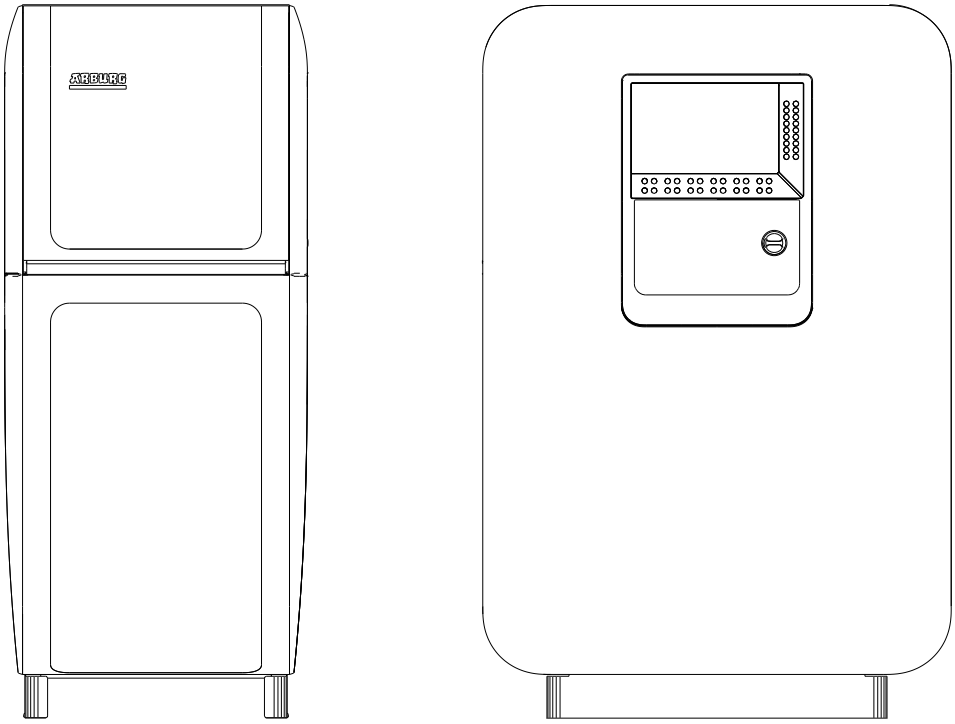

freeformer 200-3X

Usable build chamber space: max. 154 x 134 x 230 mm
Build chamber temperature: max. 120 °C
Discharge units: 2

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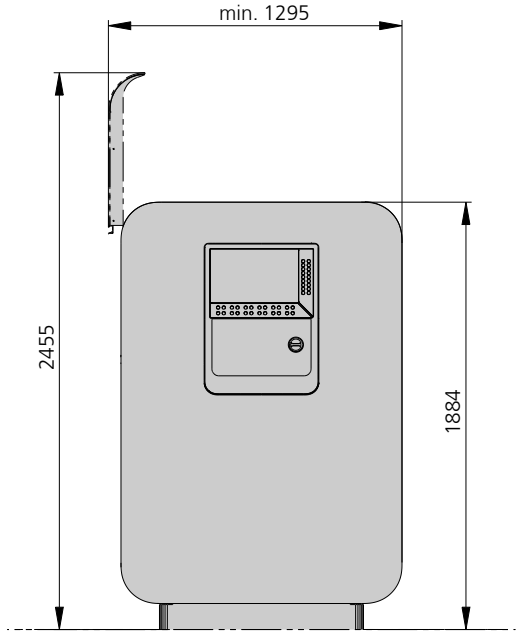
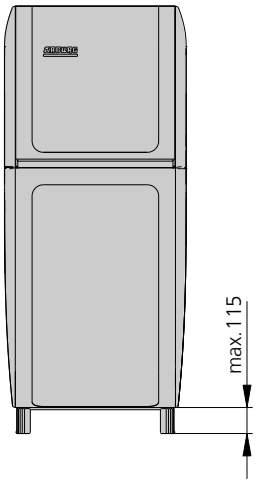
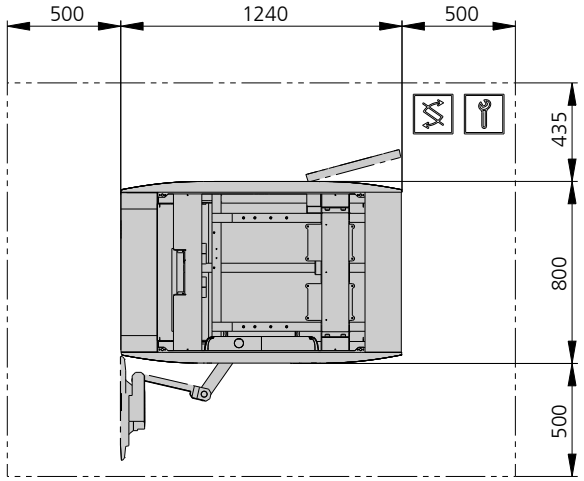
FOOTPRINT | FREEFORMER 200-3X







