 - 45	18 - 45
Type of protection		IPX0	IPX0	IPX0	IPX0
Mains connection [V/I	Hz]	220-240/50	220-240/50	220-240/50	220-240/50
Connection plug		CEE 7/7, L 1.2 m	CEE 7/7, L 1.6 m	CEE 7/7, L 1.6 m	CEE 7/7, L 1.6 m
Power input [W]		950	1,150	1,700	2,200
Nominal current cons	umption [A]	3.2	4.2	6.2	10
	Type	R290	R290	R290	R1234yf
Dofrigorant	Quantity [g]	180	250	300	950
Refrigerant	GWP factor*	3	3	3	4
	CO <sub>2</sub> equivalent [t]	0.00054	0.00075	0.0009	0.0038
Cold air outlet duct	Number	1	1	2	3
Colu ali outlet duct	Length / ø [mm]	385 / 120	385 / 120	385 / 120	385 / 120
Hot air exhaust	Number	-	1	1	-
air hose	Length / ø [mm]	-	350 / 160	350 / 200	-/380 *
Water tank [I]		3	5	7	25
Sound pressure level	(distance 1 m) [dB(A)]	52	55	57	65
Length [mm]	A 2999	287	405	430	560
Width [mm]		465	430	493	625
Height [mm]		586	855	944	1,135
Weight [kg]	0 0 0	27	45	49	95
Functions and featu	res	PT 2000 SP	PT 2700 SP	PT 3500 SP	PT 5300 SP
Room cooling operation	on	-	-	-	•
Spot cooling operation	n	•	•	•	•
Dehumidification fund	etion	-	-	-	•
Ventilation function		-	-	•	•
Timer		-	-	•	•
Adjustable air dischar	ge direction	1 x	1 x	2 x	3 x
Filling level warning li to indicate a full water		•	-	•	•
Washable air filter		•	•	•	•
Electronic thermostat dual display for nomin		-	-	•	•
LED display with men	nbrane keys	-	-	-	•
Sheet steel housing		-	-	-	-
Connection for extern	al condensate drain	-		-	-
Available / recomme	ended accessories	PT 2000 SP	PT 2700 SP	PT 3500 SP	PT 5300 SP
Air transport hose for warm air discharge	addiana	-	Tronect TF-L, ø 160 mm, L 6 m, Art. no. 6.100.001.125	Tronect SP-T, ø 203 mm, L 7.6 m, Art. no. 6.100.001.200	Tronect SP-T, ø 425 mm, L 7.6 m, Art. no. 6.100.001.212

# Cool air at the touch of a button - spot cooling made refreshingly easy

The spot coolers of the PT-SP series house a powerful cooling compressor system with a hermetic refrigerant circuit.

The drawn-in room air is cooled down inside this system. The devices PT 3500 SP and PT 5300 SP cool down the temperature according to the value that has been selected by target temperature preselection via thermostat. The cooled air is then discharged by means of a powerful axial fan and via the cold air ducts to precisely reach the areas to be cooled.

For this purpose, the cold air ducts of the spot coolers can each be inclined by 150 degrees and swivelled by 360 degrees.



All spot coolers similar to the PT 2000 SP model and more powerful devices offer you the option to connect an optional air transport hose to discharge the warm air to the outside.



Instead of having to empty the condensation tank manually and on a regular basis, these device models also provide the possibility to connect an optional condensation hose for automatic condensate drainage.

■ Standard equipment; □ Optional accessories; \* hose connector

Professional quality "made in Germany" originally produced by Trotec

Proven, effective solution for mobile air purification of virus-carrying aerosol particles and bacteria from the room air

Approved in hygiene concepts of the industry, administration and healthcare sector

Used successfully in schools, ministries and health departments

Effectiveness scientifically proven by leading research institutes

HEPA filter class H14 (in compliance with EN 1822)

Unrivalled quietness due to integral silencers

FlowMatic control for constant volumetric flow and constant circulation rates (depending on the model)

Robust, stable and unrivalled flexibility in use

### Exclusively with TAC V+ and TAC XT:

Fully automatic 100 °C killing of viruses and bacteria, fully automatic filter regeneration, lowest maintenance costs

### Exclusively with TAC XT:

Multifunctional 4-in-1 device for professional H14-HEPA air purification, high-performance room heating, thermal decontamination and thermal disinfestation

#### **Business leasing** or renting also possible





Plannable health protection whenever and for as long as you want it. Lease or rent out TAC high-performance air cleaners at attractive

We would be happy to advise you personally and calculate the best offer for you: Tel. +49 2452-962-730

# State-of-the-art high-performance air purifiers of the TAC series





Application scenario of the TAC V+ in the statehouse building of federal state North Rhine-Westphalia

# Clean breathing air the best basis for effective health prophylaxis:

The TAC V+ and its model variants guarantee clean, healthier room air wherever it is needed – for mobile or stationary infection control with scientifically proven effectiveness!



TAC high-performance air cleaners - further information ...



The combination of high versatility and high efficiency makes TAC high-performance air cleaners the first choice for air purification in many fields of application, for example ...













# The appropriate TAC for every demand: Five models, two versions – extremely versatile:

TAC high-performance air purifiers are the ideal solution for medium-sized and larger rooms where many people come together, work, play, study, shop or celebrate.



TAC high-performance air cleaners – further information . . .

TROTEC

# At a glance: Convincing benefits of the TAC high-performance air purifiers

### **High versatility due to mobility**

Easy set-up and moving instead of cumbersome set-up and conversion – decisive advantages over stationary, large and heavy floor-mounted appliances: versatility.



Thanks to the carriage design, the "Plug & Play" device can be used for both mobile and stationary applications — simply set it up flexibly exactly where protection is needed. For the installation sites and application purpose can change again and again, and effective hygiene concepts therefore require a high degree of flexibility. The TAC is a true mobile device, and therefore always quick and easy to set up exactly where protection is needed.

### High versatility due to individually adjustable air volumes

The air volumes that can be individually adjusted to the room volume and desired circulation rate are another decisive advantage of the TAC. Regardless of the room size or application requirements, the correct and permanently constant volume flow is always available at the touch of a button for additional safety.

# Significantly increased health protection also against fine dust

The TAC high-performance air purifiers from Trotec offer you, your employees, customers, clients, patients and pupils a high level of protection against indirect infections by aerosol particles. In addition to viruses and bacteria, also respirable and harmful particulate matter (e.g. caused by road traffic or construction sites) as well as pollen are reliably filtered from the room air.

# More safety – scientifically tested and recommended

The efficiency of the room air cleaner TAC V+ has been confirmed in several independent scientific studies by leading national and international institutes.



#### Large clean air capacity - high pressure

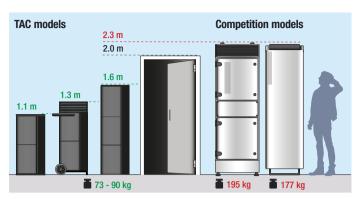
Up to 2,100 m³/h of clean air filtered free from viruses and bacteria by a high fan performance for optimum air circulation, air flow and frequent air circulation. Proper air flow and routing are an absolute must when you want to ensure a high degree of safety. In particular the high maximum air flow rate (boost mode) is ideally suited for quick separation (short and intense filtration) in break periods or in the case of room changes.

# Effective high-performance filtration with the maximum HEPA filter class, certified in compliance with EN 1822



In the TAC V+, TAC M and TAC XT, fully encapsulated H14 metal lamellae high-temperature filters "made in Germany", specially developed for Trotec,

with flow-optimised high-tech filter material are used. Each quality filter is tested and certified individually.



The high-performance air purifiers of the TAC series are significantly smaller and more mobile than competitive devices — with a comparable performance.



Whether tower (1) or stationary version (2), the discharge level of all TAC high-performance air purifiers can be optionally increased by 50 cm or 100 cm by adding either one or two additional FlowExtender Silence+ elements (3)

# FlowMatic control: Constant circulation rates in all power levels by a constant volumetric flow to provide for increased safety

The sensor-supported FlowMatic control in the TAC V+, TAC M and TAC XT works like the cruise control in the car: Even when coarse and fine dust increasingly pollute the filter you don't have to be concerned about a decreasing air flow rate or about values falling below the required number of air changes.

The system performance is adapted continuously and dynamically, ensuring that the air volume target value once set is kept constant at any power level! For increased safety, longer filter lifetimes and a substantially higher system efficiency.

### **Fully automatic operation by flexible programming**

Thanks to the fully programmable and updateable touch display, the TAC V+, TAC M and TAC XT can be adapted individually to your operating and resting times, so that you no longer have to worry about anything.

#### **Unrivalled quietness**

Due to an elaborate sound insulation concept and the integral silencer integrated as standard, TAC high-performance air purifiers are by far the most silent devices on the market in relation to the air flow rate/device size. In addition, optional sound protection caps even enable ultra-silent operation.

#### **Robust design for professional use**

Extremely robust, stable and scratch-proof metal housing specially designed for operational environments where many people are staying, working, playing, learning or celebrating. Optionally also available as tamper-proof versions for schools, daycare centres, etc.



TAC high-performance air cleaners - further information ...

# Extra safety: efficiency-tested air purification principle



In a continuous process, the room air that is contaminated with aerosol particles and infectious viruses is diluted and pushed towards the floor by a kind of "air roll effect".

The TAC V+ high-performance air cleaner draws in large volumes of the contaminated air near the floor and already cleans them in the course of one air cycle with its H14 filter efficiency of 99.995 %, certified in compliance with EN 1822, reliably separating airborne germs.

The clean, virus-filtered clean air then flows back to the top of the room through the specially formed air outlet fins with a high fan performance. This air cycle continuously keeps the breathing air cleaner, especially at head height, than without filtration.

The filtered, blown-out air in this process is not only free from viruses but also free from pollen and respirable, harmful particulate matter (e.g. caused by traffic load).

### Usage-related, sensor-controlled filter change indicator

An integrated filter change indicator is standard on all TAC high-performance air cleaners (except on TAC BASIC) and enables maximum service life of the prefilters and main filters used with a consistent filter efficiency. This way, premature expensive changes can be avoided as well as too long periods of use resulting in decreasing efficiency.

#### Also available as compact tower version

In addition to the mobile version, all TAC high-performance air purifiers are also available as a compact tower version for stationary continuous operation. Just as powerful as their mobile counterparts, these devices for stationary continuous operation with heights of barely one metre blend harmoniously and stylishly into any environment.



# **Exclusively with TAC V+ and TAC XT:**

# Thermal filter decontamination for more safety

Just like the airbag in the car – you hardly ever need it, but it's important that it's there!

Reliable inactivation of the viruses and bacteria by heat (15 minutes at about 100 °C) provides an important added value where hygiene and safety are concerned. This is recommended by leading scientists to ensure safe continuous operation.

Thermal filter decontamination is freely programmable and is effected in a fully automatic fashion, e.g. outside business hours or school hours.

In the case of the current series of the TAC V+ thermal decontamination is now induced via thermal pulsation, **reducing the power consumption** in comparison to the previous model with the same decontamination effect **by 50** %.

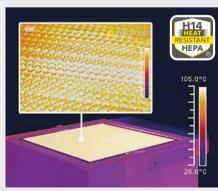
This means that two TAC V+ devices can now be operated simultaneously from one socket.

Thermal decontamination carried out on a weekly basis requires only 1.0 kWh of additional energy

per week and will not increase the room temperature due to the limited energy input and the short treatment time.

# Thermal filter regeneration for more hygiene

Automatic self-cleaning of the filter to provide for a longer filter lifetime and to prevent bacteria, mould, biofilm and the formation of odours resulting therefrom.



The process of filter regeneration takes place at about 100 °C in parallel to the thermal decontamination process and is recommended from a scientific point of view, since most bacteria and microorganisms are only inactivated at a temperature of approx. 100 °C. It's not without reason that drinking water containing germs should be boiled, i.e. heated to approx. 100 °C, for at least three to five minutes before use.

Thermal filter regeneration: To provide for longer filter lifetimes and an improved filter hygiene, and to prevent filter odour.

# Thermal filter treatment for lowest maintenance costs

The two unique protection features pay for themselves: Because thermal decontamination also increases the filter lifetime, a new HEPA filter has to be purchased less frequently. This saving means that you benefit from the added value of thermal decontamination – maximum filter safety and filter hygiene – practically free of charge!

The thermography image illustrates this: In the process of thermal decontamination the heat-resistant H14 HEPA filter of the TAC V+ is heated to about 100 °C, destroying the bound microorganisms.

TAC high-performance air cleaners – further information ...

TROTEC

# What makes the TAC V+ so unique and what makes it different from conventional air cleaners?

The TAC V+ was designed specially for the purpose of virus filtration, in particular with a view to the specific requirements in medium and large rooms such as school classrooms, office spaces or gastronomy spaces.

This is why the mobile carriage design ensures large air volumes combined with high versatility. Set up, reposition, adjust – all in next to no time, always exactly where the TAC is needed.

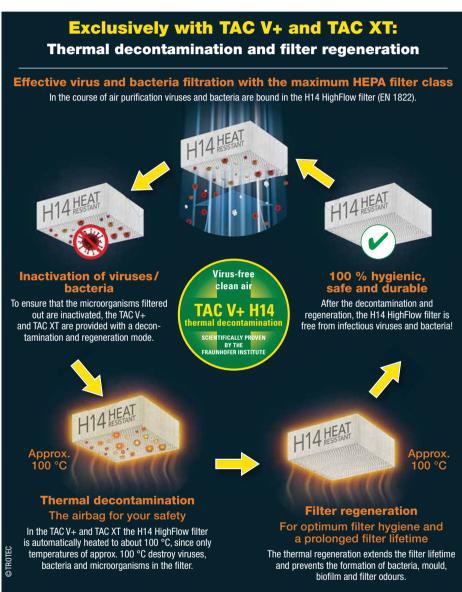
The specially constructed, fully encapsulated H14 hightemperature lamellae filter is a heat-resistant special design "made in Germany" with an extremely high filter volume performance of class H14 (EN 1822).

Aerosols carrying viruses and bacteria are reliably filtered out and heated to about 100 °C for approx. 15 minutes at regular intervals. In this process, the viruses filtered out are denatured, i.e. practically destroyed.



# The advantages of the exclusive decontamination and regeneration technology from Trotec:

- Separated microorganisms are thermally destroyed in the filter. For thermal decontamination that are performed on a weekly basis, this technology only requires a minimum energy input of approx. € 26 per year (52 x 1 kWh for € 0.5 each), but offers you the crucial added value with regard to hygiene over the entire filter lifetime.
- Due to the short treatment duration and the low energy input, the room temperature does not increase.
- The filter regeneration process constitutes a kind of self-cleaning function and ensures a consistently high effectiveness of the special virus filter.
- The thermal regeneration cycle effects the evaporation of the liquid portion of the aerosol particles and actively prevents the development of bacteria biofilm and filter odours.
- The filter's lifetime is extended by its regeneration function, allowing for reduced maintenance intervals and lower operating costs compared to air cleaners without thermal filter regeneration.
- Only at temperatures of approx. 100 °C, bacteria and mould can be reliably killed. It's not without reason that drinking water containing germs should be boiled, i.e. heated to approx. 100 °C, for at least three to five minutes before use. Therefore, thermal decontamination and filter regeneration at approx. 100 °C offer you more safety, hygiene and a long filter lifetime.
- Last but not least, this unique protective function basically pays for itself: Because thermal decontamination also increases the filter lifetime, a new filter has to be purchased less frequently. This saving means that you benefit from the added value of thermal decontamination maximum filter safety and filter hygiene practically free of charge!



### The TAC V+ and TAC XT offer what leading scientists recommend:

"To ensure that the room air cleaner always remains hygienically safe even in continuous operation, the H14 filter (EN 1822) should be heated to an approximate filter core temperature of 100 °C for about 15 minutes.

This takes place in a freely adjustable and fully automatic fashion, e.g. during the night, outside business hours or school hours. Heating the filter to about

100 °C destroys the microorganisms in the filter and prevents the formation of bacteria, biofilm and fungi without harmful chemical additives or UV-C radiation", says Prof. Kähler from the University of the German Federal Armed Forces in Munich.

With their automatic thermal decontamination the TAC V+ and TAC XT meet this requirement.



TAC high-performance air cleaners - further information ...

# **Major trend good air: Why air purification is so** important for health protection – and will remain so even in post-COVID-19 times

Even in times "without corona", TAC high-performance air cleaners will still be a precious investment as a universal guarantor of clean air. After all, air hygiene is always an issue, especially at the workplace, not only in production areas and workshops but also in the office, in canteens and law firms.

On the one hand, the TAC high-frequency air cleaners can also effectively protect employees and visitors from an airborne infection with influenza viruses during the annual flu outbreaks as well as from other airborne infectious dis-

On the other hand, permanently unhealthy air pollution at the workplace

is the ideal breeding ground for a wide range of negative effects. From fatigue, lack of concentration or headaches to respiratory diseases or allergies.

There are many reasons for poor air quality, and they are difficult to handle without any technical aids. From biogenic substances such as viruses, bacteria or pollen to fibres and fine dust



particles or suspended micro-sized particles on aerosols and vapours, high concentrations of hazardous substances often remain unnoticed in the workplace

For although the dangers of increasing outdoor air pollution are heard in the media every day, studies show that our indoor air is up to 100 times more polluted than outdoor air.

Since people regularly spend a long time at work, it is best to use a highperformance air purifier in continuous



operation to obtain the best potential for effective air pollution control and to provide for clean breathing air all around the workplace.

With a TAC high-performance air purifier, you can ensure effective air purification in your office rooms 365 days a year.

What clean air means: breathe healthier, work safer. live safer, feel safer!

### Virus filtration plus keeping the air free from particulate matter



Particulate matter pollution presents a permanent hazard to our respiratory organs, especially indoors. Learn more at uk.trotec.com/fine-dust

# nfection control: Recommendations for air changes and Circulation rates\* for TAC V+ and TAC M

Max. air volume flow for the respective filter class: with a HighFlow H14-HEPA filter built in as standard

**H14** up to 1,200 m<sup>3</sup>/h

H13 up to 2,100 m<sup>3</sup>/h

Filter efficiency class certified in compliance with DIN EN 1822

Maximum room size in m3

Fields of application	Circulation rate* / Number of air changes (min.)	Filter class H14	Filter class H13
Conference rooms, office spaces, business premises, schools, daycare centres, restaurants, salons, workshops, fitness studios, choir rooms	Circulation rate* of at least 6 times per hour.  With a high density of persons or high activity, a minimum circulation rate of 8 times* is recommended.	200 m <sup>3</sup> **	350 m <sup>3</sup> ***
Therapy rooms, gymnastics rooms, bars, discotheques, marquees, call centres	Circulation rate* of at least 8 times per hour.  With a high density of persons or high activity, a minimum circulation rate of 8 to 10 times* is recommended.	150 m³ **	260 m <sup>3</sup> ***
Hospital wards, medical practices, waiting rooms	Circulation rate* of at least 12 times per hour.  With a high density of persons or high activity, a minimum circulation rate of 12 to 15 times* is recommended.	100 m³ **	175 m³ **

- Air change is an established term in the field of ventilation technology, which, however, is misleading, since the technical and colloquial meaning does not comply with each other. The air change in the unit (1/h) specifies the multiple of the room volume that is supplied to the room per hour in the form of filtered or fresh air. In field of displacement ventilation (e.g. air pump), this number exactly corresponds to the multiple of the room volume, this, however, does not apply to mixing ventilation (room air cleaner, open windows, interior ventilation system), since air that has already been partly filtered/exchanged is filtered/exchanged again. With regard to the viral load in the room this means that room air cleaners, free ventilation and interior ventilation systems are not able to establish completely virus-free room air if persons infected continuously breathe out viruses into the room. The virus concentration is lower when the number of air changes is high, though. Therefore the risk of infection decreases with an increasing number of air changes. With the same virus-free air volume, it is not relevant whether the viruses are separated by room air cleaners (air circulation, circulation rate) or whether they are led out of the room through windows or by means of interior ventilation systems (air change, air change rate). But room air cleaners have the clear advantage that they are more beneficial as regards the energy consumption, and that they provide for a constant air change, irrespective of the wind/temperature conditions or of the window size. These data does not apply to rooms the volume of which is exceptionally large in relation to the number of persons, e.g. churches, exhibition halls, etc.
- With an active use and a high density of persons these values may deviate. The above-mentioned data is based on scientific recommendations established on the basis of the current infection situation. Your specific room situation may possibly require higher or lower air change rates in the context of your individual hygiene concept. We're happy to be of service
- Generally, we recommend using the TAC V+ with its serial filter in H14 filter stages with max, 1,200 m<sup>3</sup>/h, especially in rooms with a high density of persons, to ensure reliable separation of viruses and bacteria. Only with an explicit approval in specific hygiene concepts or for quick separation (short and intense filtration) during break times, operation can take place in H13 filter stages up to max. 2,100 m³/h.

