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COMPANY OVERVIEW

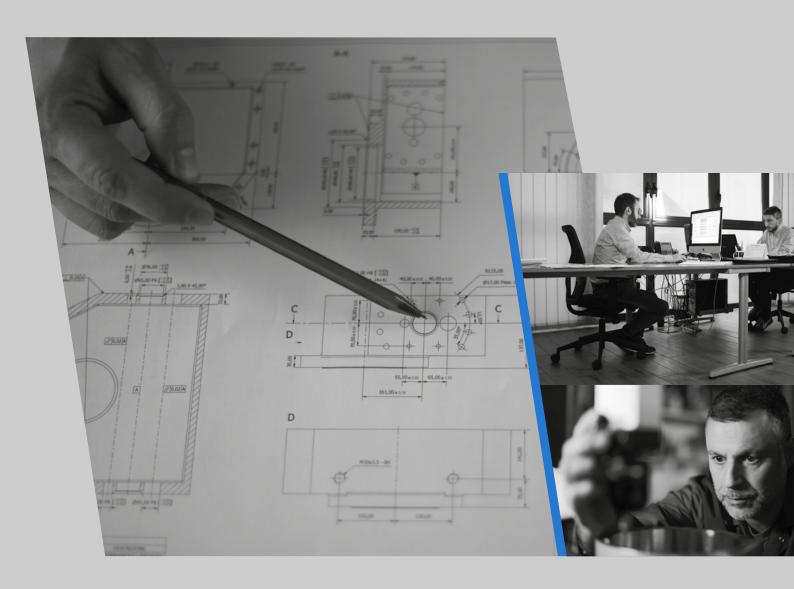
Guide Valve Limited is a leader in the manufacturing and supply of several solutions for valve automation. Many years of **experience in different kind of applications** allowed us to establish a strong reputation in products design innovation especially dedicated to customer satisfaction.

Tru Torq Italia S.R.L, headquartered in Northern Italy, is the licensed manufacturer of the GVS Actuator Line. With efficient access to the best technology and engineering knowledge in the world, we are capable of providing our customers with a world-class range of actuation products and services which are 100% made in Italy.









ATTENTION TO QUALITY

Tru Torq Italia S.R.L operates in compliance with:

- ISO 9001:2015 certified by Tüv Süd
- ISO 14001:2015 certified by Tüv SüdISO 45001:2018 certified by Tüv Süd

The GVS Actuation Products manufactured by Tru Torq Italia S.R.L. hold several international certifications:

- SIL (with IEC EN 61508:2010) certified by Tüv Süd
- EAC TU-CR
- DNV GL
- ATEX Directive 2014/34/EU
- PED

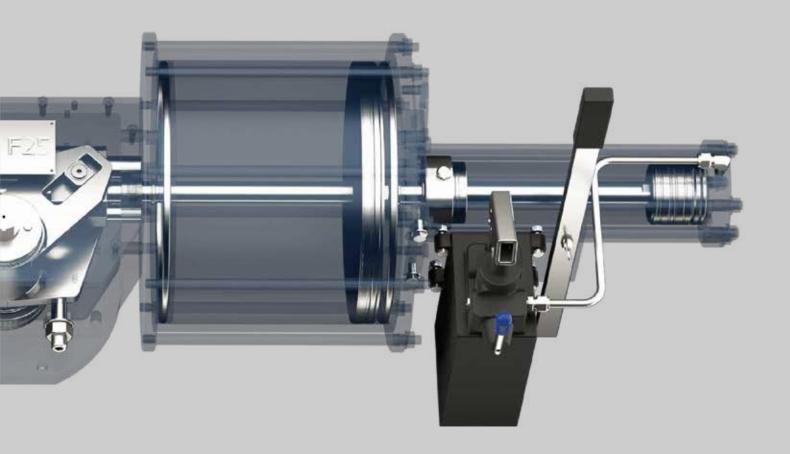


HEAVY DUTY PRODUCT OVERVIEW



During design stage the main target to the base of the concept has been concrete **Heavy Duty designed products dedicated to long life valve automation service**. This philosophy is at the base of material selection (full Carbon Steel without Cast Iron components), dimensions and guiding system of the products:





Pneumatic Scotch Yoke SY-Series;

Direct Gas Scotch Yoke
PY-Series;

Gas Over Oil Scotch Yoke GY-Series;

Felectro-Hydraulic Scotch Yoke EY-Series;

Linear pnuematic and hydraulic TL/TH Series;

Self-Contained.