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 detailed information is available on request.

TECHNICAL DATA | FREEFORMER 200-3X

Part carrier		**3-axis**
Positioning accuracy of axes	mm	+/- 0,022
Build chamber temperature	max. °C	120

Material preparation		
Processing temperature	max. °C	350

Discharge unit		
Material pressure	max. bar	800
Nozzle	mm	0,2
Discharge rate[3]	max. cm³/h	2-14

Basic specifications for parts		
Usable build chamber space, 1-component (x, y, z)[4]	max. mm	189 x 134 x 230
Usable build chamber space, 2-component (x, y, z)[4]	max. mm	154 x 134 x 230
Layer thickness[3]	mm	0,2
Wall thickness[5]	min. mm	0,6
Absolute part precision (x and y) to VDI Guideline 3405 Sheet 7 [3]	mm	+/- 0,1

Connection and operation		
Net weight	kg	850
Electrical connection[1]	kW	4
	A	16
Energy requirement	kWh/h	1,5
Energy requirement with dryers	kWh/h	[1,6]
Sound pressure level | Uncertainty[2]	dB(A)	52/3
Permissible temperature range	°C	15-30
Permissible relative air humidity	max. %	50
Compressed air connection	bar	[6-10]
Compressed air oil content (to ISO 8573-1)	mg/m³	[<= 0,01]
Compressed air, pressure dew point (according to ISO 8573-1)	°C	[<= -20]
Compressed air, particle quantity 1-5µm (according to ISO 8573-1)		[<= 100.000]

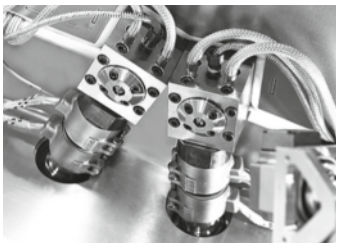
All specifications relate to the basic machine version. Deviations are possible depending on options, process settings and material type

1) Specifications are related to 400 V/50 Hz
2) Detailed info in the operating instructions.
3) Specifications based on reference data set for ABS Terluran GP-35
4) Starting from a weight of 500 g, it is necessary to reduce the speed of the dynamic axle system.
[ ] Values apply to alternative equipment.

EQUIPMENT | FREEFORMER 200-3X

Electrical connection

Multi-touch screen



Second material processing and discharge unit

Electrical systems and interfaces	- Liquid-cooled control cabinet and drives according to safety standard DIN EN 60204 - Heat exchanger with closed cooling circuit (secondary fluid circuit) - CEE three-phase connector (cable length 5 m). Note: Type B residual-current device to IEC 60755 A2 required for connection - USB port - Dryer interface - Host computer interface (OPC UA)	■
Operating panel with GESTICA controller	- High-performance industrial PC with multi-touch screen - Operator authorisation via transponder cards (RFID) - Data storage on CompactFlash cards - Intuitive operation by means of gestures	■
freeformer software	- Integrated 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)	■
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: Optimum adhesion during the construction process and easy, non-destructive release of the finished parts - Rapid, reversible securing of the carrier plate by means of an integrated vacuum device	■
Material processing and Discharge unit	- Homogeneous material preparation 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 two components with two material processing units - Pulsed nozzle closure with piezo technology - Nozzle sizes: 0.15 mm and 0.25 mm	■ □
Granulate drying process	- Integrated granulate drying process for the respective material preparation - Protection against excessive drying - Fully integrated in GESTICA	□

■ Standard
□ Option

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