TAC high-performance air cleaners – further information ...

TROTEC

# **Effective virus air purification:**

# Versions, model variants and special solutions

## Mobile or stationary: HEPA-filtered clean air wherever it is needed

In addition to the mobile version, all TAC high-performance air purifiers can also be supplied as stationary tower versions with integrated furniture castors. While the mobile version offers you maximum flexibility for situational room and location changes, the stationary tower version convinces with HEPA-filtered clean air at a fixed installation site.

While the mobile versions TAC V+ and TAC M are delivered with an installed blowing-out tower as a standard, the mobile versions of the TAC ECO as well as the stationary tower versions are provided with a discharge hood directed to the ceiling at the-discharge side. Only the TAC V+ is supplied with a blowing-out tower instead of a discharge hood as standard. This also applies to the tower version due to the thermal decontamination function of the device.

All models – whether mobile or stationary – have been subjected to an elaborate sound insulation concept and are equipped with an integral silencer on the suction side as standard equipment. All in all, this makes the devices scarcely audible in everyday use.



TAC high-performance air purifier as tower or mobile version The discharge level of each version can be increased variably by mounting the optional FlowExtender Silence+ distance piece – ideal for rooms with high ceilings.

# **Model variants TAC M, TAC ECO and TAC BASIC**

These model variants are our best recommendation if you want to do without the full equipment of the TAC V+, but not without effective H14 HEPA virus filtration from Trotec "made in Germany".

Due to their function for thermal decontamination and filter regeneration, the high-performance air purifiers TAC M and TAC ECO can also be used in areas which, due to electrical protection, only permit automated thermal decontamination to a limited extent. Consequently, the devices come without the added value of thermal room decontamination – maximum hygiene and safety –, which is offered by the TAC V+ through cyclic heat inactivation and thermal filter self-cleaning for longer filter lifetimes.



### TAC M - TAC V+-like virus-filtered clean air

Just like the TAC V+, equipped with a programmable touch display incl. USB update function, the TAC M offers you convenient configuration options.

Furthermore, you also benefit from the integrated FlowMatic control for a constant air volume flow at any power level with the TAC M.

On request, the TAC M is available as tower and mobile version in all colours of the TAC V+.





### TAC ECO - virus-filtered clean air, manually adjusted

The TAC ECO is the perfect reduction of the TAC V+ to its essential virus filter qualities with an H14 HEPA filter standard according to EN 1822.

Once manually configured, the TAC ECO, too, will automatically make you benefit from virus-filtered clean air in your rooms.

The TAC ECO is available as tower and mobile version and exclusively in basalt grey.





#### TAC BASIC – the best basis for virus-filtered clean air

With the exception of the filter change indicator, the TAC BASIC comes with all the basic functions of the TAC ECO, but is only available as a stationary tower version which can also be used as a mobile device thanks to the installed furniture castors.

An overview table showing the scope of application and the differences in equipment of all TAC high-performance air purifiers can be found in the technical data starting from page 138 ...





TAC high-performance air cleaners - further information ...

# **TAC XT**

### Multi air handler

For extended fields of application of the TAC V+ beyond air pollution control, the multi-air handler TAC XT has been developed.

The TAC XT is based on the same assembly as the TAC V+, which is why it is provided with an identical HEPA air purification function with filter class H14 and a filter efficiency of 99.995 %.



In addition though, the TAC XT can also be used for combined room heating as well as for thermal disinfestation or decontamination, for instance for the decontamination at night-time of rooms in sanitary facilities, changing rooms, treatment rooms, etc.

More information regarding the TAC XT can be found in chapter "Heating" starting on page 70 ...



#### Stainless steel version for hygiene-sensitive areas

The TAC V+ as well as the multi-air handler TAC XT are optionally also available in stainless steel design, which is ideally suited for the use in areas with specific hygiene requirements or especially reactive atmospheres.

The stainless steel housing is easy to clean and manufactured of the material 1.4301, which features a very high corrosion resistance and which is particularly resistant to various chemical solutions.

# **TAC V+ Dual for virus filtration in large halls**

For virus-free air purification of even very large hall areas we recommend using the TAC V+ Dual. With its high-pressure fan and Thermodecon function made of stainless steel, the Dual design, which draws in air at the floor side and blows it out on two sides, makes it possible to extensively flush even spacious hall areas with virus-free, filtered clean air.



C profiles integrated on both sides allow you to flexibly mount the TAC V+ Dual on the ceiling or wall, in the process of which you can also remove the control panel from the device and attach it near the floor by cable, also making it possible to easily control the high-performance air purifier from a distance even if the TAC V+ Dual has been mounted at a great height.

The TAC V+ Dual is available with a variety of clean air capacities on request.

# **Optional accessories and equipment options**



#### **Sound protection caps**

Produce an additional reduction of the sound level, in particular of the frequencies perceived as disturbing, which considerably reduces the perceived overall loudness.

The sound protection caps available in a set of 2 can be mounted either on one or on both sides of any TAC high-performance air purifier.



#### **Flowstop shutters**

The flowstop shutters can be attached to one or two of the four insides of the blowing-out tower. This prevents the respective tower side from discharging air, e.g. if air purification is not desired on the respective side or if the device is positioned in front of a wall.



#### **DualHeat blowing-out tower**

For TAC XT only: Blowing-out tower with turning option for high versatility: A tower side to be used to distribute warm air in the room, a connector side for connecting a hose to existing ventilation systems.



### **Manipulation protection**

This transparent cover prevents unauthorised direct access of the control panel (not suitable for TAC XT).

Article no. 6.100.007.065



#### FlowExtender Silence+

To be mounted under the blowing-out tower. Increases the discharge position of the air outlets by 50 cm each and additionally reduces the sound level.

Article no. 6.100.007.066



# Attachment hood for hose connection (ø 300 mm)

For TAC XT only:

Enables the connection to existing ventilation systems or pipe bends.

Article no. 6.100.007.066

TAC high-performance air cleaners – further information ...

> TROTEC











Technical data		TAC BASIC	TAC ECO		TAC M	
Version		Tower	Tower	Mobile	Tower Mobile	
Article number		1.580.000.139	1.580.010.140	1.580.001.140	1.580.010.145	1.580.001.145
Max. air flow rate Heati	ing (without HEPA filter) [m³/h]	_	-	-	-	-
Prefilter		G4 Z line (EN 779:2002) F7 (EN 779:2002) ePM10 85 % (ISO 1		,,		
Particulate air filter	Туре	Trotec HEPA-H14, EN 1822 (standard minipleat)			Trotec HEPA-H14 HighFlow filter heat resistant, EN 1822	
(Each filter is tested and certified	max. Air volume flow [m³/h]	H14 ≤ 1,000, H13 ≤ 1,600			$H14 \le 1,200, H13 \le 2,100$	
individually.)	Scope of delivery	standard	standard	standard	standard	standard
	Replacement interval		Approx. 1 - 2 years <sup>1</sup>		Approx. 1 - 3 years 1	
Mains supply [V / Hz]		220 - 240 / 50 - 60				
Connection plug				CEE 7/7, H07RN-F		

Safety and filter hygiene: Thermal decontamination and filter regeneration at approx. 100 °C. 15 min. Heating-up phase / 15 min. Decon phase (altogether 30 min.)

No thermal decontamination and reconditioning of the filter

ø power input [kW]	urification	0.154	0.154	0.154	0.154	0.154	
Heati	ing	-	-	-	-	-	
Control panel		Manual control panel (6-step switch)			Touch display with PIN lock function		
Sound pressure level <sup>6</sup> (approx.) in accordance with ISO 11203		31 - 50 dB(A)	29 - 50 dB(A)	29 - 50 dB(A)	29 - 50 dB(A)	29 - 50 dB(A)	
Length [mm]			506	690	506	690	
Width [mm]		523	523	610	523	630	
Height [mm]		1,100 - 2,100 <sup>9</sup>	1,100 - 2,100 <sup>9</sup>	1,130 - 2,230 <sup>9</sup>	1,100 - 2,100 <sup>9</sup>	1,300 - 2,300 <sup>9</sup>	
Weight [kg]	0 0 0 0 0	85 <sup>7</sup>	847	84 <sup>7</sup>	847	84 <sup>7</sup>	
Possible applications and equipment differences							
Use for high-performance H14 HEPA air purification as per EN 1822		•	•	•	•	•	
Integral silencer		•	•	•	•	-	
Stationary floor-standing design		•	•	-	•	-	
Mobile carriage design		-	-	•	-	•	
Usage-related filter change indicator for prefilter and HEPA filter		-	•	•	•	-	
FlowMatic volume flow control for constant circulation rates		-	-	-	•	•	
Programmable touch display updateable via USB		-	-	-	•	-	
Thermal filter decontamination and filter regeneration		-	-	-	-	-	
Use for room heating, tent heating		-	-	-	-	-	
Use for thermal decontamination of rooms / objects		-	-	-	-	-	
Use for thermal disinfestation		-	-	-	-	-	
Available colour variants		Basalt grey	Basalt grey		Basalt grey, yellow, white, bronze		
Filter elements (accessory c	onsumables)						
Trotec HEPA-H14 HighFlow filter heat resistant, EN 1822		-	-	-	7.160.000.106	7.160.000.106	
Trotec HEPA-H14 (standard minipleat), EN 1822		7.160.000.113	7.160.000.113	7.160.000.113	-	-	
Prefilter F7 (EN 779:2002), ePM10 85 % (ISO 16890)		-	-	-	7.160.000.449	7.160.000.449	
Prefilter G4 Z line (EN 779:2002)		7.160.000.457	7.160.000.457	7.160.000.457	-	-	
Prefilter protective membrane		7.160.000.458	7.160.000.458	7.160.000.458	7.160.000.458	7.160.000.458	
Protective membrane air outlet		7.160.000.459	7.160.000.459	7.160.000.459	7.160.000.459	7.160.000.459	

<sup>&</sup>lt;sup>1</sup> depending on the application: in dusty environments, shorter filter change intervals may also be necessary. <sup>2</sup> Due to the missing sensor-supported filter change indication, a change every 6 months is recommended for reasons of safety. <sup>3</sup> with regular thermal decontamination. <sup>4</sup> without thermal decontamination for an air volume of 900 m<sup>3</sup>/h. <sup>5</sup> with thermal decontamination (60 min.) <sup>6</sup> Depending of the configuration (sound protection caps, FlowExtender) <sup>7</sup> weight incl. filter, <sup>8</sup> weight without filter, <sup>9</sup> with FlowExtender Silence+









Technical data		TAC V+		TAC XT 18	TAC XT 27	
Version		Tower	Mobile	Mobile	Mobile	
Article number		1.580.010.152	1.580.001.152	1.410.000.183	1.410.000.182	
Max. air flow rate Heating (without HEPA filter) [m³/h]		-	-	2,500	2,500	
Prefilter		F7 (EN 779:2002), ePM10 85 % (ISO 16890)		G4 Z line (EN 779:2002)		
Particulate air filter (Each filter is tested and certified individually.)	Туре	Trotec HEPA-H14 HighFlow filter heat resistant, EN 1822, fully encapsulated H14 HighFlow metal lamellae high-temperature filter "made in Germany"				
	max. Air volume flow [m³/h]	H14 ≤ 1,200, H13 ≤ 2,100				
	Scope of delivery	standard	standard	Accessories	Accessories	
	Replacement interval	Approx. 2 - 4 years <sup>13</sup>				
Mains supply [V / Hz]		220 - 240 / 50 - 60		2 x 380 - 480 / 50 - 60		
Connection plug		CEE 7/7, H07RN-F		2 x CEE 16 A (9 kW each)	CEE 16 A (9 kW), CEE 32 A (18 kW)	
Safety and filter hygiene: Thermal decontamination and filter		Time freely programmable, the thermal decontamination and filter regeneration process takes place fully automatically, usually once a week in the night or outside business or teaching hours.				

Safety and filter hygiene: Thermal decontamination and filter regeneration at approx. 100 °C. 15 min. Heating-up phase / 15 min. Decon phase (altogether 30 min.)

fully automatically, usually once a week in the night or outside business or teaching hours.

Thermal decontamination and filter regeneration can be switched off temporarily or even constantly as required. Thanks to the short treatment duration (15 min.) and the low energy input (altogether approx. 1.0 kWh per cycle), the room temperature does not increase by thermal

		decontamination.				
ø power input [kW]	Air purification	0.154 (1.25)5	0.154 (1.25)5	0.154 (1.25)5	0.15 4 (1.25) 5	
	Heating	-	-	18	27	
Control panel		Touch display with PIN lock function				
Sound pressure level <sup>6</sup> (approx.) in accordance with ISO 11203		29 - 50 dB(A)	29 - 50 dB(A)	35 - 59 dB(A)	35 - 59 dB(A)	
Length [mm]			690	690	690	
Width [mm]		523	630	630	630	
Height [mm]		1,270 - 2,270 <sup>9</sup>	1,300 - 2,300 <sup>9</sup>	1,300 - 2,300 <sup>9</sup>	1,300 - 2,300 <sup>9</sup>	
Weight [kg]		89 <sup>7</sup>	89 <sup>7</sup>	948	99 <sup>8</sup>	
Possible applications and equipment differences						
Use for high-performa	nce H14 HEPA air purification as per EN 1822	•	•	•		
Integral silencer		•	•	•		
Stationary floor-standing design		•	-	-	-	
Mobile carriage design		-	•	•	•	
Usage-related filter change indicator for prefilter and HEPA filter		•	•	•	•	
FlowMatic volume flow control for constant circulation rates		•	•	•	•	
Programmable touch display updateable via USB		•	•	•		
Thermal filter decontamination and filter regeneration		•	•	•	•	
Use for room heating, tent heating		-	-	•	•	
Use for thermal decontamination of rooms / objects		-	-	•	•	
Use for thermal disinfestation		-	-	•	•	
Available colour variants		Basalt grey, yellow, white, bronze		Yellow	Yellow	
Filter elements (acce	ssory consumables)					
Trotec HEPA-H14 HighFlow filter heat resistant, EN 1822		7.160.000.106	7.160.000.106	7.160.000.106	7.160.000.106	
Trotec HEPA-H14 (standard minipleat), EN 1822		-	-	-	-	
Prefilter F7 (EN 779:2002), ePM10 85 % (ISO 16890)		7.160.000.449	7.160.000.449	-	-	
Prefilter G4 Z line (EN 779:2002)		-	-	7.160.000.457	7.160.000.457	
Prefilter protective membrane		7.160.000.458	7.160.000.458	7.160.000.458	7.160.000.458	
Protective membrane air outlet		7.160.000.459	7.160.000.459	7.160.000.459	7.160.000.459	

<sup>&</sup>lt;sup>1</sup> depending on the application: in dusty environments, shorter filter change intervals may also be necessary. <sup>2</sup> Due to the missing sensor-supported filter change indication, a change every 6 months is recommended for reasons of safety. <sup>3</sup> with regular thermal decontamination. <sup>4</sup> without thermal decontamination for an air volume of 900 m<sup>3</sup>/h. <sup>5</sup> with thermal decontamination (60 min.) <sup>6</sup> Depending of the configuration (sound protection caps, FlowExtender) <sup>7</sup> weight incl. filter, <sup>8</sup> weight without filter, <sup>9</sup> with FlowExtender Silence+

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Dehumidification

Humidification

Heating

Ventilation

Air conditioning

All cicalling

Disinfection and Odour neutralization

Accessories

Professional quality
"made in Germany" –
originally produced by Trotec

Unique in the world: Professional air cleaner – variably applicable for building site and cleanroom renovations with only one device

Dust class H, approvable for asbestos abatement as per TRGS 519

Already prepared for future directives of the (German) employer's liability insurance association regarding the use of portable air purification equipment

Vario-shift function to adapt the use of the filter ladder with terminal fan or HEPA filter

Sensor-supported FlowMatic control for the automatic retention of the preselected air volume (TEC 5000 and 6500)

Monoventic regulator for precise and infinitely adjustable amounts of air

Visual and acoustic alternating display for pre- and main filter – sensor-supported

Equipped as standard with stacking aid and shock protection (TAC 5000 and 6500)

Simple filter change via quick top unlocking device (TAC 5000, 6500) or service flap (TAC 1500, 3000)

Now also H14 filter for virus filtering available!

# **TAC Professional Air Cleaner**

Just a "TAC" better: Professional air cleaner with their application variably ranging from "standard construction sites" over asbestos abatements to hygiene-sensitive areas even in cleanroom environments – and all that with only one device!



The optimum solution for construction and restoration work in indoor environments contaminated with dust, mineral fibres, mould spores or allergens!



TAC air cleaner - further information...



### Neat: All in one according to construction site & cleanroom standards!

Conventional air cleaners with inflexibly arranged filter ladders can well be used

in construction zones, but are completely unsuitable for renovation work in cleanroom environments and thus prohibited.

Because of the operational requirements of terminal

high-efficiency particulate air filters in cleanroom surroundings the HEPA filter has to be downstream of the fan as the last link at the end of the filter chain.

Since such a filtration sequence, inflexibly arranged, is on the other hand economically absolutely useless for renovation works infested with mould, because the fan would be contaminated with spores and would have to be elaborately cleaned and disinfected each

3

time, it has as yet been impossible to meet both requirements flexibly and

> comfortably with only one air purification unit and without the use of additional attachment parts.

> Thanks to the globally unique Vario-shift function, Trotec's TAC air cleaners can, by con-

trast, be variably adjusted for all application scenarios and in line with the regulations.

As the only portable air cleaner on the market, only TAC devices are equipped for a fast change of position of fan and HEPA unit, meaning you can re-arrange the filter chains in line with demand in the required sequence for standard or cleanroom applications at any time.

# Against all opposition: Volumetric flow remains constant!

To realize the stipulated air exchange rates for the inside rooms to be attended to, a constant volumetric flow during the whole period of application is compulsory, because otherwise, with a reduced effective air flow rate, the required amount of air can no longer be achieved.

However, process-related, the used filter elements are gradually clogging up, which leads to an increase in counter pressure and a reduction of the air flow rate. Furthermore, connected air transport hoses affect the amount of air effectively available at the end of the hose, depending on their length and number of spiral tracks.

Using conventional air cleaners, one has to work with distinctly elevated starting values in order to meet the air change requirements for the entire processing time and to be able to compensate an

plication and, moreover, increase the filter elements' wear and tear.

This problem can be solved more professionally using the electronic volumetric flow regulation automatism of our TAC 5000 and 6500 air cleaners - the first portable air cleaners employing this technology worldwide!

The sensor-supported FlowMatic control of these TAC devices is unique in the world and basically works like the "cruise control" in your car:

The FlowMatic sensors capture the actual values of the air flow rate within the entire filter chain and continually adjust the system performance dynamically, so that the once numerically predefined target value for the amount of air can be kept constant in every situation!

This does not only increase filter lifetime and system efficiency, but also quarantees the compliance with the air exchange rates required by law.



+49 2452 962-200

TAC air cleaner - further information...

TROTEC



# the optimum solution for any application requirement... Wherever there is construction or restoration work in progress, enormous

amounts of dust emerge and this pollution not only affects the employed craftsmen, but also the users of adjacent

Many building activities cause high concentrations of dust, not only when using angle grinders or during blasting, chiselling or demolition operations, but also when mixing dry mortar, spackle or tile cement.

