



Winterwarm TRC-series

Winterwarm presents the TRC series: a unit air with a centrifugal fan suitable for applications with ventilation and/or connection to a duct.



Winterwarm
heating solutions 

Characteristics of the TRC series:

- Robust tubular heat exchanger
- Horizontal or vertical orientation
- Modulating output
- Delta T function for de-stratification effect
- Air intake from top, bottom and/or rear
- Modular construction
- Available pressure up to 300 Pa
- Simple two wire connection

The TRC is the centrifugal range of the TR series - the industrial air heaters from Winterwarm. Characteristics of the TR air heaters are the S-shaped heat exchanger tubes with an atmospheric gas burner. This type of heat exchanger makes it possible to rotate the air heater so that the appliance can blow horizontally or vertically downwards.

Efficient heating

Both burner and fan modulate (100% and 65%) which ensures efficient heating of the room. The appliances are also equipped with a differential thermostat (or Delta T adjuster) allowing the appliance to re-circulate any available warm air before the burner switches on. In addition the appliance can be adjusted to provide ventilation only (summer position).

TRC applications

The TRC is modular in construction. The basic unit comprises the heater module (1) with a centrifugal fan (2) behind. This can supply 60 Pa, 120 Pa, 180 Pa, 240 Pa or 300 Pa pressure. The necessary pressure is determined by the resistance of the modules which are to be placed in front or behind, e.g. ducting on the front. The appliance has a special flange (5) for connecting to a duct.

The TRC is often used to bring in external fresh air especially where there is extraction of polluted air from the factory floor (e.g. welding processes). The appliance can be connected to an outside wall with the flange for this purpose. The burner can be switched off in the summer and the system can be used for ventilation only. It is also possible, however, to mix outside air

with the air from the space. This is achieved by means of a damper section (3) whose position can be adjusted as required (manually or motorised). A coarse dust filter (4) can also be placed in front of the valve section to keep the air in a room as clean as possible.

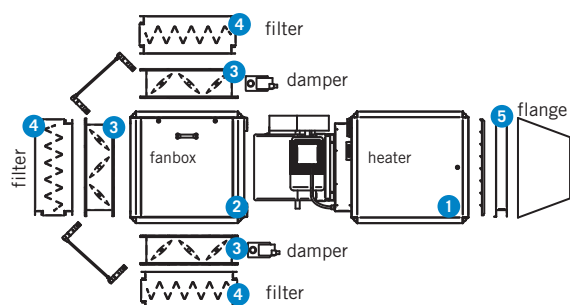
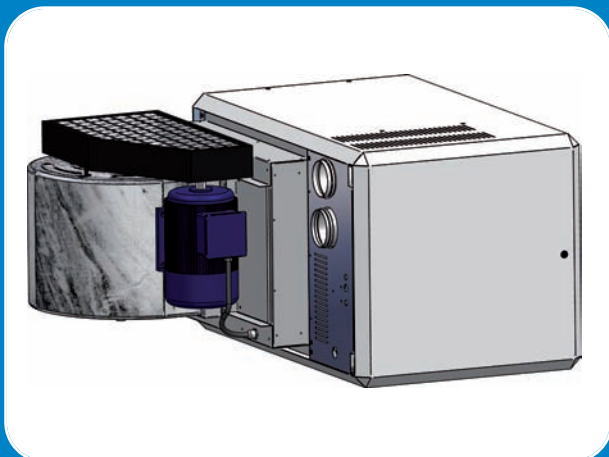


Suspension and control

The TRC appliances have M10 attachment points on the top and the back where threaded bars can be screwed in. The MultiTherm thermostat controls the TRC. Maximum comfort, with minimum energy consumption can be achieved by means of several adjustable functions. The MultiTherm also controls the Delta T function. A sensor in the air heater and a sensor in the room thermostat continuously measure the difference between the temperature on the work floor and near the heater;

Modules contributing to pressure loss:

Ventilator housing	20 Pa
Dampers (2 part)	10 Pa
Filter section (EU 2), not polluted	40 Pa
Outside air grating	10 Pa



if it becomes more than the set value, the fan will receive a signal and start recirculation. The Delta T function can be switched off if not required.

