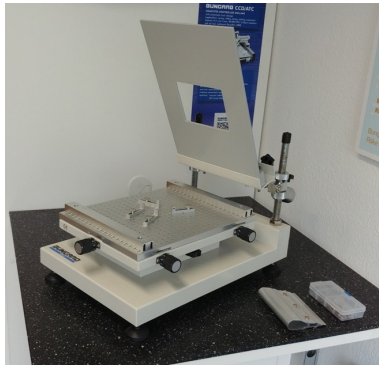
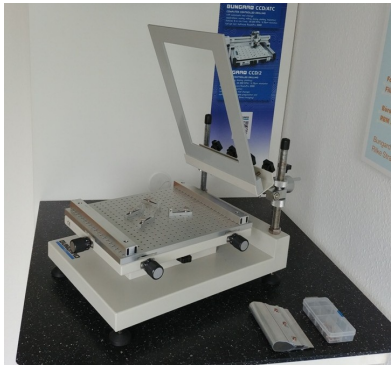


# STENCIL PRINTER PRINTSTAR 3000

Translation of the Original Instructions



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## Introduction

The PrintStar 3000 stencil printer is a high-precision manual press and has been consistently developed for applying solder paste to one-sided or double-sided PCBs.

The machine has a solid welded sheet metal construction as a basis. An X and Y adjustable cross table is mounted on the weldment with an aluminum grid plate for mounting the board.

The PCB is adjusted via its own mounting holes. The clamping elements with the fixing pins are screwed onto the breadboard, whereby a comfortable positioning and repeatability can be ensured.

The template is roughly adjusted over the clamping frame and aligned with the fine adjustment screws in X- and Y- to match the board.

The screen printing frame is quickly and securely fixed to the swivel unit with four clamping screws and can be adjusted in height between 0 and 80 mm in order to conveniently control the thickness of the board and also the thickness of the solder paste application.

The scope of delivery includes 3 plastic frames with various board cutouts. An adjustable clamping frame is optionally available.

## Technical Data

<b>Size of workbench</b>	300 x 400 mm
<b>Max printing size</b>	250 x 400 mm
<b>Max screen frame dimension</b>	370 x 470 mm
<b>Printing speed</b>	Manual control
<b>Thickness of printed matter</b>	0- 80mm
<b>Vertical and horizontal adjustment volume of workbench</b>	10mm
<b>Height of printing platform</b>	220mm
<b>Repeatability precision</b>	+/- 0.01
<b>Location Mode</b>	Shape or benchmark hole
<b>Outline Dimension</b>	540 x 370 x 350
<b>Weight</b>	+/- 36 kg

## EG-Declaration of Conformity



### EG-Konformitätserklärung/Declaration of Conformity

Hersteller / Supplier:	Bungard Elektronik GmbH & Co. KG Rilkestraße 1 51570 Windeck Germany
Bevollmächtigte Person für die Zusammenstellung der technischen Unterlagen: Person in charge	Jürgen Bungard, Geschäftsführer /general director Rilkestraße 1 51570 Windeck Germany
Produkt:	Stencil Printer Print Star 3000

Hiermit erklären wir, dass die oben beschriebenen Maschinen allen einschlägigen Bestimmungen der Maschinenrichtlinie 2006/42/EG entspricht.

Die oben genannte Maschine erfüllt die Anforderungen der nachfolgend genannten Richtlinien und Normen:

We hereby declare that the machines described above complies with all relevant provisions of the Machinery Directive 2006/42/EC.

The above machine meets the requirements of the following guidelines and standards:

- Maschinenrichtlinie 2006/42/EG / Machinery Directive 2006/42/EC
- EMV-Richtlinie 2014/30/EG / EMC Directive 2014/10830EC
- Niederspannungsrichtlinie 2014/35/EG / Low Voltage Directive 2014/35/EC
- DIN EN 60204-1 Sicherheit von Maschinen - Elektrische Ausrüstung von Maschinen - Teil 1: Allgemeine Anforderungen / Safety of machinery - Electrical equipment of machines - Part 1: General requirements
- DIN EN ISO 14121-1 Sicherheit von Maschinen - Risikobeurteilung - Teil 1: Leitsätze / Safety of machinery - Risk assessment - Part 1: Principles
- DIN EN ISO 12100-1 Sicherheit von Maschinen - Allgemeine Gestaltungsleitsätze, Risikobeurteilung und Risikominderung / Safety of machinery - Basic concepts, risk assessment and risk reduction
- DIN EN 55014-1 2012-05 Elektromagnetische Verträglichkeit, Anforderungen an Haushaltsgeräte, Elektrowerkzeuge und ähnliche Elektrogeräte, Teil 1: Störaussendung / Electromagnetic compatibility Requirements for household appliances, electric tools and similar electrical appliances Part 1: Emission
- DIN EN 55014-2-2009-06 Elektromagnetische Verträglichkeit - Anforderungen an Haushaltgeräte, Elektrowerkzeuge und ähnliche Geräte - Teil 2: Störfestigkeit - / Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2: Immunity
- Niederspannungsrichtlinie / Low Voltage Directive 2014/35/EG
- Maschinenrichtlinie / Machinery Directive 2006/42/EG/37/EG

Windeck, 10.1.2020

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Jürgen Bungard Geschäftsführer

## Intended Use of Machine

The PrintStar 3000 is constructed for the manual application of solder paste on PCB. All other applications require our written consent or at the user's own risk.

