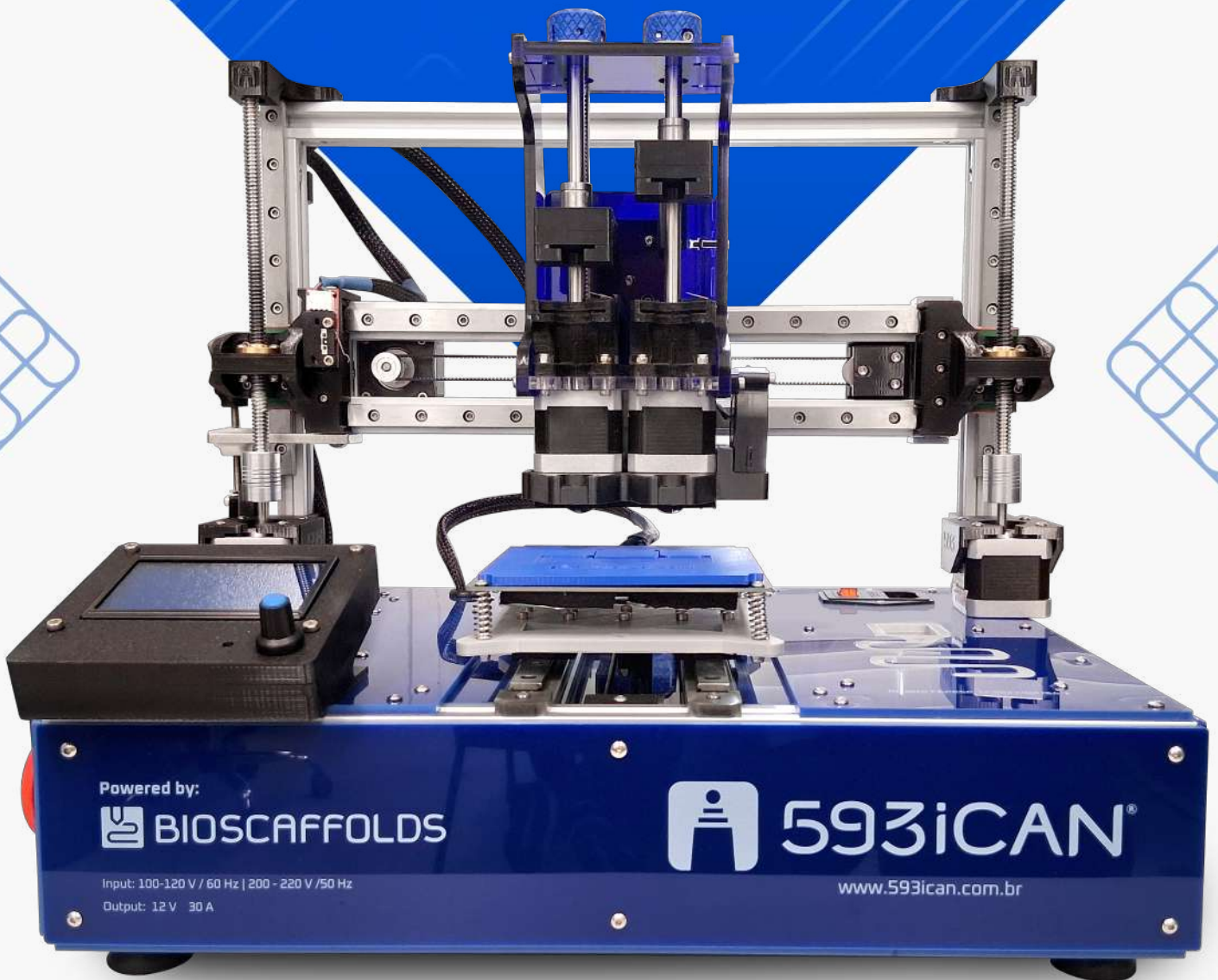


 **593iCAN**<sup>®</sup>  
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**Precision,  
layer by layer.**

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# Model +593 3D Printer Kit



## The kit includes:

- Video tutorial with basic online training.
- 1 user manual.
- **Luer-Lock Kit:** 100 x 10 ml syringes, 25 x conical nozzle (polypropylene) 22 G (Internal diameter (mm) 0,41 +/-0,03), 25 x conical nozzle 20 G (Internal diameter (mm) 0,63 +/-0,03), 25 x conical nozzle 18 G (Internal diameter (mm) 0,84 +/-0,03), 100 sealing caps.
- **Version 2.0 of the BioScaffolds PG V2.0 software developed by 593iCAN.**
- 1 box with 50 microscope slide (substrate for 3D printing).
- 3 acrylic guides for positioning 3D printing substrates.

