

NEW**MHR**
MALOSSI HYPER RACING

Vespa never dies

Cylinder kit Ø 63 aluminium

NEW

LML STAR 125 - 150 2T
 VESPA COSA 125 - 150 2T
 PX 125 2T euro 0-1
 PX 125 2T euro 2 (VLX2M)
 PX 125 2T euro 3
 PX 150 2T euro 0-1
 PX 150 2T euro 2 (VLX2M)
 PX 150 2T euro 3



The completely new cylinder kit has been created, designed overall to obtain the maximum result in terms of performance and durability.

Every aspect of the system has been studied to maximise the mechanical resistance, the fluid dynamics and improve combustion: the result is a top-of-the-range kit in terms of construction quality and technological development.

racing use

* **3117163 € 404.00**

Cylinder Kit MHR Ø 63 aluminium CVF2 pin Ø 15

Recommended to be used with **strongly tuned crankcases**, carburettors with 30 mm diameter and more, Malossi exhaust or expansion exhaust.

racing use

* **3117361 € 404.00**

Cylinder Kit MHR Ø 63 aluminium CVF2 pin Ø 15 stroke 60

Recommended to be fit with a **60 mm stroke crankshaft**, **strongly tuned crankcases**, carburettors with Ø 30 diameter and more, Malossi exhaust or expansion exhaust.



Warning:
the use of **fuel taps** with increased capacity is absolutely necessary.

Code	3117163 Ø 63 mm	3117361 Ø 63 mm
Use	Sport / racing	Sport / racing
Power range	21/28	22/30
Level of elaboration	easy	easy
Carburettor recommended	Phbh 30	Phbh 30
Stroke	57	60
Compression ratio	1:12.5	1:12.5
N° piston rings	1	1
N° ports	7	7
Head	Hemispheric	Hemispheric
Spark plug	iw 27	iw 27

Technical features

Cylinder

Built from scratch, in high-strength aluminium alloy and cylinder sleeve with nickel-chromium coating. Consisting of an even thickness central core around the cylinder sleeve and the ports, a constant heat exchange is ensured, therefore, a controlled intake temperature of the gases in the chamber and an optimal heat exchange at the exhaust. It has aerodynamically profiled cooling fins around the core, designed to be penetrated with the best possible efficiency by the cooling air.

The major innovation lies in the totally revamped and coated ports, introducing the latest CVF, upgraded thanks to experience gained from competitions.

There are now 7 ports, a distinctive trait of Malossi kits, thank to which you can get the best fluid dynamic performance.

For the first time of a Malossi Vespa cylinder, the exhaust consists of a double trapezoidal exhaust port separated by the characteristic port, exactly like in competition cylinders, with which, in addition to guaranteeing adequate support to the piston and piston rings even at very high temperatures, it is possible to achieve optimum pressures of the burned gases facilitating their expulsion at the exhaust and to obtain the best results if combined with our specially designed silencers with expansion chamber.

It is connected to the silencer via an exhaust manifold which fits into the cylinder through a threaded connection, creating an uniform exhaust pipe with no step,s to which you can connect both the original exhaust system or one of our systems.

The connection with the head is now done by means of a high-precision centring on the support surfaces obtained with numerically controlled machines.

A basic set of gaskets of different thickness is supplied to allow the user to adjust the compression by adapting it to various uses.

Piston

Fused with an innovative material, consisting of a steel core coated with an aluminium and silicon alloy, which makes it extremely lightweight. This also gives it excellent corrosion resistance, even at high temperatures and a heat reflection from combustion. The heat flow is, therefore, directed to the dissipation surfaces, facilitating the cooling of the combustion chamber, ensuring that it stays within the range of optimum temperatures.

There is ribbing in the inner part of the skirt, inserted in the fused parts which strengthens the parts which undergo the most mechanical stress, thus allowing the weight of the piston to be reduced to a minimum.

