hope | BRAKE DISC ROTORS

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BRAKE DISC ROTORS

PRODUCT_INTRODUCTION

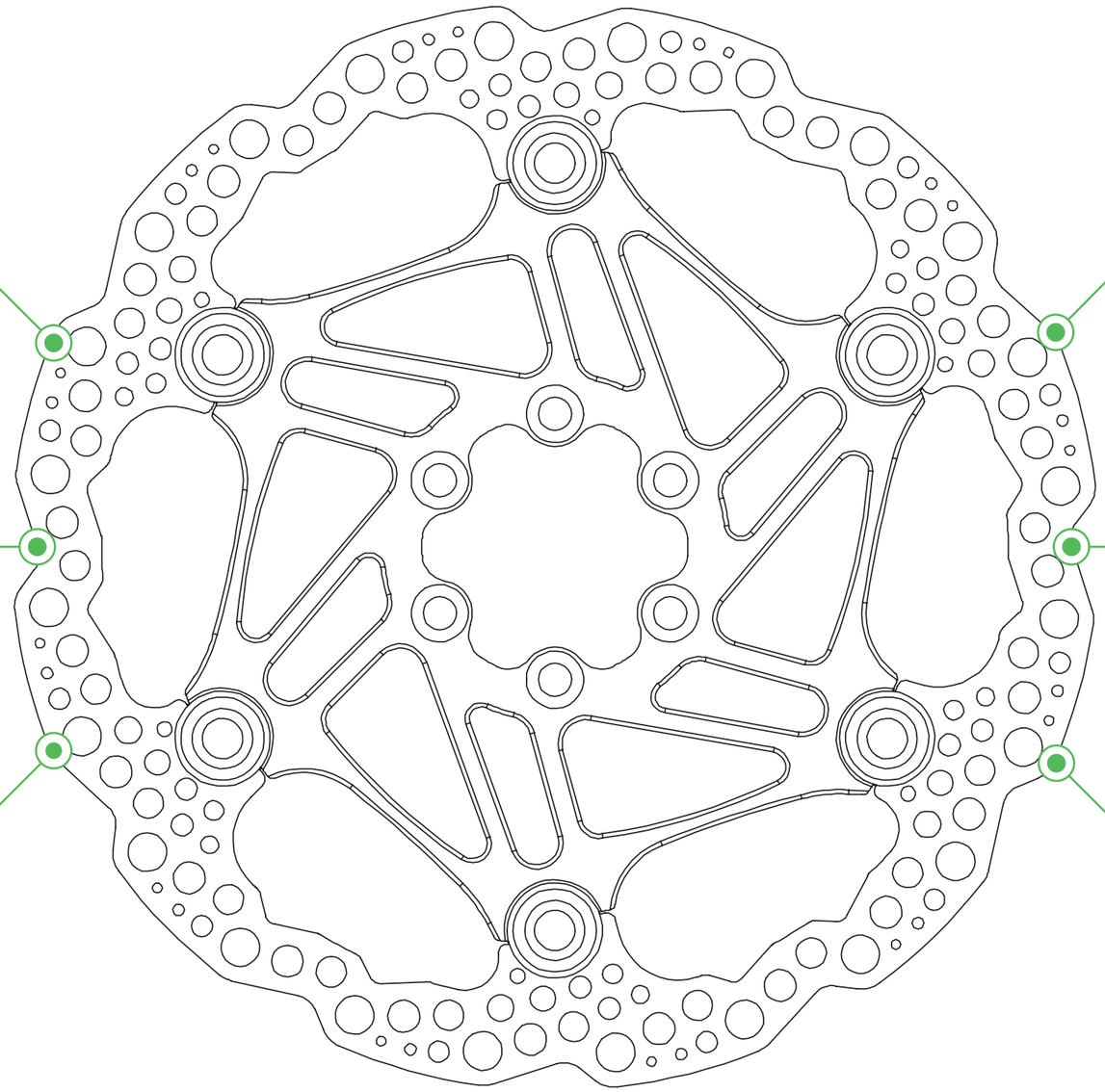
Hope Technology manufacture a wide range of high quality disc brake rotors, perfectly suited to our brakes or an excellent upgrade for any system. Rotors are a critical part of the braking system and subtle differences can completely change how a brake system performs. With over 30 years experience designing and manufacturing disc brake systems our discs offer the highest level of performance and quality, a must if you want to get the most out of your brake system.

We offer a range of disc options, fixed, floating and vented designs with 6 bolt or 'newly released' centre lock fitments. This document details the different models and why you might want them

your bike.

PRODUCT_FEATURES

Hope disc rotors are available in fixed, floating and vented designs. All variations incorporate these high spec features:



LASER CUT
For high accuracy, low distortion, low induced stress and prevention of oxidation on cut surfaces.

HEAT TREATED
To increase life and maintain performance with all types of pads.

HOLE PATTERN
Developed for the right balance of heat dissipation, increased bite, pad cleaning capability and even pad wear.

SPECIAL FORMULATION
410 Stainless steel, for maximum friction and heat dissipation properties.

GROUND SURFACE FINISH
For straight running and to help the bedding in process.

EXTERNAL SHAPE
Helps to clear mud and maintain brake performance in poor conditions while also increasing surface area to dissipate more heat.

FEATURES

FIXED_ROTORS

Are an excellent all-round option, balance of performance, durability and cost.

- High quality disc laser cut from a single piece.
- Robust option suitable for most applications.
- Fixed disc thickness varies throughout the size range. Smaller rotors use a 1.8mm thickness, rotors Ø180 and above use an increased 2.3mm thickness.
- 2.3mm Material offers superior stiffness, strength, vibration damping and thermal stability.
- Available in Ø140, Ø160, Ø180, Ø183, Ø185, Ø200, Ø203, Ø205, Ø220 and Ø225mm sizes.
- 6 Bolt disc fitment
- Also available in other less popular or obsolete fitments, if you need a rotor there is a good chance we have something to fit.

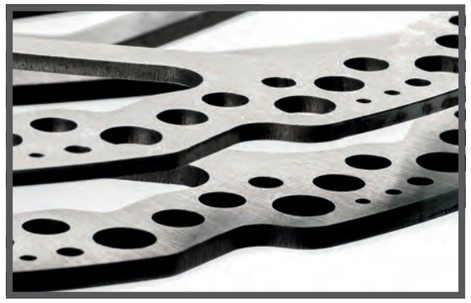
TRIALS_ROTORS

A specific trials version provides bi-directional stiffness and hole pattern optimised for increased bite and holding torque.

2.3 T

ROTOR THICKNESS

2.3mm material offers superior stiffness, strength, vibration damping and thermal stability.



