



**MIH**  
**TRIDENT**

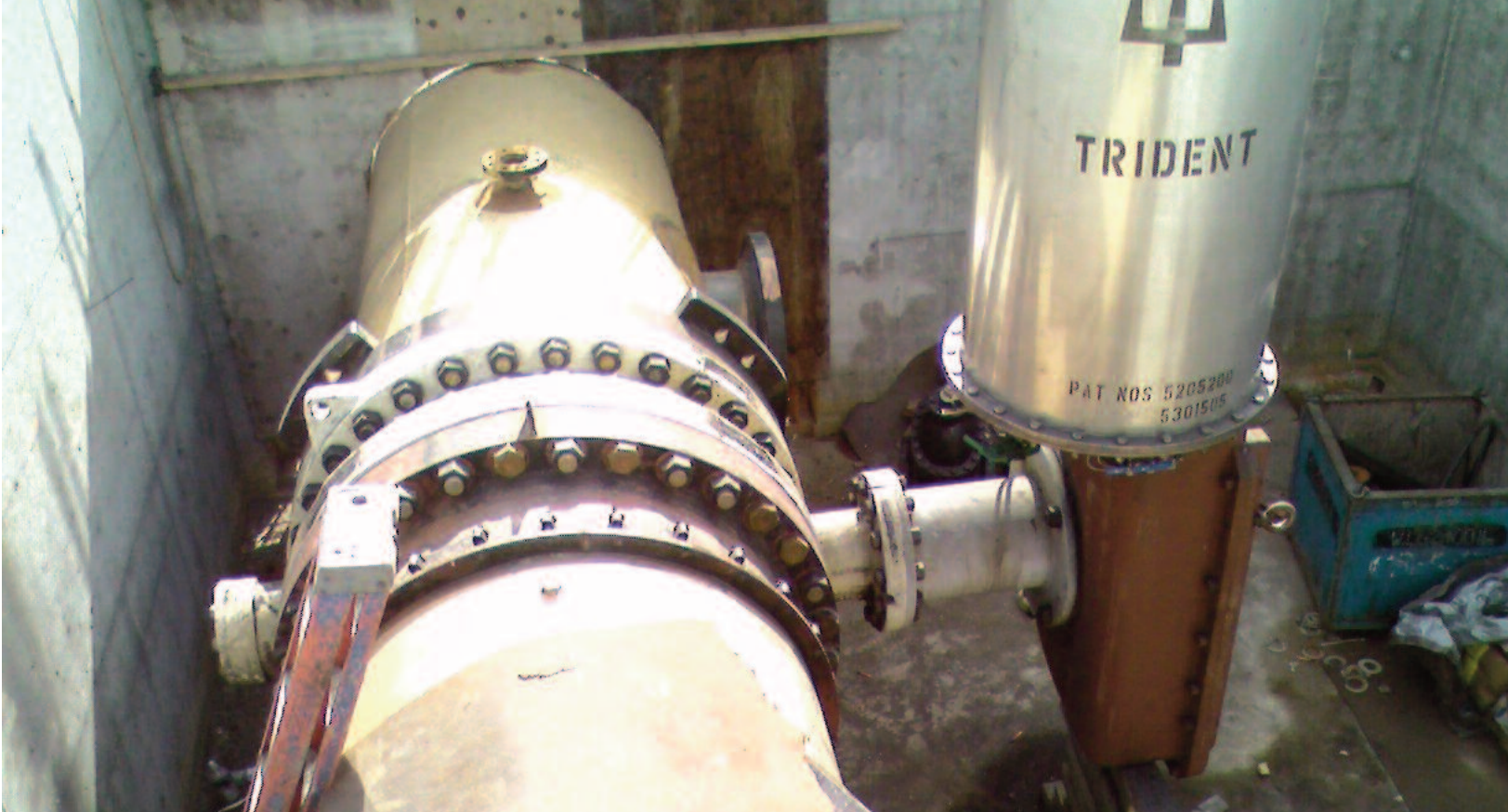
**valve actuators**

**Marine & Industrial  
Hydraulics, Inc.  
Trident Actuators, Inc.**

**329 Center Avenue  
Mamaroneck, New York 10543**







## **Trident Actuators**

**Trident Actuators. Fail-Safe or Fail-Set. Virtually maintenance free. Foremost in their field.**

MIH Trident was founded in 1967 by John J. Wright, a master engineer with a talent for invention. Wright's spirit of innovation continues today with the designing, building and installation of each and every Trident Electro-Hydraulic Actuator.

Based on unique technologies developed and patented by Wright, every actuator is built with great expertise and relentless attention to detail. With installations as large as the New York City Waste Water Collection Facilities and Treatment Plants and as small as a municipal pumping station involving a single valve and actuator, Trident Actuators are the gold standard. They are custom built, self contained, safe and virtually maintenance free.

**From New York to California, our actuators are in use — and in demand.**

Trident Actuators are used to open and close all types of valves and gates used in sewage treatment facilities, pumping stations, fresh water supply systems, and any other facility that must control flow of fluids or gases through pipes.

Our actuators are the first and finest unitized actuators for both rotary and linear applications. They have been specifically designed, modified and upgraded to meet the demand and severe operating conditions of the vast network of New York Waste Water Collection Facilities and Treatment Plants. Proper performance of our actuators in the field is the ultimate test.

## **Customized for every application.**

Each Trident Actuator is designed and built for its specific application. Those specifications depend on the type of valve, force and speed required to open and close any size valve or gate with either linear or rotary applications. Separate opening, closing and emergency-closing speeds can be adjusted to meet varying conditions.

