TROTEC



2023 / 2024

PORTABLE CLIMATE SOLUTIONS

FOR PROFESSIONALS

DANTHERMGROUP







TROTEC
Quality from Germany

As one of the leading German specialists, Trotec offers tailor-made product innovations in the fields of air dehumidification, air cleaning, heating, air conditioning, ventilation, measurement tools and power tools.
With our own R&D and production in Germany, we have decades of know-how at your disposal.

Trotec — Your strong partner:

- Quality from Germany
- Wide range in all performance classes
- Individual advice and best service

TRT-MAMEDA-MAIV-WM-02-EN

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Desiccant dehumidifiers of the TTR series

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
- 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



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



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 request.

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.

TRT-MAMEDA-ATRT-WM-03-EN

D marking: professional quality “made in Germany” with twice the flexibility due to Duoventic

Monoventic:

Duoventic:

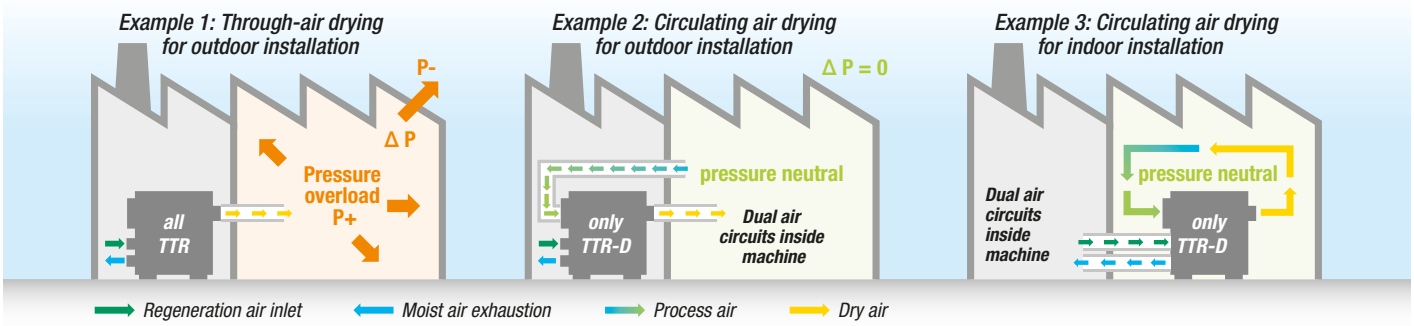
The Duoventic principle of the TTR-D models allows the separate electronic regulation of both fans of the separate air circuits. This enables the fine adjustment of the moisture content (C1) and volume flow (C2) of the required dry air.

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!

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 8 and 9.

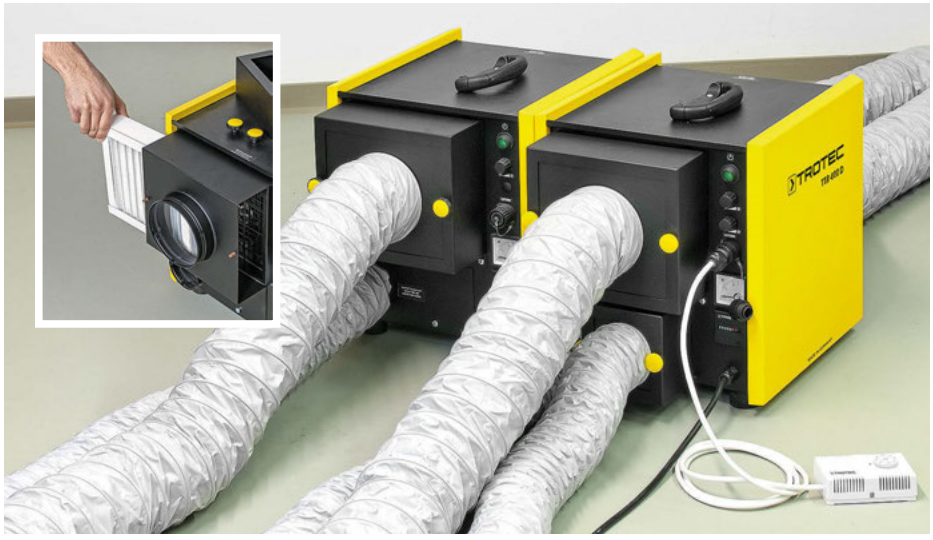


Thanks to the clip fastener, the filter cover at the rear of the device with inserted filter mat can be removed quickly and without the need for tools.



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.

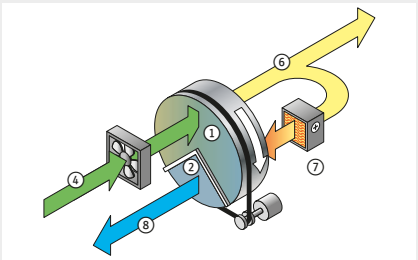
Also available as order option instead of the standard operating hours counter is an MID-compliant [5] dual counter with additional recording of the energy consumption.



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.

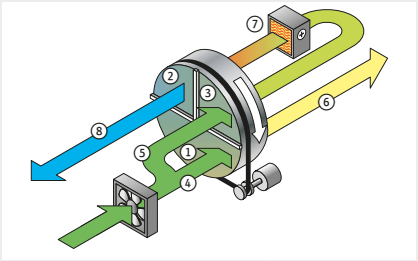
Operation principles of the TTR desiccant dehumidifiers:

TTR Bisorp Mono



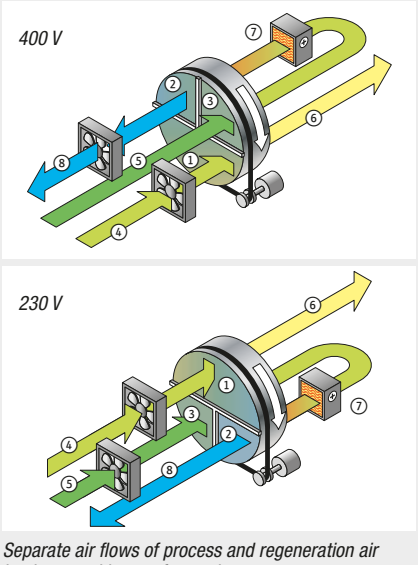
A fan located in front of the rotor for process and regeneration air. For regeneration a partial flow of the dry air is used.

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.

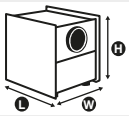
Key for operation principles:

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

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
Dry air	Dehumidification [1] [kg/h]	0.35	0.7	1.2	1.6	2.2
	Range [m³/h]	40 - 120	80 - 280	130 - 450	130 - 450	180 - 550
	Air volume [2] [m³/h]	80	200	350	350	480
	Ext. Compression [Pa]	50	100	150	200	150
Regeneration air	Air volume [m³/h]	15	30	50	65	80
	Ext. Compression [Pa]	30	50	80	80	80
Principle of operation (for details see page 6)		TTR Bisorp Mono		TTR Trisorp Mono	TTR Trisorp Dual	
Operating range	Temperature [°C]	-15 to +35	-15 to +35	-15 to +35	-15 to +35	-15 to +35
	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
	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]		305	355	400	400	443
Width [mm]		260	310	350	350	400
Height [mm]		285	355	405	405	452
Weight [kg]		9	12	17	20	25
Connection	Dry air outlet ø [mm]	80	100	125	125	125
	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 sheet housing		■	■	■	■	■
Stainless steel housing		□	□	□	□	□
Fan		1 x	1 x	1 x	2 x	2 x
Air volume regulation	Monoventic [3]	■	■	■	–	–
	Duoventic [4]	–	–	–	■	■
Operating hours counter		■	■	■	■	■
Dual counter (MID-compliant [5]) [h/kWh]		–	□	□	□	□
Hose adapter	Process air	□	□	□	□	□
	Regeneration air	–	–	–	□	□
Filter box	Process air	□	□	□	□	□
	Regeneration air	–	–	–	□	□
Function monitoring		–	–	○	○	○
Ammeter		■	■	■	■	■
DIN socket for external switchings		4-pin	4-pin	4-pin	4-pin	4-pin
Hygrostat		□	□	□	□	□
Self-regulating PTC electric heating		■	■	■	■	■
Additional heating process air		–	–	□	□	□
Integrated heat recovery		■	■	■	■	■
Ex-proof version		–	–	–	–	–

■ Standard equipment; □ optional equipment; ○ equipment option to be stated at the time of order, not subsequently installable; further versions upon request

[1] Nominal data at 20 °C / 60 % RH; [2] nominal

[3] **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.

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You are free to browse through the Trotec flip book catalogues while you are connected to the internet and to download individual pages, the complete edition or the whole application locally on to your computer.

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).

8 Z-line filter G4 process air

9 Z-line filter G4 regeneration air

10 Z-line filter F7 process air

11 Z-line filter F7 regeneration air

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

13 Quad distributor
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.

14 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.

16 Sealing caps 38 mm
Air outlet seal for the mounted reducer fitting (14) in case no hose is connected.

17 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, Art. number 6.100.002.043)

Air transport hoses:

18 For standard dry air exhaust.

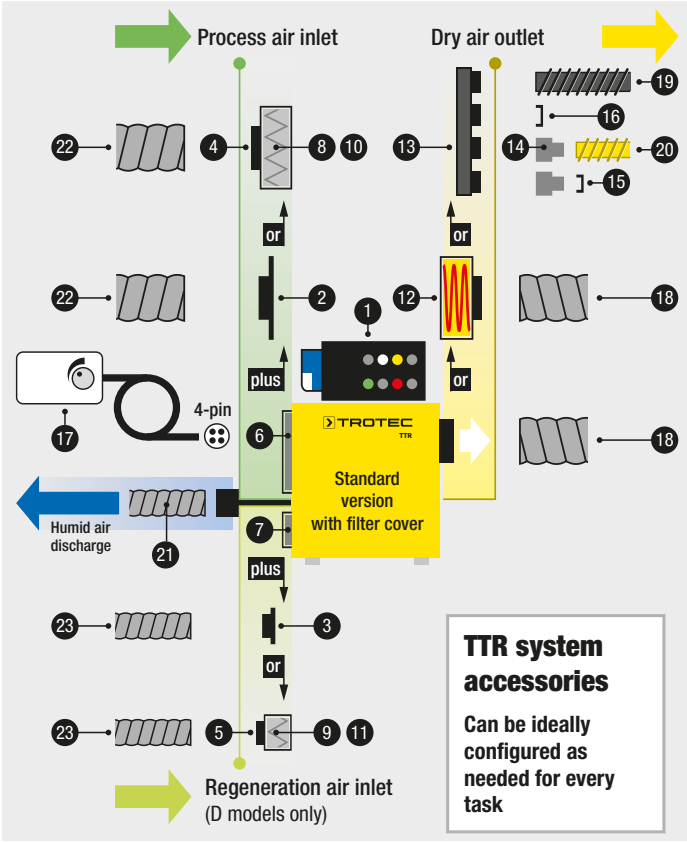
19 For standard dry air exhaust with mounted quad distributor (13).

20 For standard dry air exhaust with mounted quad distributor (13) and screwed-on reducer fitting (14).

21 For humid air discharge.

22 For process air intake.

23 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.







System accessories			TTR 200	TTR 300	TTR 400	TTR 400 D	TTR 500 D
1	Function monitoring	Article number	–	–	6.100.010.346	6.100.010.346	6.100.010.346
2	Hose adapter	Process air inlet ø [mm]	80	100	125	125	125
		Article number	6.100.010.001	6.100.010.005	6.100.010.010	6.100.010.010	6.100.010.010
3		Regeneration air inlet ø [mm]	–	–	–	80	80
		Article number	–	–	–	6.100.010.101	6.100.010.105
4	Filter box	Process air inlet ø [mm]	80	100	125	125	125
		Article number	6.100.010.201	6.100.010.205	6.100.010.210	6.100.010.210	6.100.010.210
5		Regeneration air inlet ø [mm]	–	–	–	80	80
		Article number	–	–	–	6.100.010.301	6.100.010.305
6	Process air filter mat	L x W x H [mm]	20 x 130 x 140	20 x 205 x 185	20 x 230 x 240	20 x 230 x 240	20 x 230 x 240
		Article number	7.160.000.680	7.160.000.681	7.160.000.682	7.160.000.682	7.160.000.682
7	Regeneration air filter mat	L x W x H [mm]	–	–	–	20 x 110 x 130	20 x 135 x 150
		Article number	–	–	–	7.160.000.683	7.160.000.684
8	Z-line filter G4 process air *(requires 4)*	L x W x H [mm]	48 x 125 x 135	48 x 205 x 180	48 x 200 x 225	48 x 200 x 225	48 x 200 x 225
		Article number	7.160.000.602	7.160.000.603	7.160.000.604	7.160.000.604	7.160.000.604
9	Z-line filter G4 regeneration air *(requires 5)*	L x W x H [mm]	–	–	–	48 x 123 x 117	48 x 170 x 152
		Article number	–	–	–	7.160.000.605	7.160.000.606
10	Z-line filter F7 process air *(requires 4)*	L x W x H [mm]	48 x 125 x 135	48 x 205 x 180	48 x 200 x 225	48 x 200 x 225	48 x 200 x 225
		Article number	7.160.000.630	7.160.000.631	7.160.000.632	7.160.000.632	7.160.000.632
11	Z-line filter F7 regeneration air *(requires 5)*	L x W x H [mm]	–	–	–	48 x 123 x 117	48 x 170 x 152
		Article number	–	–	–	7.160.000.633	7.160.000.634
12	Dry air heating	Dry air outlet ø [mm]	–	–	125	125	125
		Article number	–	–	6.100.010.345	6.100.010.345	6.100.010.345

Further accessories			TTR 200	TTR 300	TTR 400	TTR 400 D	TTR 500 D
13	Quad distributor	Dry air outlet ø [mm]	–	4 x 50 (38)	4 x 50 (38)	4 x 50 (38)	4 x 50 (38)
		Article number	–	6.100.010.340	6.100.010.340	6.100.010.340	6.100.010.340
14	Reducer fitting from ø 50 to 38 mm for quad distributor		7.200.000.002	7.200.000.002	7.200.000.002	7.200.000.002	7.200.000.002
15	Spare sealing caps for quad distributor	ø 38 mm	7.310.000.021	7.310.000.021	7.310.000.021	7.310.000.021	7.310.000.021
16		ø 50 mm	7.310.000.101	7.310.000.101	7.310.000.101	7.310.000.101	7.310.000.101
17	Hygrostat HG 120		6.100.002.040	6.100.002.040	6.100.002.040	6.100.002.040	6.100.002.040
	Thermohygrostat HG 125		6.100.002.042	6.100.002.042	6.100.002.042	6.100.002.042	6.100.002.042
	Adapter transformer for HG 125		6.100.002.043	6.100.002.043	6.100.002.043	6.100.002.043	6.100.002.043

Recommended air transport hoses			TTR 200	TTR 300	TTR 400	TTR 400 D	TTR 500 D
18	Dry air outlet		Tronect TF-L (L 6 m) 6.100.001.110	Tronect TF-L (L 6 m) 6.100.001.115	Tronect TF-L (L 6 m) 6.100.001.120	Tronect TF-L (L 6 m) 6.100.001.120	Tronect TF-L (L 6 m) 6.100.001.120
19	Dry air outlet with quad distributor ø 50 mm		–	Tronect PV-A 51 (L 15 m) 6.100.001.020	Tronect PV-A 51 (L 15 m) 6.100.001.020	Tronect PV-A 51 (L 15 m) 6.100.001.020	Tronect PV-A 51 (L 15 m) 6.100.001.020
20	Dry air outlet with quad distributor reduced to ø 38 mm		–	Tronect PV-A 38 (L 15 m) 6.100.001.010	Tronect PV-A 38 (L 15 m) 6.100.001.010	Tronect PV-A 38 (L 15 m) 6.100.001.010	Tronect PV-A 38 (L 15 m) 6.100.001.010
21	Humid air outlet		Tronect PV-A 51 (L 15 m) 6.100.001.020	Tronect PV-A 51 (L 15 m) 6.100.001.020	Tronect TF-L (L 6 m) 6.100.001.110	Tronect TF-L (L 6 m) 6.100.001.110	Tronect TF-L (L 6 m) 6.100.001.110
22	Process air inlet *(requires 2 or 4)*		Tronect TF-L (L 6 m) 6.100.001.110	Tronect TF-L (L 6 m) 6.100.001.115	Tronect TF-L (L 6 m) 6.100.001.120	Tronect TF-L (L 6 m) 6.100.001.120	Tronect TF-L (L 6 m) 6.100.001.120
23	Regeneration air inlet *(requires 3 or 5)*		–	–	–	Tronect TF-L (L 6 m) 6.100.001.110	Tronect TF-L (L 6 m) 6.100.001.110

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A FEW PRACTICAL BENEFITS:

- Professional quality "made in Germany" – originally produced by Trotec
- Corrosion-resistant stainless steel housing
- Space-saving and stackable

Desiccant dehumidifiers made of stainless steel from the TTR series



TTR 160 *TTR 250*



Also suitable for application in ex-proof zones

Ex protection: ATEX zone 22
(Ex II 3D Ex c T240 °C)

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.

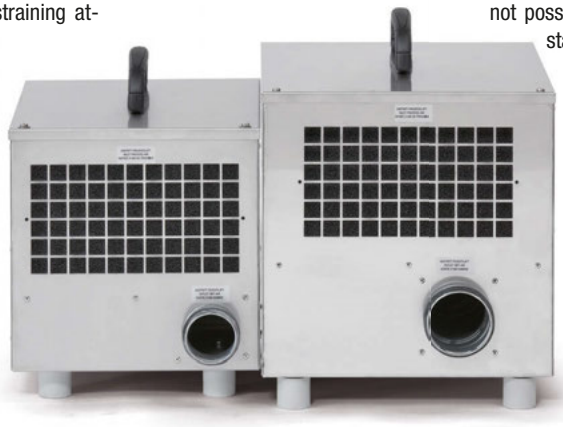
Therefore, these machines are perfectly suitable for operational environments where special hygienic standards apply or for extremely material-straining atmospheres.

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.

TRT-MAMEDA-ATTR-WM-02-EN



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 …



TTR 250 HP

The TTR 250 HP is not only standard-equipped 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		■	■	■	■
Fan		1 x	1 x	1 x	1 x
High-pressure fan		–	–	–	1 x
Air volume regulation	Monoventic	–	–	–	–
	Duoventic	–	–	–	–
Operating hours counter		■	■	■	■
Dual counter h/kWh (MID compliant*)		□	□	□	□
Hose adapter	Process air	–	–	–	–
	Regeneration air	–	–	–	–
Filter box	Process air	–	–	–	–
	Regeneration air	–	–	–	–
Ampere meter		■	■	■	■
DIN socket for external switchings		4-pin	4-pin	–	–
Hygrostat		□	□	–	–
Self-regulating PTC electric heating		■	■	■	■
Internal heat recycling process		■	■	■	■
Ex protection version		–	–	■	–

■ Standard equipment; □ Optional equipment; further versions upon 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
Dry air	Dehumidification [1] [kg/h]	0.5	1.1	1.1	1.0
	Range [m³/h]	60 - 160	130 - 300	130 - 200	130 - 220 (80 - 140) [3]
	Amount of air [2] [m³/h]	155	250	180	200 (120) [3]
	Ext. Compression [Pa]	50	100	400	200 (2,500) [3]
Regeneration air	Amount of air [m³/h]	35	50	50	100 (50) [3]
	Ext. Compression [Pa]	25	100	100	5,500 (100) [3]
Principle of operation (for details see page 6)		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]
	Heating [kW]	0.6	1.2	1.2	2.0 (1.1) [3]
Sound level (distance 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]		14	19	21	45
Connection dry air output ø [mm]		100	100	100	100 (50) [3]
Connection moist air output ø [mm]		63	80	80	50 (100) [3]
Filter mat (accessories consumable article)		**TTR 160**	**TTR 250**	**TTR 250 Ex**	**TTR 250 HP**
L x W x H [mm]		20 x 210 x 295	20 x 210 x 345	–	20 x 210 x 345
Article number		7.710.000.060	7.710.000.061	–	7.710.000.061
Recommended air transport hoses		**TTR 160**	**TTR 250**	**TTR 250 Ex**	**TTR 250 HP**
Dry air output		6.100.001.115 [4]	6.100.001.115 [4]	on request	6.100.001.115 [4]
Moist air output		6.100.001.105 [4]	6.100.001.110 [4]	on request	6.100.001.020 [5]

[1] Nominal data at 20 °C / 60 % r.H.; [2] nominal;
[3] 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)

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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



Trotec's best solution for a perfect humidity control in the industrial sector

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 high-quality 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 humidity.



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.

TRT-MAMEDIA-DHTR-WM-02-EN

Stationary condenser dryers – further information… ➔

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.

Stationary condenser dryers – further information…

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.

DH 15



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 ready-for-use DH 15 is particularly well suited for the assembly above doors.

DH 30



DH 30 H version also with heating function

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.

DH 60



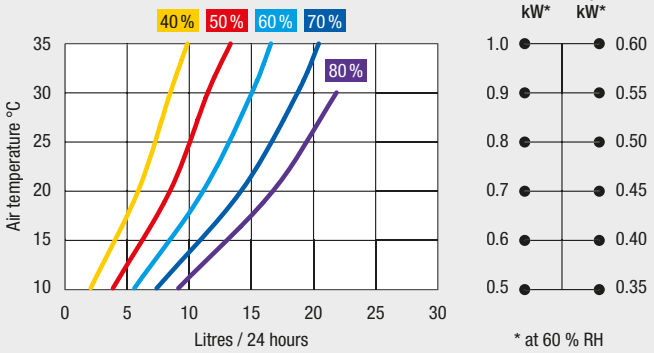
DH 60 H version also with heating function

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.

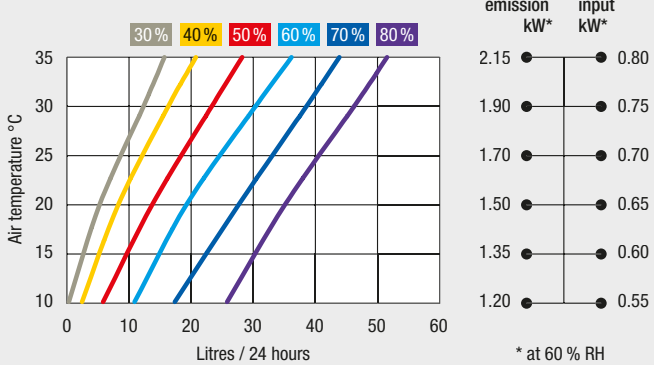
- *Professional quality “made in Germany” – originally produced by Trotec*
- *High dehumidification performance even at low temperatures*
- *Corrosion-protected design*
- *Fully automatic operation*
- *Professional hot gas automatic defrosting*
- *Powerful air circulating radial fan (DH 30 and DH 60)*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



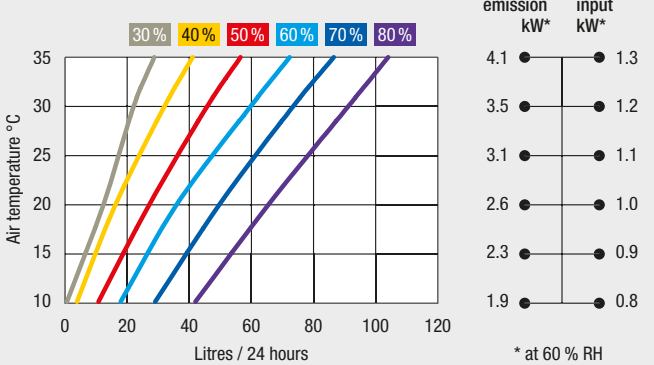
Dehumidification performance DH 15



Dehumidification performance DH 30 / DH 30 H



Dehumidification performance DH 60 / DH 60 H



Stationary condenser dryers – further information… ➔

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.



DH 310

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 defrost system with automatically controlled cycle inversion*
- *Optionally usable from -0.5 °C*
- *Steplessly self-regulating EC double-flow radial fan*
- *Integrated condensate pump*

Ideal solutions for any application environment

Due to the galvanized, powder-coated 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

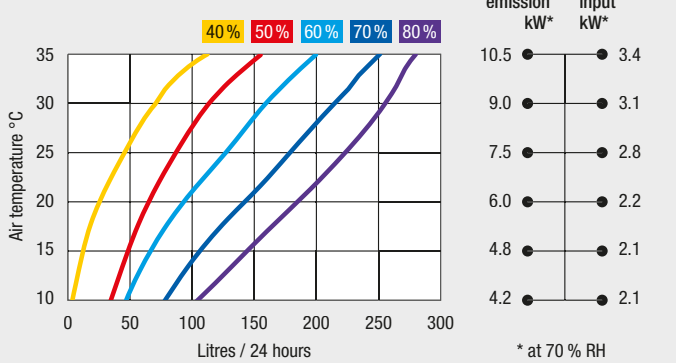
When put into operation via the central control panel the compression refrigeration systems enable a reliable, hygrostat-controlled continuous operation for permanent dry keeping with a long service life.

The hot gas defrost system with automatically regulated cycle inversion guarantees extremely brief defrost phases even in cold surroundings.

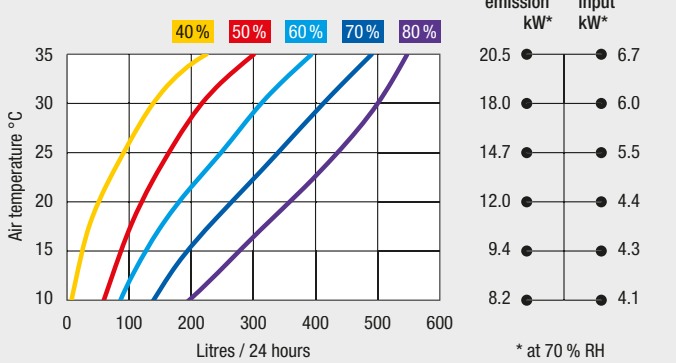


The integrated MID-compliant energy consumption meter comes equipped with and additional service menu providing information for maintenance.

