



# Schwank TR-series

Schwank presents the TR series: an indirect gas-fired unit air heater that is ideal for industrial applications.

## Characteristics of the Schwank TR series:

- Robust tubular heat exchanger
- Variable air distribution
- Modulating burner control
- Gradient control
- Low-maintenance
- Simple 2-wire control



**Schwank**  
Heating. Cooling. Systems.

## General

For those searching for a "reliable cost effective" unit air heater, the Schwank TR is certainly the best choice. This modern air heater has all the features which are usually associated to heaters with high technical specifications, for example variable air distribution, modulating burner and fan and a very clever gradient control, all being completely maintenance friendly. The TR-range consist of 4 capacities from 80 to 150 kW.

## Horizontal and vertical air distribution

Characteristically for these types of air heaters are the S-shaped tubes forming the heat exchanger with an atmospheric gas burner. The design of the tubular heat exchanger makes it possible to tilt the air heater, so that the heater can direct the air both horizontally and vertically downwards (TR 10-60; max. 6m.). The burner can modulate from 100% to 60% while the fan remains at 100% full power. This promotes a constant distribution of warm air in the room. The room thermostat determines whether the burner is used at full or partial capacity on the basis of the difference between the actual temperature and the desired (set) temperature. In practice, this means that the heater will only operate at full capacity during the start-up period (e.g. in the morning) and will use partial capacity to maintain the room temperature for the rest of the time.

## Gradient control

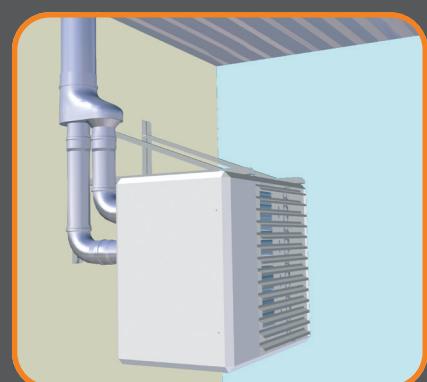
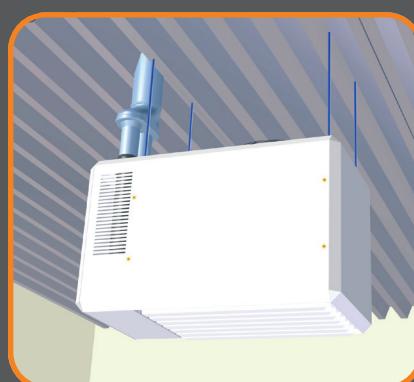
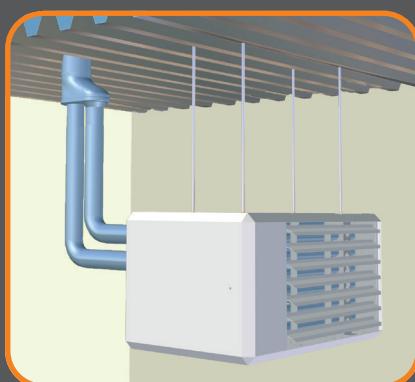
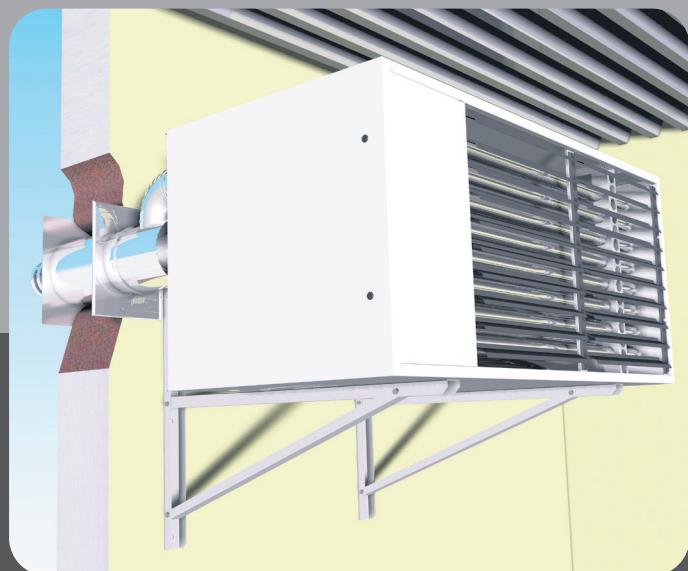
The heaters are also provided with a vertical gradient control (or delta T-Control). When the burner is not in use, the air heater can function as a circulation unit. A sensor in the air heater and a sensor in the room thermostat constantly measure the difference between the temperature differences between the two. Should the temperature gradient increase beyond the set value, the unit will switch on the fan and circulate the warm air. Naturally, the TR also has a summer ventilation setting.

## Suspension

The TR has 2 suspension options:

- Brackets (art. no. GA8580) for wall mounting, consisting of 2 x 3 steel U-profiles. The heater can be placed on top of both supports and can also be suspended from them. Suitable for all types (GA8675 for TR150).
- threaded rods for suspension from the ceiling. The top of the TR-heater is provided with M10 fastening points in which threaded rods can be inserted. Suitable for all types.

The flue terminals are concentric and have a diameter of 130mm (connection on the heater) and 200mm (diameter outer pipe).



## Control

There are 3 controlling options for the TR series. The MultiTherm is an intelligent thermostat which gets the best from the TR heater. Thanks to a number of functions which are simple to operate, a maximum comfort level can be achieved at a minimum energy consumption.

