

## PROVIDING PRECISE ENGINEERING TO THE

### About us

Established in 1953, and a member of the Nasmyth Group since 2008, Colledge & Morley has gained a global reputation for precision sub-contract gear manufacture, and are suppliers to aerospace, defence, auto-sport, medical and specialised commercial industries.

Colledge & Morley hold appropriate quality approvals and its precision gear manufacturing facility has the expertise

Gears are supplied for wide ranging applications, including aerospace, defence, auto-sport, printing, food, medical, compressors, machine tools, instrumentation and industrial gearboxes, where the requirement is for precision.

### General machining

General machining capacity incorporates the best traditional machining methods as well as an expanding CNC turning and milling facility. A large universal grinding section is monitored with the latest digital inspection equipment.

### Gear cutting

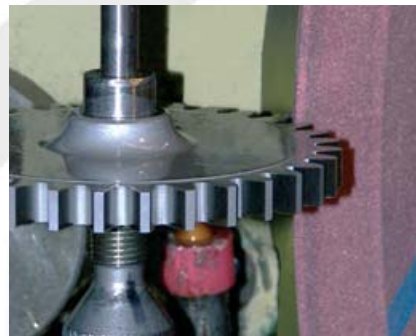
Gear cutting is carried out using various methods – hobbing, shaping and broaching. Internal and external gears, splines and serrations can be produced, from 5mm up to 500mm diameter, in small or large batch sizes. Bevel gears up to 250mm diameter, and worm and wormwheels, with up to 400mm centres, can also be manufactured.

### Gear grinding

Gear grinding of spur or helical gears is possible, up to 350mm in diameter. Gear tooth quality is controlled by in-house inspection on Gleason GMS 430 measuring machines and in-house magnetic particle and nital etch non-destructive testing procedures.

### Planning and programming

Planning is raised from the ESTIM document manufacturing system and is then supplemented by machine programming using the latest LICOM computer aided manufacturing software.



and technical ability to meet the exacting quality requirements of the power transmission industry.

### Services

Colledge & Morley can facilitate the manufacture complete to customers' drawing requirements; as well as providing a single gear / spline related operation on free-issued machine parts.





### A Global Customer Base

Colledge & Morley provides products to numerous specialised industries, including:

- Aerospace
- Defence
- Autosport
- Food
- Medical
- Printing
- Compressors

## SPECIALISED HI TECH ENGINEERING INDUSTRIES

### Inspection

Extending the capability of Colledge & Morley is the use of Computerised Numerically Controlled Involute and Lead Testers. These electronic inspection machines accurately measure involute tooth form, lead errors, pitch variations and accumulated pitch variations of spur and helical gears up to 430mm in diameter. The CNC controls encourage extremely fast times with the optical, rotary and linear gratings on all planes of movement, enhancing the machines accuracy and its capacity to produce consistent results. Gear quality is proven to DIN standard, BS or AGMA.



### Expertise

For several decades, the name Colledge & Morley, has been associated with the manufacture of high quality precision gear and spline related products.

A technical service is provided to advise customers on gear forms, materials and treatments. The service offers considerable specialist experience on a wide range of demanding applications. Our team can advise on the most efficient way to transmit power with minimal wear and noise. Colledge & Morley provides a computerised gear calculation service, should this be required.

### Quality

Colledge & Morley's commitment to quality is illustrated by its full range of customer and industry accreditations. With these, Colledge & Morley is able to demonstrate its commitment to the standards its customers require.

A sound reputation has been established in the UK and overseas, where customers' requirements in technology, quality, delivery and price are achieved. To give total confidence to the customer, no matter what size the project may be, Colledge & Morley is committed to a total quality system. From the initial enquiry, quality is assuredly maintained throughout the whole of the production process and, to this end, the company has invested in ESTIM computer aided estimated and planning.

Every precision gear is checked in the fully equipped Quality Control facility. Two Gleason CNC gear checking machines provide customers with a print out detailing profile form, lead, concentricity and spacing to international standards. Surface finish and hardness is monitored and a full flaw detection service is available.

### Quality Management System

Colledge & Morley is a quality assured company, which manufactures to the most exacting standards. The quality management system is continuously reviewed to maintain these stringent standards.

### Manufacturing Technology

Colledge & Morley invests in the latest machine tool and manufacturing equipment for the very latest tool and cutting tool technologies. We operate a CAD/CAM software system, provided by LICOM. The general machining facility incorporates traditional machining, as well as CNC for turning, milling and universal grinding. Machine programming is possible using CADLINK.

We have the capability to manufacture, build and test complete gear boxes.

Total flexibility enables Colledge & Morley to respond speedily to customers' requests for any batch size.





## Plant Capacity

### Gear cutting

Spur and helical gears up to 500mm diameter x 150mm face width

Internal / external splines up to 500mm diameter x 150mm face width

Spline shafts up to 150mm diameter x 1.5m length

Bevel gears up to 250mm diameter

Worms and Wormwheels up to 400mm centres

### Gear grinding

Spur and helical up to 350mm diameter x 150mm face width

### Turning

CNC to up to 350mm diameter x 1000mm

### Milling

CNC 400mm cube

### Broaching

Up to 75mm diameter x 1500mm length of broach

### Grinding

Internal 250mm diameter x 150mm length

External 350mm diameter x 500mm long

## Approvals

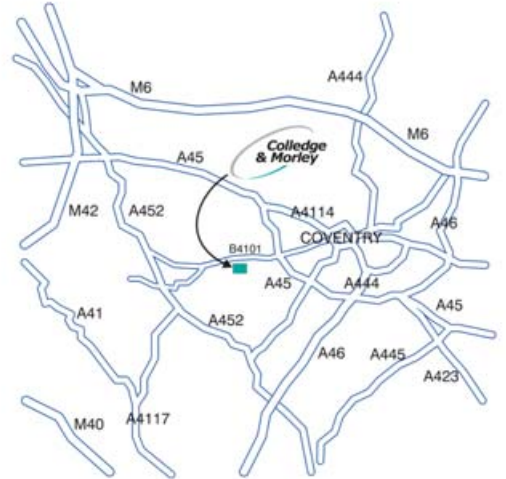
Colledge & Morley achieves quality through continuous investment in both its people and equipment. Quality systems are strictly applied and have been approved by many leading companies and institutions. The company actively encourages teamwork, communication and involvement at all levels and, in this way, makes quality everyone's priority.

### Major Approvals

- AS EN9100. BSEN ISO. 9001:2000
- Rolls Royce UK
- Rolls Royce Deutschland
- Goodrich Power Systems
- BAE Systems
- Airbus
- Nadcap

## Facilities

Colledge & Morley operates from a modern facility based in Coventry. Our customers are always welcome to visit the company, inspect the facilities and discuss their requirements with Technical and Sales personnel, who are all qualified engineers.



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