Dehumidification performance DH 160



Dehumidification performance DH 310



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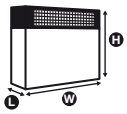
In top form – manufactured in Germany

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 14				
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 [3]	Type	R-407C	R-407C		R-407C	
	Amount [g]	480	500		800	
GWP factor [3]		1,774	1,774		1,774	
CO_2-equivalent [3] [t]		0.85	0.89		1.42	
Air volume freely blowing [m^3/h]		225	635		1,165	
Sound level (distance 3 m) [dB(A)]		49	52		54	
Operating range temperature [°C]		5 to 40	5 to 40		5 to 40	
Operation range max. RH [%]		90	90		90	
Length [mm]		365	255		255	
Width [mm]		840	790		1,253	
Height [mm]		330	651		651	
Weight [kg]		37	47		70	
Condensate discharge connection [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 [5]	pump height 10 m, Art. no. 6.100.000.015	pump height 10 m, Art. no. 6.100.000.020		pump height 15 m, Art. no. 6.100.000.025	

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

■ Standard equipment
□ Optional equipment

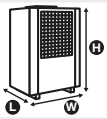
[1] at 30 °C and 75 % RH
[2] at 30 °C and 70 % RH

[3] 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.

[4] **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.

[5] Equipment options to be stated at the time of order, not subsequently installable

[6] 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 15	
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 [3]	Type	R-407C	R-407C
	Amount [g]	2,250	3,200
GWP factor [3]		1,774	1,774
CO_2-equivalent [3] [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]		700	1,080
Height [mm]		1,355	1,715
Weight [kg]		150	260
Condensate discharge connection [mm]		16	16
Dry air outlet connection ø [mm]		rectangular duct connection (optional 1 x ø 410 mm) [6]	rectangular duct connection (optional x ø 510 mm) [6]

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 [4]	■	■
DIN socket for external switchings	4-pin	4-pin
Potential-free contact for remote switching	■	■
Enhanced temperature range [5] 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 [5] for heating the dry air additionally	□	□
Static pressure increase [5] (200 Pa)	Art. no. 1.125.000.163	Art. no. 1.125.000.177
Heat exchanger with CDC coating [4]	□	□

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 right)		
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.



Art. no. 6.100.002.040

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



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

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Industrial condenser dryers of the DH-S series

Because the simplest solutions are often the best.

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!



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 compressor 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.

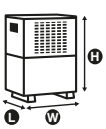
Thanks to their sturdy frame construction the condenser dryer of the DH-S series are distinguished by their high casing stability.

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	–	☑
Optional stainless steel model	–	☑
Scalable drying solutions	–	☑
Various pressure and air levels available	–	☑
High-quality and particularly resistant components	–	☑
Optional heat recovery or process heat-assisted heating	–	☑
Preparation for wall mounting or optional rear wall mounting ex works	–	☑
Integrated condensate pump *	☑	☑
Hot gas automatic defrosting	☑	☑
Dehumidification for moisture damage protection in production and civil protection facilities	☑	☑
Dry keeping of storage and production halls, magazines and archives	☑	☑

** Depending on for more detai*



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 performance / 24 h [litres]	at 30 °C / 80 % RH	40	80	130	175	245	485
	at 20 °C / 60 % RH	16	30	35	70	97	193
Suitable for keeping dry rooms 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	■	■	■	■	■	–
	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 [1] 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_2 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 function		–	–	■	■	■	■
Tube evaporator / Fin evaporator		■ / –	■ / –	– / ■	– / ■	– / ■	– / ■
Sound level (Distance 3 m) [dB(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]		32	53	65	124	150	235



■ *Standard equipment* □ *Equipment options to be stated at the time of order*

[1] 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.

This catalogue version is updated constantly and is also available as an interactive online edition which can be accessed at www.trotec.com/catalogs.
You are free to browse through the Trotec flip book catalogues while you are connected to the internet and to download individual pages, the complete edition or the whole application locally on to your computer.

DH dehumidifiers VPR+

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

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



DH 15 VPR+, faceplate of brushed stainless steel



DH 30 VPR+, faceplate of brushed stainless steel

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 regulation 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.

Capacity calculation

Suitability for room volumes (max.)

min. ø temp. winter*	DH 15 VPR+	DH 30 VPR+	DH 60 VPR+
> 19 °C	160 m³	320 m³	650 m³
16 - 19 °C	120 m³	270 m³	550 m³
12 - 15 °C	80 m³	200 m³	400 m³
8 - 11 °C	50 m³	120 m³	250 m³
4 - 7 °C	–	80 m³	150 m³

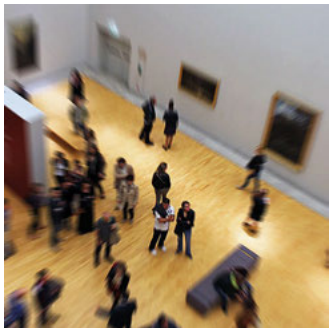
* When used in garages: Average daily period of opening the garage door: max. 15 minutes

TRT-MAMEDA-DVPR-WM-02-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 over the past centuries.

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

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.

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

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.



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.
- **Soot**
  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 two-component 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…



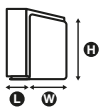


Standard version faceplates





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_2 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	52	54
Operating range temperature [°C]		5 to 40	5 to 40	5 to 40
Operation range max. RH [%]		90	90	90
Length [mm]		395	280	280
Width [mm]		829	787	1,255
Height [mm]		339	690	690
Weight [kg] [2]		47	57	90
Pump height condensate pump [m]		10	10	15
Hot gas automatic defrosting		■	■	■
Integrated hygrostat		■	■	■
Integrated NTP air purification unit		■	■	■
Condensate discharge connection [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. 1.125.000.418	Art. no. 1.125.000.423
	individual	e.g. gold-plated faceplate and much else available upon request		

■ Standard equipment

[1] at 30 °C and 75 % RH

[2] weight incl. standard faceplate

* 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.





Faceplates
Brushed stainless steel design





Faceplates
Carbon design





Faceplates
Special colour design

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.

Special colour examples:

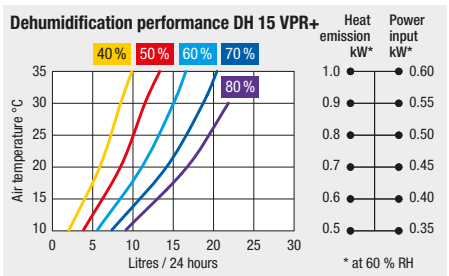
Ferrari Red	Bugatti Blue	Racing Green	Gulf Blue

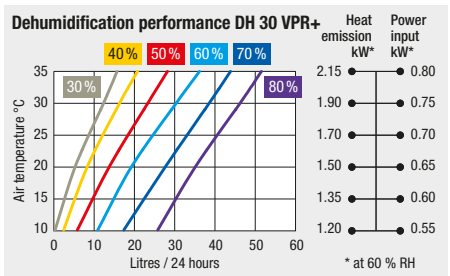
Other colours are available upon request.





Faceplates
Individual design, for example gold-plated





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.

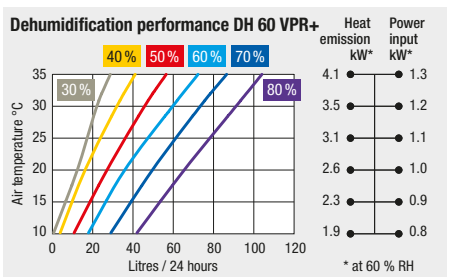


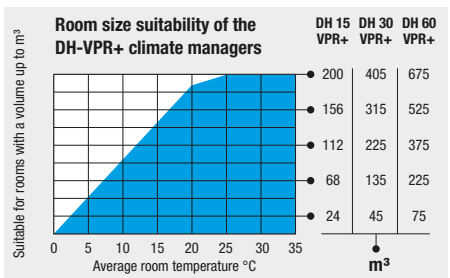
Combi-nation filter DH 15 VPR+



Standard 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.







Construction dryers of the TTK professional series

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

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!

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 essentials: 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-MAKDA-KTTK-WM-02-EN

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 construc-tion dryer features not only a carriage with adjustable 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 ideally suited for an effective dehumidification in low-temperature surroundings such as unheated rooms.



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.

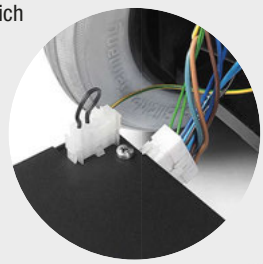


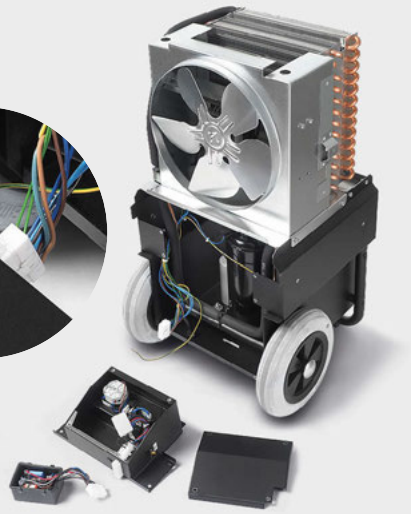
The combination of a high dehumidification performance together with a minimized energy demand and a great mobility with a low floor space requirement makes the TTK 500 the ideal dehumidification solution even at low temperatures – for continuous operations also optionally available with a hygrostat 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 dryer TTK 900 MP

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

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.

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 outlet 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 ever-changing sites of operation and to withstand rough working conditions. This is why the TTK 900 MP features not only a carriage with adjustable push handle, but also large wheels with non-marking rubber tyres – all combined in a robust metal housing.



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.



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!

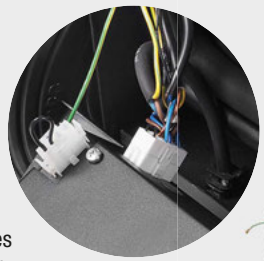
Benefit now from 20 % more efficiency than before

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.**

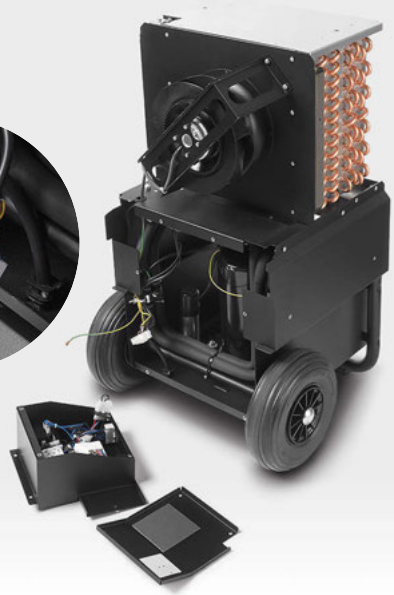


Innovative central chassis – low-maintenance modular design

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 48 …



You need even more mobile construction drying power?

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

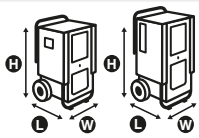
Whilst featuring an otherwise identical design this industrial dryer is additionally equipped with a wheeled frame construction permitting quick site changes. The mobile model is optionally also available as stainless steel version.

More information about the industrial condenser dryer DH 160 can be found starting on catalogue page 12 …

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 on request.

Technical data		TTK 500	TTK 900 MP
Article number		1.120.000.410	1.120.000.802
Dehumidification performance / 24 h [litres]	At 20 °C / 60 % RH	27	49
	At 30 °C / 80 % RH	58	96
	Max.	70	110
Air volume [m³/h]		400	660 to 850[1]
Suitable for room sizes of up to [m³]	Construction drying	470	800
	Dry keeping	940	1,600
Operating range Temperature [°C] / Humidity [% RH]		5 to 35 / 35 to 90	3 to 40 / 20 to 90
Input voltage [V/Hz]		220 - 240 / 50	220 - 240 / 50
Power input [kW]		1.6	2.1
Nominal current consumption [A]		7.3	9.8
Refrigerant[2] Type / Amount [g]		R-454C / 650	R-454C / 900
GWP factor[2] / CO_2 equivalent[2] [t]		146 / 0.095	146 / 0.13
Sound level (distance 3 m) [dB(A)]		58	59
Length [mm]		438	500
Width [mm]		470	565
Height [mm]		870	960
Weight [kg]		52	69

Standard equipment (extract) and options	TTK 500	TTK 900 MP
Compressor	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, MID-compliant[3]	Art. no. 7.140.000.903	–
Plug connection for external switching	■	■
Cable holder	■	■
Low-maintenance modular design	■	■
Adjustable push handle	■	■
Carriage design	■	■
Stackable construction	■	■

Design option	TTK 500	TTK 900 MP
Stainless steel AISI 316	Art. no. 1.120.000.414	–

Available system accessories / recommended accessories		TTK 500	TTK 900 MP
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		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		Art. no. 7.333.000.367	Art. no. 7.333.000.367

■ 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.

Commercial dehumidifiers of the TTK-S series

The standard class – top of the class

A FEW PRACTICAL BENEFITS:

- 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[4] dual counter for operating and kilowatt hours optionally available
- Practice-optimized German industrial design – protected design patent



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

TRT-MAMEDA-TTKS-WM-02-EN

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.



① *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.

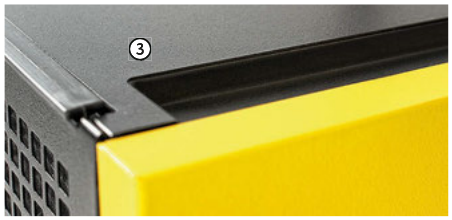
Due to its extremely low-maintenance construction, this advanced dehumidifier generation is easier to clean than ever before and due to its favourable power to weight ratio and its clever mobility features, it is easy to transport.

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.*







Well-arranged operating panel:

1. *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[4])*
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.

And in between two applications, the suitable protective covers available as practical accessories prevent soiling of the devices during storage.





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.

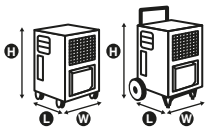
All the same, there is no way around the application of a condenser dryer for such drying tasks – desiccant dehumidifiers need considerably more energy to achieve the same level of drying performance and are therefore not a viable alternative, especially in terms of economics.

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.

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 / 24 h [litres]	At 30 °C / 80 % RH	28	40	55	91
	Max.	32	50	70	150
Air volume [m^3/h]		250	580	1,000	1,000
Operating range	Temperature [°C]	5 to 32	5 to 32	5 to 32	5 to 32
	Humidity [% RH]	50 to 90	50 to 90	50 to 90	50 to 90
Input 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_2 equivalent* [t]		3 / 0.00045	3 / 0.00045	146 / 0.09490	146 / 0.15
Water tank [litres]		6[1]	6[1]	6[1]	–
Sound level [dB(A)]		52	52	54	56
Length [mm]		375	390	390	620
Width [mm]		345	380	380	515
Height [mm]		603	643	725	858
Weight [kg]		26	35	39	55

Equipment and functions		TTK 125 S	TTK 175 S	TTK 355 S	TTK 655 S
Hot gas automatic defrosting		■	■	■	■
Automatic dehumidification	Adjustable analogue hygrostat	■	■	■	■
	Electronic hygrostat with digital display	–	–	–	EH[2]
Filling level warning light to indicate a full water tank		■	■	■	–
Overflow protection with automatic switch-off		■	■	■	–
Washable air filter		■	■	■	■
Operating hours counter		■	■	■	■
Dual counter for operating and kilowatt hours[3] (MID-compliant[4])		7.140.000.903	7.140.000.903	7.140.000.903	7.140.000.903
Compressor overheating protection with automatic switch-off function		■	■	■	■
Protective bars for the control panel		■	■	■	■
Carry / transport handle(s)		■	■	■	■
Non-marking full-rubber wheels		■	■	■	■
Swivel casters with wheel lock		■	–	–	–
Carriage design		–	■	■	■
Vertically adjustable transport handle		–	■	■	■
Stackable		■	■	■	■
Connection for external condensate drain		■	■	■	■

Accessories (consumables)	TTK 125 S	TTK 175 S	TTK 355 S	TTK 655 S
Air filter (article number)	7.160.000.006	7.160.000.007	7.160.000.008	7.160.000.009

Available accessories		TTK 125 S	TTK 175 S	TTK 355 S	TTK 655 S
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	Art. no. 6.100.003.030	Art. no. 6.100.003.030
Protective cover with Velcro® side compartment 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

[1] 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.

[2] Available as the model TTK 655 S EH, Art. no. 1.120.000.175

[3] Optional accessories

[4] **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.

* 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.

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Compact commercial dehumidifier TTK Qube

Low-noise “power cube” from EU manufacturing for professional drying applications – ultra-compact, efficient, quiet

A FEW PRACTICAL BENEFITS:

- 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

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!



TTK Qube – professional compact condenser dryer – newly defined

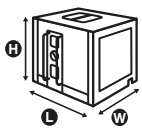
The TTK Qube's high-quality rotation compressor is able to offer higher performance at a comparatively lower power consumption – while also having reserves for high dehumidification performance, even in unheated rooms. Additionally supported by a comfort function for extra-quiet dehumidification operation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

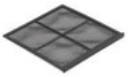
The condensate can be drained through the external outlet even across storeys because the standard condensate pump is designed for a delivery head of up to 10 metres.

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.

Technical data		TTK Qube
Article number		1.120.000.117
Dehumidification performance / 24 h [litres]	At 30 °C / 80 % RH	16
	Max.	20
Air volume [m³/h]		283
Operating range	Temperature [°C]	5 to 35
	Humidity [% RH]	40 to 90
Input voltage [V/Hz]		220 - 240 / 50
Power input [kW]		0.362
Nominal current consumption [A]		1.6
Refrigerant[1] Type / Amount [g]		R-1234yf / 140
GWP factor[1] / CO_2 equivalent[1] [t]		4 / 0.001
Sound level (distance 1 m) [dB(A)] standard / comfort mode		53 / 50
Length [mm]		315
Width [mm]		367
Height [mm]		340
Weight [kg]		16

Standard equipment (extract) and options	TTK Qube
Automatic hot gas defrosting	■
Hygrostat	■
Comfort function for quiet dehumidification operation	■
Integrated condensate pump	■
MID²-compliant dual counter for operating and kilowatt hours	■
Compressor overheating protection with automatic switch-off function	■
Protective bars for the control panel	■
Cable holder	■
Stackable construction	■

Available system accessories / recommended accessories		TTK Qube
Air filter (consumables)		Art. no. 7.160.000.014
Professional extension cable (230 V, 16 A)		Art. no. 7.333.000.376
Cable drum PVD2		Art. no. 7.333.000.367



■ Standard equipment

□ Optionally available equipment

[1] 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.

[2] **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.

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Ideal for indoor swimming pools and whirlpools

Pool dehumidifiers of the DS series

A FEW PRACTICAL BENEFITS:

- 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.



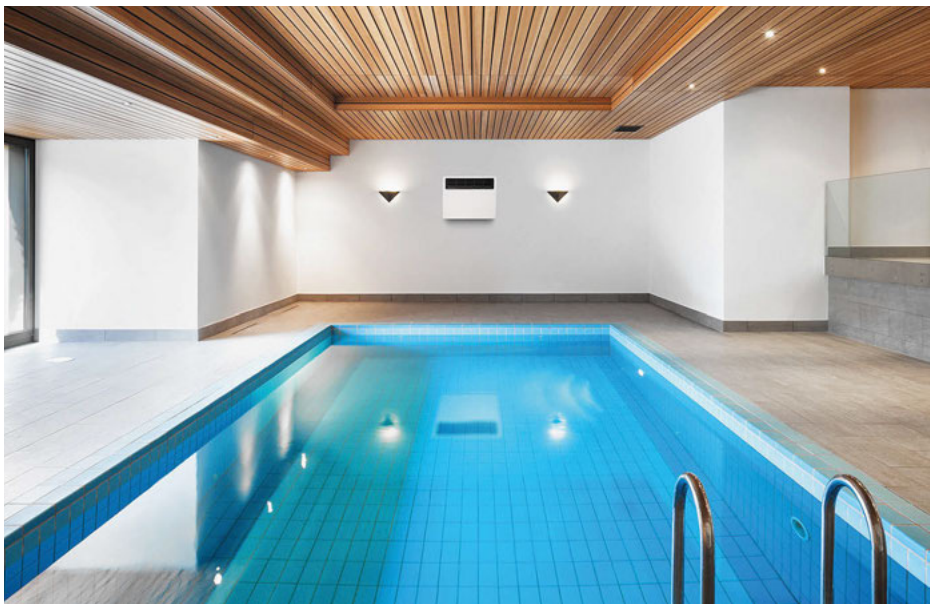
DS 60

DS 30

Reliable Trotec solutions for fully automatic dehumidification operation to achieve whirlpools and indoor swimming pools free of condensation

TRT-MAMEDA-DSSE-WM-02-EN

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, failure-free 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.

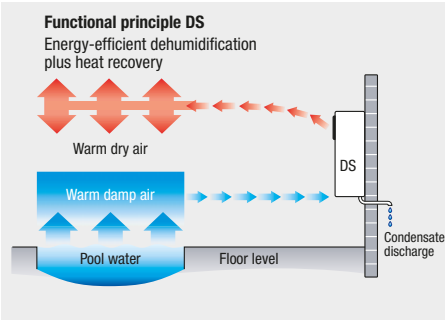
DS as in dependable strength

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

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 the pool air dehumidification!



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.

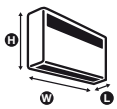
Simple installation – immediately ready for use

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		see performance charts	see performance charts
Suitable for tank sizes of up to [m²] [1]		25	50
Air volume freely blowing [m³/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 [2] [kW]		1.9	3.5
Coefficient of performance (C.O.P.) [2]		2.5	2.9
Refrigerant [3] Type / Amount [g]		R-407C / 500	R-407C / 800
GWP factor [3] / CO_2 equivalent [3] [t]		1,774 / 0.89	1,774 / 1.42
Sound level (distance 3 m) [dB(A)]		50	52
Operating range	Temperature [°C]	0 to 40	0 to 40
	max. RH [%]	90	90
Length [mm]		265	265
Width [mm]		800	1,265
Height [mm]		665	665
Weight [kg]		46	70
Type of protection		IP45	IP45
Condensate discharge connection [mm]		10	10
Standard features		**DS 30**	**DS 60**
Automatic hot gas defrosting		■	■
Integrated hygrostat (infinitely variable)		■	■
Smoothly running radial fan		■	■
Corrosion-resistant plastic housing		■	■
Heat exchanger with CDC coating		■	■
Preparation for wall mounting		■	■
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

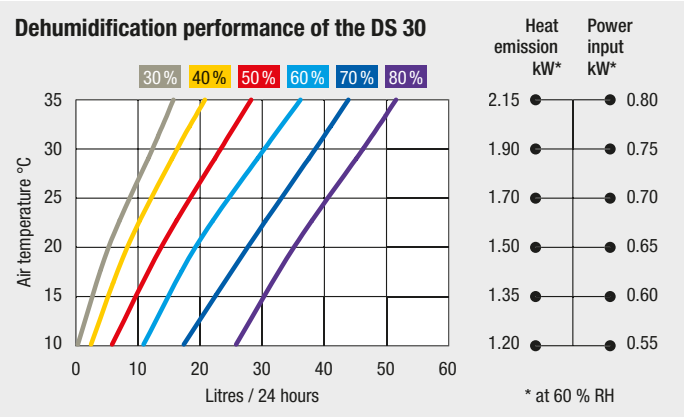
■ Standard equipment

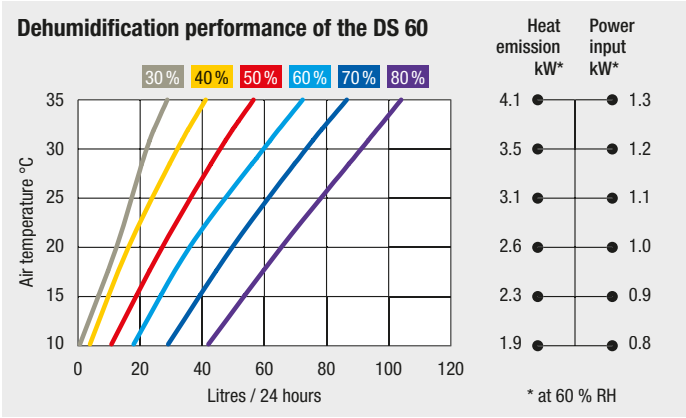
[1] for private indoor swimming pools; calculation basis: evaporation of 1.2 litres per square metre of pool per day (room temperature 30 °C, humidity 60 % RH, water temperature 27 °C). Changing parameters such as the frequency of use or the type of pool cover require an individual recalculation of capacity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

[2] 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)

[3] 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,* ⑤ *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 temporarily 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 [ø mm]	Feed	½ inch *
	Drain	12
Tank volume [l]		0.8
Pump height [m]		4.3
Feed rate [l/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

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

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.

A FEW PRACTICAL BENEFITS:

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.

Exclusively at Trotec!



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.

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.

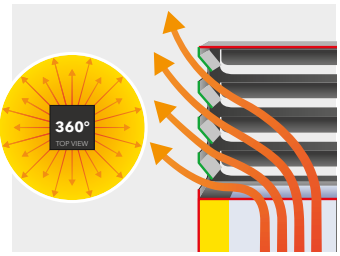


TRT-MAMEDA-TACXT-WM-02-EN

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.

The DualHeat blowing-out tower can be turned as required: The tower side serves to distribute warm air in the room, the connector side allows you to connect a hose.

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.

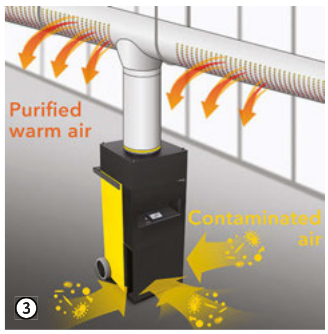
The perfect solution for closed rooms. No oil tank, complicated installations or hose connections, but 100 % recirculation heat.

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’

H14 HEAT RESISTANT HEPA®

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, 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:

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 existing ventilation systems or textile air distributors			■		
					■
Thermal decontamination	incl. air purification in target room	■		■	
	in target room	■			
					■
	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 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!

- **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**

Application area thermal decontamination

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



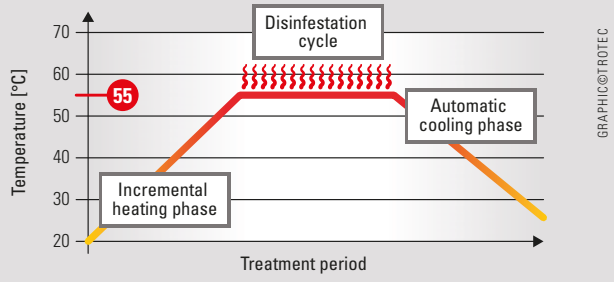
Thermal disinfectors are reliable means for cleaning and decontamination, for example for disinfecting medical devices as part of a sterilisation process, or for keeping AC systems germ-free in hygienically sensitive areas.