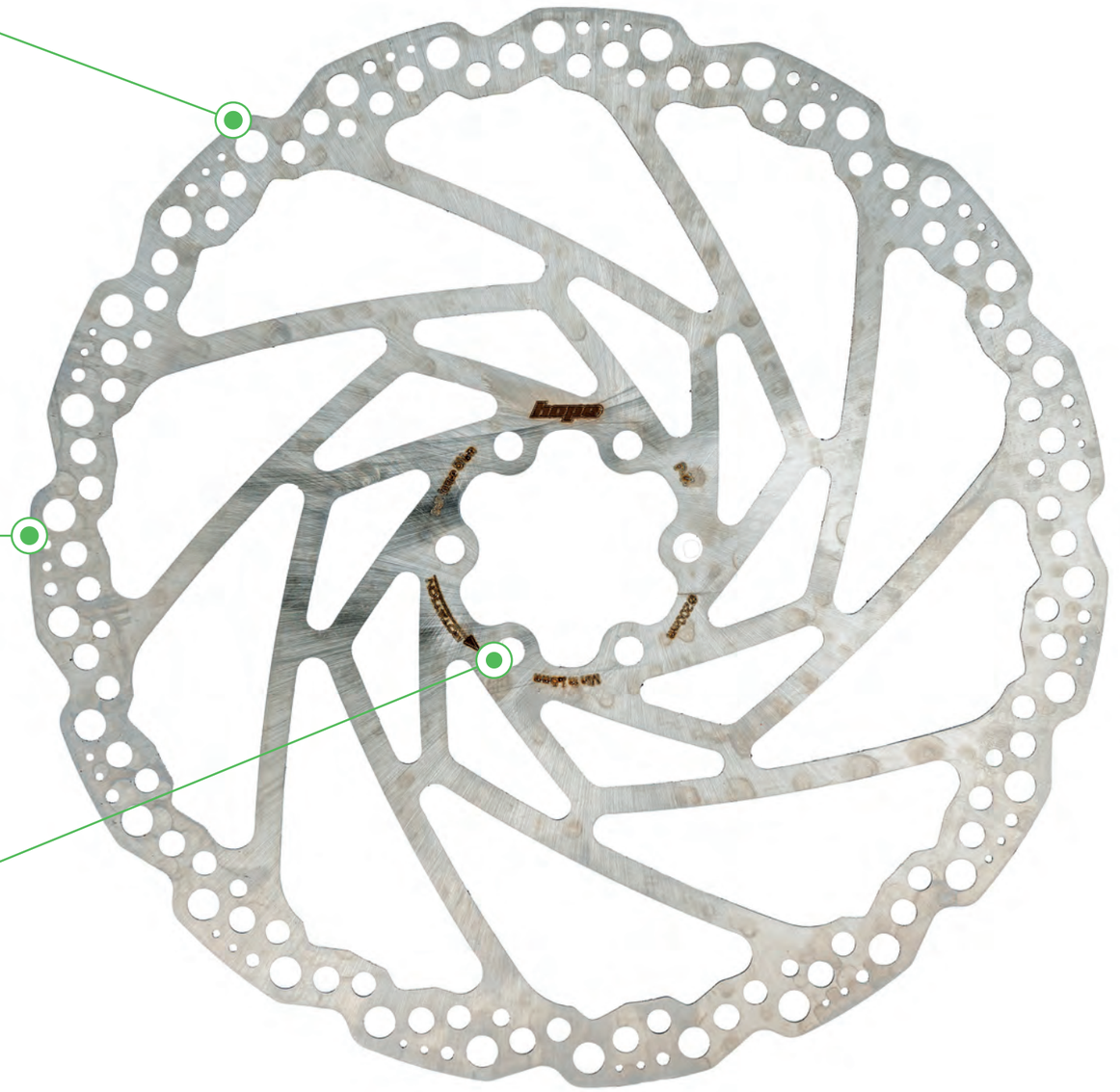
1.8 T

ROTOR THICKNESS

1.8mm Material saves weight for less demanding applications.

SIX BOLT

Attaches to the hub using 6 x M5 bolts. Strong, widely available, easy to fit with basic tools.



FEATURES

ADDITIONAL FEATURES

1.8 T ROTOR THICKNESS

2.3 T ROTOR THICKNESS

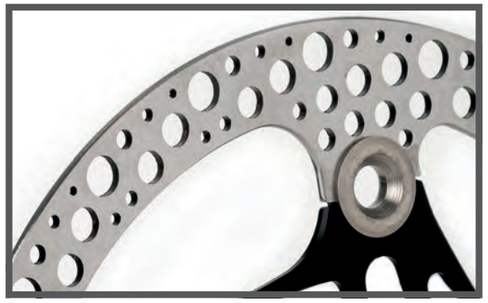
SIX BOLT

FLOATING_ROTORS

Are a high performance option for demanding applications.

- Constructed in two parts, aluminium centre and stainless steel braking surface.
- High performance disc, allowing the stainless steel outer to expand separately from the centre and handle high temperatures without warping.
- Hope floating rotors have a true floating design which allows 1 degree of freedom. This means the outer is always free to expand when subjected to heat.
- Lightweight design.
- Aluminium centre acts as heat sink keeping disc temperatures lower.
- CNC machined centre is stiff and lightweight so has the advantages of a thicker fixed disc without the weight penalty.
- 6 Bolt and Centre Lock fitments
- Available in: Ø140, Ø160, Ø180, Ø200, Ø203 and Ø220mm sizes.

ROAD_ROTORS



ROUND EDGE
Road versions feature machined outer edge for safety and easier wheel changing.

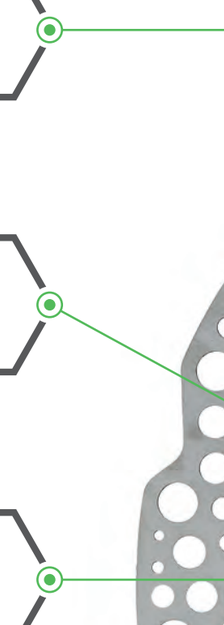
ROTOR THICKNESS
All floating rotors use 1.8 outers due to increased stiffness/strength and heat dissipation of aluminium carrier.

