



RAUCH MAGNESIUM MDO SERIES R



Magnesium holding and dosing furnace MDO with recuperator technology

RAUCH Magnesium dosing furnaces MDO are the answer to the steadily increasing energy prices for electricity. This gas-fired furnace generation achieves up to 30% energy cost savings compared to conventional burners by using preheated combustion air.

At a melt rate of 200 kg/h this is comparable to a saving of 66 tons of CO₂/year - the equivalent to a fleet of 36 cars, each driven 15.000 km/year.

The operating cost savings can be up to 80%, depending on the costs for electrical energy.

As a result

- Cost-efficient heating
- Uniform heat distribution to the crucible
- Exhaust energy is directly used
- Good controllability through electrical heating of the pump chamber
- High life-time of the components
- Spare- and wear part compatibility to the standard MDO

Design

The MDO series R are designed as a two-chamber furnace (melt- and pump chamber), whilst the pump chamber is heated electrically and the melt chamber is heated with recuperator burners.



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Thus the melt level will be kept constant as well as the temperature in the pump chamber, resulting in constant casting conditions.

The thermal impact to the crucible has been optimized with simulations and hot-spots are avoided, this guarantees a long life-time of the crucible. An improved furnace insulation minimizes the overall heat loss.

The furnaces can be equipped with an upward or downward pump system and shot weights can be realized in a range from 0,2 kg to 30 kg and even more.

In combination with our LPS system with pump compensation a shot accuracy of $\pm 0,75\%$ of the shot weight will be achieved (depending on the operating conditions).



Backview Magnesium dosing furnace MDO250R



Side view Magnesium dosing furnace MDO250R

MDO		250R	500R	750R	1200R	1500R
Melt capacity	[kg/h]	250	500	750	1200	1500
Crucible content	[kg]	~ 390	~ 1080	~ 1120	~ 1550	~ 2830
Crucible chambers		2	2	1	1	1
Net weight	[kg]	3340	5000	6000	19600	28600
Connected load electrical	[kW]	13,8	13,8	25	25	25
Connected load combustible	[kW]	200	360	520	860	1000
Dimensions						
Length	[mm]	3300	4000	4100	6200	6400
Width	[mm]	1750	1900	2250	3200	3400
Height	[mm]	2200	2250	3000	3800	3800