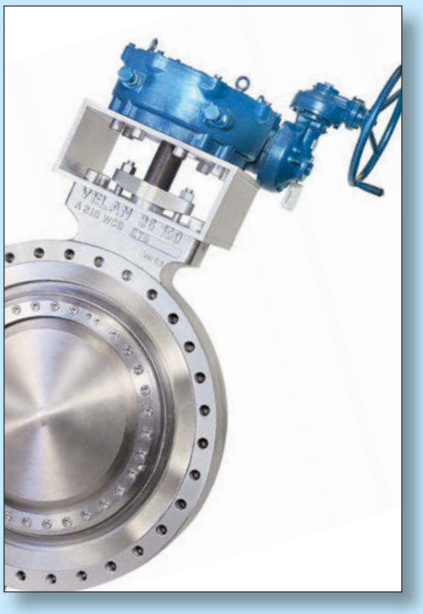
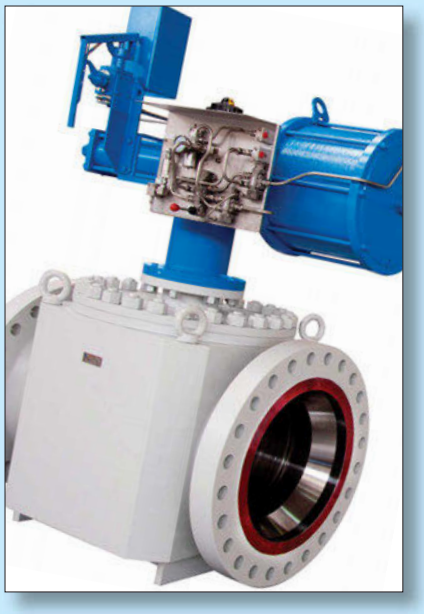
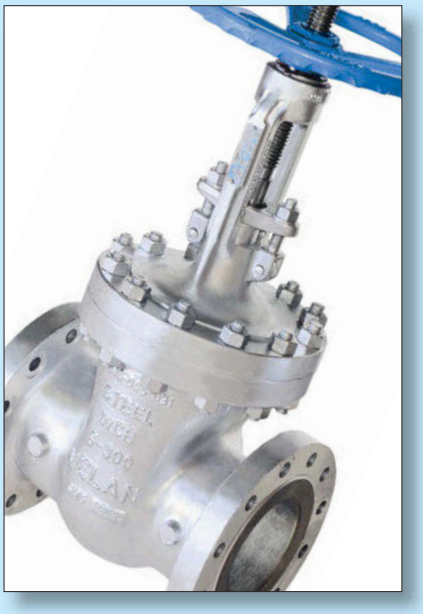
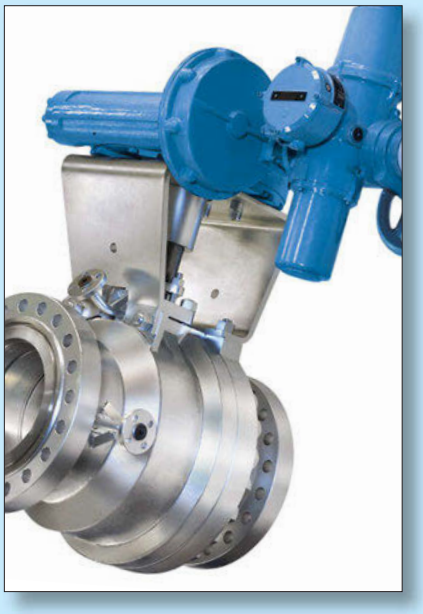
A world-leading valve product range





Velan. Quality that lasts.

