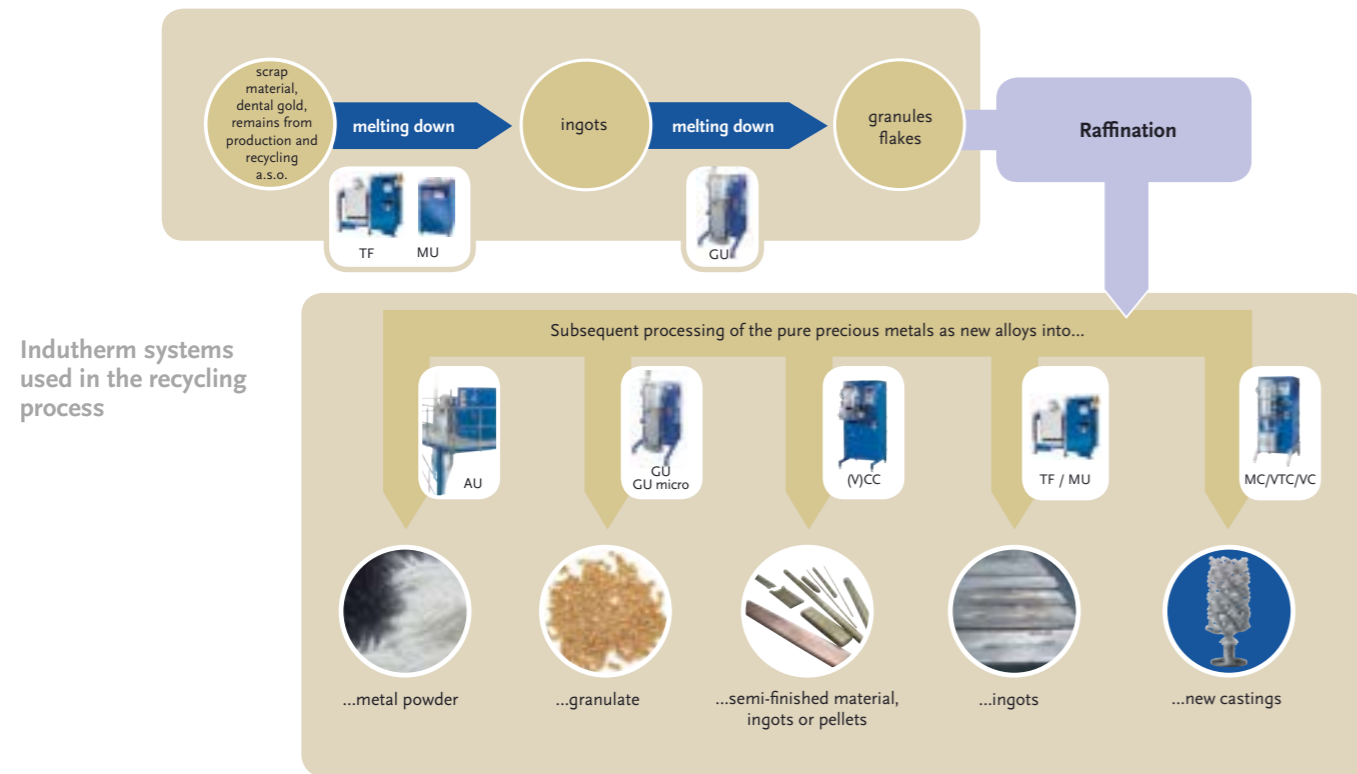


Melting machines for handpouring and recycling



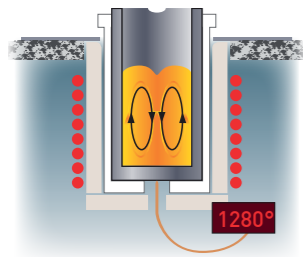
Indutherm systems used in the recycling process



MU / MUV / MUVV series

MU / MUV / MUVV 200 C

high temperature melting machine for steel, platinum, palladium, chrome-cobalt...



Melting by induction technology:
The crucible with the material is located in the core of the induction coil. By generating a strong alternating magnetic field, the result is a strong alternating current in the graphite crucible and in the metal. This leads to fast heating up and thorough mixing of the material.

With the MU- and MUV-series we offer melting machines for many different needs and with crucible capacities from 155 ccm up to 1,200 ccm. The material is molten in open crucibles and poured by hand into the casting mould or ingot mould.

Melting Units MU Series

These melting furnaces are designed to melt gold and silver alloys and as well as aluminium, bronze, brass. Due to the strong induction generator (15 kW) and the low induction frequency the stirring effect of the metal is excellent.

