

# Capabilities & Facilities



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# **rotork**Gears

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**rotork** Controls

**rotork**Fluid Systems

**rotork** Gears

**rotork**Instruments

Rotork is the global market leader in valve automation and flow control. Our products and services are helping organisations around the world to improve efficiency, assure safety and protect the environment.

We strive always for technical excellence, innovation and the highest quality standards in everything we do. As a result, our people and products remain at the forefront of flow control technology.

Uncompromising reliability is a feature of our entire product range, from our flagship electric actuator range through to our pneumatic, hydraulic and electro-hydraulic actuators, as well as instruments, gear boxes and valve accessories.

Rotork is committed to providing first class support to each client throughout the whole life of their plant, from initial site surveys to installation, maintenance, audits and repair. From our network of national and international offices, our engineers work around the clock to maintain our position of trust.

Rotork. Redefining flow control.



#### **Engineering Capabilities**

From the moment you first contact Rotork Gears you benefit from industry leading expertise gained over several decades working at the forefront of valve technology. Our world class engineering team is committed to providing the marketplace with the latest innovative technology achieved using leading-edge design methods.

#### Concept visualisation and proving:

- In-house 3D rapid prototyping to allow next day creation of 3D concept models: 100 micron accuracy fused deposition modelling 3D printer creates strong ABS (Acrylonitrile butadiene styrene) parts.
- Production trials on rapid prototypes removes uncertainty from the design prior to the design being frozen, allowing greater flexibility of the product early in the development process.



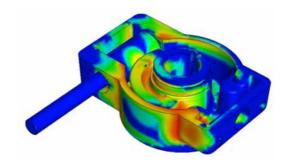
#### Leading edge design methods:

- Use of parametric and direct 3D modelling and design allows design intent to be accurately captured.
- 3D product manufacturing information from CAD models allows the design to be accurately manufactured, allowing for more complex forms to further optimise part geometry.
- FMEA (Failure Modes and Effects Analysis) and other DFSS (Design for Six Sigma Tools) allow the design to be robust whilst maximising the mapping of customer requirements to the product.



#### Thorough virtual validation:

- Use of the latest Finite Element Analysis methods for structural, vibration and impact virtual testing of designs prior to prototyping to reduce development time and optimise design integrity.
- Detailed analysis of designs under key operating conditions to reduce mean time between failures.
- Full assembly analysis to accurately recreate operating conditions, specifically related to part interactions incorporating friction and hardware components.



#### Flexible application Engineering:

 To be able to deliver the standard of service expected by technically demanding customers we have the product knowledge, design expertise and people with a strong commitment to quality to provide dedicated solutions for our customers.

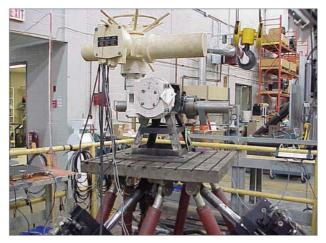
#### Highly skilled and experienced team:

- A dedicated research and development team to ensure new product design and development, from concept to customer.
- Highly qualified and industry experienced professional engineers in the core design team, plus broad skillset people with specialisms to ensure all aspects of product development are catered for.

#### **Test Facilities – Quality and Safety**

Rotork Gears have extensive test facilities at our Leeds location. We have a comprehensive set of test rigs for testing multi-turn and quarter-turn gearboxes across a wide range of torques. We can carry out life testing, overload testing and some environmental testing in-house.

For tests outside our in-house capabilities, such as extremely high torques or salt-spray testing, we can call on the resources of the wider Rotork Group. We also use third party facilities for procedures including nuclear, deep-sea hyperbaric and seismic/ vibration testing. The climatic chamber allows us to simulate environments with different temperatures (from -70 to +180 °C) and humidity (from 10% to 98% relative humidity). It is fully self-contained and electronically controlled, and is large enough to allow us to test the majority of our gearboxes in-house. The chamber has intervention panels on both sides which allows us to drive the gearbox from outside the chamber for maximum reliability and flexibility of testing.



