imtexcontrols
COMMUNICATING WITH VALVES

High Integrity Valve Actuation, Automation and Testing

Camtorc ACTUATORS

MATIC
High Integrity Actuation & Controls

www.imtex-controls.com

Optimum Whole Life Performance

Why select Camtorc?

Camtorc is a specialist manufacturer/supplier of pneumatic and hydraulic actuators for both on/off and modulating valve and damper systems.

The unique Cam mechanical design offers simple, backlash free operation providing extended life of seal and components. The Camtorc Actuator provides high actuation efficiency in a compact design, limiting the space envelope and associated costs of an installation.

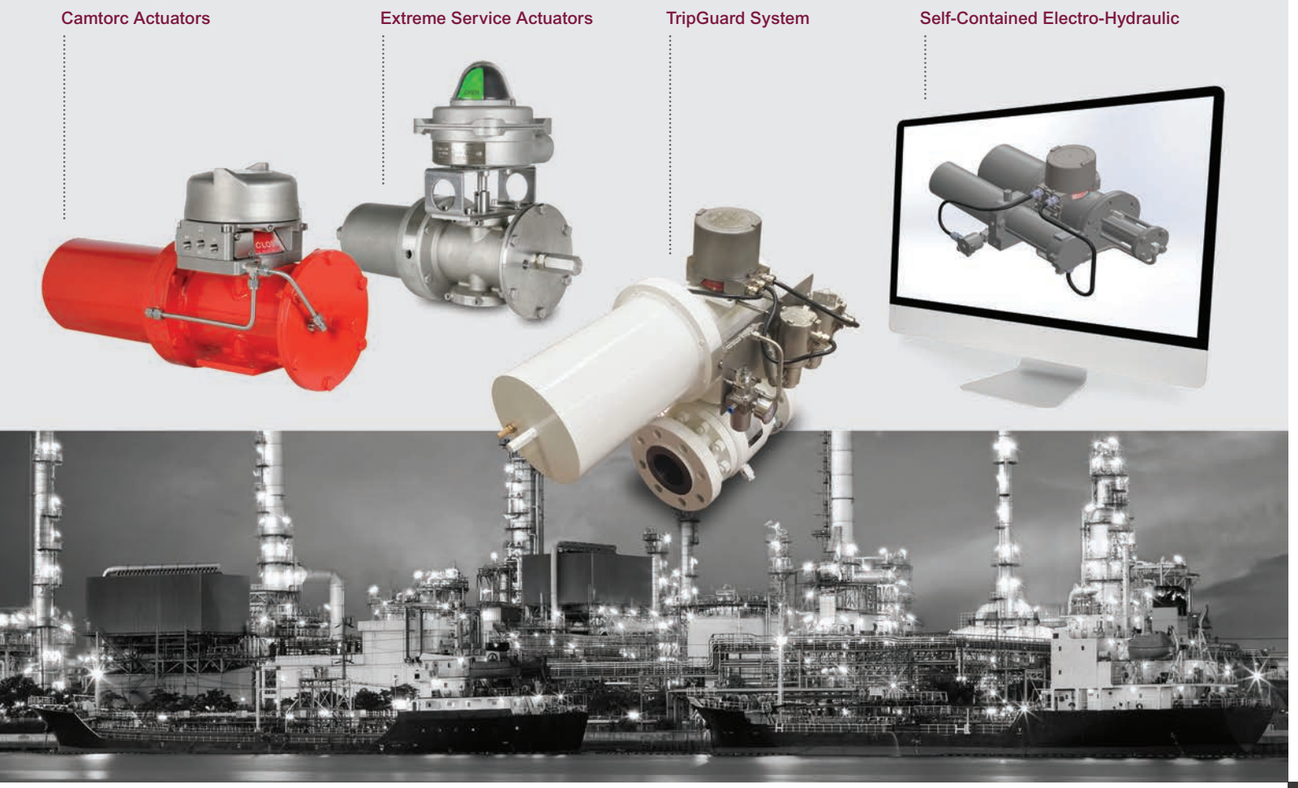
Camtorc actuators are based on proven designs and are produced from top quality materials. Every part is meticulously selected and subjected to stringent ISO 9001, ATEX and Material quality inspection procedures ensuring excellent technical performance and long service life.

