



System Solutions for The Nuclear Power Industry

Your Resource for Nuclear Power Process Components and Solutions

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



ENGINEERING YOUR SUCCESS.

Parker at a Glance



Hydraulic Accumulators

Suitable for storing energy under pressure, absorbing hydraulic shocks, and dampening pump pulsation and flow fluctuations.



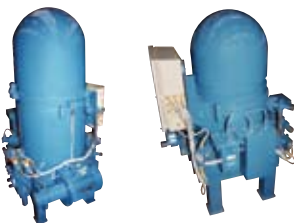
Servovalves

An exceptionally contamination-resistant, erosion-tolerant, high-flow servo valve that's designed to last.



Valve Actuators

Easy maintenance and reliable performance delivered in a compact, environmentally sealed and modular package.



Gas Spring Actuators

Used in safety-critical applications to operate main steam isolation, feedwater bypass valves and emergency boration valves.



Directional Control Valves

High-performance, direct and pilot-operated 4-way valves designed for hydraulic applications requiring low pressure drop performance, long life and reliability.



Solenoid Valves

Skinner, Lucifer and Gold Ring solenoid valves control numerous fluids and gases used in conjunction with air dryers, generators, turbines and boilers.

- \$10 billion in sales
- 118 divisions
- 292 manufacturing plants
- Operating in 1,200 markets, more than 100 countries worldwide
- 12,000 distributors
- 57,000 employees
- 417,000 customers
- 900,000 products
- Equipment installed at more than 200 nuclear plants worldwide



The Parker Promise

“Parker is the global leader in motion and control technologies, partnering with its customers to increase their productivity and profitability.”

The Power of Parker

When you join forces with Parker, you gain the benefits of our decades of experience in the nuclear power generation industry. Parker has been the source for innovative products that meet the unique needs of the nuclear power generation industry since the 1960's.

Parker components and systems have been used in more than 40 percent of all of the nuclear power plants in the world over the past 40 years. Leading power generation companies across the United States and around the world have depended on Parker quality:

- Anville
- Carolina Power and Light
- Davis-Besse
- Dominion
- Entergy
- Exelon
- Houston Lighting and Power
- Hydro Quebec
- Japan Atomic Power Company
- Millstone
- Pennsylvania Power and Light
- Southern California Edison
- Constellation Nuclear
- Southern Nuclear (Alabama Power)
- Tennessee Valley Authority
- Tokyo Electric Power
- Vandelllos II Nuclear Power Plant



Tube Fittings

Single and double ferrule compression fittings provide leak-free connections. Medium pressure compression fittings with longer threads add vibration resistance.



Quick Couplings

Stainless steel, non-spill quick couplings virtually eliminate fluid loss upon disconnection and minimize air inclusion during connection.



O-Rings

Parker O-rings are manufactured from the widest range of compounds available in the industry.



Hose and Tubing

PEEK tubing and convoluted stainless steel braided hoses for fuel and water fluid handling and transfer.



Metal Seals and Gaskets

Available in a wide range of base metals and plating finishes, our resilient metal seals include O, C, E, U and V sections.



Non-metallic Fabric Expansion Joints

Provide thermal management of power generation ducting systems.

Parker Knows Nuclear

With a worldwide presence in motion and control technologies and systems, Parker manufactures more than 500,000 components to meet the needs of nuclear power generation companies. Parker engineers are dedicated to helping these companies stay online with quality products and unparalleled technical support.

Every Parker component is backed by the expertise of Parker's engineers, your assurance that each product has been thoroughly tested for performance, safety and reliability.

Parker's worldwide presence with regional offices and international distribution centers ensures rapid product delivery and swift response to product questions.

Only Parker can provide this unique combination of a comprehensive product line, in-depth industry expertise and global availability.

The nuclear power generation industry demands efficiency, reliability and cost effectiveness.

Parker delivers.

Your Assurance of Quality

Parker plants manufacturing components and systems for the nuclear power generation industry are ISO 9001, ISO/TS 16949 and/or AS/EN 9100 registered.

Fittings and valves meet industry standards from all major certifying organizations:

International Standards

International Organization for Standards

- ISO 9001

ANSI (American National Standards Institute)

- ANSI/ASQ Q9001

ASME (American Society of Mechanical Engineers)

- ASME Boiler & Pressure Vessel Code
 - Sections II, III, V
- NCA-3800 (Parker Instrumentation Products Division manufacturing facilities in Huntsville and Boaz, Ala.)
- N Stamp (Parker Instrumentation Products Division manufacturing facilities in Huntsville and Jacksonville, Ala.)
- U Stamp (Parker Hydraulic Accumulator Division, Rockford, Ill.; Parker Hannifin Ltd., Tyne and Wear, England; Parker Hiross S.P.A., Padova, Italy)
- UV Stamp (Parker Refrigerating Specialties Division, Mauston, Wis.)

