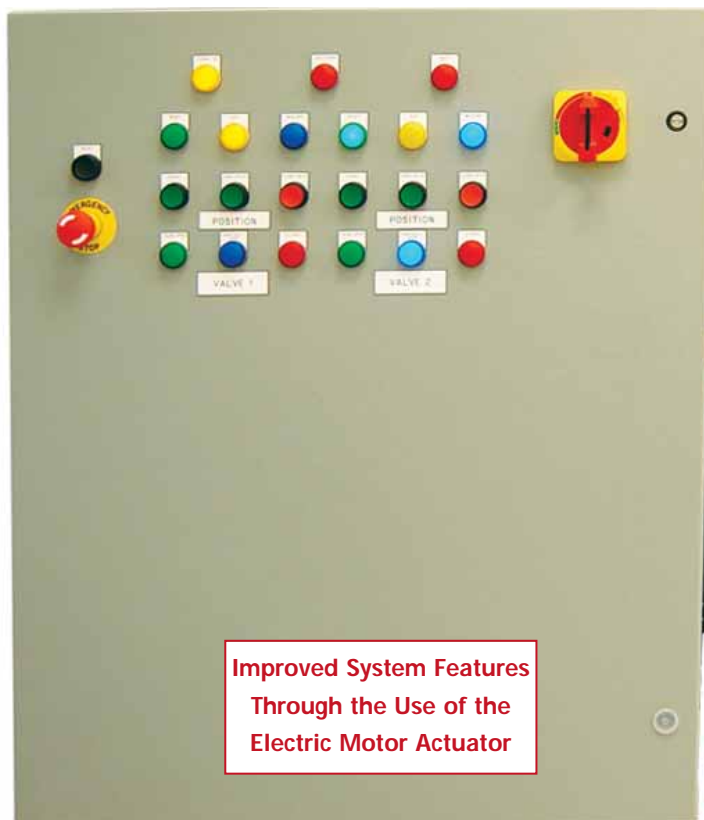




Emergency Shutdown System

Electric Remote Valve Actuator System for Remote Operation and Emergency Shutdown of Chlorine Angle Valves Used in the Loading and Unloading of Bulk Packages Such as Railcars and Trucks



Improved System Features
Through the Use of the
Electric Motor Actuator



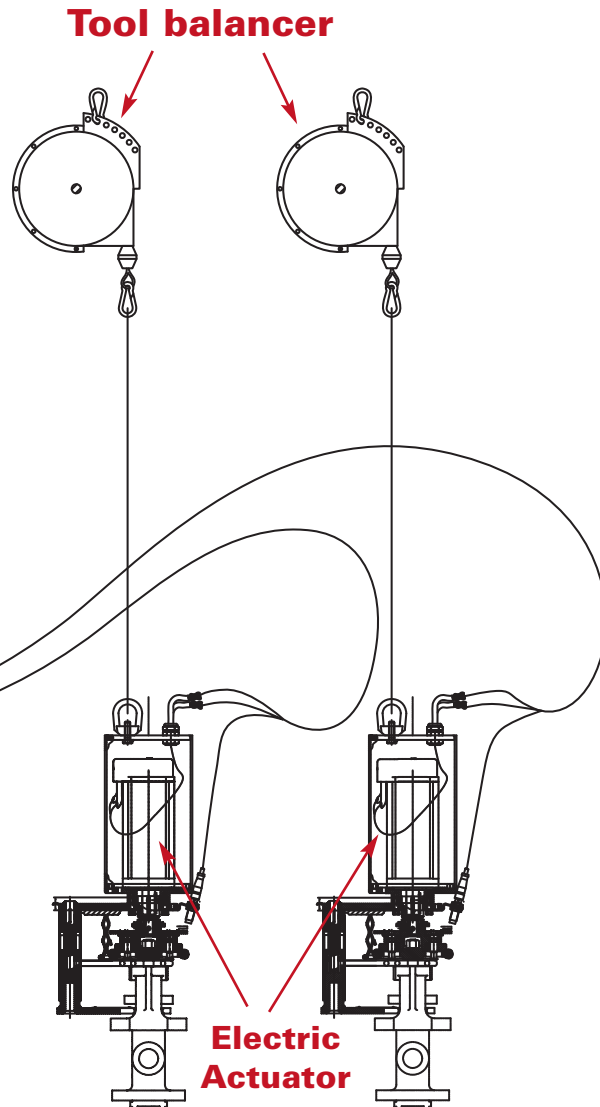
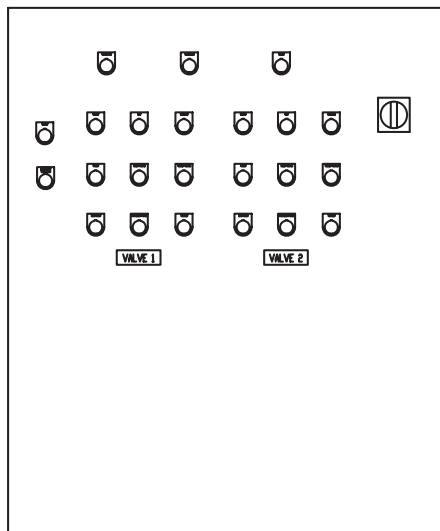
Interior components of Remote Valve Actuator Controller

Features

- Remotely Opens and Closes valves
- More reliable than Pneumatic Systems
 - Improved control of opening and closing torques
 - Battery backup for loss of primary power
- Lower installation costs than Pneumatic Systems
 - No expensive piping or air dryers & lubricators
- One actuator operates most commonly used angle valves
 - No adapters are required to switch between valve brands
- System automatically identifies valve brand

Electric Remote Valve Actuator System

Controller - B-3801-2



B-3801-2 Electric Actuator System Controller

- Utilization of a PLC control system allows the end-user to control the loading or unloading process
- Enclosure is NEMA 4, 4X rated for outdoor use
- Panel will control up to three valves
- Connects to safety systems, such as emergency shutdown buttons and motion detectors
- Emergency shutdown to close all valves
- The controller includes a battery backup system to provide added safety and control in the event of loss of primary power in the facility
 - o This allows the valves to fail in the open, closed or present state
 - o The controller has warning indicators for loss of primary power and low UPS reserve power
 - o The PLC controls the number of rotations to fully open and close the valve based upon sensor input from the actuator
- This limits torque at the end of the stroke to prevent excessive backseating force

B-3815SW Electric Actuator

- Connects to Midland and ACF angle valves
- Auto-adjusts to the proper amount of torque for each valve
- Easy-to-manage application with use of tool balancer
- Proven easy-to-use actuator retractor for application to valves
- Automatically identifies Midland and ACF angle valves to provide the proper torque and rotation
- Sensors on the actuators identify and operate most common chlorine angle valves
- The electric actuator system allows the user to "jog" open and close each valve