Often the dust remains in the breathing air for hours. One construction worker inhales approx. 10,000 litres of air per working day. Up to 95 % of the dust are then exhaled, coughed up or swallowed.

The remaining 5 % however should not be taken lightly, for they can cause serious illnesses.

Especially critical are dusts from quartziferous stones, artificial mineral fibres, wood, cellulose and asbestos. What adds to this is the pollution with spores, allergens and microfibres, f.i. in the



building, insulation layer or mould fungus restoration.

The room air exposure to impurities is thus more than just an unpleasant side effect.

Without the application of suitable air purification systems, dust and hazardous substances can spread in the building unrestrictedly which entails harmful effects on the inhabitants' health and inventory. Therefore they have to be dynamically combatted, not least because of prevailing hazmat regulations.



The air cleaners of the TAC series are ideal solutions for air extraction and cleaning contaminated work

These modest, portable, professional devices with robust metal housing were especially designed for the rough everyday work on ever-changing construction sites and can be adjusted need-based for any application owing to the infinitely adjustable air volume.

Due to the modularly and flexibly combinable filter modules of the TAC air cleaners, an optimum filter combination can be compiled for any level of room air contamination - thanks to the Vario-shift function also with variably placeable terminal HEPA filter for cleanroom conditions.

#### Filtration range:

- Asbestos dust
- Quartz dust
- Building rubble
- Flour dust and wood dust
- Mineral fibres
- Mould spores
- Paint particles

### Typical fields of application:

- Blasting operations
- Construction work and renovations
- Water damage restoration
- Fire damage restoration
- Mould fungus remediation
- Asbestos abatement
- Cleanroom applications











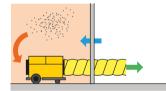
# Which sizes of hazardous particles call for which filter combinations?

Pollutant particles in the air can be classified according to their size. The accompanying graph illustrates a practice-oriented overview of which filtration efficiencies and filter combinations are implemented for which levels of room air contamination (indication of size in micrometres, one micrometre equals a thousandth of a millimetre).

# Examples for use of TAC air cleaners

The purification of contaminated room air takes place by means of vacuum recirculation. In case of simple applications, TAC air cleaners can be placed directly in the doorway. Alternatively, the air can be led to pollutant-free areas using hoses.

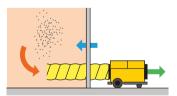
# With TAC air cleaners it is easy to realize the most diverse varieties of application:



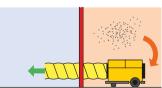
Maintaining pressure with TAC in room and air hose.



Air purification in sealed off area via air circulation.

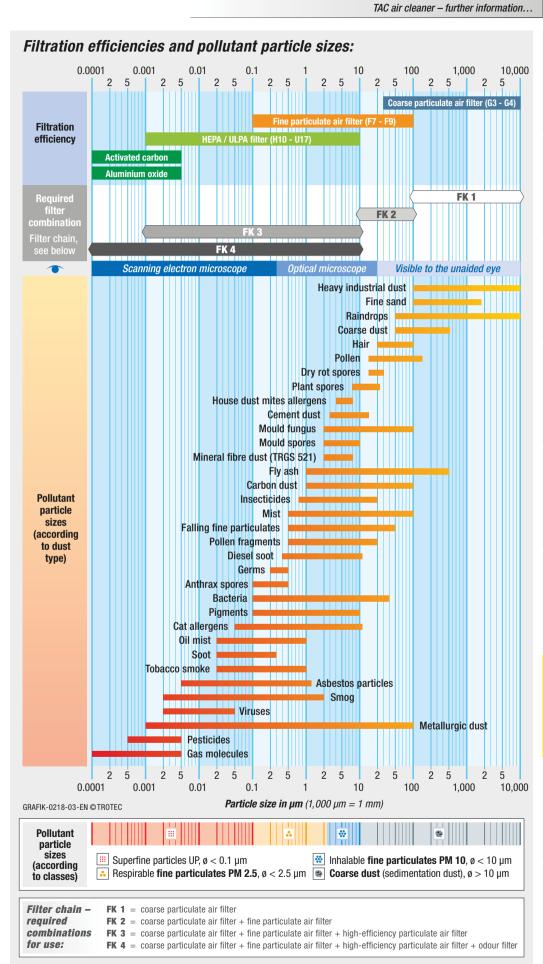


Maintaining pressure outside of room via air hose.



Protective excess pressure ventilation of rooms located in contaminated areas

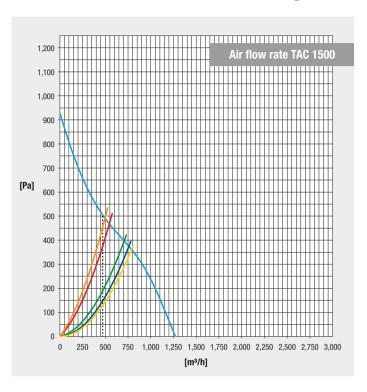
In addition to the above, many other variations are possible with the flexibly applicable TAC air cleaners!

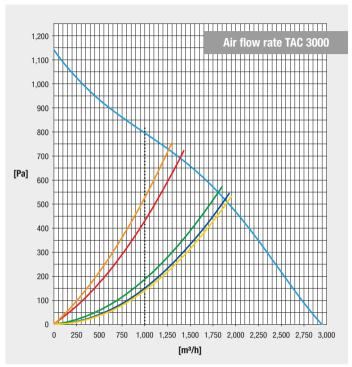


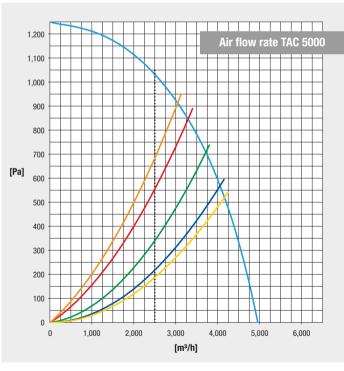
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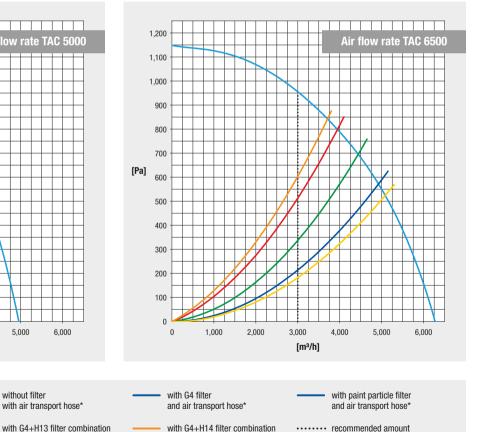
TAC air cleaner - further information...

# **Overview of the TAC series' performance charts**









of air for dust class H

\* Connected on the discharge side, standard length 7.6 m, laid in a 90° bend.

When the air hose is laid stretched and arc-free, an increase of air volume by up to 25 % is possible!

without filter

with air transport hose\*

(approval for dust class H)

and air transport hose\*

with G4+F7 filter combination

and air transport hose'

Fan

echnical data		TAC 15	600	TAC 3	000	TAC	5000	TAC 6	5500
article number		1.580.000	0.105	1.580.00	0.115	1.580.0	00.125	1.580.0	00.135
mount of air				see p	erformance o	harts on page	144		
Recommended amount of air for dust clas	ss H [m³/h]	500		1,00	00	2,5	00	3,0	00
Oust class (as per DIN EN 60335-2-69)		cond	centration of	(transmittance : ≤ 0.1 mg/m³, ous Substances) approvable fo	carcinogenic , TRGS 905 o	hazardous sub	stances as pe cal Rules for Ha	r GefStoffV § 1	
nfinite adjustment of air volume									ı
lowMatic regulation of air volume		-		-			1		I
Iternating filter display,	Prefilter								I
isual and acoustic	Main filter						1		
ario-shift function for the variable configu f use with terminal fan or HEPA filter	uration						•		ı
lotor power [W]		175		450	)	1,2	70	1,4	00
put voltage [V/Hz]		230 / 50	0-60	230 / 5	0-60	230 /	50-60	230 / 5	50-60
urrent consumption [A]		1.4		2.8	3	5.	6	6.	0
ectrical connection / connecting cable			Saf	ety plug (CEE 7	7/7) / rubber (	conduits (H05F	RN-F), length 3	m	
ir transport hose connector [ø mm]	Suction side	200		250	)	40	00	45	0
a amoport nood dominotial [9 mm]	Blow-out side	200		250	)	40	00	45	0
ound level (distance 1 m) [dB(A)]		61		65		6	8	68	3
ength [mm]		705		833	3	1,2	52	1,2	52
(idth [mm]		362		460		69		79	
eight [mm]	0 0 0	377		519		92		1,0	
eight (full) [kg]		22		36		12	25	13	6
obility: portable / wheeled / stackable		■/■/		■/■		<b>-/</b> ■		<b>-/</b> ■	
ecommendation for filter combination the application and corresponding ro		TAC 15	500	TAC 3 Suit		TAC ! ns to a size o		TAC 6	5500
eld of application	Filter combination	m³	m²	m³	m²	m³	m²	m³	m²
parse dust $^{2)}$ ( $\leq$ 3 LW/h $^{6)}$ )	G4	220	88	500	200	1,200	480	1,400	560
ne particulates $^{3)}$ ( $\leq 3$ LW/h $^{6)}$ )	G4 + F7 to F9	110	44	270	108	600	240	750	300
uspended matter $^{4)}$ ( $\geq$ 10 LW/h $^{6)}$ )	G4 + H13/H14	50	20	100	40	150	60	200	80
/gienic areas $^{5)}$ ( $\geq$ 15 LW/h $^{6)}$ )	G4 + H13/H14	35	14	70	28	110	44	135	54
otional equipment (accessories)		TAC 15	600	TAC 3	000	TAC :	5000	TAC 6	5500
uiding wheels with pneumatic tyres, trac	celess	-		-		Upon r	equest	Upon re	equest
estle rollers (instead of guiding wheels)		Serie	S	Serie	es	Upon r	equest	Upon re	equest
Iter elements (accessory consumable	es) <sup>1)</sup>	TAC 15	600	TAC 3	000	TAC	5000	TAC 6	5500
verspray filter		Article nu 7.160.00		Article no 7.160.00		Article i 7.160.0		Article r 7.160.0	
4 Z line filter		Article nu 7.160.000		Article no 7.160.00		Article (7.160.0		Article r 7.160.0	
7 pleated filter cartridge		Article nu 7.160.000		Article no 7.160.00		Article (7.160.0		Article r 7.160.0	
7 bag filter		Article nu 7.160.000		Article no 7.160.00		Article 1 7.160.0		Article r 7.160.0	
		Article nu		Article no 7.160.00		Article (7.160.0		Article r 7.160.0	
• •		7.160.00							
r dust class H		7.160.000 Article nu 7.160.000		Article no 7.160.00		Article (7.160.0		Article r 7.160.0	
or dust class H		Article nu	0.426		0.433		00.456		00.480
13 HEPA filter approved or dust class H  14 HEPA filter  vailable accessories ir transport hose Tronect SP-T 8, angth 7.6 m		Article nu 7.160.000	0.426 600 mber	7.160.00	00.433 000 umber	7.160.0	00.456 5000 number	7.160.0	00.480 6 <b>500</b> number

Accessories

Dehumidification

Humidification

Heating

Air conditioning

Air cleaning

Disinfection and Odour neutralization

<sup>&</sup>lt;sup>1)</sup> With an assumed room height of 2.5 m; <sup>6)</sup> Typical coarse dust tasks: sawing, filing; <sup>3)</sup> Typical fine dust tasks: restoration works with materials containing minerals or glass wool; <sup>4)</sup> Typical suspended matter tasks: grinding, asbestos abatement or mould remediation, mineral dusts etc.; <sup>5)</sup> H13 /H14 downstream; <sup>6)</sup> Air exchange per hour; <sup>7)</sup> Other filters and filter classes available on request; <sup>8)</sup> This and other air transport hoses are described starting on catalogue page 176.

### A FEW PRACTICAL BENEFITS:

Professional quality "made in Germany" originally produced by Trotec

Versatile filter system for the extraction of dust and spray paint mists

Dust class H, approvable for asbestos abatement as per TRGS 519

**Enormously robust** and stackable metal housing

Powerful premium fan

Monoventic regulator for precise and infinitely adjustable amounts of air

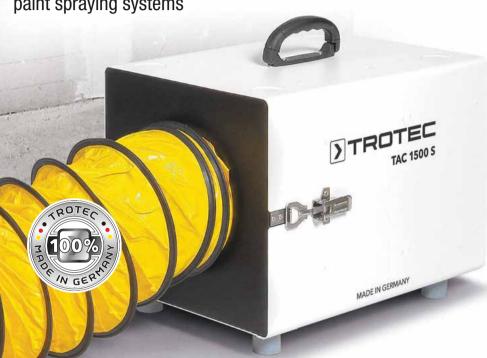
Visual and acoustic filter change indicator

Operating hours counter

Low-maintenance, stackable construction with quick release fasteners for simple filter change

# **Air cleaner TAC 1500 S**

The robust standard solution for clean air during restoration, reconstruction and expansion or painting work using airless paint spraying systems





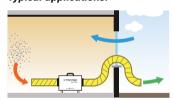
**Now also H14 filter** for virus filtering available! The TAC 1500 S is the economical solution for all users who do not want to do without the performance advantages of the professional air cleaner TAC 1500 on construction sites and during restoration work, but who neither want to use the device in hygienic areas nor in cleanroom environments.

For this purpose the Vario-shift function for terminal HEPA filters as well as the separate prefilter change indicator were omitted, while the air flow rates were kept completely identical to those of the TAC 1500 and can also be adjusted as needed via the infinitely adjustable Monoventic air volume control.

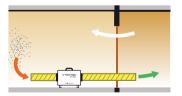
TAC 1500 and TAC 1500 S by comparison – application-oriented selection guide	TAC 1500	TAC 1500 S
Extraction of spray paint mists for spray painting or airless applications	<b>✓</b>	<b>✓</b>
Dust extraction during construction work according to dust class M (occupational exposure limit > 0.1 mg/m³), for instance mineral wool dust, wood dust, lead dust	<b>✓</b>	<b>✓</b>
Dust extraction during restoration work according to dust class H (occupational exposure limit $< 0.1 \text{ mg/m}^3$ ), for instance mould spores, mineral fibres, bitumen, quartz dust, asbestos (observe TRGS 519)	<b>✓</b>	<b>✓</b>
Air purification during work in hygienic areas* according to dust class H, for example hospitals, laboratories, doctors' offices	<b>✓</b>	-
Air purification during work in cleanroom environments*	<b>✓</b>	-
* terminal HEPA filter required according to dust class H;		

separate prefilter control device recommended in addition to main filter control device.

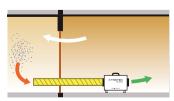
### Typical applications:



Negative pressurization with external discharge of the filtered air to avoid hazards in adjacent areas.



Negative pressurization with discharge of the filtered air into an adjacent room sealed with foil.



Negative pressurization with extraction of the filtered air from an adjacent room sealed with foil. With this version, the device remains free from dirt.

TRT-KAT-LRTS-WM-05-EN

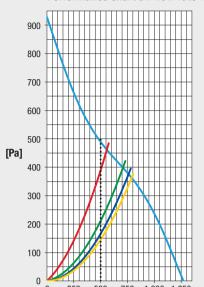
Recommendation for filter combination	TAC 1500 S		
specific to the application and corr room size suitability		for rooms up to ³	
Field of application	Filter combination	m³	m²
Coarse dust $^4$ ( $\leq$ 3 LW/h $^8$ )	G4	220	88
Fine dust $^5$ ( $\leq$ 3 LW/h $^8$ )	G4 + F7	110	44
Suspended matter $^6$ ( $\geq$ 10 LW/h $^8$ )	G4 + H13 / H14	50	20
Hygienic areas <sup>7</sup> (≥ 15 LW/h <sup>8</sup> )	G4 + H13 / H14	35	14
. ,			

Tryglorilo di odo (2 10 EV/11 )	4 1 1110/1114	00	
Filter elements (accessory consul	TAC 1	500 S	
Spray paint filter			number 000.416
G4 Z-line filter			number 000.404
F7 pleated filter cartridge			number 000.409
F7 bag filter			number 000.414
H13 HEPA filter approved for dust class H			number 000.424
H14 HEPA filter			number 000.426
Available accessories		TAC 1	500 S

Available accessories		TAC 1500 S
Air transport hose Tronect SP-T 9, ø 203 mm, L 7.6 m,		Article number 6.100.001.200
Professional extension cable,	( and )	Article number

L 20 m, 230 V, 2.5 mm<sup>2</sup>

Article number 7.333.000.376



Performance chart air flow rate TAC 1500 S without filter with air transport hose' with G4 filter and air transport hose\* with spray paint filter and air transport hose\* with G4+F7 filter combination and air transport hose' with G4+H13 filter combination (approval for dust class H) and air transport hose\* recommended amount of air for dust class H Connected to the pressure side, standard length 7.6 m. laid with one 90° arc. When the air hose is laid stretched and arc-free, an increase of air volume 250 500 750 1,000 1,250 by up to 25 % is possible! [m3/h]



The filter frame of the TAC 1500 S can be flexibly equipped with one or two filter elements, for example a G4 filter or an additional F7 filter, so that in combination with the HEPA filter a two- or three-stage air purification process in accordance with dust class H can be achieved. It is also possible to integrate Trotec spray paint filters - ideal when using airless systems.

- Standard equipment
  - Interchangeable terminal position of fan and HEPA filter
- 1 Optional accessories
- <sup>2</sup> What does MID-compliant mean? In some areas, the Measuring Instruments Directive (MID) replaces the previous regulation of national authorization and subsequent calibration. As a result. all energy meters in Europe used for energy consumption-based billing have to be MID-compliant from now on
- 3 With an assumed room height of 2.5 m
- 4 Typical coarse dust tasks: sawing, filing

- <sup>5</sup> Typical fine dust tasks: restoration works with materials containing minerals or glass wool
- Typical suspended matter tasks: grinding, asbestos abatement or mould remediation. mineral dusts etc.
- <sup>7</sup> Terminal HEPA filter required
- <sup>8</sup> Air changes per hour
- These and other air transport hoses are described starting on catalogue page 176.

Trotec

Dehumidification

Humidification

Air conditioning

Air cleaning

Disinfection and Odour neutralization

Accessories



### A FEW PRACTICAL BENEFITS:

Professional quality
"made in Germany" –
originally produced by Trotec

Versatile filter system for dust collection or the extraction of spray paint mists

Extremely light – weighs only 6 kg (empty)

Powerful premium fan

Infinite adjustment of air volume

Impact-proof and robust ABS housing, recyclable to 100 %

Low-maintenance construction with quick release fasteners for simple filter change

Compact dimensions – easily fits into every trunk

Can be connected to different hose diameters

Handy cable organiser for safe transport

# Air cleaner TAC 750 E

Extremely mobile and variably applicable lightweight – agreeably small in terms of costs and dimensions



# Air purification made easy!

Whether for rebuilds, renovations or restorations – wherever there is construction work in progress the air is quickly contaminated with dust pollutants, endangering the health of employees or residents and polluting adjacent areas.

Here, the lightweight TAC 750 E constitutes the perfect solution for air cleaning in smaller construction zones and air pollution control in the surrounding facilities – due to its compact dimensions it also conveniently fits into even the smallest trunk.

Developed specifically as vacuum generator for dust-laden rooms, the TAC 750 E with its effective two-stage filter system ensures reliable HEPA filtration of the contaminated room air to protect against health hazards and dirt!



More than 60% lighter than comparable competition models!