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!

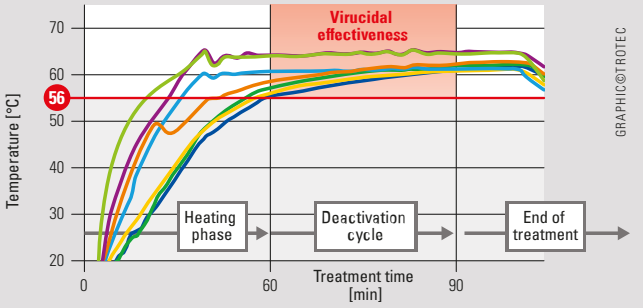
Example of pest control
Program sequence for thermal treatment





Thermal disinfestation using TAC XT is effective against all types of pests at all stages of development (egg, larva, pupa, imago).

Example virus inactivation
Thermal treatment of a furnished office container





System components

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

DualHeat blowing-out tower ①
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.

Technical data			TAC XT 18	TAC XT 27
Article number			1.410.000.183	1.410.000.182
HEPA air purification and virus filtration	Prefilter		G4 Z-Line (EN 779:2002)	
	HEPA filter		Trotec HEPA H14 HighFlow Heat Resistant	
	Max. air volume flow (with HighFlow H14 HEPA)		H14 ≤ 1,200 m³/h, H13 ≤ 2,100 m³/h	
	Filter change interval		approx. 2 to 3 years [2]	
High-performance interior heating and thermal disinfestation/ decontamination	Max. air flow rate heating (without HEPA filter)		2,500 m³/h	
	Max. heating capacity		18 kW (9 + 9 kW)	27 kW (18 + 9 kW)
	Outlet temperature		preselectable up to max. 95 °C	
	Room / surface target temperature		adjustable up to max. 75 °C	
	Treatment cycle thermal disinfestation / thermal decontamination		adjustable from 10 min. to 16 h, depending on the application	
Equipment and functions	Thermal filter decontamination and regeneration		■	■
	FlowMatic volumetric flow control		■	■
	Heating function with 18 kW / 27 kW		■ / –	■ / ■
	Mobile carriage design		■	■
	Usage-related filter change indication		■	■
	Programmable touch display		■	■
	USB-updateable control software		■	■
	Display of operating mode, outlet temperature, air volume flow		■	■
	Timer switch for thermal 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		□	□
General technical data	Mains connection		2 x 380 - 480 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 consumption	Air purification	0.16 kW[1], 2.5 kW[3]	
		Heating	max. 18 kW	max. 27 kW
	Sound pressure level (according to ISO 11203)		35 - 59 dB(A)	
	Length [mm]		690	690
	Width [mm]		630	630
	Height [mm]		1,300 - 2,300[5]	1,300 - 2,300[5]
	Weight [kg][4]		93.1	96
Optional system components, available accessories	Sound protection caps		Art. no. 6.100.007.072	Art. no. 6.100.007.072
	HighFlow-H14-HEPA-Filter (EN 1822)		Art. no. 7.160.000.106	Art. no. 7.160.000.106
	Prefilter F7 (EN 779:2002), ePM10 85 % (ISO 16890)		Art. no. 7.160.000.449	Art. no. 7.160.000.449
	FlowStop shutter		Art. no. 6.100.007.063	Art. no. 6.100.007.063
	DualHeat blowing-out tower		Art. no. 6.100.007.060	Art. no. 6.100.007.060
	Attachment hood for hose connection		Art. no. 6.100.007.061	Art. no. 6.100.007.061
	FlowExtender Silence+		Art. no. 6.100.007.066	Art. no. 6.100.007.066
	Mobile power distributor PV30		Art. no. 6.100.002.081	–
	Hygrothermostat HG 125		Art. no. 6.100.002.042	Art. no. 6.100.002.042

■ 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+

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You are free to browse through the Trotec flip book catalogues while you are connected to the internet and to download individual pages, the complete edition or the whole application locally on to your computer.

Electric heating units of the TEH series

High-performance heating made in Germany

A FEW PRACTICAL BENEFITS:

- 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



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

On request also with thermostat control

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

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 and out.

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.



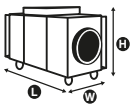
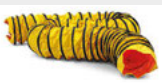
And apart from that the TEH high-performance heating units are especially well-suited to all applications which require large amounts of warm air when indirect oil heating units cannot be used.

TEH high-performance electric heating units are ideal for:

- ☑ *Wharves and shipping companies*
- ☑ *Electricity suppliers and other power supply companies*
- ☑ *Processing industries*
- ☑ *Refineries and petro-chemical plants*
- ☑ *Steel and aluminium works*
- ☑ *Mining companies*
- ☑ *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***

TRT-MAMEDA-TEHA-WM-02-EN

Technical data		TEH 200	TEH 300	TEH 400
Article number		1.410.000.150	1.410.000.155	1.410.000.160
Air flow rate max. [m³/h]		3,000	6,000	9,000
Heating capacity [kW / kcal]		40 / 34,394	80 / 68,788	120 / 103,181
Air pressure [Pa]		600	600	600
Air discharge temperature max.[1] [°C]		65	65	65
Temperature increase (ΔT) max. [°C]		60	60	60
Fan [kW]		1.7	3	5.4
Controls		Switch with eight stages for air volume and air temperature		
Stage 0	Air flow rate [m³/h]	3,000	6,000	9,000
	Temperature increase (ΔT) [°C]	–	–	–
Stage 1	Air flow rate [m³/h]	3,000	6,000	9,000
	Temperature increase (ΔT) [°C]	15	15	15
Stage 2	Air flow rate [m³/h]	3,000	6,000	9,000
	Temperature increase (ΔT) [°C]	25	25	25
Stage 3	Air flow rate [m³/h]	3,000	6,000	9,000
	Temperature increase (ΔT) [°C]	40	40	40
Stage 4	Air flow rate [m³/h]	2,000	4,000	6,000
	Temperature increase (ΔT) [°C]	–	–	–
Stage 5	Air flow rate [m³/h]	2,000	4,000	6,000
	Temperature increase (ΔT) [°C]	20	20	15
Stage 6	Air flow rate [m³/h]	2,000	4,000	6,000
	Temperature increase (ΔT) [°C]	40	40	40
Stage 7	Air flow rate [m³/h]	2,000	4,000	6,000
	Temperature increase (ΔT) [°C]	60	60	60
Input voltage [V / Hz]		400 / 50-60	400 / 50-60	400 / 50-60
Current consumption max. [A / kW]		61 / 41.5	123 / 84	182 / 125.5
Fuse protection [A] / plug		63 / CEE 63 A, 5-pole	125 / CEE 125 A, 5-pole	200 / direct connection
Sound level (distance 3 m) [dB(A)]		75	76	78
Hose connector ø [mm]		450	450	600
Suitable for hose lengths up to [m]		100	100	100
Mobility		wheelable / fork lifter / crane		
Lenght [mm]		1,625	1,625	1,920
Width [mm]		800	800	950
Height [mm]		1,270	1,270	1,450
Weight [kg]		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**
Integrated thermostat control [2]		on request	on request	on request
Hot air hose Tronect SP-T, length 7.6 m		Article no. 6.100.001.214	Article no. 6.100.001.214	Article no. 6.100.001.218
Universal lashing strap		Article no. 6.100.001.995	Article no. 6.100.001.995	Article no. 6.100.001.995

[1] The maximum air discharge temperature is automatically limited to 60 °C in the standard version. Other versions with higher air discharge temperatures are optionally available on request.

[2] Equipment option with order, not subsequently installed. Externally connected thermostat with 25 m cable connection included, other lengths optional).



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.

Infrared heating panel TIH 650+

For the drying of brickwork in new buildings, clearing water damage or the renovation of old buildings

A FEW PRACTICAL BENEFITS:

- 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

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.



TIH 650+
High-quality infrared heating panel with genuine 650 watts of heating capacity

TRT-MAMEDA-IRHP-WM-02-EN

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.



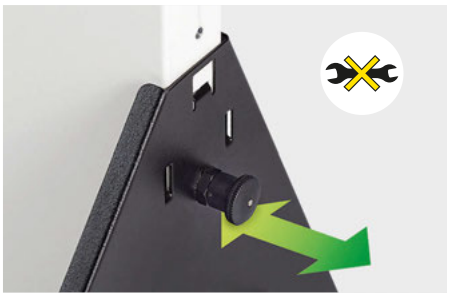
Easily expandable application range
The optionally available mounting accessories allow you to also fasten the infrared heating panel TIH+ individually or collectively to customary assembly supports.



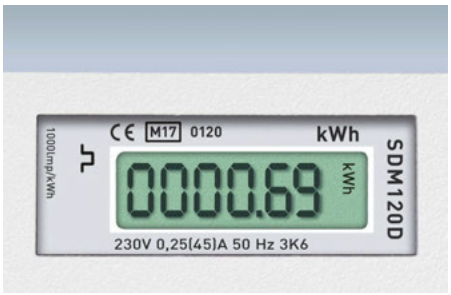
Easy to use
Installed vertically or horizontally, the TIH 650+ can easily be used either way – all you need to do is assemble the feet at the corresponding positions of the heating panel.



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 connection.



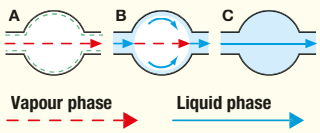
Simple foot assembly
The foot for TIH 650+ is perfectly identical and fitted with an integrated spring bolt rendering additional assembly tools redundant. Pull and remove or pull and attach – it's that simple.



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.

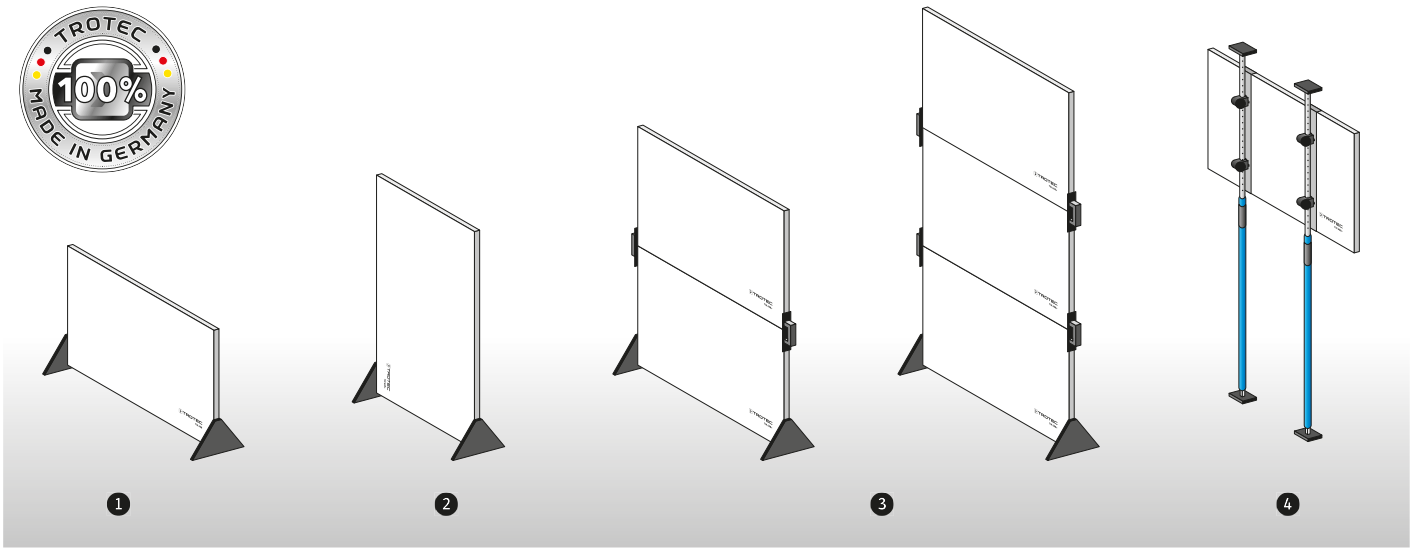
The following can be concluded with regard to the suitability of heating panels for drying out walls:

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!

Flexibly adjustable professional system:



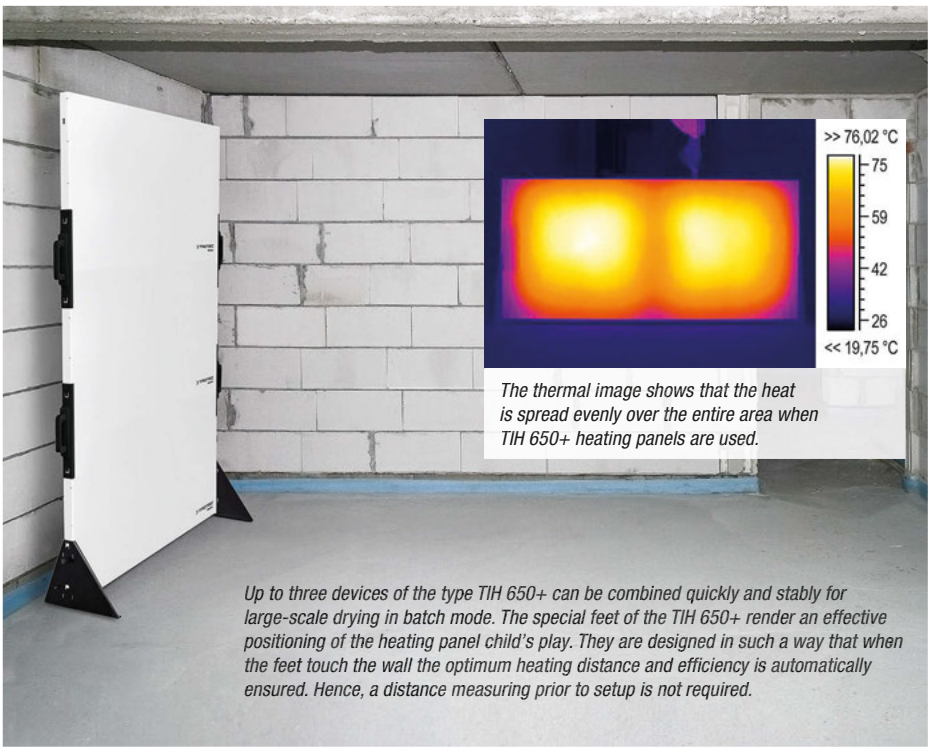
❶ Individual horizontal floor installation of the TIH 650+ by mounting the supplied feet.

❷ Individual vertical floor installation of the TIH 650+ by mounting the supplied feet.

❸ 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.

❹ 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



The thermal image shows that the heat is spread evenly over the entire area when TIH 650+ heating panels are used.

Up to three devices of the type TIH 650+ can be combined quickly and stably for large-scale drying in batch mode. The special feet of the TIH 650+ render an effective positioning of the heating panel child's play. 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.

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.

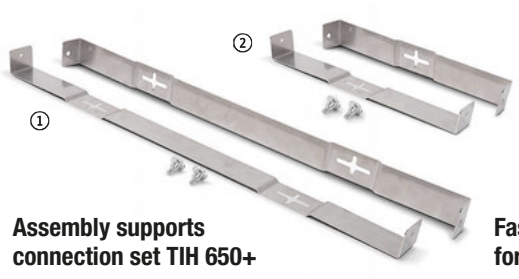
Certain building materials are extremely sensitive to heat build-ups. This can have particularly adverse effects.

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:



Assembly supports connection set TIH 650+

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.



Fastening clamps set forassembly supports

Article number 1.410.003.004

Two clamps in a set for fastening TIH heating panels to customary assembly supports.



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).



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 self-supporting stack.

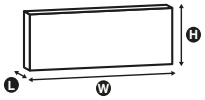


Transport bag

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+.

Techical data		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
Electric connection	Plug type	CEE 7/7
	Cable length [m]	3
	Overheating protection	yes
Energy consumption meter (MID-compliant [2])		integrated
Mobility		portable
Length* [mm]		36
Width [mm]		1,370
Height* [mm]		625
Weight* [kg]		10.7
Standard scope of delivery:		heating panel and two separate feet



** 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.*

[2] **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.

A FEW PRACTICAL BENEFITS:

- High-performance axial fan – 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 fan with an air flow rate of up to 8,500 m³/h

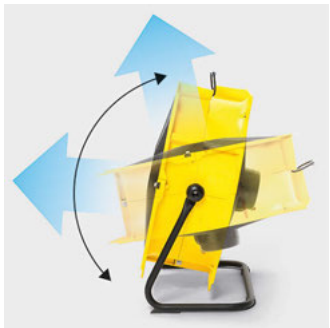
The TTV 7000 fan combines versatility with profitability on a professional level.



Extremely robust for continuous professional use even under the toughest conditions

This high-performance fan is the first choice for all ventilation tasks in production or storage facilities or farms where large air volumes must be circulated.

And since this robust high-performance fan was especially designed with a high service life and reliability for the toughest practical requirements in harsh surroundings, even for the stresses and strains resulting from continuous operation in frequently changing locations, it is not only optimally suited for use in manufacturing and building industry or crafts, but also the perfect solution for every machine rental company!



In order to precisely direct the air current e.g. to high wall or ceiling areas, the tilt angle of the TTV 7000 can be variably adjusted.



The TTV 7000 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 aligned.

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 on request.



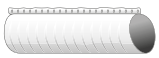
TRT-MAMEDA-TTVP-WM-02-EN

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.
The use of two hose adapters enables the combined application of air transport hose and dust bag to remove dirt particles.

Technical data		TTV 7000
Article number		1.510.000.030
Amount of air [m³/h]	Step 1	3,800
	Step 2	5,600
	Step 3	8,500
Air current		blowing out / sucking in
Air discharge velocity	[m/s]	11
	[km/h]	39.6
Discharge distance [m]	outdoors / indoors	20 / 65
Air pressure max. [Pa]		100
Max. transport medium temperature [°C]		45
Input voltage [V / Hz (A)]		230/50 (1.8)
Power input [kW]		0.41
Protection [A]		10
Type of protection		IP55
Max. sound level (distance 3 m) [dB(A)]		58
Length [mm]		365
Width [mm]		620
Height [mm]		620
Weight [kg]		18.5
Mobility		portable / stackable
Hose connector [ø mm]		560

Available Accessories			TTV 7000
Hose adapter			Art. no. 6.100.005.020
Dust bag [1] class M	Length 3 m		–
	Length 5 m		Art. no. 7.160.000.112
Air transport hose Tronect SP-T [1], L 7,6 m			Art. no. 6.100.001.217
Universal tension belt			Art. no. 6.100.001.995
Professional extension cable, 230 V, 2.5 mm², Length 20 m			Art. no. 7.333.000.376

[1] hose adapter required

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!



The TTV 7000 can stably be stacked for transport and storage.

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

TTW 400000

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 m³/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 protected against unauthorized access. A separate material storage cabinet affords additional space for tools or disassembled swivel casters.





TTW 100000 also available as ex-proof version

TRT-MAMEDA-TTWG-WM-03-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	■	■	–

■ *Standard equipment*







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.

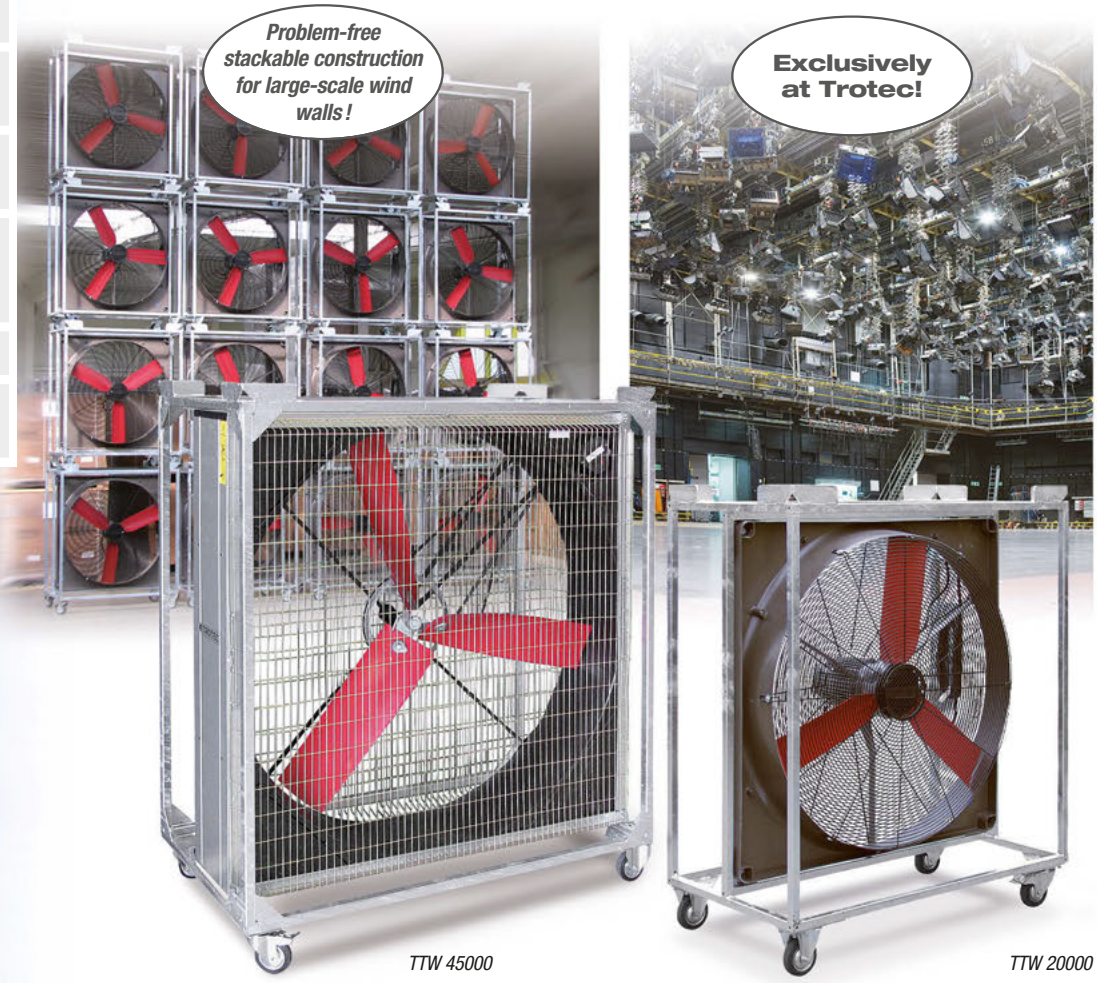
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You are free to browse through the Trotec flip book catalogues while you are connected to the internet and to download individual pages, the complete edition or the whole application locally on to your computer.

A FEW PRACTICAL BENEFITS:

- 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 m³/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



TTW 45000 *TTW 20000*

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 example, 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.

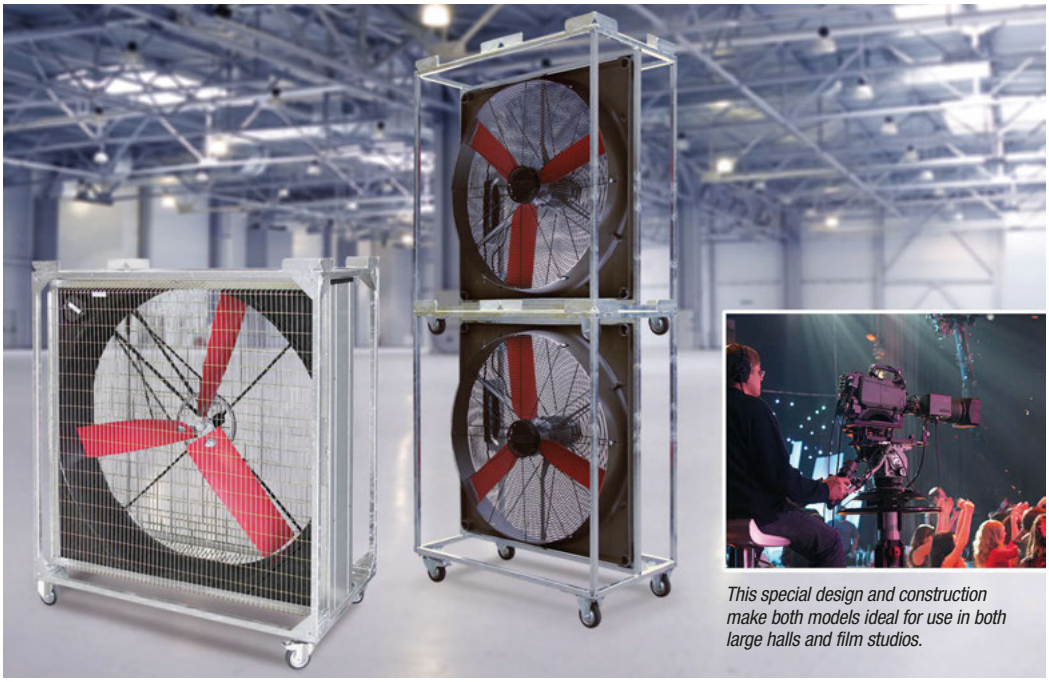
The machines are so versatile that they can replicate a mild, mid-summer breeze in a photo studio, or be used to whip up winds for a raging storm on a film set – when it comes to creating wind, the TTW Series has just the right wind machine to match your needs.

Benefit from the diverse fields of application of the TTW series

- *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



This special design and construction make both models ideal for use in both large halls and film studios.

"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.

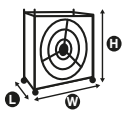
Stackable wind machines that are more than just a storm in a teacup – they're a whole new dimension in the art of wind making …

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, large-scale wind wall you have always wanted!



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]	1,070	1,395
Width [mm]	600	720
Height [mm]	1,300	1,625
Weight [kg]	52	88
Protection class	IP55	IP55



A FEW PRACTICAL BENEFITS:

- 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.

TROTEC 100% MADE IN GERMANY

Exclusively at Trotec!



TFV 1200
standard model

TFV 1200
hiring model

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 …

- ☑ *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*
- ☑ *for tank cleaning*
- ☑ *for the air transport when cooling or heating marquees, halls and exhibition rooms*
- ☑ *after fire damage to combat suffocation*
- ☑ *for the temporary storage of agricultural products and in stables*

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.

