

MIM-Master Neo

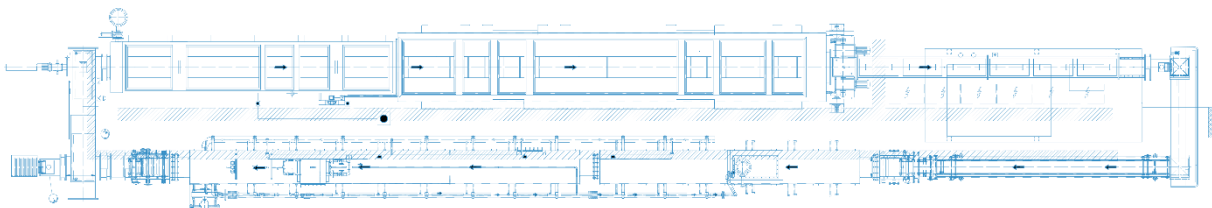
The MIM-Master Neo continuous walking beam sintering furnace and the corresponding operation procedure for the new furnace represent the newest development for continuous furnaces for the production of metal injection molding ferrous and non-ferrous products. The MIM-Master Neo furnaces are the next generation of continuous furnaces for the production of MIM components.

The MIM-Master Neo is built based on our well-established state of the art technology which enables a coupling of continuous residual debinding and sintering processes, the MIM-Master series.

The new design scrupulously combines the low-vibration ultra-smooth charge tray movement on the MIM-Master walking beam with an increased production capacity, which is more than 120 % greater than the last generation MIM-Master. Furthermore, this is achieved with a smaller furnace footprint, thereby reducing the gas & energy consumption by about 40 % and the investment costs by approx. 35 %, relative to the last generation design, taking an example of a MIM-Master 10XL.

Additional advantages of MIM-Master Neo are its availability with the new and improved 3rd generation Continuous Catalytic Debinding unit. A new multi-level integrated temperature control (CQI-9 TUS/SAT compatible) is supplied as a standard. In addition, recent developments such as the two-stage torch ensure that gases that leave the furnace are odorless and environment friendly.

Novel complimentary modules could, moreover, be coupled with the MIM-Master Neo: e.g. the ICS Iso-Cool System. This ensures controlled cooling rates of up to 180 K/min uniformly through all product layers, or the Hydrogen Generator (HG), for H₂ generation inside the equipment with no additional tank and H₂-piping required from the customer side.



Specifications

Technical features	
Effective width:	230x330 or 330x330 or 400x400 mm ²
Throughput:	4, 6, 8, 10, and 8 twin tray/h or XL and XXL version (ranging between 0.3 – 1.6 m ² cumulative tray area/h)
Heating:	Electric
Atmospheres:	Ar, N ₂ , dissociated NH ₃ , and 100 % H ₂ (e.g. for stainless steel products)
Temperatures:	1280 °C, 1350 °C, 1450 °C, and 1600 °C

Applications

Continuous debinding and sintering of MIM components, typically serve end-users in automotive, aerospace, CCC, consumer, medical, military, office & sport equipment industries. Examples of products cover a wide range from fuel cell bipolar plates, dental orthodontic brackets, automotive airbag sensor components, firearm parts & special ammunition, cutting tools, electronics, watch and camera components.

Additional modules

<ul style="list-style-type: none"> + 3rd generation Continuous Catalytic Debinding (CCD) unit + Acid vaporization unit + Hydrogen Generator (HG) + Rapid cooling unit + ICS Iso-Cool System (e.g. for 17-4 PH stainless steels) 	<ul style="list-style-type: none"> + 1600 °C option for tungsten applications + Human Machine Interface HMI for Industry 4.0 + Automation using Total Process Control TPC 4.0
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Photo Gallery



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