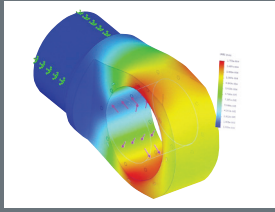




MACHINING  
SERVICES



# OUR EXPERTISE HAS BEEN BUILT ON A HISTORY OF ENGINEERING CRAFTSMANSHIP, VISIONARY DESIGN, QUALITY MANUFACTURE AND CUSTOMER CARE DATING BACK TO 1903.

The facility in Scotland is the UK's largest screw jack manufacturing facility, that uses the latest engineering technologies to deliver quality products (BS EN ISO 9001:2008) that offer reliability, performance and economy.

Power Jacks is synonymous with screw jack technology and its development. We have been involved with Screw Jacks since the product was invented in the late 1930's and this gives us unparalleled experience in the design and manufacture of both standard and special designs.

Complimenting the screw jacks, the Power Jacks portfolio also includes the design and manufacture of spiral bevel gearboxes, electric linear actuators, planetary roller screws and lead screws & nuts. This enables us to offer our customers a complete linear motion and power transmission system and solution.

We know our customers demand our engineering expertise to help find a solution for their applications. We take pride in designing and delivering the best solution using standard or special designs that help improve your business.

Power Jacks deliver this high quality service thanks to the highly trained, flexible and motivated teams that work throughout the business driving the company to higher levels of performance.

As part of Power Jacks long term growth plans we are offering the excellent manufacturing facilities and expertise that our product customers enjoy to clients for sub-contract machining.

Challenge us today with your machining requirements.

## The Facility

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STATE OF THE ART MACHINERY,  
MANUFACTURING EXPERIENCE TO  
THE HIGHEST STANDARD AND GREAT  
ON TIME DELIVERY MAKES POWER  
JACKS THE RIGHT CHOICE FOR SUB  
CONTRACT MACHINING.

**Production Workshop – 22,000 Square Feet (2,044 m<sup>2</sup>)**

**Warehousing / Stores – 12,000 Square Feet (1,115 m<sup>2</sup>)**

**Assembly / Paint – 7,500 Square Feet (697 m<sup>2</sup>)**

Power Jacks have extensive machining capabilities with CNC Lathes, Manual Lathes, Milling Machines, Threading Machines and more. The Power Jacks workforce totals 76, with Sales, Engineering Design, Production Engineering, Operations and QHSE teams.

Modern paint spray and finishing facilities complete our portfolio to meet customer needs.

**Contact Power Jacks today to see how you can gain an advantage with our services.**



# OUR SUB-CONTRACT MACHINING CELL WAS DESIGNED TO SUPPORT CUSTOMERS WITH SPECIALISED MACHINING WORK, SPECIFICALLY FOR THE OIL & GAS SECTOR.

The cell consists of three high specification Doosan machines.

Features include:

- A vertical turning centre, capable of performing 2.0m by 1.6m work and up to a capacity of 10 tonnes.
- A large CNC Lathe with capacity for 3.25m work piece lengths and a diameter up to 0.75m.
- A vertical machining centre capable of up to 1.0m by 0.6m work.
- All machines are fitted with Renishaw Tool and component probing capability.

**Take advantage of our long established experience in manufacturing.**

**Benefit from our service with 90%+ on-time delivery.**

**To meet your requirements we can operate 24 hours per day.**

OPENED IN JUNE 2014, THE CELL IS CAPABLE OF MEETING MOST OIL & GAS MACHINING REQUIREMENTS INCLUDING TUBING HANGERS, CAPS, VALVE BODIES, CHOKE BODIES PLUS MANY MORE INDUSTRY PRODUCTS.

The sub contract machining cell has the capability to operate 24 hours a day, with a 90%+ on-time delivery. The cell has the capability to operate 16,000 hours per year, with additional capacity coming from the rest of Power Jacks infrastructure.

