

POWERJACKS

Lifting & Positioning Solutions for the Oil & Gas Industry

Onshore



Offshore



Subsea



Marine





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OUR EXPERTISE HAS BEEN BUILT ON A HISTORY OF MORE THAN 100 YEARS OF ENGINEERING, CRAFTSMANSHIP, VISIONARY DESIGN, QUALITY MANUFACTURE AND CUSTOMER CARE.



Power Jacks is a manufacturing/engineering company specialising in the design and manufacture of lifting & positioning solutions for applications in Industrial Automation, Energy, Defence, Transport and the Civil Engineering sectors.

Headquartered near Aberdeen in the UK, the company 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 deliver this high quality service in a safe (OHSAS 18001:2007) and environmentally friendly (ISO 14001:2004) working environment thanks to the highly trained, flexible and motivated teams that work throughout the business driving the company to higher levels of performance.

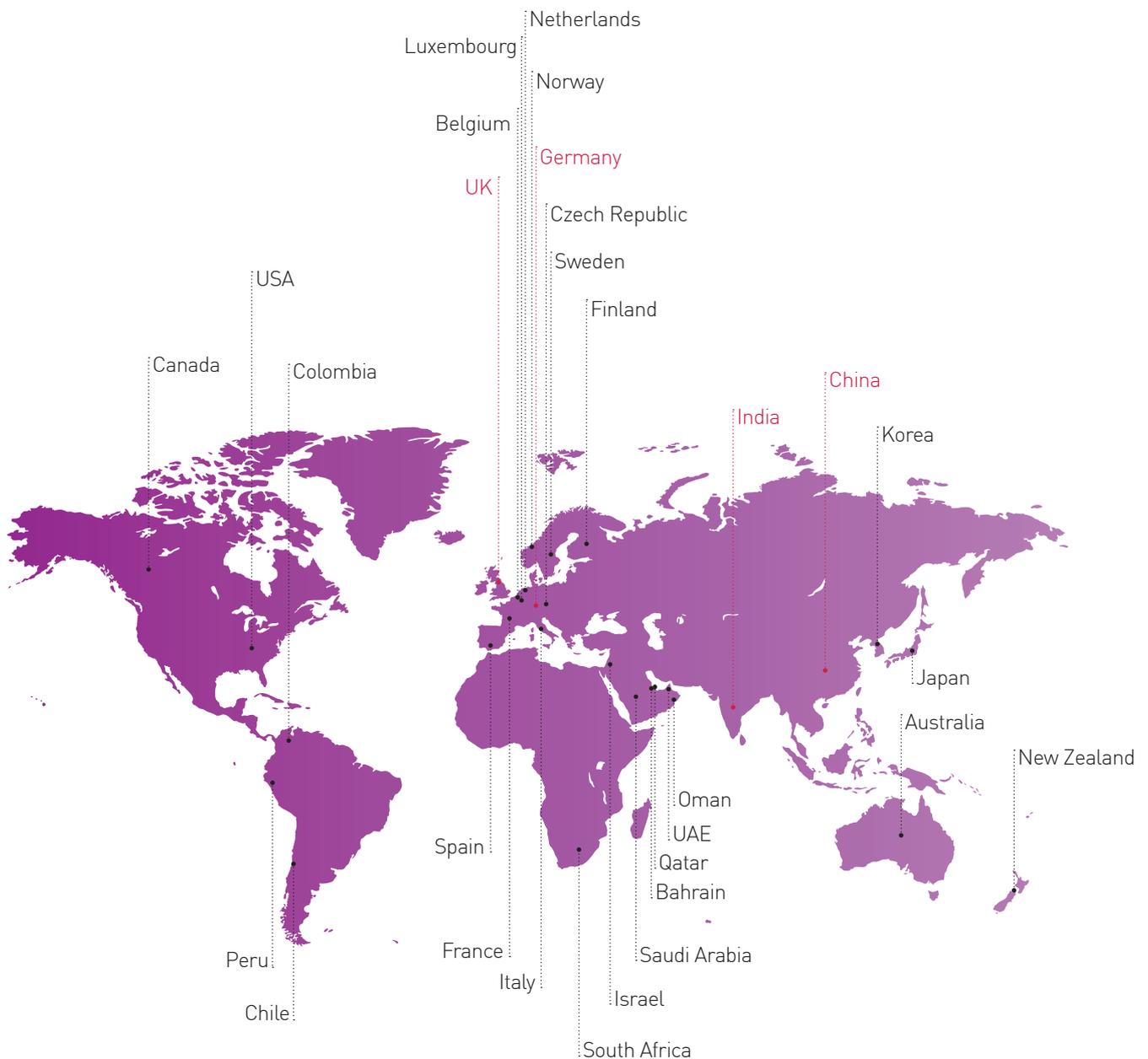
We know our customers demand our engineering expertise to help find a solution for their applications. We take pride in designing and delivering the best solution using standard or special designs that help improve your business.

