

# Metal Printing

with Matsuura Lumex Avance-25 hybrid printer

**PLASTIC-FORM**

# Matsuura LUMEX Avance 25

Revolution in metal production



The Matsuura LUMEX Avance 25 is a hybrid 3D metal printer that is both a laser metal sintering and a high-speed machining center.

The printer is mainly popular amongst those market participants who deal with high value-added molds, medical devices and implants, as well as rapid prototyping, but Matsuura's future-proof technological innovations can be used in many other areas as well.

# Matsuura LUMEX Avance 25

Raw materials and their properties



Mechanical properties	Hardness (Rockwell)	Tensile strength (Mpa)	Yield limit (Mpa)	Elongation (%)	Relative density (%)	Printing speed (cm <sup>3</sup> /h)
Matsuura tool steel II.	HRC 36±1 ( HRC 53±1 )	1.150 - 1.200 (1.900-1.970)	1.000-1.100 (1.900-1.970)	11±1 (2,5±1,5)	≥99.5	7-11
Matsuura titan 6A/4V	HRC 48±1	460-530	420	1	≥99.5	4-8
Matsuura stainless steel 630	HRC 32±1 ( HRC 42±1 )	1.070-1.080 (1.240-1.250)	830-850 (1.050-1.150)	17±1 (19±1)	≥99.5	7-11
Matsuura stainless steel 316 L	HV 200±10	570-580	420-460	32±2	≥99.5	7-11
Matsuura cobalt-chrome superalloy	HRC 36±1	1.170-1.200	870-900	15±2	≥99.5	6-10
Matsuura nickel alloy 718 (Inconel 718)	HRC 27±1 ( HRC 32±1 )	930-980 (1.300-1.310)	650-690 (1.070-1.080)	22±5 (15±2)	≥99.5	7-11
Matsuura aluminum						

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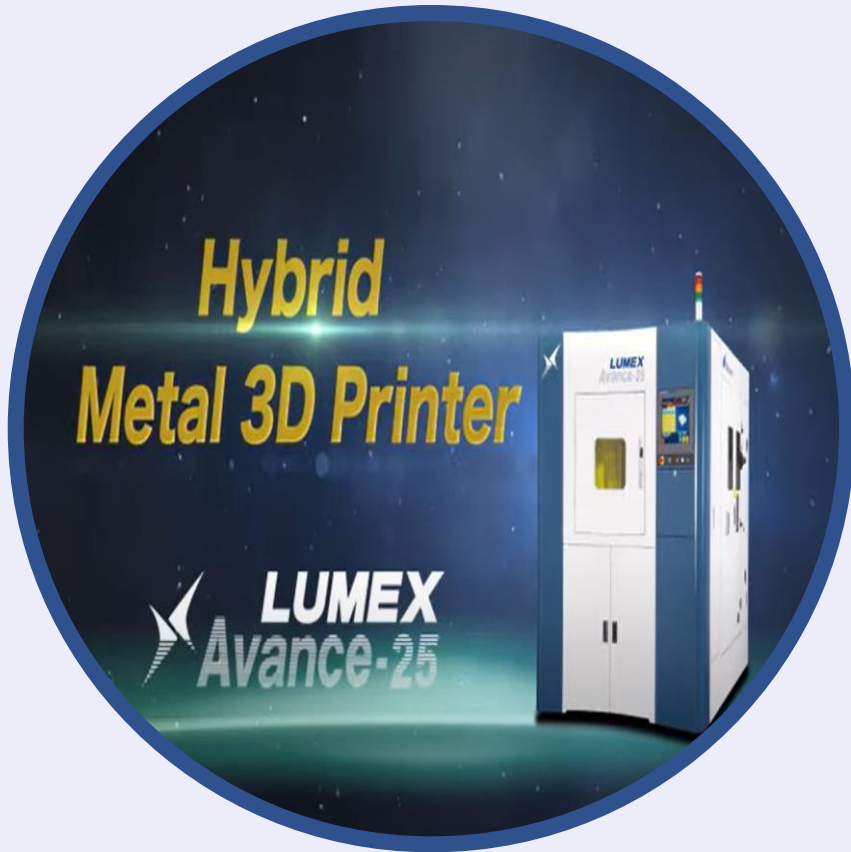
Raw materials and their properties




Chemical composition	JIS symbol	C	O	Al	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Mo	Nb
Matsuura tool steel II.	-	-	-	0-0.1	-	-	-	-	60-70	1-10	15-25	-	1-10	-
Matsuura titan 6A/4V	TAB6400	0-0.8	0-0.025	5.5-6.75	Bal.	3.5-4.5	-	-	0-0.4	-	-	-	-	-
Matsuura stainless steel 630	SUS630	-	-	-	-	-	16.3	-	Bal.	-	4	4	-	-
Matsuura stainless steel 316 L	SUS316L	-	-	-	-	-	17	-	Bal.	-	13.5	-	2.5	-
Matsuura cobalt-chrome superalloy	T7402	-	-	-	-	-	25-30	-	-	60-70	0.1-1	-	1-10	-
Matsuura nickel alloy 718 (Inconel 718)	H4553	-	-	0.2-0.8	0.65-1.15	-	17-21	-	Bal.	-	50-55	0-0.3	2.8-3.3	4.75-5.5
Matsuura aluminum														

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Technical features and dimensions

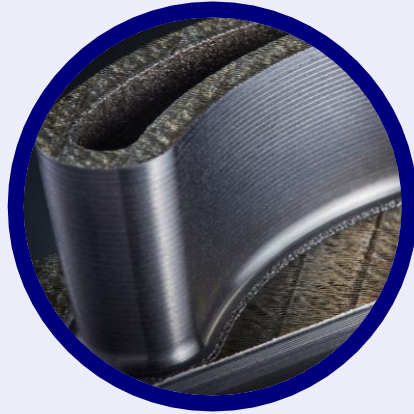
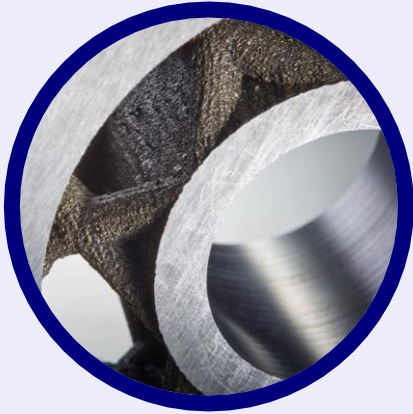
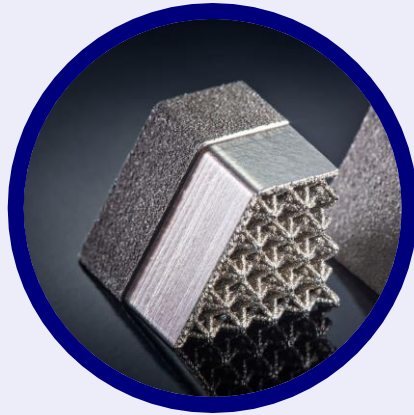


 <b>Matsuura</b> IMAGINE. CREATE. INNOVATE.	<b>LUMEX Avance-25</b>
<b>Laser type:</b>	Yb fiber laser
<b>Laser power: (W)</b>	400
<b>Max. workpiece size : (mm)</b>	W256×D256×H185
<b>Spindle speed : (min-1)</b>	45,000
<b>Travel (X/Y/Z) : (mm)</b>	260/260/100
<b>Feed rate (X/Y/Z) : (mm/min)</b>	60/60/30
<b>NC System</b>	I-tech Avance

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Sample products



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