



Nordstrom Valves

Product Catalog



Experience In Motion



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Flowserve Nordstrom Valves offers a complete range of valves, sealants, and accessories to fit any need in any application.



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Flowserve: Solutions to Keep You Moving

Flowserve is one of the world's leading providers of fluid motion and control products and services. Globally, we produce engineered and industrial pumps, valves, seals, systems and automation equipment, and provide a range of related flow management services. Our solutions move even the most volatile and corrosive fluids safely and securely through some of the most extreme temperatures, terrain and challenging operating environments on the planet. Flowserve markets are large, diverse and worldwide. Our products and services are specified for use in a vast range of industries, including oil and gas, chemical, power generation and various general industries.

Extraordinary Valves, Extraordinary Performance

When Sven Nordstrom invented the first lubricated plug valves in 1914, people knew he was on to something good. Nordstrom patented his design in 1916 and Nordstrom's valves quickly gained a name for rugged reliability.

Rockwell Manufacturing Company acquired the Merco-Nordstrom Valve Company in 1932 and rapidly expanded its California-based operations throughout the war years. In 1952, Rockwell broke ground for a new facility in Sulphur Springs, Texas, and expanded the plant steadily for the next 37 years.

Rockwell sold the Measurement and Flow Control Division to BTR in 1989 and the Sulphur Springs facility became the headquarters of Nordstrom Valves, Inc. In 2002, a few short years after BTR merged with Siebe to become Invensys, Invensys sold its Flow Control Division to Flowserve Corporation.

Sven Nordstrom's 1916 patent was the first of more than 90 Nordstrom patents that cover virtually every improvement to lubricated plug valves.

Today the Flowserve Sulphur Springs Operations facility has more than 300,000 square feet (28,000 square meters), is the largest lubricated plug valve manufacturing facility in the world. To customers worldwide we offer a full range of sizes, full service, proven performance, and a name that stands for quality.



Flowserve Nordstrom Line

Flowserve Nordstrom has a variety of iron and steel lubricated, tapered plug valves widely used in oil and gas production wellheads right through to gas distribution to domestic customers in their homes.

Products

- Nordstrom
- Super Nordstrom
- Dynamic Balance
- Multiport
- Double DB





Flowserve Nordstrom Valves Features

- Metal seats for a dependable, long life
- The sealport sealant system for a renewable drop-tight seal and is highly tolerant of debris and the effects of erosion and corrosion
- Smooth, contoured flow passages for unobstructed flow – no cavity to collect product or debris
- The DB valves are Dynamic Balanced and the Super Nordstrom valves are mechanically balanced for predictable torque
- Quarter-turn operation for quick opening and closing
- Bi-directional flow for a simplified installation





Extensions for Elevating Gearing

Valves with elevated worm gearing can be equipped with motor operators.

The use of such valves and extensions for buried installations eliminates the necessity of building a vault for the valve.

When ordering valves with extensions, or extensions only for use on existing valves in the field, it is necessary to specify the size and figure number of valve, lot number or gear size number and the proper dimension "A".



Gear Operating Mechanisms

The open type spur gearing (Fig. 1) and worm gearing (Fig 2) are used with bolted gland type valves in sizes up to 36 inches.

These gear mechanisms are enclosed in an oil-retaining and weather-proof housing with stop and indicating collar mounted on the upper end of the plug stem which extends through the top of the cover.



Nordstrom® Iron & Steel Plug Valves

Features and Benefits

- Available in bolted or screwed gland
- A fixed adjustable gland for the ability to adjust the plug – in line, under pressure that maintains the adjustment once established
- Ground and lapped tapers on body and plug for drop-tight shut-off
- Meet or exceed 49CFR Part 192.145 requirements
- Nordstrom Steel Plug valves meet API-6D and ASME B16.34 requirements



Typical Industry Applications

- Gas Distribution
- Oil and Gas Production
- HVAC-Balancing and Isolation
- Water and Wastewater
- Caustic Services
- Chemical and Refining

Additional Information

Please refer to the following brochures for additional information:

- NVENBR1003
- NVENBR1004
- NVENBR1005

Body Material		Iron and Steel
Sizes	Iron	½ - 36 NPS (15 through 900 DN)
	Steel	6 - 12 NPS (150 through 300 DN)
Service Pressures	Iron	120 through 800 CWP (8.3 through 55.2 bar)
	Steel	ANSI Class 150 through 300 (PN 20 through PN 50)
Service Temperatures		-20°F to 350°F (-29°C to 177°C)
End Connections	Iron	Flanged and Threaded
	Steel	Buttwelding
Operation		Wrench, Worm Gear, and Spur Gear
Pattern		Short, Regular, and Venturi