- QUARTER TURN PNEUMATIC ACTUATOR
- DOUBLE ACTING AND SPRING RETURN
- SY-SERIES

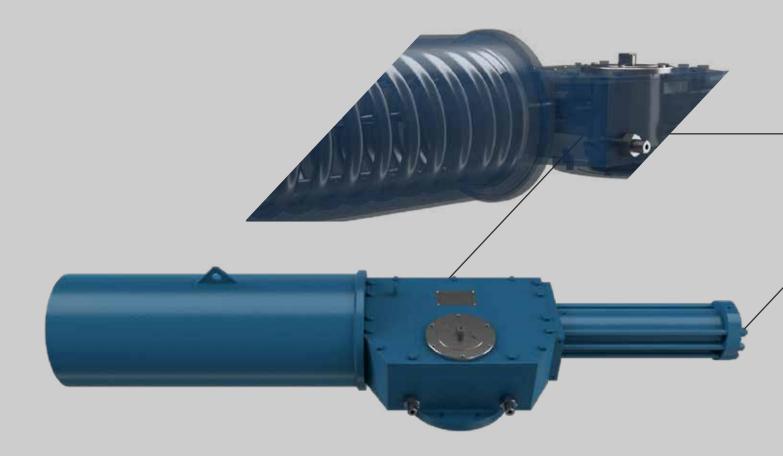


The GVS SY Series is a complete range of heavy-duty pneumatic actuators. The strong design and robust construction material of the SY Series makes it suitable for "heavy" applications (in terms of torque development, corrosion resistance, and performance at low-temperatures), especially for emergency shut-down and blow-down applications.

- Fabricated entirely in low temperature Carbon Steel (no cast parts);
- Pneumatic cylinder suitable to maximum supply pressure 12 barg (175 psi)
- Available in Double and Single Acting;
- Double end-stop adjustment;
- Completely waterproof;
- Spring system designed for safe maintenance and anti-jerky solution;
- Various options available (Jack-screw, hydraulic damper, hydraulic hand pump, etc.).



- ▼ OUARTER TURN HYDRAULIC ACTUATOR
- DOUBLE ACTING AND SPRING RETURN
- HY-SERIES



The GVS HY Series is a complete range of heavy-duty hydraulic actuators. Fine machining of the components makes the HY Series very precise on modular applications and ensures conformity to regulatory requirements (cooling systems, controlled low CV).

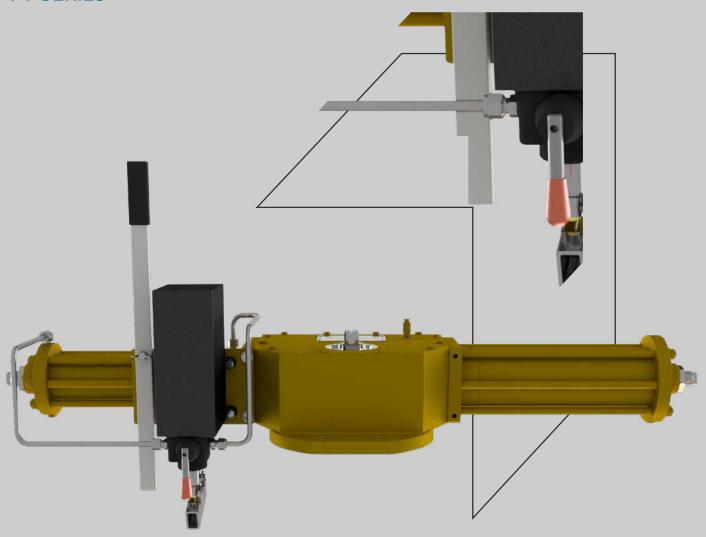
Tru Torq Italia S.R.L. has the capability to design and manufacture hydraulic power units that provide pressure to the HY Series actuators and electronic controls for integration with customer connections.