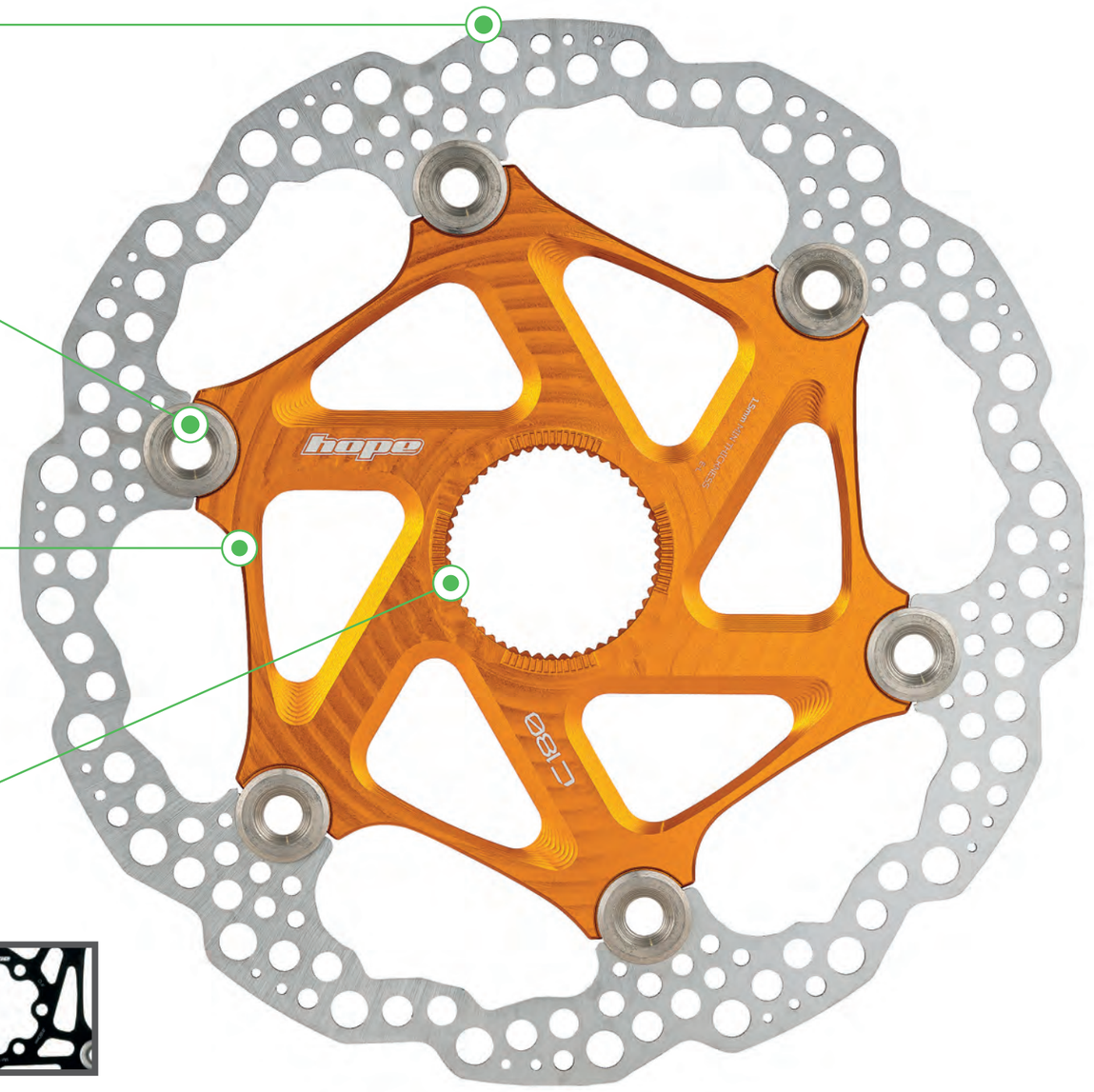
FLOATING RIVET
1° of freedom allows outer to expand with heat resisting warping.

ALUMINIUM CARRIER
Machined centre is stiff, lightweight and acts as a heat sink to keep disc temperatures lower.

CENTRE LOCK
Using a single lockring to attach to the hub. Easy to install with the correct tooling.

SIX BOLT
Attaches to the hub using 6 x M5 bolts. Strong, widely available, easy to fit with basic tools.





FEATURES / ADDITIONAL FEATURES+: 1.8 ROTOR THICKNESS · SIX BOLT · CENTRE LOCK · ROUND EDGE · 1° FLOATING RIVET · ALUMINIUM CARRIER

VENTED_ROTORS

Highest performance rotor for the harshest operating conditions.

- The vented rotor is designed specifically for our V4 brakes.
- Highest performing disc, for the harshest operating conditions.
- Outer is constructed from three pieces to create a gap between the external braking surfaces.
- The rotor uses internal fins to allow the air to flow between the two friction parts, the induced air flow significantly reduces heat build up in the rotor.
- Fantastic and consistent braking performance in wet conditions thanks to its capability to clear the water layer through its fins.
- Dyno tests show up to **15% less heat build up** compared to our floating rotors.
- Vented outer is joined to aluminium centre allowing 1 of freedom in a true floating design.
- Available in: Ø203 and Ø220mm sizes in a 6 Bolt fitment.

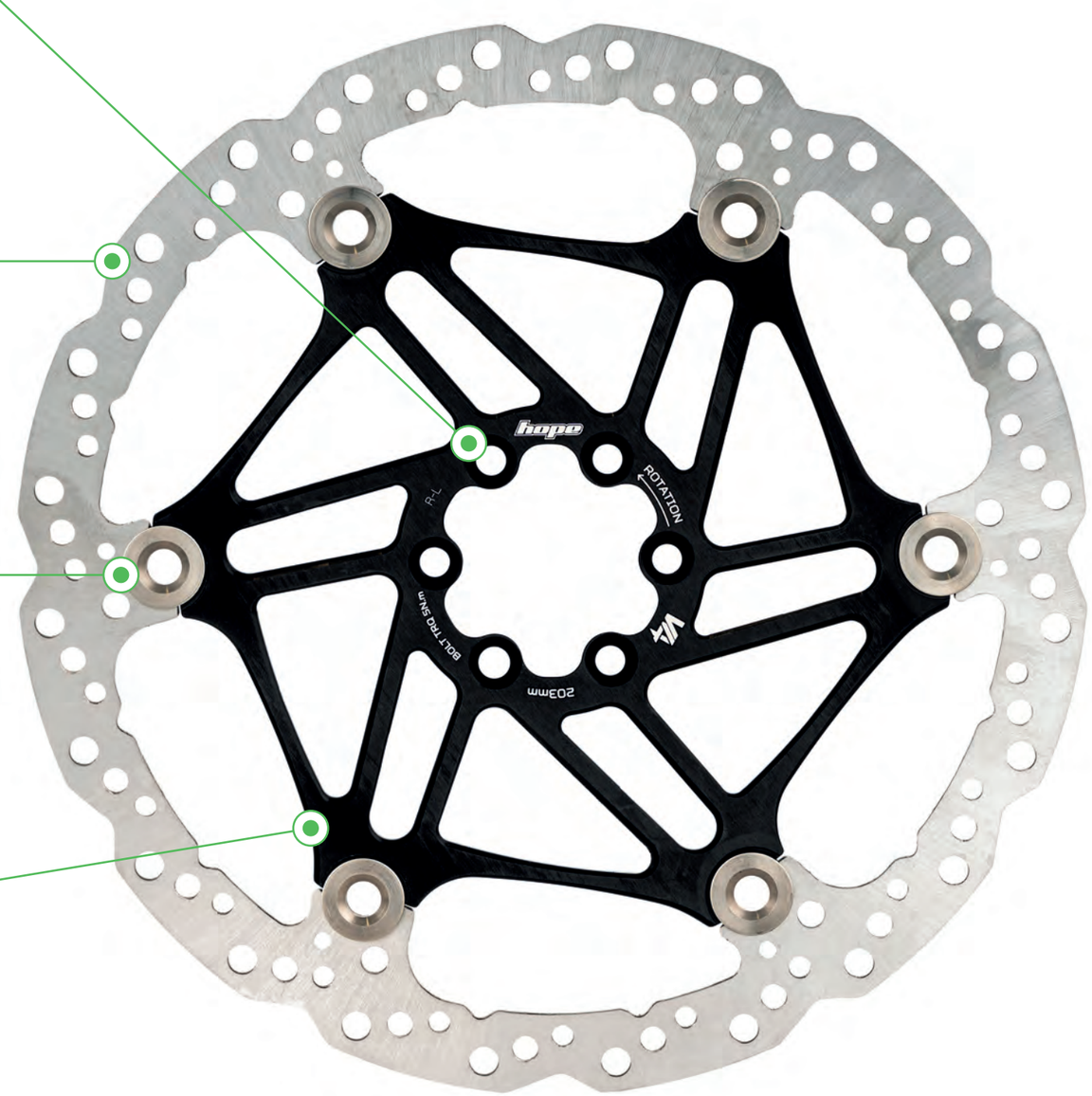
VENTED ROTOR
Internal fins allow air flow between the braking surfaces keeping disc temperatures low.

