



INDUSTRY F421

High-performance 3D printer
for demanding industrial applications



HIGH PRINT
SPEED

POWERFUL
HEATED CHAMBER

LARGE BUILD
VOLUME

HIGH-PERFORMANCE
MATERIALS

INDUSTRY F421

SPECIFICATION SHEET

Date / Revised: 15.02.2024

Version No.: 1.0

PRINTING	Print technology:	FFF
	Build volume:	15 × 15 × 16.5 in 380 × 380 × 420 mm (60 648 cm³)
	Min. layer height:	50 µm
	Number of printheads:	2, purging system
	Nozzle diameter:	0.5/0.5 mm or 0.4/0.4mm
	Filament diameter:	1.75 mm
	Printhead temperature (max.):	500°C (932°F)
	Buildplate temperature (max.):	190°C (374°F)
	Chamber temperature (max.):	195°C (356°F) (active heating)
	Filament chamber temperature (max.):	50°C (122°F)
	Achievable part accuracy:	Parts are printed with an accuracy of 0.125 mm or 0.0014 mm/mm, whichever is greater. Accuracy in Z-axis includes an additional tolerance of 0.000/+ layer height.
SPEED	Travel move:	1000 mm/s
	Printing speed:	up to 400 mm/s
DIMENSIONS AND MASS	External dimensions (WxDxH):	36 x 38.6 x 79.5 in 915 x 980 x 2020 mm
	Mass:	365 kg
CONSTRUCTION	Chassis:	steel
	External:	steel and vacuformed ABS, chamber lined with satin stainless steel
	Build surface:	borosilicate glass / vacuum sealed plastic sheets
ENVIRONMENT	Working temperature:	18-30°C (64.4-86°F)
	Storage temperature:	-20-54°C (-4-129.2°F)
POWER	Power requirements (US):	220-250V 1ph 20A, NEMA L6-20 plug
	Max power draw:	4600 W
	Average power draw:	1500 W
	Communication:	ethernet, Wi-Fi, USB drive
SOFTWARE	Slicing software:	3DGence SLICER 4.0
	Cloud based services:	3DGence CONNECT
SAFETY	Advanced Filtration Unit:	yes, optional
	Sensors:	main chamber door, top access hatch, thermal sensors, emergency switch
	UPS device:	yes, optional
	Others:	software access overdrive - remote shut down
WHAT IS INCLUDED?	3DGence INDUSTRY F421 3D printer Set of accessories (Wi-Fi module incl.) Signal tower Emergency stop circuit	
WHAT IS THE ADDITIONAL EQUIPMENT?	The M280 dual-extruder printing module (+1 spool ABS, +1 spool ESM-10) The M360 dual-extruder printing module (+1 spool PC, +1 spool ESM-10) The M500+ dual-extruder printing module (+1 spool PEEK, +1 spool ESM-10) UPS – emergency powersupply Advancedfiltration unit	

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MODULES

Flexibility and performance

Job-specific printing
modules and developed
printing profiles

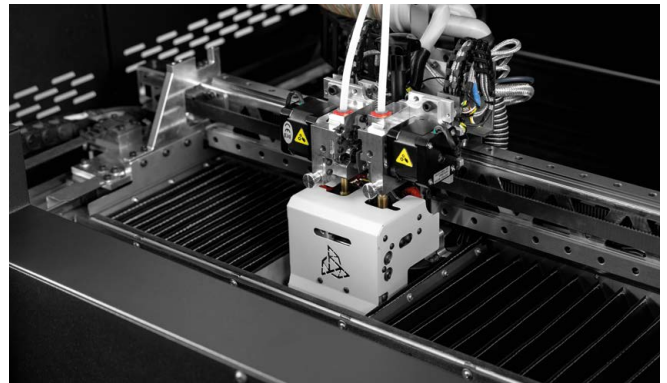
M 280

TEMPERATURE:
up to 280°C

NOZZLE DIAMETER:
0,5 mm/0,5 mm

MODEL MATERIAL:
ABS, ABS Carbon, Addigy F1030
CF-10, ASA, PA6 Neat, PET, PLA, PP

SUPPORT MATERIAL:
ESM-10, HIPS



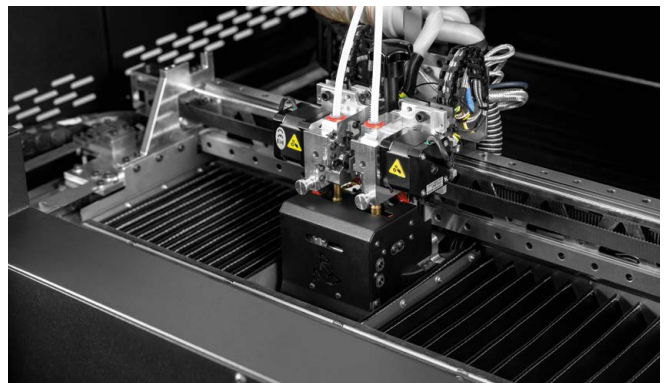
M 360

TEMPERATURE:
up to 360°C

NOZZLE DIAMETER:
0,4 mm/0,4 mm

MODEL MATERIAL:
ezPC-CF, LEXAN™ EXL AMHI240F,
PC, PC-ABS, PC-CF, PC-ESD, PEKK
Carbon, ULTEM™ 9085

SUPPORT MATERIAL:
ESM-10, ESM-30



M 500+

TEMPERATURE:
up to 500°C

NOZZLE DIAMETER:
0,4 mm/0,4 mm

MODEL MATERIAL:
PEEK, PEEK AERO, PEEK-CF,
PEKK-A, VictrexAM™200

SUPPORT MATERIAL:
ESM-10, ESM-30



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