Nuclear Industry Standards

- NUPIC (Nuclear Procurement Issues Committee) Approval
- NIAC (Nuclear Industry Assessment Committee) Approval
- Code of Federal Regulations
 - 10CFR50 Appendix B (Quality assurance criteria for nuclear power plants and fuel reprocessing plants)
- ANSI N45.2 (American National Standards Institute)
 - Quality assurance program requirements for nuclear facilities

NACE (National Association of Corrosion Engineers)

- NACE-MRO-175

ASTM International

- ASTM G93-88 (Standard practice for cleaning methods for materials used in oxygen-enriched environments)



Valves

Needle valves are one of the many nuclear-grade Parker products accredited by the ASME.



Process Control

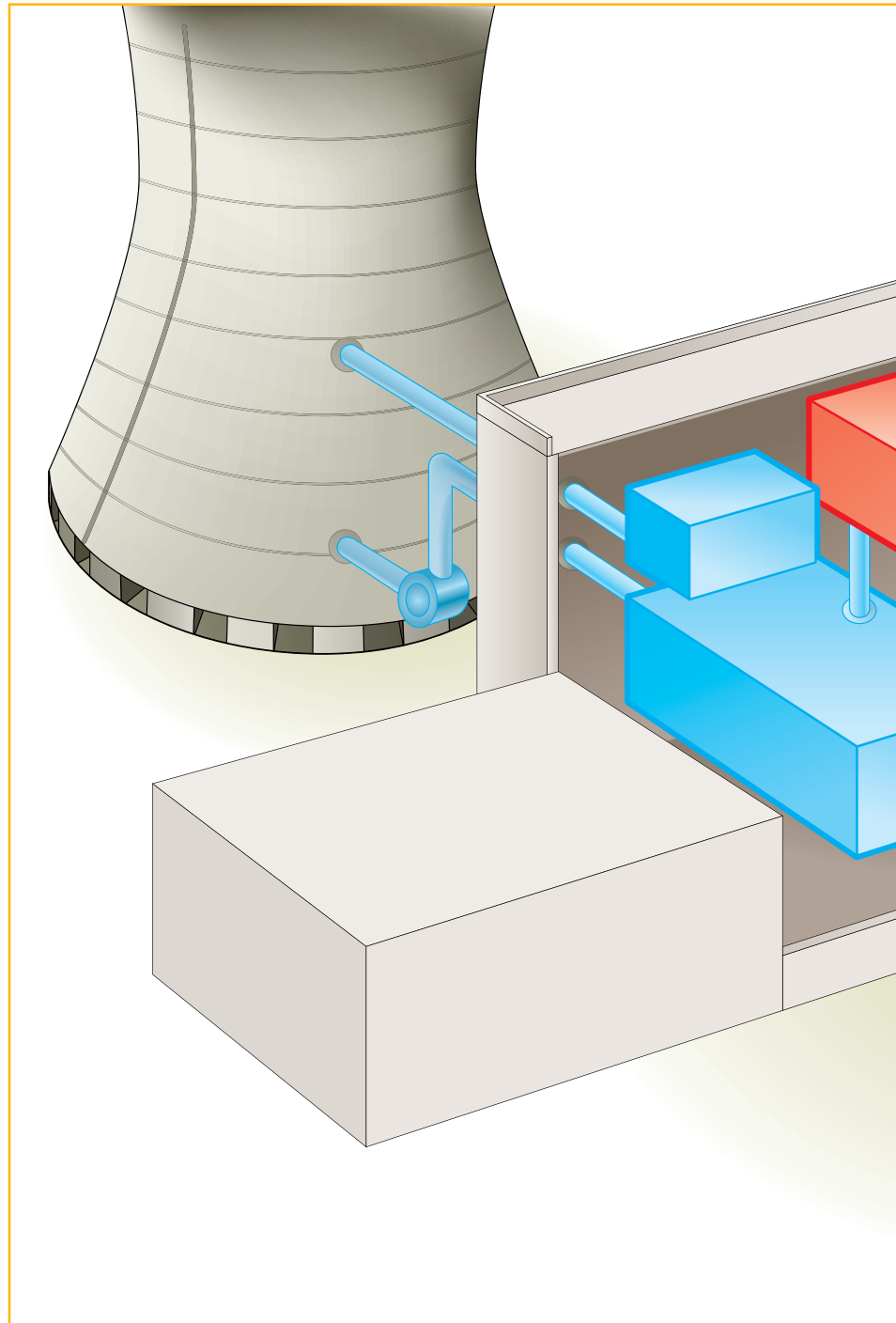
•	•	•	Fittings
•	•	•	Needle Valves
•	•	•	Instrumentation Ball Valves
•	•	•	Transmitter Manifolds
•	•	•	Regulators
•	•	•	Check Valves and Filters

