

PRODUCT SPECIFICATIONS

SUPERVOLCANO



Dimensions

Overall Length Assembled	56.5±0.5mm (just block and nozzle)
Overall Length combined with v6	98.3±0.5mm (when combined with v6 heatsink)

Mechanical Specifications

Maximum nominal volumetric throughput (PLA print test at 220°C)	6600 mm ³ /min
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*results may vary depending on your set-up

Maximum operation temperature with the sock fitted	260°C
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Maximum operation temperature without the sock and a E3D thermistor fitted	285°C
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Maximum operation temperature without the sock and a E3D PT100	485°C
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Electrical Specifications

Maximum rated operating temperature of the heater	500°C (please be aware that the heater is capable of reaching higher temperatures if used improperly. We highly recommend that you do not exceed the rated temperature of the heater)
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Nominal heater power	80W
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Maximum current draw with 12V/24V heater variants	8.0A/3.9A
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Maximum current rating of the mosfet switch	15A
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Materials

Block	Nickel Plated Copper
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Nozzle	Brass/Nickel PLated Copper/Hardened Steel
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Sock	'E' Glass Fiber and Silicone Elastomer Rubber
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Fixings	Steel
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Options

Filament size	1.75mm/3.00mm
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Nozzle size	0.60/0.80/1.00/1.20/1.40 (mm)
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Voltage	12V/24V (All of our 12V heaters must be used with the supplied mosfet switch)
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WHAT'S IN THE BOX



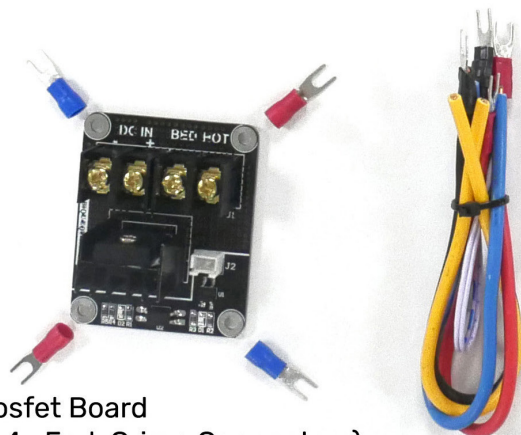
80w Heater Cartridge

Thermistor Extension Cable



12V VERSION ONLY

Mosfet Wires



Mosfet Board
(+ 4x Fork Crimp Connectors)

Plated Copper Super Volcano Heater Block



Thermistor

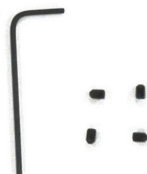


Silicone Glass Fibre Sleeving



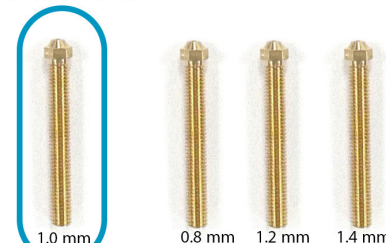
Thermal Paste

4x M3 grub screws
Hex Key



ERUPTION PACK

STARTER PACK



Super Volcano Brass Nozzle



HEALTH & SAFETY WARNINGS

This product comes with high powered electronics. The assembly documentation must be followed and can be found at <https://e3d-online.dozuki.com/>. If you are still unsure on how to implement the system correctly, please contact our customer support team.

80W heaters are used and these will draw a lot of current from your control board. For this reason the 12V heater **cannot** be used without the included **mosfet switch** which will handle the high current draw and prevent your control board heater terminals from melting.

The SuperVolcano sock is made from 'E' glass fibre yarn knitted to form a sleeve and coated with a high grade iron oxide silicone elastomer rubber. When handling this material, **thick protective gloves** must be worn at all times and care must be taken to not let any of the fibres contact the skin or face as this can cause irritation. If you need to cut the sleeving, you must also wear a **mask** to prevent inhalation of any particles generated. Once you have mounted the sock you must wipe down any work surfaces to remove any leftover fibres or particles.

