



Quality precision engineering services

Why choose us?



- Committed to Quality
- Highly skilled craftsmen
- Work to extremely low tolerances
- Ability to work on complex projects
- Design capability through partners
- Work in partnership

The Engineering Group

Salt is now part of a wider group with complementary skills therefore we are able to join forces to enhance our delivery capability



Comprehensive range of quality precision engineering and tool-making services



Manufacture of high precision components. Versatility facility: small, medium and long batch runs



Precision turned and milled components. Specialise in bolts; screws; nuts, washers & general machining.

The Engineering Group

Quality Assurance through certification



ISO 9001:2008
ISO 14001:2004



BS EN ISO 9001:2008
Working towards AS9100



ISO/TS16949:2009
ISO 9001:2008

Our well established prestigious customer base includes:



Aircraft, automobile, power generation, oil and gas, fluid power and development engineering industries.

Rolls Royce	Caterpillar	Mahle	Jaguar Land Rover
Aston Martin	IHI	Honda UK	Caparo AP
Intra	BMW Group	Trescal	Eaton Aerospace
Hydro	Schenck	CNH	Precispark

What we have done recently.....



Aerospace production tooling and high precision gauges

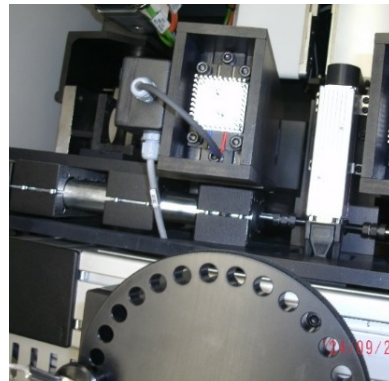


- **Moment Weighs:** Precision fixture that facilitates the measuring of the moment weight of blades, the first stage of balancing a turbine.
- **Gimbles:** Adjustable inspection tool for turbine blade
- **Balancing mandrels:** For balancing rotors – RR rotatives.
- **Curvic masters:** High precision gauges

What we have done recently.....



Low Density Vision Machines for Power systems production

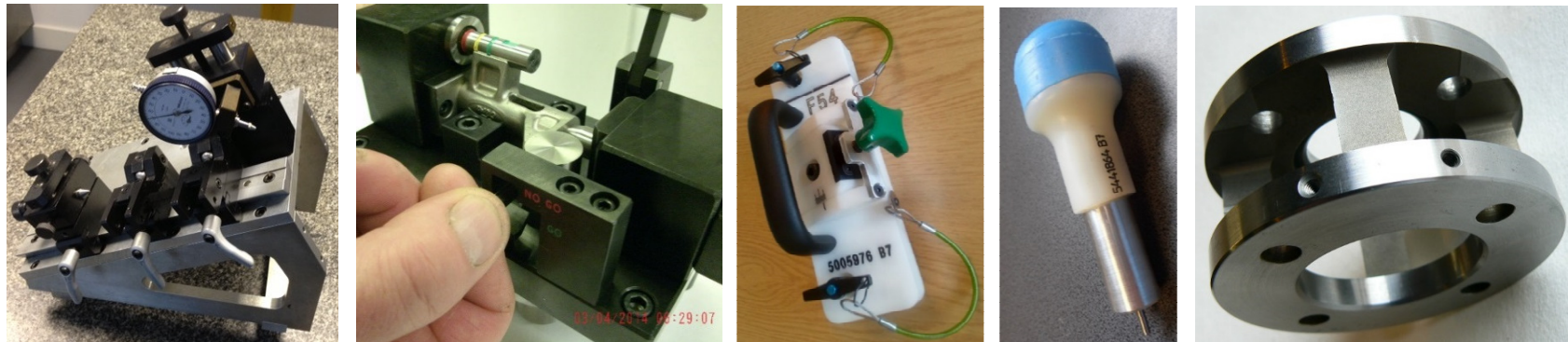


- **Manufacture:** Turning, milling, grinding, of machined parts
- **Assembly:** Assembly and fitting of complete Vision Machine units
- **Project management:** Used for continuous production run quality inspection of manufactured engine components.

What we have done recently.....