Seismic qualification of nuclear actuator and gearbox.



Discovery Climatic Chamber.



Hydrostatic qualification for subsea gearbox.



Endurance testing of prototype subsea gearbox.





#### **Quality Assurance**

Rotork Gears is committed to fully understanding customer needs and expectations, and meeting or exceeding these needs. In support of this Rotork Gears has an established quality management system that meets the requirements of BS EN ISO9001:2008.

The quality management system embraces all aspects of the organisation from new product design and life testing, to specialist application engineering, purchasing, the control of suppliers, verification of purchased materials, assembly and inspection processes.

#### **Rotork Gears is committed to:**

- Building business success through customer satisfaction.
- The promotion and full understanding of customer needs within the organisation
- Establishing objectives to promote continuous improvement with the ultimate goal of error free performance and to actively encourage employee contribution towards this goal.
- Creating a quality culture by making continuous improvement and quality a fundamental part of every employee's performance and responsibility.

Quality objectives with measurable outputs are established on an annual basis and reviews held through the year to verify progress against the objectives. The quality manual and policy documents are also reviewed on an annual basis for adequacy and effectiveness. These documents are available to interested parties on request.



Concentricity test with dial indicator.



Bore and Key dimension check with gauge blocks.



Gear teeth dimension check with vernier gear tooth.



Hardness check of drive sleeve with Equotip hardness tester.

#### **Worldwide Manufacturing and Support Facilities**



Rotork Gears has manufacturing facilities in the UK, the Netherlands, Italy, the USA, China and India and, as part of the market-leading Rotork Group, are able to offer customers the benefits of responsive, local support through Rotork's extensive international network of offices.

We are the only gearbox manufacturer able to offer service and support to our customers throughout the world.

Our worldwide manufacturing and service network enables us to be close to our customers wherever they are. With local sales offices, service engineers and stocking centres located throughout the world, we can simplify your logistical requirements and deliver product with unrivalled support, quickly and efficiently to your site.

Whatever the product, all our customers enjoy the back-up of 225 Rotork offices and representatives located throughout Europe, North and South America, The Far East, Africa, Asia, Australasia and the Middle East. Our global service network

ensures that we are able to respond quickly and efficiently at local and international level - from initial enquiry through to supply, installation, maintenance and upgrades.

The Rotork global sales and service network supports all Rotork Gears products. This network is the biggest global actuation support organization in the world with direct sales offices and agents in all industrialized countries.

Customer service and field support provides quick and effective response to customer requirements.









Leeds, UK.



Losser, The Netherlands.



Parabiago, Italy.



Jigani, India.



Huthwaite, UK.



Shanghai, China.



Houston, USA.

#### **Stocking Facilities**

- South Africa
- Australia
- Russia

Aluminium worm gear operators

232 range



Light duty cast aluminium quarter-turn gearboxes suited for HVAC, fire protection, and general industrial applications.

Torque range up to 1,500 Nm (1,106 lbf.ft). 7 sizes. Ratios from 37:1 to 45:1.

- Light weight
- Rugged construction
- Removable output drive sleeves
- IP6<sup>r</sup>
- · High pressure aluminium cast housing
- Protected input shaft.

Worm gear operators

242 range



Robust and light weight quarter-turn cast iron gearbox for low torque manual applications. Suited for ball, plug and butterfly valves.

Torque range up to 2,100 Nm (1,858 lbf.ft). 6 sizes. Ratios 40:1 to 60:1.

- Worm gear
- Manual drive
- Designed using the latest analytical design tools

Worm gear operators

AB range

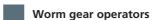


Heavy duty cast iron quarter-turn gearboxes suited for ball, plug and butterfly valves serving the water, gas, chemical, power, and demanding industrial applications.

Torque range up to 32,000 Nm (23,600 lbf.ft). 15 sizes. Ratios from 34:1 to 729:1.

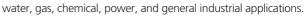
- Cast iron
- Axial needle bearings
- Rugged construction for all environments
- IP67

**Options:** Stainless steel input shaft. Ductile iron. IP68. AWWA. Various environments. Padlockable handwheels. Limit switches. High and low temperatures. Buried service.



