

DENIS WELCH MOTORSPORT ALUMINIUM 4 CYLINDER HEADS



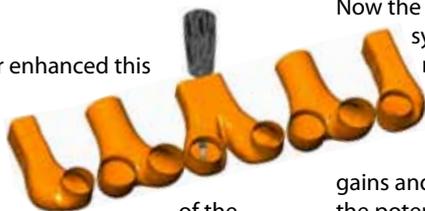
ALUMINIUM CYLINDER HEADS

After 17 years successfully producing our aluminium 100/4 cylinder heads we have taken the decision to upgrade our product. By reinvesting in modern techniques to continue the development of this product to be the best on the market, thereby staying ahead of the competition in so many ways.

We have gone back to the drawing board and started with completely new CAD drawings to ensure accuracy and perfect detail in our product.

Increased investment in CAD software has allowed us to redraw the head in 3D as a solid model, producing all new technical drawings - including fully modelling and drawing the inlet and exhaust ports.

We have further enhanced this 'design to manufacture' investment philosophy by including state of the art CAM software. This has allowed us to plan the tool paths and write the machining program from a professionally designated drawing office, not the shop floor, linking these programs direct to the CNC machine, with a dedicated computer network.



Around 607,000 lines of code will download, just to machine the ports of a fast road 100/4 head with a continuous time of 5 hours and 20 minutes.

When it comes to machining, the past two years have seen a huge upgrade to our capabilities with the acquisition of a brand new 5 axis CNC machining centre.

This has allowed us to fully machine the inlet and exhaust ports along their entire length, which involves around 5 hours of continuous machining – so no more hand gas flowing like the old days with its inherent inconsistencies making each head liable to variations in flow capability - this is now eliminated. What we design is what you will get every time.

Now the ports are machined with symmetry and are all identical, not only from head to head but each port along an individual head. This makes for considerably higher power gains and balanced performance, with the potential for each engine to give much more consistent power outputs than ever before.

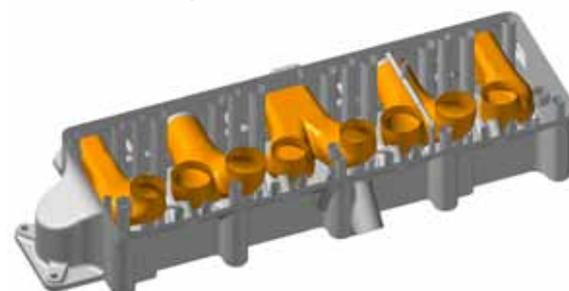
We not only lead the Austin Healey market with this technology, we are at the very front of modern engine development offering this service to all makes and types of engine.

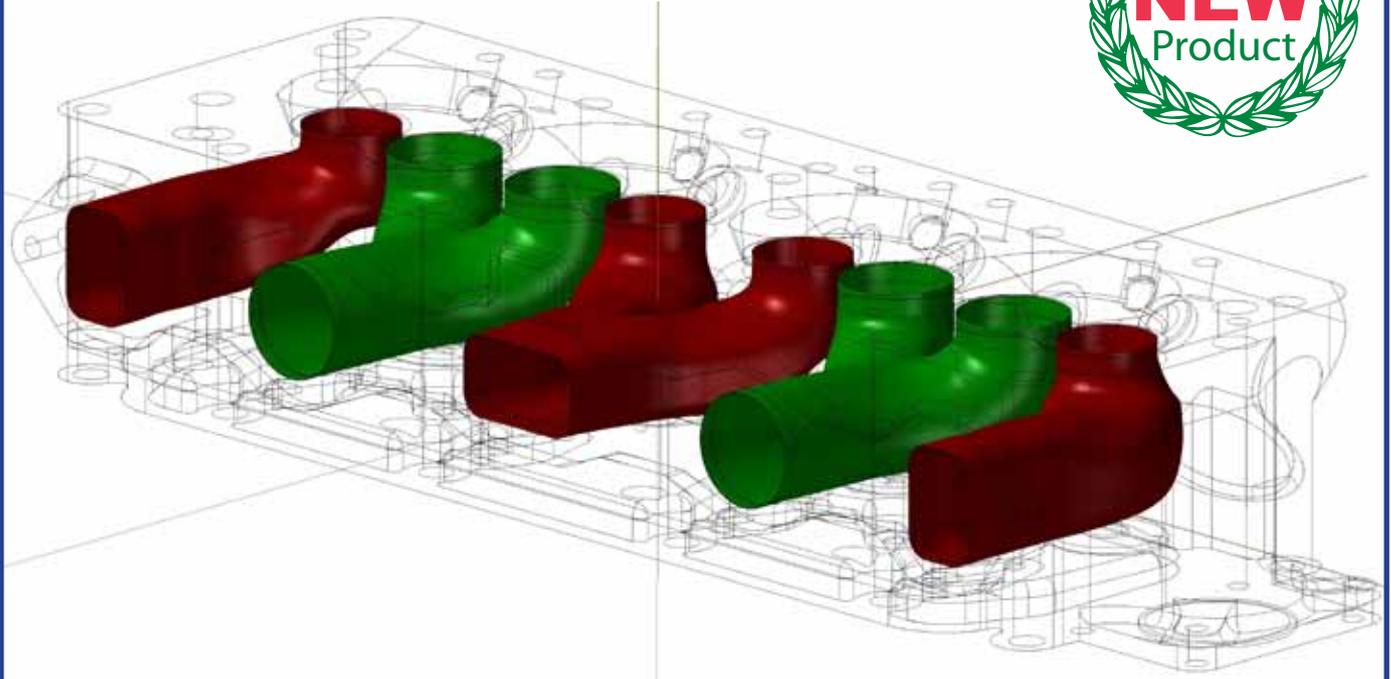
So whether you require a standard, fast road or full race head, there really is no better or more up to date version available on the market today.

Be sure to buy a Denis Welch Motorsport original...look for our logo!

BENEFITS OF OUR HEADS

- Fully CNC machined chambers
- Pressure tested water jacket
- Rocker and manifold stud kit included
- All heads totally interchangeable with all things standard
- Precision ground, replaceable lead free valve seats of the latest high grade material
- Fully inspected and assembled in-house
- CNC ported inlet manifolds match seamlessly





BARE HEAD

Fully machined bare head (as cast ports) with valve inserts fitted and semi-formed seats. Ready for you to supply and fit valve guides, cut seats, final skim head gasket face and assemble with your components.
(Must use 6 cylinder exhaust valves).

STANDARD COMPLETE

Supplied ready assembled by us in our own factory. Bronze valve guides, stainless steel valves, steel valve top caps and heavy duty springs etc. All as listed on page 14. Head gasket face final skimmed giving a combustion chamber of 62cc as original.

FAST ROAD COMPLETE

As 'Standard' with the addition of CNC machined ports, all symmetrical and matching. Aluminium valve top caps, competition valve springs and top hat stem seals. 62cc chamber volume.

FULL RACE COMPLETE

As 'Fast Road' with larger CNC machined ports, for increased flow. The significantly larger exhaust ports are best suited to a large bore manifold gasket and big bore exhaust. They also benefit from dowel holes machined in the manifold face to match the inlet manifolds precisely to the ports. 62cc chamber volume.

Both inlet and exhausts ports are hand felted after CNC machining to achieving the desired surface finish and gas flow characteristics.

Please note – if intending to use with our roller rockers, please specify with order to have push rod holes machined to suit.

All our inlet manifolds are now also available CNC ported along with dowel holes to match seamlessly to our cylinder heads.

