

NUCLEAR SOLENOID VALVES AND FLOW CONTROL PRODUCTS



VALCOR ENGINEERING CORPORATION

ASME SECTION III B&PV SOLENOID-OPERATED CODE VALVES

Valcor Nuclear offers the following ASME Section III B&PV Code Valves: Globe Series 526D (Direct), 526P (Internal Pilot), 526B (Balanced), Floating Seal Series 526G (Gate), 4-way V526-5410, 3-way Solenoid Valve Series 573, and V520-50 Excess Flow Check Valves.

These valves are engineered for all liquid and gas process applications in the nuclear industry. They are built to ASME Section III Code Class 1, 2, and 3; are "N" Stamped; and meet IEEE Standards 323, 344, and 382.

Available in fail-safe closed, fail-safe open, or fail-in-last position; with valve sizes up to 6"; pressures up to 4000 PSI (277 Bar); and temperatures up to 650°F (343°C). Body material is stainless or carbon steel. Seats are Stellite, Colmonoy, elastomer, or graphite.

The S1140-23 Control Panel permits extended life of valves operating in continuously energized and heat-traced modes, while handling high-temperature fluids. Full-line voltage is applied initially in the pull-in state, and then reduced in the holding stage.

A new 2-piece stainless steel solenoid cover housing simplifies access to position switches and enhances their reliability.



V526-5410
4-Way Directional Valve



V526B
Process Valves 2-Way Balanced Disc
V526D
2-Way Direct Lift
V526P
2-Way Pilot Assist
V526G
2-Way Gate Type

V57300
3-Way Direct Lift and Balanced Disc
Process Solenoid Valve



V520-50
2-Way Check Valve



PROCESS AND AIR PILOT VALVES

Various 2- and 3-way solenoid valves in brass, bronze, or stainless steel are built to meet ANSI B31.1 Code and IEEE Standards 323, 344, and 382 for Class IE applications.

The V70900-65 (Cv of 1.2) and V70900-98 (Cv of 0.2) are 3-way direct-acting valves and are available in 1/4", 3/8", and 1/2" pipe sizes. They are designed for continuous duty, handling 150 PSI (10 Bar) instrument air-to-pilot larger safety valves. The V70900-99 3-way valve is a piloted design with Cv's up to 40 and is available in 1/2", 3/4", 1", and 2" line sizes. A cooler running coil provides a 10-year minimum replacement interval on seals and up to 40 years for coils.

The V70900-43 valves measure 1" in size and have a Cv of 13. They are designed for Alternate Rod Insertion System applications in BWR plants and provide for position indication. The V70900-32 are 3-way valves with stainless steel bodies, used primarily in liquid gas applications.

Valcor's V70400-66 are 2-way stainless steel valves, measuring 1" in size with a Cv of 11. They are specially engineered for liquid and gas radioactive waste management systems, and meet B31.1 Code and Regulatory Guide 1.143.



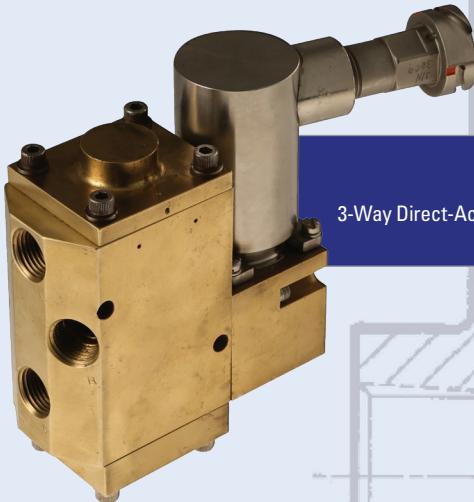
V70900-65
3-Way Direct-Acting Compact Size
With QDC