- Fabricated entirely in low temperature Carbon Steel (no cast parts);
- Available in Double and Single Acting;
- Double end-stop adjustment;
- Completely waterproof;
- $\bullet \ Spring \ system \ designed \ for safe \ maintenance \ and \ anti-jerky \ solution;$
- Tru Torq Italia S.R.L, has the skills to design and build customized HPU, equipped with electronic controls.



QUARTER TURN DIRECT GAS ACTUATOR

PY-SERIES



DESCRIPTION:

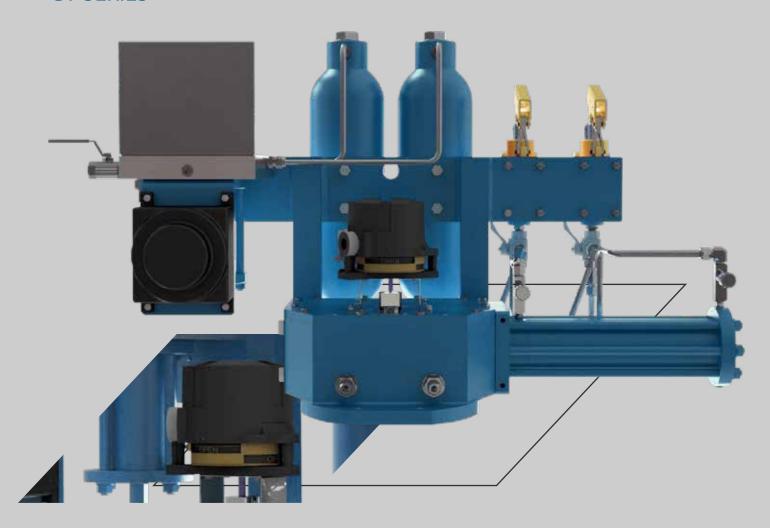
GVS PY-Series is a heavy duty design actuator suitable for high pressure Direct-Gas supply. Due to the particular application of this type of actuators the design is for heavy duty applications and long life, with minimum maintenance. Sealing type design allows to PY actuators to high and low pressure Gas supply Further the pneumatic system is isolated from the hydraulic system to avoid contamination and safe maintenance.

- Fabricated entirely in low temperature Carbon Steel (no cast parts);
- Pneumatic system divided from hydraulic system;
- Double end-stop adjustment;
- Completely waterproof;
- \bullet Flexible connections types to the valves (ISO5211 $\,$ flanges and connections to the stem).



QUARTER TURN DIRECT GAS OVER OIL ACTUATOR

GY-SERIES



DESCRIPTION:

GVS GY-Series is a heavy duty design actuator suitable for high pressure Gas supply moved into hydraulic pressure supply through hydraulic bottles system. Gas Over Oil systems are generally used on gas transmission lines, when any other supply (pneumatic, hydraulic, power) sources are unavailable or economically not feasible. Gas Over Oil actuator is fed by pressurized gas after being filtered.

- Fabricated entirely in low temperature Carbon Steel (no cast parts);
- Available in several executions (Local, Remote control, Line Break system, Torque limit device, etc.)
- Double end-stop adjustment;
- · Completely waterproof;
- Gas Over Oil Actuators can be provided, according specifications, in various Options:
 - Local / Remote Comman;
- Torque limiting device;
- Gas Storage Tank;
- Partial Stroke test.
- Line Break System;



- ▼ QUARTER TURN & LINEAR ELECTRO-HYDRAULIC ACTUATOR
- **▼** DOUBLE ACTING AND SPRING RETURN
- EY-SERIES



The GVS EY Series is a complete range of heavy-duty hydraulic actuators. The strong design and robust construction materials makes it suitable for "heavy" applications (in terms of torque development, corrosion resistance, and performance at low-temperatures) while the fine machining of the components makes this series very precise on modular applications and ensures conformity to regulatory requirements (cooling systems, controlled low CV).

