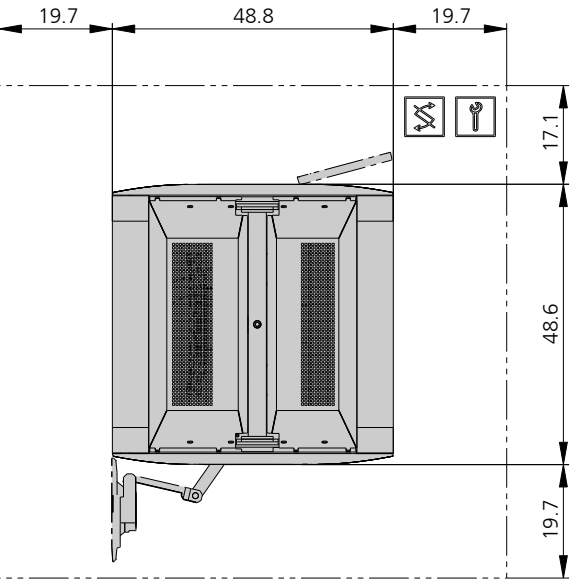
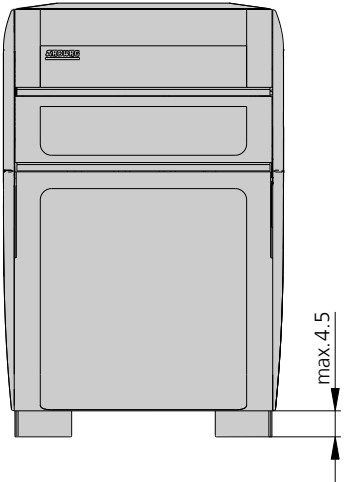
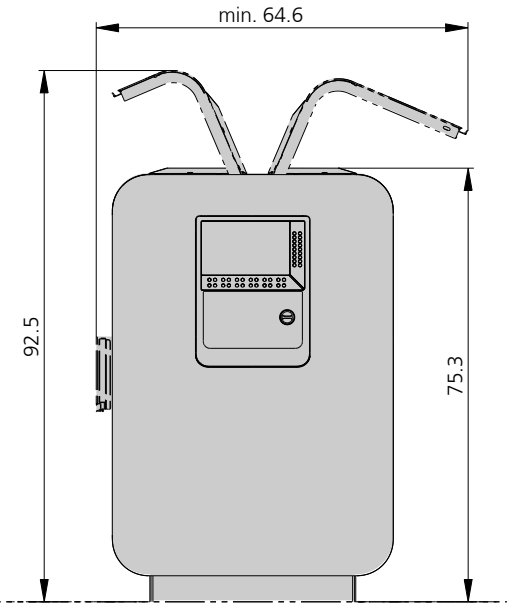


## freeformer 750-3X

Usable build chamber space: max. 12.99 x 9.06 x 9.06 in.  
Build chamber temperature: max. 248 °F  
Discharge units: 2-3

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# FOOTPRINT | FREEFORMER 750-3X



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

# TECHNICAL DATA | FREEFORMER 750-3X

Part carrier		3-axis
Positioning accuracy of axes	mm (inch)	+/- 0.022 (0.0009)
Build chamber temperature	max. °C (°F)	120 (248)
Installation space temperature high-temperature version	max. °C (°F)	200 (392)
Material preparation		
Processing temperature	max. °C (°F)	350 (662)
Processing temperature high-temperature version	max. °C (°F)	450 (842)
Discharge unit		
Material pressure	max. bar (psi)	800 (11,603)
Nozzle	mm (inch)	0.2 (0.0079)
Discharge rate <sup>3) 5)</sup>	max. cm <sup>3</sup> /h (cu in/h)	57 (3.48)
Basic specifications for parts		
Usable build chamber space (x, y, z) <sup>4)</sup>	max. mm (inch)	330 x 230 x 230 (12.99 x 9.06 x 9.06)
Layer thickness <sup>5)</sup>	mm (inch)	0.2; 0.25 (0.0079; 0.0098)
Wall thickness <sup>5)</sup>	min. mm (inch)	0.6 (0.024)
Absolute part precision (x and y) according to VDI Guideline 3405 Sheet 7 <sup>3)</sup>	mm (inch)	+/- 0.1 (0.0039)
Connection and operation		
Net weight	kg (lbs)	1,250 (2,755)
Electrical connection <sup>1)</sup>	kW	7.8
CEE three-phase plug / Hubble connector	A	16
Energy requirement	kWh/h	5.6
Energy requirement with dryers (high-temperature version)	kWh/h	3.8
Sound pressure level   Uncertainty <sup>2)</sup>	dB(A)	54   5
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/m <sup>3</sup>	[<= 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).
  - 5) Based on a layer thickness of 0.25mm
- [ ] Values apply to alternative equipment.

# FEATURES | FREEFORMER 750-3X



Electrical connection



Multi-touch screen



Two-piece build chamber door

<b>Electrical system and interfaces</b>	<ul style="list-style-type: none"> <li>- Liquid-cooled control cabinet and drives in accordance with safety regulation DIN EN 60204</li> <li>- Heat exchanger with closed cooling circuit (liquid secondary circuit)</li> <li>- Connectors for 208, 230, 480 Volts with Hubble Connector</li> <li>- USB interface</li> <li>- Dryer interface</li> <li>- Host computer interface (OPC UA)</li> </ul>	■
<b>Operating panel with GESTICA control system</b>	<ul style="list-style-type: none"> <li>- High-performance industrial PC with multi-touch screen</li> <li>- User authorization by transponder cards (RFID)</li> <li>- Data memory on CompactFlash cards</li> <li>- Intuitive operation by gestures</li> </ul>	■
<b>freeformer software</b>	<ul style="list-style-type: none"> <li>- Data processing (slicing) of 3D geometries in STL format</li> <li>- 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)</li> </ul>	■
<b>Build chamber</b>	<ul style="list-style-type: none"> <li>- Two-piece build chamber door</li> </ul>	
<b>Part carrier</b>	<ul style="list-style-type: none"> <li>- Part carrier movable on three axes</li> <li>- Liquid-cooled linear motors with high-resolution position measurement (glass scale)</li> <li>- Part mounting via structured carrier plates</li> <li>Note: Optimal adhesion during the construction process as well as easy, non-destructive release of the finished parts</li> <li>- Quick, reversible securing of the platform by means of an integrated vacuum unit</li> </ul>	■ ■
<b>Material processing and Discharge unit</b>	<ul style="list-style-type: none"> <li>- Homogeneous material processing with short three-zone screw and precisely closing non-return valve</li> <li>- Energy-efficient servo-motors with absolute position encoders</li> <li>- Precise, maintenance-free planetary roller screw drive</li> <li>- Processing of up to three components with up to three material preparation units</li> <li>- Synchronized nozzle closure with piezo technology</li> <li>- Lifting of the nozzles for thermal separation</li> </ul>	■
<b>Granulate drying</b>	<ul style="list-style-type: none"> <li>- Integrated granulate drying for the respective material processing</li> <li>- Protection against excessive drying</li> <li>- Fully integrated in GESTICA</li> </ul>	□
<b>Electrical system and interfaces</b>	<ul style="list-style-type: none"> <li>- Robot interface according to Euromap 67</li> </ul>	
<b>Increased build chamber temperature</b>	<ul style="list-style-type: none"> <li>- max. 200°C</li> </ul>	□ □

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■ Standard  
□ Optional