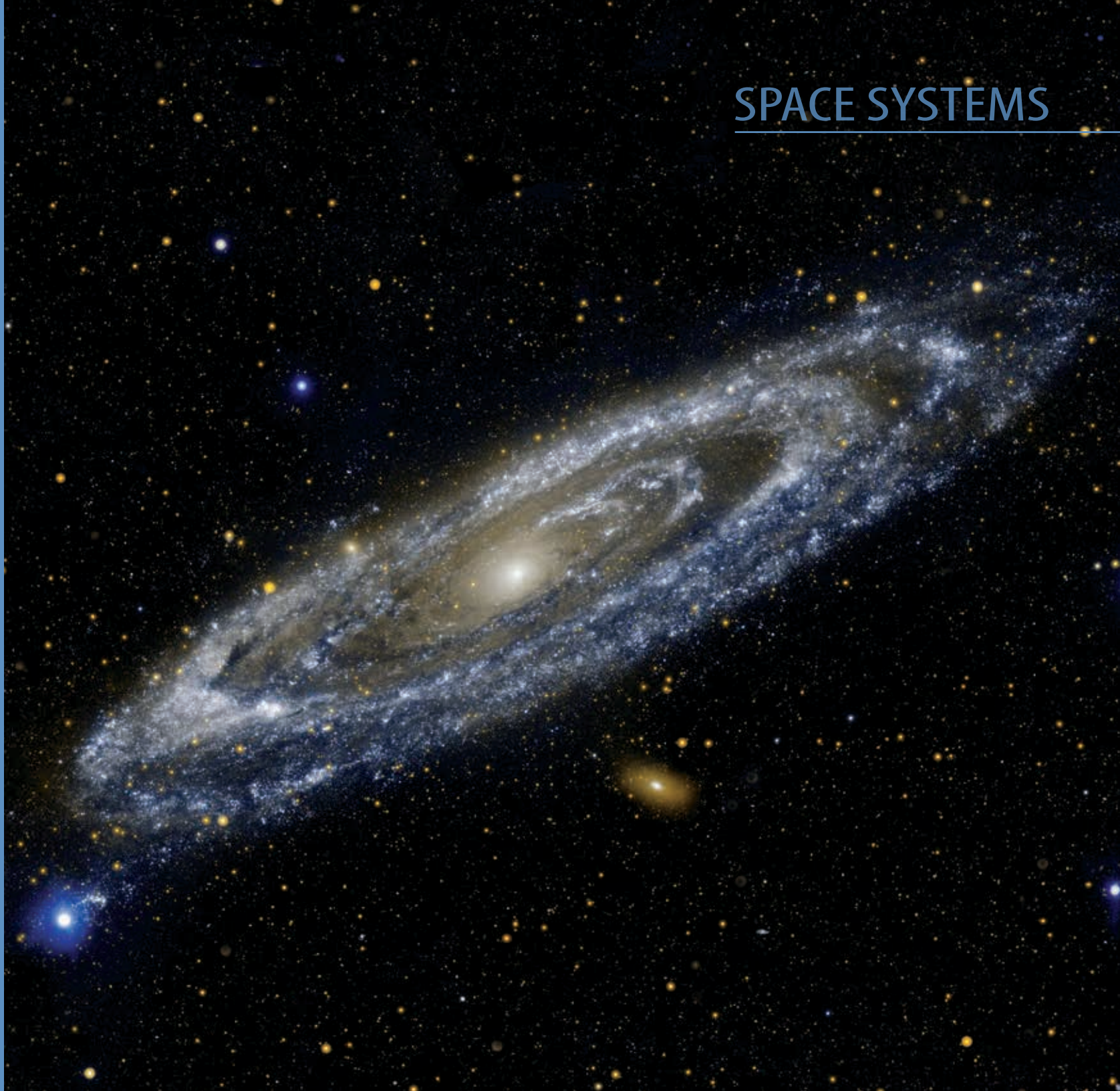


 **MAROTTA**

PROPULSION AND PRESSURE MANAGEMENT

SPACE SYSTEMS



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.

- State-of-the-Art Manufacturing
- Rapid Prototyping
- Assembly, Integration and Test
- Quality Management
- Special Cleaning

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.

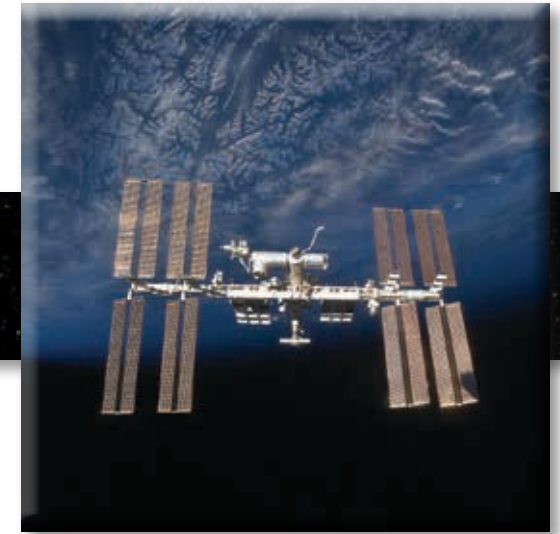
- Latching and Non-Latching Isolation Valves
- Thruster Valves
- Proportional Control Valves



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
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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
ALPHABUS/ALPHASAT	ISS	SMART -1
APOLLO	JAXA S320 / S510	SPACE SHUTTLE
ATLAS	KIBO	SPACESHIPONE /TWO
CENTAUR	LISA PATHFINDER	ST-5
DELTA II, IV	LUNAR MODULE	STENTOR
DRAGON	MERCURY	SUNJAMMER SOLAR SAIL
EELV	NEW SHEPARD	TAURUS
EPSILON	ORION	TETHERED SATELLITE SYSTEM TSS -1R
EVE	PEGASUS	TIROS
FALCON 1, 9, HEAVY	PROTEUS	TITAN
GEMINI	RESOLVE LUNAR MISSION	TRMM
GOCE	RL-10 ENGINE	X-33
GX	SCORPIUS	

Marotta throughout the decades...

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

 **MAROTTA** *Your Success Is Our Mission*