Automotive assembly line tooling and gauges

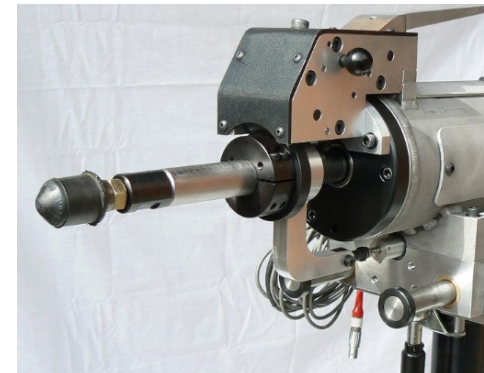
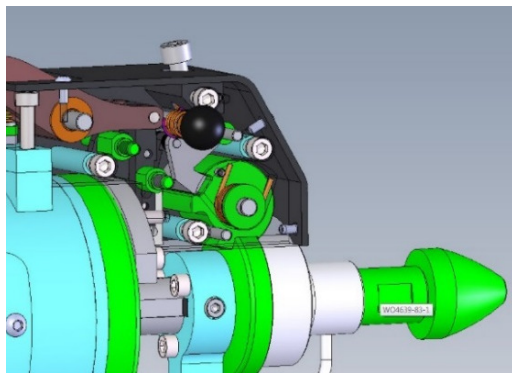


- **Acceptance gauge:** For fuel manifold production
- **Gauge equipment:** Engine valve seat run out gauge.
- **Badge jig set tool:** Positioning and locating badges
- **Push scrivet:** Automotive assembly line hand tool.
- **Load Cells:** High precision machined elements of load cells to suit force and load measurement applications

What we have done recently.....



Automotive industry testing equipment

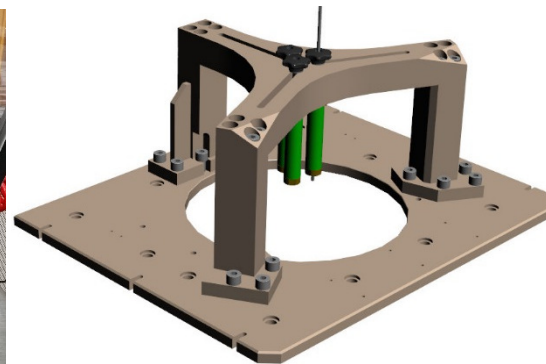
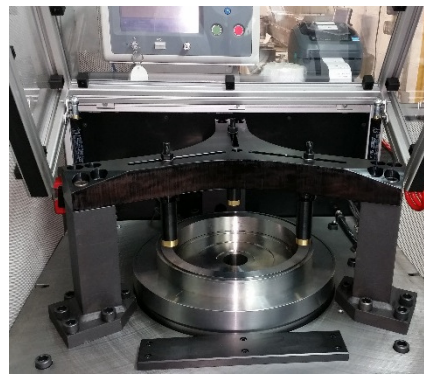
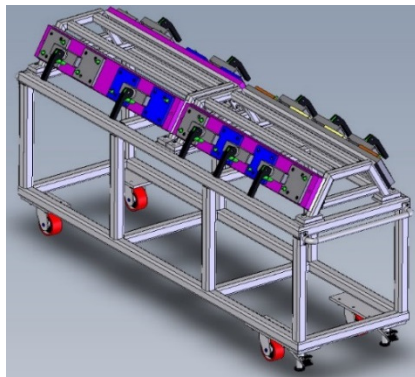


- **Door closure equipment:** Specific door closing testing equipment.
- **Controlled Input device:** Design, Manufacture and Assembly

What we have done recently.....



