Content

Introduction ......................................................... 2
Details .................................................................. 4
Features .............................................................. 6
Maintenance and Service ...................................... 10
Technical Data ..................................................... 12
Open Platform 3D Printing

The X400 allows precise and fast 3D printing applications and comes with a well-spaced printing volume of 43L in total. The X400 combines the advantages of German RepRap’s “open platform” philosophy with the well-known “made in Germany” trademark. Industrial process reliability is our standard. This makes the X400 the perfect choice for precise industrial manufacturing of single large volume components and serial productions of full batches in one printing job.

- Large printing volume of 350 x 400 x 310 mm (X/Y/Z)
- Focus on industrial process reliability
- Latest extruder technology
- Filament tracking system
- Easy calibration via auto-bed leveling
- Touch display and professional electronic set up
- New ventilation system for material and components
Auto Bed Leveling
Ceramic printing plate
Easy calibration with auto-bed leveling

After an initial manual calibration during the German RepRap installation service, the X400 uses an auto-bed leveling feature for automatic calibration of the printing bed before each printing job. No more time consuming manual calibration of the printing bed.

Ceramic printing plate

The heated ceramic printing plate optimizes the adhesion between object and printing plate which also improves the overall part accuracy. The high quality ceramic withstands temperatures of 400 °C without deformation.
Process reliability – Filament tracking system

The filament tracking system puts the process reliability of the X400 on a new scale. This system tracks the ongoing material consumption of the printer and automatically pauses the job, if a filament spool is empty. It also compares the actual material flow with the software given parameters and regulates the printing speed if necessary to avoid printing errors due to inconsistent material transport.
Latest DD3 dual extruder technology

The X400 comes with the latest DD3 dual extruder which is optimized for easy material-handling. The printing head can be equipped with a wide range of different nozzles and diameters allowing one to find the best set up for each material and application. The variable contact pressure serves for a constant material feed and can be individualized for each material. This enables the use of both very stiff material as well as flexible material.
✓ Touch display
✓ USB interface
Electronics for professionals

The electronic set up of the X400 is based on an industrial computer. The operator controls the printer via a touch screen display. The ethernet network connection allows a remote control of the printer and observation with an additional webcam via tablet, smartphone or computer.

A new print job can be started directly via USB on the machine or via the browser based control using the network capabilities. “Stand alone printing” means that no additional devices are needed to control the X400 via network.
Professional ventilation system

The X400 comes with a new ventilation system that provides a consistent temperature regulation and improves the process reliability. It includes a printhead ventilation to optimize the temperature at the printhead, as well as a part-fan which allows to print complex overhang structures with less support material. A consistent temperature in the building chamber is managed by another ventilation system. This improves the overall printing quality of temperature sensitive materials.

Maintenance and Service

The X400 has proven its reliability in continuous operation and is the best choice for industrial applications. We offer a full service package through our worldwide network of certified partners. This includes the on-site installation service as well as additional software trainings and maintenance contracts.
# Specifications X400v4

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build platform* (X/Y/Z)</td>
<td>350 x 400 x 310 mm / 15.4 x 15.7 x 12.6 in</td>
</tr>
<tr>
<td>Print speed*</td>
<td>10 – 200 mm/s</td>
</tr>
<tr>
<td>Travel speed*</td>
<td>10 – 300 mm/s</td>
</tr>
<tr>
<td>Position accuracy* (X/Y)</td>
<td>+/- 0.1 mm</td>
</tr>
<tr>
<td>Layer height* (min.)</td>
<td>0.05 mm</td>
</tr>
<tr>
<td>Filament / Nozzle diameter</td>
<td>1.75 mm / 0.4 mm</td>
</tr>
<tr>
<td>Nozzles available*</td>
<td>0.25</td>
</tr>
<tr>
<td>Printing material* (filament)</td>
<td>Please find further Information about printing materials on our material database or on the German RepRap product leaflets.</td>
</tr>
<tr>
<td>Extruder type</td>
<td>DD3 Dual Extruder</td>
</tr>
<tr>
<td>Extruder temperature (max.)</td>
<td>290° C</td>
</tr>
</tbody>
</table>
Ambient temperature 15-26° C
Print bed technology heatable
Print bed temperature (max.) 110° C
Options cabinet
File transfer Stand-alone printing with touch display, USB stick and ethernet
Software included Simplify3D
Power consumption (max.) 600 W
Operating voltage* 115 – 230 VAC (adjustable)
Diameter approx. 735 x 730 x 777 mm
Weights approx. 50 kg
Standard DIN EN ISO 12100
Technology FFF (Fused Filament Fabrication)

* deviations possible depending on setting/material/process