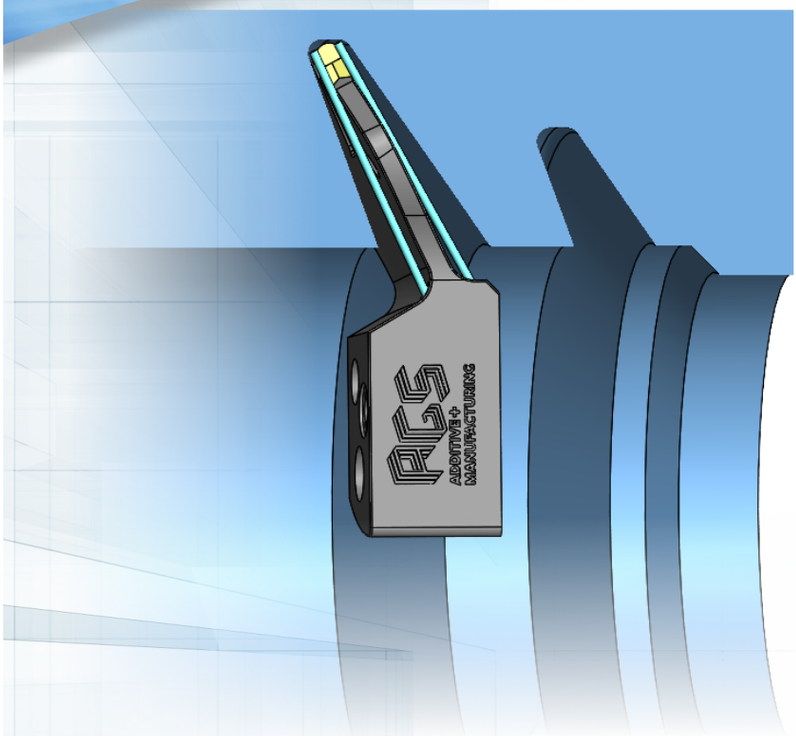
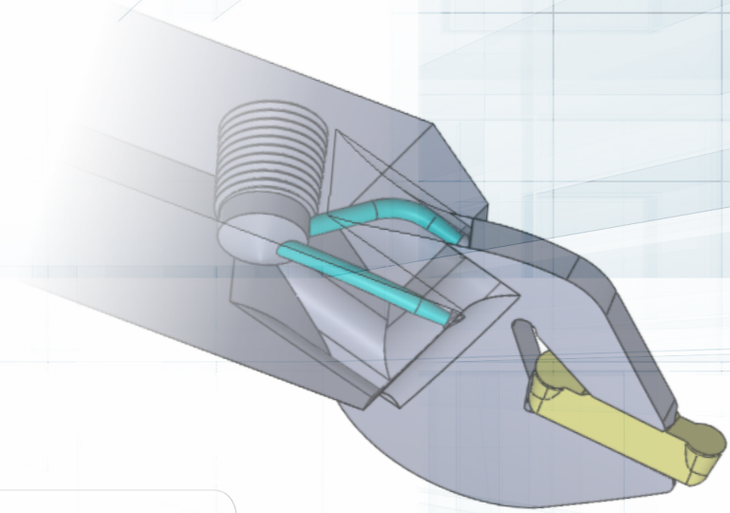
Customized Lathe Tools

3D Printed Lathe Insert Holders

Complicated Lathe Part Feature?
Using Multiple or Hand Ground Tools?
We Can Offer Simple Customized Solutions with Quick Turnarounds



-Built for your needs
-Customized turning radius and angle
-Coolant lines, aimed at the insert
-ISO Standards (VNMG, DNMG, CNMG, GIP etc.)



-Both Standard and Modular Designs
-LEAD times from 1-3 weeks
-Maraging Steel Rc32 w/ heat treat up to Rc52-55(optional)
-Competitive Pricing

AGS ADDITIVE + MANUFACTURING

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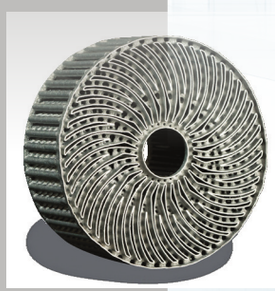
AGS and the ProX® DMP 300 Additive Manufacturing Specs and Materials

Achieve the best part quality and mechanical propert es with AGS Addit ve Manufacturing and 3D Systems' ready-to-run materials with extensively developed print parameters.

Specif cations	ProX DMP 300
Laser Power type[3]	500 W/Fiber laser[2]
Laser Wavelength	1070 nm
Build Volume (X x Y x Z)[1]	9.84 x 9.84 x 12.01 in (250 x 250 x 300 mm)
Layer Thickness	10µm - 100µm
Metal alloy choices with de-veloped print parameters:	CoCr (B) 17-4PH (B) Maraging Steel (B) AlSi12 (B)
Material Deposit on	Roller
Repeatability	x=20 µm, y=20 µm, z=20 µm
Minimum Feature Size	x=100 µm, y=100 µm, z=20 µm
Typical Accuracy	± 0.1-0.2% with ± 50 µm minimum

[1] Maximum available part size using standard build
[2] Maximum laser power at powder layer is typical 450W for 500W lasers
[3]Lasers embedded in Class 1 laser products

Mechanical Properties[1]	Condition	Aluminum Alloy AlSi12	CoCrMo Alloy4	Maraging Steel	Stainless Steel 17-4 PH
Ult mate Tensile Strength	ASTM E8				
As-built[1]		480 MPa ± 20	1200 MPa ± 100	1110 MPa ± 50	1100 MPa ± 50
Af er post heat treatment[2]		240 MPa ± 20	1260 MPa ± 100	-	1300 MPa ± 50
Yield Strength	ASTM E8				
As-built[1]		270 MPa ± 20	850 MPa ± 100	860 MPa ± 50	620 MPa ± 50
Af er post heat treatment[2]		180 MPa ± 20	900 MPa ± 100	-	1100 MPa ± 50
Elongat on at Break	ASTM E8				
As-built[1]		5.5% ± 1.0	10% ± 2	11% ± 3	16% ± 2.0
Af er post heat treatment[2]		20% ± 4.0	15% ± 2	-	10% ± 2.0
Hardness					
As-built[1]		137 ± 1.5 HB	-	37 ± 2 HRC	300 ± 20 HV5
Af er post heat treatment[2]		90 - 95 HB	500 ± 20 HV5	55 ± 2 HRC	400 ± 20 HV5
Density		Approx. 100%	Approx. 100%	Approx. 100%	Approx. 100%



[1] As-built refers to the state of components built on the ProX DMP 300 before any post processing except removal from the build plat orm
[2]Dif erent post heat treatments might be applied for this type of alloy

Warranty/Disclaimer: The performance characterist cs of these products may vary according to product applicat on, operat ng condit ons, material combined with, or with end use. 3D Systems makes no warrant es of any type, express or implied, including, but not limited to, the warrant es of merchantability or f tness for a part cular use.

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