



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 to 1.2, 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 350 °C to obtain the highest productivity ratio and maximum printing speed per cm<sup>3</sup>. 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

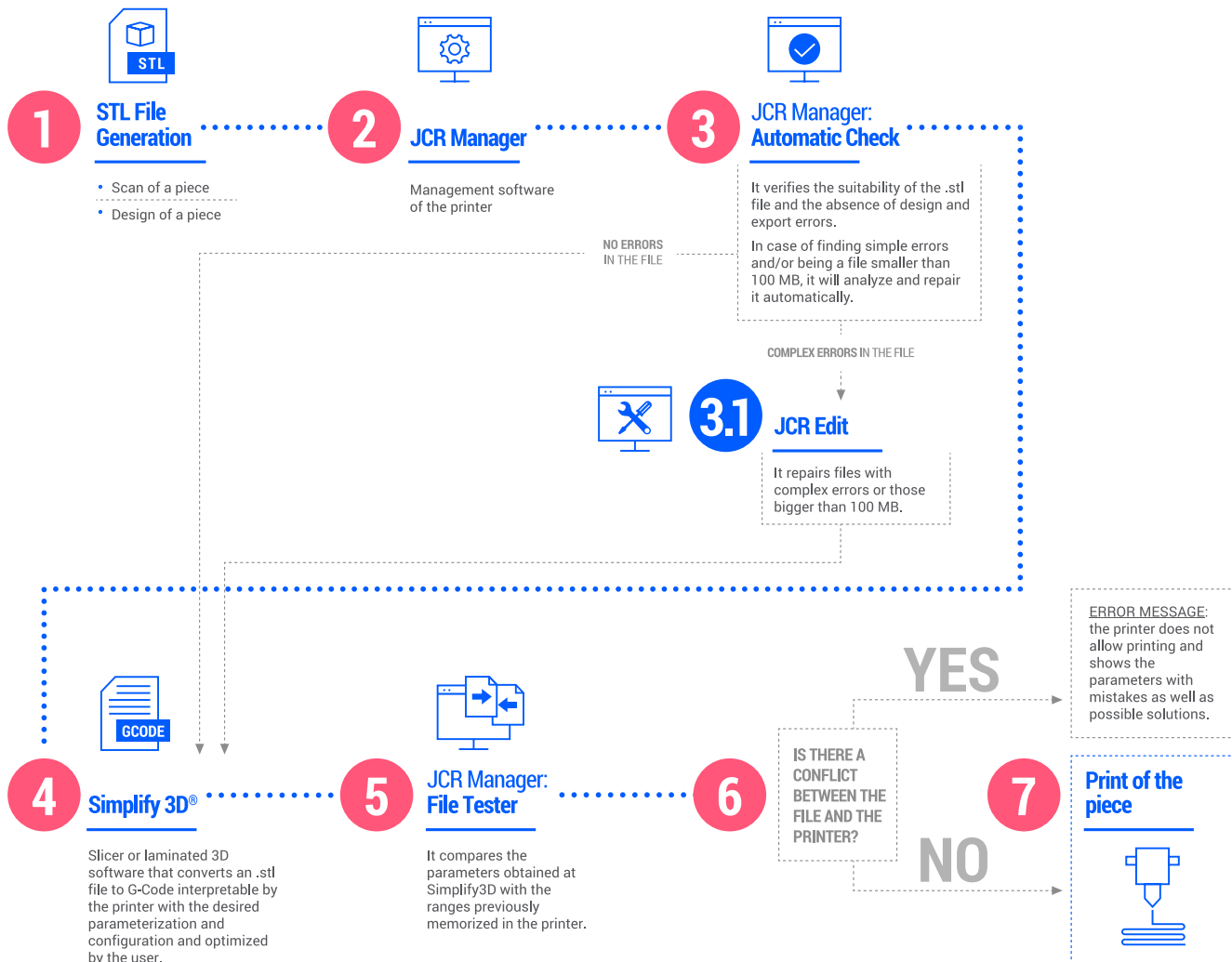
It verifies that the configuration of the G-Code file and the 3D printer are compatible, checking parameters (layer thickness, printing speed, printing nozzle, etc). In case of error, it does not allow to start printing and indicates the steps to correct it.

#### 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 *thinks* 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 SAI 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	
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	<b>JCR 1000 Single</b>	<b>JCR 1000 Dual</b>
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\* ABS flame retardant

ABS Medical\* With biocompatibility degree

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

Nylon\* Very good mechanical properties. Non-abrasive material

Nylon + Carbon fiber\* Excellent thermal and mechanical properties

Filaments for support manufacture / JCR 1000 Dual

PVA\* water soluble support

Compatibility between filaments / JCR 1000 Dual

PLA/JCR Print + PVA

## 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	IF /220 V single phase
Power consumption (max)	2.8 Kw
Connectivity	Wi-Fi; Ethernet network type RJ45; USB

\*Printing conditions according to user guide.



Edificio Centro de Innovación  
Campus Científico-Tecnológico de Linares  
Circunvalación Ronda Sur, s/n  
Linares · JAÉN

953 88 80 89  
info@jcr3d.com  
jcr3d.com