### Doosan Puma 1620 CNC Vertical Turning Centre

Capacity	
Table Diameter	1,600mm
Maximum Swing Diameter	2,000mm
Maximum Turning Diameter	2,000mm
Maximum Turning Height	1,600mm
Maximum Table Load	10,000kg
Maximum Table Torque	20,119Nm
Maximum Cutting Force	27,000N



### Doosan 700LY Lathe

Capacity	
Swing Over Bed	1140mm
Swing Over Saddle	1000mm
Maximum Turning Diameter	750mm
Maximum Workpiece Length	3250mm
Maximum Bar Size	164mm
Maximum Weight on Spindle (inc Chuck)	
Chuck Work	1400kg
Shaft Work	8900kg



### Doosan Mynx 5400 Milling Machine

Capacity	
X Axis (Table)	1020mm
Y Axis (Saddle)	540mm
Z Axis (Spindle Head)	625mm
Spindle Nose to Table Top	150 to 755mm
Spindle Centre to Column Guideway	520mm



## Machining Centres

### CNC LATHES

CNC LATHES	Mori-Seiki SL-25MC	Mori-Seiki SL-25MC	Mori-Seiki SL-35	Colchester Combi	Dainichi F30	Doosan Puma 400b	Haas TL3 CNC Lathe	Doosan VTS1620	Doosan 700LY
	NC16	NC15	NC11	NC41	NC21	NC12	HAASL	PMC01	PMC02
Maximum Turning Length	530mm	530mm	780mm	950mm	900mm	700mm	800mm	1600mm	3250mm
Maximum Turning Dia.	250mm	250mm	420mm	200mm	300mm	350mm	225mm	2000mm	750mm
Maximum Bar Work Dia.	60mm	68mm	90mm	76mm	100mm	119mm	86mm	N/A	164mm
Distance Between Centres	550mm	550mm	800mm	1000mm	900mm	700mm	800mm	N/A	3000mm
Bar Feed	Yes	No	Yes	No	No	No	No	No	No
Live Tooling	Yes	Yes	No	No	No	No	No	Yes	Yes
CNC Controls	Fanuc	Fanuc	Fanuc	Fanuc	Fanuc	Fanuc	Fanuc	Fanuc	Fanuc

### CNC MILLS

CNC MILLS	Bridgeport VMC600/22	Bridgeport VMC600/22	Mori-Seiki MV65A	ProtoTrak (x2)	Bridgeport Horizontal	Haas TM1 CNC Mill	Doosan 5400-50
	ZV21	ZV22	ZV11	NC31/NC32	JH11	HAASM	PMC03
Number of Tools	22 (BT40)	22 (BT40)	30 (BT50)	Interact	50 (BT40)	10 (BT40)	24 (BT50)
Table Dimensions	840mm x 420mm	840mm x 420mm	1700mm x 650mm	1250mm x 225mm	500mm x 500mm Twin Pallet	1213mm x 268mm	1020mm x 540mm
Table Movements	X-600mm Y-410mm Z-520mm	X-600mm Y-410mm Z-520mm	X-1270mm Y-635mm Z-635mm	X-762mm Y-305mm Z-406mm	X-600mm Y-600mm Z-500mm	X-762mm Y-305mm Z-406mm	X-1020mm Y-540mm Z-625mm
4th Axis (rotary)	No	Yes	Yes	No	Yes	No	No
Spindle Speeds	6000 rpm	6000 rpm	2500 rpm	3600 rpm	3000 rpm	6000 rpm	6000 rpm
CNC Control	Heidenhain TNC 410P	Heidenhain TNC 410P	Fanuc	ProtoTrak MX2	Fanuc	HAAS	Fanuc

### Other Machines

Various manual machines including conventional lathes/mills, slotting, gear cutting, radial drill and external grinding and CNC threading.

### MANUAL LATHES

MANUAL LATHES	Various Centre Lathe
	Maximum Capacities
Maximum Turning Length	3000mm
Maximum Turning Dia.	560mm
Maximum Bar Work Dia.	190mm
Swing over Bed	750mm
Swing Over Cross Slide	600mm
Distance Between Centres	3000mm

### WORM GEAR CUTTING

Worm Gear Cutting	Churchill PH1
	JP11
Maximum Gear Cutting Dia.	340mm

Worm Shaft Cutting	Craven Swift
	J133
Maximum Shaft Cutting Dia.	160mm

## EXTERNAL GRINDERS

External Grinders	Kellenberger (x2)
	GG13/23
Maximum Grinding Length	1000mm
Maximum Grinding Dia.	200mm
Distance Between Centres	1000mm