IW range

Heavy duty cast and ductile iron quarter-turn worm gearboxes suited for plug, ball and butterfly valves serving the



Torque range up to 850,000 Nm (626,890 lbf.ft). 21 sizes. Ratios from 40:1 to 9,600:1.

- Comprehensive gear ratios with a combined selection of input reducers
- High efficiency
- Removable output drive sleeves
- IP67
- Angular contact bearings

**Options:** Ductile iron. IP68. AWWA. Nuclear. All types of environment. High and low temperatures. Padlockable handwheels. Limit switches. Lever arms. Travelling nut for applications requiring more or less than 90 degrees travel. Buried service.





For electric actuators

IW range



Complete range of heavy duty cast and ductile iron quarter-turn worm gearboxes suited for plug, ball and butterfly valves serving the water, gas, chemical, power, and general industrial applications.

Torque range up to 850,000 Nm (626,890 lbf.ft). 21 sizes. Ratios from 40:1 to 9,600:1.

- Comprehensive gear ratios with a selection of input reducers
- High efficiency
- Angular contact bearings
- Removable output drive sleeves
- IP67

**Options:** Ductile iron. IP68. AWWA. Nuclear. All types of environment. High and low temperatures. Lever arms. Travelling nut for applications requiring more or less than 90 degrees travel. Buried service.

Nuclear rated worm gear operators

IWN range



Heavy duty quarter-turn gearboxes suited for nuclear installations. Built to exceed the IEEE 382 specification and the 10CFR50 quality standard and fully tested for in containment duty.

Torque range up to 48,809 Nm (36,000 lbf.ft). 7 sizes. Ratios from 40:1 to 70:1.

- Ductile iron cast body
- Viton O-rings
- Special bearings
- Nuclear grease.

Worm gear operators

MOW range



Heavy duty quarter-turn modulating gearboxes suited for control valves.

Torque range up to 47,000 Nm (34,500 lbf.ft). 9 sizes. Ratios from 40:1 to 2,940:1.

- Up to 1,200 starts per hour
- Ground and polished worm shaft
- Aluminium bronze worm wheel
- Comprehensive gear ratios combined with a selection of spur input reducers
- Angular contact bearings
- Removable output drive sleeves

**Options:** All types of environment.

WGS range sub-sea worm gear operators

WGS range

A heavy duty range of quarter-turn worm gearboxes suitable for use on all sub-sea quarter-turn valves at any depth below sea level.



Torque range up to 500,000 Nm (368,800 lbf.ft). 12 sizes Ratios from 40:1 to 7,440:1. ROV Classes 1 to 7.

- Membrane type pressure compensator
- Custom designed to suit project specifications
- High visibility position indicator
- Worm shaft supported on taper roller bearings
- High strength alloy steel worm screw hardened and ground
- Self-locking

**Options:** Manual and ROV operation. Piston or open type pressure compensator. Super Duplex input shaft. Tactile position indicators.

Stainless steel worm gear operators

300 range



Light duty pressed stainless steel quarter-turn gearboxes suited for pharmaceutical, wash down, and corrosive environments.

Torque range up to 1,000 Nm (738 lbf.ft). 3 sizes. Ratios from 37:1 to 45:1.

- 304 stainless steel housing and input shaft
- Aluminium bronze worm wheel
- Light weight
- Suitable for corrosive environments
- IP65
- Removable output drive sleeves.





Stainless steel 316 housing quarter-turn gearboxes suited for ball, plug and butterfly valves serving the water, gas, chemical, power, and corrosive environments.

Torque range up to 26,000 Nm (23,012 lbf.ft). 14 sizes. Ratios from 37:1 to 592:1.

- Worm gear
- Manual drive
- Stainless steel 316 housing
- Stainless steel 316 input shaft
- Stainless steel 316 fasteners



Stainless steel worm gear operators

WG-SS range



Heavy duty stainless steel 316 housing quarter-turn gearboxes suited for ball, plug and butterfly valves serving the water, gas, chemical, power, and corrosive environments.