Fluid & Gas Handling

•	•	•	Solenoid Valves
•	•	•	Flexible Metal Hose
•	•	•	Quick Couplers
•	•	•	Thermoplastic & Fluoropolymer Hose
•	•	•	Pneumatic Lines
•	•	•	Pneumatic Cylinders

Sealing & Shielding

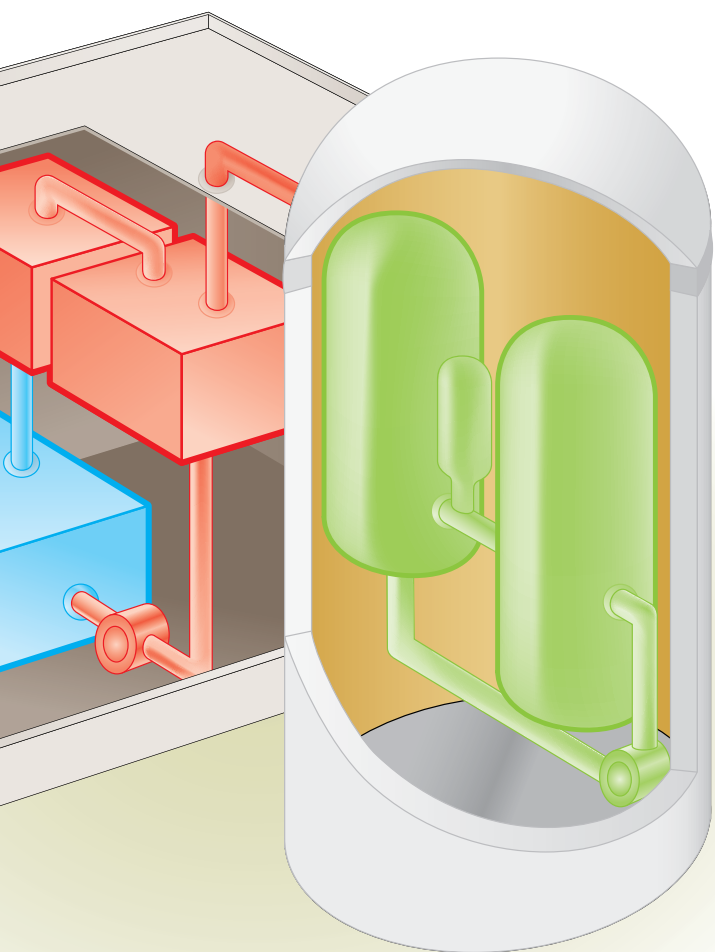
•	•	•	Expansion Joints
•	•	•	Metal Seals & Gaskets
•	•	•	Integral Seals
•	•	•	Gask-o-Seals
•	•	•	Non-Metallic Expansion Joints
•	•	•	O-Rings
•	•	•	Standard & Lathe-Cut Seals



