



PRINTER 3D

OLIVETTI S2



STRATEGIE CAD OFFICIAL SELLER

1. **Description of the Olivetti S2 3D Printer**

Olivetti S2 is a 3D printer with FFF (Filament Fusion Manufacturing) technology.
The main features of the Olivetti S2 printers are:

- printing area: 40 cm x 40cm x 40 cm
- maximum printing speed (laying speed) is 150 mm / velocità di stampa (velocità di posa) è 150 mm/s
- large heated printing plate (heated bed) of 5 mm tempered glass, can reach temperatures above 100 °, depending on the type of printing to be made and the material to be used
- double extruder
- mechanical and electronic quality to industrial standards
- great flexibility for creating objects with any type of thermoplastic material including: PLA, PLA Layer, Rubber, SBC, Special Filaments (loaded wood, carbon, glass, marble)
- possibility of making two-colored objects and / or made of two different materials, without the need to suspend printing to change the filament
- possibility of creating objects with different resolution levels, according to the requirements in terms of aesthetic yield and production times. The minimum layer thickness obtainable with Olivetti S2 is 0.05 mm (50 microns).

Depending on the diameter of the nozzle and the material used, objects with different layer thickness can be made.

The minimum thicknesses obtainable with the different nozzles are indicated below:

- Nozzle diameter 0,30 mm:
 - o minimum layer thickness: 0,05 mm (50 micron)
 - o recommended layer thickness: 0,10 mm (100 micron)
- Nozzle diameter 0,40 mm:
 - o minimum layer thickness: 0,10 mm (100 micron)
 - o recommended layer thickness: 0,20 mm (200 micron)
- Nozzle diameter 0,80 mm:
 - o minimum layer thickness: 0,20 mm (200 micron)
 - o recommended layer thickness: 0,40 mm (400 micron)

The supplied nozzles have a diameter of 0.50 mm.

The precision tolerance of the Olivetti S2 printer - net of material shrinkage - is

- 0,08 mm (80 micron) on X/Y axes
- 0,01 mm (10 micron) on Z axis

Formats and methods for acquiring the files to be printed

Olivetti S2 is able to manage the different file formats typically used for 3D printing:
.STL, .OBJ, .AMF, .DAE (depending on the software used).

The file containing the object to be printed typically derives from a drawing made in 3D (or from a 3D scan), normally modified and adapted through the use of a "slicing" software (see the following paragraph).

Firmware and Software

The Open Source Firmware used is the Marlin.

At the software level, Olivetti S2 is compatible with most of the printing software that supports the Marlin firmware: (Repetier-Host, Simplify3D, Cura, Slic3r, Kisslicer to generate the Gcode).

The software recommended for use with Olivetti S2 are, in particular, Repetier-Host for PC and Cura control.

Control panel

Olivetti S2 is equipped with a 128x64 dot matrix front LCD display, from which it is possible to detect the main information related to the operation of the machine.

The control panel is completed by a "jog dialer", ie a multifunctional knob placed near the display, with which you can scroll through the menus visible on the screen and select the different functions by pressing the dialer itself.

Features of the body and the body

Olivetti S2 has been designed and built with solutions and materials capable of guaranteeing maximum protection for the user and excellent material resistance.

The frame of the machine is in 45x45 radius anodised aluminum. The paneling is in polycarbonate.

Configuration summary

The following table summarizes the configuration of the Olivetti S2 printer supplied:

Olivetti 3D	
Olivetti Random code	B3216
Tecnology	FFF (Fabbricazione a Fusione di Filamento)
Printing Speed	> 150 mm/sec
Printing area	40 cm x 40 cm x 40 cm
Precision tolerance (axes X/Y)	0,08 mm
Minimum layer thickness	0,05 mm
Heated bed	Bed in tempered glass. Max Temperature 110 ° C
Extruder	Double. Max. Temperature 280° C
Nozzle size	From 0.30 to 0.80 mm
Filament	1,75 mm
Printable materials	any type of thermoplastic material (including: PLA, PLA Layer, Rubber, SBC, Special Filaments wood, carbon, glass, marble)

2. Consumables

Olivetti S2 is able to produce objects using filaments of any thermoplastic material.

It is **recommended to use the filaments indicated by Olivetti**, so as to guarantee the correct operation of the printer and optimal quality of the printed objects.

Olivetti filament catalog currently includes the following materials:

- **PLA Layer.**

PLA is polylactic acid, a polymer derived typically from maize and completely biodegradable

- Il PLA Layer - The PLA Layer - available in 2 Kg coils - is a version of PLA particularly suitable for use in 3D printers and able to allow a level print quality

At the moment the following colors are in the catalog:

- ✓ white
- ✓ black
- ✓ gray

- the standard PLA filaments are instead available in 1 Kg coils and at the moment the following colors are in the catalog:

- ✓ Red
- ✓ Green
- ✓ Blue
- ✓ Yellow

- Flexmark (rubber) white
- Monumental (PLA loaded marble) white
- Wood (PLA loaded wood), in wood coloring
- Carbonium (carbon-filled nylon) black
- SBC (media material) transparent

The table summarizes the characteristics and codes of the filaments in the catalog:

Materiale	Colori	Bobina	Codice Random
PLA Layer	black	2 Kg	B3253000
PLA Layer	white	2 Kg	B3254000
PLA Layer	grey	2 Kg	B3255000
SBC	trasparent	2 Kg	B3256000
PLA	red	1 Kg	B3245000
PLA	Green	1 Kg	B3246000
PLA	blue	1 Kg	B3247000
PLA	Yellow	1 Kg	B3248000
Ultraflex	white	1 Kg	B3249000
Monumental	white	1 Kg	B3250000
Wood	Wood	1 Kg	B3251000
Carbonium	Black	1 Kg	B3252000

It should be noted that the use of filaments not certified by Olivetti could cause the extruders and nozzles to clog, with consequent blocking of operations and the possibility of having to replace some components