SIX BOLT
Attaches to the hub using 6 x M5 bolts. Strong, widely available, easy to fit with basic tools.

ROTOR THICKNESS
3.3
Increased thickness allows room for internal cooling fins, while also increasing overall stiffness and robustness.

FLOATING RIVET
1° of freedom allows outer to expand with heat resisting warping.

ALUMINIUM CARRIER
Machined centre is stiff, lightweight and acts as a heat sink to keep disc temperatures lower.



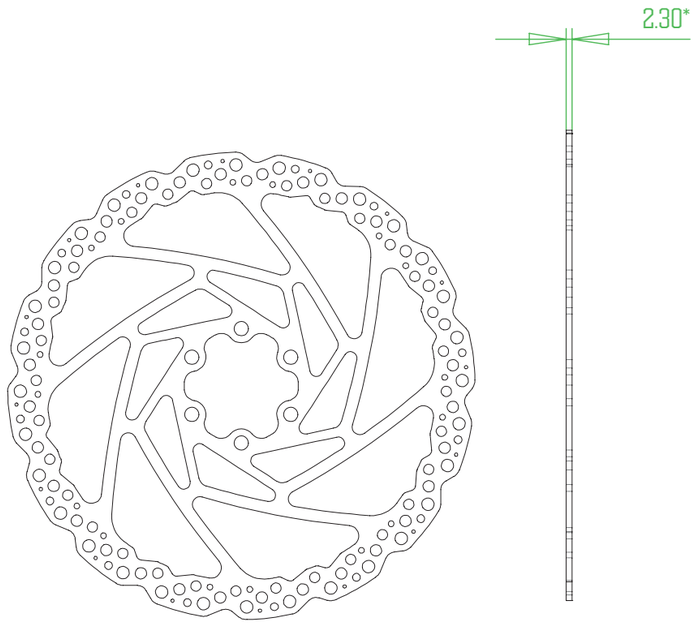
FEATURES

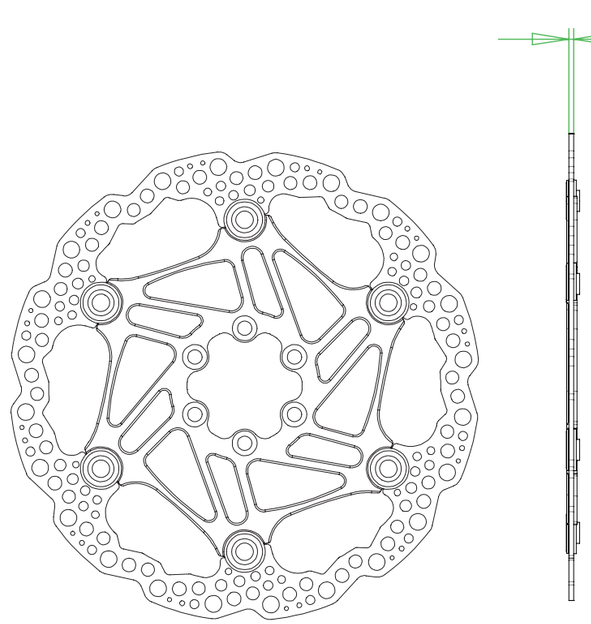
ADDITIONAL FEATURES

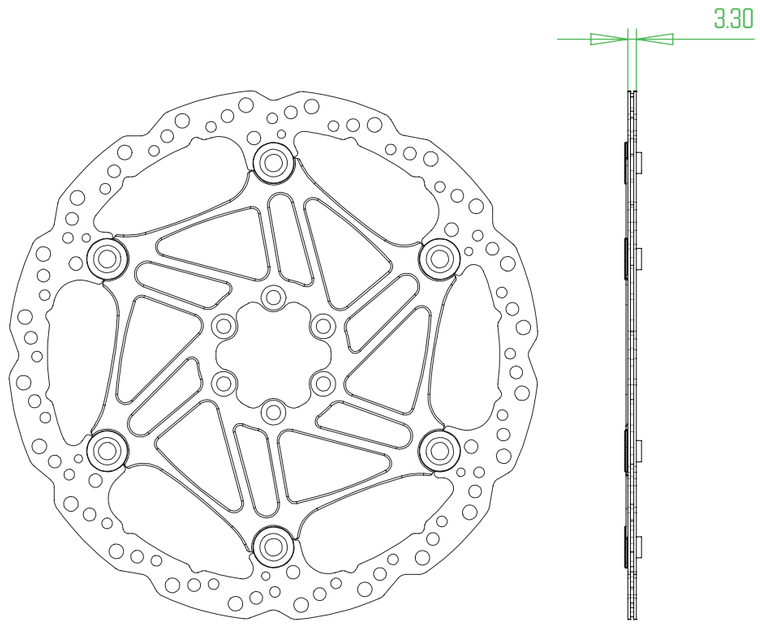
3.3 ROTOR THICKNESS | SIX BOLT | VENTED ROTOR | 1° FLOATING RIVET | ALUMINIUM CARRIER

ROTOR_COMPARISON

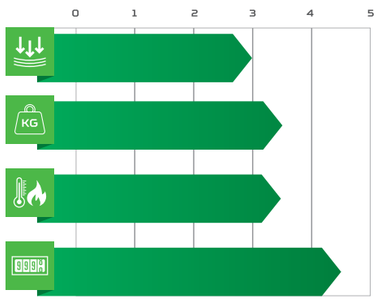
Our wide range of rotor sizes and specifications mean we almost certainly have the right rotor for your application. We have picked four key attributes to help you compare and choose the right disc rotor.



