

# **Turnell + Odell Precision Engineers**

**Providing the highest possible  
standards of workmanship  
and customer service**



**Quality systems  
approved to ISO 9001:2000**

**Documentation  
and full inspection reports**

**Certificates of Conformity**

**Material specification  
and origination certification**

**Customer specific  
documentation**

## Turnell + Odell

With almost 100 years experience in the machining of precision engineering components, Turnell + Odell Ltd. is one of Europe's leading suppliers to the engineering and technology sector.

Turnell + Odell Ltd. offers specialist low volume prototype development as well as high volume manufacturing, and is equipped with a broad range of modern CNC machinery. We are also fully equipped to provide an emergency breakdown repair service for your process critical machinery.

Our philosophy is to keep abreast of advanced engineering techniques, by continuous investment in the latest machining technology embracing CNC turning, milling and machining centres, borers, grinders, and other secondary operation machinery. Turnell + Odell's commitment to quality, coupled with meeting the requirements of ISO 9001:2000, has gained it Preferred Supplier status with many high profile and prestigious companies.

We are pleased to discuss your design concepts, whether already drawn, or pre-drawing board.

No request is too difficult - whatever you need manufacturing or repairing, we are here to help. Above all, we make sure that you always have access to the most expert advice and support available.

## Companies we are proud to be associated with include:

Rolls Royce  
Corus  
Weetabix  
Man B & W  
R.P.C.  
Dorman Long  
Cummins  
Cosworth



## Our Aim

We aim to provide the highest possible standards of workmanship and customer service to eliminate customer's frustrations and overheads in running their own workshops with:

- Quality precision components
- Unnecessary cost engineered out
- Flexibility & reliability
- Quality assurance system
- Competitive pricing

## Our Customers

Serving all industries, customer projects have included the manufacture, and when required, assembly of components for:

- Motor racing
- Marine equipment
- Diesel engines
- Plastic injection moulding
- Steel production
- Food processing
- Medical Equipment & Pharmaceutical Industries
- Special purpose machinery

## Our Expertise

We work with a diverse range of materials in meeting industry's needs including:

- Metals including :- All mild, Carbon, Alloy and Stainless Steels, Aluminium, Brass & Bronzes, Copper, and Titanium
- Plastics including :- PVC, PTFE, PEEK, ABS, Acetal, Nylatron, Nylon, Polypropylene, and Polycarbonate
- Ceramics

## Our Plant

No job is too large or too small, and our range of CNC and conventional machines have the ability to offer:

- Turning components up to 830mm diameter, and bar up to 3000mm in length
- Milling components up to 2400mm long
- Grinding of all types including Surface Grinding up to 1500mm
- Welding by MIG, TIG, Gas or Argon Arc
- Assemblies of up to 5 tonne can be handled with ease

# Manufacturing Capabilities

## Turning

Turnell + Odell offer a variety of machining capability with combinations of CAD/ Automatic Tool-setting/ Swarf conveyors/ Parts catchers as appropriate which give:

- Ability to turn up to 3.0 metres in length with C.N.C. capability
- Quick/easy set up for breakdown work
- Quick metal removal for billet work

## Milling

Variety of machining capability with combinations of Probing/ Set-up capabilities and speeds/ Linear scales as appropriate, and linked to off-line programming and data transfer system which give:

- Ability to import customer drawings direct to the machine
- Quick/ easy set up for breakdown work
- Adaptability for most milling operations
- Identification/ engraving up to maximum milling size

## Fitting

Turnell + Odell offer:

- Skilled Fitters with both on and off-site assembly capabilities
- 1 and 5 tonnes Craneage capability on fitting/ welding

## Welding

We offer various types of welding and jointing to give:

- Quick analysis of requirement
- Most appropriate welding/ brazing/ soldering and jointing operation for the job in hand

## Quality

Turnell + Odell use quality systems approved to ISO 9001:2000 and meet many customer's exacting requirements including:

- Documentation and full inspection reports
- Certificates of Conformity
- Material specification and origination certification
- Customer specific documentation
- Traceability

# Machining Capacity

## CNC Turning Machines

Description	Max Cutting Diameter	Max Bar Cutting Diameter	Max Cutting Length
Colchester Tornado A50		40mm	500mm
Colchester Tornado A80		40mm	500mm
Colchester Tornado A100B	150mm	50mm	500mm
Colchester Tornado A300B	300mm	90mm	500mm
Cincinnati Hawk 250	250mm	75mm	500mm
XYZ Protturn 420	470mm	75mm	1000mm
XYZ Protturn 410	480mm	75mm	1000mm
Harrison Alpha 550+	830mm	340mm	3000mm

## CNC Machining Centre Milling Machines

Description	X axis Maximum	Y axis Maximum	Under Spindle Nose
Cincinnati Arrow 1500 Vertical Machining Centre Acramatic 2100E control	1500mm	760mm	770mm
Cincinnati Sabre 1000 Vertical Machining Centre Heidenhain control, Renishaw probing/Toolsetting	1020mm	510mm	560mm
Feeler FV1000 Vertical Machining Centre Mitsubishi Control	1000mm	600mm	475mm
Beaver VC35 Vertical Machining Centre Heidenhain Control	750mm	400mm	450mm
Beaver VC35 Vertical Machining Centre Heidenhain Control & programmable 4th axis	750mm	400mm	450mm

## Milling Machines

Description	X axis Maximum	Y axis Maximum	Under Spindle Nose
Protrak SM3500 C.N.C. 2 axis Vertical mill	1000mm	400mm	480mm
Protrak SM-SLV C.N.C. 3 axis Bed mill - 2 off	800mm	470mm	620mm
Protrak 3000 SLV C.N.C. 2 axis Vertical - 2 off	800mm	400mm	480mm
Aurora - Bed Type Milling Machine	2000mm	600mm	1000mm
Semco Manual Milling Machine - R8 collet	800mm	300mm	450mm

## Other Machines

Description	Max Stroke	Max Width	Max Ext. Diameter
Kearns Borer (2 off) with Digital Read Out	1000mm	1000mm	
Rothley slotter	150mm	30mm	600mm
	Max Width	Max Length	
Snow and Jones & Shipman Surface Grinders	350mm	1500mm	
	Max Diameter	Max Length	
Myford Cylindrical & Internal Grinders	85mm	305mm	
	Max Width	Max Depth	
Churchill 50 tonne Hydraulic Press	185mm	900mm	
Latest technology measuring equipment including coordinate measuring machine			



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