Super Nordstrom® Iron & Steel Plug Valves

Features and Benefits

- Fire tested and qualified (steel only with 4 bolt covers) to API-6FA to assure safety
- A mechanically balanced plug for predictable torque
- Internal stops (Iron 142/143 only) eliminate trash pockets
- CSA Certified meeting the requirements of CAN/CGA-3.11-M88 models available
- Meet or exceed 49CFR Part 192.145 requirements
- Super Nordstrom Steel Plug valves meet API-6D and ASME B16.34 requirements



Typical Industry Applications

- Gas Distribution
- Oil and Gas Production
- HVAC-Balancing and Isolation
- Water and Wastewater
- Caustic Services
- Chemical and Refining

Additional Information

Please refer to the following brochures for additional information:

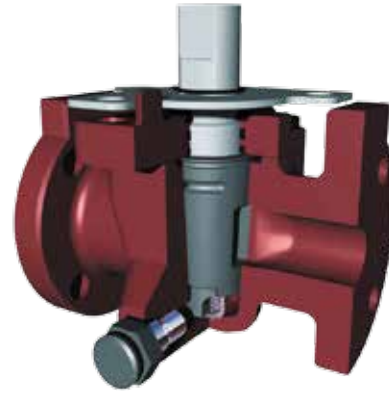
- NVENBR1003
- NVENBR1004

Body Material		Iron and Steel
Sizes	Iron	½ - 5 NPS (15 through 125 DN)
	Steel	½ - 4 NPS (15 through 100 DN)
Service Pressures	Iron	200 CWP (13.8 bar)
	Steel	4-Bolt Cover: ANSI Class 150 through 600 (PN 20 through PN 100) 2-Bolt Cover: 200 CWP (13.8 bar)
Service Temperatures	Iron & Steel	2-Bolt Cover: -20°F to 200°F (-29°C to 93°C)
	Steel	4-Bolt Cover: -20°F to 350°F (-29°C to 177°C)
End Connections	Iron	Flanged and Threaded
	Steel	4-Bolt Cover: Flanged and Threaded 2-Bolt Cover: Socket-Welding, Buttwelding, and Flanged by Buttwelding
Operation		Wrench
Pattern		Short and Regular

Super Nordstrom® 114 & 115 Iron Plug Valves

Features and Benefits

- Integral stop and locking device
- Actuator mounting pads for convenient field attachment of operator/actuator mounting
- Side-mounted sealant injection fitting for effective plug jacking
- A mechanically balanced plug for predictable torque
- CSA certified meeting the requirements of CAN/CGA-3.11-M88 models available
- Meet or exceed 49CFR part 192.145 Requirements
- Factory Mutual approved models available



Typical Industry Applications

- Gas Distribution
- Gas Safety Control Cocks
- Oil and Gas Production
- HVAC-Balancing and Isolation
- Water and Wastewater
- Caustic Services
- Chemical and Refining

Additional Information

Please refer to the following brochure for additional information:

- NVENBR1003

Body Material	Iron
Sizes	½ - 4 NPS (15 through 100 DN)
Service Pressure	200 CWP (13.8 bar)
Service Temperatures	-20°F to 350°F (-29°C to 177°C)
End Connections	Flanged and Threaded
Operation	Wrench
Pattern	Regular

Multiport Iron & Steel Plug Valves

Features and Benefits

- Provides simplification of piping and convenience in operation
- One 3-way or 4-way multiport valve can replace two, three, or four straightway valves
- Eliminates the use of other fittings such as tees and elbows
- Many port arrangements available to accommodate different requirements
- Ports arranged to prevent the mixture of fluids or loss of pressure
- Transflow options also available



Typical Industry Applications

- Gas Distribution
- Oil and Gas Production
- HVAC-Balancing and Isolation
- Water and Wastewater
- Caustic Services
- Chemical and Refining

Additional Information

Please refer to the following brochure for additional information:

- NVENBR1002

Body Material		Iron and Steel
Sizes	Iron	½ - 12 NPS (15 through 300 DN)
	Steel	½ - 10 NPS (15 through 250 DN)
Service Pressures	Iron	200 through 400 CWP (13.8 through 27.6 bar)
	Steel	ANSI Class 150 through 1500 (PN 20 through PN 250)
Service Temperatures	Nordstrom & Super Nordstrom	-20°F to 350°F (-29°C to 177°C)
	Dynamic Balance	-20°F to 450°F (-29°C to 232°C)
End Connections		Flanged and Threaded
Operation		Wrench and Worm Gear
Pattern		Regular and Transflow

Dynamic Balance® Iron Valves

Features and Benefits

- Blowout proof steel stem
- Weatherproof gear operator available to eliminate ground water and dirt from entering gear housing
- Plug balancing spring pre-loads the plug to prevent vibration and thermal cycling from wedging the plug into the body taper regardless of installed position
- O-ring gland allows for repair of stem seal without the need for stem removal
- Ground and lapped tapers on body and plug for drop-tight shut-off
- Meet or exceed 49CFR Part 192.145 requirements



