



SMART 3D PRINTER

JCR 1000 Single 1000 Dual

The large format industrial 3D printer.

Large size and high productivity. With a tray of 1000x600x600 mm and interchangeable nozzles from 0.3 mm to 1.2 mm, it allows you to manufacture large parts with the speed and quality you need.

Extrusion. The *JCR 1000 Single* has a single extruder of up to 500 °C to obtain the highest productivity ratio and maximum printing speed per cm³. For its part, the *JCR 1000 Dual* has a double extruder up to 500 °C, to manufacture parts with water-soluble support material or parts with double construction material.

Heated base up to 70 °C and room temperature controlled in the JCR 1000 Dual.

Smart printers designed for industry.

Efficiency from the first moment with automatic correction of files and verification of print configuration, reducing time and production costs.

JCR Manager

Management and communication software between the user and the 3D Printer, with an intuitive and intelligent use of the functions to print with reliability and previous optimization of parameters.

Most important functions

1 Automatic Check

It automatically verifies and repairs the STL file and provides a detailed report of it. If it has mistakes, (holes in the design, inverted normals, etc.) it recomposes it and makes it suitable for printing.

This software is integrated in the printer and is valid for files of less than 100 MB. For higher files, the function is included in the JCR Edit software (included as standard in all the JCR 3D models).

2 File Tester

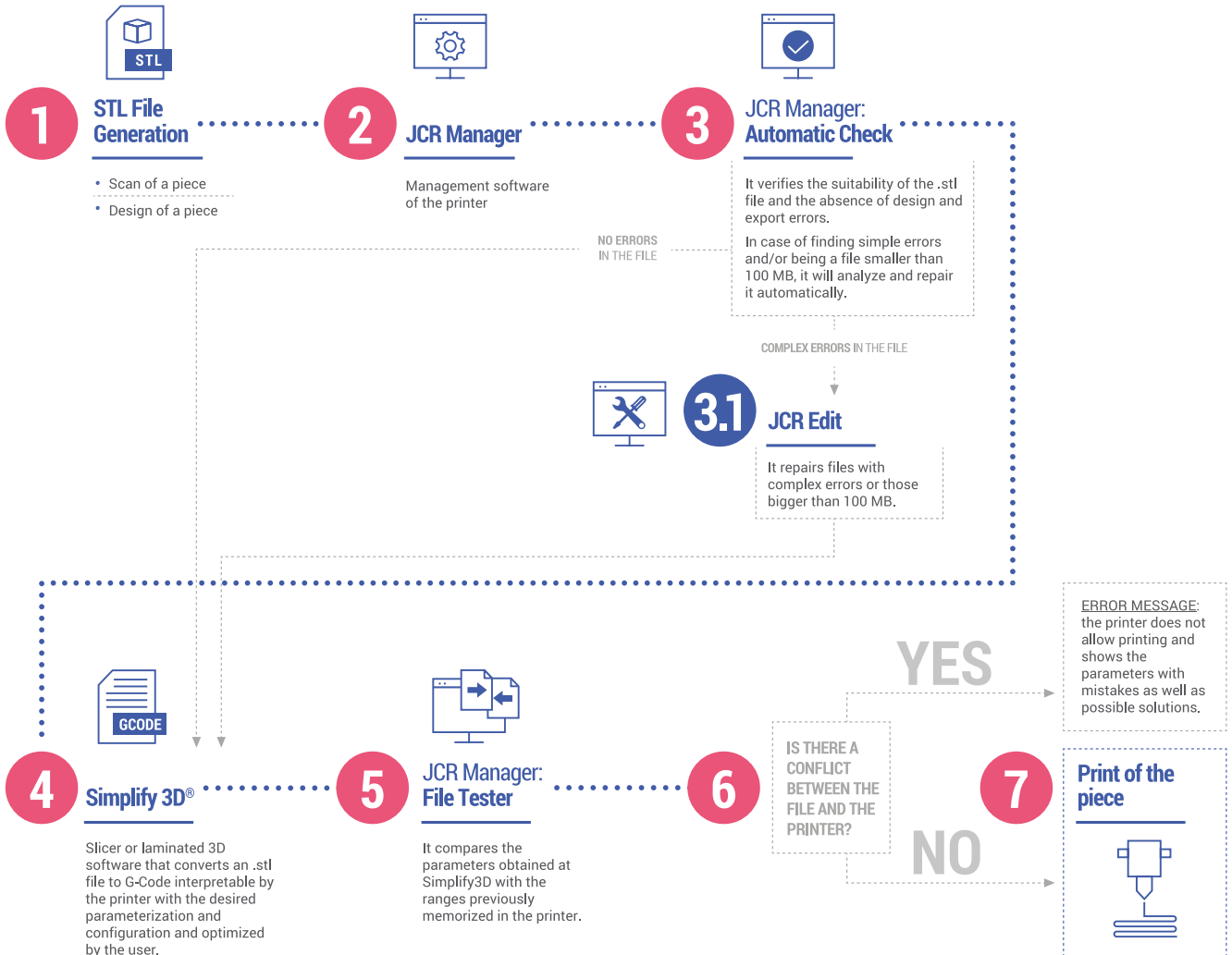
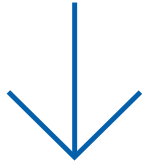
It verifies that the configuration of the G-Code file and the 3D printer are compatible, checking parameters (layer thickness, printing speed, printing nozzle, etc). In case of error, it does not allow to start printing and indicates the steps to correct it.