TRT-MAMEDA-TFVS-WM-02-EN

High-pressure radial fans – further information …



TFV 1200 hiring model | *TFV 900* hiring model | *TFV 600* hiring model | *TFV 300* hiring model | *TFV 100* hiring model

The Trotec TFV series: Particularly robust fans with capacities of up to 54,000 m³/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 58 …

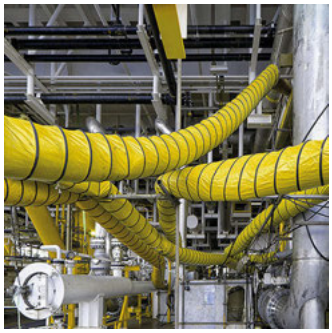
High feed pressure due to radial fan

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.



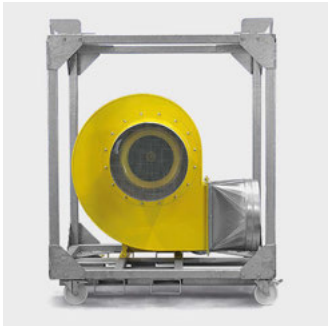
All hose connectors have double supporting rings for maximum support of the air hoses.



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.

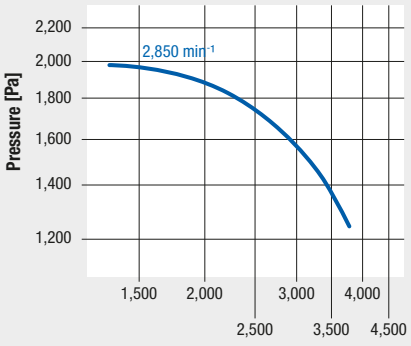


TFV 600 and TFV 900 are as standard equipped with a star-delta connection for smooth start-up.

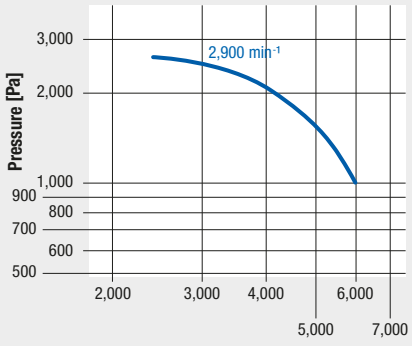
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Performance characteristics on the pressure side

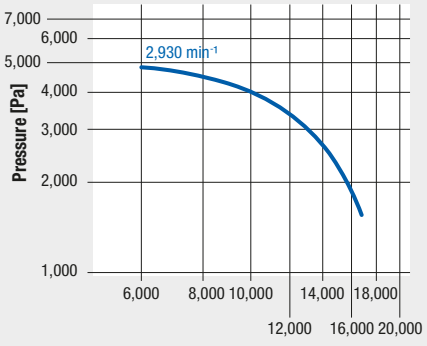
TFV 100 / TFV 100 Ex



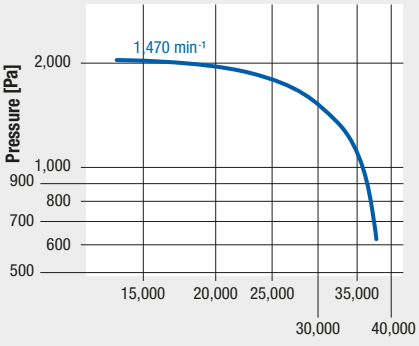
TFV 300 / TFV 300 Ex



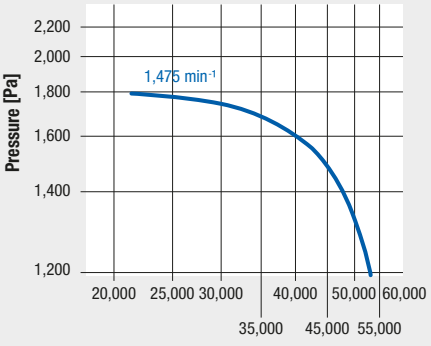
TFV 600 / TFV 600 Ex



TFV 900 / TFV 900 Ex



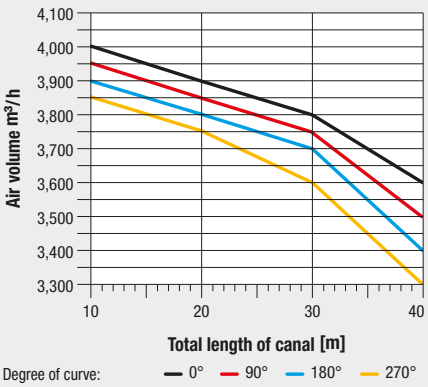
TFV 1200



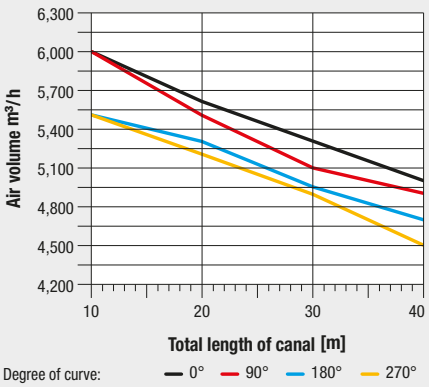
Air volume in proportion to channel length and degree of curvature

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.

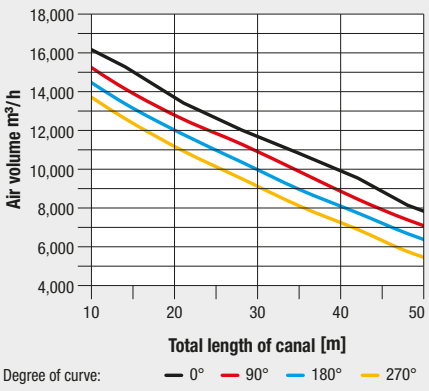
TFV 100 / TFV 100 Ex



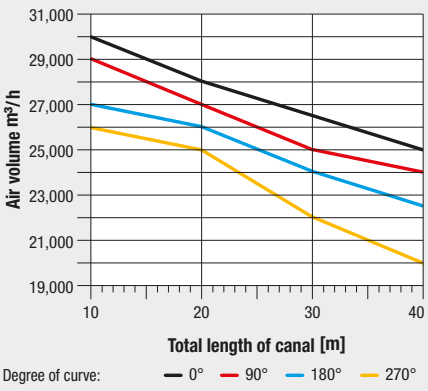
TFV 300 / TFV 300 Ex



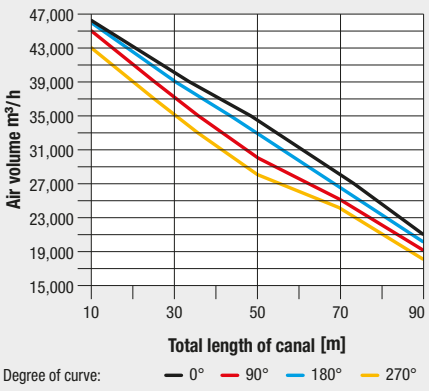
TFV 600 / TFV 600 Ex



TFV 900 / TFV 900 Ex



TFV 1200



High-pressure radial fans – further information … ➔

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 pressure[1]) [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	see characteristic curves on page 56				
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 (frequency controller)
Max. air pressure[1] [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	wheeled and stackable frame with forklift slots and lifting lugs; rubber-tyred wheels with parking brakes				
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
Weight [kg]	70	80	361	360	410

Available accessories		TFV 100	TFV 300	TFV 600	TFV 900	TFV 1200
Recommended air transport hose suction side, L 7.6 m	Tronect SP-T	Art. no. 6.100.001.205	Art. no. 6.100.001.205	Art. no. 6.100.001.216	Art. no. 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	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.

[1] at 20 °C, 500 m above sea level; ■ standard equipment

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High-pressure radial fans – further information …

TFV radial fans for explosion protection zones



TFV 900 Ex *TFV 600 Ex* *TFV 300 Ex* *TFV 100 Ex*

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).

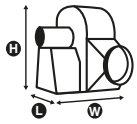


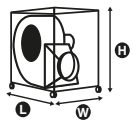


Technical data	Adapter coupling 16A Ex	Adapter coupling 63A Ex
Article number	6.100.005.210	6.100.005.220
Applicable for model	TFV 100 Ex, TFV 300 Ex	TFV 600 Ex, TFV 900 Ex
Gas explosion protection	Ex II 2G EEx ed IIC T6	Ex II 2G EEx ed [ib] IIC T5
Dust explosion protection	Ex II 2D IP 66 T80 °C	Ex II 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



Star-delta contactor combination

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[1]) [m³/h (Pa)]		2,000 (2,020)	5,000 (1,900)	10,000 (4,000)	25,000 (1,900)
Operating characteristics		see characteristic curves on page 56			
Air current		blowing out / sucking in			
Air discharge speed [m/s (km/h)]		17 (61.2)	27 (97.2)	21 (75.6)	34 (122.4)
Fan stages		1	1	1	1
Max. air pressure[1] [Pa]		2,800	2,800	4,900	2,150
Max. transport medium temperature [°C]		60	60	80	60
Surrounding conditions [°C]		-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)
Power input [kW]		2.2	4.0	18.5	18.5
Necessary fusing [A]		10	16	50	63 (slow-blowing) / 50[2]
Electrical connection		CEE 16, 5-pin	CEE 16, 5-pin	CEE 63, 5-pin	CEE 63, 5-pin
Suction nozzle ø [mm]		300	300	515	630
Exhaust connection ø [mm]		300	450	515	630
Sound level (distance 1 m) [dB(A)]		87.5	77	84	82
Housing		steel, powder-coated, two-component finish			
Mobility		crane (lifting lugs), forklift (delivery on pallets)			
Type of protection		IP55	IP55	IP55	IP55
Ex-protection [3]		group II, category 3G, temperature class 4			
Length [mm]		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]		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 wheels 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]		70	80	361	360

Available accessories			TFV 100 Ex	TFV 300 Ex	TFV 600 Ex	TFV 900 Ex
Recommended air transport hose suction side, length 7.6 m	Tronect SP-AV, anti-static		Art. no. 6.100.001.460	Art. no. 6.100.001.460	–	Art. no. 6.100.001.480
	Tronect SP-AP, anti-static		Art. no. 6.100.001.410	–	–	Art. no. 6.100.001.430
Recommended air transport hose blow-out side, length 7.6 m	Tronect SP-AV, anti-static		Art. no. 6.100.001.460	Art. no. 6.100.001.470	–	Art. no. 6.100.001.480
	Tronect SP-AP, anti-static		Art. no. 6.100.001.410	Art. no. 6.100.001.420	–	Art. no. 6.100.001.430
Adapter coupling	16 A Ex		Art. no. 6.100.005.210	Art. no. 6.100.005.210	–	–
	63 A Ex		–	–	Art. no. 6.100.005.220	Art. no. 6.100.005.220
Star-delta contactor combination 18.5 kW for ex-proof zone 22, 400 V, AC3, IP 55			–	–	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.
[1] at 20 °C, 500 m above sea level; [2] optionally also available with 50 A fusing and star-delta contactor combination for ex-proof zone 22;
[3] optionally also available for explosion group II, category 2G (zone 1), category 2D (zone 21) and category 3D (zone 2)

A FEW PRACTICAL BENEFITS:

- 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 refrigerant-free 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.

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 environments up to +60 °C.



PT 4500 S | PT 6500 S | PT 6500 HT | PT 15000 S | PT 23000 S

High versatility even with higher ambient temperatures



Heat exchanger PT S+

Heat exchanger PT S

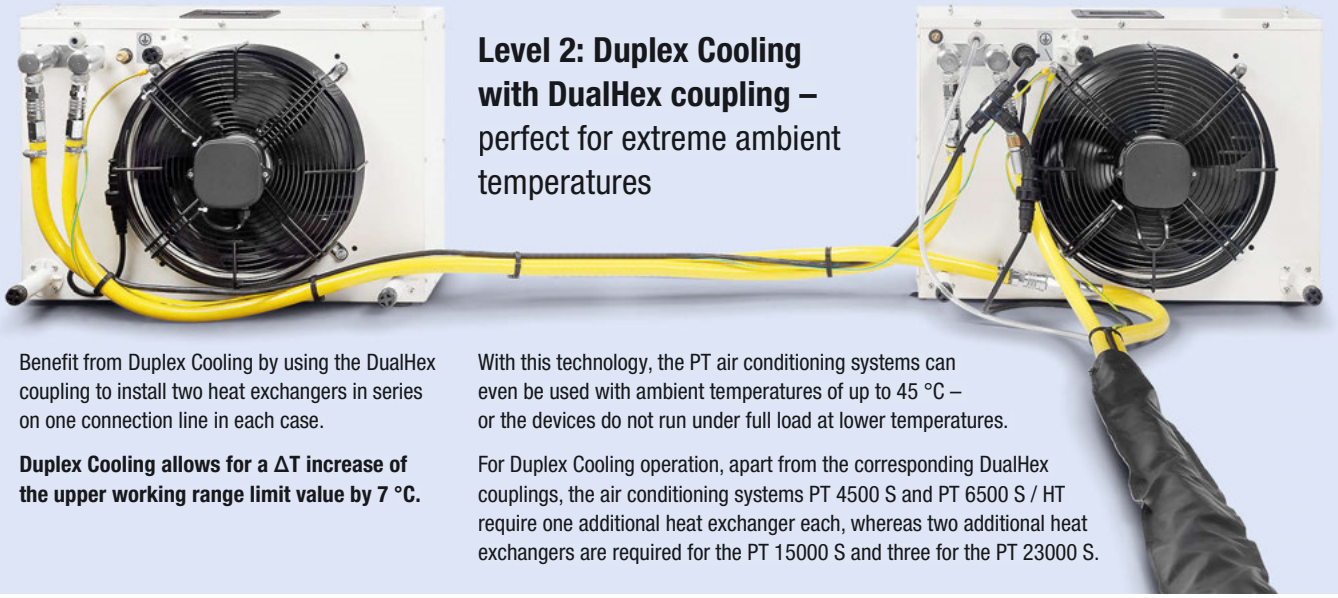
Even if the ambient temperature exceeds the standard working range, the variable heat exchanger design of the PT series offers you customisation options that can be flexibly implemented!

Practical benefits for rental companies!

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 ΔT increase of the upper working range limit value by 7 °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.

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 connecting 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 quick-lock 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

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



One of 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.



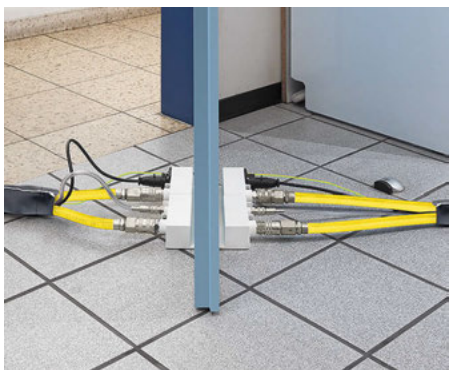
It is also possible to use roller shutters for installing the connection sets using one or several PlanoPT. In this process, the roller shutters can be closed as usual.



Even larger event spaces without a conventional installation access for the connecting lines required can be air-conditioned continuously by the use of PlanoPT.

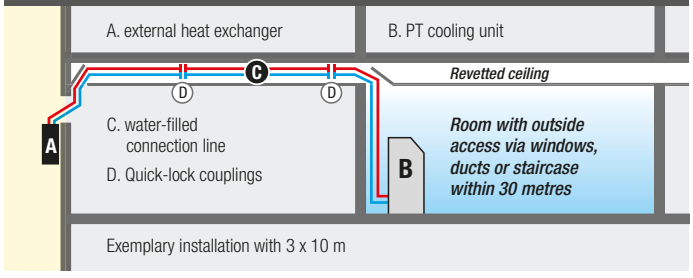


With the passage underneath using PlanoPT, the doors can remain closed, so that the connections to the night closure do not have to be dismounted and the air conditioners can remain active around the clock, if required.



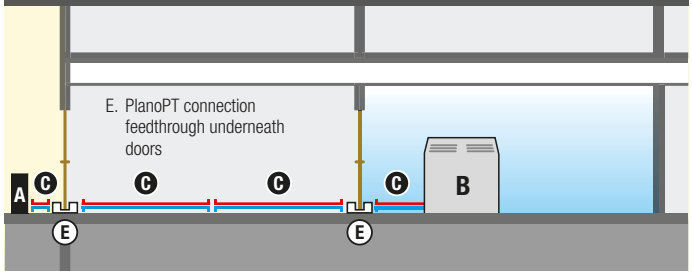
In order to provide for a connection that is as short as possible between the external units and the internal units, naturally also interior doors can optionally be provided with a passage underneath using PlanoPT, so that they can remain closed, if necessary.

Quick installation using PT connection sets:



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.

Optional passage underneath doors using PlanoPT:



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.

Available accessories

PT connection sets with quick-lock couplings



Made in Germany 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



Made in Germany Provides for the connection of two heat exchangers on one connection line and therefore a ΔT increase of the upper working range limit value by 7 °C.

By means of Duplex Cooling using a DualHex coupling, for example air-conditioners 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



Made in Germany 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



PlanoPT Adapt

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/m²) 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



Made in EU 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

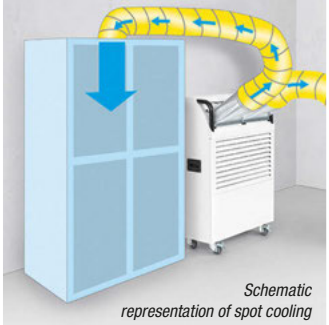
Accessory tip: Cable drums

Made in EU



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 on request.

Spot cooling option



Schematic representation of spot cooling using the PT 6500 S.

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 **For PT 4500 S and PT 6500 S / HT**, 230 V, 16 A, 2.5 mm², L 20 m, H07RN-F 3GG2.5
Article number 7.333.000.376

For PT 15000 S, 400 V, 16 A, 2.5 mm², L 20 m, H07RN-F 5G6
Article number 7.333.000.374

For PT 23000 S, 400 V, 32 A, 6 mm², 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.



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 capacity [kW / Btu]		5.5 / 18,800	7.1 / 24,226	6 / 20,472	16 / 54,594	29.4 / 100,384
Attainable room temperature (min.)[1] [°C]		10	10	10	10	10
Surrounding conditions [°C]	Standard model	+7 to +38	+7 to +38	+7 to +55	+7 to +38	+7 to +38
	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
Air flow rate [m³/h]	Level 1	550	1,150	1,150	2,000	2,500
	Level 2	800	1,400	1,400	2,400	2,700
	Level 3	–	1,500	1,500	2,600	3,200
Connection voltage [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 consumption [kW]		1.6[1]	2.65[2]	3	5.7[2]	9.5
Operating hours counter		■	■	■	■	■
Energy consumption meter (MID-compliant*)		□	□	□	■	■
Refrigerant**	Type	R-410A	R-410A	R-134a	R-410A	R-410A
	Quantity [g]	760	900	1,000	1,650	2,300
GWP factor **		2,088	2,088	1,430	2,088	2,088
CO_2 equivalent** [t]		1.59	1.88	1.43	3.45	4.8
Condensate discharge		Automatically	Automatically	Automatic	Automatically	Automatically
Temperature control		Thermostat	Thermostat	Thermostat	Thermostat	Thermostat
Sound level [3] (Level 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]		93	114	114	206	260
External heat exchanger		**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 1.210.000.112
Power input [kW]		0.14	0.14	0.18	0.18	0.18
Max. sound level [3] [dB(A)]		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]		22	22	34	34	34
Connection sets [4]		**PT S**	**PT S**	**PT S+**	**PT S+**	**PT S+**
Article number (cable length 5 m) [4]		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) [4]		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
Available accessories (for detailed description see page 64)						
Spot cooling attachment		1.210.000.149	1.210.000.151	1.210.000.151	1.210.000.153	on request
Air transport hose		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		1.210.000.104	1.210.000.104	1.210.000.104	1.210.000.104	1.210.000.104
Weather protection cover		1.210.000.160	1.210.000.161	1.210.000.161	1.210.000.162	1.210.000.163

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!

A FEW PRACTICAL BENEFITS:

- 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!



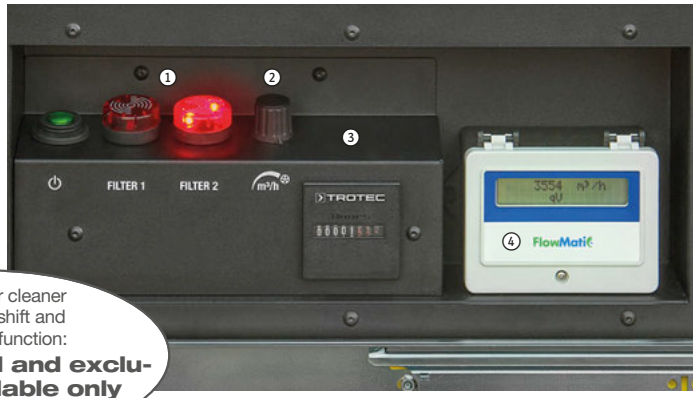
Safe investment:
Already prepared for future directives of the (German) employer’s liability insurance association regarding the use of portable air purification equipment

The optimum solution for construction and restoration work in indoor environments contaminated with dust, mineral fibres, mould spores or allergens!

TRT-MAMEDA-LRTA-WM-02-EN

TAC air cleaner – further information… ➔





Portable air cleaner with Vario-shift and Flowmatic function:
One of a kind and exclusively available only at Trotec!

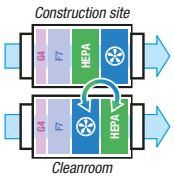
VARIOShift FlowMatic

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 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 contrast, 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 inevitable reduction of volumetric flow. But even these measures cannot guarantee for the values to remain below the target over the entire period of application 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 guarantees the compliance with the air exchange rates required by law.

Sophisticated features:

1. *Separate, sensor-supported alternating display for pre- and main filter, both visual and acoustic.*
2. *Monoventic regulator for precise and infinitely adjustable amounts of air.*
3. *Operating hours counter for an accurate accounting of the period of application and maintenance planning.*
4. *Sensor-supported Flowmatic control with real-value selection of the air volume in m³/h.*
5. *Quick and easy top unlocking device of TAC 5000 und 6500 for a comfortable filter change.*
6. *Vario-shift function to adapt the use of the filter ladder with terminal fan or HEPA filter.*
7. *User-friendly service panels with automatic locking.*





The Air Cleaner TAC 5000 and TAC 6500 are equipped as standard with forklift pockets.



Professional air cleaners of the TAC series – 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 areas.

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 spaces.

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









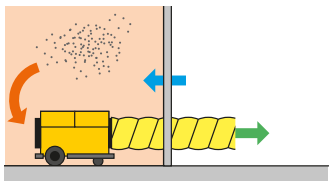
Which sizes of hazardous particles call for which filter combinations?

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).

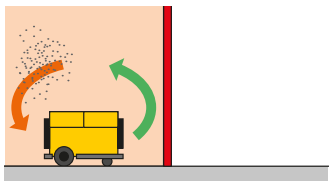
Examples for use of TAC air cleaners

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.

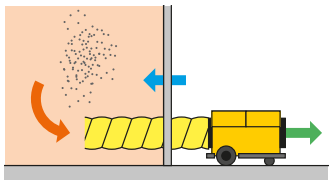
With TAC air cleaners it is easy to realize the most diverse varieties of application:



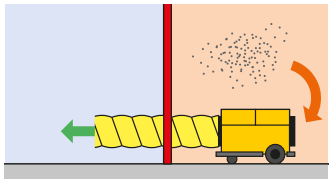
Maintaining pressure with TAC in room and air hose.



Air purification in sealed off area via air circulation.



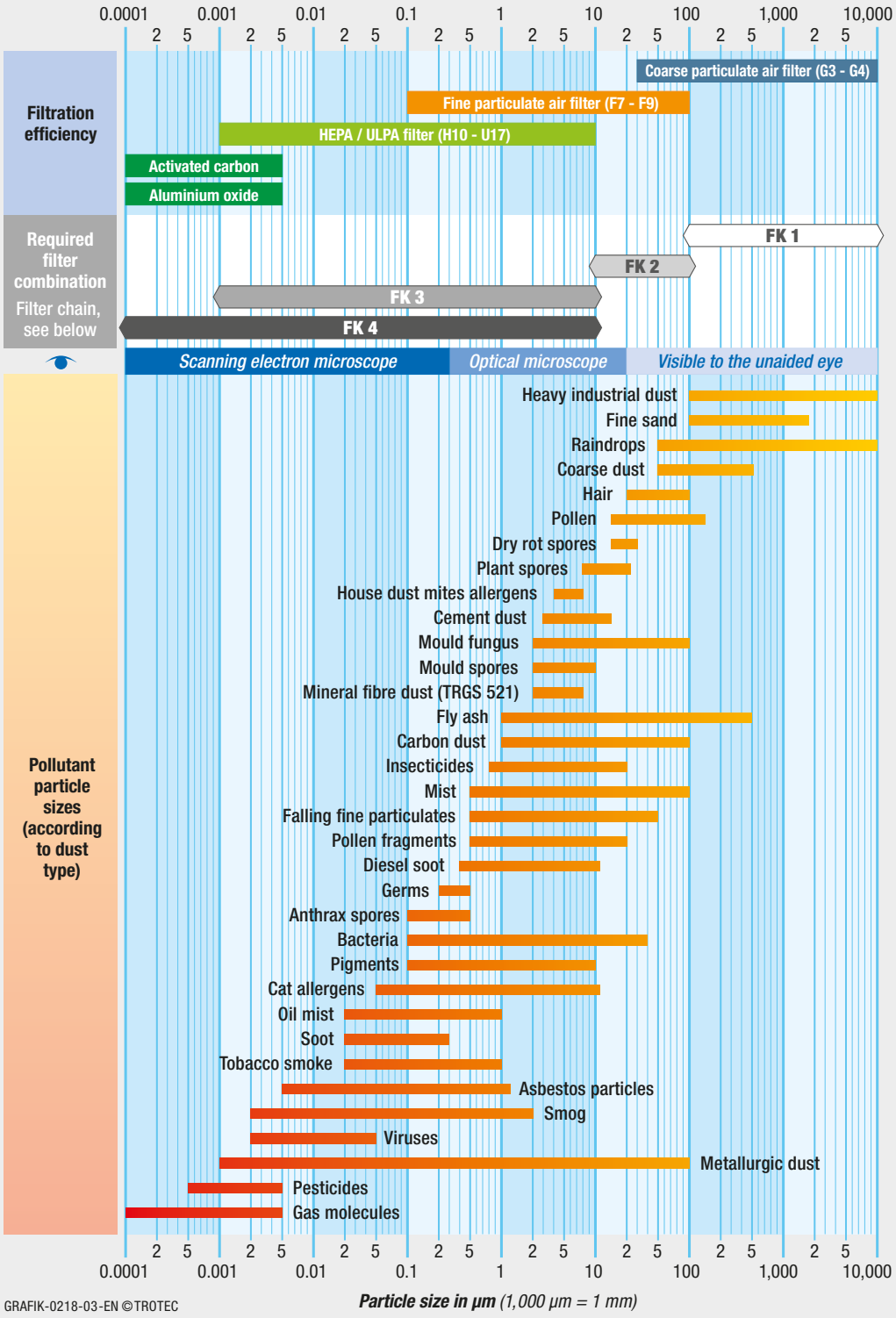
Maintaining pressure outside of room via air hose.