VELAN

VELAN AT A GLANCE

History
- Founded in 1950

People
- Over 1,900 employees

Product line
A world-leading range of valves across all major industrial applications:
- Cast steel gate, globe, check, and ball valves
- Forged steel gate, globe, check, and ball valves
- Triple-offset butterfly valves
- Knife gate valves
- Severe service valves
- Bellows seal valves
- Steam traps

Primary industries served
- Fossil, nuclear, and cogeneration power
- Oil and gas
- Refining and petrochemicals
- Chemicals and pharmaceutical
- LNG and cryogenics
- Marine
- HVAC
- Mining
- Water and wastewater
- Pulp and paper
- Subsea

Velan holds major applicable approvals:
- ASME Section III N and NPT for nuclear valves (since 1970)
- ISO 9001 (since 1991) and ISO 14001
- OHSAS 18001
- PED
- SIL
- GOST
- API 6A and API 6D
- TA-Luft
- Comprehensive quality programs that are compliant with the most stringent industry standards such as ISO 9001, API Q1, API 624, NCA 4000, ASME NQA-1, and 10 CFR 50 Appendix B.
- Velan has been surveyed and audited by leading organizations around the world such as Bureau Veritas, API, ASME, NUPIC, Newport News Shipbuilding, and DCMA.
- Total Process Improvement Program, including Lean Manufacturing and Six Sigma.

A world leader in valve design, engineering solutions, and manufacturing



A large Torqseal™ triple-offset valve used for crude oil service in the Dalian Seaport (China).

Leading the way...

Velan is one of the world's largest manufacturers of industrial steel valves, recognized as a leader in quality and innovation. Founded by A.K. Velan in 1950, our company leverages advanced engineering capabilities and innovation to continuously expand our offering of industrial valves.

Today, Velan gate, globe, check, ball, triple-offset, knife gate, engineered severe service valves and steam traps are installed throughout the world, handling diverse applications in cogeneration, fossil, nuclear power, oil and gas, refining and petrochemicals, chemicals and pharmaceutical, pulp and paper, LNG and cryogenics, marine, mining, water and wastewater, and HVAC industries.

Engineered solutions

Velan's Engineering Group has vast experience, sophisticated software, and testing tools that enable us to find solutions to any customer challenge.

Whether it is for valves to handle liquid helium at -458°F (-272°C) in the world's largest particle accelerator at CERN, Geneva; four-way switch coker ball valves to handle one of the refining industry's toughest services; or valves for main steam isolation service in an operating nuclear power plant, Velan has been selected by most of the world's leading engineering construction firms and industrial end users.

A long-standing commitment to quality has kept Velan at the forefront of industry standards. Velan holds all major industry certifications, including ASME Section III, ISO 9001:2008, PED, and API 6A and API 6D. Many prominent companies have established partnerships or global supply agreements with Velan.

A global manufacturing leader

Velan uses the latest automation technology, including CNC machines and many special-purpose transfer machines, enhanced by proprietary production techniques. Thanks to a wide range of equipment, we can efficiently handle highly customized orders as well as large production runs.

Velan employs over 1,900 professionals, the majority of whom are located in North America. International production centers are complemented by a global sales and distribution network, offering personal customer service and quick access to stock worldwide. Because customer requirements for immediate deliveries have escalated in the last few years, Velan has opened a number of quick-ship warehouses in North America to supplement the inventories of our stocking distributors.

Total quality commitment

Velan is totally committed to offering products and service that exceed customer expectations. All Velan valves are designed and manufactured with an emphasis on low emissions, safety, simple maintenance, ease of operation, and above all, long, and reliable service life. In fact, several years ago when a leading North American repair shop did an analysis on the reliability and repairability of commodity valves, Velan finished first. Whether we are manufacturing commodity valves or specialty valves, we deliver excellent long-term value to our customers.

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Velan is a true global manufacturing force

Head office



Montreal, Canada
Velan Inc.

Global service with strong local presence

Velan is a true global manufacturing leader. What's more, our global presence goes far beyond our manufacturing facilities. Velan's wide range of valves are sold through an extensive network of distribution companies worldwide, guaranteeing that one of our Velan representatives is always nearby and ready to help.

Our distributors are further supported by our North American and European distribution centers. Velan's large inventories and premier sales network have helped us become a leader in supplying maintenance, repair, and overhaul (MRO) contracts to many of the world's largest industrial companies.