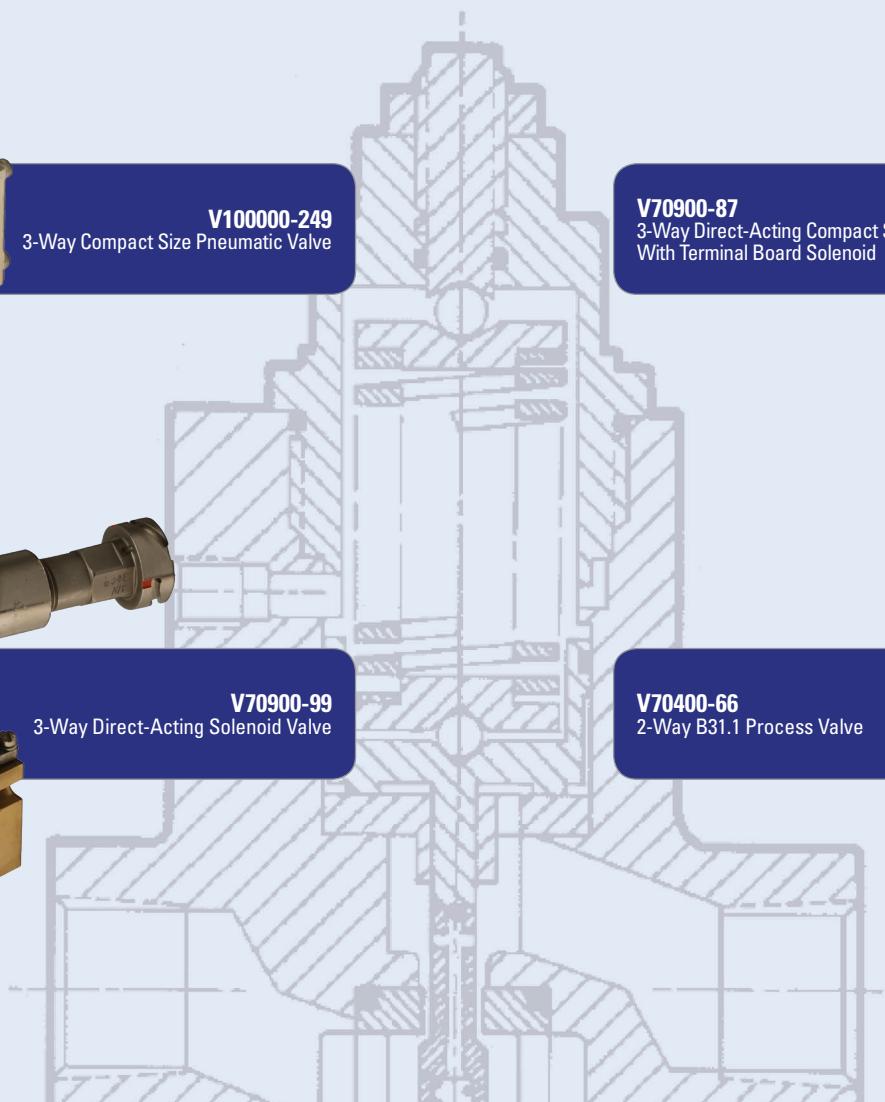
V70900-87
3-Way Direct-Acting Compact Size
With Terminal Board Solenoid



V100000-249
3-Way Compact Size Pneumatic Valve



V70900-99
3-Way Direct-Acting Solenoid Valve



V70400-66
2-Way B31.1 Process Valve



SPECIAL PURPOSE VALVES AND COMPONENTS

"N" Stamped Series 520 are piston-type, non-return check valves built to ASME Section III Code Class 1, 2, and 3. They are specially designed to operate at low cracking pressure.

Series 520-50 excess flow check valves are engineered for liquid and gas applications to sense and shut off surging fluid flow caused by a downstream line rupture. Valcor's model has addressed the problem of clogging experienced with conventional designs, and incorporates a remote resetting solenoid valve.