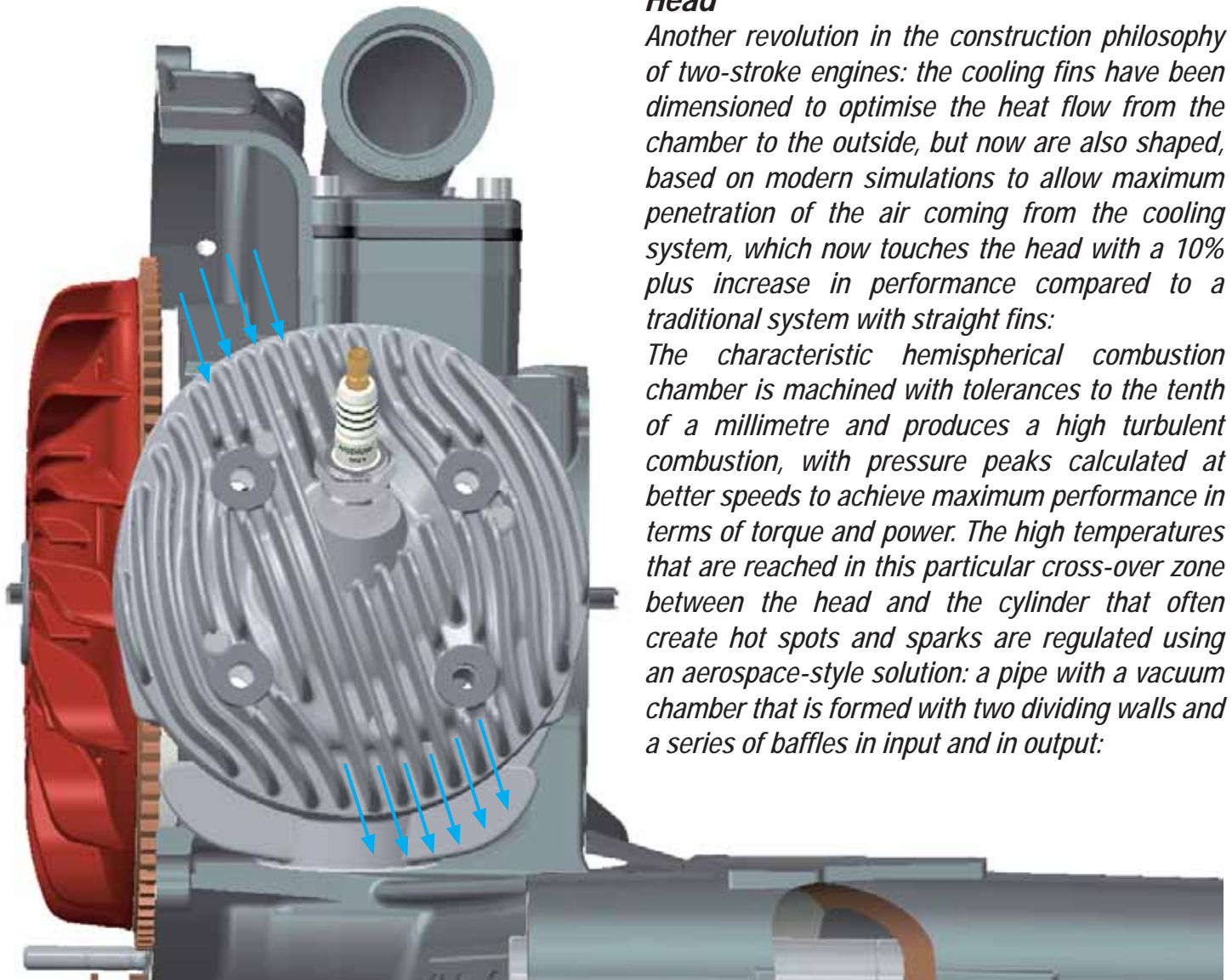
The windows in the rear part and the diametrical grooves, on the other hand, guarantee the greatest possible intake of fresh air flow towards the cylinder ports.

NEW

Head

Another revolution in the construction philosophy of two-stroke engines: the cooling fins have been dimensioned to optimise the heat flow from the chamber to the outside, but now are also shaped, based on modern simulations to allow maximum penetration of the air coming from the cooling system, which now touches the head with a 10% plus increase in performance compared to a traditional system with straight fins:

The characteristic hemispherical combustion chamber is machined with tolerances to the tenth of a millimetre and produces a high turbulent combustion, with pressure peaks calculated at better speeds to achieve maximum performance in terms of torque and power. The high temperatures that are reached in this particular cross-over zone between the head and the cylinder that often create hot spots and sparks are regulated using an aerospace-style solution: a pipe with a vacuum chamber that is formed with two dividing walls and a series of baffles in input and in output:



Which, thanks also to a precise surface profile, channel a part of the cooling air, forcing it not only to touch the surfaces, but also to expand, decreasing the pressure and, therefore, temperature of the walls on the edge of the combustion chamber, based on a specific principle of physics.