Tru Torq Italia S.R.L has the ability to modify the design and manufacture the GVS EY Series according to space limitations and unique customer needs.

- Fabricated entirely in low temperature Carbon Steel (no cast parts);
- · Available in Double and Single Acting;
- Double end-stop adjustment;
- Completely waterproof;
- Spring system designed for safe maintenance and anti-jerky solution;
- Hydraulic power unit built according to safety loop level required (redundant Motor and Pump, Oil temperature and level monitoring, etc.). Available in Explosion Proof version.
- Electronic control cabinet equipped with Local control and signals for status monitoring, various type of alarms, several protocols of communication (Modbus, Profibus, ect.)



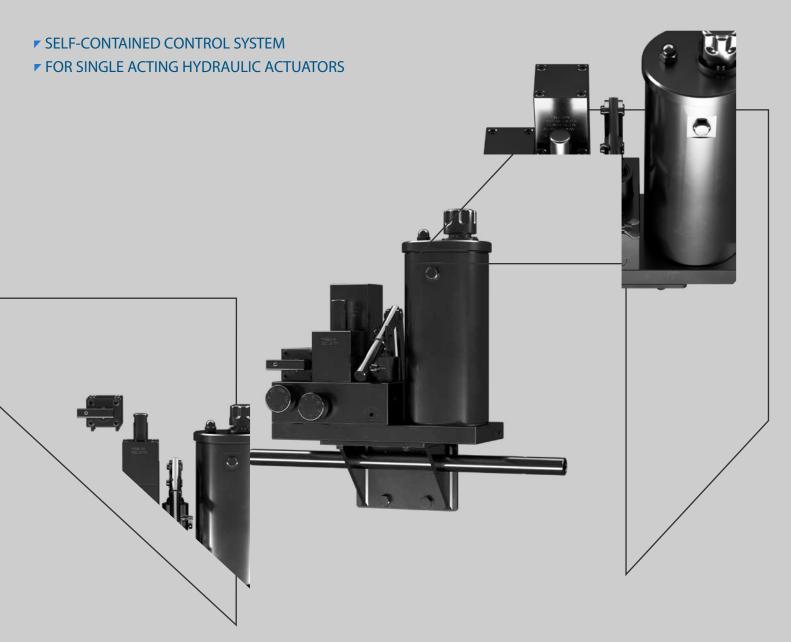
- ▼ LINEAR PNEUMATIC & HYDRAULIC ACTUATOR
- DOUBLE ACTING AND SPRING RETURN
- **TL/TH-SERIES**



GVS Linear valve actuator pneumatic & hydraulic linear piston actuators are designed to drive control valves for the most demanding applications in Power and Oil & Gas, such as turbine bypass, steam conditioning, anti-surge compressors and many others. GVS TL/TH-Series is a heavy duty design Pneumatic actuator complete range. The strong design and robust construction material allows to TL/TH-Series to be suitable for heavy application (in terms of torque development, corrosion resistance and low temperature applications).

- Fabricated entirely in Low temperature Carbon Steel (no cast parts);
- Available in Double and Single Acting;
- Completely waterproof;
- Spring system designed for safe maintenance and anti-jerky solution;
- Various option available (Jack-screw, hydraulic damper, hydraulic hand pump, etc.);





The GVS Self-Contained Hydraulic Control System is designed to operate quarter-turn or linear hydraulic actuators for ESD (emergency shut-down) applications when an external power source is either un-available or un-reliable.

The design and material construction makes the GVS Self-Contained Hydraulic Control System suitable for low-temperature applications (down to -50°C / -58°F).

- Hydraulic connections machined in solid block for easy maintenance.;
- The external tubing free design reduce the risk of damages during transport and installation;
- Modular design allows assembly of additional devices for actuator control (High-Low pressure pilot valve, Solenoid Valve, etc.);
- Design studied for minimum maintenance needs.;
- Standard mounting pad for easy mounting onto various sizes TruTorq hydraulic actuators.

