

## Tilting Furnace KC and Bale-Out Furnace TC SiC-Rod-Heated, for Melting



KC 180/14



TC 80/14



Heated on both sides by high performance SiC rods

The electrically heated tilting and bale-out furnaces of the KC and TC product lines are characterized by a higher melting performance than achievable with wire heated melting furnaces. These furnaces are designed for permanent operation at working temperatures.

- Tmax 1450 °C, also suitable for bronze alloys with a maximum melt temperature of up to 1320 °C, subject to the condition of crucible
- Heating from two sides by generously dimensioned SiC rods, temperature uniformity
- Simple exchange of individual heating elements
- Heat operation by thyristors in phase-angle mode with performance control:  
The resistance of the SiC rods changes with temperature and age. Performance control ensures constant power of heating irrespective to the condition of the heating elements.
- High melting performance with temperature uniformity
- Insulation constructed in multiple layers with lightweight refractory bricks on the hot face
- SiC-Crucible
- Electro-hydraulic tilting system with flame resistant HFC hydraulic fluid (KC models)
- Safe, even, and precise pouring thanks to optimum pivot point in the furnace and manual throttling valve operation (KC models)
- Emergency outlet for safe draining of the melt in case of crucible breakage
- No exhaust gas discharge needed
- Over-temperature limiter in furnace chamber for protection against overheating. The limiter switches the heating off when the set limit temperature is reached, and only switches it back on after the temperature has fallen again
- Furnace chamber control with temperature measurement behind the crucible
- For Information on temperature regulation see page 24



KC 150/14

### Additional equipment

- Work platform for simplified loading
- For information on other accessories see page 22



Switchgear with thyristors in phase angle operation for economic power consumption

Model	Tmax °C	Crucible	Capacity		Outer dimensions in mm			Heating power in kW <sup>4</sup>	Weight in kg	Melting performance <sup>3</sup>	
			Kg Al	Kg Cu	W	D	H			kg/h Al	kg/h Cu
KC 20/14	1450	A 150	45	150	1710	1900	1050	36	1500	-	120 <sup>2</sup>
KC 40/14	1450	A 300	90	300	1770	1900	1100	36	1600	-	120 <sup>2</sup>
KC 80/14	1450	TCP 287	200	650	1880	1970	1160	48	1900	-	180 <sup>2</sup>
KC 150/14	1450	TCP 412	300	1000	2000	2070	1300	66	2700	-	220 <sup>2</sup>
KC 180/14	1450	TCP 412H	-	1000	2000	2070	1500	99	3000	-	230 <sup>2</sup>
TC 20/14	1450	A 150	45	150	1200	1250	930	36	830	80 <sup>1</sup>	120 <sup>2</sup>
TC 40/14	1450	A 300	90	300	1260	1250	1020	36	950	80 <sup>1</sup>	120 <sup>2</sup>
TC 80/14	1450	BU 200	200	650	1360	1350	1080	48	1050	120 <sup>1</sup>	180 <sup>2</sup>
TC 150/14	1450	BU 300	300	1000	1450	1320	1300	66	1300	140 <sup>1</sup>	220 <sup>2</sup>

<sup>2</sup>At 1000 °C

<sup>3</sup>The specified melting performances are maximum values. In practice, approx. 80 % are achieved.

<sup>4</sup>Depending on furnace design connected load might be higher



Swing lid with good sealing to collar plate to avoid heat loss over the crucible opening