Investing in a Camtorc Actuator means you will benefit from;

- Reduced installation cost
- Reduced operating cost
- Less maintenance
- Improved plant safety

Product Types

Camtorc Actuators | Extreme Service Actuators | TripGuard System | Self-Contained Electro-Hydraulic



Solving Valve MAST Issue

The Camtorc series actuators are designed to ensure compact and safe operation of valves and dampers with a constant torque being generated throughout the entire pressure stroke of the actuator. The lack of internal gearing means that backlash is eliminated, making the Camtorc actuator an excellent choice for modulating control applications whilst the unique dual piston design offers excellent characteristics for valves with relatively low Maximum Allowable Stem Torque (MAST) values.

Materials of construction include bodies in either aluminium (Type A), steel (Type S & CS), or Stainless Steel (Type SX & CX). Spring cylinders and internal components are made of steel or 316SS construction with drive shafts of 316 or 17-4PH stainless steel. Camtorc actuators are available for pneumatic and hydraulic applications, in either double acting or spring return configuration with a full range of controls.

Features & Benefits

- **Cam Design** - The unique cam design offers a highly efficient and simple, backlash free operation providing extended life of seals and components.
- **High Integrity Construction** - Camtorc actuators only utilise steel and stainless steel materials (excludes Type A variant) for all actuator components and are fully tested on assembly to provide superior operational life. Additionally, Camtorc actuators are readily available without any external tie-rods that are susceptible to corrosion over time.
- **Dual Piston Design on Spring Return Actuators** - Significantly reduces the potential for Valve MAST issues occurring.
- **Paint Finish** - Standard paint finish for Camtorc actuators is an offshore 2-pack epoxy (other paint specifications available on request).
- **Full Torque Output** - The pneumatic spring return version at the beginning of the spring stroke has a 15% increase in torque output, providing extra power for the break torque and at the end of spring, the torque output is the same as that of the double acting variant of the actuator.
- **Compact Dimensions** - The high torque output of the pneumatic spring return version allows for the use of smaller actuators (typically up to 40% smaller) with lower swept volume demands when compared to conventional actuator designs.
- **Long Spring Life** - All springs are stress relieved after forming to ensure a long life.
- **Whole Life Cost** - Camtorc actuators are exceptionally low wearing providing low maintenance and the optimum Whole Life Cost Solution for the customer.

Isolation Valve Testing without the Risk

NEW TripGuard System

With process-based industries continually seeking to make their plants more efficient, more reliable and above all safer operating environments, a number of equipment test and verification strategies have been developed to facilitate this.

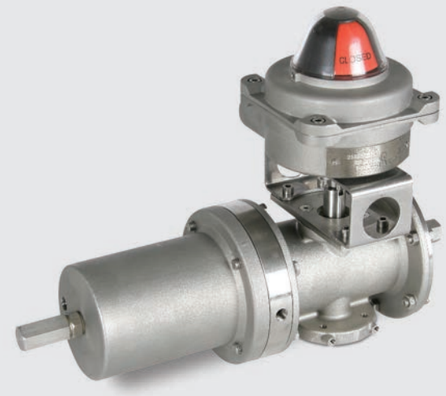
Where operators employ Shut Down Valves to prevent dangerous plant conditions developing, the concept of Partial Stroke Testing (PST) has been promoted to improve efficiency, reliability and safety. Unfortunately, many operators choose not to utilise PST capabilities because of the associated risk of a Spurious Trip occurring.

Imtex Controls developed the TripGuard system to eliminate the risk of spurious trip, allowing operators to get the full benefit of PST implementation.