The MultiTherm is a digital room thermostat, available in 2 versions:

MultiTherm S (MTS)

- Permanent display of the room temperature
- Allows air heater to control the room temperature
- Summer ventilation
- Compensation for influence of walls
- Frost protection
- Failure diagnosis and re-set (for each heater)
- 2 wire connection
- Control of 1-8 appliances possible

MultiTherm C (MTC) - a clock thermostat with the same basic functions as the MTS plus:

- Clock function
- 10 programmable time blocks
- Overtime function
- Keyboard lock

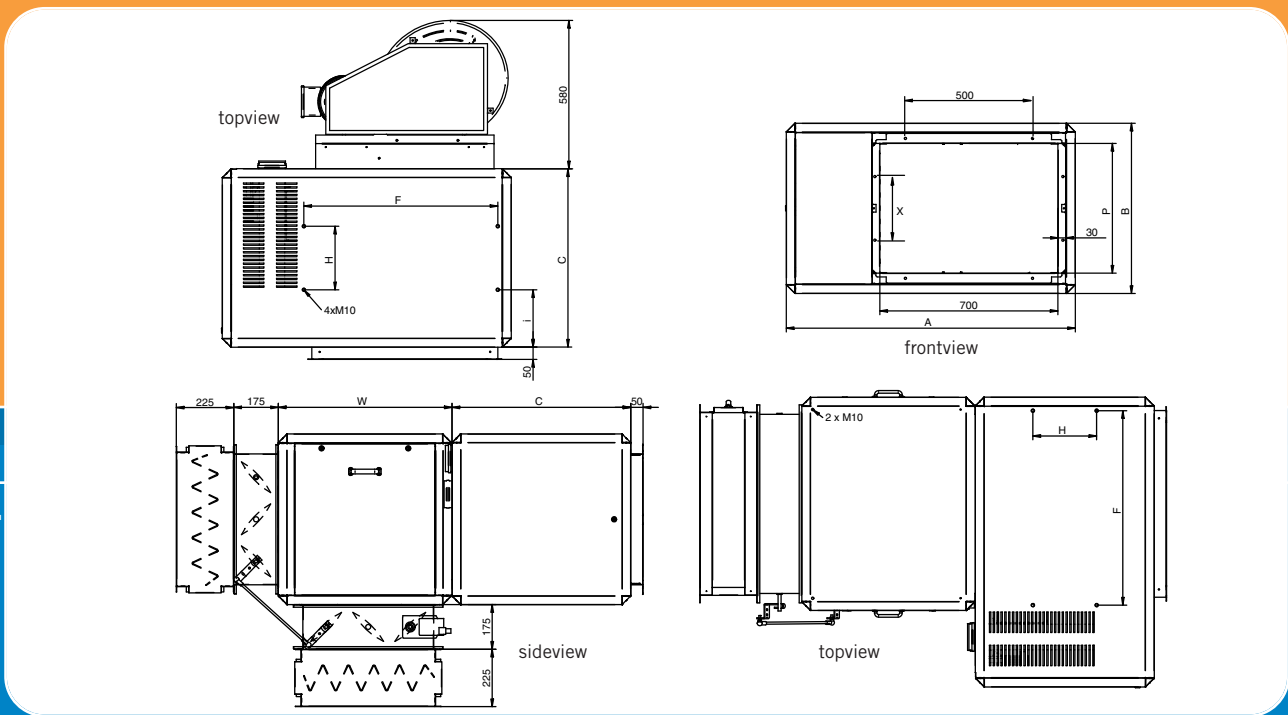
The TRC appliances can also be connected to a building management system (0-10 V) with various input/output signals. Winterwarm has an interface board available for this purpose - the Multi Control Unit (MCU). For example the appliances can be controlled by the temperature of the incoming (outside) air with this.



