



Motion and Flow Controls for Marine Systems



**MARINE
SYSTEMS**

FIND US ON AND BENEATH THE SEAS

Marotta Controls designs, develops, manufactures and qualifies high-performance motion and flow control solutions for surface ships, submarines and deep submergence vessels.

Our components and systems meet stringent naval requirements and key MIL standards for shock, vibration, low acoustic signature and seawater corrosion. We have pioneered next-generation technologies that use advanced materials and embedded electronics to reduce the weight, life cycle costs, size and corrosion sensitivity.

Our tightly integrated design engineering and advanced manufacturing operations have kept Marotta an "innovation ahead" of naval demands for more than three generations. Today, you will find our motion and flow control systems in mission critical applications on *every one of the U.S. Navy's surface and subsea combat vessels.*

SURFACE VESSEL SYSTEMS

- Fire Suppression and Damage Control
- Weapons
- Chilled Water
- Life Support
- Main Propulsion Startup
- Fuel Oil Control
- Water Deluge and Magazine Sprinkler
- Shipboard Aircraft Recovery and Launching
- Seawater Control
- Shipboard Electrical Power Generation
- Ship Control and Maneuverability

SUBSEA SYSTEMS

- Fire Suppression and Damage Control
- Weapons
- Life Support
- Seawater Control
- Ship Control and Maneuverability
- Ballast Systems



Motion and Flow Control

When it comes to high-performance, mission critical controls, navies around the world rely on Marotta. Our valves, regulators and controllers play a vital role in weapons, fire suppression and propulsion systems on the global fleet of surface and subsea combat vessels.

SOLENOID VALVES

Our patented solenoid valve technology sets the standard for reliability and performance in marine applications. We offer a wide range of pilot and direct acting valves in 2-, 3- and 4-way configurations.

SUBMERSIBLE TECHNOLOGY

Marotta has pioneered the development of submersible solenoid valves.



RELIEF VALVES

Our relief valves provide best-of-class pressure control bands and extremely smooth "no-impact" operation. They feature a unique approach to pressure sensing that tightens the cracking-reseat pressure band and improves repeatability. Available for high and low pressure applications for pneumatic and hydraulic service. Our relief valves meet MIL-V-24694, MIL-V-85245 and MIL-V-22549.



SINGLE-STAGE PRESSURE REDUCERS

Available as lightweight stand-alone valves or as cartridge designs, our single-stage pressure reducers cover a wide range of regulated outlet pressures. They handle inlet pressures up to 6,000 psig and IPS line sizes from 1/2 to 2 inches. Our pressure reducers meet MIL-V- 2961.



ALIGNMENT FITTINGS

Marotta's Flo-Fit® fitting eliminates pipe alignment problems and reduces pipe stress from shock, vibration or thermal distortion. The patented Flo-Fit design features an internal pivot and seals that can offset misalignments up to 3.5 degrees from center for a total of 7 degrees.



PRESSURE/FLOW CONTROL MANIFOLDS

Our manifold offerings range from the simple to complex—from single inlet with multiple outlets to multi-chambered flow control units with integral valves and electronic controls. All of our naval manifolds are engineered and manufactured in strict accordance with MIL-V-24272.

QUIETING TECHNOLOGY

Marotta offers a selection of quieting manifolds which minimizes structure-borne and airborne noise. Our quiet manifolds and fittings meet MIL-V-24658 and MIL-STD-740 noise requirements.



ELECTRONIC CONTROLLERS

Developed specifically for naval applications, our controllers can work with DC brushless, servo and proportional control systems with a variety of power, torque, speed and positioning requirements. Our control engineering capabilities allow us to engineer complete electro-mechanical systems for our customers.



IN-LINE VALVES

Simple, rugged and reliable, Marotta's in-line valves combine big flows and a small package. They feature a distinctive coaxial flow path that offers a significantly lower pressure drop compared to conventional valves of a similar size. Marotta's in-line valves are available in both piloted and motor operated versions for shut-off, check, pressure reducing and relief applications. Pressures range from 150 – 6000 psig with line sizes from 1 to 10-inch IPS.



SMART VALVES

Marotta's in-line valves lend themselves to electronics integration, creating smart valves capable of complex operations, self-diagnostics, back-up power capabilities and more.

AUTOMATIC STOP VALVES

The patented Flo-Fuse® Safety Valve helps protect crews and the environment when gas or fluid lines fail. This normally open valve, which is held open mechanically during normal flow conditions, closes almost instantaneously when flow conditions indicate a downstream line rupture or other component failure. It can be incorporated into many different hydraulic or pneumatic designs as a reliable, robust safety measure.



FROM DESIGN TO DELIVERY

Our experienced engineering team designs each component and system for maximum reliability and lifecycle while complying with challenging weight, space and cost constraints. We then work with our marine customers on every phase of the product development process:

- Requirements
- Preliminary design
- Final design
- Prototypes
- Development units
- Qualifications
- Production





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GLOBAL NETWORK

AUSTRALIA

CANADA

ISRAEL

JAPAN

SPAIN

1940s

**Marotta through
the decades...**

1950s

Marotta develops Anti-Auto-Ignition Solenoid Valve for submarine piping applications

1960s

Marotta develops and supplies Pressure Reducing Manifold for Navy Surface Combatants

Fuel and Steam Quick Closing Valves designed and developed for carrier program

1970s

3' Counter-Measures Valve designed for SSN688 class submarines

In-line piloted valve designed for torpedo launching systems

1980s

Marotta designs and tests valve for deepest diving submersible

1990s

Marotta develops noise attenuating device (quieting element) for submarine applications

Marotta supplies first oscillation free relief valve to DDG class destroyers

2000s

Composite Valve Program initiated
Motor Operated Pilot Valve (MOPV) Technology adopted by the US Navy

Submersible and Splashproof Valve Technology adopted by US Navy

Magazine Sprinkler Valve Systems

VLS Deluge Valve Systems

Internal Canister Cooling Actuation Valve Technology