- **14 production facilities**
  - **4 plants in North America**
  - **5 plants in Europe**
  - **5 plants in Asia**
- **4 stocking and distribution centers**
- **Hundreds of distributors worldwide**
- **Service shops worldwide**

Manufacturing plants

North America



Montreal, Canada (N)
Velan Inc., Plant 1



Montreal, Canada (N)
Velan Inc., Plant 2 and 7



Granby, Canada
Velan Inc., Plant 4 and 6



Williston, VT, U.S.A. (N)
Velan Valve Corp., Plant 3

Europe



Lyon, France
Velan S.A.S.



Mennecy, France
Segault S.A.



Lisbon, Portugal
Velan Válvulas Industriais, Lda.



Lucca, Italy
Velan ABV S.r.l., Plant 1



Lucca, Italy
Velan ABV S.r.l., Plant 2

Asia



Ansan City, South Korea
Velan Ltd., Plant 1



Ansan City, South Korea
Velan Ltd., Plant 2



Taichung, Taiwan
Velan Valvac Mfg. Co., Ltd.



Suzhou, China
Velan Valve (Suzhou) Co., Ltd.



Coimbatore, India
Velan Valves India Pvt. Ltd.

Distribution centers



Granby, Canada
Vel*CAN*



Benicia, CA, U.S.A.
Vel*CAL*



Houston, TX, U.S.A.
Vel*TEX*



Willich, Germany
Velan GmbH

(N) – *ASME N-stamp accredited manufacturer*

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An extensive product line for all your industrial valve needs

A one-stop valve shop

Velan offers one of the most comprehensive valve product lines available from any manufacturer. From the most common application to the most severe, Velan has a solution. We produce gate, globe, check, ball, triple-offset, knife gate, and engineered severe service valves and steam traps in sizes up to NPS 64 (DN 1600) and for services up to ASME Class 4500.

Our products incorporate many unique design features for low fugitive emissions, simple in-line maintenance, and long service life.

Built to order

Our valves are available with a large selection of steel body materials, trims, options and accessories. With options such as bypasses and equalizers to special trims for HF acid or NACE service, Velan can provide valves built to your needs — often directly from our sales network's extensive stock.

All Velan valves are available with actuation packages according to your needs. This includes electric, hydraulic, and pneumatic actuation with a complete range of controls and sensors.

Customer support

Velan's engineering team has a long history of working with customers to solve their valve application problems. Our team of application engineers offer professional advice and expertise enabling them to select the best valve for any environment.

	VALVE PRODUCT LINES	Type																		
		angle	ball, metal-seated	ball, resilient-seated	triple-offset	butterfly	check, piston	check, ball	tilting disc	check, swing	check, dual-plate	no slam check	control	gate	globe (stop), stop check	knife	needle	parallel slide	y-pattern (inclined)	steam trap
Gate, globe, and check	Pressure seal and bolted bonnet	■					■		■	■				■	■		■	■	■	
	API 600 cast steel[1]	■					■		■	■				■	■		■	■		
	API 603 stainless steel[1]									■				■	■					
	API 602 small forged[1] [2]	■					■	■		■				■	■		■	■	■	
	Bonnetless						■								■		■		■	
	Stainless steel knife gate															■				
	Dual-plate check valves										■									
	API 6D and 6A check and gate		■	■						■		■		■						
Quarter-turn	Memoryseal® ball			■																
	Securaseal® metal-seated ball		■																	
	Power Ball		■																	
	API 6D and 6A ball		■	■																
	Coker ball		■										■							
	General purpose ball			■																
	Torqseal® triple-offset				■	■														
	Velflex™ cryogenic butterfly					■														
Special applications	Bellows seal	■											■	■	■		■	■	■	
	Cryogenic	■	■	■	■	■	■	■		■	■		■	■	■	■	■			
	Cryogenic control												■	■						
	Control and choke	■	■									■								
	HIPPS, ESDV and line break		■	■																
	Subsea		■	■						■				■						
	Steam traps																			■

(1) The API designation defines the product design basis even though not all the valves are covered in the referenced API specification. These valves are also used in non-API service.

Delivering value through performance

Low total cost of ownership

When you take into account all the factors involved in owning a valve — including installation, service, and maintenance — the total cost of ownership of a valve can be several times the initial purchase price.

Velan valves are designed and manufactured to save you money by lowering maintenance costs and fugitive emissions and increasing service life and the chance that a valve can be repaired rather than replaced. We offer value unparalleled in the industry.