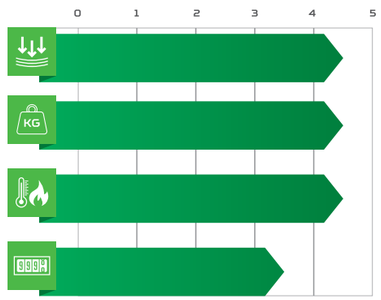




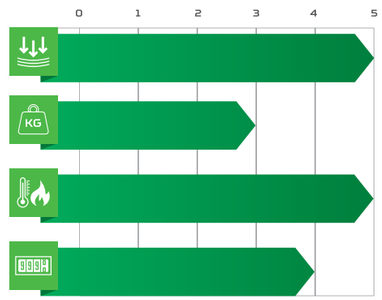
FIXED ROTORS



FLOATING ROTORS



VENTED ROTORS



*2.30mm for Ø180 and above only.

STIFFNESS
Resistance to bending under brake pad pressure - warping resistance.

RELATIVE MASS
Disc relative mass - Higher score means lower mass.

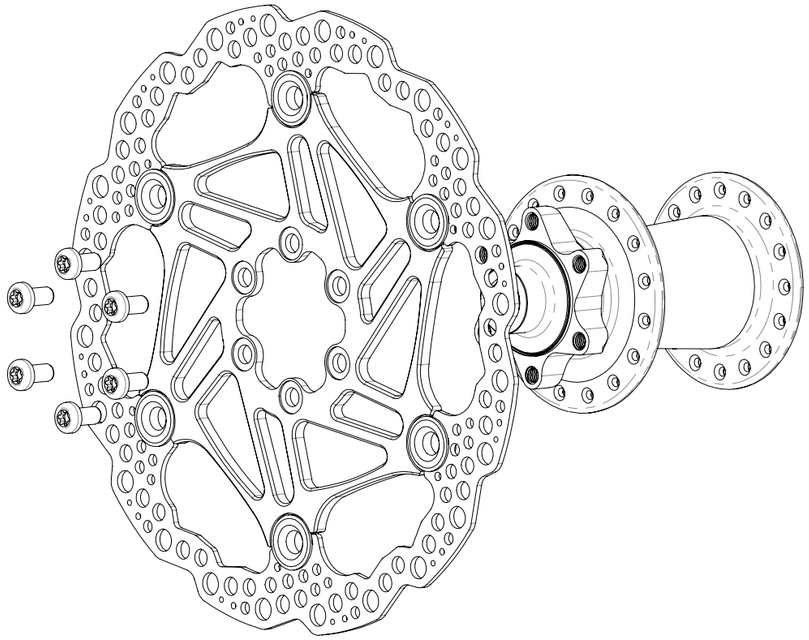
HEAT MANAGEMENT
Disc capacity to store heat and quickly cool off.

DURABILITY
Lifespan of the brake disc.

MOUNTING_TYPES

Most discs attach to the hub with either 6 Bolt or Centre Lock fitments. There are also some older (i.e. Coda) and proprietary fitments (Rohloff). This diagram will help you identify the mounting standard you require and the disc options that are available.

NOTE: Not all disc options are available in all mounting variations.

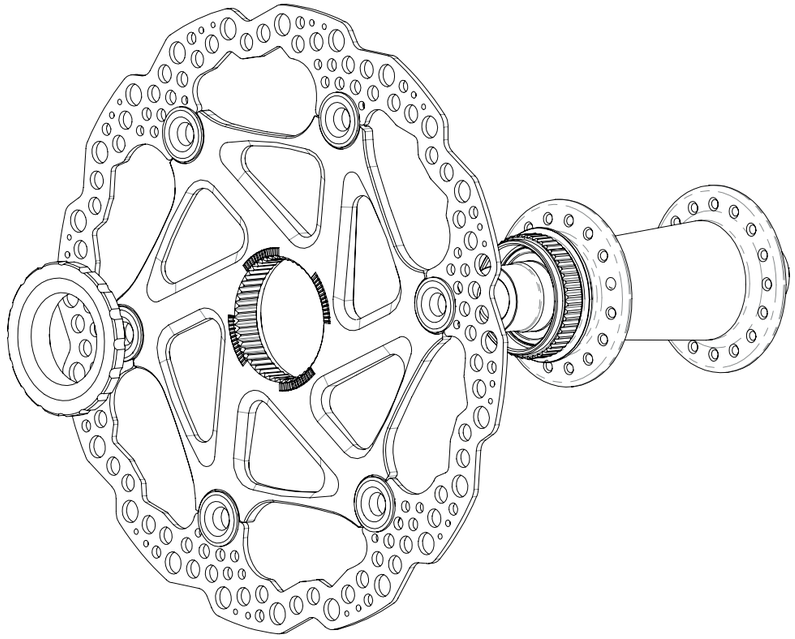


6 BOLTS STD

Uses 6x M5 screws on Ø44 PCD to fasten disc on to hub.

AVAILABLE OPTIONS:

- Fixed
- Floating MTB
- Floating Road
- Vented

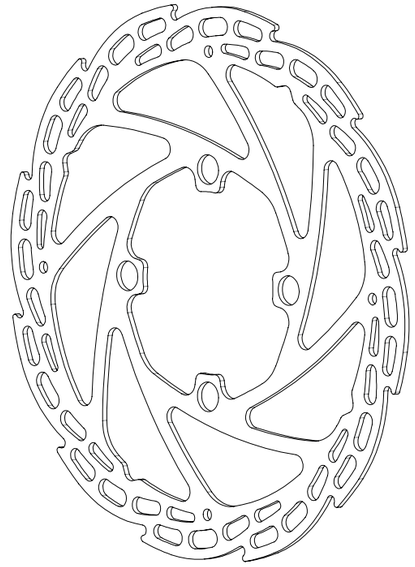


CENTRE LOCK

Uses a lockring to fasten disc on to hub.

AVAILABLE OPTIONS:

- Floating MTB
- Floating Road



NON STANDARD

Proprietary STD such as Rohloff, Coda, etc.

