



ME552 POWERTORQ ESV ACTUATOR INSTRUCTION MANUAL

!WARNING!

Failure to follow these instructions or to properly install and maintain this equipment could result in an explosion and/or fire causing property damage and personal injury or death.

Install, operate and maintain Marshall Excelsior Co. equipment in accordance with federal, state, and local codes and these instructions. The installation in most states must also comply with NFPA No. 58, and ANSI/CGA G-2.1.

For installation in the European Union, the equipment must also comply with PED/TPED and EN ISO standards. Periodic inspections, intermediate inspections and exceptional checks of transportable pressure equipment should be carried out in accordance with the Annexes of Directive 2008/68/EC and with 2010/35/EU Directive (TPED) to ensure continued compliance with their safety requirements.

Only personnel trained in the proper procedures, codes, standards and regulations of the LP-Gas Industry should install, maintain and service this equipment.

Be sure all instructions are read and understood before installation, operation and maintenance. These instructions must be passed along to the end user of the product.



WARNING: These products contain a chemical known to the state of California to cause cancer and birth defects or reproductive harm

Introduction

Scope of the Manual

This manual covers instructions for the ME552 Pneumatic ESV Actuator kit.

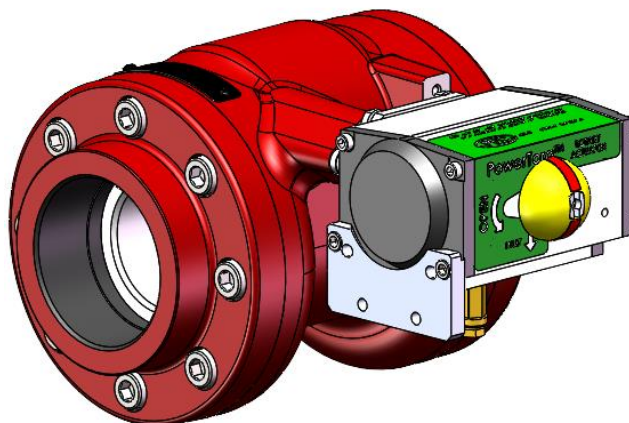
Description

Marshall Excelsior Co. Pneumatic ESV Actuator kit fits MEC™ (Fisher®) 2 & 3-inch NPT and double flange Emergency Shutoff Valves to allow for remote valve operation utilizing air pressure. Applying air pressure to the actuator moves the shutoff clapper to open the valve. Upon loss of air pressure, the valve's shutoff clapper immediately returns to the closed position.

ME552 – For ME980-10, ME980-16, ME980-24, ME980-16-2F and ME990-24-3F valves (2 and 3 inch series)

(Fisher® type N550-10, N550-16 & N550-24)

These kits feature a spring return design that eliminates the need for an air return.



ME980AR-24

Specifications

Pressure Source:	Air
Pressure Limits:	Minimum – 20 psig / 138 kPa Maximum – 125 psig / 861 kPa Recommended – 50-70 psig / 345-483 kPa
Temperature Limits:	-60°F to 250°F / -51°C to 121°C
Return Mechanism:	Spring only – no air

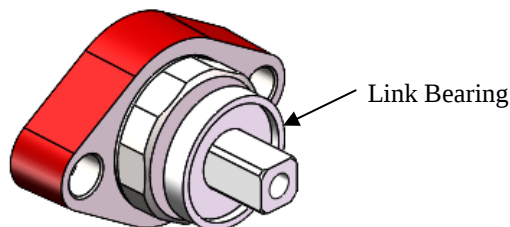
Installation

!CAUTION!

Do not manually stroke the actuator. Only operate through the use of Air/Gas pressure.

The use of a pressure reducing regulator to supply the minimum cylinder operating pressure (50-70 psig / 345-483 kPa) to the actuator will maximize cylinder and valve life and minimize air consumption.

1. To install an actuator kit, first remove the any existing Release Latch and/or Operating Lever from the ESV valve shaft. Retain and reinstall the Link Bearing oriented as shown after removal.



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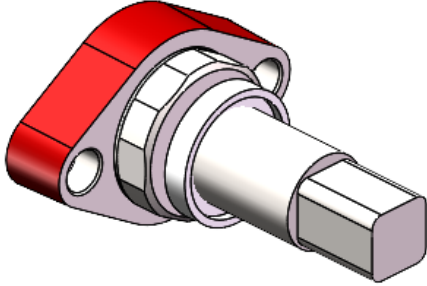
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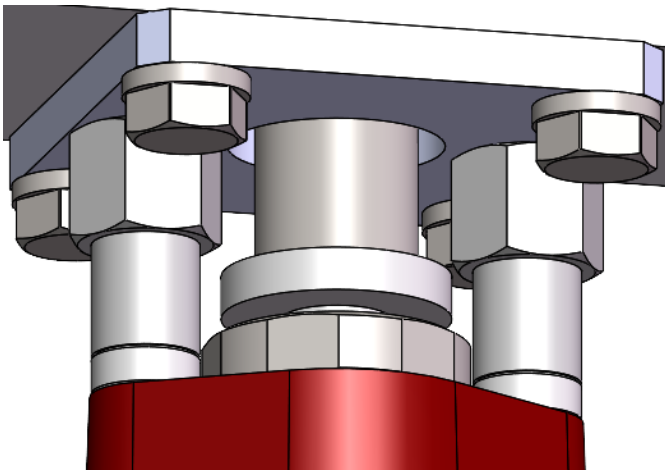
!WARNING!

Release all downstream pressure prior to actuator installation. Failure to follow these instructions or to properly install and maintain this equipment could result in an explosion and/or fire causing property damage and personal injury or death.

- When installing the actuator, first install the drive coupling [1] over the internal valve shaft and against Link Bearing.



- Install Spacers [3] onto Standoffs [2], then install Standoffs into valve body until hand tight. Position Mounting Plate [4] over Standoffs with counter-sunk holes facing out. Install Mounting Screws [5] through Mounting Plate, then hand tighten to Standoffs.
- Wrench tighten Standoffs [2] into valve body, then wrench tighten Mounting Screws [5] until Mounting Plate [4] is secure against Standoffs.
- Position actuator with air inlet connection facing away from container and install over Drive Coupling [1]. Install Mounting Bolts [6] with Lock Washers [7] through Mounting Plate [4] and wrench tighten to actuator.



Note: The inlet tee connection is factory installed and includes a thermal safety plug which is required by code. This must remain installed to the actuator.

- Connect the actuator pressure line tubing to the inlet port. After installing the unit, operate the actuator with pressure to confirm it smoothly opens and closes the internal valve without sticking or jamming. Confirm actuator opens the valve a full 90 degrees by watching the indicator lines.

Note: Indicator is rounded to prevent manual operation of actuator.

Maintenance

A simple preventive maintenance program for the valve and its controls will eliminate many potential problems. Marshall Excelsior Co. recommends these steps be conducted at least once a month:

- Confirm the actuator fully opens and closes the internal valve without sticking. Keep the actuator's drive coupling free of any build-up of mud, corrosion, or other foreign material. Such a build-up could prevent the actuator from closing which could jam the internal valve in the open position. Do not permit this condition to occur.
- Because the actuator has a sealed housing, internal lubrication is not required. Periodically lubricate the operating coupling joint.
- Regularly inspect, clean and oil all operating controls.

Component List

- Drive Coupling
- Stand-offs, Qty: 2
- Spacers, Qty: 2
- Mounting Plate
- Mounting Screws, Qty: 2
- Mounting Bolts, Qty: 4
- Lock Washers, Qty: 4