Our Vision is to become the partner of choice for our products globally
Our Mission is to provide high quality lifting & positioning solutions.

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POWER JACKS HAS LOCAL REPRESENTATION IN 27 COUNTRIES AND SUPPLIES ITS PRODUCTS TO MORE THAN 60 COUNTRIES WORLDWIDE.

A global reach with a local service as we work closely with our customers to ensure the best solution for all their clean and precise Electro-Mechanical solutions for subsea, offshore and onshore applications.

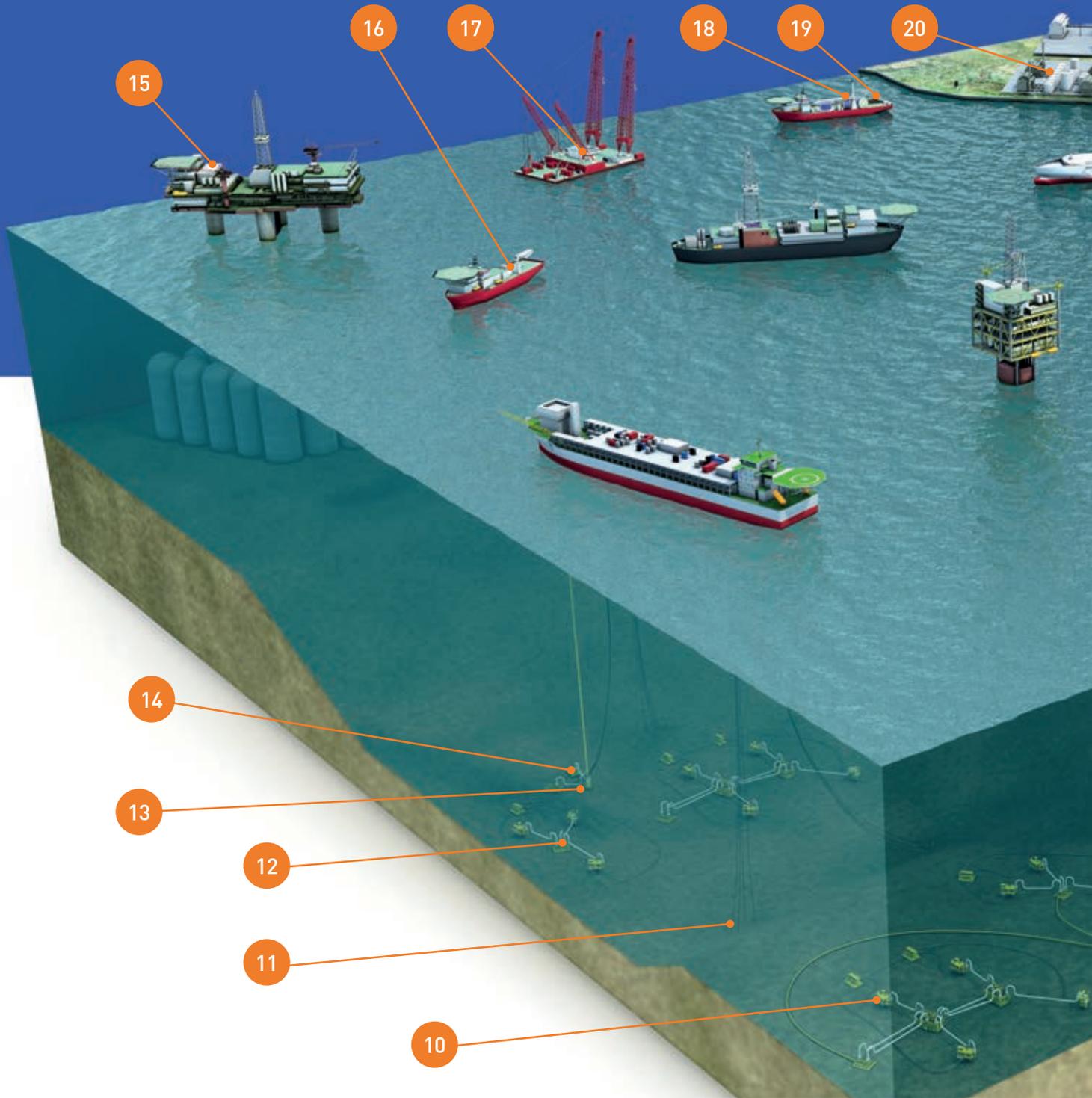


UK - Power Jacks Head Office and Manufacturing Facility - Ellon
Power Jacks Business Development Office - Birmingham

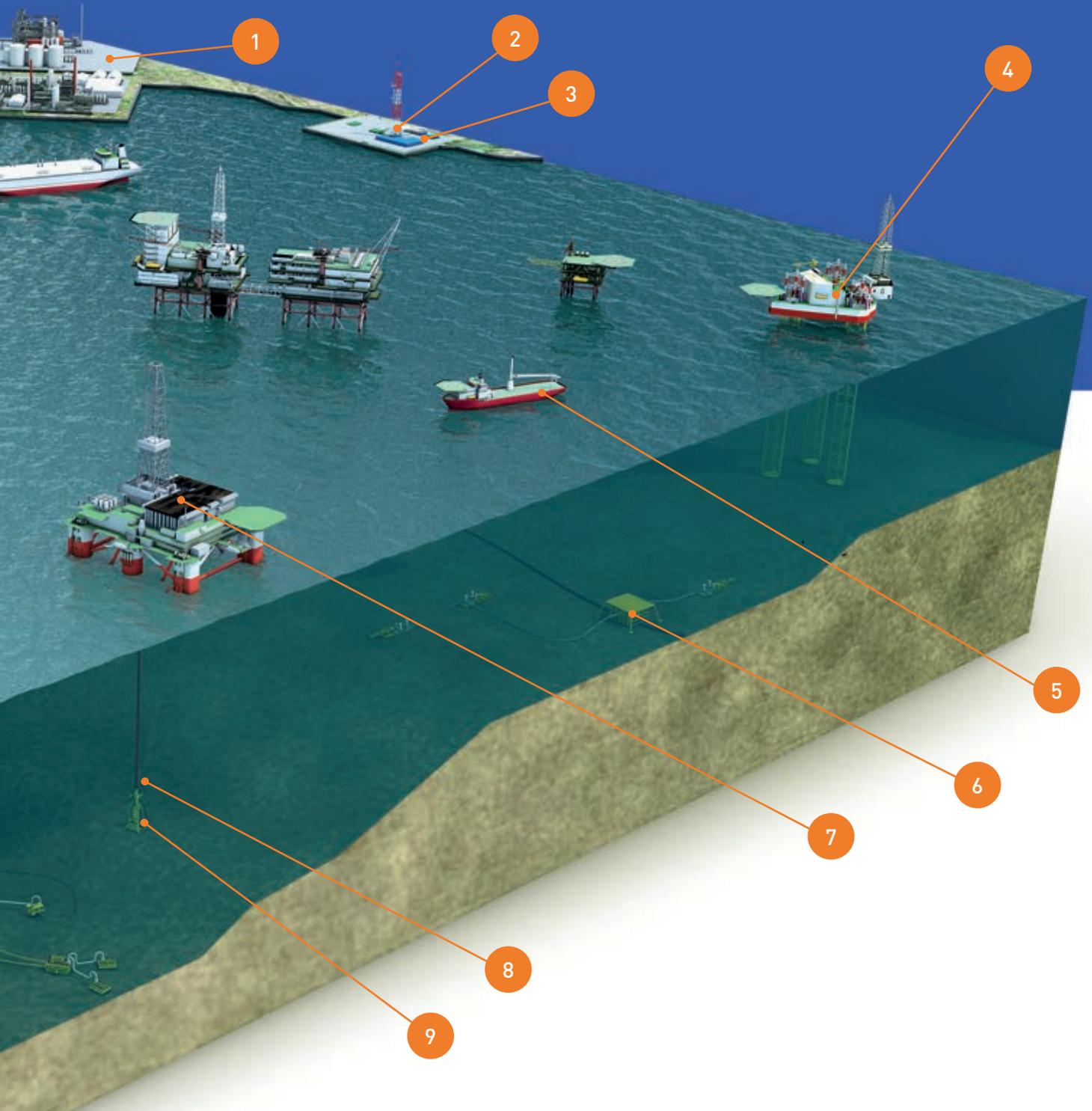
Germany - Power Jacks Regional Sales Office

