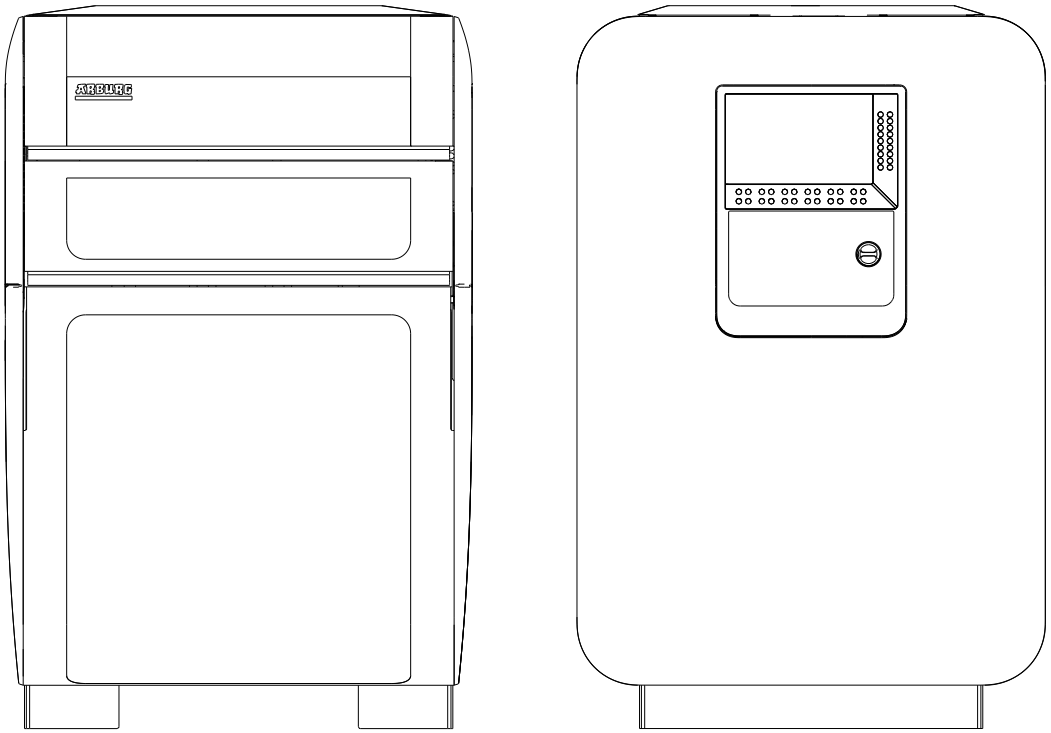

freeformer 300-3X

Usable build chamber space: max. 9.21 x 5.28 x 9.06 in.
Build chamber temperature: max. 248 °F
Discharge units: 2-3

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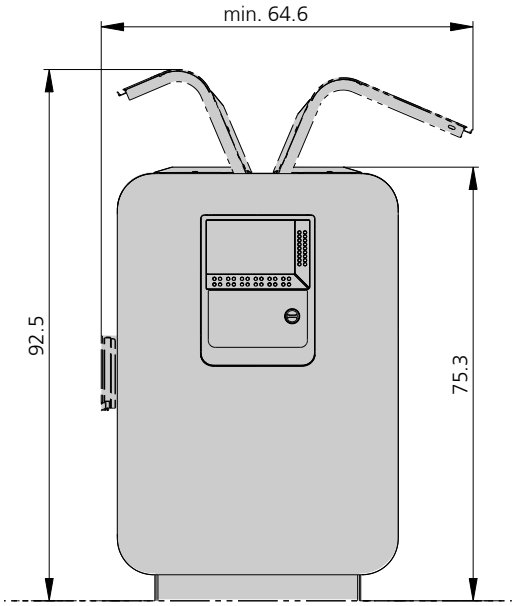
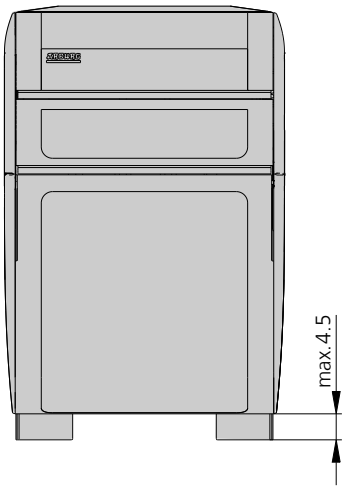
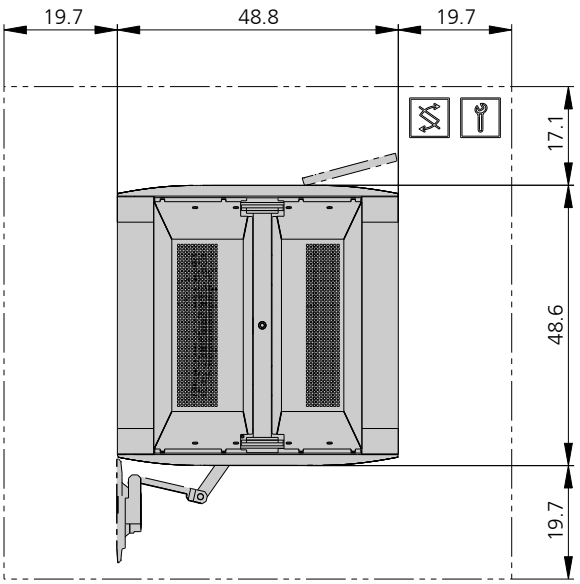
FOOTPRINT | FREEFORMER 300-3X







