

TECH TIP

ROTAX
RACING

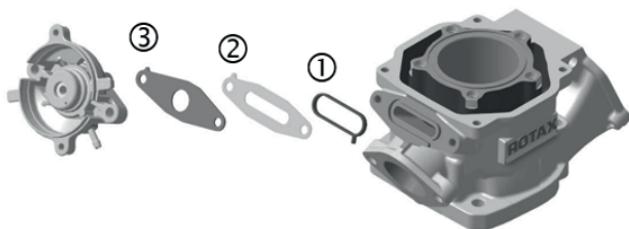
07 Rotax Plasma Cylinder & relocated Piston for MAX Engine Family

1 - TECHNICAL DETAILS & INNOVATION

Our goal is to ensure the stable supply of kart racing products and to facilitate parity of performance, which is embedded in the DNA of the Rotax MAX Challenge. Following the challenges in the supply chain BRP-Rotax has taken a bold step by relocating the piston supplier and shifting the production of cylinders to the Rotax factory in Austria.

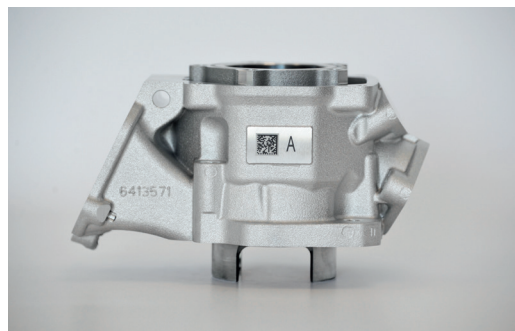
ROTAX Plasma Cylinder

- › **Innovative Plasma Coating:** The cylinder bore surface is now refined using an advanced plasma coating process.
- › **Maximum Parity:** BRP-Rotax is producing the Rotax Plasma cylinder in-house to deliver maximum engine parity and uncompromising quality.
- › **Enhanced Durability:** The combination of increased hardness and superior lubrication leads to a noticeably longer service life for both the cylinder and piston.
- › **New design of Exhaust valve flange:** The redesigned exhaust valve flange requires the following components: (1) 450415 Gasket, (2) 251337 Support plate, (3) 250230 Gasket



Relocated Piston

- › **Improved Durability:** Same piston design with significantly tighter manufacturing tolerances and improved dimensional accuracy leads to improved durability.
- › **Full Compatibility:** The relocated piston and piston ring are fully compatible with the Rotax Plasma cylinders as well as all previous cylinder models. The current piston and piston ring are also compatible with the relocated piston and Rotax Plasma cylinder.



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2. TOLERANCE GROUPS & COMPATIBILITY

Tighter manufacturing Tolerances

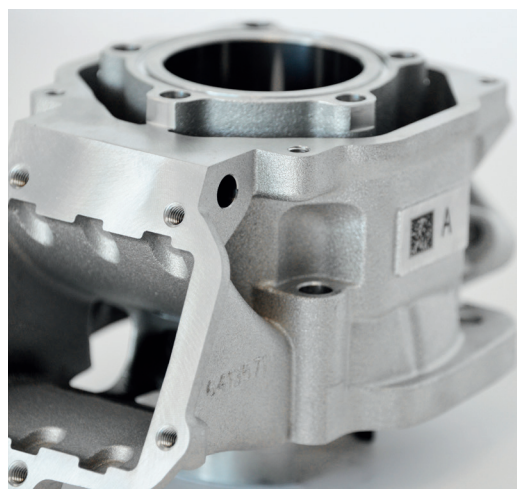
Thanks to significantly tighter manufacturing tolerances, the B-size tolerance group has been eliminated. The Rotax Plasma cylinder will only be supplied in A and AB size categories.

Identical Performance Characteristics

Power output remains identical to the current cylinder generation to guarantee absolute parity on the track.

Quality Traceability

Each cylinder features a unique Data Matrix code for seamless quality tracking and registration



3. RECOMMENDED SETUP

To achieve optimal engine performance and durability with the new Rotax plasma cylinder and piston combination, we recommend adhering to the following setup parameters:

Category	Main jet / normal range	Float height / drop (mm)	Air screw (turns)	Operating temp Optimal (°C)
Micro	108 / 105-112	2.5 / 13	1.75	85-92
Mini	115 / 112-118	3.0 / 14	1.75	55-60
Junior	125 / 122-128	3.0 / 15	1.75	50-55
Senior	126 / 124-128	3.0 / 15	1.75	50-55

The introduction of the Rotax Plasma Cylinder for DD2 is scheduled for season 2028, more information on setup will follow prior to introduction.



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4 - QUESTIONS & ANSWERS

› Which categories are affected by the supplier relocation?

Micro, Mini, Junior, Senior (Cylinder and Piston). DD2 (piston only, Cylinder is scheduled for season 2028)

› Will the Rotax Plasma cylinder and or the relocated piston enable a better lap time compared to my current cylinder and piston?

We have achieved a matching out-of-the-box performance and lap time.

› When will the Rotax Plasma Cylinder and relocated Piston be available?

The Rotax Plasma cylinders, relocated pistons, and genuine spare parts will be supplied to the market as of October. Contact your authorized Rotax service center / dealer for more info.

› Can I replace my actual cylinder and piston 1:1 with a Rotax Plasma cylinder and relocated piston without changing any other parts?

Yes, for Micro, Mini Junior (Junior cylinder). Please note that for the Senior Rotax Plasma cylinder 3 additional components are required for the exhaust valve. The piston and piston ring can be used in any combination. For further details, please contact your Rotax Service Center or Dealer.

› Is the use of the Rotax plasma cylinder and relocated piston mandatory in the RMC?

For 2027 season we recommend to check the technical regulations of your championship, as there might be deviations compared to the Rotax Global Technical Regulations in your market, depending on start of the season and introduction scenario.

The Global Technical Regulations will be updated as follows:

For Junior MAX and Senior MAX, the Rotax Plasma Cylinder and relocated piston will be optional parts under the Global RMC Technical Regulations for 2027. For Micro MAX and Mini MAX, the Rotax Plasma Cylinder will be mandatory from January 1, 2027.

› Are the Rotax Plasma cylinder and the relocated piston more expensive than my actual cylinder and piston?

No, the retail price of the Rotax Plasma cylinder and relocated piston has not increased.



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4 - QUESTIONS & ANSWERS

- › **What is the reason for the introduction of the Rotax Plasma cylinders and relocated piston?**

With the relocation of the cylinder production to BRP-Rotax we can maintain the performance parity and ensure stable product quality and supply.

- › **The Data Matrix code on the cylinder provides a number. Is this a serial number?**

The number provided by the Data Matrix code is a unique, random number for tracking of the manufacturing quality.

- › **Are the letters A and AB a rating of the quality of the cylinder?**

No, the letters A and AB are the classification for the tolerance of the cylinder bore which is used for the pairing of piston and cylinder at the engine assembly.

- › **Why is the outside appearance (ROTAX) of the Rotax Plasma cylinder different to the current cylinder (ROTAX RACING)?**

The logo has been changed to "ROTAX" only to avoid casting defect at the additional characters "RACING".

