## 250cc

## **Cylinder Heads, Barrels and Pistons**

The Misano design is based upon the later widecase heads which were fitted to 250, 350 and 450 engines and desmodromic versions were made from the same core casting. This new design is focused upon producing high performance. Misano heads will also fit onto narrowcase engines and initial performance and durability testing has been carried out on both narrowcase and widecase bottom engines.



The ports and valve geometry have been optimised to allow far better performance than the original heads could achieve. All heads are supplied with two 10mm plug holes, the second plug situated to the rear of the bevel tunnel where the 450 decompressor plunger is fitted. The valve sizes are 41mm inlet, 34mm exhaust and both have 7mm diameter stems. The combustion chamber has an extensive continuous squish band which requires a modified piston.

New patterns were made to produce these sand-cast heads which are cast in LM25 aluminium alloy and heat treated to TF spec. The heads are also treated to a special process before heat-treatment to ensure minimum porosity. Each head is fully machined on CNC equipment by an F1-approved supplier to ensure consistency and repeatability.

Each Misano head is supplied complete with guides, seats, valves, valve stem seals and the retained cam bearing. The Misano head has been designed to use the readily available coil spring, collet and retainer set sold by Lacey Ducati. Existing cams can be used and there is no need to machine out the internal cam tunnel for very high lift cams. All existing rocker covers, bevel gear (gazer)/rev counter covers and cam bearing support block are used. Whilst Misano heads have been designed and manufactured to go racing they can also be run on road engines, giving a significant performance improvement over standard heads. Any component not supplied with the head - or which is missing from your engine - can be purchased from Lacey Ducati.

The current price of a 250 cc Misano Cylinder head is £2,195.00 plus UK VAT (20%).

**Barrels**: These 8-fin barrels are fitted with an iron liner and finished to suit your required bore size. The current price of a 250 cc Misano barrel including liner is £675.00 plus UK VAT (20%).



**Pistons**: The redesigned combustion chamber of the Misano heads with a significant and continuous squish area requires pistons to suit. All pistons are designed to be able to run in existing barrels and iron liners. These pistons are available in two bore sizes, 74.00 mm and 74.50 mm. The current price of a 250 cc Misano piston is £190.00 plus UK VAT (20%).



We can currently supply a complete head, barrel and piston set for 250 and 350 cc engines, ready for assembly, with no piston squish shimming or machining required. Pricing: - please email <u>misano1@outlook.com</u> for latest pricing on this complete set.

## Performance:

The standard 250cc Ducati engine produced 18 bhp at the rear wheel. Tests with the Misano head, barrel and piston produced 32 bhp.



As can be seen from the dyno chart, this Misano engine produces good power from 6,000 rpm up to 10,500 rpm. The comparison shown is against the previous build of the same engine. This was an advanced Ducati Desmo specification developed by a very well respected tuner and owned by Nigel Palmer (UK Classic Racing 250 Champion).

## Complete "Top End"

We can currently supply a complete head, barrel and piston set for 350 cc engines, ready for assembly, with no piston squish shimming or machining required.

Pricing: - please email <u>misano1@outlook.com</u> for latest pricing on this complete set.

**Contact**: Please contact us at <u>misano1@outlook.com</u> to discuss your project and for us to answer all of your questions.

Pricing dated: August 2015.