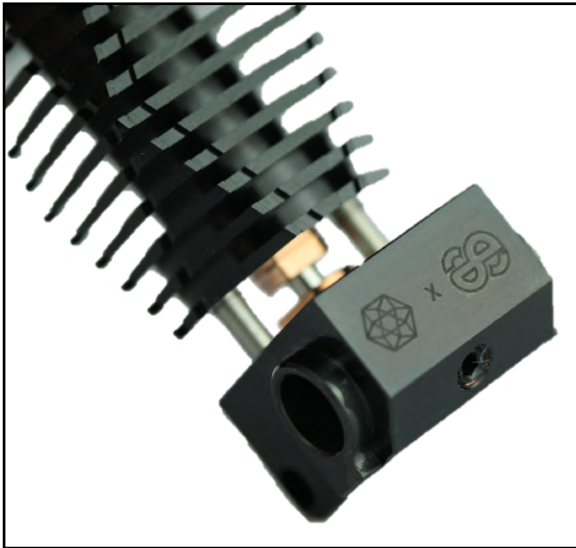


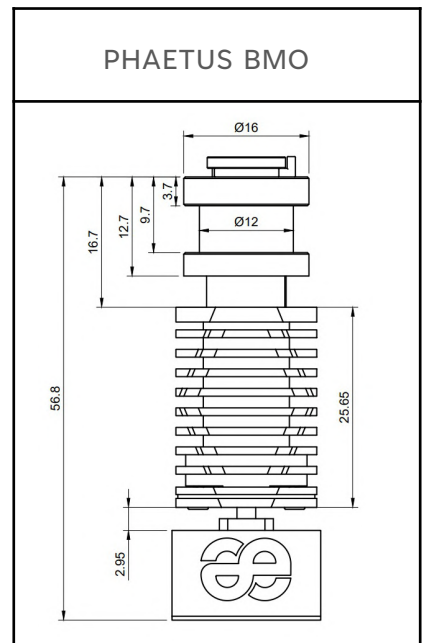
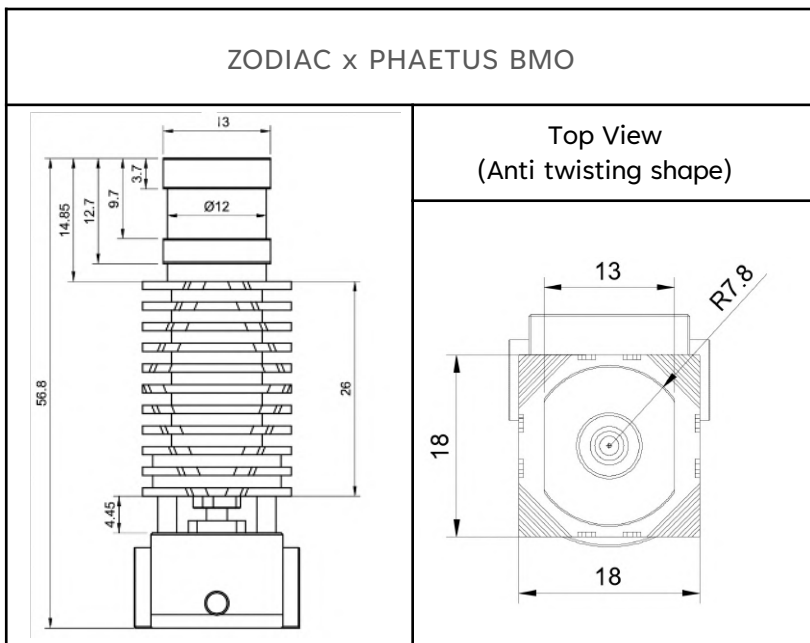
ZODIAC x PHAETUS BMO



Some special features :

- The core parts of the Heatblock are mainly composed of diamond coated copper alloy, which has the advantage of better heat conduction, insulation and anti stick abilities
- More precise temperature control due to re-positioning of the thermistor and heater cartridge.
- Tighten and unscrew nozzle with one handed at (285°C @ 1.5Nm) or (260°C @ 2Nm)
- Overall temperature resistance up to 500°C.
- Heat sink and heat break adapt conical surface fitting design.
- Close fitting increase heat dissipation contact area.
- Low roughness of heat break.
- High printing precision, no filament plugging.
- Better dimensional accuracy.
- Comes with a Zodiac CRB or additionally PRO series nozzle.