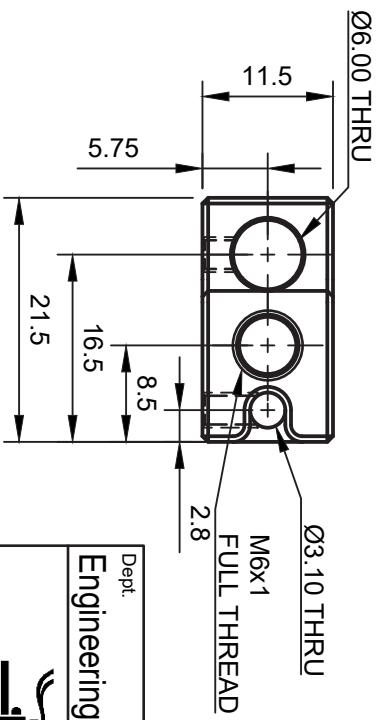
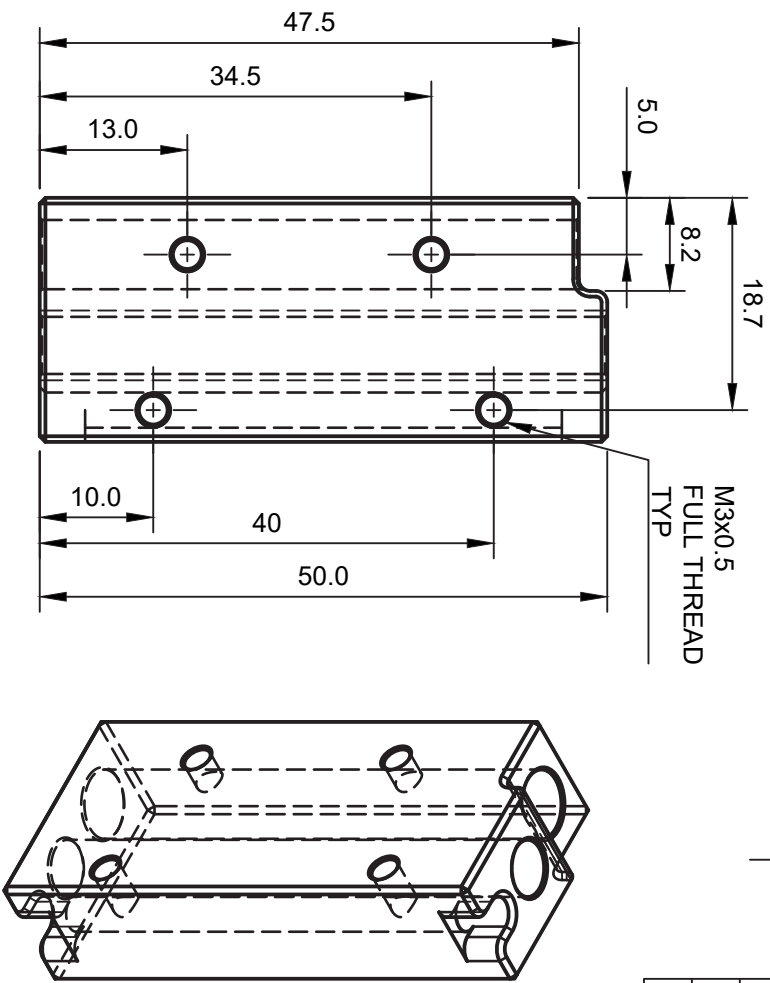
Handling of the HotEnd must only be carried out with the printer switched off and the power cord unplugged from the socket. If the printer has been running, wait until the temperature displayed is below 50°C before switching off the machine. If the machine does not have a temperature readout, allow 15min for the block to reach ambient temperature once the machine has been unplugged. The SuperVolcano block will **remain hot longer** than other hotends, allow extra time for the system to cool down. This is due to the higher thermal capacity and larger mass of the heater block when compared to other available hotends.

Do not use the heater provided with any other block than the SuperVolcano block. This block was specifically designed to work with the high temperatures reached by this heater. Using the heater with another block might result in catastrophic failure of the system.

Please note care must be taken when bending the heater cartridge wires and not to bend them to a sharp point as this could snap the wires due to their gauge. Ensure not to fatigue the wires by repeatedly bending them as this will cause failure.



REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
1	First release	12/11/2018	ST



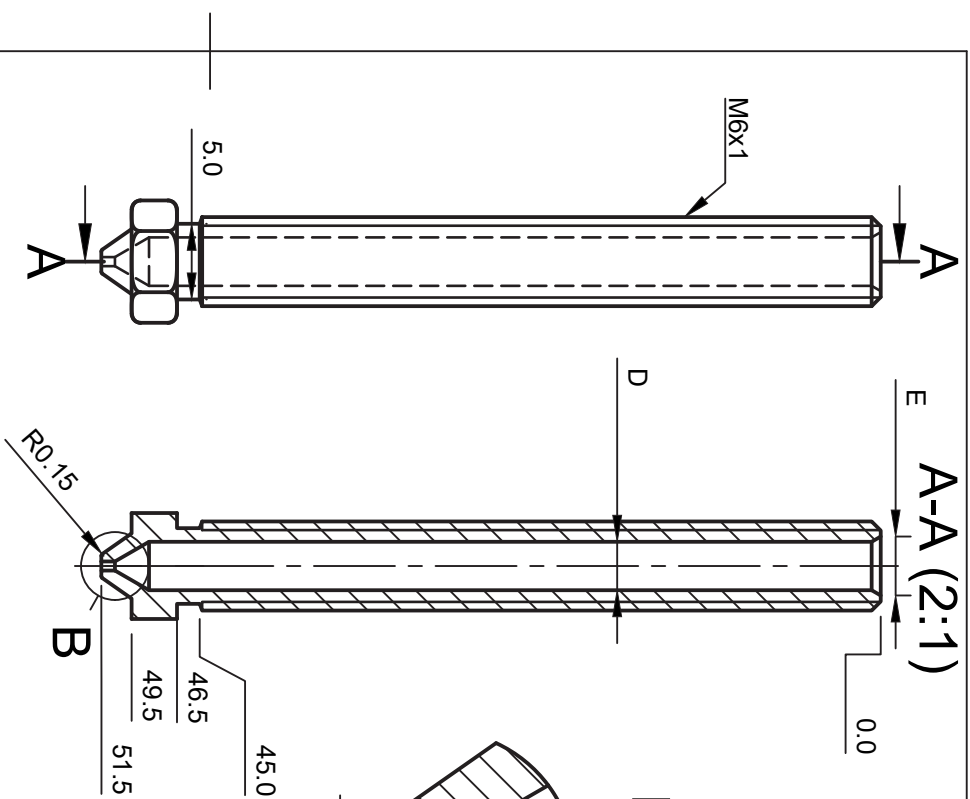
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Dept. Engineering	Technical reference	Created by ST	Approved by RY	12/11/2018	12/11/2018
		Document type Drawing	Document status Approved		
		Title Super Volcano Block	DWG No. SUPER-BLOCK-ALL		
			Rev. 1	Date of issue 12/11/2018	Sheet 1/1