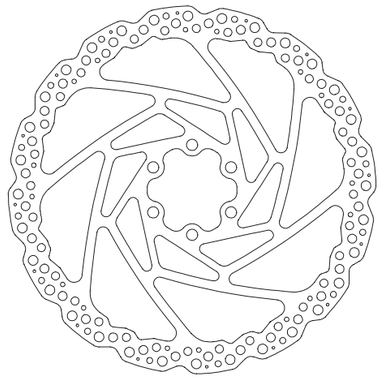
AVAILABLE OPTIONS:

- Fixed
- Vented (ROHLOFF)

FIXED_ROTORS

6 BOLT ONLY

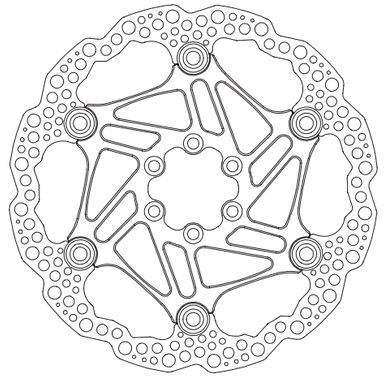
Available Size	Ø120	Ø140	Ø160	Ø180	Ø183	Ø185	Ø200	Ø203	Ø205	Ø220	Ø225
Disc Thickness	1.8	1.8	1.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Min. Thickness	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**
Weight (g)	75	88	110.5	177.5	180	183	223	226.5	230.5	268	280

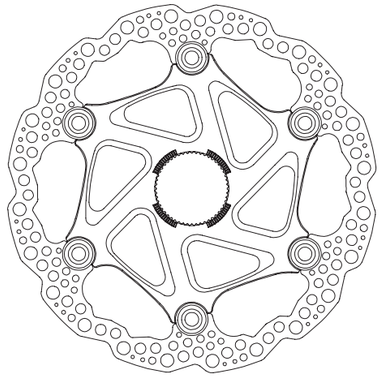


FLOATING_MTB_ROTORS

6 BOLT AND CENTRE LOCK

Available Size	Ø140	Ø160	Ø180	Ø200	Ø203	Ø220
Disc Thickness	1.8	1.8	1.8	1.8	1.8	1.8
Min. Thickness	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**
Weight 6B (g)	81.5	104	142	167.5	171	200.5
Weight CL (g)	**99**	**123**	**156**	**178.5**	**182.5**	**211**

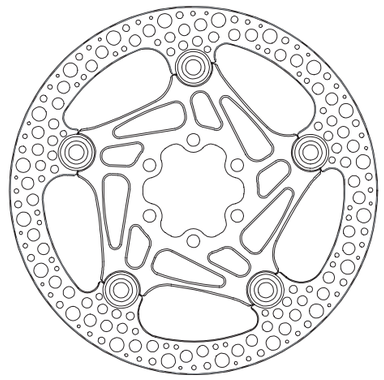


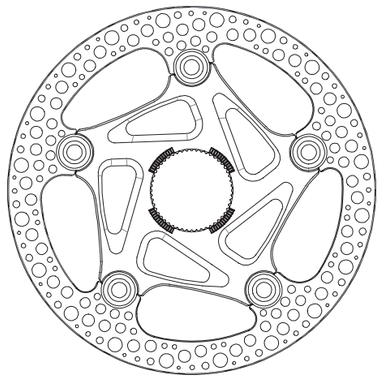


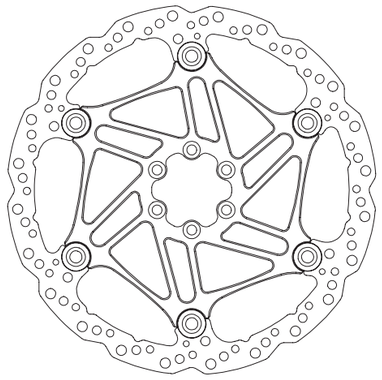
FLOATING_ROAD_ROTORS

6 BOLT AND CENTRE LOCK

Available Size	Ø140	Ø160
Disc Thickness	1.8	1.8
Min. Thickness	**1.5**	**1.5**
Weight 6B (g)	86.5	109
Weight CL (g)	**104**	**127.5**



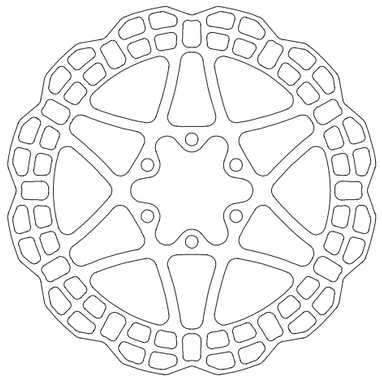




VENTED_ROTORS

6 BOLT ONLY

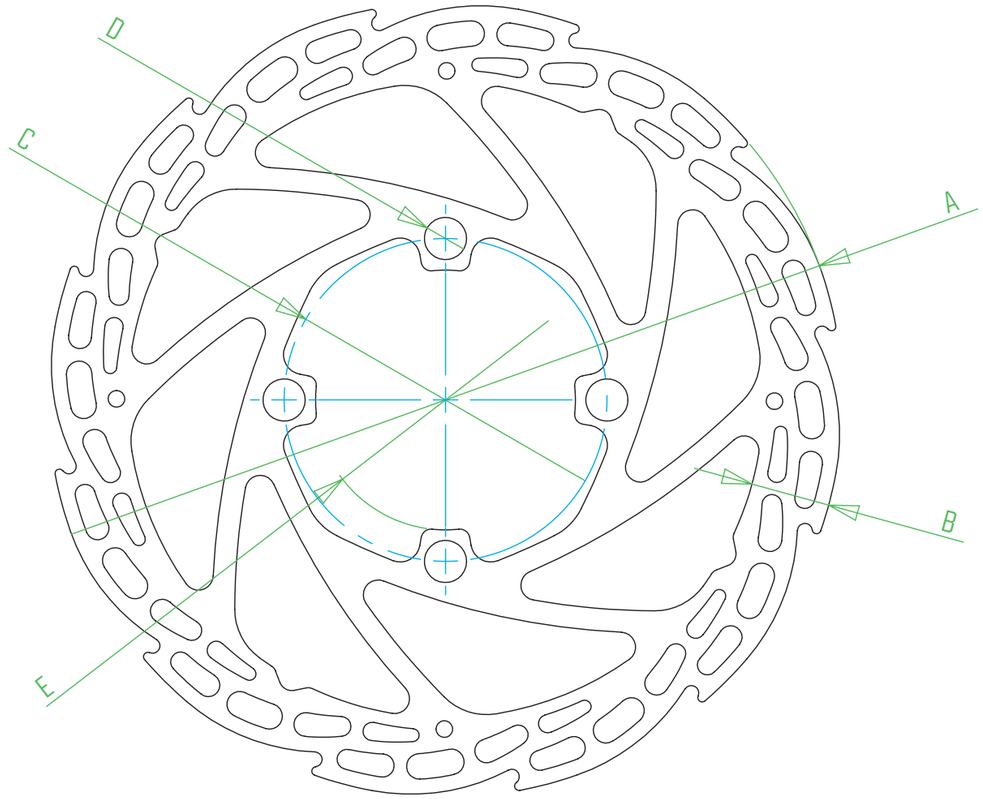
Available Size	Ø203	Ø220
Disc Thickness	3.3	3.3
Min. Thickness	**2.9**	**2.9**
Weight (g)	248	288