DIMENSIONS



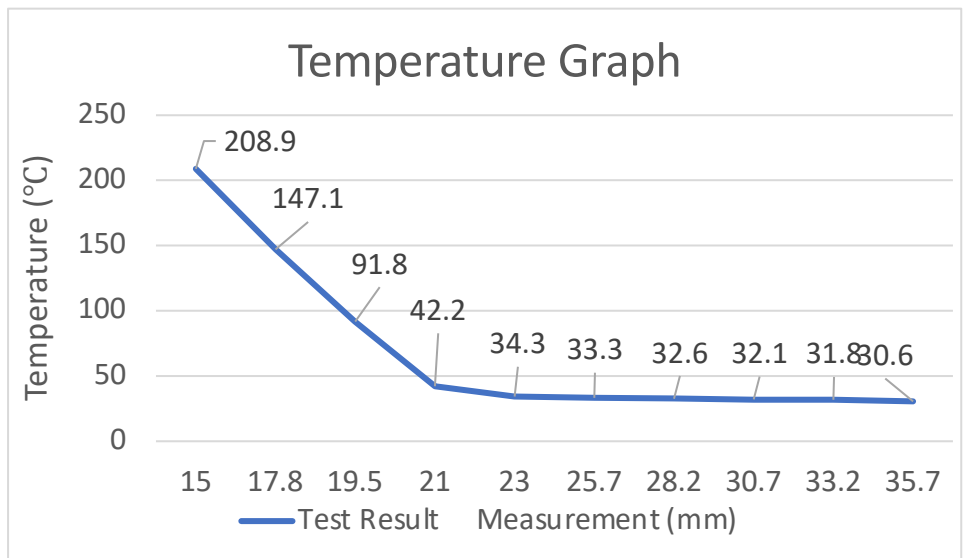
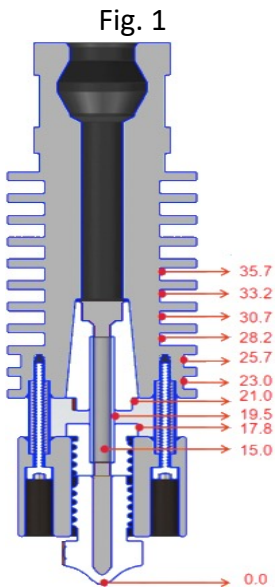
TEMPERATURE PERFORMANCE TEST

DRAGONFLY BMO + ZODIAC HOTEND

Test Items:	Hot-End Temperature Performance Test			
Site:	Laboratory	Samples:	1	
Platform:	Low temperature test platform RLS-0-ME003			
Tools:	Hima instrument thermometer AS877			
Purpose:	Test the temperature value of each key point			
Method:	The K-type thermocouple fits the surface and the inner surface			
Test Object:	ZODIAC BMO	Performance Features:		
Ambient Temperature:	21°C	Ambient Humidity:	42.5 %RH	Duration of temperature stabilization: 1min
Fan model:	DC 12V 3010	Air duct structure:	Direct Blowing	Temperature Setting: 220°C

Measuring Point (mm)	15.0	17.8	19.5	21.0	23.0	25.7	28.2	30.7	33.2	35.7
Measurement Value 1 (°C)	208.9	147.1	91.8	42.2	34.3	33.3	32.6	32.1	31.8	30.6



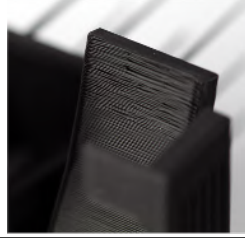
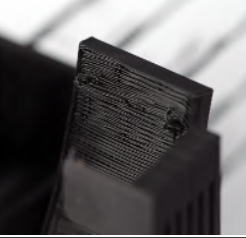




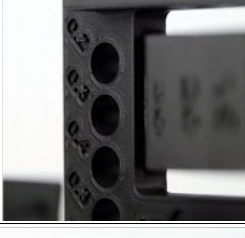



Remark: The position of the temperature measuring point is the distance between the measuring point and the nozzle tip, as shown in figure 1.



Conclusion Analysis: Good heat insulation effect of the heatbreak : 220°C printing temperature, the temperature at the root of the cooling end of the heatbreak is about 43.0 °C. The first fin temperature of the heatsink is about 36.0 °C, and the overall temperature difference is about 3.0°C.