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!

Filtration efficiencies and pollutant particle sizes:



GRAFIK-0218-03-EN ©TROTEC

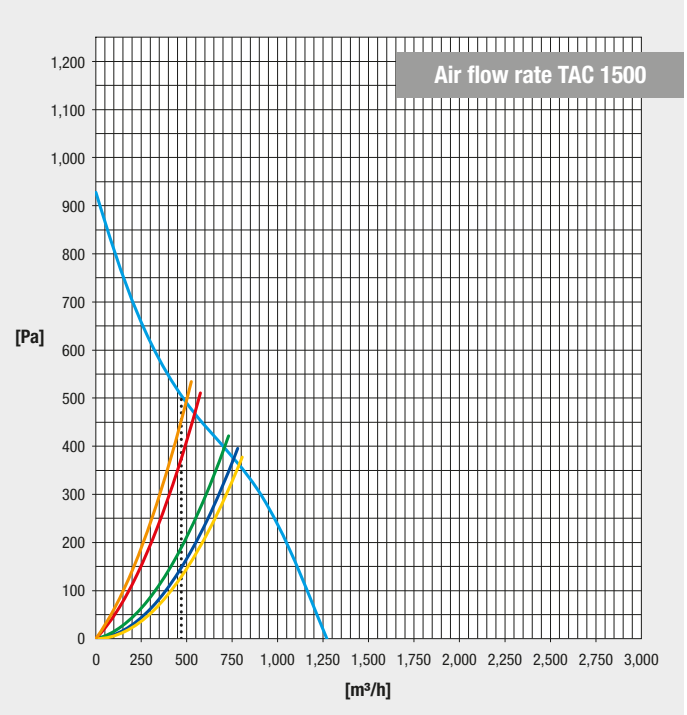
Pollutant particle sizes (according to classes)

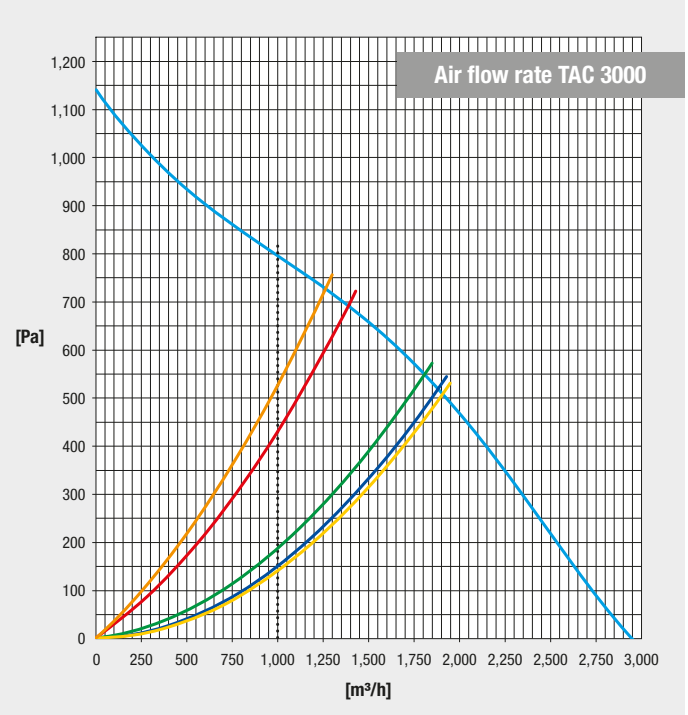
- Superfine particles UP, ø < 0.1 µm
- Respirable **fine particulates PM 2.5**, ø < 2.5 µm
- Inhalable **fine particulates PM 10**, ø < 10 µm
- **Coarse dust** (sedimentation dust), ø > 10 µm

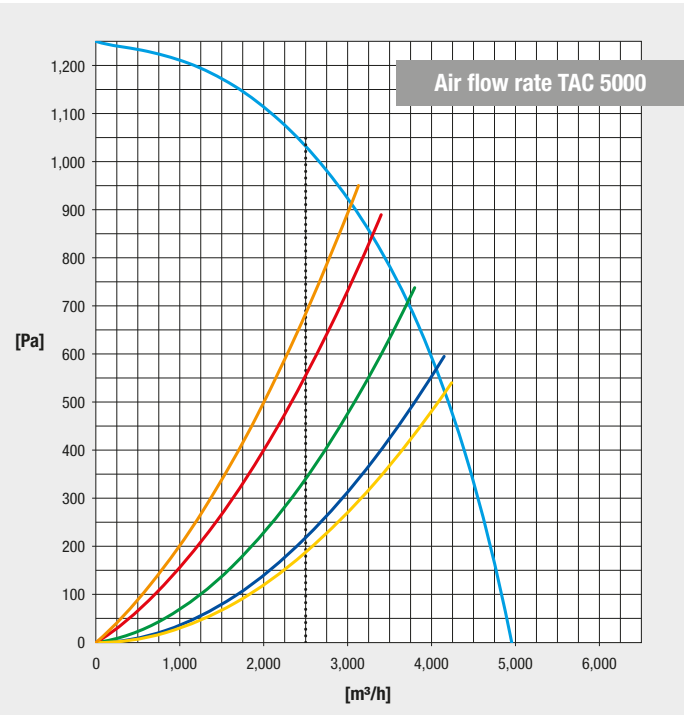
Filter chain – required combinations for use:

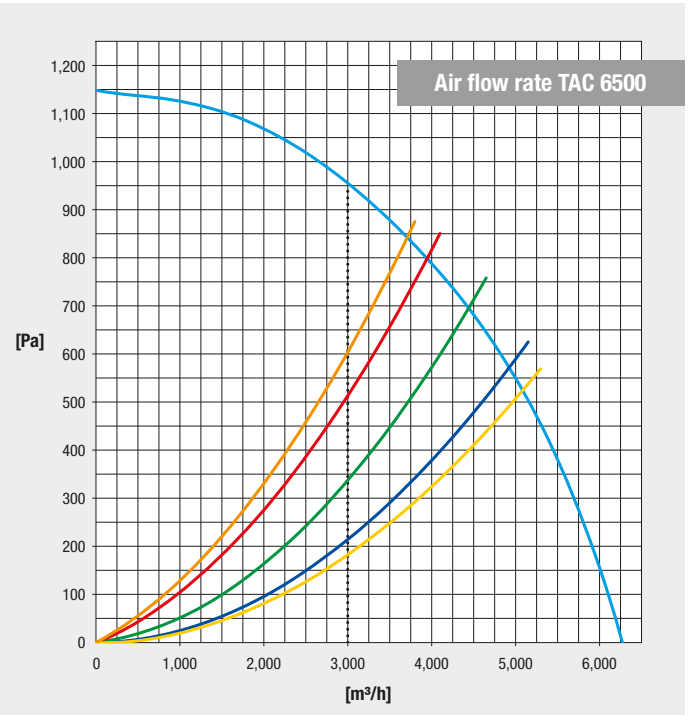
- **FK 1** = coarse particulate air filter
- **FK 2** = coarse particulate air filter + fine particulate air filter
- **FK 3** = coarse particulate air filter + fine particulate air filter + high-efficiency particulate air filter
- **FK 4** = coarse particulate air filter + fine particulate air filter + high-efficiency particulate air filter + odour filter

Overview of the TAC series' performance charts





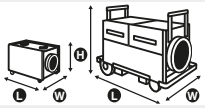




- Fan
- without filter with air transport hose*
- with G4 filter and air transport hose*
- with paint particle filter and air transport hose*
- with G4+F7 filter combination and air transport hose*
- with G4+H13 filter combination (approval for dust class H) and air transport hose*
- with G4+H14 filter combination
- recommended amount 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!

Technical data		TAC 1500	TAC 3000	TAC 5000	TAC 6500
Article number		1.580.000.105	1.580.000.115	1.580.000.125	1.580.000.135
Amount of air		see performance charts on page 70			
Recommended amount of air for dust class H [m³/h]		500	1,000	2,500	3,000
Dust class (as per DIN EN 60335-2-69)		Dust class H (transmittance ≤ 0.005 %) for substances with a maximum allowable concentration of ≤ 0.1 mg/m³, carcinogenic hazardous substances as per GefStoffV § 11 (Ordinance on Hazardous Substances), TRGS 905 or 906 (Technical Rules for Hazardous Substances), approvable for asbestos abatement as per TRGS 519			
Infinite adjustment of air volume		■	■	■	■
Flowmatic regulation of air volume		–	–	■	■
Alternating filter display, visual and acoustic	Prefilter	■	■	■	■
	Main filter	■	■	■	■
Vario-shift function for the variable configuration of use with terminal fan or HEPA filter		■	■	■	■
Motor power [W]		175	450	1,270	1,400
Input voltage [V/Hz]		230 / 50-60	230 / 50-60	230 / 50-60	230 / 50-60
Current consumption [A]		1.4	2.8	5.6	6.0
Electrical connection / connecting cable		Safety plug (CEE 7/7) / rubber conduits (H05RN-F), length 3 m			
Air transport hose connector [ø mm]	Suction side	200	250	400	450
	Blow-out side	200	250	400	450
Sound level (distance 1 m) [dB(A)]		61	65	68	68
Length [mm]		705	833	1,252	1,252
Width [mm]		362	460	690	790
Height [mm]		377	519	926	1,026
Weight (full) [kg]		22	36	125	136
Mobility: portable / wheeled / stackable		■ / ■ / ■	■ / ■ / ■	– / ■ / ■	– / ■ / ■

Recommendation for filter combinations specific to the application and corresponding room size suitability		TAC 1500		TAC 3000		TAC 5000		TAC 6500	
		Suitable for rooms to a size of [1]							
Field of application	Filter combination	m³	m²	m³	m²	m³	m²	m³	m²
Coarse dust [2] (≤ 3 LW/h [6])	G4	220	88	500	200	1,200	480	1,400	560
Fine particulates [3] (≤ 3 LW/h [6])	G4 + F7 to F9	110	44	270	108	600	240	750	300
Suspended matter [4] (≥ 10 LW/h [6])	G4 + H13 / H14	50	20	100	40	150	60	200	80
Hygienic areas [5] (≥ 15 LW/h [6])	G4 + H13 / H14	35	14	70	28	110	44	135	54

Optional equipment (accessories)	TAC 1500	TAC 3000	TAC 5000	TAC 6500
Guiding wheels with pneumatic tyres, traceless	–	–	Upon request	Upon request
Trestle rollers (instead of guiding wheels)	Series	Series	Upon request	Upon request

Filter elements (accessory consumables) [1]		TAC 1500	TAC 3000	TAC 5000	TAC 6500
Overspray filter		Article number 7.160.000.416	Article number 7.160.000.432	Article number 7.160.000.452	Article number 7.160.000.479
G4 Z line filter		Article number 7.160.000.404	Article number 7.160.000.428	Article number 7.160.000.448	Article number 7.160.000.454
F7 pleated filter cartridge		Article number 7.160.000.409	Article number 7.160.000.429	Article number 7.160.000.449	Article number 7.160.000.476
F7 bag filter		Article number 7.160.000.414	Article number 7.160.000.430	Article number 7.160.000.450	Article number 7.160.000.477
H13 HEPA filter approved for dust class H		Article number 7.160.000.424	Article number 7.160.000.431	Article number 7.160.000.451	Article number 7.160.000.478
H14 HEPA filter		Article number 7.160.000.426	Article number 7.160.000.433	Article number 7.160.000.456	Article number 7.160.000.480

Available accessories		TAC 1500	TAC 3000	TAC 5000	TAC 6500
Air transport hose Tronect SP-T, length 7.6 m		Article number 6.100.001.200	Article number 6.100.001.202	Article number 6.100.001.212	Article number 6.100.001.214
Professional extension cable, length 20 m, 230 V / 2.5 mm²		Article number 7.333.000.376	Article number 7.333.000.376	Article number 7.333.000.376	Article number 7.333.000.376

[1] With an assumed room height of 2.5 m; [2] Typical coarse dust tasks: sawing, filing; [3] Typical fine dust tasks: restoration works with materials containing minerals or glass wool;
[4] Typical suspended matter tasks: grinding, asbestos abatement or mould remediation, mineral dusts etc.; [5] H13 / H14 downstream; [6] Air exchange per hour; [7] Other filters and filter classes available on request.

This catalogue version is updated constantly and is also available as an interactive online edition which can be accessed at www.trotec.com/catalogs.
You are free to browse through the Trotec flip book catalogues while you are connected to the internet and to download individual pages, the complete edition or the whole application locally on to your computer.

Ozone disinfectors of the Airozon® Professional series

Powerful ozone generators for large-scale disinfection and odour neutralisation

A FEW PRACTICAL BENEFITS:

- Professional quality "made in Germany" – originally produced by Trotec (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 professional operating conditions
- Ozone output from 10,000 to 60,000 mg/h (depending on the model)



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 on request.

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 large-scale disinfection applications, but also for the effective elimination of odours resulting from fire and water damage.

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The Airozon® Professional series opens up a wide range of applications, for example:

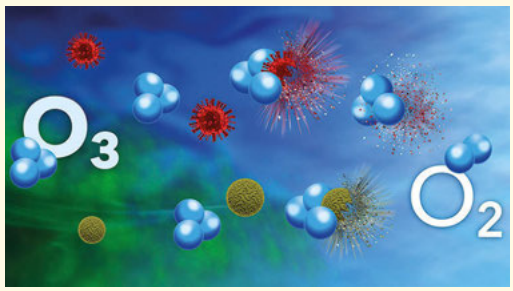
- Disinfecting interior rooms of schools and kindergartens or retail shops
- Disinfection of surfaces in train compartments, trams or busses
- Sterilisation and odour neutralisation of hotel rooms, holiday homes or other accommodations where people frequently change, and in sanitary areas
- Elimination 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.

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.

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).

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.

Strong oxidizer for eliminating germs and odours

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 odour-neutralised 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.

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.

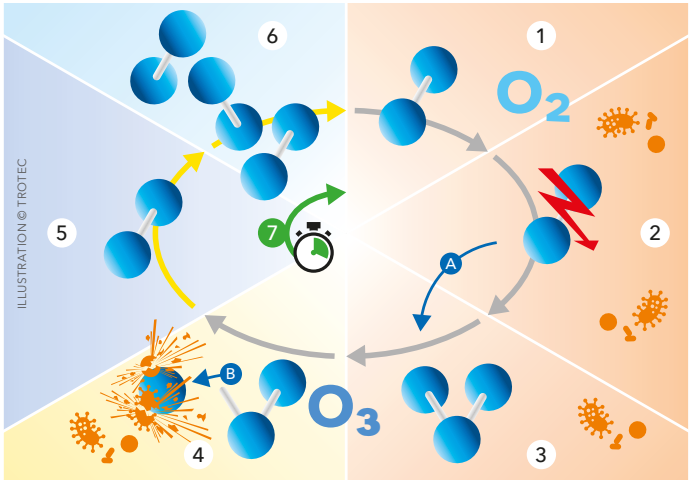
2. The surrounding air is drawn in by the ozone generator where an electrical discharge procedure takes place. After that, the energy breaks down the diatomic oxygen molecule into two single oxygen atoms in form of free radicals.

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 interior 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 77).*

Ozone disinfector Airozon® 10000

Compact professional solution for oxidative disinfection of surfaces and interior air and effective odour neutralisation



- ☑ Development, Design, Production: 100 % Trotec
- ☑ Robust compact device for professional disinfection and odour neutralisation
- ☑ One-stage ozone output with 10,000 mg/h
- ☑ 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 professional operating conditions
- ☑ Well-arranged control panel – simple handling
- ☑ Timer function for preselecting 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

* 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 required “minimum ozone concentration” for a successful disinfection process.

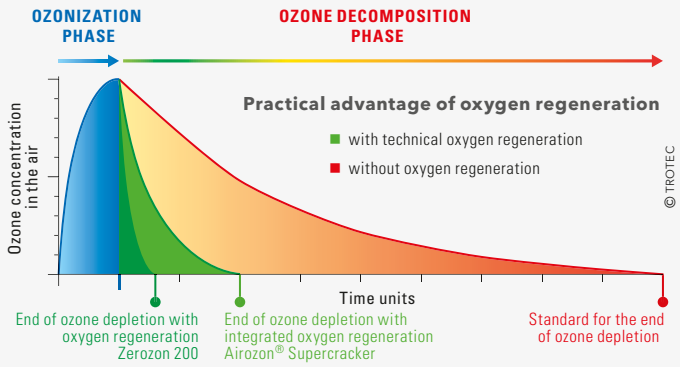
Ozone disinfector Airozon® Supercracker

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
- ☑ One-stage ozone output with 10,000 mg/h
- ☑ 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 professional operating conditions
- ☑ Stable carriage design for maximum mobility
- ☑ Configuration menu for selecting the treatment duration, room size and available treatment programs
- ☑ Oxygen regeneration cycle for accelerated ozone depletion process after the treatment
- ☑ Acoustic indication of the end of treatment by means of an alarm signal
- ☑ Integrated air filter mat reduces 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 77.



Ozone disinfectors Airozon® Professional – further information …

Ozone disinfector Airozon® 20000

Powerful ozone generator for odour neutralisation and disinfecting interior spaces



- ☑ Professional quality "made in Germany" – originally produced by Trotec
- ☑ Robust construction for professional disinfection and odour neutralisation
- ☑ One-stage ozone output with 20,000 mg/h
- ☑ Corona discharge (nothing to 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
- ☑ Easy to transport – stackable to save space in the warehouse and during transport
- ☑ Powerful radial fan for treating large rooms in an economical way
- ☑ Acoustic indication of the end of treatment by means of an alarm signal
- ☑ Hose connection provides for a targeted use even in poorly accessible areas
- ☑ Timer function for preselecting 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



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.

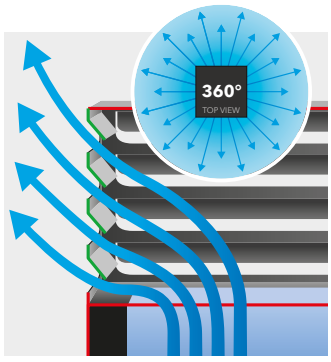
Note: The OZ-ONE is not suitable for measuring high ozone concentrations > 1 ppm as they are generated during a treatment. Therefore, the OZ-ONE cannot be used for measurements during ongoing treatments!

Ozone disinfector Airozon® 60000

Our most powerful mobile ozone generator in carriage design for large-scale disinfection of interior spaces and odour neutralisation



- ☑ Professional quality "made in Germany" – originally produced by Trotec
- ☑ Robust construction for professional disinfection and odour neutralisation
- ☑ One-stage ozone output with 60,000 mg/h
- ☑ Corona discharge (nothing to do with Covid or SARS) via quartz glass dielectric* for permanently stable ozone performance values
- ☑ Package of six high-quality 10g 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
- ☑ Omnidirectional ozone distribution for an equal disinfection of surfaces and interior air in the entire treatment radius
- ☑ Acoustic indication of the end of treatment by means of an alarm signal
- ☑ Timer function for preselecting 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



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.



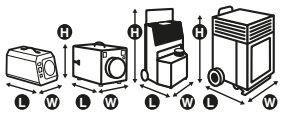
The Airozon® 60000 convinces with an optimal handling and high mobility thanks to its height-adjustable telescopic push handle and stable carriage design.

Ozone disinfectors of the Airozon® Professional series






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]		230	300	500	1,550
Max. nominal current [A]		1.5	1.5	2.2	6.8
Recommended protection [A]		10	10	13	13
Connection plug	Type	CEE 7/7	CEE 7/7	CEE 7/7	CEE 7/7
	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 3 m) [dB(A)]		< 70	< 70	62	74
Length [mm]		460	400	610	555
Width [mm]		310	600	360	615
Height [mm]		310	890	400	845
Weight [kg]		8	20	19.4	59



Standard equipment and functions	Airozon® 10000	Airozon® Supercracker	Airozon® 20000	Airozon® 60000
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	–	■	–	–

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

Oxygen regenerator Zerozon 200

Significantly accelerates the ozone depletion process and thus the economical reusability of rooms after they have been ozonized



Exclusively at Trotec!



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.

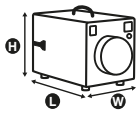
With the Zerozon 200, depending on the operating conditions, rooms that are decomposed with ozone can already be entered and used safely again after one tenth of the time that would be required for natural ozone disintegration!



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

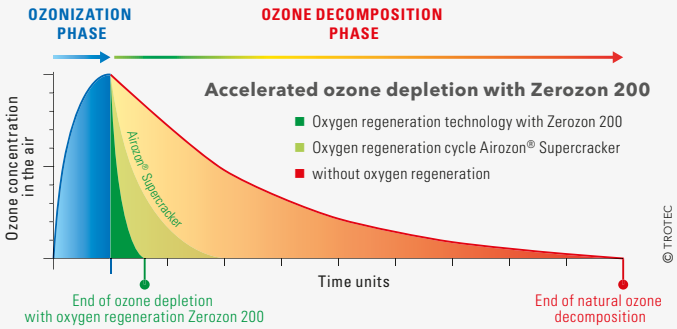
Technical data		Zerozon 200
Article number		1.180.000.019
Electric connection [V]		220 - 240
Frequency [Hz]		50/60
Max. power input [W]		175
Nominal current [A]		0.8
Connection plug	Type	CEE 7/7
	Cable length [m]	3
Air flow rate [m^3/h]		680
Sound level (distance 1 m) [dB(A)]		62
Length [mm]		547
Width [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 / supplies	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!

Plasma field ionizer AirgoPro® 8

The professional solution for the efficient neutralization of unpleasant odours

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

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.



TROTEC 100% DEVELOPMENT » DESIGN » PRODUCTION



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 on request.

TRT-MAMEDA-AGPR-WM-02-EN

Easy handling, robust design – special features of the AirgoPro® 8



The timer switch of the AirgoPro® 8 allows to set treatment durations from 0 to 50 hours and to define treatment intensity and fan performance by means of the step controller.



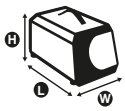
With its integrated carrying handle, stable rubber feet and robustly designed metal structure, the AirgoPro® 8 is perfectly equipped for frequent site changes.



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
- Odour elimination without leaving residues and without the use of chemicals
- Virtually usable at any application site – all it takes is a power socket
- Also suitable for sudden and unscheduled operations
- Even works in places that are difficult to access and cannot be reached by means of mechanical procedures
- Very time-saving procedure

Plasma field ionizer		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	Type	CEE 7/7
	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]		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.



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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
- Dust- and splash-proof type of protection IP54
- 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



Available accessories:

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 re-calibrated 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. [1)]

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	IP54
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

[1] 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.

Moisture-dependent device controls

Room hygrostat HG 110



For the humidity-dependent control of the TTK 500 and TTK 900 or other dehumidifiers with a 6.35 mm plug socket for the connection of an xternal hygrostat, e.g. to be used for unattended permanent drying operations.

Art. no. 6.100.002.044

Technical data:
- Measuring range 40 to 90 % RH
- Measurement accuracy ± 3 % RH
- Operating range 0 to 60 °C, 40 to 90 % RH
- Maximum ohmic 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 the humidity-dependent control of desiccant 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 as HG 110, however, with 4-pin DIN connector and a cable length of 2 m.

Room hygrostat HG 130



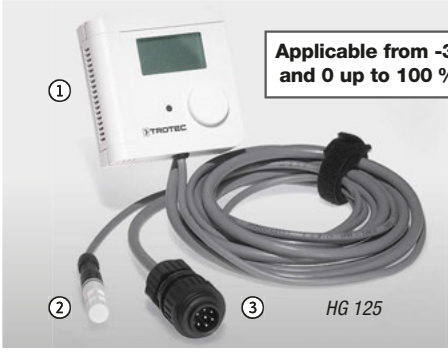
If the switchable socket of the HG 130 is connected with the mains, this two-position controller automatically controls a connected device in the event of its exceeding the preselected humidity threshold.

The perfect solution for the flexible humidity-dependent control of humidifiers or dehumidifiers with a power consumption of up to 10 A.

Art. no. 6.100.002.045

Technical data like HG 110, though as 230 V version with a maximum switching load of 10 A and the CEE-7/7 combined switchable socket with a cable length of 2 m.

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:

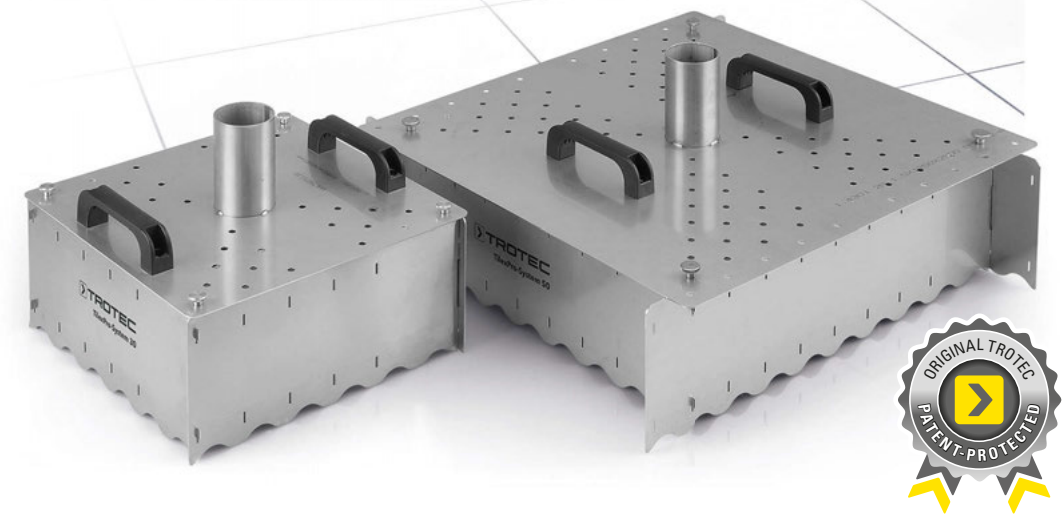
Adapter transformer, Art. no. 6.100.002.043;
7-pin connector coupling on clamping connection, Art. no. 6.100.002.046; Extension cable 10 m, Art. no. 6.100.002.049;
20 m, Art. no. 6.100.002.047;
30 m, Art. no. 6.100.002.048

Technical data:
- Measuring range 0 to 100 % RH: -30 to +100 °C
- Permissible ambient temperature -30 to 70 °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

Useful accessories for practical applications – further information…

TilexPro tile lifting system

Removing and storing tiles without causing damage – by means of the patented original Trotec system



A FEW PRACTICAL BENEFITS:

- 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!