## CNC THREAD ROLLER

CNC Thread Roller	ORT 2MS7 Roller
	Tr11
Minimum Work Diameter	14mm
Maximum Work Diameter	210mm
Maximum Roll Pressure	100 ton
Maximum Thread Pitch	14mm
Maximum Length	N/A (Feed Through)

## SURFACE GRINDERS

Surface Grinders	Various
Magnetic Table	≥1200mm Dia
Maximum Component Height	250mm

## CNC THREAD GRINDERS

CNC Thread Grinder	Matrix
	TG11
Maximum grinding Length	1016mm
Maximum grinding Dia.	320mm
Distance Between Centres	1066mm
Maximum Dia. Through Spindle	100mm
Dresser Type	CNC Diamond Roll

## SLOTING MACHINES

Slotting Machines	Ormerod Slotter	Horizontal Broach
	ZP51	MN71
Table Size	900mm Dia	N/A
Maximum Slotting Width	50mm	20mm
Maximum Slot Length	300mm	150mm

## Paint & Shot Blasting

In-house paint system that also offers electrostatic painting/powder paint and small component blasting.

## Inspection

Full In-house inspection capability including CMM measuring and shadow graph inspection.  
We do not currently provide weld testing.

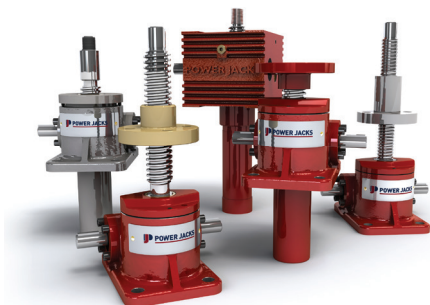
## Finishing & Assembly

Assembly area including Phosphate wash/degreaser plant.

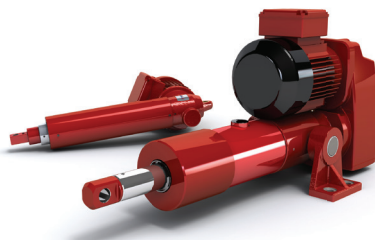
## Hoists, Cranes and Forklifts

Counter balance forklift capacity	≥ 2.5Te max
Side loader forklift capacity	≥ 1.5Te max
4 x overhead full span cranes	≥ 5Te max

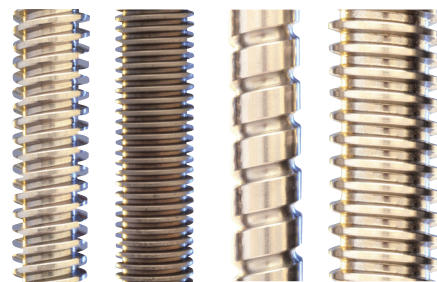
## SCREW JACKS



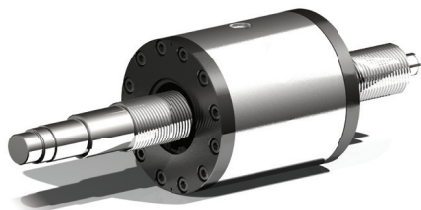
## ELECTRIC LINEAR ACTUATORS



## LEAD SCREWS



## PLANETARY ROLLER SCREWS



## BEVEL GEARBOXES



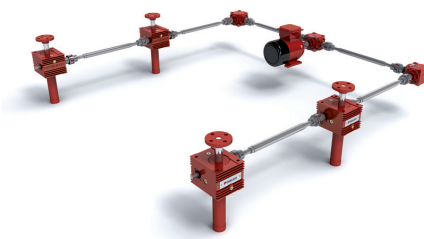
## MACHINING SERVICES



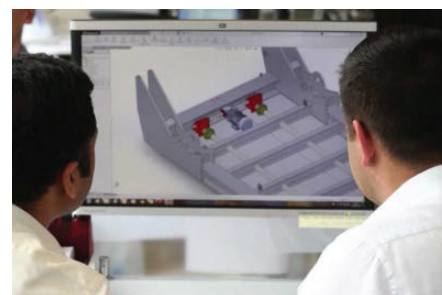
## LOAD MONITORING



## JACKING SYSTEMS



## DESIGN SUPPORT



## Lifting & Positioning Solutions

Power Jacks are specialist industrial engineers providing design, manufacturing and services of quality industrial lifting, positioning and load monitoring equipment.

Our products are supplied globally across many sectors including Industrial Automation, Energy, Transport, Defence and Civil.

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