MultiTherm C
(art.nr. IX.3912)



MultiTherm S
(art.nr. IX.3911)



Type	A	B	C	F	G	H	I	K	M	O	P	R	S	T	U	W	X
24	1040	540	630	763	426	250	190	110	ø80	1/2"	400	145	95	75	80	680	250
28	1040	540	630	763	426	250	190	110	ø80	1/2"	400	145	95	75	80	680	250
40	1130	540	700	763	426	250	225	140	ø100	3/4"	400	195	95	165	70	680	250
50	1130	670	700	763	550	250	225	140	ø100	3/4"	510	195	95	165	80	680	250
60	1130	1000	700	763	875	580	60	225	ø130	3/4"	850	185	175	165	90	985	500
80	1130	1000	700	763	875	580	60	225	ø130	3/4"	850	185	175	165	90	985	500
100	1130	1250	700	763	1125	580	60	225	ø130	3/4"	1000	185	300	165	60	1135	800

Technical data

Type*	Unit	TR 24C	TR 28C	TR 40C	TR 50C	TR 60C	TR 80C	TR 100C
Nominal heat input max. (nett)	kW	26,0	30,0	43,5	54,0	65,5	87,0	110,0
Nominal heat input min. (nett)	kW	17,5	20,5	30,0	36,5	44,0	59,0	73,5
Efficiency max. power	%	92,1	92,3	91,5	91,6	91,8	92,4	92,0
Maximum heat output	kW	23,9	27,7	39,8	49,5	60,1	80,4	101,2
Mimimum heat output	kW	15,6	18,3	26,6	32,3	39,1	52,9	66,2
Maximum air output	m ³ /h	3000	3000	4000	5000	6000	7500	9000
Throw horizontal max.	m	16	16	22	26	28	30	30
Throw vertical max.	m	5	5	6	7	8	10	11
Electrical supply (50 Hz)	Vac	400	400	400	400	400	400	400
Power consumption (60 Pa)	W	520	520	770	1000	850	1050	1430
Power consumption (120 Pa)	W	570	570	820	1050	1000	1320	1480
Power consumption (180 Pa)	W	620	620	1000	1100	1050	1700	1850
Power consumption (300 Pa)	W	920	920	1270	1450	1620	2230	2900
Gas connection	G"	1/2"	1/2"	3/4"	3/4"	3/4"	3/4"	3/4"
Flue/air connection- parallel	mm	80	80	100	100	130	130	130
Min. suspension height hor. throw	m	1,7	1,7	1,7	1,7	1,7	1,7	1,7
Min. suspension height vert. throw	m	4	4	4	4	4	4	4
Weight	kg	90	95	105	115	180	195	250
Gas category		II2E3P, II2ELL3P, II2ELwLs3P, II2Er3P, I2E(S)B, II2H3P						
Min. supply pressure G20 (E)	mbar	20	20	20	20	20	20	20
Max. gas consumption G20 (E)	m ³ /h	2,8	3,2	4,6	5,7	6,9	9,2	11,6
Burnerpressure gasvalve high (L)	mbar	9,5	9,0	7,3	7,3	8,0	7,8	8,0

*) Values valid for all available pressures (60 Pa – 300 Pa) if not indicated otherwise.

Winterwarm: leading

Winterwarm has been engaged in the development, production and sales of industrial heating in Europe since 1936.

The company not only specialises in indirect fired unit air heaters, but also sells radiant tubes, rooftops, water heaters, destratification fans and direct fired heaters for the agricultural and horticultural industry.



Winterwarm
heating solutions 

Winterwarm BV

Industrieweg 8 Winterswijk The Netherlands
P.O.Box 36 NL-7100 AA Winterswijk The Netherlands
Tel. +31 (0)543 54 63 00 Fax +31 (0)543 54 63 10
www.winterwarm.nl info@winterwarm.nl

Winterwarm UK Ltd.

Unit H3, Taylor Business Park, Warrington Road,
Risley, Warrington, Cheshire WA3 6BL
Tel. +44 (0)870 90 89 906 Fax +44 (0)192 57 62 996
www.winterwarmuk.com enquiries@winterwarmuk.com

Famous Winterwarm quality

- 70 years of experience
- ISO 9001-2000 certified
- Quick delivery
- Reliable