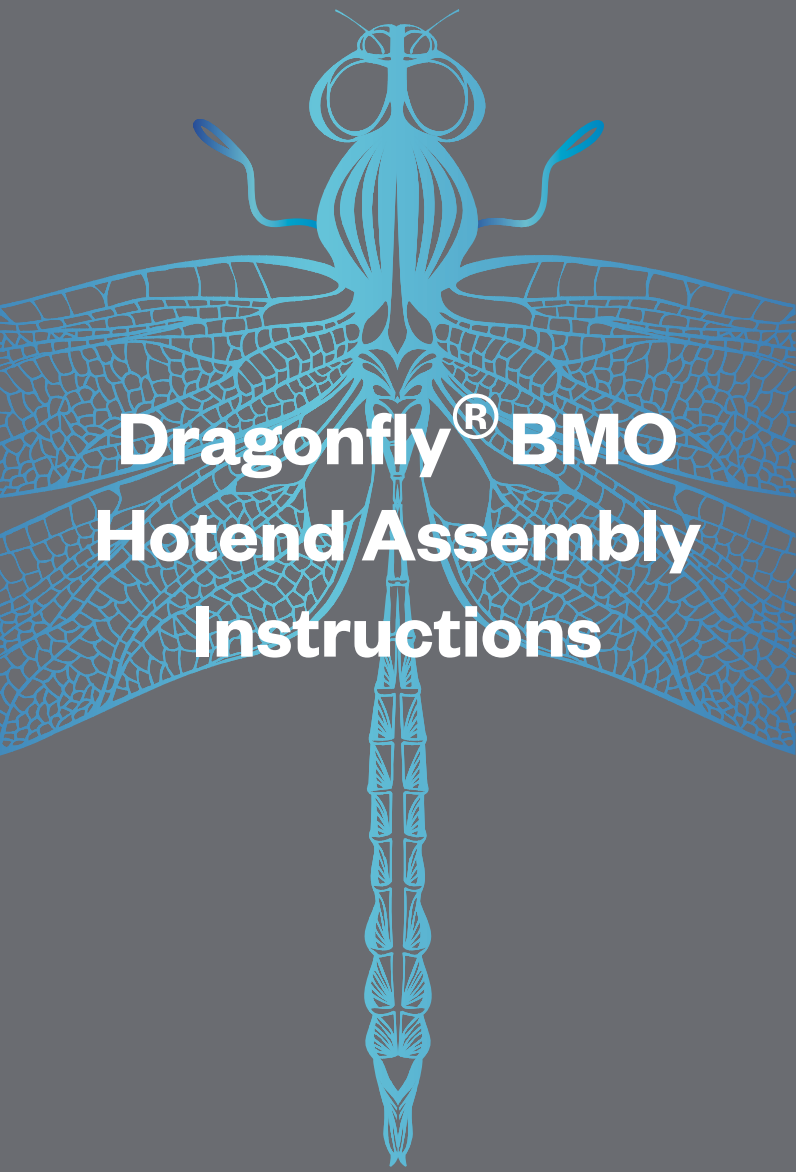
Phaetus®



Dragonfly® BMO Hotend Assembly Instructions

Please read and keep this manual carefully before using our products

Product Appearance

Exclusive Choice for High Configuration

Thank you for buying Phaetus' Dragonfly BMO Hotend.

