

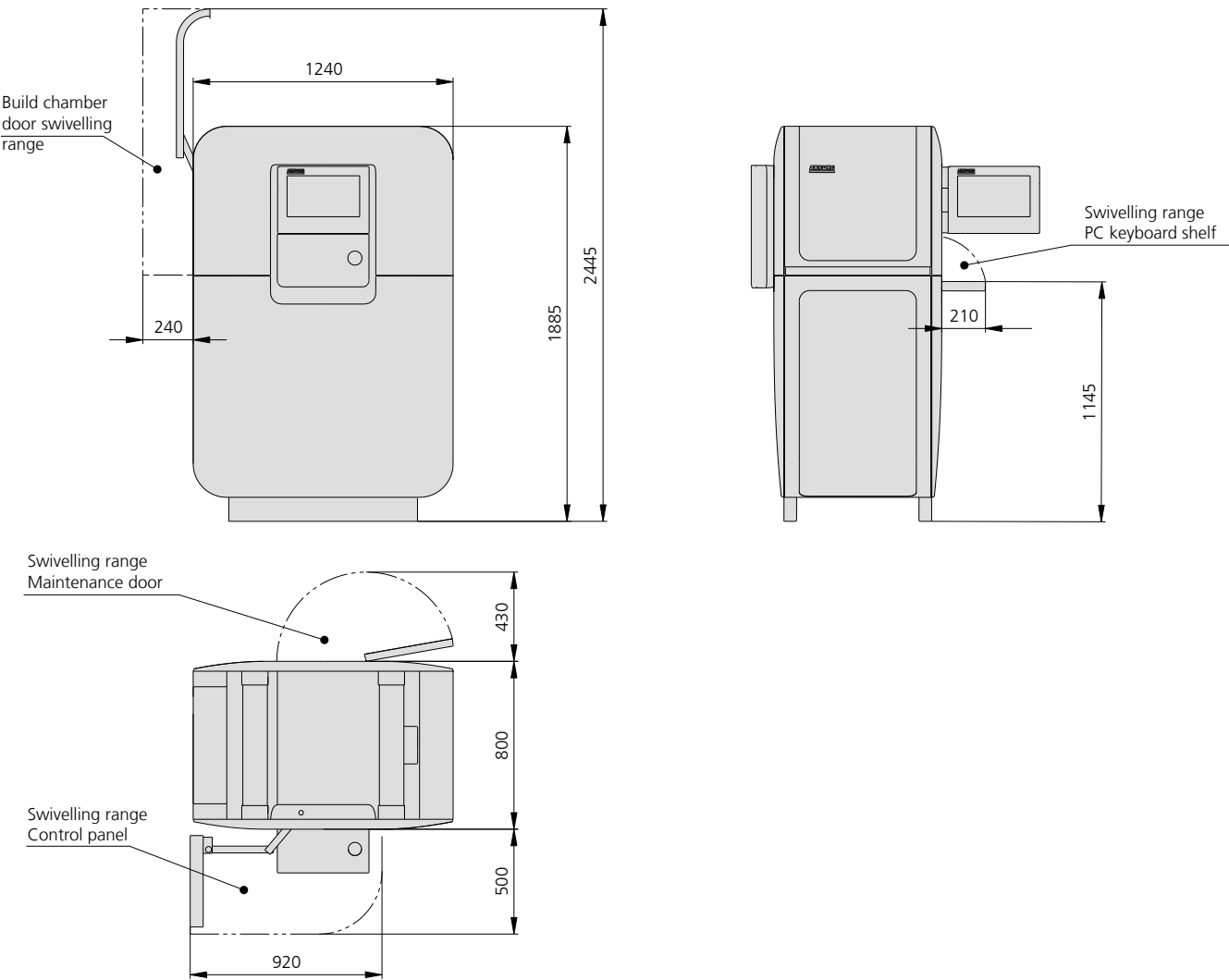
## freeformer 200-3X

Usable build chamber space: max. 189 x 134 x 230 mm

Build chamber temperature: max. 120 °C

Discharge units: 2

# FOOTPRINT | FREEFORMER 200-3X



Material class	Reference material <sup>5)</sup>	Support materials	
		armat 11 (water soluble)	armat 12 (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

5) 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 <sup>3)</sup>	max. cm³/h	2-10

Basic specifications for parts		
Usable build chamber space, 1-component (x, y, z) <sup>4)</sup> max.	mm	189 x 134 x 230
Usable build chamber space, 2-component (x, y, z) <sup>4)</sup> max.	mm	154 x 134 x 230
Layer thickness <sup>5)</sup>	mm	0.2
Wall thickness <sup>5)</sup>	min. mm	0.6
Absolute part precision (x and y) to VDI Guideline 3405 Sheet 7 <sup>3)</sup>	mm	+/- 0,1

Connection and operation		
Net weight	kg	750
Electrical connection <sup>1)</sup>	kW	4
	A	16
Energy requirement	kWh/h	1,5
Energy requirement with dryers	kWh/h	[1,6]
Sound pressure level   Uncertainty <sup>2)</sup>	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]

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

<b>Electrical systems and interfaces</b>	- 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)	■
<b>Operating panel with GESTICA controller</b>	- 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	
<b>freeformer software</b>	- 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)	
<b>Part carrier</b>	- 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	
<b>Material processing and Discharge unit</b>	- Rapid, reversible securing of the carrier plate by means of an integrated vacuum device	
	- 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	■
<b>Granulate drying process</b>	- Nozzle sizes: 0.15 mm and 0.25 mm	□
	- Integrated granulate drying process for the respective material preparation	□
	- Protection against excessive drying	
	- Fully integrated in GESTICA	

■ Standard  
□ Option

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