

# bigrep IPSO<sup>105</sup>



## Maximum Performance. Unbeatable Price.

The IPSO 105 is an industry all-rounder high-temp machine with an unbeatable price-to-performance ratio. It is the most automated, reliable, and fastest way to get robust, high-performance parts in the hands of industrial engineers and designers. Aptly called the tool maker's tool, it is a blazing hot machine of 105 liters reaching 100°C with a print bed heating up to 180°C. It is built with state-of-the-art dual extruders capable of printing high-performance materials with open access to the world's most advanced materials, including PC, PEKK, PEKK-CF.

# BIGREP IPSO 105 KEY FEATURES



## Full-Scale 3D Printing

A Toolmaker's Build Volume

With a build volume of 105 liters, IPSO hits a sweet spot between a desktop and a large-scale 3D printer, perfect for many tooling applications. Thanks to its made-to-last industrial components and stepper motors with encoders, IPSO 105 achieves the accuracy and repeatability you expect in an industrial machine.



## Reliable Dual DSX Extruders

Uninterrupted Productivity

The IPSO 105 features dual DSX extruders, each with integrated cooling channels and multiple sensors for monitoring and control. When filament runs out the Relay Mode kicks in and the second extruder seamlessly takes over. The DSX is particularly good with soft, flexible material with its optimized feeding mechanism.



## Fully Automated Quick Start

Print at the Push of a Button

Getting started is quick and easy thanks to automatic functions like bed calibration via topology measurement and corresponding automatic compensation. After a smooth start, built-in sensors will secure your 24/7 operation while the camera enables real-time remote monitoring so you won't miss a thing.



## Even Temperature Distribution

For Top Mechanical Performance

Consistent temperature is key for excellent prints and a requirement for high-performance parts. Reaching temperatures up to 180°C, the print bed maintains uniform heat distribution. The airflow control precisely tempers the prints resulting in enhanced and consistent mechanical properties.

# TECHNICAL SPECIFICATIONS

|                           |                                                                                                                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Version                   | <b>BigRep IPSO 105</b>                                                                                                                                                                      |
| Build Volume              | <b>x 400 y 600 z 440 mm</b> (x 15.8 y 23.6 z 17.3 in)                                                                                                                                       |
| Printing Technology       | <b>Fused-Filament-Fabrication (FFF / FDM)</b>                                                                                                                                               |
| Compatible Materials      | <b>ABS, ABS-ESD, ABS-FR, ASA, HT-PETG, PA6, PA6-CF, PA12, PA12-CF, PA12-GF, PC, PC-ABS, PC-FR, PC-CF, PCTG, PEKK, PEKK-CF, PETG, PLA, PP, PP-GF, TPU, TPC</b> Open for 3rd party materials. |
| Support Materials         | <b>BVOH, Lye-Soluble Filament</b> Open for 3rd party materials.                                                                                                                             |
| Extruders                 | <b>Dual Direct Synchronized Extruders (DSX)</b> Interchangeable hotend with 0.4mm, 0.6mm, 1.0mm nozzles.                                                                                    |
| Layer Heights             | <b>From 0.05mm</b> Other layer heights supported through slicer software.                                                                                                                   |
| Nozzle Temperature        | <b>Up to 450 °C</b> (842 °F)                                                                                                                                                                |
| Print Bed Temperature     | <b>Up to 180 °C</b> (356 °F)                                                                                                                                                                |
| Build Chamber Temperature | <b>Up to 100 °C</b> (212 °F)                                                                                                                                                                |
| Print Speed   Throughput  | <b>Up to 200 mm/s   Up to 150 g/h</b>                                                                                                                                                       |
| Position Accuracy         | <b>&lt; 0.1mm in XY</b>                                                                                                                                                                     |
| Printer Weight            | <b>Approx. 420 kg</b> (926 lbs)                                                                                                                                                             |
| Size                      | <b>x 1270 y 1120 z 1730 mm</b> (x 50.0 y 44.1 z 68.1 in)                                                                                                                                    |
| Power                     | <b>400 V, 16 A</b>                                                                                                                                                                          |

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