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® BMO

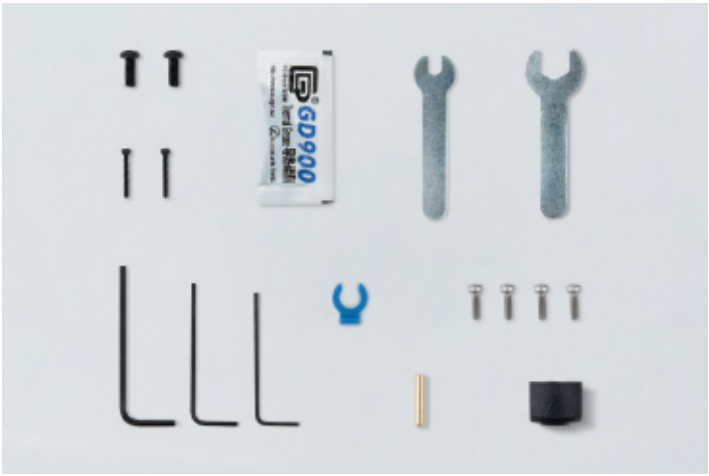
Product Size: 62.35mm*21.7mm*18mm

Nozzle Diameter: Can be matched arbitrarily

Color: Blue / Black

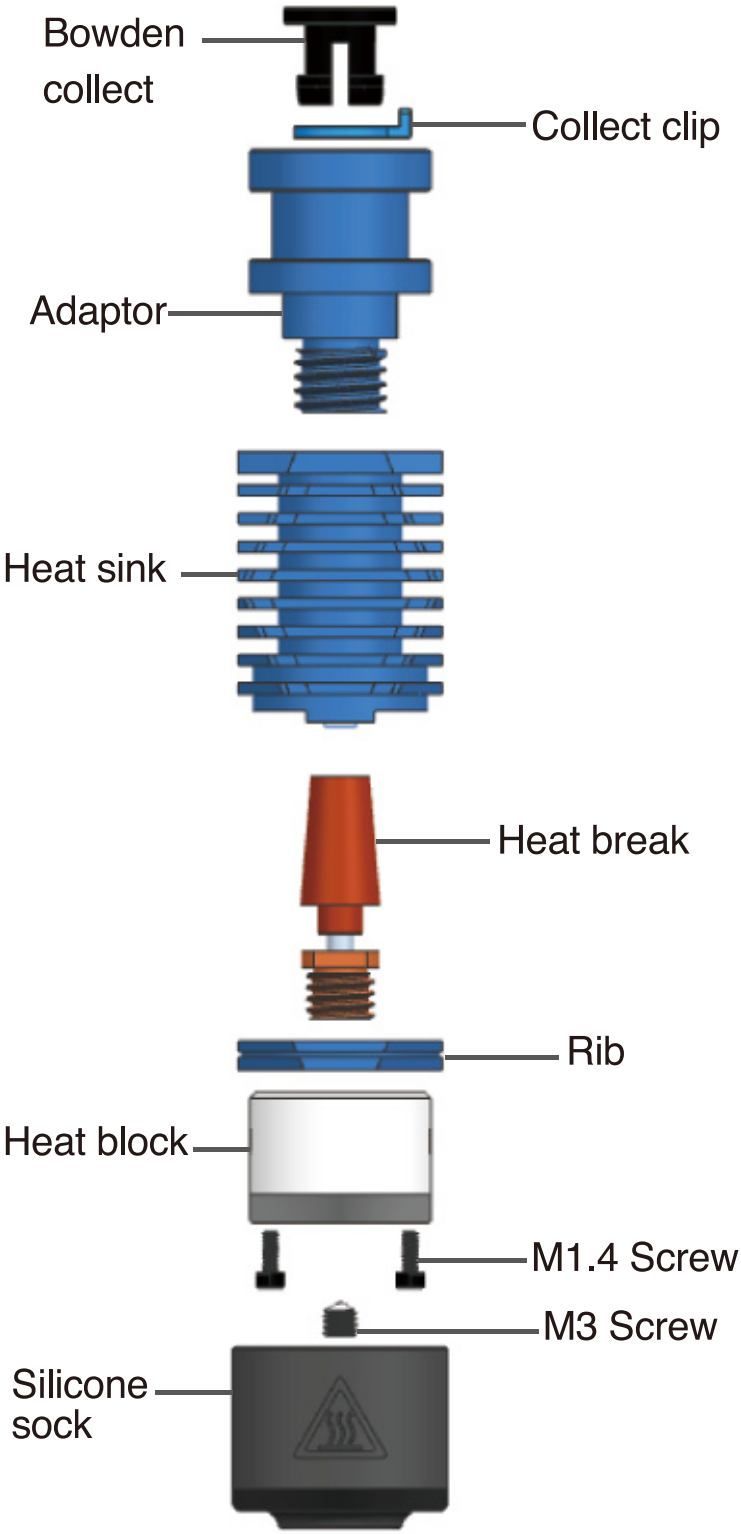
Product Net Weight: BMO 38g

Parts & Accessories



Hexagon bar (1.27/1.50/2.00 each)
Open wrench (5mm/12mm each)
M1.4 Inner hexagon screws *2pcs
M2.5 Hexagon socket head screws *4pcs
M3 Fastening screws *2pcs
Collect clip *1pcs
Brass tube *1pcs
Silicone sock *1pcs
Thermal conductive silicone *1pcs

Product Exploded View



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 ≤Ra0.3, 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 I3 MK3/MK3S Titan extruders BMG extruders

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

Phaetus®

Welcome
Bienvenu
Willkommen
Bienvenida
Välkommen

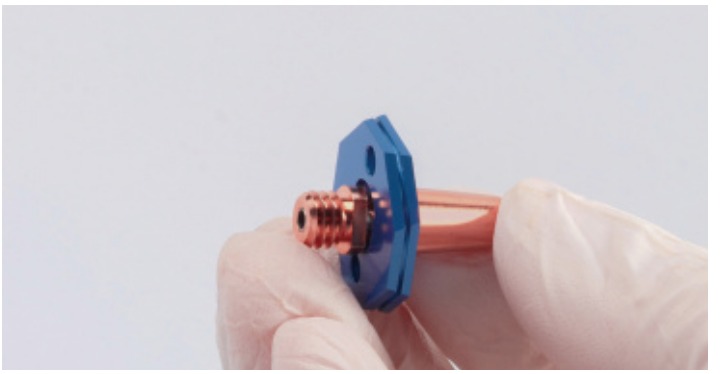
This user guide helps you get started using Dragonfly Hotend
And discover all the amazing things it can do on a 3D printer

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.

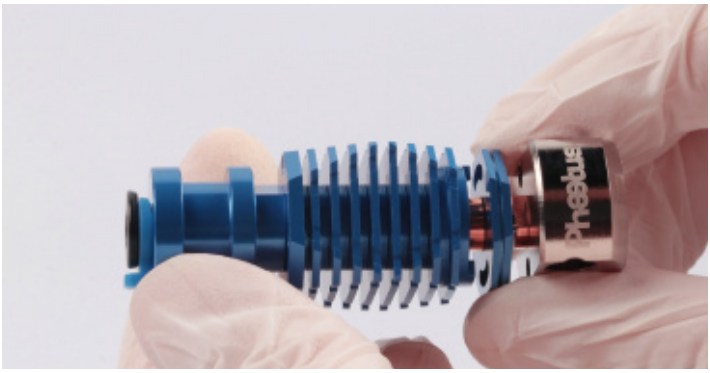
2. Fix the adaptor onto the heat sink.

3. 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).



4. 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).

5. Assemble the heat break into the heat sink and adjust its position, so that the side plane of the heat sink, which close to its threaded hole, and the 2 through holes on the heat block, are align with the 2 holes on the heat sink.



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

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

8. Put the silicone sock onto the heat block.

9. 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 and within a period of time after heating.

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