If repair work is required underneath the tiling, 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.





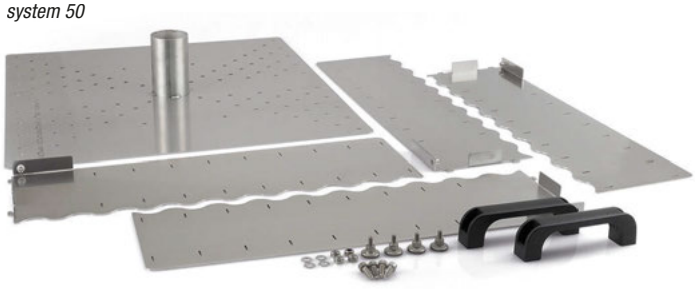


The TilexPro system is characterized by practical details:

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 system 50



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.

Accessory tip:

Professional hot air blower HyStream 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 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

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 oil- and 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

Made in Germany

Cable length 20 m, 230 V, 16 A, cable cross-section 2.5 mm², 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



400 V extension cable, 16 A, H07RN-F 5G2.5

Made in Germany

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

Made in Germany

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

DEKRA GS

Cable length 15 m, 230 V, 16 A, cable cross-section 1.5 mm², plug and coupling CEE 7/7, type of protection IP44, UV-resistant and able to withstand high levels of mechanical stress, PVC-connector and PVC-socket, safety contact coupling with sealing cap.

Art. no. 7.333.000.372



Multiple socket outlet PV4-MID PS

Made in EU



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 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 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 carrying handle
- Safety sockets: 4 pcs.
- 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

Mobile power distributors

Mobile power distribution made easy – as safe as it is simple

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
- Stackable construction





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.

Made in EU With IP44 type of protection these mobile distributors of robust plastic are equally suitable for indoor and outdoor application. The solid, high-quality plastic housing is optimally prepared for harsh environmental conditions.

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.

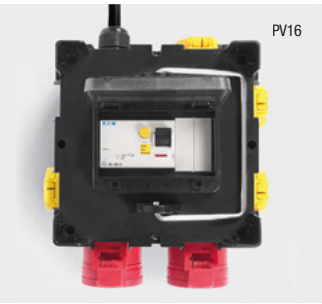
Easy transport, space-saving storage

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.





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



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
- L x W x H: 250 x 230 x 210 mm
- Weight: 2.8 kg

Power distributor PV30



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

Power distributor PV32



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.
- Residual current device: 1 x 63 A, 4 p, 0.03 A (type A 40AT)
- 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 16 A consumers



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 38).

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

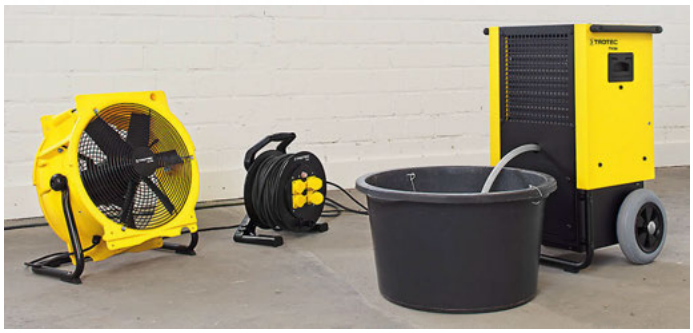


Cable drums

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 high-quality 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.

Made in EU



PVD3 PVD2

TRT-MAMEDA-PVDK-WM-02-EN

PVD cable drums – safely equipped

Consistently designed for professionals:

Made in EU 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.

PVD2



PVD3

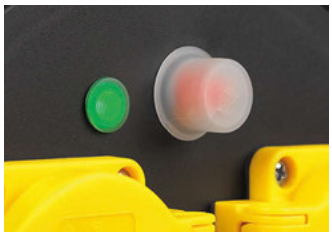




Convenient carrying characteristics due to ergonomic handle



IP54 safety sockets with spring-loaded flap caps

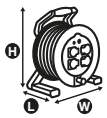


Additional safety due to thermal protection switch and operation indicator (depending on the model)



Drainage through openings in the drum

Technical data		PVD2	PVD3
Article number		7.333.000.367	7.333.000.368
Safety sockets	Number	3	4
	Type of protection	IP54	IP54
	Lock	self-closing spring-loaded flap cap	
Connection cable	Length [m]	25	40
	Type	H07RN-F 3G	H07RN-F 3G
	Colour	black	black
	Cross-section of the pipe [mm²]	1.5	2.5
Type of protection		IP54	IP54
Max. power [W]	rolled up	1,300	1,250
	unrolled	3,600	3,500
Rated voltage [V]		250	250
Nominal current consumption [A]		16	16
Length [mm]		240	254
Width [mm]		280	338
Height [mm]		353	409
Weight [kg]		8	10



Functions and features	PVD2	PVD3
Thermal protection switch	■	■
Operation indicator	–	■
Braking system	■	■
Drainage through recesses in the drum	■	■
Crank	■	■
Feet with storage spaces for plug	■	■
Ergonomic carrying handle	■	■

■ Standard equipment; □ Optional accessories



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

A FEW PRACTICAL BENEFITS:

- Spiral-reinforced fan hoses for professional applications
- Light and highly flexible
- Kink-proof and guaranteeing tensile strength
- 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 fabric
- Kink-proof and guaranteeing tensile strength
- Spiral-free sleeves at both ends
- With abrasion protection and in-wrought 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 applicable device connections for all Tronect® hoses.

Tronect® SP-AP

Made in EU

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 in-wrought 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 available diameters and applicable device connections for all Tronect® hoses.

Tronect® SP-AV

Made in EU

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 side
- With abrasion protection and in-wrought 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.

TRT-MAMEDA-LTSL-WM-02-EN

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.*

Tronect® TF-L

Made in EU

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

Made in Germany

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 is suited for which Trotec appliance? Here an overview of all Tronect® hose types and equipment combinations:

Device	Specifications	ø mm[1)]	Type	Tronect SP-AP			Tronect SP-AV			Tronect SP-T											Tronect SP-C								Tronect TF-L					Tronect PV-A	
			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
				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 dehumidifiers																																		
	**TTR 200**																																	
	Dry air outlet	80																										■						
	Humid air outlet	38/50																															■	■
	Process air inlet (hose adapter, filter box)	80																										■						
	**TTR 300**																																	
	Dry air outlet	100																												■				
	Humid air outlet	50																																■
	Process air inlet (hose adapter, filter box)	100																												■				
	**TTR 400**																																	
	Dry air outlet	125																													■				
	Dry air outlet (quad distributor)	4 x 38/50																															■	■
	Humid air outlet	80																											■					
	Process air inlet (hose adapter, filter box)	125																													■				
	**TTR 400 D / TTR 500 D**																																	
	Dry air outlet	125																													■				
	Dry air outlet (quad distributor)	4 x 38/50																															■	■
	Humid air outlet	80																											■					
	Process air inlet (hose adapter, filter box)	125																													■				
	Regeneration air inlet (hose adapter, filter box)	80																											■					
TTR stainless steel adsorption dehumidifiers																																		
	**TTR 160**																																	
	Dry air outlet	100																												■				
	Humid air outlet	63																										■						
	**TTR 250**																																	
	Dry air outlet	100																												■				
	Humid air outlet	80																											■					
	**TTR 250 HP**																																	
	Dry air outlet	100																												■				
	Humid air outlet	50																																■
DH industrial dryers																																		
	**DH 160**																																	
	Dry air outlet (hose adapter)	410													■																			
	**DH 310**																																	
	Dry air outlet (hose adapter)	510															■																	

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.

Which hose is suited for which Trotec appliance? Here an overview of all Tronect® hose types and equipment combinations:

Device	Specifications	ø mm[1)]	Type	Tronect SP-AP			Tronect SP-AV			Tronect SP-T										Tronect SP-C								Tronect TF-L					Tronect PV-A	
			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
				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 handler																																	
	**TAC XT 18**																																
	Hose connector	300											■																				
	**TAC XT 27**																																
	Hose connector	300											■																				
TEH electric heating units																																	
	**TEH 200**																																
		450														■																		
	**TEH 300**																																
		450														■																		
	**TEH 400**																																
		600																	■							■								
TTV high-performance fans																																	
	**TTV 7000**																																
	Hose adapter	560																■																
TFV high-pressure radial fans																																	
	**TFV 100**																																
	Intake socket	300		■			■						■																				
	Exhaust connection	300		■			■						■																				
	**TFV 300**																																
	Intake socket	300					■						■																				
	Exhaust connection	450			■			■								■																		
	**TFV 600**																																
	Intake socket	515															■																	
	Exhaust connection	515															■																	
	**TFV 900**																																
	Intake socket	630				■			■											■														
	Exhaust connection	630				■			■											■														
	**TFV 1200**																																
	Exhaust connection	630				■			■											■														

[1)] *Respectively indicated are the inner diameters for the Tronect® hoses and the outer diameters for the device connections.*

Tronect® connectivity schedule – further information …

Tronect® connectivity schedule

Which hose is suited for which Trotec appliance? Here an overview of all Tronect® hose types and equipment combinations:

Device	Specifications	ø mm[1]	Type	Tronect SP-AP			Tronect SP-AV			Tronect SP-T										Tronect SP-C							Tronect TF-L					Tronect PV-A	
			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
				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
TFV high-pressure radial fans (Ex)																																
	**TFV 100 Ex**																															
	Intake socket	300		■			■																									
	Exhaust connection	300		■			■																									
	**TFV 300 Ex**																															
	Intake socket	300					■																									
	Exhaust connection	450			■			■																									
	**TFV 900 Ex**																															
	Intake socket	630				■			■																								
	Exhaust connection	630				■			■																								
PT air conditioners																																
	**PT 4500 S**																															
	Spot cooling exhaust distributor	1 x 200									■																						
	**PT 6500 S**																															
	Spot cooling exhaust distributor	2 x 200									■																						
	**PT 6500 HT**																															
	Spot cooling exhaust distributor	2 x 200									■																						
	**PT 15000 S**																															
	Spot cooling exhaust distributor	2 x 300											■																				
TAC air cleaner																																
	**TAC 1500**																															
		200									■																						
	**TAC 3000**																															
		250										■																					
	**TAC 5000**																															
		400													■																		
	**TAC 6500**																															
		450						■								■																	
Airozon® Professional Series																																
	**Airozon® 20000**																															
		300											■																				
	**Airozon® 60000**																															
	Attachment hood for hose connection	300											■																				
	**Airozon® Supercracker**																															
		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. [1] *Respectively indicated are the inner diameters for the Tronect® hoses and the outer diameters for the device connections.*

PRECISE.

MEASURING DEVICES BY TROTEC.



The complete program for Workshops, Hobbies and Offices.

Measurement technology in an independent design. Do not leave your success to chance.
A tad more accuracy often determines a perfect success.
Trotec has the right partner for every measurement.
Handy, easy to use and always precise.

- Thickness, distance, area and volume
- Temperature
- Air Flow
- Climate
- Pressure
- Electricity
- Emissions (gas, EMF, light, sound)
- Air Quality
- Material Moisture
- Liquid Analysis
- Location and Detection
- Optical Inspection
- Ultrasound
- UV-A radiation

TROTEC
AT WORK.

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TRT-ANZ-IMG-HP-MESST-HS-009-EN

Precision pyrometers employing multi-point laser technology

Professional infrared thermometers TP7 and TP10 for demanding measuring applications

A FEW PRACTICAL BENEFITS:

- Development, design, production: 100 % Trotec
- Highly accurate – rapid response time
- Wide temperature measuring range from -50 °C to +1,850 °C
- Multi-point laser aiming aid for simultaneous indication of measuring point and measuring spot
- Degree of emission freely adjustable from 0.1 to 1.0
- High/low alarms indicated by a change of display colour and an additional alarm sound
- Backlit display
- Bar graph indicator*
- Data logger function to capture and save up to 30 measuring points*
- Combined infrared and contact sensor temperature measurements*
- Battery-saving power supply via the USB connection of your computer* – ideal for long-term measurements
- Option for software-supported recording of measurement series*

** depending on the model*

Exclusively at Trotec!



Unique appearance – high optical resolution

With their distinctive German industrial design these exclusive professional pyrometers are not only in peak form when it comes to appearances, the technical performance data is equally impressive in every respect:

TP7 and TP10 combine precise measuring technology, flexible application possibilities and a multitude of sophisticated measuring functions in easy-to-handle premium-quality high-end pyrometers with an excellent value-for-money ratio.

Due to their wide temperature measuring range, high optical resolution and many advanced functions, these measuring devices are not only first choice for a safe diagnosis and maintenance of heating, air-conditioning and ventilation installations or extensive maintenance tasks in the industrial and craft sector.

Both infrared thermometers are also ideally suited for complex and demanding measuring tasks during maintenance, inspection, analysis or documentation. For this purpose the TP10 comes equipped with an integrated data logger function to capture and save up to 30 measuring points.



Combined infrared and contact temperature measurement

The miniature contact pin of the TP10 enhances the possible applications by additional contact temperature measurements with the type K contact sensor included in the scope of delivery or all third-party temperature probes of the same construction type.

For battery-saving application, the TP10 can also be operated directly at the USB port of your computer. With the USB function it further provides the possibility for software-supported recording of measurement series in case of long-term temperature profile measurements of mechanical or climatic processes. For non-stop measuring the TP10 can further be fixed to the supplied mini tripod.

Finally one software for basically all measuring devices:

MultiMeasure Studio Professional

In addition to the steadily growing number of fully compatible Trotec meters, this software is also suitable for the partially compatible TP10 – even with the TP7 interfaceless or third-party devices, you can benefit from this software, as it enables cross-device analysis and management of all measurement projects and customer data in a single application!

Create professional measurement reports in next to no time!

The unique report generating function of MultiMeasure Studio Professional already comes with completely formulated boilerplate texts for the fields of building diagnostics, moisture measurement, leak detection and thermography.

More information on request.

Technical data		Pyrometer TP7	Pyrometer TP10
Article number		3.510.003.012	3.510.003.046
Optical resolution (D:S)		40:1	75:1
Smallest measuring spot		25.4 mm	18 mm
Measuring range		-50 °C to +1,000 °C (-58 °F to 1,832 °F)	-50 °C to +1,850 °C (-58 °F to 2,912 °F)
Resolution		0.1 °C	0.1 °C ≤ 1,000 °C, 1 °C > 1,000 °C
Accuracy*		± 2.5 °C at -50 to 20 °C; ± 1 % at 21 to 300 °C; ± 1.5 % at 301 to 1,000 °C	± 3 °C at -50 to 20 °C; ± 1 % ± 1 °C at 20 to 500 °C; ± 1.5 % at 500 to 1,000 °C; ± 2 % at 1,001 to 1,850 °C
Repeatability		± 1.3 °C at -50 to 20 °C; ± 0.8 % or ± 0.5 °C at 21 to 1,000 °C	± 1.5 °C at -50 to 20 °C; ± 0.5 % or ± 0.5 °C at 20 to 1,000 °C; ± 1 % at 1,000 to 1,850 °C
Response time		< 150 ms	< 150 ms
Spectral sensitivity		8 ~14 µm	8 ~14 µm
Target display		laser class 2 (II), 630 ~ 670 nm, < 1 mW	laser class 2 (II), 630 ~ 670 nm, < 1 mW
Contact temperature sensor		–	measuring range -50 °C to +300 °C, accuracy ± 1.5 % or ± 3 °C, repeatability ± 1.5 %
Ambient conditions		0 °C to 50 °C, 10 % to 90 % RH	0 °C to 50 °C, 10 % to 90 % RH
Power supply		9 V IEC 6LR61	9 V IEC 6LR61 (and externally via USB)
Dimensions (L x W x H mm)		160 x 49 x 122 mm	168 x 56 x 225 mm
Weight		224 g	300 g
Scope of delivery	Standard	pyrometer TP7, storage bag, 9 V battery, operating manual	pyrometer TP10, carrying case, type K contact sensor, mini tripod, USB connecting cable, 9 V battery, software, operating manual
	optional	–	Universal tripod (Article number 6.300.000.200)

■ *Standard equipment; * at ambient temperatures of 23 to 25 °C*

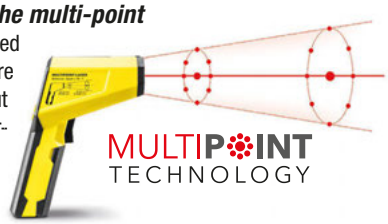
Comparison of functions and equipment features	TP7	TP10
Selectable multi-point laser	■	■
Switching function °C / °F	■	■
Display resolution 0.1 °C (0.1 °F)	■	■
Non-stop measuring function	■	■
Minimum value display	–	■
Maximum value display	■	■
Differential and average value display	–	■
Display value hold function	■	■
User-defines alarm thresholds	■	■
High/low alarms indicated by a change of display colour and an additional alarm sound	■	■
Degree of emission adjustable from 0.1 to 1.0	■	■
Backlit LCD display	■	■
Automatic switch-off function	■	■
Time display	–	■
Date function	–	■
Adjustment function for touch tone, alarm sound and display contrast	–	■
Bar graph indicator	–	■
Open targeting sights	–	■
Storable measured values	–	30
Additional contact temperature measurement (with external type K sensor)	–	■
Software-supported recording of measurement series	–	■
USB connection	–	■
¼ inch tripod connection	–	■

High optical resolution and precise measuring spot display thanks to multi-point laser

The optical resolution (D:S) defines the ratio of measuring distance and measuring spot diameter. With increasing distance to the measuring object the measuring spot also increases. The device calculates an average temperature from all the temperatures in the measuring spot. The larger the measuring spot, the less precise is the measured result. And vice versa: the higher the optical resolution of the pyrometer, the smaller the measuring spot and the more precise the measurement.

Precise measurements straight to the multi-point

Standard devices are often merely equipped with a single laser which shows nothing more than the centre of the measuring spot. But the actual dimensions of the measuring surface are not immediately apparent for the user. Double laser devices on the other hand visualize at least the diameter, though not the overall measuring surface.



The multi-point laser aiming aid of TP7 and TP10 combines these two technologies allowing you to capture the measuring object both easily and precisely. Whilst one targeting laser in the centre indicates the measuring point, further eight lasers show you the boundary points encircling the measuring surface – thus permitting precise measurements in a minimum of time.

Convenient alarm indication via change of display colour

The on-demand display illumination is usually green; with activated alarm function the display will be flashing in blue whenever falling below the user-defined limit value (Lo). Exceeding the set threshold (Hi), the display flashes red. In both cases an acoustic alarm will be emitted in addition.



A FEW PRACTICAL BENEFITS:

- Particle counter with durable laser diode
- Conforms with ISO 21501-4
- 6 particle size channels from 0.3 to 10 µm
- Filter efficiency measurement
- Detects size fractions and concentrations of air particles
- Integrated gas detector for formaldehyde and carbon monoxide concentrations (PC220 only)
- Direct conversion and display of the concentrations of inhalable and alveolar dust fractions contained in the room air stated in µg per m³ of air (PC220 only)
- Also measures environmental climate parameters such as air temperature, humidity, dew point and wet-bulb temperature
- Data logger for 5,000 measurements on the internal memory (can be expanded with a MicroSD card)
- Integrated digital camera for photo and video documentation of the measured environment
- Additional colour indicator display with automatic acoustic alarm for the quick detection of critical particle concentrations
- 2.8-inch colour LCD display with background illumination to simultaneously display all measured parameters
- Ergonomic single-handed operation
- ¼ inch tripod connection for non-stop measuring on a tripod
- PC measurement data export via USB interface
- Incl. calibration certificate (optional)

Particle counters PC200 and PC220

Portable environmental measuring devices for testing the indoor air quality, for efficiency and leak tests of HVAC and HEPA filters as well as for testing the technical cleanliness in the field of process engineering



Ideal for air particle monitoring and climate data logging – the ergonomic laser particle counters PC200 and PC220 with integrated environmental measuring device and and built-in photo and video function for documentation purposes.

Mobile measuring stations to determine the:

- particle purity of the air with 6 particle sizes at the same time ranging from 0.3 to 10 µm
- Filter efficiency
- relative humidity
- air temperature
- dew point temperature
- wet-bulb temperature

PC220 additionally with:

- gas detector for formaldehyde (HCHO)
- gas detector for carbon monoxide (CO)
- a quantitative concentration determination of E-dust (PM10) and A-dust (PM2.5) in the room air in µg per m³ of air
- Particulate mass conversion and indication of HCHO and CO in mg per m³ of air

TRT-MAMEDA-PCPM-WM-02-EN

Ideal for monitoring, securing and assessing the air quality to ensure productivity, health and safety

The numerous measuring functions of our particle counters and their conformity to ISO 21501-4 provide users with flexible application possibilities – from testing cleanrooms and filter efficiency to monitoring the workplace exposure or measures for quality assurance.

All measured values of the 6 particle size channels can be easily read simultaneously on the 2.8-inch colour LCD of PC200 and PC220.

An additional colour indicator display with automatic acoustic alarm makes it easier to quickly detect critical particle concentrations.

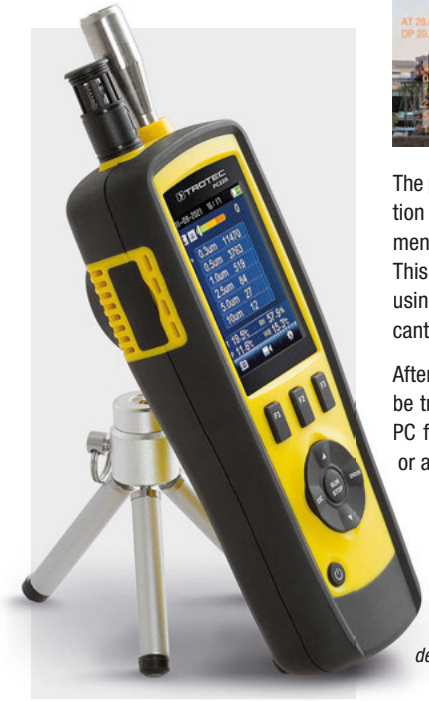
In addition to the number and size fractions of air particles both measuring devices also determine environmental climate parameters such as air temperature, humidity, dew point and wet-bulb temperature.



Furthermore, a digital camera is integrated to document the measuring environment by means of photos and videos.

The particle counter's data logging function can store up to 5,000 measurement records on the internal memory. This can be expanded by up to 16 GB using a MicroSD card, which significantly raises the memory capacity.

After measuring, all detected data can be transmitted quickly and easily to a PC for the purpose of documentation or analysis via a USB interface.



A handy mini tripod for non-stop measurements is already included in the PC200's and PC220's scope of delivery.

PC220 with integrated HCHO detector – ideal to analyse the risk posed by formaldehyde



Methanal – also known as formaldehyde – is the chemical precursor for many industrial products ranging from varnishes or paints to adhesives and binding agents, even preservatives.

Many materials containing formaldehyde, e.g. wood-based materials, flooring or textiles, can contaminate the breathing air in closed rooms for a long time through outgassing.

Reclassified as carcinogenic

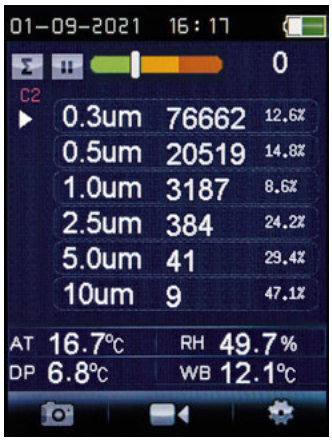
Owing to its particular toxicity the responsible organization in Germany adopted a new maximum allowable concentration (MAC) for formaldehyde; at the same time the substance was classified as carcinogenic in the European Chemicals Directive (CLP). This necessitates certain precautionary and protective measures.

The reclassification is effective as of 01/01/2016 and entails new duties of documentation and information for employers such as the obligation to keep an exposure register.

PC220 for the precise detection of formaldehyde

The particle counter PC220 comes with an integrated HCHO detector which reliably detects formaldehyde concentrations of as low as 0.01 ppm in the room air.

Combined with the additional CO detector, the quantitative particle mass display conforming to PM standard and many further measuring functions for particle purity and room climate data, the PC220 is the ideal solution for detecting and documenting formaldehyde concentrations in the room air.





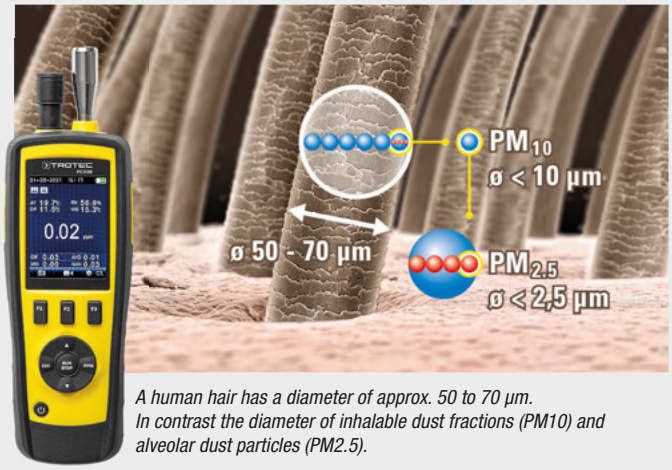


All particle counters determine the size fractions and concentrations of air particles on six different channels from 0.3 µm to 10 µm with additional colour indicator display. Perfect for contamination control for instance in isolation areas with vacuum or overpressure conditions. In addition, filter efficiency measurements with directional efficiency indicators are available size fraction possible.

With the PC220 it is also possible to detect carbon monoxide concentrations in the air.

