

PATENT PENDING

NEW PRODUCT

CYLINDER KIT Ø47,6 mm 70 cc

YAMAHA - MINARELLI HORIZONTAL

PRICE:

€ 259,70 (VAT Excl.)

PART NUMBER:

P400485100098

Ø 10 mm piston pin version

P400485100099

Ø 12 mm piston pin version

INCLUDED IN THE KIT:

- Cylinder
- Cylinder Head
- Piston Kit
- Needle Bearing
- Intake carbon-made reed
- Gasket Kit
- Bolts and special Allen key



After the recent success of the revolutionary cylinder kits for the Yamaha-Minarelli vertical AC engines, Athena's technical department has applied some of those same innovative technical solutions also on this **new cylinder kit for 50 cc horizontal air-cooled Minarelli engines**. The results have been successful for these well-known applications such as **Aprilia Rally, Malaguti F10, F12 and F15e Yamaha Jog***.

Athena's technical department has managed to provide this new **big bore** cylinder kit excellent solutions, currently only reserved for engines designed for higher performance such as on the 2T Racing GP. The various innovative technical and patent pending solutions introduced for this project have now allowed us to expand our grasp with **ultimate engine performance, which has never been achieved before**.

*The full list of applications is available on athena.eu

TECH SPECS

	KIT ATHENA BIG BORE 070200	NEW ATHENA BIG BORE KIT P400485100098 / -99
CAPACITY	69,8 cm3	69,8 cm3
BORE	47,6 mm	47,6 mm
STROKE	39,2 mm	39,2 mm
COMPRESSION RATIO	13,5:1	13,8:1
POWER*	14-15 CV	17-19 CV

*this data may vary according to the different possible combinations of the parts used in the engine tuning

MAIN FEATURES

With this new kit, Athena introduces numerous solutions never before seen on the market for these applications. The result is simply the most incredible performing cylinder kit ever invented for this engine.

REVOLUTIONIZED CYLINDER PORTS

The great experience of Athena technicians in the world of 2T, has allowed us to challenge the traditional design. **The exhaust ports have been totally reinvented.** Thanks to the Thermo-Fluid Dynamic analysis systems of the engine, it has been possible to **increase the performance of the engine in terms of power and torque**, with results never achieved like these, until now.

All because of the innovative system, which allows fixing the cylinder to the crankcase without the use of studs. The design allowed the adoption of an **exhaust outlet with a bigger oval shape and side auxiliary ports**. This solution **cannot be found on any other cylinder of this type today, on the market.**



AUTO-CENTERING HEAD

The cylinder head is another element where Athena R&D has paid close attention to the redesign of the combustion chamber, which has included a **study of the internal configuration to maximize the power generated by the combustion phase.**

CNC machining has a setting that **protrudes 1.5 mm from the support surface**; this element, in addition to facilitating installation, allows it to maintain a **perfect centering on the cylinder**. In addition, the **sealing capacity and efficiency of the entire cylinder kit** provides yet another great benefit.



NEW RACING PISTON

The study of the **flat head piston** was guided specifically with a keen **focus on the interaction with the intake**. The CNC machined window on the piston skirt is designed to **maximize the incoming flow**, thus **promoting greater pressure on the pump crankcase and better lubrication of the needle bearing.**



FASTENING SYSTEM REINVENTED

All the normal head and cylinder clamping, which was based on the studs, has been eliminated in favor of the introduction of a **new system that adopts special bolts usually only used with the high-performance engines.** The clamping of the cylinder to the crankcase (racing type) with bolts and dedicated key is a solution, which on one hand **reduces the expansion of the cylinder** with more efficient tightening, on the other hand, it allows the sophisticated **redesign of the exhaust port** – making this product so unique in its performance.



SPARE PARTS LIST

ITEM	DESCRIPTION	PRICE (VAT Excl.)
P400485160201	Gasket Kit	€ 11,80
S410485308037	Cylinder Head	€ 40,07
S4C04760009A, -B, -C	Flat Head Piston Ø 47,54 / 47,55 / 47,56 mm, Pin Ø 10 mm	€ 60,86
S4C04760010A, -B, -C	Flat Head Piston Ø 47,54 / 47,55 / 47,56 mm, Pin Ø 12 mm	€ 60,86
MNB100140125	Needle Bearing Ø 10 mm	€ 4,15
MNB120170150A	Needle Bearing Ø 12 mm	€ 8,83

Find the complete application list on athena.eu

► RELATED PRODUCTS



**BIG VALVE SYSTEM
WITH REED VALVE**

P400485135003



CARBURETOR PWK

Ø 28 mm
P400000680016

Ø 24mm with PowerJet
P400000680017



**COMPLETE RACING
EXHAUST KIT**

P400485120012



RACING CRANKSHAFT

Pin Ø 12 mm
S410485320007

Pin Ø 10 mm
S410485320006



**AIR FILTER FOR
CARBURETOR PWK
TYPE 24-28 mm**

Round
S410000200011

Cone-shaped
S410000200010

Oval
S410000200009