## General Specifications:

- Dual print head for the deposition of pseudoplastic materials (10 ml syringes)
- **External dimensions of the equipment (Approximate):** Length 425 mm x Width 300 mm x Height 370 mm.
- **Heated phenolic resin bed:** 120x120 mm. **Printing area:** 100 x 100 mm.
- **U.V. light system:** 2 LEDs with a wavelength of 395 – 400 nm (10 W)
- Aluminum profile and acrylic structure. Movement with linear guide system (S45 carbon steel) with linear bearings.
- Automatic bivolt power supply (110/220 V).
- Extrusion head using disposable 10 ml syringes (NEMA 17 motor - 5 kgf.cm) for the deposition of pseudoplastic gels and pastes.
- **Communication:** USB Cable (included).
- **Maximum operating temperature of the bed:** 90 °C. Thermal insulation on the heated bed.
- Thermal protection to prevent motherboard overheating.
- Screen: LCD 128x64 with SD card reader.

Contact us for more information:

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# Model +593H 3D Printer Kit



## The kit includes:

- 1 User manual.
- **Luer-Lock Kit:** 50 x 20 ml syringes, 25 x conical nozzle (polypropylene) 22 G (Internal diameter (mm) 0,41 +/-0,03), 25 x conical nozzle 20 G (Internal diameter (mm) 0,63 +/-0,03), 25 x conical nozzle 18 G (Internal diameter (mm) 0,84 +/-0,03), 100 sealing caps.
- **Version 2.0 of the BioScaffolds PG V2.0 software developed by 593iCAN.**
- 1 box with 50 microscope slide (substrate for 3D printing).
- 3 acrylic guides for positioning 3D printing substrates.

## General Specifications:

- Dual print head for the deposition of pseudoplastic materials, with heating in the syringes (20 ml) up to 60 °C.
- **External dimensions of the equipment (Approximate):** length 425 mm x width 300 mm x height 370 mm.
- **Heated phenolic resin bed:** 120x120 mm. **Printing area:** 100 x 100 mm.
- **U.V. light system:** 2 LEDs with a wavelength of 395 – 400 nm (10 W)
- Aluminum profile and acrylic structure. Movement with linear guide system (S45 carbon steel) with linear bearings.
- Automatic bivolt power supply (110/220 V).
- Extrusion head using disposable 20 ml syringes (NEMA 17 motor - 5 kgf.cm) for the deposition of pseudoplastic gels and pastes.
- **Communication:** USB Cable (included).
- **Maximum operating temperature of the bed:** 90 °C. Thermal insulation on the heated bed.
- Thermal protection to prevent motherboard overheating.
- Screen: LCD 128x64 with SD card reader.

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## Conical Nozzle Kit

**Box containing 70 nozzles (10 nozzles of each):** Suitable for medium to high viscosity, pasty or granular fluids.

**Total nozzle length:** 30 mm

**Internal diameter tolerance:**  $\pm 0.02$  mm

Model	Internal diameter	Color
16G	1.43 mm	Gray
18G	0.84 mm	Green
20G	0.60 mm	Pink
21G	0.51 mm	Purple
22G	0.41 mm	Blue
23G	0.34 mm	Orange
25G	0.26 mm	Red