Torque range up to 125,000 Nm (110,634 lbf.ft). 2 sizes. Ratios up to 3,795:1.

- Worm gear
- Manual or electric actuator drive
- Stainless steel 316 housing
- Stainless steel 316 input shaft
- Stainless steel 316 fasteners



Worm gear operators

MTW range



The multi-turn worm gearboxes are used for applications such as sluice gates and dampers.

Torque range up to 162,000 Nm (119,000 lbf.ft). 11 sizes. Ratios from 40:1 to 5,760:1.

- · Ground and polished worm shaft
- Aluminium bronze worm wheel
- Comprehensive gear ratios combined with a selection of spur input reducers
- · Angular contact bearings supporting worm shaft
- Removable output drive sleeves

**Options:** Travelling nut for applications requiring mechanical stops. Lever arms. AWWA. All types of environment.

Lever arms

# Lever arms



Used on dampers to transfer the 90° operation from the worm gearbox to the damper spindle.

#### **Option for IW range**

This is an optional feature on all our IW and MTW ranges of worm gearboxes.

Override worm gear operators

ILGD range



Complete range of manual declutchable sandwich override quarter-turn gearboxes for double-acting pneumatic actuators.

Torque range up to 17,000 Nm (13,000 lbf.ft). 9 sizes. Ratios from 35:1 to 468:1.

- Protected input shaft
- Cast iron housing
- Axial needle bearings
- IP65

**Options:** High and low temperature. ISO drive coupling. Solenoid valve to evacuate air automatically. IP67.

Override worm gear operators

**ILGS** 



Complete range of sandwich manual override quarter-turn gearboxes for spring-return pneumatic actuators.

Torque range up to 32,000 Nm (23,600 lbf.ft). 10 sizes. Ratios from 34:1 to 707:1.

- Protected input shaft
- Cast iron housing
- Axial needle bearings
- IP65

Options: High and low temperature. ISO drive coupling.

Worm gear operators

FB range



Quarter-turn cast iron gearbox suitable for use with fire protection (i.e. sprinkler) systems, includes limit switches to be incorporated into a supervisory electrical circuit. Designed and tested specifically to meet UL1901 specification and FM1112 Approval

Torque range up to 1,000 Nm (885 lbf.ft). 5 sizes. Ratios from 40:1 to 60:1.

- Worm gear
- Manual drive
- 3 x overload capacity
- 1000 duty cycles

Worm gear operators

232LX range



Light duty cast aluminium quarter-turn gearboxes with integrated limit switches for remote position indication suited for fire protection.

Torque range up to 500 Nm (366 lbf.ft). 2 sizes. Ratios 37:1 to 45:1. Integrated limit switches.

- High pressure aluminium casted housing with stainless steel input shaft
- Light weight
- Suitable in corrosive environments
- IP65
- Removable output drive sleeves
- Powder coated
- Different types of position indicators.

Worm gear operators

ABLX (FM-UL) range



Cast iron quarter-turn gearboxes with integrated limit switches for remote position indication suited for fire protection.

Torque range up to 1,620 Nm (1,196 lbf.ft). 4 sizes. Ratios from 34:1 to 40:1. Integrated limit switches.

- Cast iron housing
- Rugged construction
- Removable output drive sleeves
- IP67
- Different types of position indicators
- Suitable for FM/UL/APSAD applications.

Position indication

**Local and remote** 

position indication



A wide range of local valve position and remote indication is available.

#### Circa range

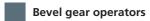
Limit switch boxes with local and remote position indication. Circa 2-10A, Circa 7010 and Circa 7020 can be fitted with standard SPDT (V3) switches or P&F sensors. Circa 7010 and Circa 7020 are suitable for hazardous areas, EEXD IIC T4 Atex certified, these are also available with a Stainless steel housing.

