Phaetus Dragonfly BMS Hotend Instruction Manual

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Contents

Product Features

- Delicate appearance modeling
- Superior thermal isolation of heat break
- Conical design for efficient heat dissipation
- High temperature resistance

Compatible Filaments

Compatible with all filaments, including: PLA, ABS, PETG, TPU, PP, PC, Nylon, PEEK, PEI and composite materials containing abrasive additives, such as carbon fiber, steel, wood, boron carbide, tungsten and phosphorescent pigment.

Specifications

Product Name: Dragonfly® BMS
Product Size: 62.35mm*21.7mm'18mm
Nozzle Diameter: Can be matched arbitrarily
Color: Blue J Black Product Net Weight: BMS 45g

Parts & Accessories

Hexagon bar (1.27/1.50/2.00 each)
Open wrench (5mm/12mm each)
M1.4 Inner hexagon screws *2pcs
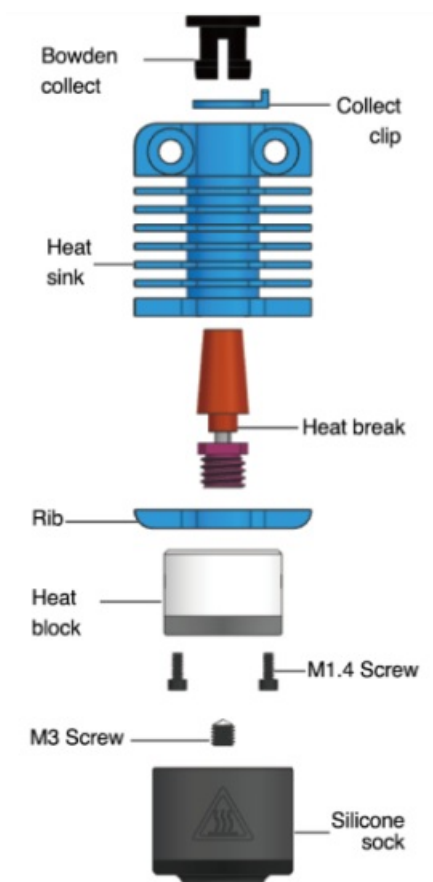M3 Fastening screws *2pcs
Collect dip *1 pcs
Brass tube 1 pcs
Silicone sock *tpcs
Thermal conductive silicone *ipcs

Product Exploded View

Bowden collect

Collect clip

Heat sink

Heat break

Rib

Heat block

M1.4 Screw

M3 Screw

Silicone sock

Product Advantage

- The hotend's core parts are mainly composed of copper alloy, which has the advantage of better heat conduction.
- Overall high temperature resistance up to 500°C.
- Heat sink and heat break adopt conical surface fitting design, increase heat dissipation.
- Low roughness of heat break.
- The inner hole roughness of the heat break sRa0.3, which allow a smoother movement of filament.
- High printing precision, no filament plugging.

Supported 3D Printer Models

Dragonfly Hotend is compatible with the following models (including but not limited to) :

BMS

CR-10
CR-10S series
CR-10 MINI
CR-20 / CR-20 Pro
Ender 2
Ender 3 / Ender 3 V2
Ender 3 Pro
Ender 5 / Ender 5 Plus
Enter 5 Pro

BMO

Compatible with all V6 hotend interfaces
Prusa 13 MK3/MK3S
Titan extruders
BMG extruders

Assembly Steps

1. Insert the bowden collect into the top of the adaptor, and stick the collect clip between the bowden collect and the adaptor to fix the bowden collect.

2. Assemble the heat sink rib through the threaded end at the bottom of the heat break, to the middle of the heat break (Make sure the side of the countersunk hole of the rib is toward the threaded end).

3. Screw the heat break into the side – A of heat block by using 5mm open – ended wrench (Attention: Side – A of heat block should be completely attached to the heat break).
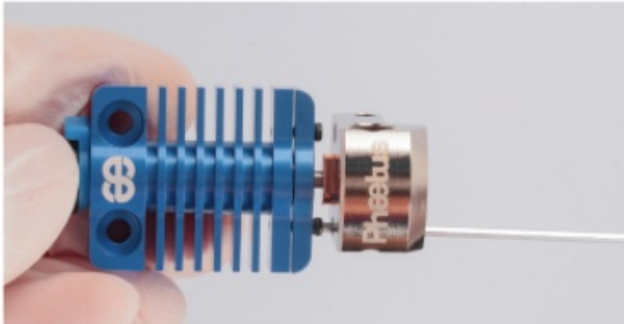

4. Put the heat break and heat block into the heat sink (Attention: Ensure that the holes on the rib are aligned with

the threaded holes on the heat sink, and the direction of the countersunk holes on the heat sink are consistent with the direction of the heating rod holes on the heat block).

5. Put two M1.4 screws into the rib and use 1.27 hexagonal bar for locking.

6. Screw two M3 head screws into the correct holes on the B – side of the heat block respectively by using 1.5 hexagonal bar.

7. Put the silicone sock onto the heat block.

8. If a glass ball thermocouple is used, the thermocouple should be first put into a brass tube (brass tube as shown below), and the port should be sealed with a thermal conducting adhesive (attached), then put it into a heat block, and be secured with a jackscrew.

Hot – Tightening

1. Hot – tightening is the last mechanical step before Dragonfly Hotend is ready! This is used to sealing the nozzle and the heat break and ensuring no leakage of molten filament during printing;
2. Set the temperature of Hotend at 285°C by using your printer's control software (or LCD screen), then wait for one minute after the Hotend reaching 285°C, to make all components reach the same temperature;
3. Hold the heat block with a 12.0mm open – ended wrench while fastening the nozzle gently, then eventually tightening the nozzle by using a 7.8mm open -ended wrench. This will make the nozzle and the heat break attached tightly and ensure no leakage from the Hotend;
4. The tightening torque of the hot nozzle is about 2.5 Nm, which is about the pressure exerted by a finger slightly on a small wrench.

Attention: Do not touch the hotend directly with your hands during heating I and within a period of time after heating.

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Every effort has been made to ensure that the information in this manual is accurate. Phaetus is not responsible for printing or clerical errors.

To view the version of this Dragonfly Hotend product 7 see the information on the packaging.

www.phaetus.com

Documents / Resources

 Phaetus Dragonfly BMS Hotend [pdf] Instruction Manual
BMS Hotend, Dragonfly Hotend