The MU as vacuum casting machine: MUV/MUVV Series

The V-versions include one or two additional extra large capacity vacuum chambers. Evacuating the flask immediately after pouring improves the form filling, reduces porosity and avoids oxidation of the hot metal.



The melting machine MU 200 C

The MU 200 C is designed for melting metals with a high melting point, such as steel, palladium, platinum, chrome-cobalt etc.

	MU 200 MUV/MUVV 200	MU 400-1200 MUV/MUVV 400-1200	MU 200 C MUV/MUVV 200 C
performance			
power max. / electrical connection	3.5 kW 230 V or 6 kW 3x400 V	10-15 kW 3x400 V	15 kW 3x400 V
temperature max.	1300° C / or 1500° C	1500° C	2000° C
		MU/MUV/MUVV 400: 10 kW MU/MUV/MUVV 700: 12 kW MU/MUV/MUVV 900: 15 kW MU/MUV/MUVV 1200: 15 kW	
capacity			
crucible volume	155 ccm = 2.0 kg Au 18ct*	MU/MUV/MUVV 400: 400 ccm = 5.0 kg Au 18ct* MU/MUV/MUVV 700: 700 ccm = 8.5 kg Au 18ct* MU/MUV/MUVV 900: 900 ccm = 11 kg Au 18ct* MU/MUV/MUVV 1200: 1,200 ccm = 14.5 kg Au 18ct*	155 ccm = 2.5 kg Pt *
	(non-)perforated flasks with/without flange	■ up to ø160 mm/400 mm h (MUV/MUVV)	■ ø 160 mm / 400 mm h (MUV/MUVV 200 C)
handling+control			
temp. measurement by thermocouple		■	-
temperature control		■	■
temperature programs		20	-
quality management			
RS 232, Ethernet, USB interface, diagnostic system		■	■
GSM-modem for remote service		○	○

* real capacity for casting / useful volume ■ = standard equipment ○ = optional

Tilting Furnaces for melting and casting large quantities into ingots or shell moulds



TF series

Some metals develop a lot of smoke and oxides during melting. It is better to melt them in open systems, with use of an air absorber.



Ideal for melting large parts: no sealing rod construction reduces the available space.

Power, efficiency and safety

The TF series tilting furnaces are equipped with 32-bit induction generators providing 25 - 60 kW output power (depending on version). Low-frequency tuning means excellent through-mixing of the molten material. All versions are controlled via a console with an LCD display with full text readout. Efficient thermal insulation and electro-magnetic shielding ensure a high level of effectiveness. Comparison tests carried out by a customer proved that the TF 12000 has a higher level of productivity than a competitor model with twice the performance and correspondingly twice the energy costs.

The cost-effective tilting furnaces TF 2000 and TF 4000

The „small“ TF machines have been developed with the focus on least possible energy consumption and on safe and ergonomic handling. The melting unit and crucible can be tilted and locked in position by the user at multiple angles for gentler filling. Such “soft pouring” also prevents damage to the crucible. Pouring off is continuous and gradual, using a pivot lever. The operator is forced to stand to the side of the machine – away from the dangers of

the pouring area. In the rare event of a crucible breaking, the machine is not damaged – all of the assemblies are covered by a separate protective housing, and every model has a large collecting tray under the smelting unit to prevent potential loss of metal.

TF 6000 and TF 12000 – the giants among the tilting furnaces



The large crucible volumes of 6,000 ccm respectively 12,000 ccm gives these machines an enormous capacity. Because of the potentially large weight, the inductor/crucible unit is not tilted manually – it uses a motor drive with a stable shaft. Use of a joystick enables the tilting process to be controlled easily and sensitively.

	TF 2000 / 4000	TF 6000 / 12000
performance		
power max. / electrical connection	25-30 kW 3x400 V	40-60 kW 3x400 V
temperature max.	1500° C	1500° C
	TF 2000: 25 kW	TF 6000: 40 kW
	TF 4000: 30 kW	TF 12000: 40 kW / 60 kW
temperature measurement by thermocouple	■	■
capacity		
crucible volume	TF 2000: 2,000 ccm = 30 kg Au 18 ct *	TF 6000: 6,000 ccm = 90 kg Au 18 ct *
	TF 4000: 4,000 ccm = 60 kg Au 18 ct *	TF 12000: 12,000 ccm = 180 kg Au 18 ct *
handling+control		
tilting by lever	■	-
tilting with motor drive (remote control)	-	■
temperature control	■ by LCD-Display, full text readout	
temperature programs	20	100
quality management		
RS 232, Ethernet, USB interface, diagnostic system	■	■
GSM-modem for remote service	○	■

* real capacity for casting / useful volume ■ = standard equipment ○ = optional