Representation of Pressure Water Reactor

LEGEND

- Steam Generator
- Turbine
- Condensers & Feedwater Heater



Hydraulics

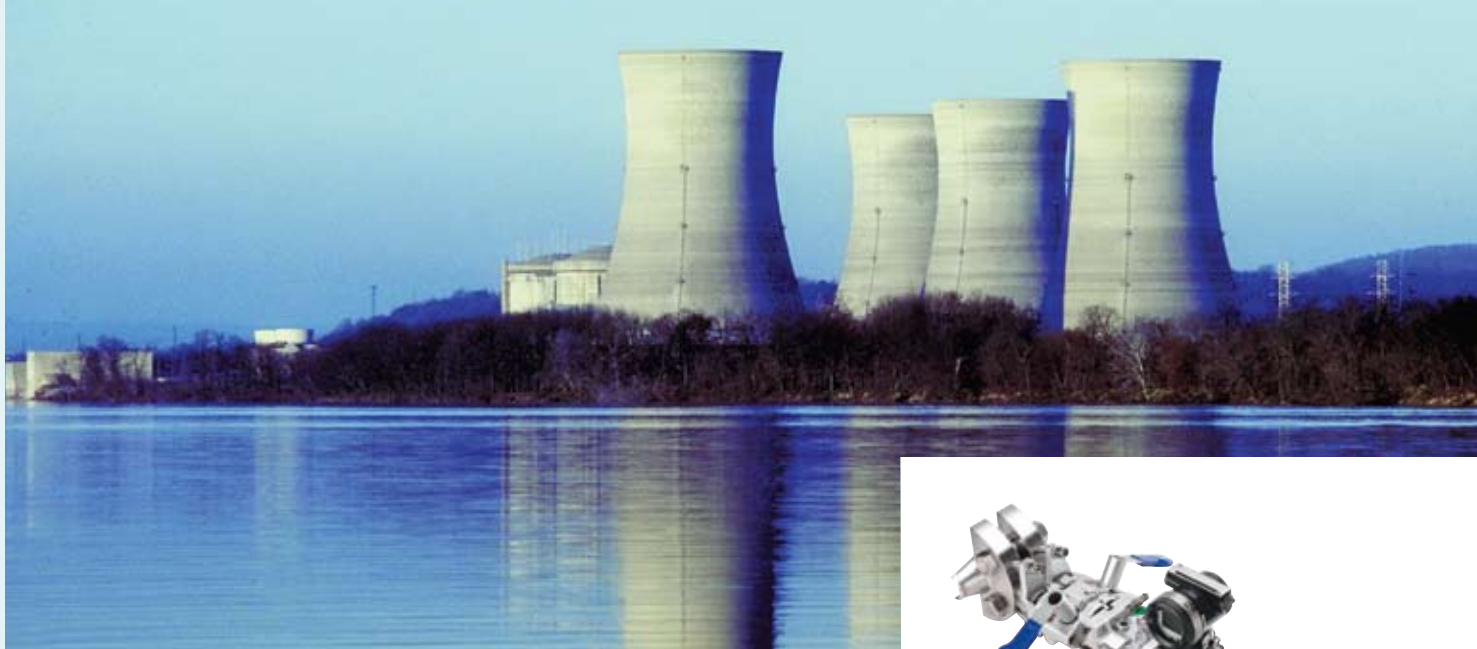
• •	Electrohydraulic Servovalves
• •	Hydraulic Manifolds
• •	Hydraulic Accumulators
• •	Lube Pumps
• •	Hydraulic Cylinders
• • •	Directional Control Valves
• • •	Check, Needle, Flow Valves
• •	Pressure Control Valves

Filtration

• •	Gas Filtration
• •	Liquid Filtration
• •	Coalescing Filters
• •	Hydraulic Filters

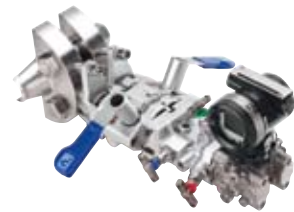
Integrated Systems

• •	Gas Spring Actuator
• •	Lube Oil & Hydraulic Purification
• • •	Specialty Valve Systems



Innovating the Future

Parker is known for innovations that set the standards for quality and performance. Our multi-million dollar commitment to research and development positions Parker to meet the needs of the nuclear power generation industry for decades ahead with precision-engineered, high-performance components and systems.



CCIMS®

Close coupled manifold solution for flow measurement applications.



Phastite®

Permanent push fit tube connector is an option for welded systems. Simple assembly provides high integrity connections.



Online Particle Detector

Increase efficiency of your equipment by continuously monitoring the cleanliness level of hydraulic and lube oils.



Portable Purification Systems

Remove particles, water and gases from your turbine or transformer oils and EHC systems.



Valve Operator Cylinder

Hydraulic cylinders provide valve control for both steam and gas turbines.

Parker Hannifin Corp.

6035 Parkland Blvd
Cleveland, Ohio 44124
www.parker.com
c-parker@parker.com

Parker Hannifin Ltd.

Parker House 55 Maylands Avenue
Hemel Hempstead Herts,
HP2 4SJUK
Tel: +44 (0) 1442 458000
Fax: +44 (0) 1442 458111

To order products, catalogs or for more information:
1-800-CPARKER (In Europe: 00800-2727-5374) www.parker.com

Bulletin PH-Nuclear



ENGINEERING YOUR SUCCESS.