

INDUSTRIAL CFC 3D PRINTER FOR HIGH TEMPERATURE MATERIALS



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Easier, faster and cheaper manufacturing process with high-strength parts from continuous fiber reinforced composites

LARGE BUILD VOLUME

width 600 mm height 420 mm depth 300 mm

HIGH TEMPERATURE PLASTICS (UP TO 500°C) AS A MATRIX: PEEK, PEI

BOSCH REXROTH CNC BASED LOGIC WITH HIGH ACCURACY

UP TO 220°C HEATED CHAMBER TEMPERATURE

- Printing composite lattices optimal structures for composites: lower weight, price and production time of a part
- Automatic calibration system
- Material storage with temparute & humidity control
- Sensors for the material flow and presence
- Made for 24/7 runs in a factory environment



Up to 4 interchangable print heads: CFC (Composite Carbon Fiber) and FFF (plastic)



AURA THE ANISOPRINTING SLICER SOFTWARE



Proprietary slicing engine for toolpath generation for Prom IS 500

Combining micro and macro layers: use different layer thicknesses for infills and external shells

Built-in profiles: verified printing settings for a range of materials

Printing with multiple extruders, using different extruders for different entities (perimeters, infills, support, etc)

Command line interface (CLI) for automated part processing

Complex trajectories of fiber laying including lattice reinforced infills (rhombic, isogrid, anisogrid)

Supporting STL and CAD formats: .stp | .3ds | .obj

Different reinforcing schemes for different layer groups or/and different models

Model saved on a local PC

Layer masks



Network system for the production process maintenence

Multiuser access for managing printers and print jobs

Connecting multiple printers to the single server

Local storage for libraries of parts, projects, G-codes

Browser-based client, supports Google Chrome, Mozilla Firefox, Edge, Safari Online process monitoring and logging

Access level system for user accounts

Statistics for printers, users, time, etc.

Print scheduling and queues

anisoprint

NOTE: Manufacturer can provide Pilot customer the new beta version of the software for the tests



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BASIC SPECIFICATIONS

CNC SYSTEM

BOSCH Rexroth XM42 controller
Additive technology with CFC module
Ballscrews based
200 W motor
400 W motor
200 W motor
100 W motor
20 000 mm/min

PRINTING

Tool changer	Up to 4 print heads
Layer thickness, min.	50 µm
FFF Filament diam.	2.85 mm
Compatible plastics	PA, PC, PAEK, PEI
FFF printhead nozzle, diam.	0.4–1.2 mm
Reinforcing fiber, thickness	1k — 0.28 mm 3k — 0.50 mm
Productivity (in CFC mode)	60 cc/h
X travel	600 mm
Y travel	420 mm
Z travel	300 mm

TEMPERATURE

Max. extruder temp.	500°C
Max. chamber temp.	220°C
Material storage temp.	90°C
Max. build plate temp.	160°C

INTERFACE

Touchscreen	Multi-touch gesture control, touchscreen
Network communication	Ethernet , WiFi, USB
Operating environment	Room temperature — max 30°C Humidity — max 70%
Power requirements	380VAC (phase+neutral+earth) 50/60 Hz Current 40 A

SOFTWARE

Anisoprint Aura	Slicer for CFC + FFF technology
Aura Connect	Client-server system for print management
OS support	Windows 7, 8, 10, 11

PHYSICAL CHARACTERISTICS

Printer size (L W H)	2700 mm 1800 mm 2300 mm
LED Tower light height	400 mm



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