### Now also H14 filter for virus filtering available!

### Power consumption billing?

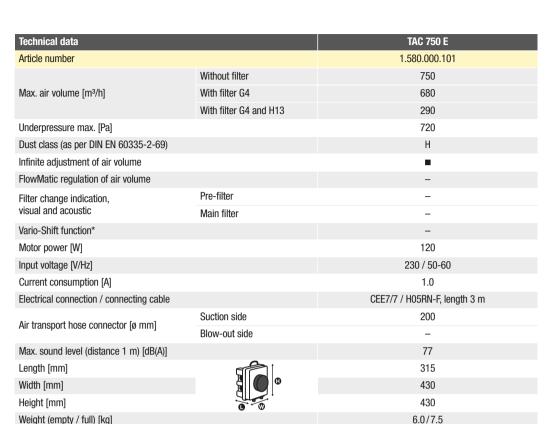
For commercial billing the electricity consumption must be determined by means



of an MID meter. Device without an MID meter? The BX50 MID provides the solution – further information can be found on page 167 . . .



Light and powerful in equal measure – the ideal air cleaner for maintaining the pressure during restoration and renovation work



**I**/-/-

TAC 750 E

Article number 6.100.001.120

Article number

7.333.000.376

TROTEC

Mobility: portable / wheeled / stackable

(hose adapter required) Professional extension cable,

length 20 m, 230 V, 2.5 mm<sup>2</sup>

Recommendation for filter combinations specific

to the application and corresponding room size suitability		Suitable for rooms to a size of 1)		
Field of application	Filter combination	m³	m²	
Coarse dust $^{2)}$ ( $\leq$ 3 LW/h $^{6)}$ )	G4	250	100	
Fine particulates $^{3)}$ ( $\leq$ 3 LW/h $^{6)}$ )	G4 + F7	-	-	
Suspended matter $^{4)}$ ( $\geq 10 \text{ LW/h}^{6)}$ )	G4 + H13 / H14	25	10	
Hygienic areas <sup>5)</sup> (≥ 15 LW/h <sup>6)</sup> )	G4 + H13 / H14	12,5	5	
Filter elements (accessory consumable	es)	TAC 7	50 E	
Spray paint filter		Article n 7.160.00		
G4 Z line filter		Article n 7.160.00		
F7 pleated filter cartridge		Article number 7.160.000.409		
H13 high-efficiency particulate air filter (as per DIN EN 1822, filtration efficiency 99.95 %)		Article n 7.160.00		
H14 high-efficiency particulate air filter		Article n 7.160.00		
Available accessories		TAC 7	50 E	
Air transport hose Tronect SP-T 7)		ø 203 mm, le Article number 6		
Hose adapter (ø 125 mm)	6	Article n 6.100.0		
Air transport hose Tronect TF-L <sup>7)</sup>	Manufacture de la company	ø 127 mm, l	ength 6 m,	

### \* Terminal changeable position of fan and HEPA filter; 1) With an assumed room height of 2.5 m;

Typical coarse dust tasks: sawing, filing;
 Typical fine dust tasks: restoration works with materials containing minerals or glass wool;
 Typical suspended matter tasks: grinding, asbestos abatement or mould remediation, mineral dusts etc.;

### Using the TAC 750 E air purification becomes mere child's play

As the lightest air cleaner of its class, the TAC 750 E can be transported from one construction site to another without difficulty and be put into operation just as easily.

The infinitely adjustable air volume requlation enables an energy-efficient adjustment of the fan performance to the required air exchange rates for the respective construction zone.

With the range of available filters you can flexibly use the TAC 750 E as twostage filter system for air cleaning in construction zones or for the extraction of spray paint mists in case of airless or compressed-air applications.

In addition to the standard connection for 203-mm hoses, smaller 127-mm hoses for air extraction can also be connected to the TAC 750 E using an optional hose adapter.

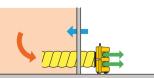
This way, the ideal hose connection is available for any requirement ranging from pinpoint suction to maintaining the pressure.



Since the TAC 750 E was scrupulously optimized for effective suction operation, it can optionally be applied either for air circulation directly in sealed-off areas or outside for maintaining the pressure via a hose connection:



Air purification in sealed off area via air circulation.



Maintaining the pressure outside of the room via air hose.

<sup>&</sup>lt;sup>5)</sup> Terminal HEPA filter required; <sup>6)</sup> Air exchange per hour; <sup>7)</sup> This and other air transport hoses are described starting on catalogue page 176.

### A FEW PRACTICAL BENEFITS:

Professional quality
"made in Germany" –
originally produced by Trotec

Powerful and quiet air purification – removes 99.995 % of all airborne viruses, bacteria, fine dust particles and pollen

Elegant design with an effective aerodynamic concept – air intake close to the floor, room-filling clean air flow

Automatic output control through sensor-supported air quality monitoring

Triple air quality sensor system – integrated sensor system records volatile organic compounds (VOC), ultra-fine particulates (PM1) and carbon dioxide (CO2) in the room air

Highly efficient HEPA H14 filter system with prefilter and odour filter

Proven to reduce the aerosol concentration of the room air – scientifically tested

History indication of the room air quality for the last 24 hours to 14 days

Multi-stage HEPA filter system certified according to EN 1822

Powerful, air circulating, steplessly self-regulating EC radial fan for constant circulation rates

Enables 6-fold air circulation rates/h in rooms sized up to  $40\ m^2$ 

ECARF-certified for allergy sufferers

Air quality indicator – numerical and as traffic light colour bar

Quiet operation, effective results

Omnidirectional clean air distribution with 360° working radius

Optional elimination of unpleasant odours

Tamper-proof screen lock with PIN protection

Practical remote control included in the scope of delivery

Also adjustable with the smartphone using the Trotec control app

# High-performance air purifier AirgoClean® One

Our No. 1 virus fine dust odour air cleaner for business rooms with a residential character, medical practices and law firms or exclusive private rooms



The name says it all: AirgoClean® is Trotec's brand name for comfort air purification in private settings. And here the AirgoClean® One is our clear number 1 and first recommendation for virus filtration and permanent air pollution control in conference rooms, waiting rooms, medical and veterinary practices, law firms or high-class private environments.

As a guarantor for that reassuring "coming home feeling" when entering your own four walls, your office, law firm or medical practice, the AirgoClean® One always ensures pure, good air for a safe feel-good climate. Enter. Close the door, take a breath, safety.



Air pollutants, germs and fine dust stay outside, all that remains inside is clean filtered breathing air.

Protect yourself and your environment with HEPA-filtered clean air that is 99.995 % free from dangerous air pollutants.



High-performance air purifier AirgoClean® One – further information ...

### Many things can be done better. But not the AirgoClean® One.

We have to admit that quite a few air cleaners leave a good impression at first sight. But in the long run, many of them are in danger of literally running out of breath sooner or later.

Permanent operation, uninterrupted air purification around the clock, non-stop virus filtration – this wears out the material, you have to be made for it. Just like Trotec's AirgoClean® One.

It is no coincidence that with the Airgo-Clean® One you benefit from an equally durable and user-friendly construction with effective 360° air routing and long filter lifetimes – after all, it is a high-performance air purifier originally produced by Trotec, developed and manufactured in Germany according to the highest quality standards, which houses only efficient branded components of the latest

> generation of technology supplied by leading component manufacturers.

Each quality filter integrated is produced in Germany, tested and certified individually.

The effectiveness of the H14 HEPA filter system of this high-performance air purifier has been scientifically proven!

# AirgoClean® One — if premium is your standard Bacteria and viruses Animal hair and dander Allergens Allergens Pollen

# Air quality that you can see, operating comfort that will amaze you

IN GER

Thanks to the integrated triple air quality sensors you always keep all important air quality parameters in check.



In addition to the air temperature and humidity level as room climate indicator and the degree of pollution by ultra-fine particulates, the AirgoClean® One shows the current carbon dioxide concentration in the room air.

All information can also be called conveniently via app and the device can be controlled remotely.

# AirgoClean® One: virus filtration plus keeping

Fine dust is also an issue indoors and is much more harmful to health than previously thought. In addition, frequent ventilation can cause the room air to mix even more with outdoor air contaminated with fine dust. Find out more at uk.trotec.com/fine-dust

# Allergy-friendly and quality-tested with ECARF certificate The AirgoClean® One is ECARF-certified. This quality seal of the European Centre for Allergy Research (ECARF) certifies that the air cleaner AirgoClean® One is able to achieve an excellent improvement of the room air quality – Trotec's highest recommendation for allergy sufferers. Allergy-friendly Quality Tested ECARF www.ecarf-siegel.org

### Stylish. Powerful. Clean air at its best. AirgoClean® One.

No matter in what place – always in first place of the best Trotec high-performance air purifiers for clean room air in first-class environments with a private touch: with its discreet elegance, the AirgoClean® One blends pleasantly unobtrusively into any atmosphere and impresses with both a classic appearance and exemplary inner values. Whether for a conference room, medical practice, waiting room,





law firm, private collections and libraries or exclusive private rooms — the AirgoClean® One not only leaves an excellent impression in any environment, but of course also produces the best virus-filtered room air — free from pollutants such as fine dust, volatile organic compounds (VOC), airborne germs and odours. Set up, switch on, breathe freely.





High-performance air purifier AirgoClean® One – further information ...

TROTEC

# "Touch & play" via touch display or app – high-class comfort functions

If you are fond of complicated switch sequences or adjusting numerous controls, then the AirgoClean® One will probably disappoint you. Everyone else will be thrilled by the comfort equipment of the AirgoClean® One, because all parameters can be conveniently set via the touch display of this H14 high-performance air purifier. And there are plenty of configuration options and service information the AirgoClean® One has to offer:



### **Sensor-supported automatic operation**

The air purification capacity cannot only be controlled manually in 6 levels. In addition, the AirgoClean® One is equipped with a comfortable automatic mode.

Highly sensitive sensors determine the particle load in the room air and the concentration of volatile organic compounds (VOC). The values are shown on the touch display in real time and at the same time regulate the air and filter performance of the device fully automatically to remove suspended particles from the room air in next to no time.

# Triple air quality sensor system for VOC, PM1 and CO<sub>2</sub>

The AirgoClean® One is equipped with an effective triple air quality sensor system. In this way, the air cleaner can simultaneously record and show to you all important room air quality parameters.

In addition to the air temperature and humidity level as room climate indicator, the AirgoClean® One also determines the concentration of volatile organic compounds (VOC) in the room air and the degree of pollution by ultra-fine particulates (PM1).

Moreover, a  $\mathrm{CO}_2$  sensor informs you about the current carbon dioxide concentration in the room air. This makes rigid ventilation intervals that are expensive in terms of energy costs obsolete.

Instead of ensuring a supply of fresh air at fixed time intervals, the  $\mathrm{CO}_2$  sensor enables you to exclusively provide ventilation when the sensor system indicates that the carbon dioxide concentration has reached a critical level.

The display of the AirgoClean® One not only shows all air quality parameters numerically, but also as a colour bar indicator from green to yellow to red. This provides you with a quick overview of all air quality parameters even without reading off the numerical values.

### **Boost mode**

Boost mode is used especially for accelerated ventilation of the room, where, for example in acute situations, particularly fast and effective cleaning of the indoor air is required.

In this mode, the air is quickly cleaned to an optimum level at the highest fan stage. This is a fast and simple way of cleaning the air in meeting, break and staff rooms to achieve a good quality level. Allergy sufferers who open the window to ventilate the room are able to have the air filtered from intruding pollen or particulate matter within minutes.

When the AirgoClean® One is set to boost mode, airborne pollutants and suspended particles are removed from the room air with maximum air cleaning performance at the highest fan speed so that the room air is cleaned to an optimum level.

### Night mode with reduced blower level and low background noise

With its low noise emission, the night mode enables clean, filtered room air even during sleep. The display illumination is dimmed and the air flow rate is set to the lowest blower level.

### Intelligent filter lifetime monitor

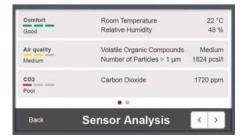
The condition of the filters is monitored and displayed for all three filter compartments. The condition monitoring does not simply work hypothetically, based on time for instance, but it records the actual filter status and provides precise information about a necessary filter change.

# Air quality indication with 14-day history

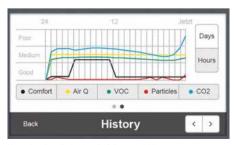
This unique function indicates the air pollution level of the past 24 hours up to 2 weeks in the form of a graph based on the data logger principle. Broken down by VOC and particle load as bar charts and the air quality in total as a line chart. Each diagram of the 5 represented parameters can be shown or hidden as required.

# Tamper-proof screen lock with PIN protection

PIN protection is used to prevent unauthorised use of the  ${\sf AirgoClean}^{\circledast}$  One.



The AirgoClean® One provides a clear overview of all room air quality values recorded – numerically and as traffic light colour bar: Temperature and humidity level, VOC concentration, fine dust pollution or carbon dioxide concentration.



Have the air pollution level of the past 24 hours up to 2 weeks displayed in the form of a graph based on the data logger principle.



The air cleaner informs you about the wear level of the air filters installed and indicates a necessary filter change.





High-performance air purifier AirgoClean® One – further information ...

### Timer function with convenient weekly schedule

While conventional timers are usually limited to selecting the time of switch-on and switch-off, the AirgoClean® One comes equipped with a top-class operation planner. The respective switch-on and switch-off times can be specified as desired for the individual weekdays or for all days at once.



The weekly schedule allows you to easily set up individual switching scenarios.

In this way, you can for example define identical switchon times for Monday to Thursday and for Friday, but different switch-off times, if office hours end earlier on Friday. You can virtually program any switching scenario in an easy fashion using the weekly schedule.



The desired operating mode can be specified for each individually defined period



Thanks to the versatile timer configuration options, switching scenarios for virtually any office and shop business hours can be set very easily.



# Very smart indeed – easy and convenient device control or status retrieval via app on request

With premium devices like the Airgo-Clean® One, customers have the right to expect a remote control option. That's why the scope of delivery of this high-performance air purifier Airgo-Clean® already includes a practical remote control as a standard accessory which allows you to carry out important operational settings of the AirgoClean® One conveniently even from a distance.



In interaction with your smartphone, though, you can now raise the possibilities of controlling the AirgoClean® One to a new level, if required.

For the Trotec control app, which is available free of charge for Android and iOS, lives up to its name and offers you convenient functions that exceed mere device control by far:



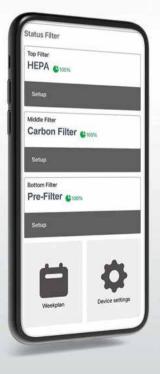
App Store

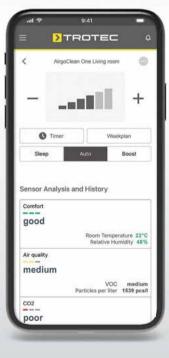
### Trotec control – full control via smartphone and Bluetooth

With the Trotec control app you simply connect to your AirgoClean® One via Blutooth and comfortably control or configure the air cleaner from your desk or sofa.

Whether you want to manage your weekly schedule or edit your PIN protection manager, the app allows you to comfortably access many device settings and to change the operating modes anytime.

Furthermore you can have all room air quality indicators displayed conveniently in real time on your smartphone and read off the current filter status. In this way, you're provided with precise information about the current filter status and about a necessary filter change.







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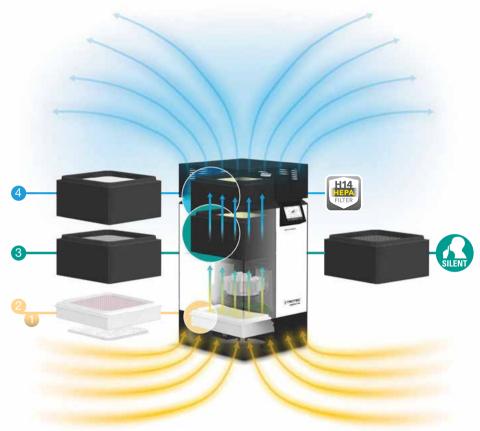
High-performance air purifier AirgoClean® One – further information ...

TROTEC

### Clean air engineering "made in Germany" – 100 % Trotec

The impressive clean air performance of the AirgoClean® One is achieved exclusively through well-established mechanical filter technology. Such mechanical filters are used in many building-technology ventilation systems for effective air purification. Therefore, for the AirgoClean® One, we also rely 100 % on this efficient technology for air purification. The AirgoClean® One dispenses with alternative techniques such as UV-C, ionisation, ozone technology, or electrostatic

filtration. Therefore, the HEPA-H14 attains filtered clean air in interior spaces that is 99.995 % free from dangerous air pollutants.



### **Double prefilter**



### **Coarse dust filtration**

As the first filter stage, a synthetic prefilter mat with a large dust storage capacity retains coarse dust, thus relieving the F7 prefilter and extending its

### **Fine dust filtration**

In combination, an F7 prefilter (ISO ePM10 85 %) then effectively separates fine dust as a second filter stage.

### **Activated carbon filter**



An optional activated carbon filter is available as filter stage 3, which effectively neutralises in particular tobacco, pet, kitchen and smoke odours as well as formaldehyde and solvent odours from the ambient air. If

required, the filter can be used instead of the silencer and installed underneath the H14 filter.

### Silencer



As standard, a powerful silencer for efficient noise reduction of the air cleaner is installed as the last filter stage. It ensures pleasantly quiet operation. The silencer has been elaborately flow-optimized, so that it is vol-

A class H13 HEPA filter is also

ume flow-neutral and generates practically no flow resistance.

### H14 HEPA filter complying with EN 1822

The fourth filter stage included in the scope of delivery is a HEPA filter of class H14, which is characterised by a separation efficiency of ≥ 99.995 % with a trans-Made in Germanu mittance of  $\leq 0.005$  % for particle sizes of  $0.1 - 0.3 \mu m$ .

optionally available.

4

High-performance air purification with multistage HEPA filter system certified according to EN 1822

### Stage 1 coarse dust filtration



As the first filter stage, a prefilter mat with a high dust storage capacity

retains coarse house dust, textile fibres and animal hair from the room air, thus increasing the lifetime of the HEPA prefilter.

### Stage 2 -**HEPA** prefiltration



The fine particulate air filter of class F7 (ISO ePM10 85 %) serves as a prefilter of the

H14 HEPA filter and separates e.g. pollen and finer particles ≤ 10 µm with a minimum separation efficiency of 85 %.

1

### (3) Stage 3 activated carbon filtration



This optional filter effectively neutralises odours from various sources from the

ambient air, for instance tobacco, pet, smoke, kitchen as well as formaldehyde and solvent odours.

### Stage 4 -**HEPA** filtration



In the H14 HEPA filter, allergens, fine dust particles, bacteria and viruses

down to a size of 0.1 micrometres are filtered out with a separation efficiency of 99.995 %.