TripGuard ensures that the Camtorc actuator operating the valve is never fully vented during PST. Even if a component in the PST system should fail, the actuator is unable to fully close the valve unless the main ESD system de-energises the valve system's primary ESD solenoid. The result is a guaranteed no closure on PST whilst the ESDV remains fully available for closure in the event of an ESD trip occurring.

Same Technical Performance for Harsher Environments

High Integrity 316 Stainless Steel Construction



Camtorc Actuators are specified for and operate in some of the World's most critical and demanding applications as found in the oil and gas, energy and marine industries.

Camtorc Extreme Services Actuators, offer the same innovation and reliability found in all Camtorc actuators, but with the technical performance to operate in the harshest and most demanding environments.

The Extreme Actuator Design includes:

- **Rotation** - 0° to 95° rotation with adjustable end stops
- **Torque Range** - Double Acting: 10 to 30,000 Nm / Spring Return: 10 to 20,000 Nm (Spring End)
- **Supply Pressure Range** - Pneumatic Actuators: 2 to 10 barg*/ Hydraulic Actuators: Low – 3 to 10 barg*/High -10 to 210 barg* *(*Routine overpressure test of 1.5 times the maximum operating pressure)*
- **Ambient Temperature Range** - Nitrile Seals: -20°C to +60°C (T6)/ Viton Seals: -20°C to +130°C (T3)/EPDM 70 Seals: -40°C to +130°C (T4). Optional – High (+170°C)/low (-45°C) temperature versions available on request
- **Ingress Protection - Weatherproof to IP65/66**
- **Hazardous Certification** - ATEX II 2 G IIC c T*. *(*Dependent on seal materials)*

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Fail Safe Actuation for Electrical Power

Camtorc Electro-Hydraulic (E-H) Actuator Systems are a means of providing fail-safe actuation where only Electrical Power is available. Increasingly, E-H Systems are being preferred to Pneumatic and Hydraulic options as they place no demand on often over-stretched compressor and HPU infrastructure.

Many E-H systems, however, can be complicated, expensive and prone to problems that can compromise plant safety. The Camtorc Electro-Hydraulic System is specifically designed to offer simple and reliable control of process valves with a reduced number of components to improve reliability and performance.

Same Technical Performance in Linear Construction

The Camtorc range of linear actuators provides highly reliable, pneumatic or hydraulic actuation for linear valves (gate, globe and knife gate). Linear piston operated actuators are available for pneumatic (Type LP) and hydraulic (Type LH) applications in either double acting or spring return configurations with a full range of control accessories. Piston actuators allow for a high thrust to weight ratio because they can operate at higher supply pressures. The all steel or 316 stainless steel construction can withstand severe-service environmental conditions.

Features and Benefits

- Spring return option
- Adjustable stroke lengths
- Valve mounting bracket
- Manual override
- Wide range of accessory options
- Special applications

Valve Automation Services and Solutions

What is MATIC? MATIC supply a complete programme of pneumatic and hydraulic actuator systems for the on/off and modulating control of valves and dampers as used in the oil, gas, marine, power and process industries. Utilising many years of field application experience within the area of valve and damper automation, MATIC actuation solutions are engineered to provide technically advanced solutions conforming to the latest international standards.

Intelligent Engineering Design

The challenge for engineering today is to reduce the cost of products whilst improving their quality and reliability.

MATIC engineers are committed to;

- Designing quality valve automation systems that are easy to install, use and maintain
- Make designs reliable and efficient in functionality
- Continuously seek new design solutions to meet current user demands
- Revise existing designs in order to make them more efficient and simpler to produce
- Ensure designs are simple in concept but are safe and environmentally friendly
- Work with the latest control technology in accordance with international standards

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Camtorc Actuators | **Matic High Integrity Actuation & Controls**
Tel **+44 (0)8700 340 002** Fax **+44 (0)1732 852 133** Email **sales@imtex-controls.com**
Sales & Administration Tonbridge (Kent) UK **Engineering & Production** Deeside (Flintshire) UK
www.imtex-controls.com