



**MD3DS**  
**10429 / 10430**

# 3D Sublimation Printer

**PixMax**

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# Specification

## Product Description

The 3D Sublimation Heat Press is an all-in-one heat pressing machine from the PixMax range at Monster Doodles. With upper and lower heating elements providing continuous heat from all angles and the built in vacuum applying an even amount of pressure, you can print high quality designs quickly and easily. This machine has the ability to transfer onto a variety of polyester, poly-mix or polymer coated consumables including phone cases, plates, mugs, mouse mats, tablet cases and t-shirts. The press has an easy to use LED display, giving you full control of the time and temperature in Celsius or Fahrenheit.

This 3D heat press is ideal for sublimation printing in an expanding business or for personal hobbies.

Available in red or black.

## Item Contents

3D Sublimation Printer

3 x 11oz silicone mug holders

1 x glossy iPhone 6 cover

Metal grid

1 x matte iPhone 5 cover

Heat protective gloves

Vacuum pipe

## Technical Information

Voltage: 220V

Upper heating element: 1300W

Vacuum pump: 150W

Power: 2800W

Lower heating element: 1300W

# Specification

## Product Specifics

Weight: 20kg

Maximum working area: 30 x 40 cm

Maximum capacity: 12 x 11oz mugs

Approximate dimensions: 63cm deep x 48cm wide x 49.7cm high

Height with machine open: 60cm

## Monster Guarantee

If you wish to return a product in perfect working order, we provide a 14 day returns policy as long as the item is unopened and in a resalable condition.

A 12 month warranty applies to all of our electrical products; we will cover labour, parts and delivery charges. Our policy is to try and fix the item before arranging an exchange or refund. If for any reason a part is missing please get in touch with us within 7 days on receipt of your order. You can call or email our friendly and helpful Customer Support Team. For full terms and conditions contact our Support Department via the details on the Contact Us page.

# Specification

## Product Features

- 1) ON/OFF switch- powers the machine on and off
- 2) Pressure gauge- gives a reading of the pressure in the machine
- 3) Lower heating element
- 4) Metal grid- raises the item up from the heating element
- 5) Upper heating element
- 6) Silicone lid
- 7) Aluminium vacuum tray
- 8) Control panel



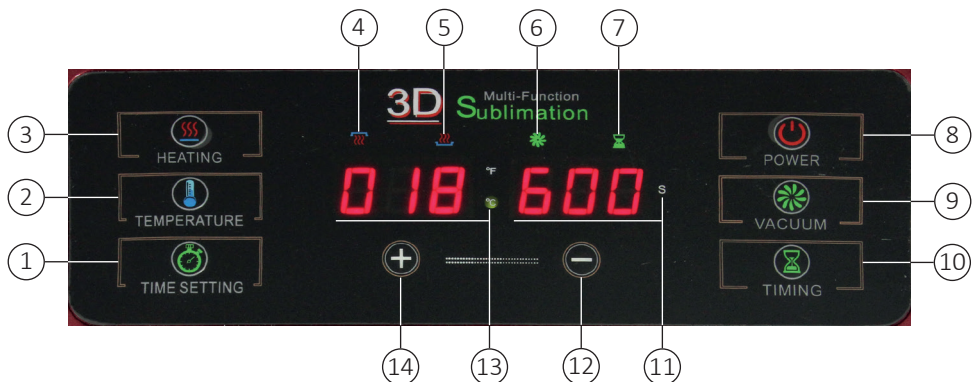
# Specification

## Product Features

- 1) Time Setting- sets the time in seconds
- 2) Temperature- sets the temperature for the heating element
- 3) Heating- turns on the upper & lower heating elements
- 4) Upper heating element indicator
- 5) Lower heating element indicator
- 6) Vacuum indicator
- 7) Timer indicator
- 8) Power - switches the machine from standby to working mode
- 9) Vacuum- turns the vacuum on to apply pressure to the consumable
- 10) Timing- starts the time that has been set via the Time Setting
- 11) Time display & unit
- 12) Minus symbol (-)- decreases the time or temperature value
- 13) Temperature display & units
- 14) Plus symbol (+)- increases the time or temperature value

Press both 12 & 14 together to change the temperature between Celsius & Fahrenheit.