Technical data		AirgoClean® One
Article number		1.580.001.100
Filtration efficiency		99.995 %
Prefilter (according to ISO 16890)		ISO ePM10 85%
Suspended matter filter (according	to EN 1822)	HEPA H14
Max. amount of air [m³] H13/H14		650/600
Input voltage [V/Hz]		220 - 240 / 50
Power input [W]		170
Flacksia	Plug type	CEE 7/7
Electric connection	Cable length [m]	1.5
Sound level (distance 1 m) [dB(A)]		11 to 57
Length [mm]	1	435
Width [mm]	•	400
Height [mm]		835
Weight [kg]		16.9
Equipment and functions		AirgoClean® One
Fan stages		6
Boost mode		
Night mode		
Intelligent filter lifetime monitor, consumption-based		•
Air quality sensor (VOC)		
Fine dust sensor (PM1)		
CO <sub>2</sub> sensor		•
Graphical air quality indication with 14-day history		-
Air quality indicator – numerical and as traffic light colour	bar	•
Room climate indication		
Operation manual / automatic		■/■
Touch display (DE, EN, ES, FR, IT av	ailable)	
Infrared remote control		
App control		•
Child lock		PIN protection
Timer function with weekly schedul	е	•
Carrying handles / castors		■/■



Available accessories/supplies		AirgoClean® One
Prefilter mat Synthetic fleece		Art. no. 7.700.000.005 (included in the scope of delivery)
F7 prefilter ISO ePM10 85%		Art. no. 7.710.000.011 (included in the scope of delivery)
Activated carbon filter		Art. no. 7.710.000.012
Silencer	nonition.	Art. no. 7.710.000.017 (included in the scope of delivery)
HEPA filter H13 Particle separation efficiency $\geq$ 99.95 % with transmittance $\leq$ 0.05 %		Art. no. 7.710.000.015
HEPA filters H14 Particle separation efficiency $\geq$ 99.995 % with transmittance $\leq$ 0.005 %		Art. no. 7.710.000.013 (included in the scope of delivery)



Application-specific room size suitability of the AirgoClean® One					
SARS-CoV-2 virus filtration and ge (influenza, common cold, measels	HEPA H13	HEPA H14			
6 air changes	Maximum	$45 \text{ m}^2 / 112 \text{ m}^3$	$40 \text{ m}^2 / 100 \text{ m}^3$		
suitable for rooms sized up to	Recommendation by Trotec*	$28 \text{ m}^2 / 70 \text{ m}^3$	$23 \text{ m}^2 / 58 \text{ m}^3$		
10 air changes suitable for rooms sized up to	Maximum	$27 \text{ m}^2 / 67 \text{ m}^3$	$24 \text{ m}^2 / 60 \text{ m}^3$		
	Recommendation by Trotec*	$17 \text{ m}^2 / 43 \text{ m}^3$	$14 \text{ m}^2 / 35 \text{ m}^3$		
Suspended matter / fine particle filtration		HEPA H13	HEPA H14		
Fine dust, pollen, animal hair	Maximum	78 m² / 195 m³			
suitable for rooms sized up to	Recommendation by Trotec*	$50 \text{ m}^2 / 125 \text{ m}^3$			

### \* Usually, the maximum value of other devices is advertised as the "recommended room size". In order to achieve a good combination of air pollution control and background noise, the room sizes we recommend are based on a sound level of approx. 46 dB(A).

### Automatic mode and virus filtration

Do not use the automatic mode if the device is used for virus filtration. The integrated sensors only respond to air pollution caused by fine particulates, pollen or VOC. The device cannot determine the virus load. It is possible that the automatic mode indicates a "good" air quality even though the virus load in the room is very high. For this reason we recommend using the fan level requested by the respective specifications with regard to the circulation rate (air volume) when the device is used for virus filtration in order to reduce the risk of indirect infections.

(Airozon® 20000 and 60000)

Robust construction for professional disinfection and odour neutralisation

Corona discharge (nothing to do with Covid or SARS) via quartz glass

dielectric for permanently stable

ozone performance values

High-quality ozone electrode with long lifetime even under pro-

fessional operating conditions

Ozone output from 10,000 to 60,000 mg/h (depending on the



Powerful ozone generators for large-scale disinfection and odour neutralisation



### Power consumption billing?



For commercial billing the electricity consumption must be determined by means of an MID meter. Device without an MID meter? The BX50 MID

TROTEC

provides the solution – further information can be found on page 167...

# Disinfect large interiors in the shortest possible time and neutralise odours – made easy with the ozone disinfectors of the Airozon® Professional series

These robust ozone disinfectors are able to disinfect surfaces and interior air by means of Airozon® ozonisation, providing both large-scale and quick disinfection and virus elimination. This makes them ideally suited for sterilising school and kindergarten rooms, sport halls and gyms, hotel rooms, home accommodation, public facilities and public means of transport or shops and supermarkets.

Traditional cleaning methods do not only require a lot of time, high staff expenses and the use of chemicals but are also proven to be less effective for virus disinfection. Among other things, it is not possible to reliably verify that hard-to-reach areas have been completely disinfected when wiping disinfectants have been used. In contrast to these traditional cleaning methods, the professional Airozon® ozonisation is a fast and effective method for the large-scale disinfection of surfaces and interior air.

The virucidal effectiveness of Airozon® Professional ozone disinfectors when disinfecting surfaces has been scientifically proven!

### Stable ozone performance values for optimal disinfection results

Unlike ceramic-based dielectrics, the high-quality Airozon® Professional ozone electrodes are particularly designed to generate peak ozone values of up to 60,000 mg/h under ambient air conditions, but also to ensure a consistently high ozone level for the entire treatment period and throughout the entire working radius.

Such ozone levels are a prerequisite for largescale disinfection applications, but also for the effective elimination of odours resulting from fire and water damage.





Ozone disinfectors Airozon® Professional – further information . . .

### The Airozon® Professional series opens up a wide range of applications, for example:

- Disinfecting interior rooms of schools and kindergartens or retail shops
- Disinfection of surfaces in train compartments, trams or busses
- Sterilisation and odour neutralisation of hotel rooms, holiday homes or other accommodations where people frequently change, and in sanitary areas
- Elimination of microorganisms and viruses on surfaces and in the room air
- Interior room air and surface disinfection of large vehicles, caravans or yachts
- Odour elimination after fire or water damages

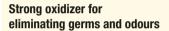
### What makes the ozonation with the Airozon® so effective?

Ozone is one of the strongest, naturally occurring sterilisers in the world. Due to its bactericidal, virucidal and sporicidal properties, it is an effective means to eliminate microorganisms such as bacteria, spores or viruses.

In higher atmospheric layers, ozone is naturally produced by ultraviolet radiation of the sun. Near the ground, ozone arises as a result of lightning strikes or waterfalls. Air and water are constantly cleaned by naturally occurring ozone.

The highest natural ozone

concentrations can be found at seashores or in alpine and in forestal areas - areas where you'll feel refreshed immediately. The human sense of smell is able to perceive ozone even in smallest concentrations of 0.1 to 0.2 parts per million (ppm).



Due to its high oxidation power, ozone is very reactive with molecules producing odours. The ozone changes their chemical structure which results in the formation of odourneutralised molecules and the air being cleaned. This is the reason why the treatment with ozone is a fast and effective way to permanently get rid of the most persistent odours.

The ozone generated with the Airozon® also destroys infectious viruses, bacteria and germs on surfaces and in the room air: it diffuses through the protein shell into the nucleic acid where it destroys the viral RNA.



For this reason, ozone produced by industry and technology is chiefly used for the purification of drinking water, the sterilisation and treatment of pool water, the water preparation for the food and beverage industry or the conditioning of cooling and process water.

### What is very much useful in the industrial sector can also provide many advantages in your own company:

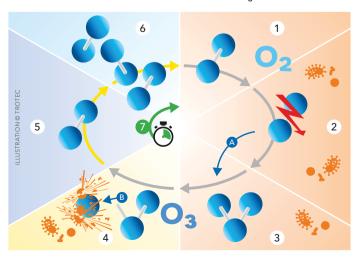
In order to provide oxidative disinfection and odour elimination, the technical production of ozone with the Airozon® ozone generator allows you to use ozone in an absolutely flexible way in every desired location - because this is exactly the field of application of the Airozon® ozone generators and the purpose for which they have been designed for.

### The functional principle of the Airozon® ozone generators

- 1. To provide ozonisation, the generators of the Airozon® series make use of the oxygen present in the surrounding air as a molecular compound.
- 2. The surrounding air is drawn in by the ozone generator where an electrical discharge procedure takes place. After that, the energy breaks down the diatomic oxygen molecule into two single oxygen atoms in form of free radicals.
- 3. The atomic oxygen recombines (A) with an oxygen molecule to form ozone.
- 4. Ozone is a very powerful oxidising agent with a high reaction potential. This makes it an effective reagent for the decomposition of disruptive substances in the surrounding air. The radicals bound in the ozone molecule separate from the molecule compound (B) and react with all kinds of substances in the surrounding air, even if these are only present in very

little concentrations. The oxidative decomposition of airborne and immovable pollutants (e.g. in the ground, on walls or on the ceiling), results in an odour neutralisation and decontamination by means of killing viruses, bacteria, mould and carcinogenic/allergenic microorganisms.

- 5. After the oxidation of oxygen atoms with the reactants, the ozone molecules will be transformed into oxygen molecules
- 6. Due to their metastable bond, ozone molecules that did not oxidise will also decompose into oxygen after some time without leaving harmful residues. In in-



terior spaces and under normal conditions, ozone has a half-life of approx. 30 to 60 minutes. This means that the ozone concentration in the room air at least naturally halves every hour in a natural way.

7. Oxygen regeneration technology:

By means of this function, the time it naturally takes for ozone to degrade into oxygen (6) can be significantly increased. The Airozon® Supercracker has already been equipped with an integrated oxygen regeneration cycle.

In addition, all ozone disinfectors of the Airozon® Professional series by Trotec can also be combined with the innovative Zerozon 200 oxygen regenerator as a master-slave solution for accelerated ozone depletion (more information about the Zerozon 200 on catalogue page 161).

Ozone disinfectors Airozon® Professional – further information . . .

TROTEC

### Ozone disinfector Airozon® 10000

Compact professional solution for oxidative disinfection of surfaces and interior air and effective odour neutralisation



- Production: 100 % Trotec
- ☑ Robust compact device for professional disinfection and odour neutralisation
- ☑ One-stage ozone output with 10,000 mg/h
- The high-quality Airozon® Professional ozone electrodes are particularly designed to guarantee a constantly high ozone level within the entire effective radius, which is an absolute prerequisite for effective virucidal surface disinfection.

Only an ozone generation with low fluctuations and constantly high ozone levels during the entire treatment period can guarantee the reguired "minimum ozone concentration" for a successful disinfection process.

- do with Covid or SARS) via quartz glass dielectric\* for permanently stable ozone performance values
- High-quality ozone electrode with long lifetime even under professional operating conditions
- Well-arranged control panel simple handling
- the treatment duration between 0 minutes to 30 hours
- ☑ Operating hours counter for recording the operating period
- Integrated air filter mat reduces contamination of internal components

### **Ozone disinfector Airozon® Supercracker**

Disinfects surfaces and interior air and neutralises odours in an oxidative way - and does it faster than any other device thanks to the integrated oxygen

regeneration cycle



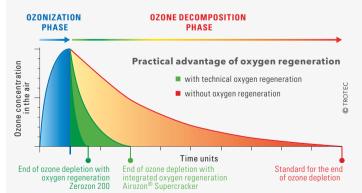


- Development, Design, Production: 100 % Trotec
- Robust construction for professional disinfection and odour neutralisation
- 10,000 mg/h
- Corona discharge (nothing to do with Covid or SARS) via quartz glass dielectric\* for permanently stable ozone performance values
- with long lifetime even under professional operating conditions
- for maximum mobility
- Configuration menu for selecting the treatment duration, room size and available treatment programs



- accelerated ozone depletion process after the treatment
- of treatment by means of an alarm signal
- contamination of internal components

### Airozon® Supercracker: Practical benefits of an oxygen regeneration technology



For an accelerated ozone depletion after a room has been treated, the Airozon® Supercracker is equipped with an integrated oxygen regeneration mode:

Conventional ozone generators without technical oxygen regeneration require that the ozone has to decompose into oxygen first before the treated rooms can be safely entered. Thanks to the integrated cycle for automatic technical oxygen regeneration after each completed ozone treatment, the Airozon® Supercracker accelerates this process by means of actively transforming ozone into oxygen.

In contrast to conventional ozone generators that do not provide an active oxygen regeneration procedure, the Airozon® Supercracker does not only create high ozone concentrations in a short time, but also decomposes them again in the same quick manner.

The oxygen regeneration procedure implements significantly quicker treatments!

Our recommendation: With the unique Zerozon 200 you can also benefit from the advantages of technical oxygen regeneration when using any other ozone disinfector of the Airozon® Professional series!

More information regarding this innovative master-slave solution for Airozon® Professional devices can be found on catalogue page 161.





Ozone disinfectors Airozon® Professional – further information . . .



### Ozone disinfector Airozon® 20000

Powerful ozone generator for odour neutralisation and disinfecting interior spaces



- "made in Germany" originally produced by Trotec
- ☑ Robust construction for professional disinfection and odour neutralisation
- One-stage ozone output with 20.000 mg/h
- do with Covid or SARS) via quartz glass dielectric\* for permanently stable ozone performance values
- ☑ Duplex package of high-quality 10g ozone electrodes with long lifetime even under professional operating conditions
- to save space in the warehouse and during transport
- large rooms in an economical way

- of treatment by means of an alarm signal
- a targeted use even in poorly accessible areas
- the treatment duration between 0 minutes to 100 hours
- Operating hours counter for recording the operating period
- Integrated G4 air filter prevents contamination of interior components



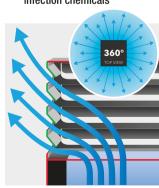
### Ozone disinfector Airozon® 60000

Our most powerful mobile ozone generator in carriage design for large-scale disinfection of interior spaces and odour neutralisation





- ☑ Robust construction for professional disinfection and odour neutralisation
- ✓ One-stage ozone output with 60.000 mg/h
- do with Covid or SARS) via quartz glass dielectric\* for permanently stable ozone performance values
- ozone electrodes with long lifetime even under professional operating conditions
- Stable carriage design for maximum mobility
- Powerful radial fan for treating large rooms in an economical way
- 360° treatment entirely avoids "blind areas" as they appear during a manual, daily life cleaning procedure with disinfection chemicals



Due to its specific flap structure with vertical ozone distribution, the omni-directional blowing-out tower provides for a constant, high-volume ozone purification of the entire treatment area.

- ✓ Omnidirectional ozone distribution for an equal disinfection of surfaces and interior air in the entire treatment radius
- of treatment by means of an alarm signal
- the treatment duration between 0 minutes to 100 hours
- Operating hours counter for recording the operating period
- Integrated G4 air filter prevents contamination of interior components



The Airozon® 60000 convinces with an optimal handling and high mobility thanks to its height-adjustable telescopic push handle and stable carriage design.

### **Compliance with ozone limit values**

Seeing as ozone is an oxidative irritant gas with harmful effects on eyes, nose, pharynx and lungs even at low concentrations, it is essential to ensure that defined limit values are met after the treatment process of an ozone generator has been terminated.

For this reason, use a suitable ozone meter after successful treatment and an appropriate regeneration waiting time to check whether the ozone concentration in the treated room allows safe access again.

By international standards the MAC thresholds for handling ozone vary between 0.05 and 0.1 ppm.



Our recommendation: The professional ozone meter OZ-ONE is ideally suited for establishing an access control system for the treated rooms after you completed your ozonisation applications.

**Note:** The OZ-ONE is not suitable for measuring high ozone concentrations > 1 ppm as they are generated during a treatment. Therefore, the OZ-ONE cannot be used for measurements during ongoing treatments!

Ozone disinfectors Airozon® Professional – further information ...









# Ozone disinfectors of the Airozon® Professional series

TROTEC

Technical data		Airozon® 10000	Airozon® Supercracker	Airozon® 20000	Airozon® 60000
Article number		1.180.000.112	1.180.000.115	1.180.000.113	1.180.000.114
Electric connection [	[V]	230	230	230	230
Frequency [Hz]		50/60	50	50/60	50/60
Max. power input [W	Ŋ	230	300	500	1,550
Max. nominal curren	nt [A]	1.5	1.5	2.2	6.8
Recommended prote	ection [A]	10	10	13	13
Connection plug	Туре	CEE 7/7	CEE 7/7	CEE 7/7	CEE 7/7
Connection plug	Cable length [m]	1.7	1.7	3.7	3.8
Ozone output [mg/h]		10,000	10,000	20,000	60,000
Air flow rate [m³/h]		500	500	480	2,500
Sound level (distance	e 3 m) [dB(A)]	< 70	< 70	62	74
ength [mm]	t 🗆 . 🔑	460	400	610	555
Vidth [mm]		310	600	360	615
leight [mm]		310	890	400	845
/eight [kg]		8	20	19.4	59
Standard equipmer	nt and functions	Airozon® 10000	Airozon® Supercracker	Airozon® 20000	Airozon® 60000
Professional disinfect surfaces with virucion scientifically proven		•	•	•	
Oxygen regeneration	n mode	-		-	-
Timer			-		
Operating hours cou	inter	-	-		-
Remote control		-	-	-	_
ntegrated applicatio	on programmes	-		-	-
Control panel with st	tatus indication	-	-	-	_
Configuration menu reatment duration a		-		-	-
Operating control lar	mp				
ault indicator		-		-	-
Alarm sound at the e	end of the treatment	-		-	_
Available accessor	ies / supplies	Airozon® 10000	Airozon® Supercracker	Airozon® 20000	Airozon® 60000

Available accessories / supplies	Airozon® 10000	Airozon® Supercracker	Airozon® 20000	Airozon® 60000
Air filter	Filter mat, Art. no. 7.710.000.394	Set of filter mats, Art. no. 7.710.000.395	G4 filter mat, Art. no. 7.160.000.404	G4 filter mat, Art. no. 7.160.000.449
Ozone filter	-	Art. no. 7.710.000.396	-	-
Attachment hood for hose connection (ø 300 mm)	-	-	-	Art. no. 6.100.007.061
Recommended accessories	Airozon® 10000	Airozon® Supercracker	Airozon® 20000	Airozon® 60000
Oxygen regenerator Zerozon 200	Art. no. 1.180.000.019	Art. no. 1.180.000.019	Art. no. 1.180.000.019	Art. no. 1.180.000.019
Ozone warning sign	Art. no. ZZ7000275	Art. no. ZZ7000275	Art. no. ZZ7000275	Art. no. ZZ7000275

TROTEC

**Exclusively** 



**Oxygen regenerator Zerozon 200** 

Significantly accelerates the ozone depletion process and thus the economical reusability of rooms after they have been ozonized



### A FEW PRACTICAL BENEFITS:

Professional quality
"made in Germany" –
originally produced by Trotec

Allows for an ozone depletion process up to 30 times faster than the natural decay

Unique master-slave solution for the combined use with all ozone disinfectors of the Airozon®-Professional series

Originally fleece-coated catalysis special filters from Trotec for an extremely fast ozone decomposition

Robust, multi-stackable construction – can also be stacked together with the dimensionally identical Airozon® 20000

Can also be used in standalone operation

Without technical oxygen regeneration, you must always wait for the long process of natural ozone decay to be completed every time an interior space has been treated with ozone. Ozone usually has a half-life of approx. 30 to 60 minutes which means that the ozone concentration in the room air only halves every hour in a natural way.

The longer the treated rooms cannot be used again, the higher the costs caused by the downtime.

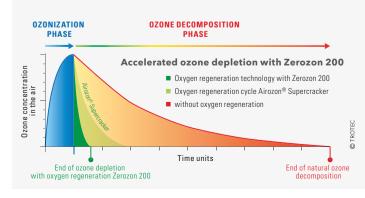
The globally unique oxygen regenerator Zerozon 200 is the innovative solution to this problem, providing accelerated ozone depletion after an ozonisation application with the ozone disinfectors of the Airozon® Professional series.

With the Zerozon 200, depending on the operating conditions, rooms that are decomposed with ozone can already be entered and used safely again after one tenth of the time that would be required for natural ozone disintegration!



Technical data		Zerozon 200		
Article number		1.180.000.019		
Electric connection [V]		220 - 240		
Frequency [Hz]		50/60		
Max. power input [W]		175		
Nominal current [A]		0.8		
Connection plus	Туре	CEE 7/7		
Connection plug	Cable length [m]	3		
Air flow rate [m³/h]	680			
Sound level (distance 1 m) [dB(A)]		62		
Length [mm]	↑ Compa	547		
Width [mm]		370		
Height [mm]		400		
Weight [kg]		15		
Standard equipment and	options	Zerozon 200		
Oxygen regeneration mode				
Timer				
Operating hours counter				
Airozon® power supply				
Airozon® control panel				
Available accessories / s	upplies	Zerozon 200		
Catalysis special filter set		Art. no. 7.710.000.392		

### Accelerated ozone depletion with Zerozon 200



The Zerozon 200 was particularly designed for a combined use with all ozone disinfectors of the Airozon® Professional series.

For this purpose, the Zerozon 200 is equipped with a dedicated power supply and a control panel for the connected Airozon® Professional device. This way, it allows you to benefit from a synchronized combined operation of both devices. As an alternative, standalone operation of the Zerozon 200 can also be performed. In combined operation with the Airozon®, the

Zerozon 200 automatically switches off the connected Airozon® device after the configured treatment duration has been reached, then it automatically starts with technical oxygen regeneration.