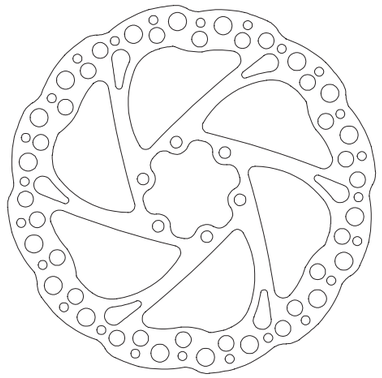


FIXED_TRIAL

6 BOLT ONLY

Available Size	Ø140	Ø160	Ø180	Ø200	Ø203
Disc Thickness	1.8	1.8	1.8	1.8	1.8
Min. Thickness	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**
Weight (g)	84	96	126	156	159.5





FIXED

OLDER MODEL AND STANDARDS

- 3 - 4 - 5 - 6 Bolts
- Mini, C2, Moto V2, Rohloff, etc
- Various sizes and models still available

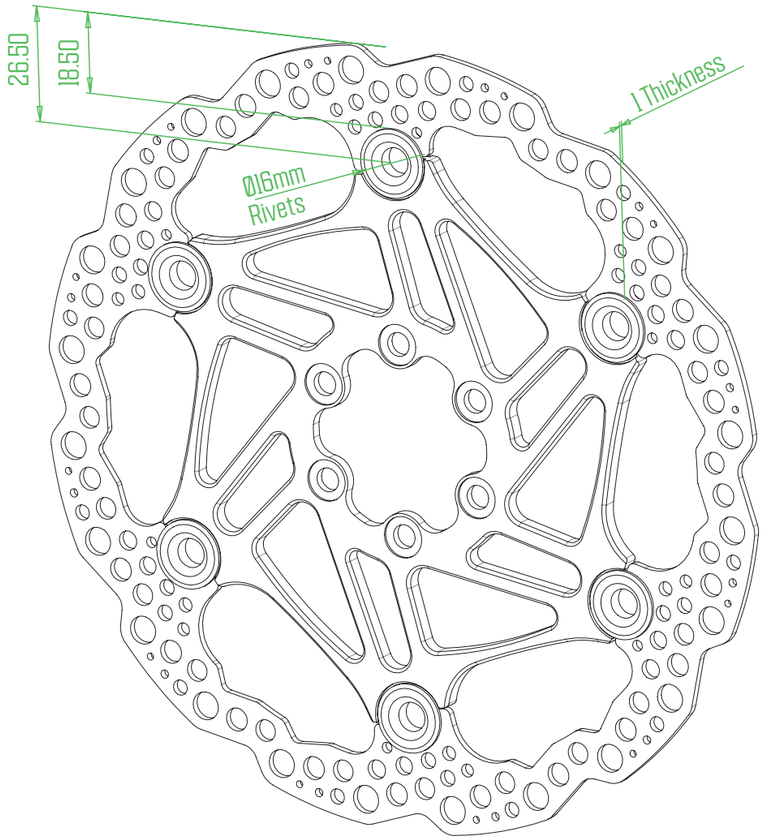
FIXED CUSTOM MADE

MOQ 50 units

On order precise the following dimension

- **A** Outside dia
- **B** Braking band width
- **C** Mounting holes PCD
- **D** Holes numbers and dia
- **E** Centring dia
- **F** Thickness (1.8 or 2.3)

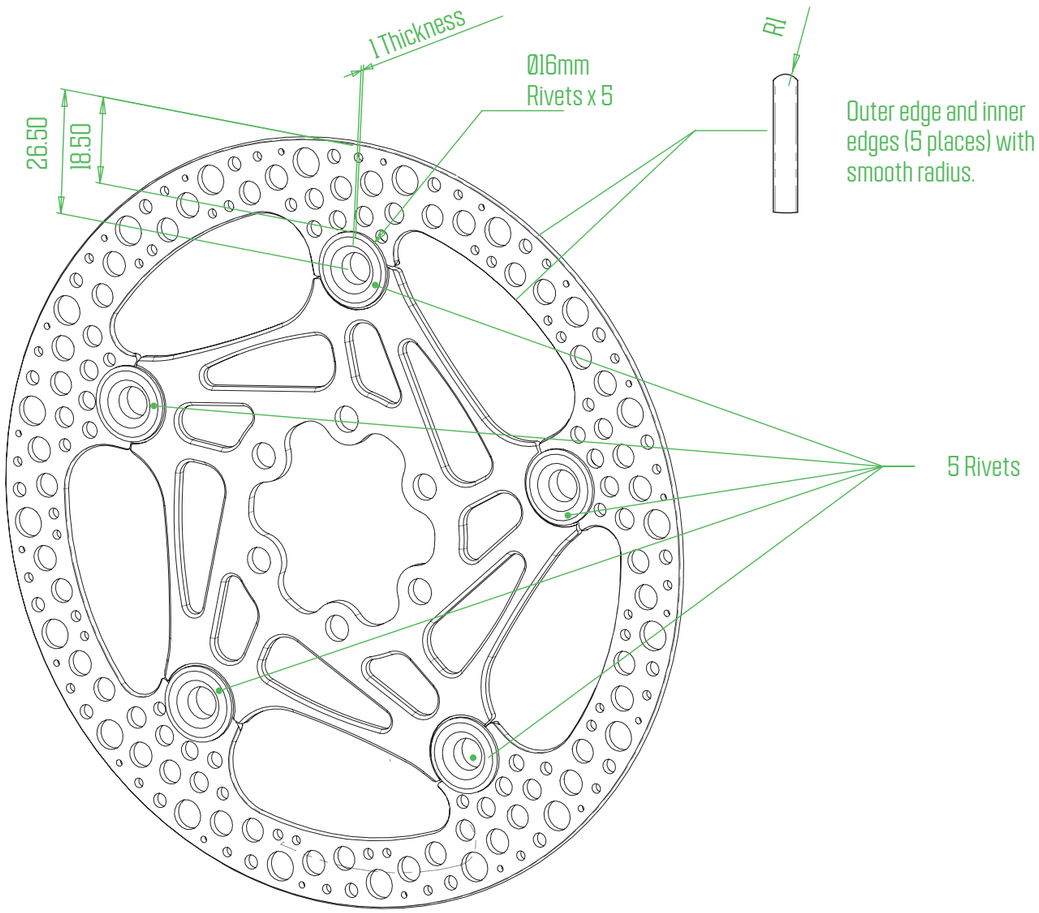
CLEARANCE_DIMENSIONS



MTB_FLOATING_ROTORS

NOTE: The rivet heads sit 1mm above the disc surface increasing the overall thickness of the disc to 2.8mm on each side.
Each rivet has a diameter of 16mm and their centre is 26.50mm below the top edge of the rotor. Please ensure you have sufficient clearance to use this rotor, pay attention to any possible interference with the caliper mount, frame, etc.