PRINT COMPARISON

PRINTER USED: PRUSA i3MK3S

Test Type	Print Parameters	ZODIAC BMO Hotend	Standard V6 Hotend	Conclusion
Temp. control	Filament: Extrudr PLA Temperature: 215°C Layer Thickness: 0.2mm Printing speed: 60mm/s Retraction Speed: 50mm/s Retraction: 0.8mm			The prints of a Standard Hotend shows a slightly unstable extrusion temperature on the overhang surface
Bridging	Filament: Extrudr PLA Temperature: 215°C Layer Thickness: 0.2mm Printing speed: 60mm/s Retraction Speed: 50mm/s Retraction: 0.8mm			Serious material hanging during long span printing; little material hanging with ZODIAC BMO
Surface	Filament: Extrudr PLA Temperature: 215°C Layer Thickness: 0.2mm Printing speed: 60mm/s Retraction Speed: 50mm/s Retraction: 0.8mm			The prints with Dragonfly BMO-Zodiac ist slightly smoother
Stringing	Filament: Extrudr PLA Temperature: 215°C Layer Thickness: 0.2mm Printing speed: 60mm/s Retraction Speed: 50mm/s Retraction: 0.8mm			After adjusting the parameters, there is still slight filament stringing phenomenon, while there is no for prints with ZODIAC BMO
Tolerances	Filament: Extrudr PLA Temperature: 215°C Layer Thickness: 0.2mm Printing speed: 60mm/s Retraction Speed: 50mm/s Retraction: 0.8mm			ZODIAC BMO shows high printing accuracy with different tolerances of the holes
Overhangs	Filament: Extrudr PLA Temperature: 215°C Layer Thickness: 0.2mm Printing speed: 60mm/s Retraction Speed: 50mm/s Retraction: 0.8mm			Overhangs are much cleaner with the ZODIAC BMO

TECHNICAL DETAILS

ZODIAC 3D

Dimensions of PTFE Tube

Length of the PTFE Tube : 45.5mm
Inner Diameter of PTFE Tube: 2mm
Outer Diameter of PTFE Tube: 4mm

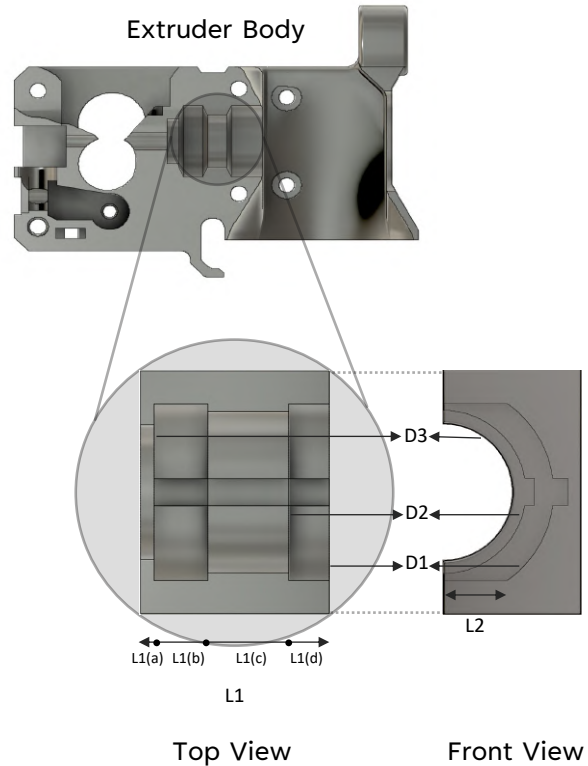
Dimension and Tolerances for Perfect Fit of ZODIACxPHAETUS BMS/BMO Hotend

Diameter D1: 16 ± 0.1 mm
Diameter D2: 12 ± 0.1 mm
Diameter D3: 10 ± 0.1 mm
Length L1: 14 mm
Length L1(a): 1 mm
Length L1(b): 4 mm
Length L1(c): 6 mm
Length L1(d): 3 mm
Length L2: 4.66 ± 0.03 mm

STL files

You can find following STL files for your Prusa Printer as well on our Product page under the tab, 'STL Files'.

1. Extruder Body.
2. Extruder Cover.
3. Extruder Motor Plate.
4. Fan Shroud.
5. Bowden Pin.



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