Features may vary on different models.



# User Guide

## Product Explanation

### What is sublimation?

Sublimation is the process of a solid substance transforming into a gas without first passing through a liquid stage. At regular atmospheric pressure very few compounds can go through this process. Before a solid substance can be transformed into a gas they would usually need to pass through a liquid stage, solid to liquid to gas. We can see this with snow for instance. Snow melts and becomes water. Water heated can then become steam. However, during the sublimation process the liquid stage is completely missed out.

### What are sublimation inks?

Sublimation inks are solid colour dye particles that have been ground into a powder and then held in a liquid carrier. The ground colour dye particles do not melt in the liquid carrier and they retain their solid state.

### How do sublimation inks work?

When an image is printed on sublimation paper, using sublimation ink, the paper with the printed image is then placed on top of the material to which it will be transferred (heat pressed). Together they're placed onto the heat press where heat and pressure is applied for a period of time. When the solid colour dyes on the printed image are heated under pressure they become a gas and transfer to the polyester or polymer coating, which has also expanded under the heat making it easier for the gas to be absorbed into the fabric or coating. When the dyes cool down they return back to their solid state and are now contained within the polymer coating.

### How do 3D sublimation machines differ from standard heat presses?

3D sublimation machines work similarly to heat pressing machines, using a combination of time, temperature and pressure in order to transfer the design onto the surface. However, with a 3D sublimation machine, the pressure applied is through a vacuum which removes the air from inside the machine and pushes a silicone surface against the design. Whereas standard heat presses use a manual handle to hold the design against the consumable.

3D sublimation machines are useful as an all-in-one heat press; usually separate heat pressing machines are required for pressing mugs, plates, t-shirts and phone cases. 3D presses have a deeper working area for pressing onto mugs and glasses as well as the usual flat press for sublimating onto phone cases, mouse mats, plates and t-shirts.

# User Guide

## Operation Instructions

Flat consumables such as phone cases and plates, will require using the aluminium vacuum tray, whereas pressing mugs will involve removing the it. Here are the instructions for installing and removing the vacuum tray.

**Installing the aluminium vacuum tray.**

- 1) Ensure the machine is cool and turned off.
- 2) Open the lid of the machine and remove the metal grill.
- 3) Push one end of the vacuum pipe onto the air pipe, located inside the machine on the lower heating element, then replace the metal grill ensuring the vacuum pipe can fit through it.
- 4) Attach the other end of the vacuum pipe underneath the aluminium vacuum tray.
- 5) Place the aluminium tray into the machine. The machine is now ready for use.

**Removing the aluminium vacuum tray.**

- 1) Ensure the machine is cool and turned off.
- 2) Open the lid of the machine and lift up the aluminium tray vertically.
- 3) Detach the vacuum pipe from the underneath of the aluminium tray, you can now remove the aluminium tray.
- 4) Remove the metal grill and unscrew the other end of the vacuum pipe from inside the machine.
- 5) Place the metal grill back in place. The machine is now ready to be used.

# User Guide

## Printing and Design Instructions

These instructions are based on the use of sublimation paper, sublimation ink and Epson XP212/213/225 ink jet printers, which are compatible with the CISS (continuous ink supply system) that holds the sublimation inks. The printer and CISS are available to purchase on the Monster Doodles website or through our Sales department via the details on the Contact page.

It is important to ensure your designs are printed correctly before pressing. Please follow these step by step sublimation instructions.

- 1) Create the logo, literature or image that you wish to print onto your product. This can be done on any design or word processing software. Make sure the size of the image will fit the product you are printing onto.
- 2) Once you are ready to print, set the print option to mirror the design, this is essential to ensure your design sublimates onto the product correctly. This setting can often be found in the Printer Settings menu and under the Page Layout section.
- 3) Ensure the inks are fully functioning with your printer; a test print of your design can be done on regular plain paper however the colour depth may appear different. If you are happy with the quality of the print then move to the next step, if not check your printer maintenance options.
- 4) Load the PixMax sublimation paper into the ink jet printer with the whitest and brightest side facing to the front. This is important to make sure the design will transfer onto the product at the pressing stage.
- 5) Once the image has printed allow 45 minutes for the ink to dry as it will appear very wet and can smudge easily. Trim the sublimation paper around the design but be careful not to trim too close. The design can now be used with the heat press.
- 6) In order to achieve the ideal print we advise testing your prints on scrap material or unused products first, adjusting the controls to find the optimum temperature and time.