Trident designs and builds customized local and/or remote electric control panels for each actuator that are compatible with each customer's system. The controller can operate the actuator with hard wired controls or Industrial Ethernet.

Trident Actuators can be customized with PLC and relay controls, feedback transducers, indicating lights, interlocks, alarms and custom user interface to meet the requirements of any application. What's more, the electric control panels are underwriter laboratory certified.



## **Unlike others, Trident Actuators are self-contained.**

Our actuators were the first electro-hydraulic unitized actuators designed with all components in one enclosure. This rugged enclosure protects the electrical and mechanical components from deterioration due to harsh atmospheric conditions. All internal tubing and fittings are stainless steel.

Because each actuator is self-contained, the equipment is protected from dust, water and the atmosphere. The actuators have a leak-free closed hydraulic system with no venting to prevent the intrusion of moisture and other foreign matter — and no field hydraulic connections are needed.





### **Designed for safety, whatever the world presents.**

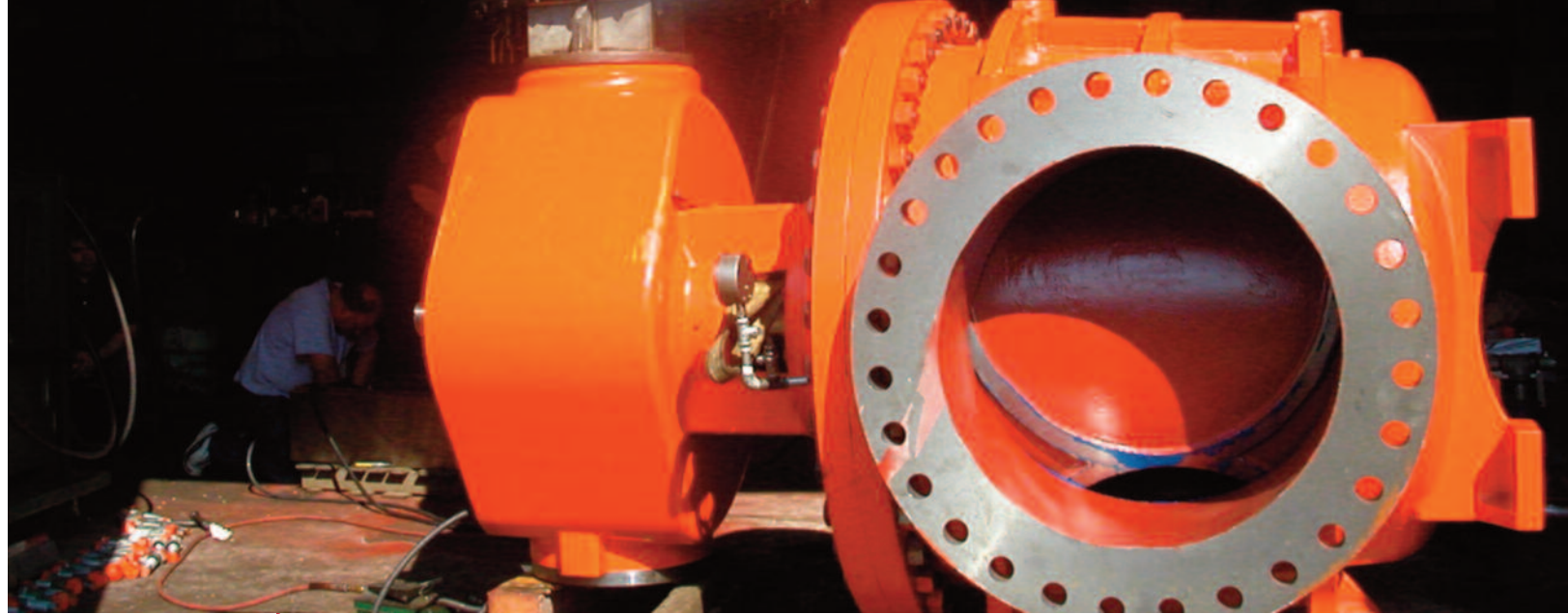
Trident was the first to develop an electro-hydraulic unitized fail-safe system. With a wide array of built-in systems, our actuators can be designed to be fail-safe, submersible and explosion proof. They are designed to meet rigid fail-safe requirements demanded by the complex water systems of our customers.

Upon loss of control power, the fail-safe option moves the valve to the safe position — either open or closed, as specified. The system produces the full thrust necessary to seal the valve. The emergency operation speed is independent of the normal operating speed and field adjustable.

Our fail-safe rotary and linear actuators employ the use of nitrogen charged accumulators capable of delivering fluid to return a valve to its safe position, whether open or closed. This can be designed to happen automatically if the system suffers a loss of power or upon receipt of a control signal (for example from a seismic sensor). Additionally, safety devices are provided in the actuator and controller to prevent damage to the valve and actuator.

### **In the words of a satisfied customer, “It just works.”**

The Trident Actuator is easily installed, and started-up — and our skilled technicians provide on-site start-up and training. While we are always available to our customers, the installation may be the last time you need our help. With so many built-in features, our actuators “just work.” They require very low maintenance, saving not only time, but money. They do the job they are designed to do, so your system can do exactly what it is supposed to do.



## **The Gold Standard in Actuator Equipment**

**Trident Actuators are used on:**

Sluice Gates

Cone Valves

Slide Gates

Gate Valves

AWWA Butterfly Valves

Plug Valves

Rubber or Metal Seated Ball Valves





**First and Foremost  
Trident  
Actuators**

**Find out how Trident Actuators can work for you.**

**Tel: 914-698-2650 Fax: 914-698-5629**

**[www.mihtrident.com](http://www.mihtrident.com)**



**TRIDENT**