Other industry testing equipment



- **Large power engines:** Large engine (marine and military) assembly - manifold assembly jig
- **Valve manufacture:** Valve pressure test equipment – valve production

Engineering Capability & Machinery



Surface Grinding

Jones & Shipman 1400p with
Diaform

Jones & Shipman 540E with
Optidress

Jones & Shipman 1011

Universal Grinding

Schautd UR 750 (600mm swing)

Jones & Shipman 1130 with
Diaform

Wire Eroder

Sodick VZ300L

Quality Inspection

Controlled environment

Jig Boring (air- conditioned)

Newall 2451 3 axis DRO

Devlieg 3H48 2 axis with Anilam
Prepositioning

O.M.T & S.I.P. Rotary Tilting Tables

Milling

CNC VF3 Haas Milling with 4th axis

CNC Mini Mill Haas

Thiel Duplex 2 axis DRO

XYZ Protrak 4000 Bedmill 2 axis CNC

Bridgeport 2 axis DRO

3D CAD/CAM

Solid Works

One CNC

Turning

VDF V6 2 axis DRO (1050mm
swing)

Alpha Lathe Model 550 CNC

Colchester V2500 2 axis DRO

Hardinge 2LVH

Fitting

2-off Surface Plates (1800mm x
1200mm)

Maximum Capacity 2 Tonnes

Pitch Circle Drill

Asquith Radial Drill (2000mm
arc)

Engineering Capability & Machinery



Grinding

1 Kellenberger Universal Grinder 29" Bed Length,
1 Jones & Shipman 10" x 27" Universal Grinder
1 Myford Cylindrical Grinder
1 Heald Internal Grinder. Max Grinding dia 30"
1 Magerle Surface Grinder 29" stroke
2 Jones & Shipman Surface Grinders 540
1 Kehren Ring Grinder 24" dia.
1 Churchill Ring Grinder 14" dia
1 Churchill External 8" dia x 24"
1 Lapmaster Precision Lapping Machine
1 Delapena Hone

Jig Boring

1 3K Societe Genevoise 15 x 20
1 A.B.A. Model VL 600 Jig Borer 24" x 25"

Milling

8 Bridgeport Milling Machines, fully equipped with all Ancillary Equipment
1 Fritz Werner Horizontal Milling Machine 12.5" x 40"
2 Cunliffe & Groome Horizontal Milling Machines 12" x 54"
2 Adcock & Shipley Horizontal Milling Machines 8 x 30"
1 Hauser Watchmaker Universal Milling Machine

Machining Centres

1 Mori-Seiki MV45 Machining Centre
Maho 700 'C' CNC Universal Machining Centre
2 Bridgeports BPC 500H
1 TOYODA FH63S
1 Haas VF5 – 5 axis trunion

CNC Lathes

1 Swedturn 10 CNC Lathe
2 Swedturn 20
1 Doosan Puma 2600 - New for 2011
1 Hardinge "Conquest" T42 CNC "Live Tooling" Lathe

Quality Inspection

Fully equipped Inspection.
Aircraft & Component manufacturers' Inspection Procedures and S.P.C. Control (including: D.E.A. "Swift" Measuring Machine; D.E.A. Omnicrom)

Engineering Capability & Machinery

TREngineering (uk) Ltd.

CNC sliding and fixed head lathes

Star SR-20J type N sliding head
Star SV32J II type 440 sliding head
Star SR20R II type 660 sliding head
Doosan Z290SMY twin spindle
Miyano BND42S5 twin spindle
Miyano BND34S5 twin spindle
Miyano BND 34S3 CNC lathe
Feeler / Emi Mec Sprint 45 CNC lathe
Hardinge Cobra 42LC CNC lathe
Colchester Triumph 2000 48" lathe
Emi-Mec Micro Sprint 50 lathe
Emi-Mec Micro Sprint 26 lathe
Takamaz X-18 CNC lathe
Bar capacity from 1m/m up to 66mm

Drill tap centre

Olympic Seki model TS 500 (relative movement)

Vertical machining centres with 4th axis

Bridgeport 600X30
Bridgeport 600/22 Digital
Bridgeport 460 (12)
Bridgeport 500 (16)

- Precision repetition engineering
- Quick turnaround times
- Batch sizes from 50 to in excess of 50,000 parts.

- Wide range of materials: steel, stainless steel, aluminium, brass, phosphor bronze and plastics including acetal, nylon and peek.
- Machine components from tube and aluminium castings.

The Engineering Group

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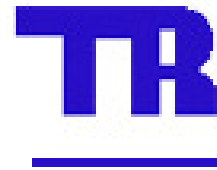
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