The performance of our valves has been proven over and over again in thousands of qualification tests, independent studies, and, most importantly, in working field conditions.

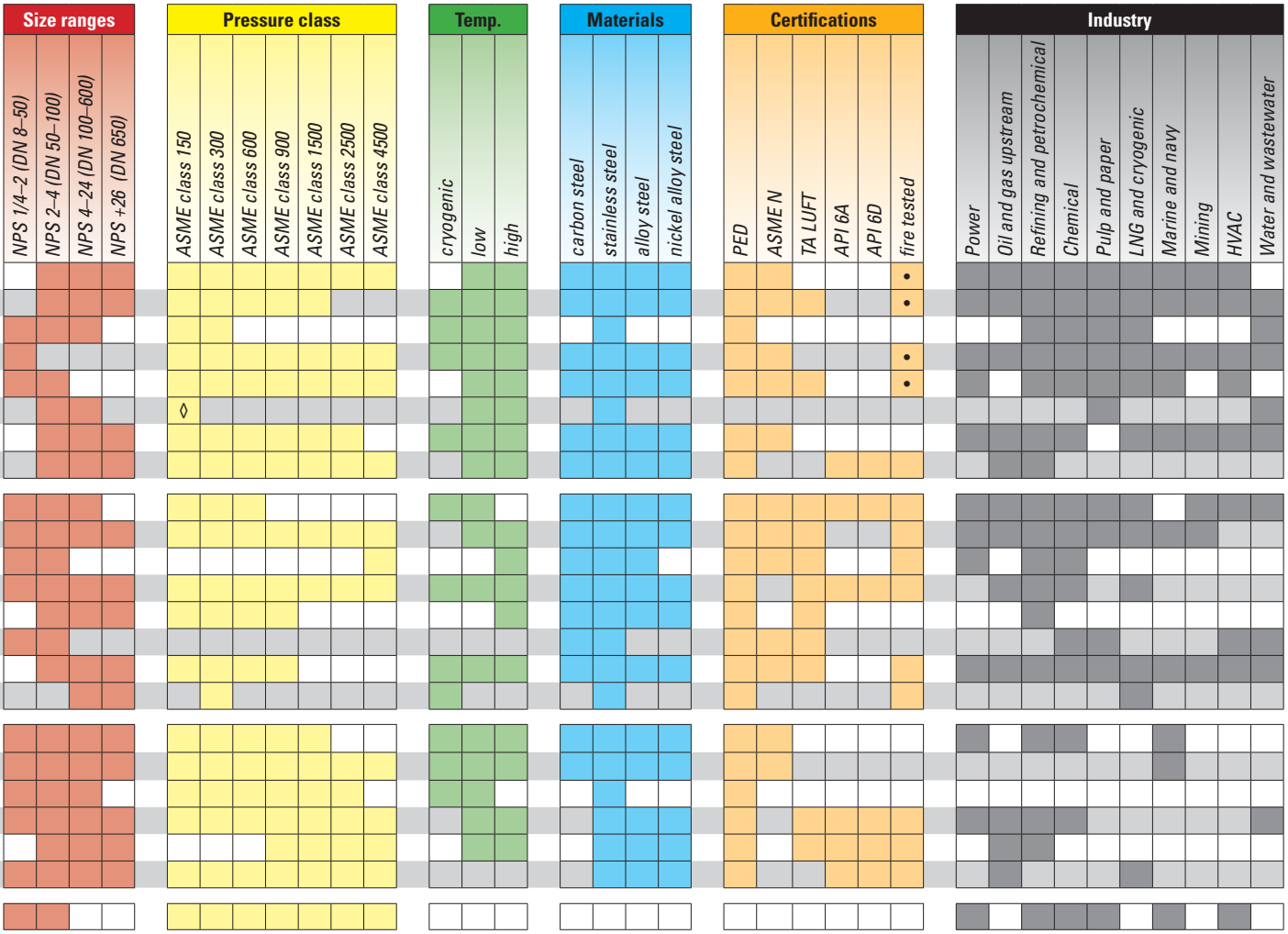
Apart from field-tested and proven valves, we also offer supplier-integrated engineering, value-added services, and all the other advantages you would expect from a world-class organization.