*Not compatible with V2 and Trial calipers.



ROAD_FLOATING_ROTORS

NOTE: The rivet heads sit 1mm above the disc surface increasing the overall thickness of the disc to 2.8mm on each side.
Each rivet has a diameter of 16mm and their centre is 26.50mm below the top edge of the rotor. Please ensure you have sufficient clearance to use this rotor, pay attention to any possible interference with the caliper mount, frame, etc.

ADDITIONAL_INFORMATION

SIZE

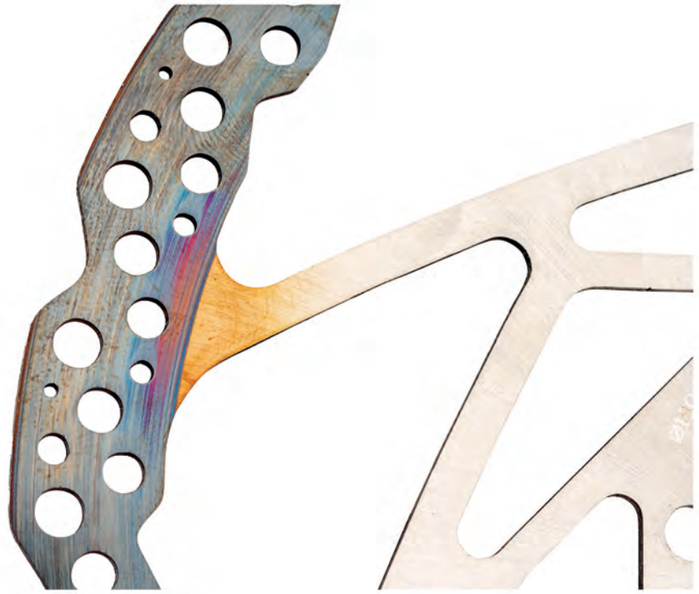
Disc size is important. A bigger size rotor will increase braking power but make sure you are generating enough momentum for the whole system to work at the optimal temperature. If not enough braking intensity, frequency and duration the system could remain too cool, and you won't get the most out the brake pad, in this case a smaller rotor might produce more power. A good pointer is to look at the colour of the disc just below the braking surface. Ideally it will be a light brown. Darker or showing a rainbow effect and you could benefit from a bigger size disc. No colour means your rotor is too large and not reaching the optimum temperature.

BEDDING_IN

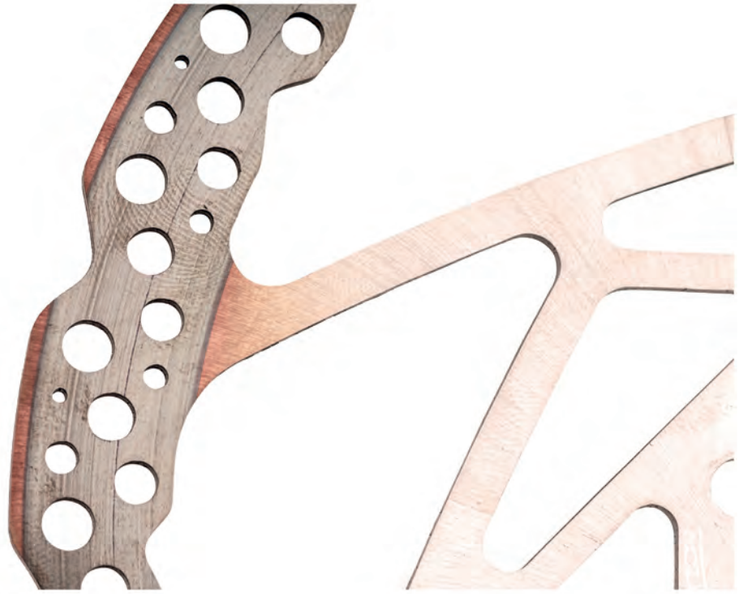
Just like the pad, the disc will need bedding in. During that process the pad material will slowly deposit on the braking surface. If you can still see grinding marks on your disc it means it is not entirely bedded in yet.

TRUING

Bent rotors will push the pistons back in the caliper leading to spongy brakes and wandering bite point. Straight rotors are key to good brake alignment and getting the best performance from your brakes.
Bent rotors can be trued, depending on your patience threshold! Start by using your hands, (use gloves to prevent disc contamination), or move to a truing tool or adjustable spanner for more accuracy.
For fine adjustment a dial gauge can be used.



LARGER DISC REQUIRED



CORRECT DISC SIZE

BEDDED DISC

NON BEDDED DISC - GRIND MARKS VISIBLE

CONTAMINATION

Beware of not contaminating your disc and or pads when maintaining your bike. Especially when lubricating the chain, cleaning with aggressive soap, etc. Avoid automotive disc brake cleaners for cleaning, we recommend an alcohol based solution, methylated spirits or isopropyl is ideal.
Certain pads under harsh conditions can leave marks or glaze the disc, in that case it will need re bedding in.
Pro Lancashire tip: Some gritty Lancashire mud can act as a polishing paste and help the process.


Pad showing signs of glazing

PAD_COMPOUNDS

During use pad material is deposited onto the braking surface. When a different pad compound is used this can interact with the older material on the disc. Generally this will lead to reduced performance until all the old material has been worn away and replaced with the new one, a careful bedding in process must be followed to prevent pad glazing. It is best practice to thoroughly clean the disc surface with alcohol based solution whenever pad compound is changed.

E-BIKE ROTOR SPEED SENSOR

For fitting rotors to E-Bikes we offer a neat speed sensor that mounts directly to the disc mount. Compatible with all Hope Technology 6 bolt rotors.

Available sizes:
R24mm - HBSP436
R32mm - HBSP437

001_Please check the distance R from centre of disc, must be within **2mm** from what it is on your bike.

002_Please check the bike frame clearance, the speed sensor thickness is **3.5mm** and sits on the front face of your disc. Therefore you need at least **4.5mm of clearance.**