# User Guide

## Preparation Instructions

Follow these instructions to prepare your consumables and designs before pressing onto them.

Mugs- remove the aluminium vacuum tray

Be sure to cut the paper to shape as excess paper may bend and distort the design. Secure the paper with the design faced down, around the outside of the mug using adhesive heat tape. Then wrap the silicone mug holder around the mug with design attached and fasten with the metal buckle.

Phone case- attach the aluminium vacuum tray

Cut the paper to the approximate shape of the phone case. Put the phone case onto the correctly shaped aluminium mould and secure the design to the case with adhesive heat tape. If you want to design to continue along the edges of the case be sure to bend the paper around the edges and secure tightly.

Photo crystal, metal or stone tiles- attach the aluminium vacuum tray

Cut the paper to the shape of the item, place the design face down onto the item and secure with adhesive heat tape.

Plates- attach the aluminium vacuum tray

Cut the design to the same shape and size of your plate. Position the design facing down onto the plate and secure with adhesive heat tape. Place a small strip of plain paper on the edge of the plate before closing the silicone lid, with half of it on the plate and half of it hanging off. This creates an air gap, allowing the silicone to fit securely to the plate when the vacuum is turned on but preventing permanent suction to the plate which can damage the silicone and plate.

T-Shirts- attach the aluminium vacuum tray

For pressing T-shirts, garments and polyester/poly-mix materials you will need to place a flat surface inside the garment or behind the material. This will ensure that the garment is stretched flat and will provide an even surface for the design to sublimate on to, preventing the design from distorting. This surface needs to be heat resistant, for example tempered glass.

The garment or material should be placed into the aluminium vacuum tray, pulling the garment tight across the flat surface with any excess material tucked underneath. Once the surface of the garment is flat and free from creases the design can be placed face down onto the garment and secured with adhesive heat tape. Close the silicone lid and press the "Vacuum" key. Then press the "Timing" key to start the timer and shut the machine.

# User Guide

## Operation Instructions

When pressing 11oz mugs, remove the aluminium vacuum tray and use the full working space.

- 1) Ensure the sublimation machine is placed onto a flat and stable surface. Turn on the machine by the power switch on the back. Press the “Power” key on the front control panel to turn on the machine into working mode.
- 2) Press the “Heating” key to turn on the upper heating element. The upper heater indicator will light up. Then press the heating key again to also turn on the lower heating element and the lower heater indicator will light up.
- 3) Press the “Temperature” key to set the printing temperature. Use the + and – keys to adjust the temperature. When the display shows the required temperature press the “Temperature” key to confirm and set the temperature.
- 4) The heating elements will begin to rise to temperature. Keep the lid of the sublimation printer closed to keep the heat in. This usually takes around 10 minutes depending on the temperature.
- 5) Press the “Time Setting” key to set the time in seconds. Use the + and – keys to adjust the time. When the display shows the correct time press the “Time Setting” key again to confirm the time.
- 6) Whilst the sublimation machine is heating up you can prepare your consumables, see “Preparation Instructions”.
- 7) When the display reaches the set temperature, you are ready to sublimate. Wearing thermal gloves lift the lid open and place the prepared mugs inside, evenly spaced apart. This machine has a maximum capacity of 12 x 11oz mugs.
- 8) Close the lid and press the “Timing” key to start the timer. This will then begin to countdown from the set time. Once the time is up the timer will sound.
- 9) Wearing thermal gloves lift the lid open and remove the mugs. Leave the mugs to cool. Unfasten the silicone holders to reveal your sublimated design. Do not put the mugs into any cold water to aid the cooling process, as this will smash the mug.