Any way you look at it, Velan offers exceptional performance and value.



Right off the shelf, Velan valves are backed by the most stringent fugitive emissions guarantees in the industry.

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(2) Available in Class 800 in threaded and welded end connections.

◊ 150 psi max.

• Inherently fire safe

Total quality commitment

Quality is our first priority

How does Velan design and manufacture valves that offer superior performance, reliability, and service life? We are committed to total quality in all we do. Since our company was founded, our entire philosophy has been focused on quality.

Our comprehensive Quality Assurance System is geared towards continuous improvement, process quality, and stringent compliance to worldwide standards including ASME N stamp and NPT, PED, TA-Luft, ISO 9001 API 6A and API 6D.

Design

Velan's Engineering Group performs FEA and qualification testing to validate designs. Velan has introduced many innovative technologies to the market, many of them simplifying maintenance and increasing service life. Keen attention to design detail and actual field feedback help us constantly improve our products and maximize performance.

Strategic procurement

Velan runs a strategic procurement program to help ensure final product quality. Velan's Casting Quality Program brings together resident engineers at foundries, at-foundry statistical analysis programs, and Magmasoft® pour simulation software, to help us achieve an extremely low shell-leakage rejection rate of less than 0.05%.

Automated production

Velan has long been a leader in automated production of world-class valves. Our network of CNC machines employing Tool Data Management software and rigorous semi-automated testing ensure our valves have the tightest tolerance and the greatest level of consistency and reliability.

Production testing

Every Velan valve is subjected to hydrostatic testing before leaving the factory to help ensure problems won't arise in the field. Production tests are part of our strict QC Program, developed over many years as a leading supplier of nuclear valves.

Total Quality Commitment

Velan Total Quality Program

Our aim is to offer products and services that not only meet but also clearly exceed the expectations of our customers.

Through training, teamwork, and performance, our employees strive to achieve continuous improvement of all processes.

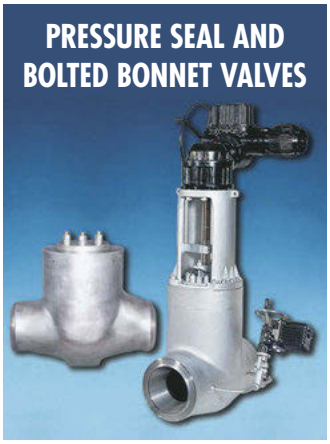
Our goal is total quality and on-time delivery; our method is total commitment.

A.K. Velan
Founder

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Gate, globe, and check valves

PRESSURE SEAL AND BOLTED BONNET VALVES



Forged pressure seal and large bolted bonnet gate, globe, and check valves for high pressure and high temperature service

Sizes: NPS 2–24 (DN 50–600)
ASME classes: 150–4500

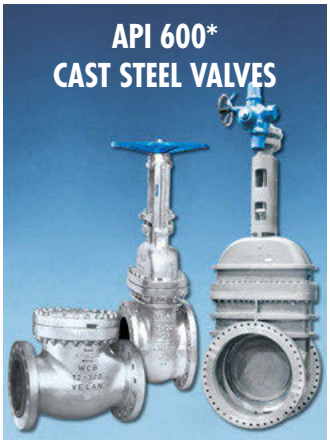
- One-piece forged bodies for superior strength and quality
- Live-loaded bonnet as a standard feature(1)
- Graphite pressure seal gasket
- Machined body guides and a robust torque arm assembly
- Gate (flexible wedge and parallel slide), globe (angle, needle and stop), and check (piston, swing, stop, and tilting disc) valve types
- Optional cast product offering
- Available in carbon, stainless, alloy (including F91), and nickel alloy steels
- Available for catalytic reforming, NACE (sour gas) and nuclear services

(1) Applicable to certain sizes and pressure classes – contact factory for verification.

