



Multiple-chamber melting furnace

- ➔ For melting contaminated scrap (pyrolysis)
- ➔ High melting capacity (up to 250 t/day)
- ➔ Low energy consumption
- ➔ Low metal loss

MultiMelter[®]

Multiple-chamber melting furnace

The MultiMelter[®] enables the processing of highly contaminated aluminium scrap, (organic build-up), – with particularly economical and environmentally friendly technology due to its integrated pyrolysis.

The multi-chamber melting furnace has several advantages due to its separated functions. On one hand, this provides an enormous melting capacity, on the other hand, the complete conversion of the pyrolysis gases. And finally, the controlled volume of oxygen in the furnace results in minimal metal burn-off. The MultiMelter[®] is the ideal melting furnace for aluminium refining plants and as a re-melter of contaminated scrap.

Components and functions:

- > Heating chamber
 - for melting clean scrap/blocks
- > Pyrolysis chamber
 - for the pyrolysis process
 - for melting contaminated scrap
- > Optional pump chamber
 - for circulation of the molten mass in the furnace
- > Performance capacity up to 250 t net melting capacity per day and 125 t bath content
- > Regenerative burner system

The heating chamber and the pyrolysis chamber are equipped with high-temperature burners. The regenerative burner systems specially developed by Jasper allows the simultaneous use of the pyrolysis gases and the main fuel whilst meeting both the German (TA-Luft) and the European emission limits. The pyrolysis gas partly substitutes the main combustion fuel. The result is lower overall energy consumption.

Air preheating plus waste gas quenching

The use of an EcoReg[®] regenerator enables the preheating of combustion air with an efficiency of over 90%. It also functions as a waste gas quencher for dioxins and furans – thereby avoiding the requirement for a separate quencher to suppress De novo synthesis.

Control and visualisation

A Siemens S7 takes charge of the control process for the entire furnace. This ensures safety and convenience – as the ability of connecting to a PC visualisation system is providing an overview of all key data such as temperature, pressure and oxygen content.

- 1 MultiMelter[®] with PulsReg[®]-Medusa system
- 2 MultiMelter[®] with PulsReg[®]-Zentral system
- 3 MultiMelter[®] heating chamber
- 4 MultiMelter[®] with PulsReg[®]-Medusa system



2



3



4

An overview of our industrial furnace products:

- MultiMelter[®]
- EcoMelter[®]
- Casting furnace GO
- Rotary drum furnace DKO
- Charging
- Alu-Treat[®]

More information at:
www.jasper-gmbh.de