# User Guide

## Operation Instructions

When pressing flat items, use the aluminium vacuum tray with silicone cover.

- 1) Make sure the aluminium vacuum tray is positioned inside the machine and is attached to the vacuum pipe.
- 2) Place the machine onto a flat and stable surface. Turn on the machine at power switch on the back. Press the "Power" key on the front control panel to turn on the machine into working mode.
- 3) Press the "Heating" key to turn on the upper heating element. The upper heater indicator will light up. Then press the heating key again to also turn on the lower heating element and the lower heater indicator will light up.
- 4) Press the "Temperature" key to set the printing temperature. Use the + and – keys to adjust the temperature. When the display shows the required temperature press the "Temperature" key to confirm and set the temperature.
- 5) The heating elements will begin to rise to temperature. Keep the lid of the sublimation printer closed to keep the heat in. This usually takes around 10 minutes depending on the temperature.
- 6) Press the "Time Setting" key to set the time in seconds. Use the + and – keys to adjust the time. When the display shows the correct time press the "Time Setting" key again to confirm the time.
- 7) Whilst the sublimation machine is heating up you can prepare your consumables, see "Preparation Instructions".
- 8) When the display reaches the set temperature open the machine and lift the lid on the aluminium vacuum tray. Place the item(s) onto the tray, evenly spaced apart with the paper side up. Close the silicone lid and secure shut.
- 9) Press the "Vacuum" key and the vacuum will draw all air out of the machine and pull the design tight against the consumable. Then close the machine lid. Press the "Timing" key to start the timer. This will then begin to countdown from the set time. Once the time is up the timer will sound and the vacuum will stop.
- 10) Wearing thermal gloves lift the lid open and remove the items. Leave the items to cool at room temperature before removing the design.

# User Guide

## Recommendations

Please read through the settings below. These are recommended settings for the temperature and time depending on your materials that we believe give the best results. The sublimation process requires the consumable to be made from polyester, poly-mix or have a polymer coating.

Material	Maximum quantity	Time (seconds)	Temperature (°C)
11oz mug	12	720	200
Phone case	6	420	190
Photo crystals	12	480	190
Metal	1	420	190
Tablet case	1	360	190
Glass tiles	2	480	190
Plates	2	195	195
Stone tiles	2	480	200
Clothing	1	180	190
Mouse mats	1	60	190
Puzzle boards	1	60	190

All settings are based on generic items, however more specific consumables may require different settings. Product quantities will vary based on the size of the consumable, before pressing ensure items are evenly spaced and not over lapping. We advise testing out the settings first as you may find alternative temperatures and times work for your personal preference.

More information and tutorials on sublimation printing can be found on YouTube and online forums. If you have any other questions about the sublimation printing process you can contact our Support department via the details on the contact page.

# User Guide

## Recommendations

All of the following products are sold by Monster Doodles and can be purchased using the details on the Contact Us page.

Our range of heat presses are available in a flat clam style of 38cm or 50cm square or in a swing form of 38cm square. These are ideal for pressing a wide range of consumables including t-shirts, iPhone cases and tote bags- anything with a flat surface. The PixMax Mug Press has a variety of attachments available for pressing different sizes and shapes of mugs and cups.

We stock consumables that are specific for sublimation printing, as they already have a ready to print polymer coating or polyester blend. Our range is varied with t-shirts, mouse mats, mugs, iPhone cases, jigsaw puzzles and plates.

Sublimation paper can be used with sublimation printers or with ink jet printers that are compatible with CISS and sublimation inks. Monster Doodles provides sublimation paper in packs of 100 sheets.

Sublimation heat tape is heat resistant and can be used to hold your designs in place when pressing with any of our sublimation heat presses. PixMax heat tape is available to purchase from our Sales department via the details on the Contact page.

# Troubleshooting

## Resolution Guide

Please read through the guide below if you have any issues or faults with your device. The information covers and resolves the majority of frequently asked questions.