Product catalogs

- Pressure seal and bolted bonnet valves
  Document code: CAT-PS

API 600* CAST STEEL VALVES



API 600* Cast steel gate, globe, and check valves for a broad range of applications

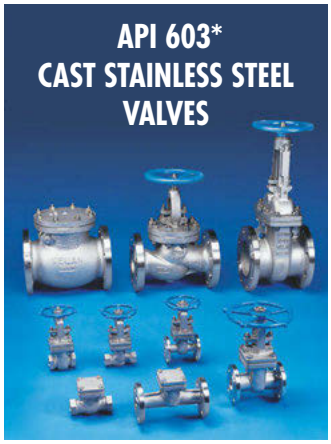
Sizes: NPS 2–64 (DN 50–1600)
ASME classes: 150–1500

- World's largest manufacturer of cast steel gate, globe, and check valves
- Bubble-tight shut-off of gate valves up to NPS 12 (DN 300)
- Gate, globe (needle and stop), and check (swing and piston) valve types
- Available in cast carbon, stainless, alloy, and nickel alloy steels
- Standard low fugitive emission packing and also available with bellows seal for zero emission services
- Available for block and bleed, cryogenic, HF acid, NACE (sour gas), and nuclear services

Product catalogs

- Cast steel gate, globe, and check valves
  Document code: CAT-CSV

API 603* CAST STAINLESS STEEL VALVES



API 603* Corrosion-resistant stainless steel gate, globe, and swing check valves

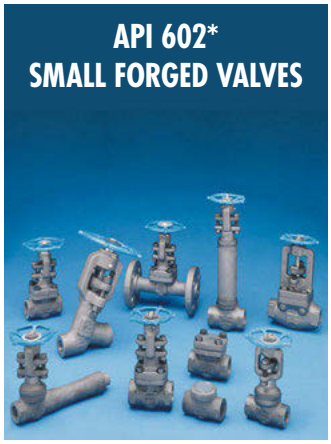
Sizes: NPS ½–24 (DN 15–600)
ASME classes: 150–600

- Gate, globe (stop and needle), and check (stop and swing) valve types
- Available in cast stainless steel
- Integral seat design
- Precision high quality investment castings
- Wall thickness to ASME B16.34
- Option integral CoCr alloy seat face available for longer service life
- Available for cryogenic and NACE (sour gas) services

Product catalogs

- Cast stainless steel, corrosion resistant gate, globe, and check valves
  Document code: CAT-CSSV

API 602* SMALL FORGED VALVES



Comprehensive range of small forged gate, globe, check, angle, and bellows seal valves

Sizes: NPS ¼–4 (DN 8–100)
ASME classes: 150–4500

- Bolted and welded bonnet body styles
- Gate, globe (angle, needle, and stop), and check (ball, piston, and swing) valve types
- Available in forged carbon, stainless, alloy (including F91), and nickel alloy steels
- Standard low fugitive emission packing and also available with bellows seal for zero emission services
- Available for block and bleed, cryogenic, HF acid, NACE (sour gas), and nuclear services

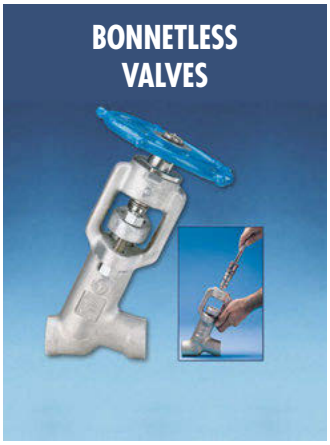
Product catalogs

- Small forged steel gate, globe, and check valves
  Document code: CAT-SFV

* *The API designation defines the product design basis even though not all the valves are covered in the referenced API specification. These valves are also used in non-API service.*

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BONNETLESS VALVES



Forged, one-piece high pressure y-pattern, oblique, vertical and angle valves

Sizes: NPS ¼–4 (DN 8–100)
ASME classes: 1690–4500

- One-piece forging with integral body-bonnet design
- Fully guided, non-spinning, CoCr alloy disc(1)
- Non-rotating stem(1)
- In-line repairable
- Globe (needle and stop) and piston check(2) valve types
- Available in forged carbon steel, stainless, alloy (including F91 and F92), and nickel alloy steels(1)
- Available with bellows seal(1)
- Available for nuclear(1) and NACE (sour gas) services

(1) Applicable to Y-pattern valves (see catalog CAT-BG)

(2) The piston check valve is designed with a screwed-in cover.