THIRD ANGLE PROJECTION
 ALL DIMENSIONS IN MM
 MATERIAL: SEE TABLE
 SCALE: 3:2



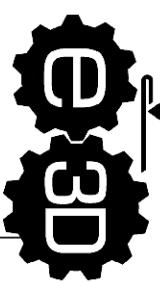
REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
1	First Release	12/11/2018	RY



INLET GEOMETRY				
SKU CORE	D	E		
-175-	2.0	2.6		
-300-	3.2	3.9		

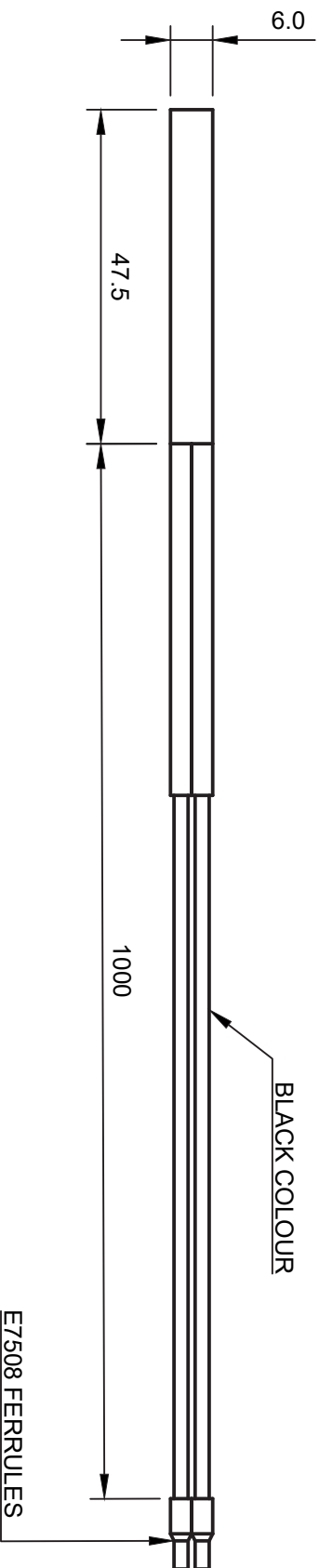
TIP GEOMETRY					
SKU SUFFIX	A	B	C	D	# Dots
0600	0.60	1.50	1.20	2.00	0
0800	0.80	2.00	1.60	2.00	1
1000	1.00	2.50	2.00	2.00	2
1200	1.20	3.00	2.40	2.00	3
1400	1.40	3.50	2.80	2.00	4

Dept: Engineering	Technical reference	Created by ST	Approved by RY	12/11/18	12/11/18
Document type Drawing		Document status Approved		DWG No.	
Title Super Volcano Nozzle			SUPER-NOZZLE-ALL		
Rev.	Date of Issue	Sheet			
1	12/11/18	1/1			



THIRD ANGLE PROJECTION
 ALL DIMENSIONS IN MM
 MATERIAL: SEE TABLE
 SCALE: 2:1
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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
1	First Release	09/11/2018	RY



HEATER CARTRIDGE SPECIFICATIONS					
SKU	VOLTAGE	NOMINAL POWER	MIN RESISTANCE	MAX RESISTANCE	
E-HEATER-12V-80W	12V	80W	1.5Ω	1.9Ω	
E-HEATER-24V-80W	24V	80W	6.2Ω	7.5Ω	

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NOT TO SCALE

Dept. Engineering	Technical reference	Created by ST	09/11/18	Approved by RY	09/11/18
Document type Drawing		Document status Approved			
Title Super Volcano Heater		DWG No. E-HEATER-[12V:24V]-80W			
Rev. 1		Date of issue 09/11/18		Sheet 1/1	