3 Time Lapse

It allows the download and management of the *time lapse* (a fast camera video of the print) for supervision and analysis.

Smarts

That's how our printers *think* for you.



Software licenses included as standard in all the JCR 3D models.

In addition to the JCR Manager management software, our printers include two programs to manage, edit and repair G-Code files if necessary.

JCR Edit

Software to check, repair, export and modify 3D models.

The main functions that it incorporates are:

- **Import and export to more than 12 different formats**, such as stl, obj, ply, iges and wrl.
- **Model Fix:** options for manual repairment of the models (check and repair surfaces, normals, gaps, check thicknesses, etc).
- **Print preparation:** with Split-Connect options to split objects with different cuts to fit the pieces.

Simplify 3D®

Slicer or laminated 3D software that converts an .stl file to G-Code interpretable by the printer with the desired configuration.

Extended 2-year warranty

The use of top brand materials, the preventive software systems, the recommendation of use of the materials according to the user guides and the strict quality controls at the factory allow us to offer a **2 year warranty on all our models**.

Intelligent management of power supply interruptions

This advanced UPS gives the printer an **autonomy of more than 20 minutes**, to continue printing normally in case of power failure. After that period, the system is suspended in a controlled manner, saves the printer parameters and **sends an email to the production manager**, notifying the incident to resume **manufacturing later from where it was**.



Automatic predictive maintenance system

Warning and reminder service of the recommended maintenance of the printer according to the hours of printing and elapsed time, to guarantee its reliability.

JCR 3D SMART PRINTERS

Reliable



JCR 3D SMART PRINTERS

Flexible

Printers open to the use of any printing material

JCR 3D printers can work with the materials of the main manufacturers in the market.

JCR 3D recommends and guarantees the use of materials which are tested and selected by our engineers, providing our customers a detailed printing guide with optimal printing conditions, advices, limitations and applications of each material to help improve their use.

Cost and time saving

The incorporation of any JCR 3D model to its production process is a lever of **profitability for your business** that will result in a quick **amortization of the investment** in the printer, and, at the same time, in a **cost saving** that will go directly to your company results account.

Upgradeable

Our printers are upgradeable.

Choose the model that best suits your needs and renew it to the superior version of its range when you want to.

Large format industrial printing

Multiple dimensional possibilities with construction volumes from 580 mm to 1000 mm in length. These formats multiply the number of applications and possibilities in industries such as automotive, aeronautics, machinery, etc..

Print factory

With JCR Manager you can **smartly manage an unlimited number of JCR 3D printers**, in their different models and with only one operator.