This special procedure for the ozone decomposition via the Zerozon 200 and originally fleece-coated catalysis filters from Trotec allow for a depletion process that is up to 30 times faster than the natural decay!

+49 2452 962-200

### A FEW PRACTICAL BENEFITS:

Handy compact devices for disinfection and odour neutralisation with variably adjustable ozone output

Well-arranged control panel simple handling

Multi-stage ozone output from 7,000 to 28,000 mg/h (depending on the model)

Timer function for preselecting the treatment duration

Corona discharge (nothing to do with Covid or SARS) as a form of electrical discharge produced by means of a dielectric medium based on ceramics

Integrated prefilter made of stainless steel prevents interior components from contamination

### A worthwhile investment for many fields of applications:

- Hotels and room letting companies
- Real estate companies
- Taxi companies
- Car hire companies
- Car dealers
- Boat rental
- Holiday homes
- Changing rooms
- Homes and collective accommodations
- Animal clinics and sanctuaries
- Funeral homes
- Food storage facilities
- Waste rooms

# **Ozone disinfectors** of the Airozon® ECO series

The economic solution for local oxidative odour neutralisation and disinfection of surfaces and room air in interior spaces

### For germ-free interior spaces with the smell of fresh air

The ozone generators of the Airozon® ECO series effectively neutralise odours in rooms or vehicles and disinfect surfaces and interior room air - ideally suitable for smaller hotels, private room letting, real estate companies or taxi companies.

The ozone produced by these ozone generators is a very powerful oxidising agent with a high reaction potential. This makes it an effective reagent for the decomposition of disruptive airborne or stationary substances.

Their oxidative decomposition enables the neutralisation of odours as well as the disinfection process by killing viruses and cancerogenic and allergenic microorganisms.

### **Examples of possible uses:**

- Sterilisation and odour neutralisation of hotel rooms, holiday homes or other accommodations where people frequently change, and in sanitary
- Elimination of microorganisms and viruses on surfaces and in the room air
- Interior room air and surface disinfection of cars. caravans or boats





Power consumption billing?

For commercial billing the electricity consumption must be determined by means of an MID meter. Device without an MID meter? Then the socket outlet meter BX50 MID provides the optimum solution further information can be found on page 167 ...



# The Airozon® ECO ozone disinfectors create germ-free interiors with the smell of fresh air

The Airozon® 14 ECO is equipped with a two-stage ozone switch, operating control lamp and timer. The ozone output can either be set to 7 or 14 g/h with a switch. The treatment duration can be adjusted from 0 to 120 minutes with a timer.

The Airozon® 28 ECO accommodates a well-arranged control panel with indications for operating mode, ozone concentration and time preselection. With the remote control, an ozone output of 7, 14, 21 or 28 g/h can be set. The treatment duration can be adjusted with a timer in increments of 15 minutes within the range of 0 to 135 minutes.

Both devices will switch off automatically after the set treatment duration has been reached.



Technical data		Airozon® 14 ECO	Airozon® 28 ECO
Article number		1.180.000.090	1.180.000.095
Electric connection [V]		220 - 240	220 - 240
Frequency [Hz]		50	50
Max. power input [W]		180	350
Max. nominal current [A]		0.8	1.5
Recommended protection [A		10	10
Connection plug	Туре	CEE 7/7	CEE 7/7
Connection plug	Cable length [m]	1.4	1.4
	Stage 1	7,000	7,000
Ozono outnut [ma/h]	Stage 2	14,000	14,000
Ozone output [mg/h]	Stage 3	-	21,000
	Stage 4	-	28,000
Air flow rate [m³/h]		168	288
Sound level (distance 3 m) [d	dB(A)]	45	55
Length [mm]	4 -	290	440
Width [mm]	0 0	166	280
Height [mm]		275	340
Weight [kg]		4.5	6.3

Standard equipment and functions	Airozon® 14 ECO	Airozon® 28 ECO
Professional disinfection of rooms and surfaces with virucidal effectiveness – scientifically proven	-	-
Oxygen regeneration mode	-	-
Timer	•	•
Operating hours counter	-	-
Remote control	-	•
Integrated application programmes	-	
Control panel with status indication	-	•
Configuration menu for adjusting treatment duration and room size	-	-
Operating control lamp	•	•
Fault indicator	-	-
Alarm sound at the end of the treatment	-	_
Recommended accessories	Airozon® 14 ECO	Airozon® 28 ECO

Ozone warning sign

### ECO or Professional? What distinguishes these Airozon® device series from each other?

Although there are some overlaps regarding the performance levels, the ozone generators of the Professional series (from catalogue page 156) have been particularly designed with regard to professional use in daily continuous operation and to the special requirements for odour elimination, even of major fire and water damage.

Due to their particular performance characteristics, these devices also provide benefits for disinfecting larger areas. For this reason, the ozone generators of the Professional series are extremely robust and designed with regard to provide high mobility as well as high performance. On top, they are equipped with a number of additional functions.

Instead, the Airozon® ECO series has been designed for companies that primarily aim to use ozone generators for own purposes, beyond professional disinfection or fire or water damage restoration.

These devices are an especially economic solution for local odour neutralisation and disinfection of surfaces and interior room air – ideally suitable for smaller hotels, private room letting or real estate companies, but also for taxi companies, animal clinics, sanctuaries and morticians.



In contrast to the high-quality quartz glass ozone electrodes of the Airozon® Professional series, the ozone disinfectors of the Airozon® ECO series are equipped with ceramic-based dielectrics.

Although ceramic-based dielectrics are also capable of generating temporarily large ozone emissions, their production is not free of fluctuations. Therefore, these devices cannot generate large ozone emissions for entire areas on a constant level, as it would be required day after day for large-scale disinfections to be effective.

Ceramic-based dielectrics are less suitable for continuous daily operations, partly because the ceramic characteristics make them more susceptible to contamination and, if the climatic conditions are fluctuating, for corrosion, too.

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### A FEW PRACTICAL BENEFITS:

Development, Design, Production: 100 % Trotec

Flexibly applicable professional solution for effective odour neutralization

Well-arranged control panel – simple handling

Timer function for preselecting the treatment duration

Operating hours counter for recording the operating period

### **Examples of possible uses:**

- Overnight refreshing of hotel bars, dining rooms or breakfast rooms
- Odour neutralization in party venues after events, company festivities, etc.
- Elimination of musty or mouldy smells and odours of decay
- Odour neutralization after house clearances
- Elimination of lacquer, glue or paint odours after renovation work

# Plasma field ionizer AirgoPro®8

# The professional solution for the efficient neutralization of unpleasant odours

# This way, every party only leaves good memories behind instead of foul odours

Where people are partying, the room air and furniture are penetrated hour by hour with a large variety of different odours. Whether there is alcohol, tobacco smoke, food smells or body odours, overnight everything combines to an especially overpowering olfactory cocktail. Effective relief is provided by the AirgoPro® 8:

installed and switched off immediately while the event is on, or at the end of the event, and the next morning you won't smell any remains from your late-night party. Everything smells pleasantly fresh, as if nothing had happened.

# Efficient overnight refreshing for the hotel business or catering sector

From the hotel bar to the breakfast room, no-one wants to be greeted by the unwelcome odours of the past night in the morning. The AirgoPro® 8 will give your guests a fresh start to the day, since this odour neutraliser reliably removes all odours of the night before, ensuring that everything smells fresh again in the morning.

# Flexible odour neutralization for many professional applications

Professional service providers and craftspersons also face unpleasant odours from various sources in their everyday work:

Whether these are odours from lacquer, glue or paint caused by reconstruction or renovation measures, odours of decay from small animals or birds that have lost their way in cavities, animal or tobacco smells where the preparation of used vehicles is concerned, mouldy and musty smells caused by standing water, dried-in food remains, run down rooms and at collection points for kitchen scraps or waste.

# Hello AirgoPro® 8, goodbye source of odour

The AirgoPro® 8 is exactly the right solution for a wide variety of such odour issues, as this professional odour neutraliser can be used flexibly and convinces by effective odour elimination on a performance level required by professional applications in practice – the AirgoPro® 8 has been specially designed for this purpose.





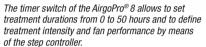
Power consumption billing?

For commercial billing the electricity consumption must be determined by means of an MID meter. Device without an MID meter? Then the socket outlet meter BX50 MID provides the optimum solution – further information can be found on page 167...

### TROTEC

### Easy handling, robust design – special features of the AirgoPro® 8







With its integrated carrying handle, stable rubber feet and robustly designed metal structure, the AirgoPro® 8 is perfectly equipped for frequent site changes.



Helpful for billing purposes: By means of the operating hours counter integrated into the rear the operating time of the AirgoPro® 8 can be precisely recorded.

### The use of the AirgoPro® 8 is very easy and offers a multitude of benefits, especially compared to conventional cleaning methods:

- Automated treatment process, no personnel needs to be hired
- Also suitable for sudden and unscheduled operations
- Odour elimination without leaving residues and without the use of chemicals
- Even works in places that are difficult to access and cannot be reached by means of mechanical procedures
- Virtually usable at any application site – all it takes is a power socket
- Very time-saving procedure

Technical data		AirgoPro®8
Article number		1.180.000.020
Electric connection [V]		220 - 240
Frequency [Hz]		50
Max. power input [W]		20
Max. nominal current [A]		0.1
Recommended protection [A]		10
Connection plug	Туре	CEE 7/7
Connection plug	Cable length [m]	1.7
Max. air flow rate [m³/h]		120
Sound level (distance 3 m) [dB(A)]		53
Length [mm]		350
Width [mm]		230
Height [mm]	0	250
Weight [kg]		4
Equipment and functions		AirgoPro®8
Treatment intensity settings level		5
Fan performance settings level		3
Timer		•
Operating hours counter		•
Operating control lamp		•
Available accessories / supplies		AirgoPro®8
Air filter G2 filter mat		Art. no. 7.710.000.393

### Effective functional principle for odour neutralization

Odour neutralisers of the AirgoPro® series are plasma field ionizers the operating principle of which, its basis being provided by dielectric barrier discharges, can be compared with the one of ozone generators, though they work with a lower energy input.

The air passed through is subjected to electric glow discharge (ionization) in the device, fission products only being generated as reactive oxygen species within the stationary plasma: singlet oxygen and its modifications as well as atomic oxygen as a free radical, which, among other things, is also a pre-stage product for the generation of oxygen here.

These free oxygen radicals are characterized by a high oxidation potential, the odour particles, pollutants, bacteria and microorganisms, like for example mould spores, which are present in the drawn-in air in this process are subjected to an oxidative degradation, which is yet supported by the presence of hydroxyl radicals.

During operation in ventilated rooms and with a distance of approx. 2 m to the ion source, plasma field ionizers also admit the presence of persons.





# **Useful accessories for practical applications...**

### Window seals for the energy-saving application of monobloc devices













No matter whether with left-hand or right-hand hinge, bottom hung or skylight windows – both the AirLock 100 and 200 match all the common window constructions with a maximum perimeter of 400 cm (AirLock 1000: 560 cm)

When using a monobloc air conditioner to date there has only been the possibility of discharging warm exhaust air through an open window. This however makes the cooling inefficient and uncomfortable, because warm air keeps flowing into the cooled room from out-

### AirLock is the ultimate solution for this problem:

Once installed between window and frame with only a few steps and the exhaust air hose end led outside through the hardly even opened zip of the AirLock, these practical aids henceforth prevent the return flow of warm exhaust air into the room. Since the translucent AirLocks are made of hardwearing and water-repellent material with low specific heat conduction characteristics, you can perceptibly save energy by using AirLocks, i.e. they pay for themselves in next to no time.

Upon leaving the building the windows can be closed without difficulty. There is no need to disassemble the AirLocks.

AirLock 100 for one-hose devices, perimeter 400 cm.

Art. no. 6.100.002.001

AirLock 200 for two-hose devices, perimeter 400 cm.

Art. no. 6.100.002.002

AirLock 1000 for two-hose devices. perimeter 560 cm.

Art. no. 6.100.002.004



AirLock 1000 - ideal for French windows and patio doors. Suitable for one two-hose unit or two one-hose devices.

By the way: The AirLock can also be used for other exhaust air carrying



devices all year round such as desiccant dehumidifiers of the TTR series.

### **Energy cost measuring devices**

Energy cost measuring for dummies ...





### BX09 energy cost measuring device

- Quick and easy measurement of your energy demand
- Power consumption indication in watts, price or costs per kWh
- Minimum possible current indication 0.1 W
- Buffer condenser for saving the chosen settings

### Technical data:

Art. no. 3.510.205.918

- Measuring range 0.1 to 3,680 W
- Maximum performance 3,680 W/16 A
- Consumption measurement 0.01 to 9,999.9 kWh
- Recording capacity 9,999.9 hours
- Permissible ambient temperature +5 to +40 °C





### BX11 energy cost measuring device

- Quick and easy measurement of the energy demand
- Power consumption indication as active power in watt or directly in euros and cents
- Measurement of the correct rate according to the time of day by use of the integrated digital clock with calendar function
- Memory function for two definable electricity tariffs, e.g. daily rate and night rate
- Recording mode for long-term measurements

### Technical data:

Art. no. 3.510.205.920

- Calendar function / date display
- Programmable electricity tariff
- Measuring range 2 to 3,680 W Maximum performance
- 3.680 W / 16 A Consumption measurement
- 0.1 to 999.9 kWh Recording capacity 999.9 hours
- Permissible ambient temperature +5 to +40 °C



Useful accessories for practical applications – further information...



# **Energy consumption measuring device BX50 MID**

Tamper-proof solution for the professional commercial determination of the energy consumption for billing purposes

### A FEW PRACTICAL BENEFITS:

Professional measuring device for quickly and easily recording the energy requirement of electric consumers

MID-compliance – approved for the commercial determination of the energy consumption for billing purposes

Sealing slots for safeguarding the plugs in compliance with the Weights and Measures Act (MessEG)

Tamper-proof total consumption meter

Resettable daily consumption meter

Socket outlet with spring-loaded flap lid to provide protection against pollution when it is not used

Practice-optimized German industrial design – protected design patent



### Seals

Plug and socket protection using BX50 MID. Numbered consecutively, length 430 mm, 100 pieces per package.

Art. no. 6.100.002.090

### \* What does MID-compliant mean?

MID-compliant counters correspond to the European Measuring Instruments Directive (MID) that defines the requirements for active power meters used for billing purposes. This for example also applies to the energy consumption measuring for recharging to insurance companies or customers. The former initial factory calibration is now replaced by the MID compliance, however, the devices have to be recalibrated after a defined period of time – for instance after 8 years in case of electronic counters in Germany.

### The ideal supplement for existing devices without MID-compliant meters

Many restoration or craft businesses still use numerous electrical appliances without MID-compliant energy consumption meters.

Such meters, however, are mandatory for determining the electricity consumption for commercial billing purposes, for example for insurances.

While in compliance with regulations it would be possible to use large MID multiple socket outlets, which, however, does not appear to be practicable, especially if only one electricity consumer is used.



# This gap is closed economically by the BX50 MID:

As what is probably the most compact ready-to-connect energy consumption

measuring instrument with MID-compliance\* on the market, BX50 MID can be simply connected between an electric appliance and a normal household safety socket (230 V/AC) and does not require any further installation effort. <sup>1)</sup>

In addition to the MID-compliance\* in some EU countries, however, further device requirements apply, like for example in Germany. Here, the Weights and Measures Act (MessEG) additionally requires the guarantee that neither further electricity consumers are connected during the period of use nor that they can be replaced by other consumers.

Therefore the BX50 MID is the only energy consumption measuring instrument in its class on the market, which comes equipped with two integrated sealing slots.

This utility model-protected solution enables users to properly safeguard the plug installation, for example by means of consecutively numbered pull-up seals, which are optionally available as accessories.



Technical data	BX50 MID
Article number	3.510.205.950
Active power meter	MID-certified, non-resettable
Measuring range [W]	57.5 to 3,680
Maximum performance [W / A]	3,680 / 16
AC voltage [V]	176 to 276
Input voltage [V / Hz]	230, AC / 50
Consumption measurement [kWh]	0 to 999,999.9
Ambient conditions [°C]	-25 to 55
Measuring category	CAT II (600 V)
Insulation	Protection class II
Accuracy class	Class 1 IEC 62053-21, Class B EN 50470-1/3
Type of protection	IP51
Measured values	Power [W], AC voltage [V/AC], alternating current [A/AC], frequency [Hz], power factor [cos Φ], display max. Electricity demand [W], display showing the absolute consumption [kWh]
Functions	Digital display of voltage (V), power (W), current (A), frequency (Hz), power factor (cos Φ), max. Electricity demand (W) and absolute consumption (kWh), tamper-proof total consumption meter, resettable daily consumption meter, fail-safe, display illumination
Power supply	Via mains voltage
Dimensions / weight [mm / g]	77 x 63 x 118 / 155
Scope of delivery	Measuring device, operating manual

Only when operating the BX50 MID on construction or installation sites at a socket of the building's wiring with unknown protective measures, a BGI-608-compliant plug adapter must be used.

Useful accessories for practical applications – further information...

### **Moisture-dependent device controls**

### Room hygrostat HG 110

TROTEC



For humidity-guided control of the TTK 500 and TTK 900 or other dehumidifiers with a 6.35 mm plug socket for the connection of an external hygrostat, e.g. to be used for unattended permanent drying operations.

Art. no. 6.100.002.044

### Technical data:

- Regulation range 40 to 90 % RH
- Measurement accuracy ± 3 % RH
- Maximum switching load 5 A
- Type of protection IP20
- Cable length 3 metres
- 6.35 mm plug socket (¼ inch)

### Room hygrostat HG 120



With 4-pin DIN plug for humidity-guided control of adsorption dehumidifiers of the TTR series (TTR 160 to TTR 500 D) and other devices with a DIN socket for external switching.

Art. no. 6.100.002.040

### Technical data:

- Regulation range 40 to 90 % RH
- Measurement accuracy ± 3 % RH
- Maximum switching load 5 A
- Type of protection IP20
- Cable length 2 metres
- 4-pin DIN plug

### Accessories for HG 120:

4-pin connector coupling on clamping connection (for TTR 800 - TTR 13500), Art. no. 6.100.002.039

### Room hygrostat HG 135



Two-point controller with switching socket for humidity-guided control of plugged-in air humidification or dehumidification units with up to 16 A current consumption.

Art. no. 6.100.000.068

### Technical data:

- Regulation range 40 to 90 % RH
- Measurement accuracy ± 3 % RH
- Maximum switching load 16 A
- Type of protection IP20
- Cable length 1,9 metres
- CEE 7/3 switchable socket

### **Dew point control HG 140**



Dew-point controlled dry keeping offers the optimum protection against condensate and corrosion, e.g. in waterworks engineering facilities or production environments of the food industry.

The internal hygro module of the Dew Point Control HG 140 is arranged on an aluminium base plate in a way that the measuring element is located immediately next to the base plate. Protected by the housing, a relative humidity close to dew point can form inside. The aluminium base plate touches the cooling tube and transfers the cold to the measuring element.

This is how the measuring device monitors the forming of condensate and automatically controls a dehumidi-



fier connected via terminal clamps when exceeding the threshold value individually eligible via an internal microswitch.

The dew point monitor requires no supply voltage and is flexibly usable for pipes with a diameter of up to 50 mm.

Art. no. 6.100.002.050

### Technical data:

- Regulation range 50 to 90 % RH
- Measurement accuracy ± 3.0 % RH
- Recommended operating range 50 to 90 % RH
- Permissible ambient temperature 0 to 60 °C

### Socket hygrostat BH30



Plug connector for the humidity-dependent control of a connected dehumidifier or humidifier.

Art. no. 6.100.004.205

### Technical data:

- Regulation range 20 to 90 % RH
- Measurement accuracy ± 5 % RH
- Operational range 5 to 95 °C, at max. 95 % RH
- Inductive load max. 9 A/2,070 VA
- Socket CEE 7/3
- Type of protection IP30



Trotec



Useful accessories for practical applications – further information...