## Straight Nozzle Kit

**Box containing 100 nozzles (10 nozzles of each):** Suitable for low viscosity fluids.

**Total nozzle length:** 30 mm

**Length of the stainless steel region:** 13 mm

Model	Internal diameter	External diameter	Color
16G	1.25 mm	1.65 mm	Dark gray
17G	1.04 mm	1.49 mm	Brown
18G	0.84 mm	1.28 mm	Green
19G	0.72 mm	1.08 mm	Black
20G	0.61 mm	0.91 mm	Pink
21G	0.52 mm	0.82 mm	Purple
22G	0.42 mm	0.72 mm	Blue
23G	0.34 mm	0.64 mm	Orange
24G	0.30 mm	0.55 mm	Red
25G	0.26 mm	0.52 mm	Red



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## Stainless steel nozzles Kit

**Contains 6 stainless steel 303 nozzles:** Sterilizable. Suitable for high-precision printing.

Model	Internal diameter
30	0.30 mm
40	0.40 mm
50	0.50 mm
60	0.60 mm
70	0.70 mm
80	0.80 mm



## Luer-Lock Connector

**Double female Luer-lock metallic connector with thread:**

Sterilizable. Suitable for the homogenization of different materials in two syringes.

**Material:** nickel-plated brass

**Quantity per package:** 1 unit



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## Personalized training

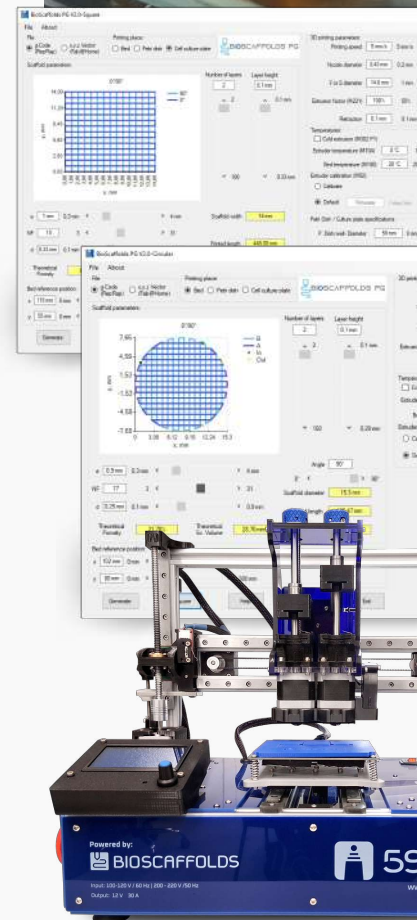
- Personalized training, based on customer demands
- In-person at 593iCAN headquarters
- 8 hours duration (8 am - 5 pm)

## Specialized Training (8 h) for 3D Printer Operation

- **Maximum number of participants:** 10 - 15 people
- **Description:** The training will be held at the 3D printer installation site, in a space provided by the customer, with adequate infrastructure to accommodate up to the maximum number of participants. It will be necessary to provide a workbench for the printer installation, a projector, a computer for 3D printer control, and two type N sockets (10 A) with a voltage of 110 V or 220 V.
- **Training Program Content:** presentation of 3D printing technology, practical demonstration of the printer and BioScaffolds software, printing training with one syringe, 3D printing practice of different types of samples of interest.
- **Certificate:** issued by the company to participants.

## Specialized Training (16 h) for 3D Printer Operation

- **Maximum number of participants:** 20 - 30 people
- **Description:** The training will be held at the 3D printer installation site, in a space provided by the customer, with adequate infrastructure to accommodate up to the maximum number of participants. It will be necessary to provide a workbench for the printer installation, a projector, a computer for 3D printer control, and two type N sockets (10 A) with a voltage of 110 V or 220 V.
- **Training Program Content:**
  - **Day 01:** Presentation of 3D printing technology, practical demonstration of the printer and BioScaffolds software, printing training with one syringe, 3D printing practice of different types of samples of interest.
  - **Day 02:** Reinforcement of concepts for equipment and software usage, printing training with two syringes, 3D printing practice of different types of samples of interest.
- **Certificate:** Issued by the company to participants.



# Projects

## Development of Solutions for 3D Printing of Semi-Solid Materials

- 593iCAN offers specialized consulting for projects that use our +593 and +593H printer models. The focus of the consulting is to assist the researcher who already uses our printers to develop innovative solutions in the area of semi-solid materials, covering technical feasibility and the development of new strategies for the deposition of semi-solid materials, with the production of prototypes.



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