Technical specifications

Printing



| | |
|------------------------------|--|
| Printing technology | FFF (Fused Filament Fabrication) |
| Printing volume | 600 x 1000 x 600 mm |
| Minimum layer height | 0.1 mm |
| Front panel/display | Touch, multi language and full color |
| Nozzle diameters | intercambiable 0.4, 0.6, 0.8 mm Commodity and High temp extruder 0.6, 0.8, 1, 1.2 mm High Production extruder |
| Filament diameter | 1.75 mm + - 0.05 mm |
| Maximum extruder temperature | 500 °C |
| Maximum tray temperature | 70 °C (Thermal homogenization system for printing base) |
| Maximum cabin temperature | 55 °C |

| | JCR 1000 Single | JCR 1000 Dual |
|------------------|---|--|
| Head number | 1 | 2 (double electro tilting independent extruder) |
| Extrusion system | Single extruder: Commodity (up to 245 °C) / High temp. (up to 500 °C) | Dual extruder with two Commodity extruders (up to 245 °C) and two High Temp extruders (up to 500 °C) |

Materials



Load of filament up to 8 kg coils

Filaments for models building

JCR Print High dimensional stability

ABS* Mechanical resistance

ABS FP* Mechanical resistance and fire retardant

ABS Medical* Biocompatible ABS, accepted for its use in medicine

PC* For high temperatures and high resistance to traction and impact

Nylon* Very good mechanical properties. Non-abrasive material

CFR Nylon* Composite formed by PA and carbon fiber, which provides excellent mechanical properties and high thermal resistance

Filaments for support manufacture / JCR 1000 Dual PVA* water soluble support

Compatibility between filaments / JCR 1000 Dual PLA/JCR Print + PVA

*Printing conditions according to user guide.

Add-on services

In house training

- For the handling of our printers
- About specific materials and applications by sector
- On how to get the most out of FDM / FFF technology
- To design for FDM / FFF technology

Generation service of G-Code

We offer you an external G-Code file generation service, so you don't have to worry about the configuration of your files and you can save time and material.

Warranty extension

We offer the option to increase the warranty of your printer up to 5 years. All JCR 3D printers come with a 2-year warranty included.

R + D Collaborations

We understand collaborations with other companies as part of our DNA, so we are open to working together to develop new materials, applications and printing methods that have an attractiveness for the market.

Technical and preventive maintenance

We offer a technical service for professional maintenance and for industrial use of our equipment. Being able to choose between a telephone service, ticket support and response in 24 working hours.

With preventive maintenance, you can choose the periodicity with which you would like to do a set-up of your equipment based on printing hours or elapsed time.

Tailor-made financing

We offer an external service of technological Renting, financial renting and leasing.

Software



| | |
|---------------------------|--|
| Included slicing software | Simplify 3D |
| JCR Manager | Intelligent management of the printer |
| JCR Edit | Analysis, repairment and editing software file |
| Automatic check | Verification and repairment of STL file |
| File tester | Initial verification of code and printing parameters |

Self-leveling system during printing

Guided assistants for base and extruders calibration

UPS with smart interaction with the printer and the printer resumption system after power cut

Control and notice of end of filament

Warning assistant and preventive maintenance control

Immediate remote connection system for SAT actions is included.

Generation of time lapse by printing

Mechanics



| | |
|--|--|
| Structural materials | Steel and aluminium |
| Basic printing materials | High performance technical glass |
| Habitat | Controlled working conditions (temperature and humidity) |
| Axis X / Y motor precision | 15 microns |
| Z axis engine precision | 15 microns |
| Movement system on high precision guides | |

Dimensionality



| | |
|------------|-----------------------|
| Dimensions | 1500 x 1210 x 1730 mm |
| Weight | 400 kg |

Connection / Consumption



| | |
|-------------------------|--|
| Power supply | 1F / 220 V single phase |
| Power consumption (max) | 2.8 Kw |
| Connectivity | Wi-Fi; Ethernet network type RJ45; USB |

