

ALD Vacuum Technologies

High Tech is our Business

VIM02 - VIM70

Vacuum Induction Melting and Casting Furnaces



- High flexibility & versatility
- High efficiency due to desoxidation
- Close compositional tolerances
- Precise temperature control
- Low dust output
- Removal of undesired elements

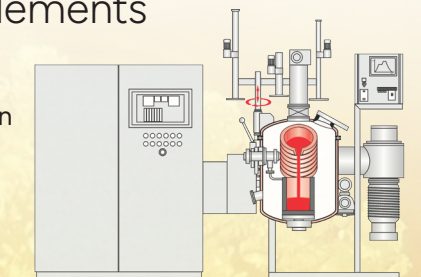


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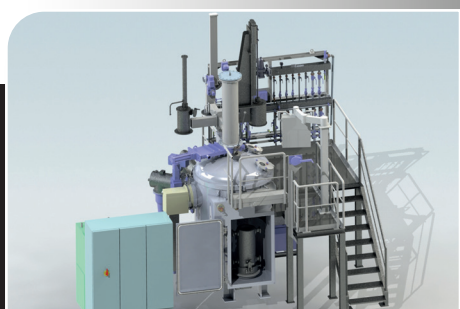
The vacuum prevents oxidation of sensitive alloy elements

VIM Process Characteristics

Extremely precise adjustment of the alloy composition and melt homogenization since melt temperature, vacuum, gas atmosphere, pressure and kinetics can be adjusted independently. VIM technology can be used in conjunction with a number of casting and mold treatment processes.



	VIM 02	VIM 05	VIM 2	VIM 4	VIM 6	VIM 12	VIM 20	VIM 50	VIM 70	Basic single chamber design
Crucible										
Nom. capacity (from... to...)	[l]	0.1-0.2	0.04-0.5	0.5-1.95	1.95-3.5	3.5-5.8	5.5-12	12-21.4	21.4-50	50-70
Nom. capacity, max. (g St.=7.2 g/cm ³)	(kg)	1.5	4	14	25	40	85	150	350	500
Hydraulic assisted tilting						X	X	X	X	X
Max. Size/Mold Setup										
Diameter	(mm)	100	180	180	220	320	380	500	550	1000
Height	(mm)	180	220	360	400	440	480	750	1000	1100
Vacuum Equipment										
Medium-vacuum pumping system	(mbar)	2x10 ⁻³	2x10 ⁻³	2x10 ⁻³	2x10 ⁻³	2x10 ⁻³	2x10 ⁻³	2x10 ⁻³	2x10 ⁻³	2x10 ⁻³
Nominal pumping speed	(m ³ /h)	150	150	500	500	1000	1000	2050	5500	5500
High-vacuum pumping system	(mbar)	1x10 ⁻⁵	1x10 ⁻⁵	1x10 ⁻⁵	1x10 ⁻⁵	1x10 ⁻⁵	1x10 ⁻⁵	1x10 ⁻⁵	1x10 ⁻⁵	1x10 ⁻⁵
Nominal pumping speed	(lxs ⁻¹)	1100	1010	3000	3000	6000	6000	12000	12000	17000
Recommended Power Supply for Melting										
MF power at 250 V	(kW)	6	20	40	60	80	120	180	250	450
Frequency	(KHz)	20	10	4	4	4	4	2	1	1
Coil voltage	(V)	250	250	250	250	250	250	250	400	400
Electr. connected Loads incl. High-Vacuum										
Pumping Unit	(kVA)	20	40	60	100	120	190	320	460	650
Line-voltage data	(V/Hz)	3x400/50	3x400/50	3x400/50	3x400/50	3x400/50	3x400/50	3x400/50	3x400/50	3x400/50
Space Requirement										
System height, with options	(mxm)	1.1x1.1	1x2.7	1x2.9	1.4x3	2.7x3.4	3.4x3.7	4.8x4.8	5.6x6.7	8.0x9.0
System height, with options	(m)	2.0	3.0	3.1	3.2	3.5	3.9	5.3	5.9	6.4
Total Weights (approx.)										
Weight of furnace (approx.)	(kg)	475	1500	1750	1900	3150	4000	7000	11500	15200
Weight of MF power supply (approx.)	(kg)	450	900	1050	1200	2400	2800	5200	9500	13000
Weight of MF power supply (approx.)	(kg)	25	600	700	700	750	1200	1800	2000	2200



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