capricorn

INFO SHEET

PRECISION MACHINING PISTONS.

05

From prototype to production prepared at capricorn APPLIED TECHNOLOGY Ltd

capricorn

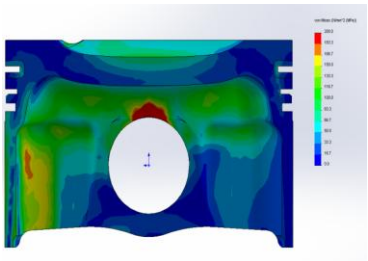
INFO SHEET

The leaders in piston design technology…

With over 20 years knowledge and expertise in the design and manufacture of rotating assemblies our pistons can be found in the harshest of environments from endurance racing engines and niche high performance road car engines to clean, alternative and renewable fuel ICEs.

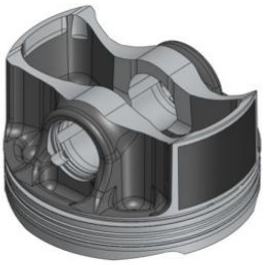
Specialising in high specific loads, lowest mass and lowest friction all of our pistons are optimised using the latest FEA analysis and combined with extensive experience ranging from 350barg+ diesel through to 250barg+ gasoline engines.

We can manufacture low and medium volume batches or prototype batches from forged or solid billets. Our services are perfect for Motorsport and High Performance ICE manufacturers, OEM development and prototype phases.

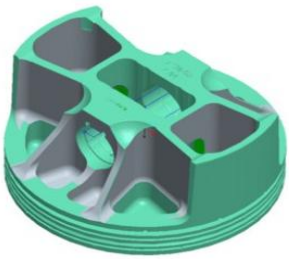


FEA analysis, history / experience

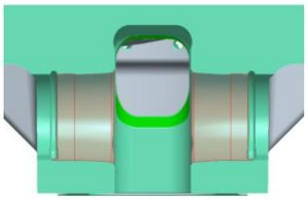
Design intent / functionality



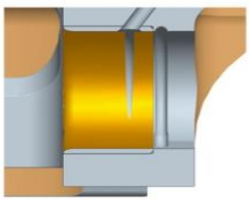
Near net forging



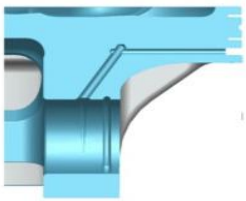
Solid billet machined



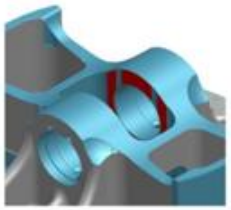
Free shape "taper" pin bore



Pin bore bushes

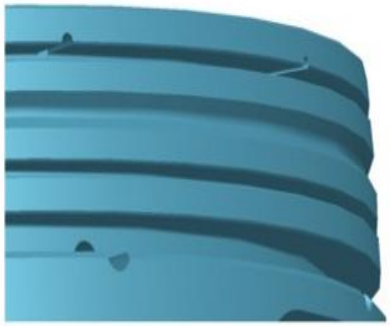


Pin bore oiling



Piston guided

We utilise the latest in material technologies dependent on application including 2618 for racing applications, 4032 common eutectic aluminium-silicon alloy and M245 a higher cost alloy with proven fatigue strength over 4032. Specialist coatings such as anodized ring grooves to prevent micro-welding of piston rings, electroless nickel / PTFE applied to piston crowns to reflect heat, manganese phosphate, xylan, D88 or D10 skirt coatings all offer differing levels of anti-friction are all available.



Gas holes / jets

Ring groove reinforcement

Special crown features

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