#### **ECL** range

Mechanical remote position indicators for buried service and shaft extension applications. 3 sizes. Ratios: ECL1 up to 35:1, ECL2 up to 120:1, ECL3 up to 394:1



#### **Multi-turn Products**



IB range



Complete range of heavy duty cast iron multi-turn bevel gearboxes suited for the most demanding manual and motorised applications for cast and fabricated sluice gates, gate valves and globe and pinch valves.

Torque range up to 10,846 Nm (8,000 lbf.ft). Thrust range up to 1,557 KN (350,000 lbs). 13 sizes. Ratios from 1:1 to 120:1.

- Ductile iron baseplates
- Comprehensive gear ratios combined with a selection of spur input reducers
- Pinions mounted on ball bearings
- IP67



IB range



Complete range of heavy duty cast iron multi-turn bevel gearboxes suited for the most demanding manual and motorised applications for cast and fabricated sluice gates, gate valves and globe and pinch valves.

Torque range up to 8,135 Nm (6,000 lbf.ft). Thrust range up to 1,320 KN (296,750 lbs). 13 sizes. Ratios from 1:1 to 120:1.

**Common options for IB:** Spring loaded temperature compensators. Various position indicators. AWWA. High and low temperature. Nuclear. All types of environment. IP68. Cast steel.

#### Nuclear rated bevel gear operators

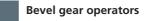
IBN range



Heavy duty multi-turn bevel gearboxes suited for nuclear installations. Built to exceed the IEEE 382 specification and the 10CFR50 quality standard and fully tested for in containment duty.

Torque range up to 8,135 Nm (6,000 lbf.ft). 6 sizes. Ratios from 2:1 to 8:1.

- Ductile iron cast body
- Viton O-rings
- Special bearings
- Nuclear grease



**HOB** 



Cost effectively designed commodity hand operated bevel gears suited for sluice gates, gate, and globe valves.

Torque range up to 1,355 Nm (1,000 lbf.ft). Thrust range up to 356 KN (80,000 lbs). 4 sizes. Ratios from 2:1 to 6:1.

- Cast iron body
- Maintenance free
- IP67

Options: All types of environment. Position indicators. IP68.

#### **Multi-turn Products**

#### Spur gear operators

IS range



Complete range of heavy duty cast iron multi-turn spur gearboxes suited for the most demanding manual and motorised applications where the gearbox input shaft needs to be parallel with the valve stem for globe and gate valves and sluice gates.

Torque range up to 46,100 Nm (34,000 lbf.ft). Thrust range up to 4,350 KN (978,750 lbs). 20 sizes. Ratios from 1:1 to 360:1.

**Common options for IS:** Spring loaded temperature compensators. Various position indicators. AWWA. High and low temperature. Nuclear. All types of environment. IP68. Cast steel.

#### For electric actuators

IS range



Complete range of heavy duty cast iron multi-turn spur gearboxes suited for the most demanding manual and motorised applications for globe and gate valves and sluice gates.

Torque range up to 43,386 Nm (32,000 lbf.ft). Thrust range up to 2,900 KN (652,000 lbs). 20 sizes. Ratios from 1:1 to 360:1.

#### Nuclear rated spur gear operators

ISN range



Heavy duty multi-turn spur gearboxes suited for nuclear installations. Built to exceed the IEEE 382 specification and the 10CFR50 quality standard and fully tested for in containment duty.

Torque range up to 43,386 Nm (32,000 lbf.ft). 3 sizes. Ratios from 6:1 to 24:1.

#### Combination gear operators

**DSIR** 



The Dual Speed Input Reducer is used to reduce the number of input turns required and therefore the operating time on manual gearbox applications.

It can be used with any manual gearbox which can be fitted with an F14 or FA14 input flange.

Ratio can be switched between 1:1 and 4.25:1.

Output torque 720 Nm (6,373 lbf-in).

For more information please refer to the catalogue data sheet.





#### **Multi-turn Products**

Bevel gear operators

NTB range



Cost effectively designed bevel gearboxes suited for valves which do not transfer thrust to the operator.

Torque range up to 700 Nm (516 lbf.ft). 2 sizes. Ratios 2:1 and 4:1.