### Electronic thermohygrostat HG 125









Made in Germany The HG 125 ① is equipped with two configurable switching contacts

(r.F./temp.) and allows for the electronic control of even very low humidity values in operational environments from -30 °C onwards.

An external climate sensor ② continuously records temperature and humidity values at the measuring spot at a distance of up to 5 m, which are indicated in turns on the digital display of the HG 125.

Art. no. 6.100.002.042

The thermohygrostat is designed for direct connection to Trotec dehumidifiers with DIN sockets for 7-pin connectors. ③ Application on Trotec dehumidifiers with 4-pin DIN sockets ④ additionally requires the optionally available adapter transformer.

The thermohygrostat can also be used for combined heating with all Trotec devices which have a 7-pin DIN socket for connection, such as the multi air handlers TAC XT 18 and TAC XT 27. These devices can be temperature-controlled for decentralised room air heating via existing ventilation systems or textile air distributors using the HG 125.

### **Accessories for HG 125:**

Adapter transformer, Art. no. 6.100.002.043; 7-pin connector coupling on clamping connection (for TTR 800 - TTR 13500), Art. no. 6.100.002.046; Extension cable 10 m, Art. no. 6.100.002.049; 20 m, Art. no. 6.100.002.047; 30 m. Art. no. 6.100.002.048

### Technical data:

- $\blacksquare$  Regulation range 5 to 95 % RH: -35 to +80 °C
- Permissible ambient temperature -30 to 70  $^{\circ}\text{C}$
- Measurement accuracy ≤ ±2 % RH; ±0.2 K
- Two relay outputs (RH/temp.)
- Two analogue outputs 0 10 V (RH/temp.)
- Climate sensor with 5 m cable
- 7-pin DIN plug with 5 m cable

### **Temperature-dependent device controls**

### Socket thermostat BN30



Plug adapter for the temperature-dependent control of a connected electric heater or cooling device.

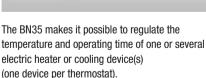
Art. no. 6.100.007.009

### Technical data:

- Regulation range 5 to 49 °C
- Measurement accuracy ± 0.5 °C
- Measuring interval 10 s
- Inductive load max. 2 A/460 VA
- Socket CEE 7/3
- Type of protection IP20

### Radio-controlled socket thermostat BN35





Via a radio transmitter covering a range of 20 m, up to 100 thermostats with 6 programmable switching times a day can be individually configured.

If the radio transmitter is subjected to ambient temperatures  $\leq 3$  °C, furthermore it automatically activates a frost protection mode.

Art. no. 6.100.007.008



### Technical data:

- Regulation range 0 to 70 °C
- Accuracy ±1 °C
- Radio range 20 m
- Inductive load max. 75 A/250 VA
- Socket CEE 7/3
- Type of protection IP20

### Scope of delivery:

One transmitter and one receiver, additional receivers are optionally available (Art. no. 6.100.007.007).

### A FEW PRACTICAL BENEFITS:

TROTEC

Professional quality "made in Germany" – originally produced by Trotec

Existing tiles can be lifted and reinserted after completed restoration without risking damage

No visual impairment of the appearance

Suitable for the restoration of larger areas

Patented system with adjustable chamber for square and rectangular tiles sized up to 30 cm or 50 cm

Carry handles made of thermally non-conductive material

### With the TilexPro system tiles can be detached from the ground in just a few steps:

First, the tile is bared by use of a joint cutter.

Then the system chamber is adjusted in size to match the tile to be removed, positioned and warmed up with a hot air blower.

After that, the tile can be detached from the ground in only a few steps and reinserted after completed restoration work without risking damage.

Preserving tiles and saving costs – no problem with the TilexPro!

### Accessory tip:

### Professional hot air blower

### HvStream 3400

Steplessly adjustable up to 650 °C, ideally suited for non-destructive tile removal with the TilexPro system.

Art. no. 6.100.000.058



### Technical data: Max. amount of a

Max. amount of air 320 l/min; Air pressure 3,000 Pa; Input voltage 230 V / 50 Hz; Power 3,400 W; Temperature 20 °C - 650 °C; Stepless regulation of temperature / air volume; Length of power cable 2.9 m; Weight: 1,560 g

# TilexPro tile lifting system

Removing and storing tiles without causing damage – by means of the patented original Trotec system



If repair work is required underneath the tilling, it needs to be bared first in order to perform any restoration work, e.g. after a pipe burst.

Instead of destroying the tiles in question and completely replacing them once the restoration work is completed,

they can easily be removed by means of our tile lifting system without risking damage and later reinserted again.

Only with the TilexPro method is it possible to completely remove several tiles in order to uncover the floor for repair work after a pipe burst.

TilexPro is the ideal solution when there are not enough replacement tiles available and a visual impairment of the flooring is unwanted by the customer.

Moreover, rare tiles and older decors can often not be replaced at all.



# The TilexPro system is characterized by practical details:

Every TilexPro system consists of the system chamber and an optionally available hot air blower, e.g. the HyStream 3400.

Depending on the model, the system chamber can be adjusted to all common tile formats sized up to 30 cm or 50 cm. It comes with carry handles made of thermally non-conductive material, so that the heated chamber can be removed from the respective tile and set aside without having to use protective gloves.



Fig. TilexPro



### TilexPro system 30 for tile formats sized up to 30 cm

Art. no. 6.100.000.050

TilexPro system 50 for tile formats sized up to 50 cm

Art. no. 6.100.000.052

Further recommended accessories are a joint cutter and a combination device to remove the adhesive residues from tile and ground.

RT-KAT-FLAS-WM-02-EN



Mobile power distributors - further information...

# **Accessories for current consumption**

### **Extension cables**

Professional solutions from German quality manufacturing



These robust extension cables of German high-quality manufacturing with an IP44 type of protection are perfectly suited for the heavy-duty use on building sites and in the commercial sector.

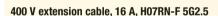
The hard-wearing cable sheath in yellow safety colour consists of oiland acid-resistant neoprene rubber, applicable in the ambient temperature range from -25 °C to +60 °C.

### 230 V extension cable, 16 A, H07RN-F 3G2.5

Cable length 20 m, 230 V, 16 A, Made in Germany cable cross-section 2.5 mm<sup>2</sup>, plug and coupling CEE 7/7, type of protection IP44, solid rubber plug and

coupling, safety contact coupling with sealing cap.

Art. no. 7.333.000.376



Cable length 20 m, 400 V, 16 A, cable cross-section 2.5 mm2,

plug and coupling CEE 16 A, type of protection IP44, coupling casing with integrated cover plate.

Art. no. 7.333.000.374



### 400 V extension cable, 32 A, H07RN-F 5G6



Cable length 20 m, 400 V, 32 A, cable cross-section 6 mm2, plug and coupling CEE 32 A, 5-pin, type of

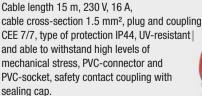
protection IP44, coupling casing with integrated cover plate.

Art. no. 7.333.000.379



### Further available:

### 230 V extension cable, 16 A, H05RR-F 3G1.5



Art. no. 7.333.000.372



**Multiple socket outlet** 



### Easily handling the building site power supply in line with the regulations

The multiple socket outlet equipped with PlugSafe for variable indoor and outdoor application is a robust quality product that facilitates the usage in accordance with MID, MessEG and MessEV.

The PV4-MID PS is intended for the operation at proper building-site power distributors and meets the requirements of BGI 608 with respect to switching devices and distributors for circuits with sockets. \*\*



### \* What does MID-compliant

MID-compliant counters correspond to the European Measuring Instruments Directive (MID) that defines the requirements for active power meters used for billing purposes. This also applies to, say, the energy consumption measuring for recharging to insurance companies or customers. The former initial factory calibration is now replaced by the MID compliance, however, the devices have to be re-calibrated after a defined period of time for instance after 8 years in case of electronic counters in Germany.

Please note that a BGI 608-compliant plug adapter must be used when operating the PV4-MID PS on construction or installation sites at a socket of the building's wiring with unknown protective measures

- Ideal for rough operating conditions on ever-changing construction sites
- Integrated MID-compliant\* energy consumption meter
- PlugSafe socket protection suitable for sealing in accordance with the MessEG regulations
- Residual current device and energy consumption meter protected underneath lockable sealing cap
- Four safety sockets with self-closing hinged covers
- IP44 type of protection
- Oil- and UV-resistant cable (H07RN-F)



### Technical data multiple socket outlet PV4-MID PS



Art. no. 6.100.002.085



- Multiple socket outlet made of IP44 solid rubber with integrated
- Safety sockets: 4 pcs.

carrying handle

- Residual current device: 1 x 25 A, 4 p, 0.03 A (RCCB, type A)
- MID meter: 6 digit LCD, 1 tariff register, non-resettable
- Supply line: H07RN-F 3G2.5 with safety plug CEE 7/7, length 2 m
- L x W x H: 430 x 98 x 115 mm
- Weight: 3 kg





### A FEW PRACTICAL BENEFITS:

Socket combination as per EN 61439

Hinged inspection window for MCBs in housing cover

Fold-down V2A carrying handle

Take-up facility for connection cable

IP44 type of protection

# **Mobile power distributors**

Mobile power distribution made easy as safe as it is simple

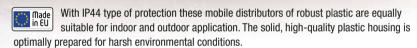




The stackable design of all PV power distributor housings allows to stack up several housings so as to save space, also with different PV model types.



All sockets are equipped with self-closing spring-loaded flap caps



The dust and splash-proof mobile distributors are characterized by a high (notched bar) impact strength, a high thermal stability, dielectric strength, weather and UV resistance,pp abrasion resistance and a good resistance to plenty of chemicals.

### Easy transport, space-saving storage

To ensure easy transport, all power distributors are equipped with a fold-down V2A carrying handle and a take-up facility for the 2-m connecting cable. In the warehouse, the distributors can be stacked to save space.





IRT-KAT-STRE-WM-04-EN



Mobile power distributors - further information...

16 A consumers

# PV power distributor in original Trotec brand quality – always there and full of energy







Special protective properties are provided by the circuit breakers and, for PV16 and PV32, the standard residual-current-operated protective device (RCD) which are mounted in the housing cover, well protected under a visual hatch window.

### **Power distributor PV16**



### **Power distributor PV30**



### **Power distributor PV32**







### Technical data

Art. no. 6.100.002.075



CEE sockets:2 x 16 A, 5 p, 400 V



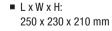
Safety sockets: 4 pcs.



Residual current device:1 x 40 A, 4 p,0.03 A (type A 25AT)



Supply line: H07RN-F 5G2.5 with CEE plug 16 A, 5 p, 400 V, length 2 m



■ Weight: 2.8 kg



### Technical data

Art. no. 6.100.002.081



- Connector couplings: 2 x H07RN-F-5G2 with CEE coupling 16 A, 5 p, 400 V, length 2 m
- Miniature circuit breakers: 2 x 16 A, 3 p, C
- Residual current device: not included, therefore only permissible for supply points with RCD
- Supply line: H07RN-F 5G4 with CEE plug 32 A, 5 p, 400 V, length 2 m
- L x W x H: 197 x 197 x 200 mm
- Weight: 4.5 kg

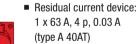


### Technical data

Art. no. 6.100.002.076



- CEE sockets:1 x 32 A, 5 p, 400 V,1 x 16 A, 5 p, 400 V
- Safety sockets: 3 pcs.





- Miniature circuit breakers:1 x 16 A, 3 p, C,1 x 16 A, 1 p, C
- Supply line: H07RN-F 5G6 with CEE plug 32 A, 5 p, 400 V, length 2 m
- L x W x H: 250 x 230 x 210 mm
- Weight: 4.1 kg

# Trotec exclusive: PV30 – ready-to-connect power current solution for



If several 16 A three-phase current devices have to be operated on site, the connection options available on the construction site can be fairly limited.

This is because common surface-mounted socket combinations usually house only one additional 16 A CEE socket outlet in addition to a 32 A CEE socket outlet. This combination can also often be found in mobile construction site power distributors. In addition, suitable connection cables are required in sufficient quantities.

# The robust mobile distributor PV30 is the optimal solution in such cases.

As a completely ready-to-connect power distributor, the PV30 is equipped with two 16 A connector couplings in addition to a 32 A plug. The input line and both output lines are each equipped with a two-metre connection cable, so that even missing cables are no obstacle on site. At the same time, a sufficient operating range when installing the device is always maintained.



The PV30 is also the ideal connector accessory for the multi-air handler TAC XT 18 equipped with two 16 A device plugs (starting from catalogue page 70).

Mobile power distributors - further information...

### A FEW PRACTICAL BENEFITS:

Cable drum made of high-quality plastic with IP54 type of protection and self-closing safety sockets

Convenient carrying characteristics due to ergonomic handle

Additional safety due to thermal protection switch

Drainage through openings in the drum

Stable crank for optimum handling

Braking system integrated centrally in the axis

Slots for safe plug storage

Secure footing due to broad support points



# **Cable drums**

### PVD – the synonym for high-quality cable drums from Trotec for construction sites, workshops or industrial applications

There are many cable drums, but there is only one original PVD cable drum series from Trotec – our best recommendation for choosing your cable drum! Because in the sum of all details, the PVD series can score in every respect with professional users. This model series does not only offer you everything you expect from a professional cable drum, but also many convenient additional functions.



### **Maximum mobility**

All cable drums of the PVD series are supplied as standard with an extremely robust drum body made of high-quality, unbreakable plastic, which has drainage recesses, an integrated cable brake and connector storage spaces.

The integral carrying handle is shaped ergonomically and placed in an ideal centre of gravity to ensure convenient transport.



### **Maximum flexibility**

With their large operating range, which is due to the connecting cable with a length of up to 40 metres, and up to four dust- and splash-proof 16 A safety sockets, the PVD cable drums provide you with a flexible power distribution for electrical work at virtually all locations - the best prerequisites for indoor and outdoor use on construction sites and in workshop or industrial areas.

### **Maximum safety**

The non-tilting cable drums of EU highquality manufacturing with an IP54 type of protection are perfectly suited for the rough operating conditions on construction sites and in the commercial sector. The hard-wearing cable sheath consists of oil- and acid-resistant neoprene rubber, which is suited for ambient temperatures ranging from -25 °C to +60 °C, and is equipped with a solid rubber CEE 7/7 plug.

A thermal circuit breaker integrated as standard and a central braking system for the drum provide additional safety in all PVD cable drums.





### **PVD** cable drums - safely equipped

### **Consistently designed for professionals:**

With consistency, all Trotec cable drums of the PVD series were specifically developed for professional applications in rough operational environments. Jamming sockets or sluggish plugging in and unplugging are out of place here. This is why we have deliberately dispensed with a child protection mechanism for the sockets of these cable drums.





Convenient carrying characteristics due to ergonomic handle



IP54 safety sockets with spring-loaded flap caps



Additional safety due to thermal protection switch and operation indicator . (depending on the model)



Drainage through openings in the drum



Braking system integrated centrally in the rear of the axis



Slots for safe plug storage



Stable crank for optimum handling



Secure footing due to broad support points

Technical data		PVD2	PVD3
Article number		7.333.000.367	7.333.000.368
	Number	3	4
Safety sockets	Type of protection	IP54	IP54
	Lock	self-closing spring	g-loaded flap cap
	Length [m]	25	40
Connection	Туре	H07RN-F 3G	H07RN-F 3G
cable	Colour	black	black
	Cross-section of the pipe [mm²]	1.5	2.5
Type of protection		IP54	IP54
May navar IMI	rolled up	1,300	1,250
Max. power [W]	unrolled	3,600	3,500
Rated voltage [V]		250	250
Nominal current co	onsumption [A]	16	16
Length [mm]	+ 🛷	240	254
Width [mm]		280	338
Height [mm]		353	409
Weight [kg]	0,0	8	10
Functions and fea	tures	PVD2	PVD3
Thermal protection	switch	•	•
Operation indicator		-	•
Braking system		-	•
Drainage through re	ecesses in the drum	•	•
Crank		•	•
Feet with storage s	paces for plug	•	•
Ergonomic carrying	handle	•	
■ Standard equipment	;   Optional accessories		



### A FEW PRACTICAL BENEFITS:

Spiral-reinforced fan hoses for professional applications

Light and highly flexible

Kink-proof and guaranteeing tensile

Tronect® brand-name quality products made from premium-quality materials

Durable with a long service life

Available with many different diameters

# Air transport hoses

# Tronect® brand quality for the industry, agricultural and building sector as well as event engineering

No matter if ventilation, heating, drying, air conditioning or suction - every system is only as efficient as its weakest link in the chain of used components.

Therefore, do not compromise when selecting your air ducting systems but instead put your trust in the brand quality of premium-quality fan hoses of the Tronect® series.

### **Tronect® SP-T**

Reinforced and highly flexible fan spiral hose for use in terms of heating and ventilation



- Temperature range: -20 °C to +80 °C
- for a short time can also transport the hot air up to 100 °C
- Especially robust version made of reinforced, PVC coated polyamide
- Kink-proof and guaranteeing tensile strength
- Spiral-free sleeves at both ends
- With abrasion protection and inwrought steel spiral
- Bending radius 0.5 x ø
- Standard length 7.6 m

### Possible use:

Airing and ventilation in the air conditioning and ventilation technology, construction drying, construction heating in winter, stable ventilation, hall heating, heating of tents, exhibition construction and events, grain drying, loading of bulk materials, tank ventilation and tank venting, silo discharge, air showers for car wash installations.

To be found on the following pages is an overview of all available diameters and appli cable device connections for all Tronect® hoses

Anti-static, flexible fan spiral hose



- Temperature range: -20 °C to +100 °C
- Made of anti-static, PVC coated polyamide fabric
- Spiral distance 150 mm
- Robust and highly flexible
- Good compression characteristics
- Spiral-free sleeves at both ends
- With abrasion protection and inwrought steel spiral
- Bending radius 0.5 x ø
- Standard length 7.6 m

### Possible use:

Excellently suited for the transmission of gaseous media in areas where a static charge ought to be avoided, e.g. in the channel ventilation, drying of paintwork, oil tank ventilation, shipbuilding, tank ventilation, tank degasification and in shipyards.

> To be found on the following pages is an overview of all payes is an overview of an applicable device connections for all Tronect® hoses.

Anti-static spiral hose for high suction pressure



### Temperature range: -20 °C to +100 °C

- Made of anti-static, PVC coated polyamide fabric
- Spiral distance 50 mm
- Especially robust and with high strength
- Particularly designed for high suction pressure connection on the suction
- With abrasion protection and inwrought steel spiral
- Spiral-free sleeves at both ends
- Standard length 7.6 m

### Possible use:

The high-strength SP-AV is suited for all of the SP-AP's fields of application.

Due to its higher strength - based on shorter distances between the spirals - the SP-AV, as opposed to the SP-AP, additionally enables a transmission of gaseous media on the suction side even with high suction pressure.

It is therefore especially suited for the application in aircraft construction, hall heating, grain handling etc.



Air transport hoses - further information...

### **Tronect® SP-C**

### Combination hose for the connection of heaters



### Temperature range: -24 °C to +110 °C\*

- Comparable to hose type SP-T. albeit the first two metres of the hose consist of particularly hardwearing PVC fabric for a higher infeed temperature at the connector
- Bending radius 0.5 x ø
- Standard length 7.6 m

### Possible use:

Connection to portable oil or electric heating units and other warm air systems for the heating of halls, marquees or construction sites in winter.

\* With regard to the 2 m PVC hose part only. The hose remainder is designed for a temperature range of -20 °C to +100 °C.

### Spiral-reinforced, universal hose



### ■ Temperature range: -5 °C to +80 °C

- Hose with PVC sheath, fitted to wire spiral
- Highly durable
- Light and flexible
- Abrasion-resistant
- Good compression characteristics
- Non-inflammable
- Standard length 6 m

### Possible use:

Universally applicable for general ventilation, flue gas removal, drying paint, oil tank ventilation, channel ventilation, exhaust ventilation in spray booths, tank ventilation and degasification, ventilation on ships.

