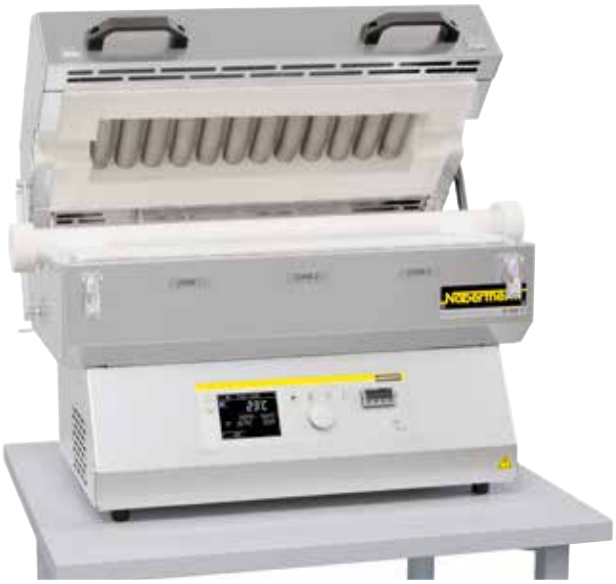
Split-Type Tube Furnaces for Horizontal or Vertical Operation up to 1300 °C

These tube furnaces can be used for horizontal (RSH) or vertical (RSV) operation. The split-type design makes it easy to change the working tube. It allows for a comfortable exchange of various working tubes (e.g. working tubes made of different materials).

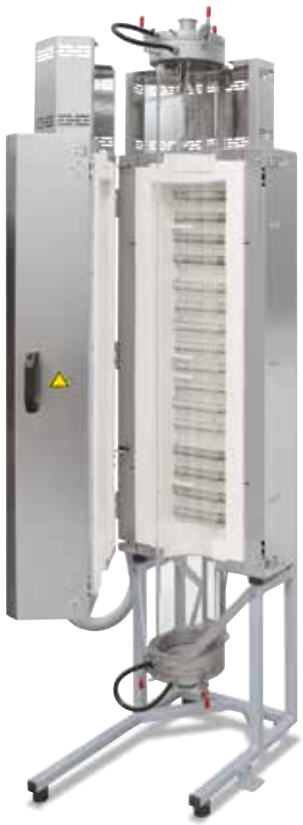
Using a wide range of accessories, these professional tube furnaces can be optimally tailored for your process. By adding different gas supply packages, you can work in a protective gas atmosphere, with gases or in a vacuum. In addition to the convenient standard controllers, modern PLC controls can also be used to control the process.



Tube furnace RSH 50/500/13

Standard Equipment

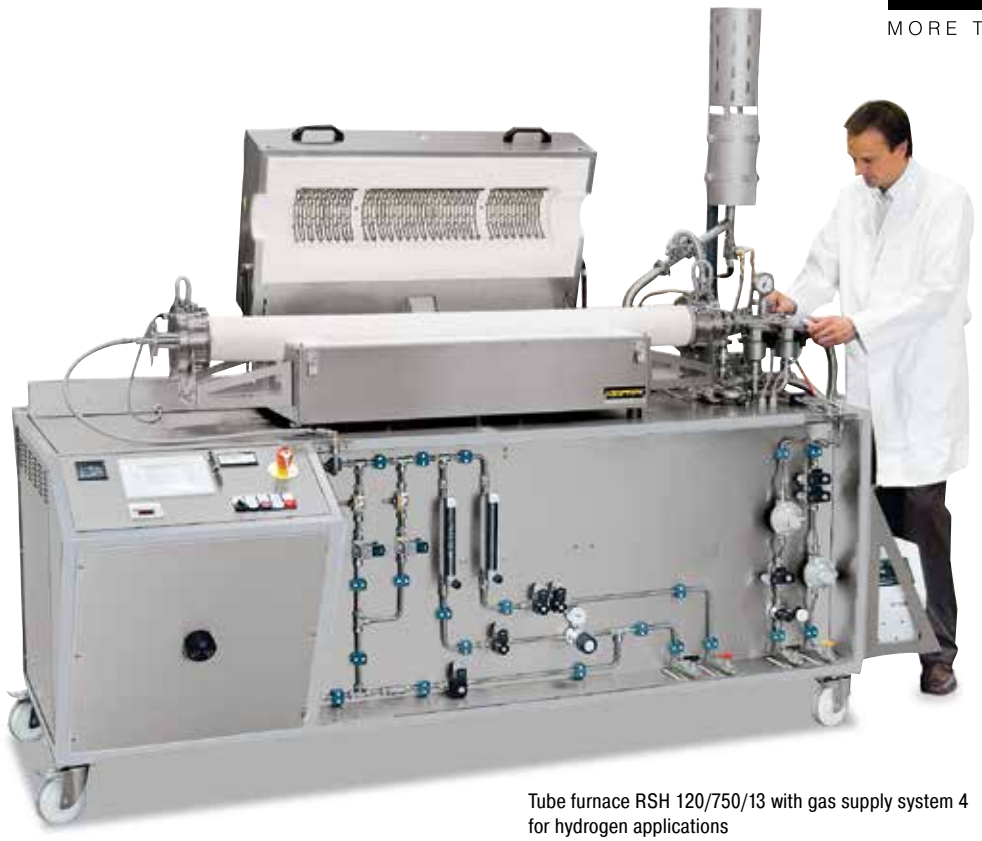
- Tmax 1100 °C or 1300 °C
- Single-zoned design
- RSV models with frame for vertical operation
- Split-type design for simple insertion of the working tube (opening temperature < 180 °C)
- Ceramic working tube C 530 including two fiber plugs for operation under air see page 56
- Thermocouple type N (1100 °C) or type S (1300 °C)
- Heating elements on support tubes provide for free radiation see page 62
- RSH: switchgear and control unit integrated in furnace housing
- RSV: switchgear and control unit separate from furnace in own wall or standing cabinet
- Controller B410, alternative controllers see page 75