## Safety regulations

### Generally

Please read the following text carefully and pay particular attention to the instructions on safety at work and on commissioning.

Please keep this manual at a safe place. It contains instructions that are also important for later maintenance or cleaning work.

The machines are not intended for integration or interconnection with other machines or equipment. They may only be operated in rooms equipped for this purpose and operated only by qualified specialist personnel (soldering skills). Children and pets are to be kept away!

Consider please the following guidelines for responsible behavior:

While maintenance, follow the instructions in the attachment.

Keep away from moving parts.

Before operating or try to repair the machine, all manuals and signs has to be read and understood.

Make sure, that the relevant qualifications and the functions and safety components of the machine are present. If it is necessary, ask a superior.

Do not misuse the machine. Apply the machine only after its sense of use according to the manual.

Repairing the devices is only permitted to service technicians of the BUNGARD GmbH & Co. KG.

Consider if necessary also the special safety regulations of your country.

Only trained and competent persons are allowed to actuate the machine.

The persons in authority for rebuild, installation, operation, service and repair have to be exactly identified.

### Site

The site must be level and dry and there must be enough space around the machine for service and maintenance (about 1m on all sides). Do not use this device outdoors! The table must be able to carry a weight of at least 34 kg. The machine should be used at normal room temperatures of 15 to 25 degrees.

### Exhaust

Use the machine only in well-ventilated areas. Follow the safety rules of the solder paste and adhesive suppliers.

### Maintenance

The stencil printer does not contain any parts requiring routine maintenance.

To ensure trouble free operation over a number of years please observe the following points:

Please keep the work space clean. Contamination of the stencil printer could lead to premature wear. Examples: corrosion of metal parts or erosion of moving parts.

Please check regularly the moving parts of free movement. If there is a rough-running you can use a lubricant.

### Scope of delivery

∅ 1 positioning needle	5 pieces
∅ 1.5 positioning needle	5 pieces
∅ 2 positioning needle	5 pieces
∅ 2.5 positioning needle	5 pieces
∅ 3 positioning needle	5 pieces
Thimble	30 pieces
Fixed plate	2 pieces
Instruction manual	1 piece
Certificate of quality	1 piece
Allen key	1 piece
Screen printing frame PVC	3 pieces
Clamping frame Alu/Steel	option

### Installation

#### Takeover from transport companies

After receiving and unpacking the machine, check for possible transport damage. In case of transport damage, please inform your insurance company, the carrier and the manufacturer / supplier.

#### Site

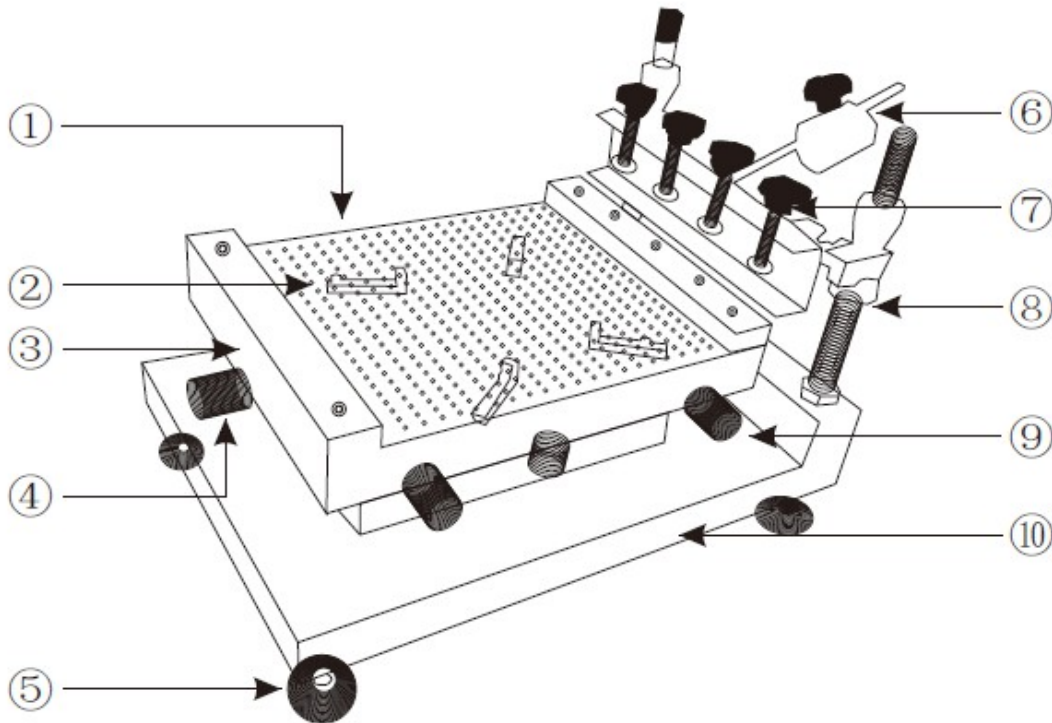
The oven must be level and around the machine there must be sufficient space for operation and maintenance (about 1 m on all sides). When setting up the machine, observe all safety prevention regulations and other local regulations.

