

Compact Tube Furnaces



RD 30/200/11

RD 30/200/11 - RD 30/200/13

The RD product line furnaces convince with their unbeatable price-performance ratio, very compact outer dimensions and their low weight. These all-rounders are equipped with a working tube which also serves as support for the heating wires. Thus, the working tube is part of the furnace heating which has the advantage that the furnaces achieve very high heat-up rates. The furnaces can be supplied for 1100 °C or 1300 °C.

Both models are designed for horizontal application. If the customer requires protective gas atmosphere, a separate working tube incl. gas supply system 1, e.g. made of quartz glass, must be inserted in the working tube.



Over-temperature limiter

- Tmax 1100 °C or 1300 °C
- Housing made of sheets of textured stainless steel
- Inner diameter of the tube: 30 mm, heated length: 200 mm
- Working tube made of C 530 material including two fiber plugs as standard
- Thermocouple type K (1100 °C) or type S (1300 °C)
- Solid state relays provide for low-noise operation of the heating
- Heating wires wound directly around the working tube resulting in very fast heat-up rates
- Controls description see page 60

Additional equipment

- Over-temperature limiter with adjustable shut-off temperature for thermal protection class 2 according to EN 60519-2 as over-temperature protection for furnace and load
- Gas supply system for non-flammable protective or reactive gas

Model	Tmax °C ¹	Outer dimensions in mm			Inner tube Ø mm	Heated length/mm	Length constant temperature ΔT 10 K in mm	Connected load kW	Minutes to Tmax ²	Electrical connection*	Weight in kg
		B	T	H							
RD 30/200/11	1100	350	200	350	30	200	65	1.5	20	1-phase	12
RD 30/200/13	1300	350	200	350	30	200	65	1.5	25	1-phase	12

¹Tmax. is reached outside the tube. Realistic working temperature inside the tube is approx. 50 °C lower.

*Please see page 60 for more information about supply voltage

²If connected at 230 V 1/N/PE resp. 400 V 3/N/PE



R 50/250/12



R 100/750/13

R 50/250/12 - R 120/1000/13

These compact tabletop tube furnaces with integrated control systems can be used universally for many processes. Equipped with a standard working tube of C 530 ceramic and two fiber plugs, these furnaces have an unbeatable price/performance ratio.

- Tmax 1200 °C or 1300 °C
- Housing made of sheets of textured stainless steel
- Outer tube diameter of 50 to 120 mm, heated length from 250 to 1000 mm
- Working tube of C 530 ceramic including two fiber plugs as standard equipment
- Type S thermocouple
- Solid state relays provide for lownoise operation
- Standard working tube see chart on page 43
- Controls description see page 60

Additional equipment

- Over-temperature limiter with adjustable cutout temperature for thermal protection class 2 in accordance with EN 60519-2 as temperature limiter to protect the furnace and load
- Charge control with temperature measurement in the working tube and in the furnace chamber outside the tube see page 46
- Three-zoned design with HiProSystem control (heated length from 750 mm, for 1300 °C models)
- Alternative working tubes see chart on page 43
- Please see page 44 for additional equipment
- Alternative gas supply systems for protective gas or vacuum operation see page 44
- Process control and documentation with Controltherm MV software package see page 63



R 50/250/13 with gas supply system 2

Model	Tmax °C ³	Outer dimensions in mm			Outer tube Ø /mm	Heated length mm	Length constant temperature ΔT 10 K in mm	Tube length in mm	Connected load kW	Electrical connection*	Weight in kg
		W	D	H							
R 50/250/12	1200	400	240	490	50	250	80	450	1.2	1-phase	20
R 50/500/12	1200	650	240	490	50	500	170	700	1.8	1-phase	25
R 100/750/12	1200	1000	360	640	90	750	250	1070	3.6	1-phase	80
R 120/1000/12	1200	1300	420	730	120	1000	330	1400	6.0	3-phase ²	170
R 50/250/13	1300	400	240	490	50	250	80	450	1.3	1-phase	35
R 50/500/13	1300	650	240	490	50	500	170	700	2.4	1-phase	48
R 100/750/13 ¹	1300	1000	360	640	90	750	250	1070	4.4	3-phase ²	120
R 120/1000/13 ¹	1300	1300	420	730	120	1000	330	1400	6.5	3-phase ²	230

¹These models also available with three-zones

²Heating only between two phases

*Please see page 60 for more information about supply voltage

³Tmax. is reached outside the tube. Realistic working temperature inside the tube is approx. 50 °C lower.