Quantitative detection of particulate emissions

PC220: digital display of particle masses



A human hair has a diameter of approx. 50 to 70 µm. In contrast the diameter of inhalable dust fractions (PM10) and alveolar dust particles (PM2.5).

Quantitative statements regarding the particulate emission ratio for the assessment of potential health risks at the workplace are not only required according to applicable legal protective regulations.

To be measured are not only inhalable dust fractions, i.e. all dust particles with an aerodynamic diameter of less than 10 µm, but especially ultrafine alveolar particles, which are so minute that they can reach the pulmonary alveoli.

With the PC220 these dust fractions can be registered as PM10 and PM2.5 according to the PM standard; their percentage per cubic metre room air is indicated numerically on the colour display of the PC220.

The process is based on the customary international PM classification in categories as per United States Environmental Protection Agency: air particles are differentiated by their aerodynamic diameter of less than 10 micrometres (PM10) and 2.5 micrometres (PM2.5).

Finally one software for basically all measuring devices:

MultiMeasure Studio Professional



Along with the ever-growing number of fully compatible Trotec measuring devices this software is also suited for use with the partially compatible particle counters PC200 and PC220 – you can even benefit from this software in case of isolated devices, for it enables the analysis and administration of all measuring projects and customer data across multiple devices in a single application!

Create professional measurement reports in next to no time!

The unique report generating function of MultiMeasure Studio Professional already comes with completely formulated boilerplate texts for the fields of building diagnostics, moisture measurement, leak detection and thermography.

All information regarding MultiMeasure Studio Professional on request.



Both particle measuring devices are delivered in a carry case incl. mini tripod, zero filter and connection hose, power adapter, USB connection cable and software

Using PC200 and PC220 for inspecting the air quality in various fields of application:

Filter leak check

Suspended matter filters used in industrial processes must be regularly checked for correct functionality and tightness. These checks are particularly important during acceptance tests or when filters have been replaced in order to prevent possible leaks.

Owing to the high sensitivity and counting accuracy these ISO-21501-4 compliant particle counters are ideally suited for testing the efficiency and tight fit of industrial HEPA filters.

Technical facility management

Heating, ventilation and air-conditioning technicians regard the PC200 as an ideal measuring instrument for all maintenance and control operations at various ventilation systems. Faulty installations can quickly lead to noticeable air quality problems in connecting rooms.

The PC200 allows sources of hazardous contamination to be located, filter efficiency to be determined and particle concentrations in the indoor air to be evaluated.

Restoration companies can also use the PC200 to quickly and reliably detect partition leaks in areas of restoration.

Technical cleanliness in process engineering

In sensitive production environments, contaminations attributable to micro- and nanoparticles such as aerosols, dust, soot or bacteria can gather on products in such a consistent manner that both appearance and functionality will be impaired. In such a case, PC200 and PC220 represent the ideal means to rule out quality losses due to particle contaminations.

Indoor air quality measurements

The inhabitants of developed countries spend an average of 90 % of their time indoors. Thus, the quality of the room air is of particular importance for health and productivity.

Using the PC200 or PC220, problematic concentrations and sources of pollutant particles can be reliably determined and the compliance with statutory regulations can be documented.



Technical data		Particle counter PC200	Particle counter PC220
Article number		3.510.006.010	3.510.006.015
Particle counter	Channels	6	
	Channel sizes	0.3 µm, 0.5 µm, 1.0 µm, 2.5 µm, 5.0 µm, 10.0 µm	
	Counting modes	concentration, cumulative, differential	
	Counting efficiency	50 % at 0.3 µm; 100 % for particles > 0.45 µm	
	Flow rate	2.83 l/min (0.1 ft^3/min), controlled by internal pump	
	Zero check	< 1 particle / 5 min	
	Coincidence loss	5 %, 2 million particles per ft^3 (28.3 litres)	
	Light source	laser class 3B, wavelength 780 nm, 90 mW	
	Sample inlet	isokinetic probe	
Air temperature	Measuring range	0 °C to 50 °C (32 °F to 122 °F)	
	Accuracy	±0.5 °C (0.9 °F) at 10 °C to 40 °C (50 °F to 104 °F), ±1.0 °C (1.8 °F) at other temperature ranges	
Humidity	Measuring range	0 to 100 % RH	
	Accuracy	±3 % at 40 % to 60 %, ±3,5 % at 20 % to 40 % and 60 % to 80 %, ±5 % at 0 % to 20 % and 80 % to 100 %	
Dew point temperature	Measuring range	-30 °C to 100 °C (-22 °F to 199 °F)	
	Accuracy	±0.5 °C (0.9 °F) at 10 °C to 40 °C (50 °F to 104 °F), ±1.0 °C (1.8 °F) at other temperature ranges	
Wet-bulb temperature	Measuring range	0 °C to 80 °C (32 °F to 176 °F)	
	Accuracy	±1.0 °C (1.8 °F)	
Formaldehyde (HCHO)	Measuring range	–	0.01 to 5.00 ppm
	Accuracy	–	±5 % of terminal value
Carbon monoxide (CO)	Measuring range	–	10 to 1,000 ppm
	Accuracy	–	±5 % of terminal value
Particle mass conversion	PM2.5	–	0 to 2,000 µg/m^3
	PM10	–	0 to 2,000 µg/m^3
	HCHO	–	0 to 6.13 mg/m^3
	CO	–	0 to 1,145 mg/m^3
Functions	Filter efficiency measurement	■	■
	Minimum, maximum and average value display	■	■
	Hold function	■	■
	Alarm function	■	■
	Language selection	■	■
	°C/°F switching	■	■
	Photo or video recording	■	■
	Automatic display switch-off [1]	■	■
	Automatic device switch-off [2]	■	■
Data storage	Measurement data	5,000 data records on the internal flash memory (optional memory expansion via MicroSD card: max. 16 GB)	
	Photo / Video	JPEG format, resolution 640 x 480 pixels / 3GP format, resolution 320 x 240 pixels	
Equipment	Display	2.8-inch colour LCD, 320 x 240 pixels, with background illumination	
	Menu languages	German, English, French, Turkish, Italian, Spanish, Portuguese, Dutch, Danish, Swedish, Finnish, Norwegian	
	Memory expansion	slot for removable MicroSD memory card	
	Tripod connection	¼ inch	
	PC interfaces	USB connection	
Power supply	Battery type	Polymer LI-ION battery	
	Operating time	approx. 4 hours of continuous operation	
	Charging time	approx. 2 hours with an alternating current adapter	
Physical characteristics	Dimensions	L 57 x W 75 x H 240 mm	
	Weight	570 g	
Scope of delivery	Standard	measuring device, mini tripod, transport case, zero filter and connection hose, power adapter, USB connection cable, software, operating manual	
	optional	measuring device with calibration certificate (Article number 3.510.006.011), Universal tripod (Article number 6.300.000.200)	measuring device with calibration certificate (Article number 3.510.006.016), Universal tripod (Article number 6.300.000.200)

[1] variably adjustable to 90 seconds, 2 minutes or 4 minutes; [2] variably adjustable to 3 minutes, 15 minutes or 60 minutes

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Videoscopes of the VSC series

For indirect visual inspection and documentation

A FEW PRACTICAL BENEFITS:

- Development, design, production: 100 % Trotec
- Portable, light and robust compact systems
- Easy handling
- Recording photos and videos
- Camera head infinitely bendable to all directions
- LED technology – less power consumption and heat production than with conventional lighting systems
- Wide VGA LCD display for an outstanding image quality – VSC206 with VGA LCD
- Robust, multi-walled probe for maximum flexibility with simultaneously high torsional strength
- Fast USB connection and analogue video output

Exclusively at Trotec!



VSC206 VSC3008

TROTEC 100% DEVELOPMENT » DESIGN » PRODUCTION

Extremely portable, robust and visually impressive – the Trotec VSC series features some of the most versatile and handy video endoscopes for professional applications on the market

VSC206 and VSC3008 are consistently geared to prove themselves in tough everyday industrial applications and provide you with all the functions and system advantages required for quick and significant test results.



The robust and compact integral systems do not need any additional components and enable the easy accessibility of your test objects. Six dimmable high-performance LEDs ensure brilliantly illuminated image results on the large TFT LCD that can be recorded as video or individual images.

The hardwearing construction with robust workmanship and the extreme flexibility of the oil-resistant IP67 probes, rotatable by 360°, enable applications in all industry sectors ranging from routine inspections or quality-assurance reviews to the investigation of the causes of unexpected failures.

Finally one software for basically all measuring devices:

MultiMeasure Studio Professional

Along with the ever-growing number of fully compatible Trotec measuring devices this software is also suited for use with the partially compatible VSC videoscopes – you can even benefit from this software in case of isolated devices, for it enables the analysis and administration of all measuring projects and customer data across multiple devices in a single application!

Create professional measurement reports in next to no time!

The unique report generating function of MultiMeasure Studio Professional already comes with completely formulated boilerplate texts for the fields of building diagnostics, moisture measurement, leak detection and thermography.

More information on request.

TRT-MAMEDA-VSCP-WM-02-EN

Videoscopes of the VSC series – further information …

VSC3008 – Visual inspection in perfection

This professional industrial videoscope makes indirect visual inspections become a simple finger exercise: No cables, no case – nothing but superb image quality in a robust and lightweight compact device.

With a weight of only 400 g, the hand-held control unit easily enables longer applications without tiring. Its probe, bendable to all sides, can be steplessly controlled via the joystick and with its titanium-coated camera head enables perfect panoramic views of the inspection area.





Extremely versatile probing

The VSC3008's multi-ply construction of tungsten wire mesh and PU on a flexible steel spiral ensures maximum range of motion with simultaneously high torsional strength of the push probe.

The powerful multiple LED light source with variable brightness control yields exactly the sharp, detailed images you need for meticulous working.

Excellent image quality

The inspection images and videos can be viewed on the brilliant Wide VGA LCD display of the VSC3008 and, in the optional WLAN configuration, also via live synchronization on a connected smartphone or tablet.

Thanks to the robust ABS housing the VSC3008 withstands even the harshest of conditions in industrial surroundings, and cushioning materials at critical spots prevent impact damages as well as the infiltration of dust and splashing water – ideal prerequisites for reliable everyday usage.

The VSC3008 unites wireless operation with razor-sharp videos and digital images in a mobile, user-friendly compact system, providing simple access to the test object. Individual images or complete videos can be stored on an SD card in an uncomplicated manner.

Industrial videoscope VSC3008

- Hand-held, light and robust compact system
- Camera head infinitely bendable to all directions
- LED technology – less power consumption and heat production than with conventional lighting systems
- Recording photos and videos
- Wide VGA LCD display for an outstanding image quality
- Robust, multi-walled probe for maximum flexibility with simultaneously high torsional strength
- Fast USB connection and analogue video output
- Live video synchronisation onto a connected smartphone via WLAN
- Easy handling



The industrial videoscope VSC3008 is supplied ready for use in a robust hard-shell carry case including power adapter, batteries, battery charger, SD card and cleaning cloth.



With the VSC3008 photos and videos can optionally also be transmitted in real time via a wireless connection to your mobile device serving as second live screen.

Videoscopes of the VSC series – further information …

VSC206 – Always in the picture when it comes to indirect visual inspections

The industrial videoscope VSC206 unites wireless operation with razor-sharp videos and digital images in a mobile, user-friendly compact system, providing simple access to the test object.

The VSC206 features a robust, protector-equipped ABS housing providing equal protection from impact damage and the infiltration of dust or splashing water. Ideal prerequisites for the rough conditions of industrial applications.





Clear vision guaranteed – even in a tight corner

The probe of the VSC206, bendable to all sides, can be steplessly controlled via the joystick and with its titanium-coated camera head enables perfect panoramic views of the inspection area.

Its multi-ply construction of stainless steel wire mesh and PU on a flexible steel spiral ensures maximum range of motion with simultaneously high torsional strength of the push probe.

6 white LEDs with variable brightness control ensure sharp, detailed images that can be shown on the brilliant VGA display of the VSC206 and saved for documentation purposes either as video or individual image on an SD card.

Industrial videoscope VSC206

- Hand-held, light and robust compact system
- Camera head infinitely bendable to all directions
- LED technology – less power consumption and heat production than with conventional lighting systems
- Recording photos and videos
- VGA LCD display for an outstanding image quality
- Robust, multi-walled probe for maximum flexibility with simultaneously high torsional strength
- Fast USB connection and analogue video output
- Easy handling





The industrial videoscope VSC206 is supplied ready for use in a robust carry case including batteries, battery charger, SD card and cleaning cloth.



Technical data		VSC206	VSC3008
Article number		3.510.009.630	3.510.009.640
System	Type of lighting	6 white LEDs (colour temperature 5,000 to 6,500 K)	6 white LEDs (colour temperature 5,000 to 6,500 K)
	Luminous intensity	40,000 lux	50,000 lux
	White balance	Default setting ex works	4 setting options (automatic, sunlight, clouded, artificial light)
	Brightness control	Manually adjustable	Manually adjustable
	LCD display	3.5-inch TFT LCD (640 x 480 px [VGA])	4.3-inch TFT LCD (800 x 480 px [Wide VGA])
	Joystick control	Probe bending	Probe bending, menu access and navigation
	Keys	Access to user functions, illumination, video, camera head fixing	Access to user functions, illumination, video, camera head fixing
	Interfaces	USB, analogue video (PAL/NTSC)	USB, analogue video (HDTV)
	Memory	Slot for removable SD card (max. 32 GB)	Slot for removable SD card (max. 32 GB)
	File formats	JPEG image format, AVI video format	JPEG image format, AVI video format
	Power supply	4 x LR6 AA, 1.5 V batteries or power adaptor	5 V lithium polymer battery pack or power adaptor
	Operating time	≤ 2 h	> 4 h
Probe	Dimensions	Length 2 m, ø 6 mm	Length 3 m, ø 8 mm
	Design	Exterior: stainless steel wire mesh for high torsional strength, inner layer: polyurethane on steel spiral	Exterior: tungsten wire mesh for high torsional strength, inner layer: polyurethane on steel spiral
	Articulation	up / down / left / right ≈ 120°	up / down / left / right ≈ 120°
	Type of protection	IP67, oil-resistant	IP67, oil-resistant
Camera	Image sensor	CMOS	CMOS
	Resolution	350,000 pixels	440,000 pixels
	Field of vision	90°	130°
	Camera head	Stainless steel with titanium coating	Stainless steel with titanium coating
	Zoom	5x digital	3x digital
Control software	Operator guidance	Simple interactive menu control	Simple interactive menu control, menu navigation via joystick
	Available menu languages	German, English, French	German, English, French, Dutch, Italian, Turkish, Spanish, Russian, Danish
	Software functions	System settings, video settings, memory functions	System settings, video settings, display settings (brightness, contrast etc.), memory functions
	System functions	–	Live video synchronisation onto a connected smartphone via WLAN*
Surrounding conditions	Temperature	-10 °C to +50 °C	-10 °C to +50 °C
	Humidity	< 90 % RH	< 90 % RH
	Type of protection (housing)	IP54	IP54
Physical characteristics	Construction	ABS housing with integrated bumpers	ABS housing with integrated bumpers
	Dimensions	265 x 100 x 125 mm	410 x 154 x 80 mm
	Weight	590 g (incl. batteries)	960 g (incl. batteries)
Scope of delivery	Standard	Videoscope, carry case, batteries, battery charger, SD card, cleaning cloth	Videoscope, carry case, power adaptor, batteries, battery charger, SD card, cleaning cloth
	Optional	–	WLAN interface

** function only available for VSC3008 equipment with optionally available WLAN interface*

VSP inspection system

Equally mobile and modular – the VSP is an enormously versatile solution for flexible technical video endoscopy applications

A FEW PRACTICAL BENEFITS:

- Development, design, production: 100 % Trotec
- Perfect universal solution for many VT applications (virtual testing)
- Modular system – can be flexibly combined and extended
- Robust control unit with colour display and extremely powerful lithium polymer battery – universally applicable with all VSP system components
- Light-intense, bendable camera heads – rotatable and pivoting or super slim and water-proof in accordance with IP67
- Can be expanded with various video endoscopes and borescopes



The monitor control unit can be fastened securely to the push-cable drum by means of a snap-in locking mechanism.

Exclusively at Trotec!

To date, maintenance engineers and service technicians had to use all sorts of optical aides to carry out visual inspections. Many instruments, high investments and time-consume training measures for each individual device.

One system – countless options

The modular design of our VSP inspection system provides a smart alternative, for VSP can offer you maximum flexibility by combining one universal monitor control unit with several optional optical modules.

Simply piece together the ideal configuration for your application purpose and expand the system with additional components if required.

Be it for the inspection of industrial facilities, exhaust gas and air lines, house connections, ventilation systems or sewer pipes – the modular VSP inspection system offers flexible application possibilities.

For instance, you can use the VSP system as pipe camera with long push cable for the visual inspection of sewer or ventilation ducts and chimneys, as endoscope with flexible probe for the internal inspection of poorly accessible hollow spaces or as borescope with rigid probe and dual camera for visual inspections of machinery and plants.

Accumulated dirt, damages or defects can quickly be detected and documented in photo or video format on an SD card.

Finally one software for basically all measuring devices:

MultiMeasure Studio Professional

Along with the ever-growing number of fully compatible Trotec measuring devices this software is also suited for use with the partially compatible VSP inspection systems – you can even benefit from this software in case of isolated devices, for it enables the analysis and administration of all measuring projects and customer data across multiple devices in a single application!

Create professional measurement reports in next to no time!

The unique report generating function of MultiMeasure Studio Professional already comes with completely formulated boilerplate texts for the fields of building diagnostics, moisture measurement, leak detection and thermography.

More information on request.

VSP inspection system – further information …

Use the control unit VSP-Control for all VT inspections and know that everything is under control







① *Robust ABS housing with IP64 type of protection, rubberized operator keypad, lateral rubber protectors and wrist straps*
② *Wide, high-contrast VGA display*
③ *Attachable sun visor*
④ *Two standoffs for snap-in attachment to the push-cable drum VSP-R30 during transport and application*
⑤ *Battery level indication*
⑥ *Fold-out stand*
⑦ *Multi-connector socket with protective cap; for the connection of push-cable camera, borescope or videoscope*

Every good inspection camera comes with a smart head

Such as the camera head rotatable by 360° and pivoting by 180° fitted with 12 dimmable LEDs – giving you an immediate all-round view inside pipes, shafts or ventilation.



Cable drum camera set VSP3041 for sewer and pipe inspection



Cable drum camera set VSP3041 in order-ready configuration comprising the following system components:

- **Control unit VSP-Control with sun visor in transport case**
- **Cable drum VSP-R30 with 30 m push cable**
- **Camera head VSP-H41M**

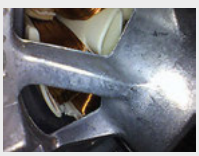
Article number 3.110.007.101

This set provides you with an ideal push-cable camera that allows the budget-friendly, on-demand multiplication of application possibilities by adding VSP components.

Only the VSP inspection system from Trotec can offer this kind of application flexibility!

The technical data of all individual components can be found on the following catalogue pages.

Low-budget upgrade option to inspect machinery, installations or building structures







Conventional video borescopes and endoscopes are independent measuring devices with integrated monitor unit, interfaces and control electronics. Which increases the cost for an individual device.

With the VSP system you can save that money as well as the time-consuming training period. In addition to the push-cable drum there are also a number of borescopes and endoscopes available for the VSP system that can simply be connected via the multi-connector at the control unit VSP-Control.

The image display is always coordinated via the VSP-Control whereas additional function buttons at the pistol grip of borescope and endoscope ensure the fast operation.

Video endoscopes VSP-VS
for the VSP inspection system on page 107…

Video borescopes VSP-BS
for the VSP inspection system on page 107…

VSP inspection system – further information …

All VSP system modules at one glance

Control unit VSP-Control



Push-cable drum VSP-R30



For the combined application with the control unit VSP-Control. Integrated push cable meter counter with partial distance measurement function.



Figure depicts push-cable drum VSP-R30 with mounted camera head VSP-H41M (separate item).

Camera heads VSP-H



For inspections using the push-cable drum VSP-R30. Both camera heads are equipped with a sealed threaded connector and either can be connected to the end of the push cable.

Technical data		Control unit VSP-Control
Article number		3.110.007.110
Display	Type / size	Colour LCD / 7 inch
	Resolution	800 x 480 pixels (wide VGA)
	Brightness	600 cd/m²
File formats	Snapshot	JPG (1,024 x 768)
	Video	AVI (640 x 480 [4:3] oder 800 x 480 [16:9])
Functions		Probe head motion control, photograph/video production, display brightness, zoom, system settings, memory management
Interfaces		USB, SD card slot, multi-connector socket for push-cable camera, borescope and videoscope, (analogue video NTSC/PAL optional)
Housing	Model	ABS with IP64 type of protection, rubberized operator keypad, lateral rubber protectors, wrist straps, fold-out stand, integrated battery capacity indication
	Dimensions	257 x 171 x 64 mm
	Weight	1.74 kg
Power supply		11.1 V lithium polymer battery pack (7,000 mAh, charging time 8 h) or power adapter
Scope of delivery		VSP Control, sun visor, battery charger, USB cable, transport case, SD card

Technical data		Push-cable drum VSP-R30
Article number		3.110.007.115
Push cable	Type	Fibreglass-reinforced
	Dimensions	Length 30 m, ø 5.4 mm
	90° bend flexibility	Lines ≥ 135 mm
	Type of protection	IP67 (connection camera head)
Drum	Model	Metal housing with carrying handle and un/reeling aid, can be used in vertical and horizontal position, snap-in system on the rear for attaching the control unit VSP-Control, digital meter counter, integrated coiled cord with multi-connector for VSP-Control
	Dimensions	515 x 405 x 200 mm
	Weight	6.5 kg

Technical data camera head	VSP-H41M	VSP-H25F
Article number	3.110.007.130	3.110.007.135
Diameter	ø 41 mm	ø 25 mm
Length	60 mm	49 mm
Resolution	300,000 pixels	300,000 pixels
Focus	Manual	Manual
Backlight	12 LEDs	12 LEDs
DOF	15 mm to ∞	25 to 100 mm
Field of vision	>75°	>120°
Pivoting radius	180°	–
Rotation	360°	–
Watertightness	Up to 1 m	Up to 1 m
Protection type	IP67	IP67
Material	Stainless steel probe with plastic dome	Stainless steel probe with lens made of sapphire glass
Supplied accessories	5 replacement plastic domes	–

Video endoscopes VSP-VS

For the combined application with the control unit VSP-Control. Camera head steplessly bendable to all sides and robust, multi-walled probe for maximum flexibility with simultaneously high torsional strength.



Technical data		VSP-VS 4.5-1500	VSP-VS 6.2-1500	VSP-VS 6.2-3000
Article number		3.110.007.153	3.110.007.162	3.110.007.163
System	Design	Pistol grip with keypad and joystick control		
	Type of protection	IP64		
	Functions	Probe head bending, photograph and video production, lighting brightness		
	Dimensions	155 x 110 x 190 mm (without probe)		
	Weight	ca. 620 g		
	Interfaces	Connection cable with multi-connector for VSP-Control, length approx. 150 cm		
Probe	Diameter	4.5 mm	6.2 mm	6.2 mm
	Length	1.5 m	1.5 m	3 m
	Backlight	6 LEDs	6 LEDs	6 LEDs
	DOF	8 to 80 mm	15 mm to ∞	15 mm to ∞
	Resolution	300,000 pixels	300,000 pixels	300,000 pixels
	Field of vision	>90°	>120°	>120°
	Bending	Up / down / left / right		
	Design	Tungsten wire mesh with titanium alloy		
	Type of protection	IP67		

Video borescopes VSP-BS

For the combined application with the control unit VSP-Control.

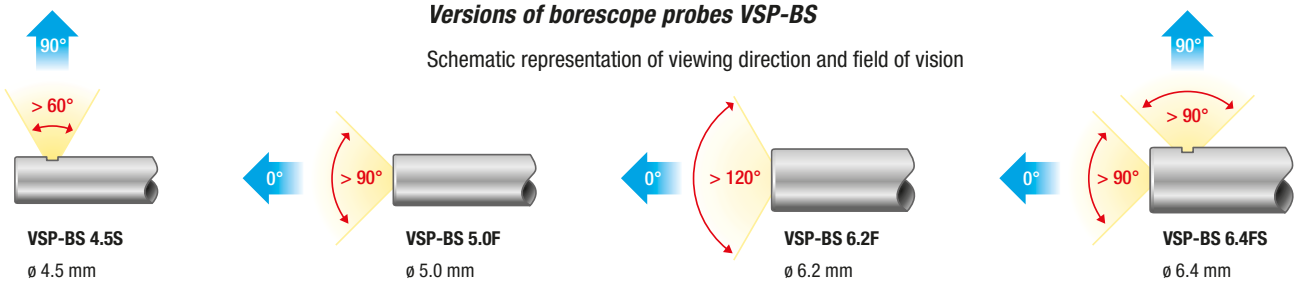
Borescopes with different probe diameters and front, side-view or dual camera available to meet any application requirement. To display and store images simply connect the borescope to the control unit VSP-Control.