The oven should be set up on a well accessible table. The surface must be level and heat resistant and be able to carry at least a load of 40 kg.

Do not place any other objects on the device, especially no flammable liquids, such as: As water, hot water, alcohol, methanol, gasoline.

- Remove the packaging, read this manual carefully. Both hands hold the base to lift the host in right direction, put host well onto solid and smooth ground.
- Adjust four adjustable feet of base to make the whole machine level and firm.
- Install printing template, adjust the position and angle of counter weight to fix the handle and make printing template in the right position all the time.

Overview



1.Working platform	6.Counter weight
2.Positioning needle	7.Template fixed knob
3.Fixed plate	8.Height adjustment knob
4.Y axis rotary knob	9.X axis rotary knob
5.Adjustable foot of base	10.Base

## Operating

Step 1: Take out circuit board that needs to be printed to locate in four positioning needles, adjust height adjustable knob to make printing template contact circuit board slightly, adjust positioning needle again to make printing surface of circuit board and aligning hole the same basically and fix four positioning needles.

Step 2: Put related thimble among four positioning needles according to the size of the circuit board and the location of the panel components, adjust X axis and Y axis adjustment knobs at the same time to make printing surface of circuit board and aligning hole of printing template in precise position, fix workbench through lock knob.

Step 3: Take out corresponding solder cream according to printing amount of circuit board or take a small amount of solder cream in advance to place on printing template

(Remarks: solder cream must be thoroughly mixed and temperature-returned before printing and it is recommended to use ZB500S automatic solder cream mixer), use scraper with solder cream to shave printing position in template via appropriate strength in one time as far as possible without repeated operation.

Step 4: If the amount of solder cream in circuit board is less or more after printing, we can control of solder cream amount through adjustment of clearance between the printing template and the circuit board with height adjustment knob.

Step 5: After completion of the entire printing of circuit board, the excess solder cream should be placed in another container and can not be put back into original and unused solder cream so as not to damage unused solder cream, at the same time printing templates and scraper should be cleaned up in time by medical alcohol commonly.

## Cleaning and Maintenance

- After finishing work, we need clear and maintain machine in time every time so as not to affect the service life of the machine.
- Do not be too hard when printing template moves up and down so as not to damage positioning accuracy of machine.
- Pay attention to protect positioning needle when taking circuit board in order to avoid damage, we can match corresponding positioning needle according to different sizes of positioning hole.

## Guarantee

All machines are submitted before distribution to examination on function and continuous operation firmness. On the machine we grant a work warranty of 12 months to our customers starting from purchase date on accuracy in material and processing. We warrant at our choice by exchange of incorrect parts or by repair of the machine in our house. Old parts change into our possession.



## Disclaimer of Warranty

Bungard GmbH & Co. KG reserves the right to change or enhance its machines or machine specifications according to its judgement, if necessary. Bungard cannot be held responsible to implement aforesaid changes into machines sold already.

Bungard products and services are liable to the current prices and conditions, which are subject to change.

The instructions and definitions in this document are also subject to change and mark no assurance on the part of Bungard.

This manual contains informations of the Bungard PrintStar3000 and is the translated English version.

Please regard the "Sales terms and delivery conditions". These are available after fulfilment of the contract. We don't furnish a guarantee or warranty in cause of damages at material or hurts of people because of

Incorrect use of the machine

Wrong setup, installing and operating of the machine or incapable service

Use of the machine with defective safety equipment

Non-observance of the service manual in regard to transport, stocking, setup, installation and service of the machine

Unlicensed modifications at the machine

Incorrect or incomplete repairs

Destructive force effect at the machine in cause of foreign objects or external use of force

Use of non-original spare parts

normal wear parts.

We cannot accept subsequent claims from damage or destruction of work pieces worked on in the machine, because we have no knowledge or control over the operating conditions at your site. This is valid in a general manner also for requirements from damage to articles, buildings and persons as well as the environment.

We do not warrant that the function of the machine will meet the customer's requirements or that the operation of the machine will to this regard be error free.

In no event will we be liable to the customer for any incidental, consequential, or indirect damages of any kind, including loss of profit and prosecution for environmental pollution, even if we could have been aware of the possibility of such damages.

All information was arranged with great care. We reserve ourselves however mistake and technical changes without previous announcement.

Running the machine in corroding, humid, dusty, extremely hot or explosive atmosphere happens at the operator's own risk and responsibility.

We explicitly exclude any warranty for damages resulting from running the machine in in corroding, humid, dusty, extremely hot or explosive atmosphere.

## Copyright

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