### **Tronect® PV-A**



### Light and highly flexible PVC hoses

Type PV-A 38. ø 38 mm, bending radius 38 mm Type PV-A 51. ø 51 mm, bending radius 51 mm





### ■ Temperature range: 0 °C to +85 °C

- Two-layer spiral hoses with sheathed spring spiral
- Additional yarn reinforcement
- Durable with a long service life
- Fair pressure resistance
- Vacuum-proof
- Standard length 15 m

### Possible use:

Versatile hoses with fair UV and ozone resistance, especially suited for the transport of gaseous and liquid media or solids and fibres in construction and screed drying, for industrial vacuum cleaners or exhaust extraction systems.



Matching hose clamps (accessories), Article number 6.100.009.078

### Accessories for air transport hoses

### **Connection sleeves**

Made of galvanized steel sheet metal with central beading for the infinite connection of hoses with spiral-free sleeves (SP).

Required for the connection to the adapter is one belt per hose.



### Available diameters:

- ø 150 mm, Article nr. 6.100.001.909
  - ø 203 mm, Article nr. 6.100.001.910
- ø 305 mm, Article nr. 6.100.001.915
- ø 356 mm, Article nr. 6.100.001.920
- ø 400 mm, Article nr. 6.100.001.925
- ø 460 mm, Article nr. 6.100.001.930
- ø 525 mm, Article nr. 6.100.001.935
- ø 560 mm, Article nr. 6.100.001.940
- ø 600 mm, Article nr. 6.100.001.945

### **Tension belt:**

Incl. wedge lock, to fasten hose at the connector

Article number 6.100.001.995



Air transport hoses - further information...

### **Tronect® connectivity schedule**

Which hose i which Trotec	appliance?	Туре	Ţ	rone SP-A	ct P	Tir S	rone SP-A	ct V					Tr	oned SP-T	ct							Tr S	one SP-C	ct ;				Tr 1	oned FF-L	t	1	rond PV-	ect A
Here an over Tronect® hos		Art.	6.100.001.410	6.100.001.420	6.100.001.430	6.100.001.460	6.100.001.470	6.100.001.480	6.100.001.155	6.100.001.200	6.100.001.202	6.100.001.205	6.100.001.210	6.100.001.212	6.100.001.214	6.100.001.216	6.100.001.217	6.100.001.218	6.100.001.220	6.100.001.255	6.100.001.265	6.100.001.266	6.100.001.267	6.100.001.270	6.100.001.273	6.100.001.275	6.100.001.105	6.100.001.110	6.100.001.115	6.100.001.120	6.100.001.125	6.100.001.010	6.100.001.020
and oquipme	int combinations.	110.																									6.100	6.100	6.100	6.100			
Device	Specifications	ø mm <sup>1)</sup>	305	460	650	305	460	650	155	203	255	305	356	425	457	525	560	600	700	155	305	356	425	525	600	725	63	80	100	127	160	38	51
TTR adsorption	n drying units																																
	TTR 800 / TTR 1400																																
	Dry air inlet	250																															
10	Dry air outlet	250																															
	Humid air inlet	160																															
	Humid air outlet	160																															
	TTR 2000 / TTR 2800 / TTR 3700																																
19610	Dry air inlet	315																															
	Dry air outlet	315																															
	Humid air inlet	200																															
	Humid air outlet	200																															
	TTR 5200 / TTR 6600 / TTR 8200																																
10.00	Dry air inlet	500																															
1.	Dry air outlet	500																															
	Humid air inlet	300																															
	Humid air outlet	300																															
	TTR 10000 / TTR 12000 / TTR 13500																																
4.50	Dry air inlet (hose adapter)	2 x 500																															
	Dry air outlet (hose adapter)	2 x 500																															
	Humid air inlet	400																															
	Humid air outlet	400																															
- Common	TTR filter box 610																																
	Suction side	500																															
	Blow-out side	500																															
TTR adsorption	n dehumidifiers																																
	TTR 200																																
-	Dry air outlet	80																															
200	Humid air outlet	38/50																														-	
	Process air inlet (hose adapter, filter box)	80																										•					
	TTR 300																																
-	Dry air outlet	100																											•				
900	Humid air outlet	50																															
	Process air inlet (hose adapter, filter box)	100																											•				

In addition to the standard version with spiral-free sleeves, all Tronect® SP hoses are optionally also available with ferrules, rows of hooks and eyelets. Other diameters and lengths are also available upon request for all hoses.



TRT-KAT-KTLS-WM-20-EN

Tronect® connectivity schedule – further information ...

Which hose is which Trotec a	appliance?	Туре	TI S	rone SP-Al	ct P	Tro SI	onec P-AV	t		ı			Ti:	rone SP-1	ct 「				ı			T	rone SP-0	ct C				Ti	oneo TF-L	ct		Trone PV-	ct A	Trotec
Here an overv Tronect® hose and equipmer		Art. no.	6.100.001.410	6.100.001.420	6.100.001.430	6.100.001.460	6.100.001.470	6.100.001.480	6.100.001.155	6.100.001.200	6.100.001.202	6.100.001.205	6.100.001.210	6.100.001.212	6.100.001.214	6.100.001.216	6.100.001.217	6.100.001.218	6.100.001.220	6.100.001.255	6.100.001.265	6.100.001.266	6.100.001.267	6.100.001.270	6.100.001.273	6.100.001.275	6.100.001.105	6.100.001.110	6.100.001.115	6.100.001.120	6.100.001.125	6.100.001.010	6.100.001.020	
Device	Specifications	ø mm <sup>1)</sup>																	700													38		ion
TTR adsorption	n dehumidifiers																																	Dehumidification
	TTR 400																																	Dehum
-	Dry air outlet	125																																
200	Dry air outlet (quad distributor)	4 x 38/50																														-		
	Humid air outlet	80																																ication
	Process air inlet (hose adapter, filter box)	125																												•				Humidification
	TTR 400 D / TTR 500 D																																	
	Dry air outlet	125																																
	Dry air outlet (quad distributor)	4 x 38/50																																Heating
500	Humid air outlet	80																																Hes
	Process air inlet (hose adapter, filter box)	125																												-				
	Regeneration air inlet (hose adapter, filter box)	80																										•						ion
TTR stainless s	steel adsorption dehumidifiers																																	Ventilation
0	TTR 160																																	
1	Dry air outlet	100																																
	Humid air outlet	63																																ning
9	TTR 250																																	Air conditioning
3	Dry air outlet	100																																Air o
-0	Humid air outlet	80																																
1570	TTR 250 HP																																	_
3	Dry air outlet	100																																Air cleaning
	Humid air outlet	50																														ı		Air o
DH industrial d	iryers																																	
	DH 160																																	d tion
L	Dry air outlet (hose adapter)	410																																tion an itraliza
1	DH 310																																	Disinfection and Odour neutralization
L	Dry air outlet (hose adapter)	510														•																		Odc
TTK-ECO comm	nercial dehumidifier																																	
P	TTK 171 ECO																																	ories
	Dry air outlet (hose adapter)	127																																Accessories

<sup>&</sup>lt;sup>1)</sup> Respectively indicated are the inner diameters for the Tronect<sup>®</sup> hoses and the outer diameters for the device connections.

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Tronect® connectivity schedule – further information ...

### **Tronect® connectivity schedule**

Which hose is which Trotec a	appliance?	Туре	Ti S	oneo SP-Al	et P	Tro SI	onec P-A\	et /					Tro	onec SP-T	ct							Tr	one SP-C	ct ;				Ti	rone TF-L	et		Fron PV-	ect ·A
Here an overv Tronect® hose and equipmer		Art. no.	6.100.001.410	6.100.001.420	6.100.001.430	6.100.001.460	6.100.001.470	6.100.001.480	6.100.001.155	6.100.001.200	6.100.001.202	6.100.001.205	6.100.001.210	6.100.001.212	6.100.001.214	6.100.001.216	6.100.001.217	6.100.001.218	6.100.001.220	6.100.001.255	6.100.001.265	6.100.001.266	6.100.001.267	6.100.001.270	6.100.001.273	6.100.001.275	6.100.001.105	6.100.001.110	6.100.001.115	6.100.001.120	6.100.001.125	6.100.001.010	6.100.001.020
Device	Specifications	ø mm <sup>1)</sup>	305	460	650	305	460	650	155	203	255	305	356	425	457	525	560	600	700	155	305	356	425	525	600	725	63	80	100	127	160	38	51
IDS oil heater f	ans																																
	IDS 30																																
	Hose connector	300										-									-												
Jie 3	IDS 30 F																																
	Hose connector	300										•									-												
m	IDS 45																																
	Hose connector	350											-																				
	Two-way hose distributor	2 x 300										•									-												
R	IDS 80																																
	Hose connector	400																					-										
	Two-way hose distributor	2 x 300										•									-												
	IDS 100																																
	Hose connector	500																															
	Two-way hose distributor	2 x 400												•																			
	IDS 900																																
	Hose connector	700																								•							
	Two-way hose distributor	2 x 600																-							•								
	Four-way hose distributor	4 x 400												•									-										
IDE oil heater f	ans																																
	IDE 30																																
	Hose connector	300										•									-												
0 000	IDE 50																																
	Hose connector	440																															
all .	IDE 60																																
	Hose connector	440													_																		
	IDE 80																																
0	Hose connector	440																															
0.00																																	

In addition to the standard version with spiral-free sleeves, all Tronect® SP hoses are optionally also available with ferrules, rows of hooks and eyelets. Other diameters and lengths are also available upon request for all hoses.



Trotec

Dehumidification

Humidification

Air conditioning

Air cleaning

Disinfection and Odour neutralization

Tronect® connectivity schedule - further information ...

Which hose is which Trotec	appliance?	Туре	T	rone SP-A	ct P	Tr S	onec P-A\	et /					Tro S	onec SP-T	t							Tr	one SP-0	ct C				Tr 1	oned FF-L	et		Frone	ect A
Here an overv Tronect® hose and equipme		Art. no.	6.100.001.410	6.100.001.420	6.100.001.430	6.100.001.460	6.100.001.470	6.100.001.480	6.100.001.155	6.100.001.200	6.100.001.202	6.100.001.205	6.100.001.210	6.100.001.212	6.100.001.214	6.100.001.216	6.100.001.217	6.100.001.218	6.100.001.220	6.100.001.255	6.100.001.265	6.100.001.266	6.100.001.267	6.100.001.270	6.100.001.273	6.100.001.275	6.100.001.105	6.100.001.110	6.100.001.115	6.100.001.120	6.100.001.125	6.100.001.010	6.100.001.020
Device	Specifications	ø mm <sup>1)</sup>	305	460	650	305	460	650	155	203	255	305	356	425	457	525	560	600	700	155	305	356	425	525	600	725	63	80	100	127	160	38	51
Multi air hand	er																																
-13	TAC XT 18																																
1	Hose connector	300										•																					
1	TAC XT 27																																
	Hose connector	300										-																					
TEH electric he	eating units																																
- T	TEH 200																																
		450													•																		
- C	TEH 300																																
-		450													•																		
	TEH 400																																
		600																•							-								
TEH electrical	heaters																																
	TEH 30 T																																
		155																		-													
	TEH 70																																
		300										-									-												
	TEH 100																																
		300										-									-												
TDE electrical	heaters																																
	TDE 25																																
		155																		•													
20	TDE 65																																
		300										-									-												
0 0	TDE 95																																
-		300										-									-												
																											•						

<sup>&</sup>lt;sup>1)</sup> Respectively indicated are the inner diameters for the Tronect<sup>®</sup> hoses and the outer diameters for the device connections.



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Tronect® connectivity schedule – further information ...

### **Tronect® connectivity schedule**

Which hose is which Trotec	appliance?	Туре	TI S	rone SP-A	ct P	Tr S	oned P-A\	ct V					Tr S	one SP-T	ct 「							Tir ;	rone SP-0	ct C				Ti	rone TF-L	ct		Tron PV-	ect A
Here an over Tronect® hos and equipme		Art. no.	6.100.001.410	6.100.001.420	6.100.001.430	6.100.001.460	6.100.001.470	6.100.001.480	6.100.001.155	6.100.001.200	6.100.001.202	6.100.001.205	6.100.001.210	6.100.001.212	6.100.001.214	6.100.001.216	6.100.001.217	6.100.001.218	6.100.001.220	6.100.001.255	6.100.001.265	6.100.001.266	6.100.001.267	6.100.001.270	6.100.001.273	6.100.001.275	6.100.001.105	6.100.001.110	6.100.001.115	6.100.001.120	6.100.001.125	6.100.001.010	6.100.001.020
Device	Specifications	ø mm <sup>1)</sup>	305	460	650	305	460	650	155	203	255	305	356	425	457	525	560	600	700	155	305	356	425	525	600	725	63	80	100	127	160	38	51
TTV high-perfo	ormance fans																																
	TTV 4500 / TTV 4500 HP																																
- 20	Hose adapter	450																															
700	Combination distributor	8 x 100																											•				
	Combination distributor	1 x 450													-																		
	TTV 7000																																
700	Hose adapter	560																															
***	TTV 4500 S																																
<b>1</b>		525																															
TTV conveying	ı fans																																
	TTV 1500																																
		200																															
250	TTV 3000																																
1 0 m		300																															
TFV high-pres	sure radial fans																																
	TFV 100																																
6.	Intake socket	300																															
West of the second	Exhaust connection	300	•																														
	TFV 300																																
(S)	Intake socket	300				П																											
VOSED4	Exhaust connection	450		•			•								-																		
	TFV 600																																
	Intake socket	515																															
To Service of	Exhaust connection	515																															
	TFV 900																																
	Intake socket	630																	П														
	Exhaust connection	630						_																									
	TFV 1200																																
	Exhaust connection	630						П																									
		500																															

In addition to the standard version with spiral-free sleeves, all Tronect® SP hoses are optionally also available with ferrules, rows of hooks and eyelets. Other diameters and lengths are also available upon request for all hoses.



Trotec

Dehumidification

Humidification

Air conditioning

Air cleaning

Disinfection and Odour neutralization



Tronect® connectivity schedule - further information ...

Which hose which Trotec		Туре	Ţ	rone SP-A	ct P	Ti S	rone SP-A	ct V					Ti	oned SP-T	ct							Ti	one SP-0	ct ;					onec F-L	t	Ţ	rone PV-	ct A
Here an over Tronect® hos			410	420	430	460	470	480	155	200	202	205	210	212	214	216	217	218	220	255	265	566	267	270	273	275	105	110	115	120	125	010	020
	ent combinations:	Art. no.	6.100.001.410	6.100.001.420	6.100.001.430	6.100.001.460	6.100.001.470	6.100.001.480	6.100.001.155	6.100.001.200	6.100.001.202	6.100.001.205	6.100.001.210	6.100.001.212	6.100.001.214	6.100.001.216	6.100.001.217	6.100.001.218	6.100.001.220	6.100.001.255	6.100.001.265	6.100.001.266	6.100.001.267	6.100.001.270	6.100.001.273	6.100.001.275	6.100.001.105	6.100.001.110	6.100.001.115	6.100.001.120	6.100.001.125	6.100.001.010	6.100.001.020
Davisa	Considerations	~1)																														38 5	
Device TEV high-pres	Specifications ssure radial fans (Ex)	ø mm <sup>1)</sup>	305	460	650	305	460	650	155	203	255	305	356	425	45/	525	560	600	700	155	305	356	425	525	600	725	63	80	100	12/ 1	60 3	38 :	)1
I mg p.o.	TFV 100 Ex																																
	Intake socket	300				П																											
	Exhaust connection	300	_			_																											
	TFV 300 Ex	000																															
<b>.</b>	Intake socket	300																															
	Exhaust connection	450		ı																													
	TFV 900 Ex			_																													
	Intake socket	630						П																									
	Exhaust connection	630			_																												
TFV turbo fan					_																												
	TFV 20	_																															
<b>6</b> =	Hose adapter	2 x 100																															
	TFV 30																																
9=	Hose adapter	3 x 100																															
TFV radial far	1																																
	TFV Pro 1																																
	Hose adapter plate	12 x 38																													ı		
0	Hose adapter plate	8 x 50																														į	
	Hose adapter plate	3 x 100																											•				
TFV-S turbo f	an																																
200	TFV 30 S																																
O con	Hose adapter	3 x 100																															
PT air conditi	oners																																
:	PT 4500 S																																
5	Spot cooling exhaust distributor	1 x 200																															
11	PT 6500 S																																
-	Spot cooling exhaust distributor	2 x 200																															
1-7	PT 6500 HT																																
	Spot cooling exhaust distributor	2 x 200																															
1-1	PT 15000 S																																
	Spot cooling exhaust distributor	2 x 300										•																					

<sup>&</sup>lt;sup>1)</sup> Respectively indicated are the inner diameters for the Tronect<sup>®</sup> hoses and the outer diameters for the device connections.

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Tronect® connectivity schedule – further information ...

### **Tronect® connectivity schedule**

Which hose is which Trotec	appliance?	Туре	Tr S	onec P-AP	t	Tro Si	oned P-AV	t /					Tir :	one SP-T	ct 「							Tr S	one SP-C	ct ;				Ti	oned TF-L	et	1	Frone PV-A	ct
Here an overy Tronect® hose and equipmer		Art. no.	6.100.001.410	6.100.001.420	6.100.001.430	6.100.001.460	6.100.001.470	6.100.001.480	6.100.001.155	6.100.001.200	6.100.001.202	6.100.001.205	6.100.001.210	6.100.001.212	6.100.001.214	6.100.001.216	6.100.001.217	6.100.001.218	6.100.001.220	6.100.001.255	6.100.001.265	6.100.001.266	6.100.001.267	6.100.001.270	6.100.001.273	6.100.001.275	6.100.001.105	6.100.001.110	6.100.001.115	6.100.001.120	6.100.001.125	6.100.001.010	0.100.001.020
Device	Specifications	ø mm <sup>1)</sup>	305	460	650	305	460	650	155	203	255	305	356	425	457	525	560	600	700	155	305	356	425	525	600	725	63	80	100	127	160	38 5	1
Spot cooler air	conditioners																																
·	PT 2700 SP																																
	Exhaust connection	160																															
	PT 3500 SP																																
August	Exhaust connection	200																															
	PT 5300 SP							Ì																									
	Exhaust connection	400																															
TAC air cleane	r																																
	TAC 1500																																
		200																															
	TAC 3000																																
		250																															
	TAC 5000																																
		400																															
	TAC 6500																																
		450					•								•																		
0	TAC 1500 S							İ																									
		200																															
	TAC 750 E																																
ٷ		200																															
	Hose adapter	123																															
Airozon® Profe	ssional Series																																
	Airozon® 20000																																
		300																															
	Airozon® 60000																																
	Attachment hood for hose connection	300										•																					
	Airozon® Supercracker																																
<u>,</u>		100																															

In addition to the standard version with spiral-free sleeves, all Tronect® SP hoses are optionally also available with ferrules, rows of hooks and eyelets. Other diameters and lengths are also available upon request for all hoses.

<sup>&</sup>lt;sup>1)</sup> Respectively indicated are the inner diameters for the Tronect<sup>®</sup> hoses and the outer diameters for the device connections.

# READY TO GO.

# TOOLS BY TROTEC.



You have the ideas, we have the tools.

Regardless if you are screwing, drilling, sawing, cutting or sanding - the Trotec PowerTools are convincing in practice. You can rely on reliable brand quality, strong performance and an unmatched price-performance ratio in your work.

- Cordless Screwdriver
- Cordless Drills
- Cordless Hammer Drills
- Cordless Impact Driver
- Cordless Rotary Hammers
- Rotary Hammers
- Drills

- Multifunctional Tools
- Jigsaws
- Circular Saws
- Reciprocating Saws
- Planer
- Multifunction Grinder
- Belt Grinders

- Angle Grinder
- Hot Air Blowers
- Compressors
- Electric Stapler
- Hot Glue Guns
- Battery Work Lights
- Accessories and much more...





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