

Accessories for Bale-Out and Tilting Furnaces



Crucible breakage alarm device under the emergency outlet of a melting furnace

Crucible Breakage Alarm Device (up to T(B)..-/12)

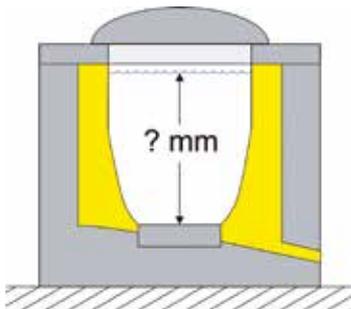
Nabertherm melting furnaces are equipped with emergency outlet. In case of crucible breakage or leaking melt the crucible breakage alarm device will provide for a warning as soon as fluid metal emerges from the emergency outlet. The warning signal of the alarm is both optical, with an signal lamp, and acoustic, using a horn. As additional equipment it is possible to send an alarm as SMS-message to one or more mobile phones. One or more furnaces can be connected to the messaging device in parallel.



Collecting pan under the emergency outlet

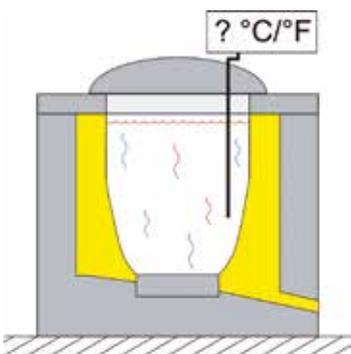
Collecting Pan under the Emergency Outlet

The bale-out furnaces are standardly equipped with an inclined bottom and an emergency outlet for liquid metal in case of a crucible breakage. To collect the liquid melt in case of an emergency the models T..., TB..., K... and KB... can be delivered with a small base frame and a collecting pan. The pan can safely receive full crucible volume and is equipped with a pull-out handle. Unnecessary foundation works can be avoided.



Filling Level Measurement by means of Optical Detection or Weight Loss

When crucible furnaces are used in continuous operation, it can be necessary to monitor the filling level of the crucible and provide for a signal when defined levels are reached. The signal can be either optical, acoustic, or a signal for automatic filling of the crucible. When the minimum level is reached, a signal to fill a crucible is given. On reaching the maximum level this process is stopped. The measurement of fill level can either be done by using a scale under the furnace or by using a measurement probe to detect the fill level and which records the data very precisely independent from external influences.



Separate Bath Temperature Measurement Device

For melting furnaces with only furnace chamber temperature control, a separate bath temperature measurement device can be used to check the bath temperature. The measurement device is suitable for a temperature range from 0 °C to 1300 °C, and can be delivered with different dip pipe lengths (200 mm, 380 mm, 610 mm). Temperature measurement is carried out using a NiCr-Ni thermocouple. The submersion length of the pipe should be 2/3 of the element length to achieve the most ideal reaction time. The average reaction time is 40 seconds. The thermocouple is suitable for all nonferrous metals except phosphor bronze.