India - Power Jacks Regional Sales Office

China - Power Jacks Regional Sales Office



Item	Description	Area	Product
1	Hydrospace Test Centre - Pressure Vessel Lid Raise & Lower	Onshore	Screw Jacks
2	Land Rig - Automatic pipe feed mechanism	Onshore	Screw Jacks
3	Swab Valve - gate valve operation mechanism (hand operated)	Onshore	Bevel Gearbox
4	Jack-Up Rig, Leg Chock fixation System	Offshore	Screw Jacks
5	Tension Monitoring For Subsea Cable Laying	Marine	Tensiometer
6	Pig Launch/Receiver Positioning Subsea Screw Jacks	Subsea	Screw Jacks
7	Refurbishment of drill floor cement area gearboxes	Offshore	Reduction Gearbox
8	ESP Umbilical Connector Actuator	Subsea	Screw Jacks
9	Raise and lower subsea caisson	Subsea	Screw Jacks
10	ROV operated clamp connector	Subsea	Bevel Gearbox



Item	Description	Area	Product
11	Locking pin push-pull actuator for FPSO mooring chain	Subsea	Linear Actuator
12	Multi Quick Connector plate drive mechanism (ROV operated) for MQC Parking Recepticle	Subsea	Screw Jacks
13	Subsea Riser release mechanism	Subsea	Screw Jacks
14	ROV operated clamp release mechanism for pipe connector	Subsea	Screw Jacks
15	Roof raise & lower system	Offshore	Screw Jacks
16	ROV Launch & Recovery	Marine	Load Shackle
17	Crane Load Calibration	Marine	Load Link
18	Ladder deployment for Ramp access system for Pipe Laying Ship	Marine	Screw Jacks
19	Positioning of Top Track Straightener for Pipe Laying Ship	Marine	Screw Jacks
20	Emergency Shutdown Gate Valve Actuator	Onshore	Linear Actuator



WE HAVE 8 COMPLIMENTARY AREAS OF EXPERTISE. SCREW JACKS, LINEAR ACTUATORS, LEAD SCREWS, BEVEL GEARBOXES, JACKING SYSTEMS, LOAD MONITORING, PRECISION MACHINING & DESIGN SUPPORT SERVICES.

Power Jacks range of precision products and services provides an alternative to hydraulic based solutions for high load applications (10kN to 3500kN and above).

Our products have the advantage of improved performance and safety at a lower cost. Clean and simple to install, easier to control with less waste and environmental impact.



SCREW JACKS

Ideal for use as a single jack or in multiples as a jacking system to push, pull, tension, lock, unlock, tilt, pivot, roll, slide and lift or lower loads, anything from a few kilos to thousands of tonnes.

- Capacities up to 2000 kN (200Te) as standard
- Capacities up to 35000 kN (3500Te) on request
- Machine Screw, Ball Screw and Roller Screw Jacks
- Translating & Rotating screw configurations
- Standard material or full stainless steel screw jacks
- Self-Locking (only use power when moving)
- Anti-rotation mechanism for unconstrained loads
- Anti-Backlash or Zero-Backlash mechanism for axial positioning
- Dual Nut (safety nut) fail safe load holding option
- Shock load rated units



LINEAR ACTUATORS

Based on our lead screw and screw jack technology these fully enclosed electro-mechanical linear actuators can be supplied with or without integrated electric motors and feedback devices.