Tube furnace RSV 170/1000/11 with gas-tight quartz glass working tube and water-cooled vacuum flanges

Additional Equipment

- Charge control with temperature measurement in the working tube see page 62
- Three-zone control for optimization of temperature uniformity see page 62
- Alternative working tubes see chart page 56
- Cooling systems for accelerated cooling of the working tube and charge
- Gas supply systems 1,15 or 2 for non-flammable protective or reactive gas operation see page 58
- Gas supply packages 3 or 4 for hydrogen operation see page 60
- Vacuum package to evacuate the working tube see page 61

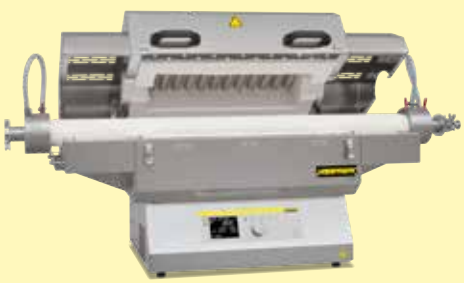


Tube furnace RSH 120/750/13 with gas supply system 4 for hydrogen applications

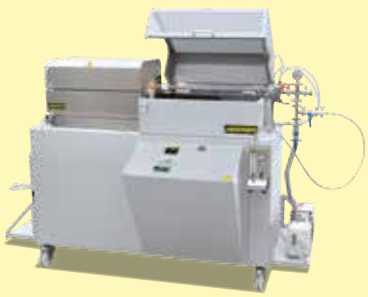
Model	Tmax[1]	Outer dimensions[2] in mm			Max. outer tube Ø	Heated length	Length constant temperature[1] +/– 5 K in mm		Tube length	Connected load[4] in kW		Electrical	Weight
	in °C	W[3]	D	H	in mm	in mm	single zoned	three zoned	in mm	1100 °C	1300 °C	connection*	in kg
RSH 50/250/..		420	375	510	50	250	80	-	650	1.9	1.9	1-phase	25
RSH 50/500/..		670	375	510	50	500	170	250	850	3.4	3.4	1-phase[5]	36
RSH 80/500/..		670	445	580	80	500	170	250	850	6.6	6.6	3-phase[5]	46
RSH 80/750/..	1100	920	495	630	80	750	250	375	1100	10.6	12.0	3-phase[5]	76
RSH 120/500/..	or	670	445	580	120	500	170	250	850	6.6	6.6	3-phase[5]	46
RSH 120/750/..	1300	920	495	630	120	750	250	375	1100	10.6	12.0	3-phase[5]	76
RSH 120/1000/..		1170	495	630	120	1000	330	500	1350	13.7	13.7	3-phase[5]	91
RSH 170/750/..		920	495	630	170	750	250	375	1100	10.6	12.0	3-phase[5]	76
RSH 170/1000/..		1170	495	630	170	1000	330	500	1350	13.7	13.7	3-phase[5]	91
RSV 50/250/..		545	590	975	50	250	80	-	650	1.9	1.9	1-phase	25
RSV 50/500/..		545	590	1225	50	500	170	250	850	3.4	3.4	3-phase[5]	36
RSV 80/500/..		615	590	1225	80	500	170	250	850	6.6	6.6	3-phase[5]	46
RSV 80/750/..	1100	665	590	1475	80	750	250	375	1100	10.6	12.0	3-phase[5]	76
RSV 120/500/..	or	615	590	1225	120	500	170	250	850	6.6	6.6	3-phase[5]	46
RSV 120/750/..	1300	665	590	1475	120	750	250	375	1100	10.6	12.0	3-phase[5]	76
RSV 120/1000/..		665	590	1725	120	1000	330	500	1350	13.7	13.7	3-phase[5]	91
RSV 170/750/..		665	590	1475	170	750	250	375	1100	10.6	12.0	3-phase[5]	76
RSV 170/1000/..		665	590	1725	170	1000	330	500	1350	13.7	13.7	3-phase[5]	91

[1]Values outside the tube. Difference to temperature inside the tube up to + 50 K
[2]External dimensions vary when furnace is equipped with additional equipment. Dimensions on request.
[3]Without tube
[4]At 415 volt
[5]At 3-phase execution an N conductor ist required (3/N/PE)

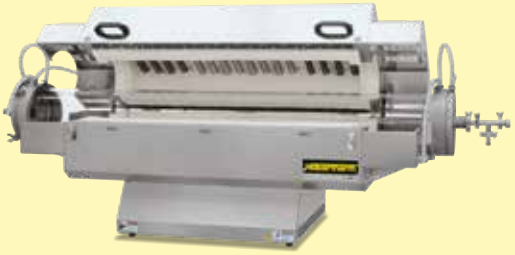
*Please see page 75 for more information about supply voltage



Tube furnace RSH 80/500/13 with gas tight tube and water-cooled flanges



RSH 120/500/13S with sliding furnace



RSH 210/1000/11S with quartz glass working tube and gas supply package 2