Technical data		VSP-BS 4.5S	VSP-BS 5.0F	VSP-BS 6.2F	VSP-BS 6.4FS
Article number		3.110.007.183	3.110.007.186	3.110.007.192	3.110.007.193
System	Design	Pistol grip with keypad			
	Type of protection	IP64			
	Functions	Change-over switch for front/side view, photograph and video production, lighting brightness			
	Dimensions	175 x 67 x 50 mm (without probe)			
	Weight	ca. 200 g			
	Interfaces	Connection cable with multi-connector for VSP-Control, length approx. 150 cm			
Probe	Diameter	4.5 mm	5 mm	6.2 mm	6.4 mm
	Length	25 cm	25 cm	25 cm	25 cm
	Viewing direction	90°	0°	0°	0° / 90°
	Backlight	6 LEDs	6 LEDs	6 LEDs	6 LEDs / 1 LED
	DOF	5 to 25 mm	5 to 25 mm	5 to 50 mm	15 mm to ∞ / 10 to 50 mm
	Resolution	300,000 pixels	300,000 pixels	1,000,000 pixels	300,000 pixels
	Field of vision	>60°	>90°	>120°	>90°
	Design	Rigid, stainless steel 304			
	Type of protection	IP64			

Versions of borescope probes VSP-BS

Schematic representation of viewing direction and field of vision



Fog and flue gas systems

A FEW PRACTICAL BENEFITS:

FS200 Fog and flue gas simulator

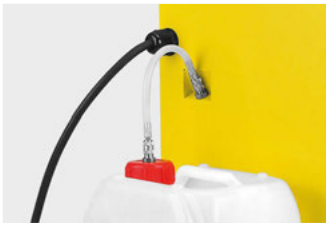
- Professional quality "Made in Germany" – originally produced by Trotec
- Robust aluminum lightweight construction
- Extremely powerful fan turbine – infinitely variable
- Ultra-compact integral solution with hinged canister holder
- Extra dense white smoke thanks to the infinitely variable fluid pump
- Easily transported – also through bottlenecks such as safety ladders
- Intelligent power coupling of turbine, heating and pump for a consistently dense fog conveyance lasting several minutes without postheating-related interruptions
- Service-friendly construction – simple filter change within seconds
- Tried and tested German industrial design



Possible applications:

- *Fire simulation, respiratory protection and disaster control exercises*
- *Tightness tests*
- *Flat roof leak detection*
- *Exercise for smoke extraction*
- *Checking of smoke outlets*
- *Checking of air discharge, air inlet and exhaust air openings*
- *Control of smoke extraction in escape routes*
- *Detection of faulty connections in piping networks, tank farms or wastewater systems*
- *Locating of undercuts in dams and dykes*

TROTEC 100% MADE IN GERMANY



Fog and flue gas simulator FS200

This professional fog and flue gas simulator of German high-quality manufacturing is the most compact and lightest device in its performance class.

Thanks to smart slim design in robust aluminium lightweight construction, the transport of the FS200 to any application site will be no problem at all and you can benefit from a high range of motion even through bottlenecks such as safety ladders.

The ingenious canister holder of the FS200 can be unlocked and folded out in a matter of seconds.

This way, the floor space is increased and provides more stability even on disadvantageous undergrounds like gravelled flat roofs.

The extremely powerful turbine as well as the fluid pump of the FS200 can be infinitely adjusted in their performance for fog conveyance, hence be attuned more precisely to individual operating conditions.

Moreover, the intelligent power coupling of turbine, heating and pump ensures a consistently dense fog flow lasting several minutes without postheating-related interruptions even during maximum turbine performance.

The FS200's fluid consumption is agreeably low and can amount to a maximum of no more than 100 ml per minute.





The optionally available carrying case with inner padding offers optimal storage space for FS200 and accessories and enables safe transport.

The suitcase includes a pull-out handle, wheels, carrying handles and a lockable lid.

Transport case optionally available



Scope of delivery: *FS200, 5 m fog hose (Tronect PV-A 38 with quick coupling), 5 litre fog fluid canister, filling hose with coupling plugs. The supplied branded fog concentrate FluiTect contains no hazardous working substances, is water-soluble, biodegradable and non-inflammable.*

TRT-MAMEDA-NRAG-WM-02-EN

Sophisticated in every detail – the FS200 impresses with many practice-oriented equipment features



① *Robust slim design for a high degree of mobility even in bottlenecks.*

② *In transport position the canister holder's feet serve as cable holder.*

③ *The integrated ergonomic recessed handle with an inner Grip-Clip affords the best hold while carrying.*

④ *A locking pin reliably fixes the transport position of the canister holder in place.*

⑤ *Thanks to an ingenious mechanism the holder can be unlocked and folded out in a matter of seconds.*

⑥ *Tilt-resistant fluid canister holder for befogging.*

⑦ *The FS200's control panel is located underneath a protective flap with magnetic lock for shock-protection.*

⑧ *Performance of fan turbine and fluid pump can be infinitely controlled independently.*

⑨ *Coloured indicator lights provide clear information about heating phase, heating status and operating status.*

⑩ *The handy filter compartment of the FS200 with quick-release cover enables time-saving filter change.*

Technical data	Fog and flue gas simulator FS200
Article number	3.510.010.021
Fogging time (min.)	At maximum level: approx. 270 s
	At medium level and less: Continuous fog output
Evaporator power	1,500 W
Fan turbine power	1,600 W
Outlet pressure	335 mbar
Power input max.	3,100 W
Type of protection	IP54
Air flow rate	Approx. 68 l/s
Fluid consumption	At maximum output: 100 ml/min
	At continuous output: 30 ml/min
Heating-up time	Approx. 7 min
Amount of fluid in the canister	5 l
Input voltage	230 V / 50 Hz
Dimensions (L x W x H)	310 x 253 x 465 mm
Weight (without 5 l fluid canister)	14 kg
Optionally available accessories	Combustion chamber and coloured smoke cartridges for fire simulations, 5 litre fog fluid canister (Article no. 3.510.010.025), Transport case (Article no. 6.100.000.004)

Tightness test and leak detection

By means of feeding fog into pipeline systems, tank facilities or sanitary domestic installations, leakages or faulty connections can be detected quickly and easily.

Using the flue gas method, insulated flat-roofed or terrace constructions can be effectively and inexpensively checked for leakages, since the especially dense white fog is visible from afar when emerging from the leak even on larger areas.

The flue gas detection is also ideally suited for intermediate measurements during the building phase of complex flat-roofed constructions.

Areas, which are later only poorly or completely inaccessible, can as a precaution be checked for leakages to avoid structural damages caused by leaks beforehand.

Control of smoke extraction and disaster control exercises

The flue gas simulator is ideally suited for disaster control exercises of the fire brigade – optionally, combustion chamber and coloured smoke cartridges are also available for the training exercise.

Furthermore, using the FS200, the functioning of smoke outlets or smoke extraction systems for escape routes even in larger or subterranean buildings can be tested and visualized realistically.



Fire simulation for a fire brigade training operation.



Evidence of defective sealing of the wall connection above an underground garage.



Defective sealing of a roof-top terrace.

Trotec flue gas chamber

With this inexpensive flue gas option, the special fumes are generated by a flue gas cartridge inserted in the chamber's cartridge container and then blown into the insulation layer by means of the optionally available insulation dryer.

Benefits in practice:

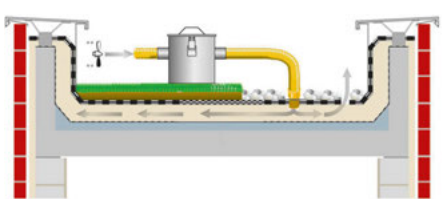
- *Permanent chamber sealing through readjustable sealing cover*
- *Professional quality "Made in Germany"*

Flue gas chamber, stainless steel

Article no. 3.510.010.035

Dimensions L x W x H: 150 x 230 x 165 mm, Weight: 3 kg





Smoke cartridges (accessories)

Class T1, smoking duration 80 s.

Smoke colour white
Article no. 3.510.010.030

Smoke colour red
Article no. 3.510.010.031

Pulse current measuring system PD200

Complete set in a practical transport case for the pinpoint leak detection on sealing sheet systems and plastic covered objects.

A FEW PRACTICAL BENEFITS:

- Professional quality "Made in Germany" – originally produced by Trotec
- Quick leak detection thanks to additional, clearly visible signal lamp and acoustic signal generator connectable as needed
- Robust, splash-proof transport case design
- 20 % lighter than the previous model
- 30 % less volume with unchanged accessories
- Once again improved stability owing to robust, aluminium-based lightweight construction
- Can be easily transported even through bottlenecks such as safety ladders
- Integrated short-circuit test, e.g. to check suspension points
- Optional gravel claw for a simplified laying of loop wiring under the gravel fill
- Tried and tested German industrial design





- *Ideal for pinpoint location of grounded leaks in non-conducting sealing systems*
- *Non-destructive inspection of foil and bitumen roofs*
- *Leak detection even in case of flat roofs with superimposed load (e.g. gravel fill, greening, paving etc.)*
- *Tightness test of hall floor sealing for LAU (storage, filling and handling of substances hazardous to water) and HBV (production, treatment and use of substances hazardous to water) systems (WHG – Water Resources Act)*

As impulsive as it is effective – quick leak detection made easy

The pulse current measuring system PD200 is the ideal solution for the pinpoint location of grounded leaks in non-conducting sealing systems – e.g. bitumen, elastomer, PE-HD or other plastic sheets.

The PD200's weight and dimensions could once again be clearly reduced as opposed to its previous model. Consequently, the PD200 is not only 20 % lighter, it also takes up 30 % less volume in the case, which still holds the full set of PD200 accessories!

In addition to the ergonomic recessed handle integrated in the cover with an inner Grip-Clip for the best hold while carrying the PD200 is also provided with a lateral bar handle for transport.

Due to the user-friendly miniaturization and the transport bar handle providing additional mounting options for instance for ropes, the device can easily be carried onto the roof area even through bottlenecks such as safety ladders.

Despite the reduction in weight, the stability of the PD200 could also be improved once again by manufacturing the housing as a robust, aluminium-based lightweight construction.



Connections and operating elements of the PD200 are accommodated and well protected inside the case construction, offering sufficient stowage space for further measuring equipment.

Light, robust, versatile – the PD200 enables reliable leak detections of flat roofs, terraces, swimming pools, ponds or landfill liners …



With the compact pulse current measuring system PD200 one can carry out tightness tests and leak detections of various sealing sheet systems, e. g. in case of geotechnical applications such as landfill or tunnel construction and the construction of fire water and swimming ponds or retention reservoirs.

In the industrial construction sealing sheets of transfer sites, tank terminals or hall floor sealings for LAU and HBV systems with substances hazardous to water can be checked for tightness quickly and easily.

Easy handling

Whilst the needle on the pulse receiver's display points in the direction of the leak, an attenuator enables the adjustment of the signal strength – a low attenuation value at a great distance quickly leads to the leakage area and upon approach can be increased in several stages for a more precise positioning.

PD200 standard package;
Article no. 3.510.010.012



Furthermore, the pulse generator promotes the quick leak detection by means of a green signal lamp and if required an additionally connectable acoustic signal transmitter. Both can be widely perceived across the roof from almost every angle.

Ground faults during installation work are indicated by the PD200 by means of an acoustic warning signal and a red warning light, in case of a short circuit the output signal is switched off automatically.

A circumferential protective bar made of steel ensures that signal lamp and warning light are protected against damage.

PD200 standard package scope of delivery:

1 *Pulse generator in transport case design*

2 *Pulse receiver with shoulder strap, incl. batteries*

3 *Two measuring rods, in three parts, each consisting of handle part* 4 *with rubber grip, extension piece* 5 *and measuring tip* 6*;*
Article no. 3.510.010.007

All measuring rod elements are provided with screw connections for a quicker assembly.

One handle part is additionally equipped with an integrated clamping spring to be used for uncoiling.

7 *Connecting cable for loop*

8 *Reel with 200 m of loop wiring;*
Article no. 3.510.010.005

9 *Reel with 25 m of earth cable extension (red);*
Article no. 3.510.010.004

10 *One measuring rod connection cable each in red and black;*
Article no. 3.510.010.008

Optionally available:

11 *Gravel claw for a simplified laying of loop wiring under the gravel fill;*
Article no. 3.510.010.003

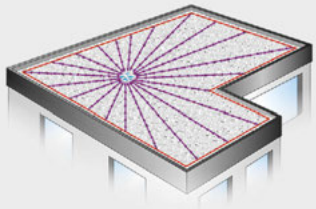


Pulse current method

The PD200's functional principle is based on the pulse current method where voltage is applied to the foil to be tested: a ring main is installed with the negative pole on the sealing surface and a grounding cable with the positive pole on the bottom side of the respective sealing sheet.

Surface moisture serves as conductor for the electric current applied via the pulse generator, the flow direction of which is captured by use of the measuring rods and indicates the direction to the leak position on the pulse receiver.

For the application of the PD200 it is irrelevant whether the sealing is gravelled or greened, the only thing that needs to be ensured is a sufficient drenching of the sealing sheet.



Technical data	Pulse generator PD200 G	Pulse receiver PD200 E
Article number	3.510.010.010	3.510.010.011
Dimensions	L 470 x W 240 x H 250 mm	L 160 x W 80 x H 55 mm
Weight	8.6 kg (incl. accessories)	550 g (incl. batteries)
Input voltage	220 - 240 V, 50 - 60 Hz	9 V, 6 x LR6 AA batteries

Tents and Screen fences

Working sheltered



TRT-MAMEDA-AZSW-WM-02-EN

Assembly work tents and screen fences – further information …

Work tent TE (pitched roof)



TE series (pitched roof)				
Art. no.	**Type**	**Length**	**Width**	**Height**
4.110.002.050	**180 TE**	180 cm	180 cm	170 cm
4.110.002.070	**250 TE**	250 cm	200 cm	190 cm
4.110.002.080	**300 TE**	300 cm	200 cm	200 cm

Other sizes and configurations as well as special designs are available upon request.
Special coloursor individual corporate design possible.



The tent of the TE series with pitched roof impresses with its sound workmanship, ensuring both reliable steadfastness and protection against the weather and other surrounding conditions.

Available in **yellow, red, blue and white!**

Work tent K (flat roof)



K series (flat roof)				
Art. no.	**Type**	**Length**	**Width**	**Height**
4.110.003.050	**180 K**	180 cm	180 cm	200 cm
4.110.003.060	**210 K**	210 cm	210 cm	200 cm
4.110.003.070	**250 K**	250 cm	250 cm	200 cm
4.110.003.090	**180x250 K**	180 cm	250 cm	200 cm

Other sizes and configurations as well as special designs are available upon request.
Special coloursor individual corporate design possible.



A generously proportioned footprint, lightfast material and a robust, needless to say absolutely watertight workmanship. These are a few good reasons speaking in favour of the assembly work tent of the K series.

Feel free to contact us, we will solve your problem!

In addition to our standard range of products we can also provide a variety of further solutions.

Work tent KE (flat roof)



KE series (flat roof)				
Art. no.	**Type**	**Length**	**Width**	**Height**
4.110.003.045	**120 KE**	120 cm	120 cm	150 cm
4.110.003.046	**120 KE**	120 cm	120 cm	200 cm
4.110.003.055	**180 KE**	180 cm	180 cm	200 cm
4.110.003.065	**210 KE**	210 cm	210 cm	200 cm
4.110.003.075	**250 KE**	250 cm	250 cm	200 cm
4.110.003.085	**300 KE**	300 cm	300 cm	215 cm
7.310.000.029	**350 KE**	350 cm	350 cm	215 cm
4.110.003.095	**180x250 KE**	180 cm	250 cm	200 cm
4.110.003.096	**250x180 KE**	250 cm	180 cm	200 cm

Other sizes and configurations as well as special designs are available upon request.
Special coloursor individual corporate design possible.



The work tent of the KE series provides sufficient space, a water-repellent, robust tent cloth and two additional zip fasteners by use of which one side can be rolled up completely.









Special designs:
Our extra standard.

When it comes to special tent designs, we feel obliged to make things as easy as possible for you. There is hardly a wish we cannot fulfil: From additional viewing windows and variable tent doors to the convenient heating and ventilation.

Viewing windows.

You prefer a little bit more light? If requested, we integrate window modules to the side walls of the tent versions you choose.

Variable tent doors.

You need an alternative in addition to or in place of the standard tent entrance? We'd happily produce triangular doors and further variants for you.

Supply openings.

You would like to offer your welding staff in the tent optimum air conditioning? We'd happily integrate one or more ventilation openings for you.

Show your colours.

Use the corporate design of your company to turn our assembly work tents into a striking symbol of your commitment:

This comprises the logo imprint as well as the corporate colours. Our principle of the greatest possible flexibility conceivable also applies to the assembly work tent in the corporate design of your company. This refers to all tents with pitched and flat roofs as well as to their size and the various special design options.



Assembly work tents and screen fences – further information …

Special designs:



Window
Additional triangle-shaped plastic foil window.
Art. no. 6.400.000.028



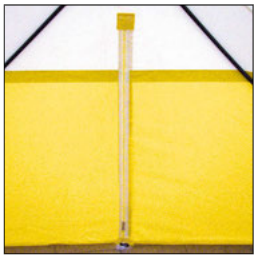
Ventilation opening KE series
Additional ventilation opening for work tents of the KE series.
Art. no. 6.400.000.024



Triangular door rear wall
An additional back door.
Art. no. 6.400.000.010



Reflective strips
The reflective strips are grey, have a width of 5 cm and are sold by the meter.
Art. no. 6.400.000.026



Zip fastener
For all models.
Length 1 m:
Art. no. 6.400.000.020
Length 2 m:
Art. no. 6.400.000.022



Ventilation opening
For exhaust discharge.
Art. no. 6.400.000.025



Carrying handles
Simply carry the tent from one site to the next.
Art. no. 6.400.000.065



Outlet
For an air hose to supply fresh air or to extract dust from inside the tent.
Art. no. 6.400.000.027

Accessories:



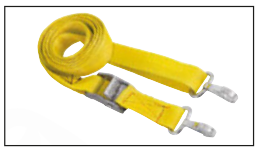
Transport bag
Type 180:
Art. no. 6.400.000.004
Type 250:
Art. no. 6.400.000.006
Type 300:
Art. no. 6.400.000.008



Water bag
PVC water bag for the mobile fixation of tents.
Length 2,000 mm:
Art. no. 6.400.000.011



Connection piece
To connect 2 tents.
Type 180 TE:
Art. no. 6.400.000.015
Type 250 TE:
Art. no. 6.400.000.016



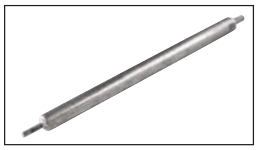
Tensioning strap
Length 2.5 m, with 2 hooks and adjustable length.
Art. no. 7.210.000.036



Flat-head tent peg
Suitable for the magnetic holder.
Length 200 mm:
Art. no. 6.400.000.014
Length 400 mm:
Art. no. 6.400.000.018



Magnetic holder
For the safe attachment on metal surfaces. Suitable for use with flat-head tent pegs.
Art. no. 7.200.000.020



Handle for easily removing the magnet
Unscrew the eyelet from the magnet, screw on the handle, remove the magnet. That's it.
Art. no. 6.400.000.075



Leather belt with magnetic holder
So you always have the magnets at hand and keep your hands free.
Art. no. 7.400.000.086



Suction cup holder
For hooking tensioning straps onto smooth glass, plastic or metal surfaces.
Art. no. 6.400.000.080



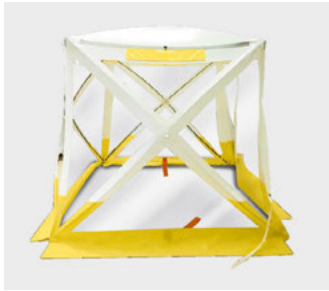
PVC storage bag
For storing flat-head tent pegs, tensioning straps, suction cups etc.
Art. no. 6.400.000.013



Telescopic rod
With T-piece on rubber feet.
Art. no. 6.400.000.038

Feel free to contact us, we will solve your problem!

In addition to our standard range of products we can also provide a variety of further solutions.



Clear view outside:

If requested, the tent walls can also be made entirely of transparent foil.

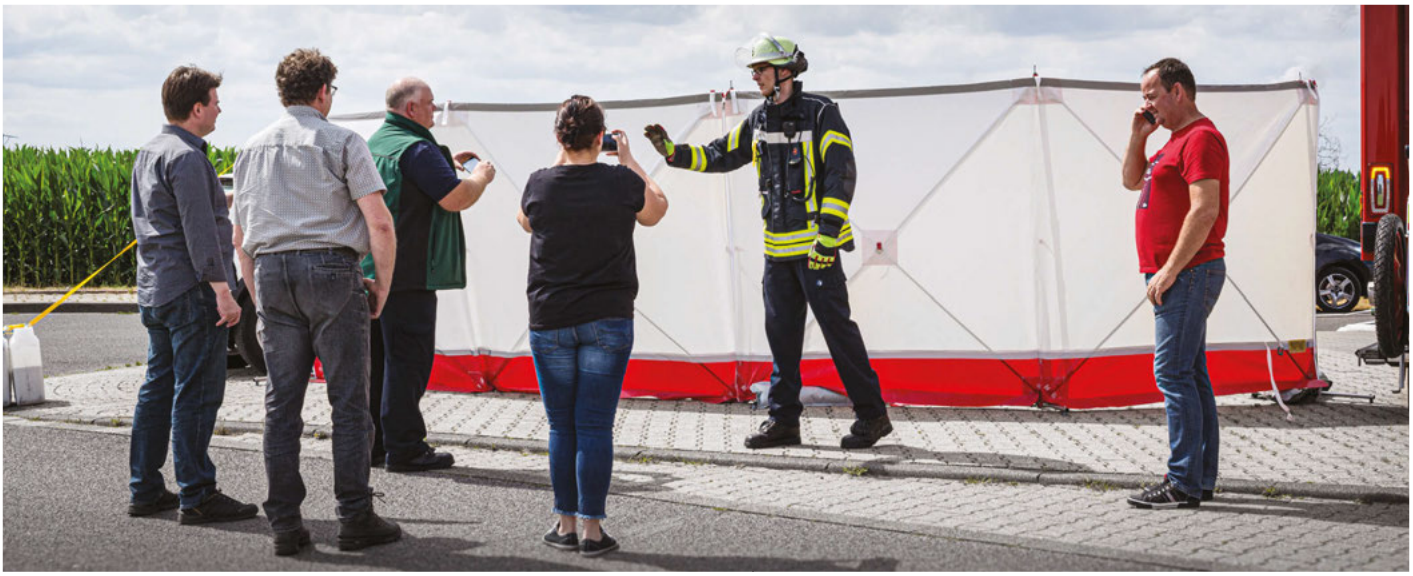
This enables a 360 degree view while working inside the tent.



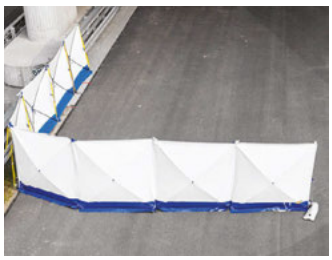
Cleanroom tent / Dust collection tent:

Ideal for fresh air supply or for dusty work. The workplace is completely enclosed by the tent. With an air hose, the dust particles are sucked off directly to an air cleaner. The tent is quickly erected and there is no need to install a dust wall. Especially in rooms with high ceilings and large halls, the dust collection tent is a practical solution.

You have questions?
Your Trotec tent expert:
Marc Pluijmaekers
Tel.: +49 2452 962-481
tent@trotec.com







Trotec VarioScreen:
Mobile visual protection for rescue teams and emergency personnel.

We have something against rubberneckers!

Whether you're working with the fire brigade, police, rescue services or a technical relief organisation – when you're on an emergency deployment, often every second counts. Unfortunately it is more and more often the case that emergency personnel on site are kept from doing their work or obstructed in carrying out their duties by shameless rubberneckers. Curious onlookers cause considerable damage by obstructing rescue operations and their progress. Using the expressly erected screen fence VarioScreen from Trotec, you can protect the victims against unnecessary exposure and simultaneously ensure that your team is shielded and can focus on their work.

For use on motorways, in open terrain or within buildings

One person suffices to set up the modular screen fence within seconds and in only a few steps. By means of extra-strong zipper connections, the screen fence with its height of 1.8 m can be extended from 7 m to any length. And just as quickly as the screen fence has been set up it is dismounted again and stowed away in the transport bag without taking up much space.

Convincing in the field:

- Stably set up by one person in only a few seconds
- Quickly ready for use with suitable accessories in every place and in every weather
- Space-savingly and easily stored away in a compact carry bag
- Can be brought along in any emergency vehicle
- Easiest handling, no training required
- Can be extended to any length
- Easy cleaning
- Wide range of available models, a variety of colours, individually configurable



Watch the video to convince yourself of the advantages of the screen fence VarioScreen:

Visual protection within seconds: One person only needs a few steps to erect the VarioScreen screen fence. Disassembly is also uncomplicated and quickly done.

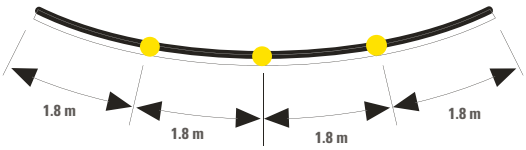

1. Unpack


2. One person is enough.

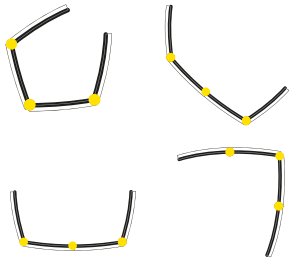

3. Erect.


4. That's it!

Example set-ups and dimensions







Technical Data

Dimensions
Screen fence in set-up state: Length: 7.2 m x height: 1.8 m
4 single elements with: Length: 1.8 m x height: 1.8 m

Material
The visual protection is designed of PVC fabric, the dirt-collecting edge is also made of PVC. Both materials are durable, opaque, tear-resistant and flame-retarding in compliance with DIN 4102 B1.
2 reflective strips on the outside.

Rod assembly
Made of fibreglass with flexible aluminium ball joint discs – especially robust and lightweight.

Transport bag
Dimensions: Length: 1.35 m x width: 0.3 m x height: 0.3 m
Weight: 16 kg (incl. screen fence)
Material: PVC
Properties: Robust, space-saving and easy-to-transport

Colour combinations

With the combinations red/white, blue/white, yellow/white and pure white, suitable colours for every type of emergency personnel are available as standard. Furthermore, naturally also individual colour variants and logo imprints can be ordered.


red/white


blue/white


yellow/white


pure white


individual



Screen fence VarioScreen – with lateral extensions on the outer edges				
Art. no.	**Colour**	**Width**	**Height**	**Version**
4.110.000.012	**pure white**	720 cm	180 cm	not divisible
4.110.000.010	**yellow/white**			
4.110.000.013	**red/white**			
4.110.000.014	**blue/white**			



Screen fence VarioScreen – divisible in the centre – with lateral extensions on the outer edges				
Art. no.	**Colour**	**Width**	**Height**	**Version**
4.110.000.015	**pure white**	720 cm	180 cm	divisible
4.110.000.016	**yellow/white**			
4.110.000.018	**red/white**			
4.110.000.017	**blue/white**			

Optional extras are not a problem

In order to respond to the special requirements posed by different security, emergency and rescue service organizations, Trotec offers you the possibility to also implement special requests and additional equipment for the screen fence VarioScreen.

Contact us, we'll find the suitable solution for you!

Your Trotec tent expert:
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TROTEC

Dealer:

TRT-MAMEDA-WM-02-EN

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