- Capacities up to 400 kN (40Te) as standard
- Capacities up to 1000 kN (100Te) on request
- Machine Screw, Ball Screw and Roller Screw actuators
- Standard material or full stainless steel screw actuators
- Self-Locking versions available
- Anti-rotation mechanism in ram for unconstrained loads
- Zero-Backlash mechanism for axial positioning
- Dual Nut (safety nut) fail safe load holding option
- Shock load rated units



LEAD SCREWS

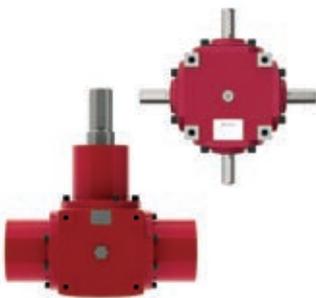
We can manufacture Whirled, Rolled and Ground screw thread to your requirements whether for fastening systems, winches, winders, valves, gates, screw conveyors to name a few.

- Trapezoidal, Sharp, Butress, Knuckle, Coarse, Reverse / Diamond thread profiles
- Multi start threads with 1, 2, 3 up to 50 threads
- Variable pitch threads
- Screw lengths from 0.01m up to 20m
- Screw diameters from 10mm to 300mm
- Internal screw threads up to 2000mm long
- Customer specific thread profiles

KEY DESIGN FEATURES AVAILABLE FOR ALL LINEAR & ROTARY PRODUCTS

- Full range of anti-corrosion options
- A range of Subsea designs available with proven depth ratings up to 3000m subsea
- ROV drive interfaces
- Marine rated units
- Arctic rated units
- Desert environment rated units
- Tropicalised Units
- Low (-65°C) to High (+250°C) temperature solutions
- Full range of feedback devices for speed, position and load monitoring control
- Special custom design service

If you've got a requirement not mentioned in this brochure then challenge us we've either done it already or have the engineering know-how to deliver you the best solution.



BEVEL GEARBOXES

Distribute mechanical rotary power throughout your drive system with these bevel gearboxes.

- Ultra Compact Bevel Gearbox Design
- 2-way, 3-way & 4-way Configurations
- Solid Shaft & Hollow Shaft
- Gear Ratios: 1:1, 1.5:1, 2:1, 3:1 & 4:1
- Torque Ratings up to 7000 Nm
- SG Iron Housing as Standard
- Full stainless steel on request
- Special Gear Ratios Available



JACKING SYSTEMS

These jacking system arrangements or configurations can be built in many formats with the use of screw jacks, bevel gearboxes, motors, reduction gearboxes, drive shafts, couplings, plummer blocks and motion control devices.

Four of the most popular system configurations are the 'H', 'U', 'T' and 'I' configured jacking systems.



LOAD MONITORING

We have a comprehensive range of standard load cell products and also offer a bespoke, custom load cell design service.

- Load Cells up to 2000 Tonne
- Load Links up to 500Te tensile load
- Load Shackles up to 2000 Tonne
- Line Monitors for wire rope load (line) & line (pay out)
- Telemetry displays & datalogging
- All with options for wireless, cabled and ATEX designs



PRECISION MACHINING SERVICES

Our sub-contract machining cell was designed to support customers with specialised machining work, specifically for the Oil & Gas sector. We have extensive state of the art machining capabilities with CNC Lathes, Manual Lathes, Milling Machines, Threading Machines and more. Take advantage of our long established experience in manufacturing. Benefit from our service with 90%+ on-time delivery.



DESIGN SUPPORT

For product or project development Power Jacks highly experienced team of design engineers are available to help you achieve the best solution for your application. Our speciality is in designs requiring mechanical or electro-mechanical linear or rotary motion solutions whether at a component part or complete system level.

POWERJACKS

PRECISION ACTUATION

Power Jacks specialises in the design and manufacture of precision linear actuation, positioning and lifting equipment.

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

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