Series 520-06 regulator valves are designed for liquid and gas applications where a constant system discharge pressure level must be maintained. The unique design accommodates wide variations in both inlet and reference pressures, and provides high reliability. Other models control temperature by modulating the cooling water flow rate.

Valcor's extended product line includes code instrument valves and plug-resistant orifices manufactured under license agreements with current and former nuclear suppliers, as well as passive-flow control components such as cavitating venturis, orifices, and eductors.

Valcor can customize any of our standard designs or create new designs to meet the unique requirements of the nuclear power industry.

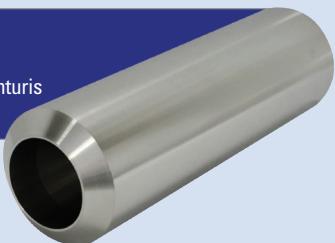


V10200
ASME Code Rack System

V522-7000
Bellows-Sealed Plug Valve
V522-7010
Stem-Packed Needle Valve



V520-55
Cavitating Venturi



V520-55
Plug-Resistant Orifice



V522-7050
2-Way Bellows-Sealed Plug Valve



V520-06 / V520-20
Regulators



QUALITY ASSURANCE

Valcor takes pride in its top-notch quality assurance system. We meet the strict demands of ASME III Boiler and Pressure Vessel (B&PV) Code, 10CFR50 Appendix B, and ISO 9001. In addition, our valves are qualified to IEEE 323, 344, and 382 requirements. We are an ASME accredited "N" Stamped facility, and hold "N," "NS," and "NPT" Certificates of Authorization.

All departments are involved in this QA process including Sales, Engineering, Purchasing, Inspection, Warehousing, Production, and Shipping. These tasks are accomplished by design review, preplanned non-destructive examination (NDE), and various inspection checkpoints throughout the manufacturing process. The effectiveness and implementation of this program is constantly monitored by a comprehensive audit program.

The quality of all materials and products, whether manufactured by Valcor or an outside supplier, is controlled to assure compliance with the specifications. Product integrity is verified by 100% valve testing, including hydraulic and electrical tests.



**When you deal with Valcor,
you're dealing with a reputable,
quality-conscious supplier.**

MAINTENANCE, TRAINING, AND SERVICE

Mindful of the need to avoid plant downtime, Valcor has designed nuclear valves to the most stringent quality specifications. These valves provide an extended qualified life with minimum maintenance requirements.

Valcor stresses the importance of an in-plant spare parts inventory program to support both scheduled maintenance and emergency situations. We stock standard, authentic replacement parts required to maintain EQ status. Special repair items are made to order. Factory repairs are available.

To assist in on-site repairs and in lieu of a hermetic seal, Valcor also offers both a metallic K-seal for high-pressure/temperature applications and an elastomeric O-ring seal for low-temperature applications. These seals eliminate the need for a bonnet seal weld, which allows for easy access to the valve internals in the unlikely case that maintenance is required.

Training of maintenance technicians and engineers is also available. On-site seminars and hands-on training enhance and supplement Valcor's Operation and Maintenance Manual (OMM), provided with each valve order. Expert service technicians are also available to assist nuclear plant personnel in performing on-site valve repair.



ALWAYS READY TO SERVE YOU

Valcor's facilities are conveniently located in the town of Springfield, New Jersey. Our corporate headquarters is situated just ten miles from Newark Liberty International Airport. This location provides easy access to many manufacturing facilities, and allows for quick and easy travel to every major market within the U.S. and overseas.



A HISTORY OF EXCELLENCE

Since 1951, Valcor has specialized in the design and manufacture of innovative fluid-control products for stringent nuclear, aerospace, scientific, and light industrial applications. Valcor is one of the largest and most recognized suppliers of solenoid valves in the industry. We have the knowledge, experience, and capability to create reliable nuclear hardware for your unique requirements. Over 15,000 Valcor solenoid valves are currently being used in more than 100 nuclear plants worldwide.



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