

# DUPLEX F2

Fused Deposition Modeling 3D Printer for industrial applications

Technical Data Sheet  
v.1.0

## TECHNICAL SPECS

### BASIC SPECIFICATIONS

|                        |   |
|------------------------|---|
| Build volume           | Ø 400mm x 1000mm                                |
| Layer height           | 50-600 micron                                   |
| Bed temperature max    | 130 C°  |
| Nozzle temperature max | 500 C°  |
| Heated active chamber  | heated up to 70°C                               |
| Print speed max        | 300 mm/s  |
| Travel speed max       | 500 mm/s  |
| Acceleration           | 10.000 mm/s <sup>2</sup>                        |
| Nozzle diameters       | 0,6mm Ø up to 1,2mmØ hardened steel or stronger |

### MATERIALS

|                    |  |
|--------------------|--|
| Filament diameter  | 1.75 mm  |
| Material selection | Tested and optimized for BASF materials<br>Ultrafuse PLA<br>Ultrafuse PLA PRO1<br>Ultrafuse ASA<br>Ultrafuse ABS FUSION+ |

### SOFTWARE

|                    |                  |   |
|--------------------|------------------|---|
| Operating software | Slicing software | Proprietary, web-based (Biflex Pro 1.0) |
| Input file types   |                  | .stl, .obj, .gcode, .3mf                |

### INTERFACE

|   |
|---|
| Pendrive USB, Wifi network, Display TFT touch |
|---|

### PHYSICAL DIMENSION

|                      |                    |
|----------------------|--------------------|
| Dimensions           | 88 x 102 x 240 cm  |
| Packaging dimensions | 100 x 110 x 280 cm |
| Machine weight       | 400 kg             |

### POWER

|             |                                      |
|-------------|--------------------------------------|
| Input power | 220/240 V 50/60 Hz (110 V available) |
|-------------|--------------------------------------|

### ENVIRONMENT

|                       |          |
|-----------------------|----------|
| Operating temperature | 20-30° C |
|-----------------------|----------|

### MECHANICS

|  |
|--|
| All metal body for a stiff and vibration free precise device, machined aluminum parts, PEI powder coated printbed. Moving parts resistant to high temperature, polymer foam for thermo-acoustic insulation |
|--|

## KEY INNOVATIONS

### MAP

Patented technology for parallel printing of the same object from two directions

### Automated mid-section

Allows fixing of the part and enables a fully autonomous 2-way printing

### Filament changeover

Auto changing of the filament spools after runout

### Gcode analyzer

Gcode evaluation and automated fixing

### Mesh auto calibration

Advanced method for part-specific planar corrections

### Advanced thermal management

Heated and cooled chambers and printbed

### On-board camera

For monitoring and timelapse

### Remote intervention

Over-the-air immediate technical support



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