Process data for reference materials[1)]			
Material class	**Reference material**	**Support materials**	
		armat 11 (water-soluble)	**armat 21 (alkaline-soluble)**
ABS	Terluran GP-35	x	x
TPU	Elastollan C78 A 15		x
PC	Makrolon 2805	x	x
PA10	Grilamid XE 4010	x	x

1) Further material data sets available. More precise information upon request.

TECHNICAL DATA | FREEFORMER 300-3X

Part carrier		**3-axis**
Positioning accuracy of axes	mm (inch)	+/- 0.022 (0.0009)
Build chamber temperature	max. °C (°F)	120 (248) [200 (392)]

Material preparation		
Processing temperature	max. °C (°F)	350 (662)

Discharge unit		
Material pressure	max. bar (psi)	800 (11,603)
Nozzle	mm (inch)	0.2 (0.0079)
Discharge rate[3]	max. cm³ /h (cu in/h)	2-14 (0.12-0.85)

Basic specifications for parts		
Usable build chamber space (x, y, z)[4]	max. mm (inch)	234 x 134 x 230 (9.21 x 5.28 x 9.06)
Layer thickness[5]	mm (inch)	0.2 (0.0079)
Wall thickness[5]	min. mm (inch)	0.6 (0.024)
Absolute part precision (x and y) according to VDI Guideline 3405 Sheet 7 [3]	mm (inch)	+/- 0.1 (0.0039)

Connection and operation		
Net weight	kg (lbs)	1,550 (3,417)
Electrical connection[1]	kW	5
	A	16
Energy requirement	kWh/h	5.6
Energy requirement with dryers	kWh/h	[---]
Sound pressure level | Uncertainty[2]	dB(A)	---
Permissible temperature range	°C (°F)	15-25 (59-77)
Permissible relative air humidity	max. %	50
Compressed air connection	bar (psi)	[6-10 (87-145)]
Compressed air oil content (to ISO 8573-1)	mg/m³	[<= 0.01]
Compressed air, pressure dew point (according to ISO 8573-1)	°C	[<= -20 (-4)]
Compressed air, particle quantity 1-5µm (according to ISO 8573-1)		[<= 100.000]

All specifications relate to the basic machine version. Deviations are possible depending on options, process settings and material type

1) Specifications are based on 400 V/50 Hz
2) Detailed info in the operating instructions.
3) Specifications based on reference data set for ABS Terluran GP-35
4) A reduced speed of the dynamic axis system is necessary as of a weight of 500 g (1.1 lbs).
[ ] Values apply to alternative equipment.

FEATURES | FREEFORMER 300-3X

Electrical connection

Multi-touch screen

Two-piece build chamber door

Electrical system and interfaces	- Liquid-cooled control cabinet and drives in accordance with safety regulation DIN EN 60204 - Heat exchanger with closed cooling circuit (liquid secondary circuit) - CEE three-phase connector (cable length 5 m (16.4 ft)). Note: Type B residual-current device in accordance with IEC 60755 A2 required for connection - USB interface - Dryer interface - Host computer interface (OPC UA)	■
Operating panel with GESTICA control system	- High-performance industrial PC with multi-touch screen - User authorization by transponder cards (RFID) - Data memory on CompactFlash cards - Intuitive operation by gestures	■
freeformer software	- Data processing (slicing) of 3D geometries in STL format - System requirements: 2 GB free hard drive memory, 16 GB main memory, CPU Intel Core i7 or AMD Phenom II X4/X6 with SSE2 technology with 3 GHz or higher, Windows 10 operating system (64-bit)	■
Build chamber	- Two-piece build chamber door	■
Part carrier	- Part carrier movable on three axes - Liquid-cooled linear motors with high-resolution position measurement (glass scale) - Part mounting via structured carrier plates Note: Optimal adhesion during the construction process as well as easy, non-destructive release of the finished parts - Quick, reversible securing of the platform by means of an integrated vacuum unit	■
Material processing and Discharge unit	- Homogeneous material processing with short three-zone screw and precisely closing non-return valve - Energy-efficient servo-motors with absolute position encoders - Precise, maintenance-free planetary roller screw drive - Processing of up to three components with up to three material preparation units - Synchronized nozzle closure with piezo technology - Lifting of the nozzles for thermal separation	■
Granulate drying	- Integrated granulate drying for the respective material processing - Protection against excessive drying - Fully integrated in GESTICA	□
Electrical system and interfaces	- Robot interface according to Euromap 67	□
Increased build chamber temperature	- max. 200°C	□

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■ Standard
□ Optional

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