Typical Industry Applications

- Gas Distribution
- Oil and Gas Production
- HVAC-Balancing and Isolation
- Water and Wastewater
- Caustic Services
- Chemical and Refining

Additional Information

Please refer to the following brochures for additional information:

- NVENBR1003
- NVENBR1005

Body Material	Iron
Sizes	4 - 20 NPS (100 through 500 DN)
Service Pressure	150 CWP through 200 CWP (10.4 through 13.8 bar)
Service Temperatures	-20°F to 350°F (-29°C to 177°C)
End Connections	Flanged
Operation	Wrench and Worm Gear
Pattern	Regular

Dynamic Balance® Steel Plug Valves

Features and Benefits

- Blowout proof steel stem
- Preloaded, pressure energized stem packing for zero leakage
- Ground and lapped tapers on body and plug for drop-tight shut-off
- Fire tested and qualified to API-6FA to assure safety
- Adjustable plug for extended valve life and bubble-tight seal under changing conditions
- Flexibility to rotate the plug 180° while in-line and under pressure to provide a new seating surface
- Meet API-6D and ASME B16.34 requirements



Typical Industry Applications

- Oil and Gas Production (Including NACE)
- Offshore Oil and Gas Production (with Offshore Construction)
- Gas Transmission
- Gas Distribution
- Slurries
- Refining
- Water and Wastewater
- A variety of High Temperature and/or High Pressure Applications

Additional Information

Please refer to the following brochures for additional information:

- NVENBR1004
- NVENBR1015

Body Material		Steel
Sizes		1 - 30 NPS (25 through 750 DN)
Service Pressures	ANSI Class	150 through 2500 (PN 20 through PN 420)
	API	3000 and 5000 psi (20.7 and 34.5 MPa)
Service Temperatures	Standard Construction	-20°F to 450°F (-29°C to 232°C)
	Special Construction	-50°F to 1500°F (-46°C to 816°C)
End Connections		Flanged, Threaded, Hardfaced, Buttwelding, Flanged by Buttwelding and Socket-Welding. Clamp Ends and other special connections available.
Operation		Wrench and Worm Gear
Pattern		Short, Regular, and Venturi
Special Construction		NACE, Low Temperature, and other special constructions available including Diamond Port and Full Round Opening

Double DB[®] Steel Plug Valves

Features and Benefits

- Designed for critical shutoff applications where absolute shutoff is required for safety, environmental or process reasons
- Installation and maintenance costs are reduced dramatically
- Uses proven dynamic balance pressure balance and sealing technology
- Various bleed off connections available such as, ring joint, socket weld, threaded, gate valves, needle valves, etc.
- Protected pressure balancing ensures that the balancing holes are not exposed to the line media
- Ground and lapped tapers on body and plug for drop-tight shut-off



Typical Industry Applications

- Compressor Isolation
- Pump Isolation
- Meter Isolation
- Water or gas injection system isolation
- Critical vents, drains and blow-downs to atmosphere

Additional Information

Please refer to the following brochures for additional information:

- NVENBR1016
- NVENBR1015

Body Material		Steel
Sizes		2 - 12 NPS (50 through 300 DN)
Service Pressure	ANSI Class	150 through 2500 (PN 20 through PN 420)
	API	5000 (34.5 mPA)
End Connections		Flanged
Operation		Wrench and Worm Gear

Sealants and Sealant Equipment

Features and Benefits

- Positive pressure-seal for a bubble-tight shut-off
- Provides a coating on the plug & fills the sealport groove system for a self cleaning seating surface, extended service life, and ease of operation
- Hydraulically adjusts the plug (not necessary for Super Nordstrom and Dynamic Balance) for ease of operation
- 15 Types of sealant with their own specific service compatibilities to match the right sealant the application
- Sealant is available in stick or bulk grade
- A variety of sealant injection equipment to meet installation and maintenance needs

Typical Industry Applications

- Gas Distribution
- Oil and Gas Production
- Oil and Gas Transmission
- HVAC-Balancing and Isolation
- Water and Wastewater
- Caustic Services
- Chemical and Refining
- Mining/Slurry



Additional Information

Please refer to the following brochures for additional information:

- **NVENBR1014**
 - Sealants for Plug Valves
 - Valve Conditioner and Valve Purge
 - Nordstrom 400-D Hand Gun
 - Nordstrom 400-B Bucket Pump
 - Sealant Fittings
 - Hypregun-Plus 5Q
 - Hypregun-Plus 5G
- **NVENIM2002**
 - Nordstrom 400-D Hand Gun
- **NVENIM2003**
 - Hypregun-Plus 5Q
- **NVENIM2004**
 - Hypregun-Plus 5G



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