- Cast iron body
- Maintenance free
- IP67

**Options:** All types of environment. Various Position indicators. IP68. Approval to GOST standard ST CKBA 062-2009 "Valve Rotation & Actuator Mounting Dimensions."



NTBG range



Designed specifically to meet the requirements of valves complying with the Russian GOST standard ST CKBA 062-2009.

The NTBG series gearboxes are intended for the operation of gate and globe valves without a thrust capacity requirement.

Torque range up to 10,000 Nm (7376 lbf.ft). Various sizes. Ratios from 2:1 to 120.2:1.



Bevel gear operators

RAB range



The Radial Acceptance Bevel is suitable for AWWA and where side load movement is likely to happen on penstocks or gate valves.

Torque range up to 678 Nm (500 lbf.ft). Thrust range up to 178 KN (40,000 lbs). 2 sizes. Ratios from 2:1 to 6:1.

- Comprehensive gear ratios combined with a selection of input reducers
- Removable drive sleeves designed to accommodate for heat build-up
- Tapered roller bearing to withstand side loading
- IP68

**Options:** Various types of position indicators. All types of environment.

Dual shaft bevel gear operators



Complete range of multi-turn bevel gearboxes with two shafts for use with dual stem sluice gates and penstocks.

Torque range up to 10,846 Nm (8,000 lbf.ft). Thrust range up to 1,557 KN (350,000 lbs). 11 sizes. Ratios from 2:1 to 120:1.

- Ductile iron baseplates
- Comprehensive gear ratios combined with a selection of spur input reducers
- Pinions mounted on ball bearings
- IP67

**Options:** All types of environment. Various position indications. IP68. Input shafts available at 90° & 180° to each other.

#### **Valve Mounting Kits**

Ball, butterfly and plug valve kits designed to order, precision CNC machined in stainless steel

## **Mounting kits**

Ball, butterfly and plug valve kits



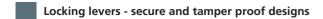
A complete range of stainless steel or carbon steel mounting kits, engineered from certified material, individually bagged and labelled ready for assembly.

- Complete kits for valves from <sup>1</sup>/<sub>4</sub>" to 48"
- F03 F35 Mounting flange ISO 5211/DIN 3337
- Open or closed construction
- Manufactured in stainless steel
- Designed, manufactured, and delivered in days
- CNC precision machined
- 3 year guarantee, free from manufacturing defects

**Options:** Alternative materials, custom design, material certification, logo or brand names.







- Locking Plates, for quarter-turn ball and butterfly valves
- Multi-turn locking flanges for valves and gearboxes
- Interlocked valves.



#### Spool and pedestal adaptors

Quarter-turn valve adaption for rack and pinion or pneumatic actuators can be provided in the form of spool or pedestal type mounting kits.

These are fully enclosed adaptors with options of DD, square or keyed drives.



Construction materials will be carbon steel, supplied complete with fasteners, painted or natural.

- Valves from <sup>1</sup>/<sub>4</sub>" to 48"
- F03 F35 Flanges ISO 5211/ DIN 3337
- Welded to ASME 9 standards
- Square, key or double D drive
- 100 to 500 mm in length

**Options:** O-ring seals, stress calculations, material certification.





#### **Valve Accessories**

Switch box and position indication

SOLDO range

OPE .

The Soldo range of switch boxes for use on quarter-turn valves and actuators. They are available in durable polycarbonate, 316 stainless steel and aluminium, and can be used on actuators, valves, or in conjunction with a hand wheel or lever.

- IP66, IP67, IP68, Safe area operation
- Hazardous approval, Exd IIC, Ex ia IIC +H2 -ATEX
- Beacon/Local indicator available
- 4 to 20 mA
- V3 micro switches or Inductive sensors
- Open/Closed feedback sensors for Multi-turn valves are also available.

Dead man's handle Spring Return Handle



Guarantee failsafe operation for Ball valves, the Spring Return Handle (SRH) will mount on any ball valve, either "direct on" or with a mounting kit designed to suit application.

