

Niche Volume Engine Assembly Programmes

Full-service niche volume engine assembly programmes for high performance and specialised applications.

Our services range from hand-built prototype and pilot volumes right through to series production with the option to create flexible semi-automated production lines capable of producing thousands of high-quality products annually.

We work closely with our clients to create an assembly programme tailored to their unique requirements, either setting up production at one of our global technical centres or establishing a dedicated facility at another location of our clients' choosing.

Our Accreditations

ISO 9001:2018

ISO 14001:2015

ISO 50001:2018

ISO/IEC 27001:2022

IATF 16949

JOSCAR

TISAX Level 3

Our services

Turnkey Engine Programmes

Developing the next generation of internal combustion engines, from clean sheet design to assembly and aftermarket support. Our complete engine programmes offer comprehensive support to across the full product lifecycle.

Assembly Outsoucing

Assembly programmes for product lines with small, declining or unpredictable volume demands, providing a dependable solution to support our clients' aftermarket supply chain.

Facility Build Support

For clients looking to establish a dedicated production footprint. Includes industrialisation support for facility specification, supply chain selection and management, and production engineering.

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Customer Case Study



McLaren Engine Assembly Programme

Since 2011, Ricardo has supported McLaren Automotive with the supply of engines for their high performance road cars. The programme began with M838T V8 twin turbo engine for McLaren's MP4-12C.

Ricardo provided end-to-end support, taking the engine from clean-sheet design to SOP in just 18 months - including design and development, validation, industrialisation, and establishment of the supply chain to provide a seamless transition to niche volume production. The programme included full warranty management and ongoing engineering support.

The programme continues today, ranging from 30 - 120 engines per week which are continuously assembled and tested in-house to the most exacting OEM standards. The facility has evolved to accommodate upgrades and over 35 variants, including a hybrid V6 engine, without disruption to continuity and supply of current engine specifications on the line.

Why Ricardo?

Dependable quality	IATF 16946 and ISO 9001 accredited assembly programmes supported by a team of in-house quality management experts. Traceable and repeatable processes with Full PPAP and quality assurance at component, assembly and system level.
Technical excellence	Proven world-class technical development and series supply capabilities across the full product life cycle across a range of market sectors. Testing calibration, vehicle integration support, and BiPo end-of-line testing services available.
Flexible production support	Consideration for future product variants and upgrades built in to programmes. Fully flexible production lines capable of ramping up and down to reflect variable demand.
Reliable programme management	Established processes for bringing together global teams across Ricardo and our client for seamless collaboration. Programmes managed by an agile team of in-house experts, from engineering to SQA, enabling more effective decision making and rapid troubleshooting.
De-risking launch	Simultaneous engineering approach enables early transfer of product knowledge during pre-production builds for a smooth handover to operations and maintenance teams. Manufacturing engineering partner with key operational stakeholders throughout programme.
Supply chain expertise	In-house supply chain support including change management. Industrialisation team to support pre-production supplier selection with a view to early onboarding for potential series suppliers, reducing NRE spend.
Post-production services	Full warranty management to suit a wide range of applications. Aftersales support packages including options for spares management and return to base servicing.

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