**Q: When pressed onto the product the colour of the design is faded.**

A: This can mean one of three things, the pressure is too low, the temperature is not hot enough or the design has not been pressed for enough time. You may want to experiment on scrap polyester or polymer coated material until the optimum print is found. Ensure the vacuum is working correctly with a firm even pressure on the product then increase the temperature by 10 °C and the time by 10 seconds.

**Q: When pressed onto the product the whole design is blurred or broken.**

A: This can happen because the design has been pressed for too long. Decrease the time in 10 second increments until the print appears sharper.

**Q: When pressed onto the product part of the design is blurred.**

A: This means the heat is inconsistent across the design. Ensure the pressure is even on the product, the sublimation paper is entirely flat and the design is completely still whilst pressing.

**Q: The design remains on the paper and doesn't press onto the product.**

A: This means the temperature is not high enough or the product has not been pressed for enough time. Increase the temperature by 10 °C and the time by 10 seconds.

**Q: The sublimation paper is sticking to the product**

A: This can happen because the temperature is too high or the surface of the product is not the right quality. Ensure the product is made from polyester, poly-mix or is polymer coated and lower the temperature in 10 °C increments.

# Troubleshooting

## Resolution Guide

**Q:** There is brown/yellow staining on the product or around the image.

**A:** This means the heat is too high and the paper is burning. Reduce the temperature by 10 °C until the browning stops. If the image then looks blurry or faded increase the time by increments of 10 seconds.

**Q:** The vacuum is not sealing the silicone around the product correctly.

**A:** Check the vacuum gauge on the back of the machine. If the pressure fails to rise there may be a leak. Check the silicone for any tears and ensure the silicone is fully sealed around the edges of the aluminium tray. Then make sure the vacuum pipe is screwed tightly into place underneath the aluminium tray. Replacement silicone sheets can be purchased direct through our Sales department via the details on the Contact page.

The 3D sublimation machine requires periodical maintenance to ensure it runs normally. The air filter often collects water from the air extraction process and can be found inside the vacuum pump at the back of the machine. Replacement air filters can be purchased direct, through our Sales department via the details on the Contact page. Regularly follow these simple steps in order to keep your machine in good working order.

- 1) Unplug the machine from the power supply and allow it time to cool.
- 2) Unscrew the two screws on either side of the housing and lift off the cover.
- 3) Locate the air filter, a clear container with a white lid, lift it out of the internal housing.
- 4) If you see any water inside, unscrew the clear container from the lid and pour the water away. Do not remove the pipes attached to the lid.
- 5) Then screw the container back into the lid and re-install the air filter back inside the machine. Place the cover back on top of the vacuum pump and screw in the two screws.

# Safety Advice

## Safe Working Practice

Please read through the safe working practice to ensure prevention of injury or damage to the device.

Do not operate the device in areas of high temperature or humidity as the machine may not function correctly.

Do not use the machine if the adaptor wire is frayed or damaged.

When the device is not in use ensure that the power plug is removed from the socket. This will prevent damage to the appliance through power surges.

Unplug the appliance from the wall during cleaning and maintenance checks.

Use the machine in a well ventilated room and position on a flat, stable and heat proof surface.

Please wear heat protective gloves when operating the machine and removing finished goods as they will be very hot.

Do not touch the inside of the machine during operation.

Keep out of reach of children.

Please take care when lifting and moving this product as it is heavy.

Allow items to cool down at room temperature before removing the design.





# Contact Us

## Sales Department

For information regarding this device or other products from our Monster divisions please use the following details below.

Tel: 01347 878888

Email: [hello@monstershop.co.uk](mailto:hello@monstershop.co.uk)

## Support Department

For queries about this device, warranty, returns or reporting faults please use the following details below.

Tel: 01347 878887

Email: [help@monstershop.co.uk](mailto:help@monstershop.co.uk)

## Website

To view our product range and fantastic offers in the Monster divisions please visit our website

[www.monstershop.co.uk](http://www.monstershop.co.uk)

## Address

To visit our office Monster House and view our products, send postal correspondence or return items our address is provided below.

Monster House, Alan Farnaby Way, Sheriff Hutton  
Industrial Estate, Sheriff Hutton, York YO60 6PG



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