- Ball valves with torque of 24 or 45.5 Nm
- F03, F05, F07 pcds
- Direct mount or with mounting kit
- Sealed for life, zero maintenance
- Stainless steel handle, shaft and fasteners, precision die cast body
- Durable powder coated finish.

Packaging, assembly and testing

One stop shop



Rotork Valvekits can offer a comprehensive service for the supply of valve actuator assemblies, packaged to your requirements, and stroke tested. Free issue supply of the valve and or actuator, Valvekits will do the rest.

- Site surveys
- · Design, manufacture and assembly
- Stroke test packages
- Supply of solenoids, mounting kits, gearboxes, switch boxes, hand wheels all from the 'in house' design and manufacturing cell
- Complex linkages or limit sensing designs
- Guards, pipe work, pneumatic controls.



#### Valve Accessories



#### **Remote Mounting and Extension Spindles**

#### Valve and actuator remote mounting and extension spindles

Remote actuator mounting can be achieved using valve extension spindles or pedestal adaptors. Design and manufacture is done in house for specific applications. Lengths can be from 500 mm to 8 metres, in stainless steel or carbon steel.

#### **Extension Spindle**

- Underground applications
- Customer specified extension
- Welded construction for weight saving
- Position indication option
- Suitable for manual or actuated drives

Options: Oil filled, environmental sealing, galvanized, plain or dynamic bearings, swivel joints.

#### **ECL Position Indicator**

Mechanical remote position indicators for buried service and shaft extension applications. 3 sizes. Ratios: ECL1 up to 35:1, ECL2 up to 120:1, ECL3 up to 394:1.

#### W100 1:1 Bevel Gearbox

1:1 bevel gearbox designed primarily to be used on AB and manual duty IW 1/4 series gearboxes to change the input shaft direction by 90° for underground applications.



#### Uniflex-Stow\* - Flexible Drive Technology

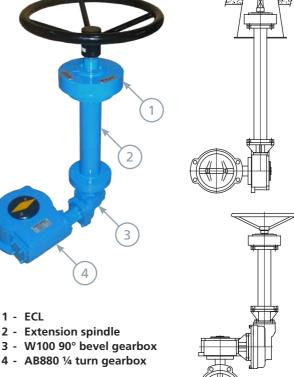


Complete design flexibility with a range of options to meet the most challenging installations in every industry.

- Lengths up to 46 m
- Safe & easy installation
- Input torques up to 300 Nm
- Suitable for manual or electric actuation
- Suitable for all applications including Naval & Nuclear.
- \* Uniflex-Stow is the registered trade mark of B.W.Elliott Manufacturing Co, Inc.









#### Chain wheels





- Cast iron chain wheels from 135 to 760 mm diameter
- Chain guides and bearing are standard
- Galvanized or stainless steel chain available
- Epoxy coating for durability available
- Direct mount on the input shaft.

Options: AISI316 chainwheel & chain, sheradisation protection, adaption design to suit application, alternative chainwheel which mounts on existing handwheel using brackets.



#### **Valve Accessories**

#### Hand wheels



- 125 to 2,000 mm diameter
- Stainless steel or powder coated
- Keyed, pinned or square drive
- Fabricated or pressed design
- Oval or round designs for small valves
- Open and closed indication marking

**Options:** Locking flange, handle, specials, galvanised, rotating handle, flat or dished.

#### Lagging extensions



- Butterfly, plug and ball valves from <sup>1</sup>/<sub>4</sub>" to 10"
- 65 to 1,000 mm high
- Stainless steel, with stop and fasteners
- Designed to suit any valve mounting pad
- Optional locking facility
- Tee bar or lever operator

**Options:** Environmentally sealed, oil filled, bearings, low cost carbon steel.

#### Indexed levers (notch plates)



Castell lock option.

Solenoid valves



Rotork Valvekits have available a large range of quality solenoid valves to cover all the range of safe and hazardous areas. These include Exia and Exd in various materials with Namur and remote mount options.



**Redefining** Flow Control

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