### MultiTherm S

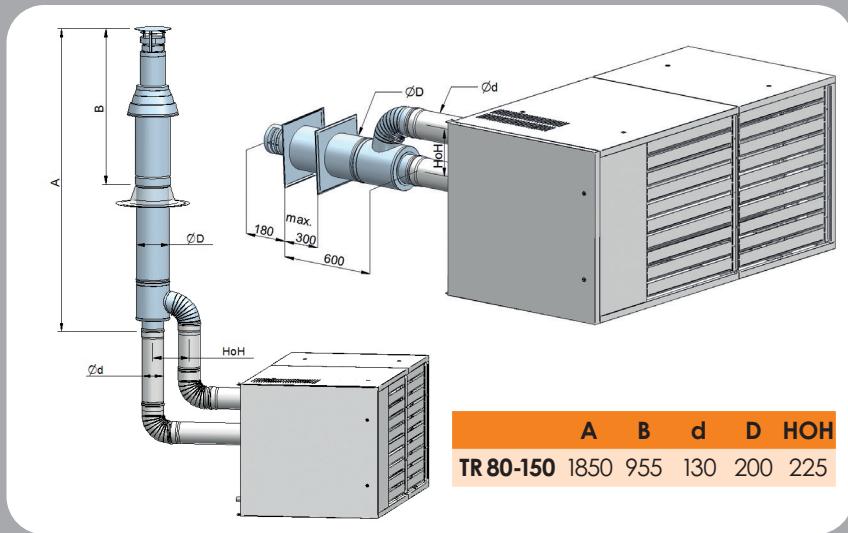
The Multitherm S is a thermostat, which the user can set at the desired room temperature incorporating the following additional features;

- Permanent display of the room temperature
- Modulates on room temperature
- Summer ventilation
- Controls 1-8 heaters
- Failure diagnosis and reset per unit air heater
- Wired in twisted pair screened cable

### MultiTherm C

The MultiTherm C is a 7-day programmable thermostat, incorporating an optimising program, and provided with the following functions:

- 7 day program
- 10 different on/off programs
- Modulates the heater according to the room temperature
- Frost protection
- Keyboard locking
- Summer/winter time
- Compensation wall influence
- Manual override
- Summer ventilation
- Controls 1-8 heaters
- Failure diagnosis and reset per unit air heater
- Wired in twisted pair screened cable



### Multi Control Unit

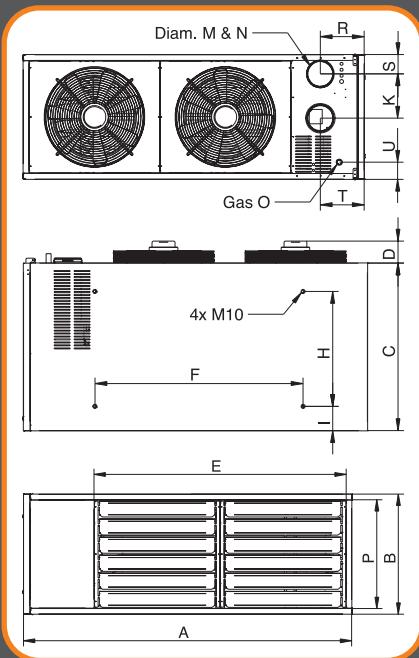
This is an interface board for building management systems (0-10 V) with various input and output signals.



MultiTherm S  
(art.nr. IX3911)



MultiTherm C  
(art.nr. IX3912)



Measurements (mm)	TR 80	TR 100	TR 125	TR 150
A	1737	1737	1737	1737
B	635	800	970	1135
C	847	847	847	847
D	120	120	140	140
E	1330	1330	1330	1330
F	1055	1055	1055	1055
H	600	600	600	600
I	124	124	124	124
K	225	225	225	225
M	ø130	ø130	ø130	ø130
O	3/4"	3/4"	3/4"	3/4"
P	567	732	902	1067

## Technical data TR-series

Type	Unit	TR 80	TR100	TR125	TR150
Nominal heat input max. (h.i.)	kW	81.0	105.0	132.0	152.0
Nominal heat input min. (h.i.)	kW	56.0	73.5	95.0	110.0
Efficiency max. power	%	92.3	93.2	92.3	92.5
Efficiency min. power	%	90.4	91.2	90.7	91.0
Maximum heat output	kW	74.8	98.3	121.8	140.6
Minimum heat output	kW	50.6	67.0	86.2	100.1
Air output (warm)	m3/h	8,750	10,400	14,250	16,000
Throw horizontal	m	30	30	33	35
Voltage (50Hz)	V	230	230	230	230
Electrical power	W	2600	750	1100	1500
Electrical current	A	2.6	3.3	4.8	6.5
Sound level (@ 5 metre)	dB(A)	52	54	60	63
Weight	kg	150	200	230	260
Gas consumption natural gas (G20)	m3/h	8.6	11.2	14.0	16.1
Gas consumption propane (G31)	kg/h	6.4	8.4	10.5	12.1
Gas connection	G"	3/4"	3/4"	3/4"	3/4"
Min. suspension height hor. throw	m	1.7	1.7	1.7	1.7
Max. length flue vertical*	m	9	9	9	9
Max. length flue horizontal	m	6	6	6	6

\*for each 90° elbow, 1.5m. less; for each 45° elbow, 1m. less

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