PROPULSION AND PRESSURE MANAGEMENT
PROPULSION AND PRESSURE MANAGEMENT TECHNOLOGIES
Reliable Solutions for Spacecraft Designers

Shorten Your Path to Success

Our propulsion and pressure management team can save you time and effort by offering a clear and proven path for success.

We have the experts, experience and tools to help you navigate through all the critical stages including design, development, qualification and production.

By leveraging our experience with your pressure, flow and power requirements, you can focus on what’s most important to you—satisfying your customer by delivering innovative, reliable spacecraft systems.

Proven, Flight-Qualified Technology

Marotta is known throughout the world for developing the highest quality, most reliable controls available today. Our world-class controls are the culmination of decades of engineering advancements in pressure and power control technology.

Through continuous innovation, these valves and controls have evolved into Marotta’s current family of flight-qualified controls that provide the backbone of launch vehicle and satellite propulsion and pressurization systems.
Satellite In-Space Propulsion Systems

Our flight-qualified propulsion controls are ready for integration into your system. These controls are compatible with the storable propellants typically used in chemical, cold gas and electric propulsion feed systems, thrusters and engines.

- Latching and Non-Latching Isolation Valves
- Thruster Valves
- Proportional Control Valves

Launch Vehicle and Manned Spacecraft Controls

Marotta provides valves and regulators for the world’s most reliable launch vehicles and manned spacecraft. Our fluid controls are compatible with gas and liquid propellants, and are designed for extreme environmental conditions.

- High Pressure Solenoid Valves
- Check Valves
- Pressure Regulators / Relief Valves

Pressure Control Solutions for Your Critical Applications

- Engine and Fuel Pressurization Systems
- Cold and Warm Gas Propulsion Systems
- Electric Propulsion Systems
- Reaction Control Systems
- Pneumatic Systems
- Hydraulic Systems
- Exhaust Systems
- Fill and Drain Systems
- Umbilical Retract Systems
- Gas Generator Modules
GET RESULTS

Choosing the right pressure and power management team with proven skills, knowledge and experience can make a huge difference in your results. At Marotta, we’ve been developing innovative pressure, flow and power control solutions since the first days of spaceflight.

For more than 50 years our mission has been to help our customers make history with the successful launches and orbit insertions of the most innovative spacecraft of their time.

Key Partner On Over 50 Successful Space Programs:

ADM-AEOLUS  H2A / H2B  SATURN  SMART -1  SPACE SHUTTLE  SPACE SHUTTLE TAILONE / TWO
ALPHABUS/ALPHASAT  ISS  ST-5  STENTOR  SUNJAMMER SOLAR SAIL
APOLLO  JAXA S320 / S510  TAURUS  TETHERED SATELLITE SYSTEM TSS -1 R
ATLAS  KIBO  TIROS  TITAN
CENTAUR  LISA PATHFINDER  TRMM  X-33
DELTA II, IV  LUNAR MODULE  DELTA II, IV  EELV
DRAGON  MERCURY  EPSILON  EVE
NEW SHEPARD  ORION  EELV  DRAGON
PEGASUS  PROTEUS  EPSILON  EELV
RESOLVE LUNAR MISSION  RL-10 ENGINE  RESOLVE LUNAR MISSION  SCORPIUS
GOCE  SCORPIUS  GOCE  SCORPIUS
GX

Marotta throughout the decades...

1940s, 1950s  1960s    1970s    1980s     1990s         2000s, 2010s

Develops propellant control valves for the emerging rocket engine industry
Develops control and APU valves for the X-15, the first airplane in space
Develops unique balanced poppet concept
Receives first regulator patent
Develops pressurization valves for Redstone and Atlas rockets
Marotta control valves used for fuel and oxidizer pressurization systems for Mercury, Gemini, and Titan
Valves used for environmental control systems on Apollo spacecraft and Saturn Launch Vehicle
Valves used on the LEM descent and ascent engine

Develops electro-hydraulic test system for Space Shuttle fuel tank testing
Marotta develops and patents over thirty new products for fluid controls
Supplies hydrazine control valves for the Space Shuttle Solid Rocket Booster

Marotta develops electronic closed loop control system for NASA calibration system
Delivers new electronic control system to NASA/Johnson Space Center
Supplies Delta II with solenoid and check valves for various applications including fuel tank pressurization

Marotta receives the George M. Low Award for Quality and Excellence
Marotta becomes the largest privately held supplier of fluid controls on the International Space Station
Develops new multi-function valve and miniature solenoid for xenon flow control

Marotta supplies fuel tank vent valves for Delta IV
Develops new cold gas microthruster and thrust control electronics for ST-5
Marotta receives its second George M. Low Award
Supplies various control valves to the emerging commercial space industry, including Falcon 1, 9, Heavy, SpaceShipOne, SpaceShipTwo

Supplies solenoid valves for the H2A/H2B launch system
Flight qualifies the patented Multi-Function Valve as the key enabling technology for the GOCE satellite’s critical drag compensation system