Product catalogs

- Forged steel bonnetless Y-pattern globe valves
  Document code: CAT-BG

STAINLESS STEEL KNIFE GATE VALVES



Standard and bolted bonnet, all stainless steel knife gate valves

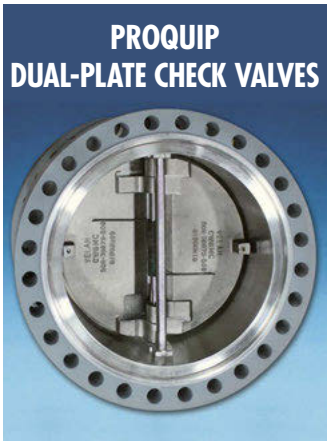
Sizes: NPS 2–24 (DN 50–600)
ASME flange: 150

- All stainless steel design
- Standard knife gate valves NPS 2–24 (DN 50–600) and bolted bonnet, knife gate valves NPS 4–24 (DN 50–600)
- 0-14ph packing standard
- Locking device on standard knife gate valve
- Environmentally friendly bi-directional bolted bonnet and standard body styles
- Resilient and metal seats

Product catalogs

- Knife gate valves
  Document code: CAT-KGV

PROQUIP DUAL-PLATE CHECK VALVES



Retainerless dual-plate check valves for a broad range of applications

Sizes: NPS 2–60 (DN 50–1500)
ASME classes: 150–2500
API 6A classes: 2000–5000

- Lightweight and compact-size
- Retainerless design means zero fugitive emissions
- Self-seating feature extends valve life
- Wafer, lug, double flange, hub-end and butt-weld end body styles
- Available in carbon, low-temperature carbon, stainless, low-alloy, nickel alloy, titanium, nickel-alum-bronze, and carbon with Inconel 625 cladding
- Seating surfaces offered as metal-to-metal and soft seat
- Also available for cryogenic and NACE (sour gas) services

Product catalogs

- Proquip dual plate check valves
  Document code: CAT-DPCV

API 6D AND 6A CHECK AND GATE VALVES



API 6D and 6A axial flow and swing type check and through conduit slab and double expanding gate valves

Sizes: NPS 2–60 (DN 50–1500)
ASME classes: 150–4500
API 6A classes: 2000–15000

- Axial flow check valve, non-slam type, spring assisted, metal-seated, internal venturi pattern, very fast response prevents water hammer, pump protection.
- Swing check valve(1), non return valve, metal-seated, swing arm operable by a manual override for pipeline pigging operations.
- Through conduit gate(1), block valve, soft or metal-seated, minimal resistance to the flow, reverse acting slab as option.
- Double expanding gate(1), block valve with wedge formed by two pieces, moveable seats with angle compensation, DB&B feature for isolating the body cavity from the line.
- Full range of automation capabilities – *see Velan ABV actuator brochure at: www.velanabv.com*

(1) Sizes up to NPS 2–36 (DN 50–900)

Product catalogs

- Velan ABV general product line brochure
  Document code: ABV-FLB

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Quarter-turn valves

MEMORYSEAL® BALL VALVES



Resilient-seated ball valves with value-added technical features for superior performance

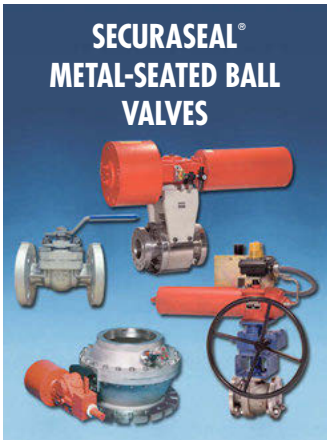
Sizes: NPS ¼–24 (DN 8–600)
ASME classes: 150–600
WOG: up to 2000

- Memoryseal® in-tension flexible seat design
- E-20 low emission packing arrangement
- Fire tested API 607/ISO 10497
- End-entry, one-piece, split-body, top-entry, unibody, and three-piece body styles (three-piece design includes a flexible lip seat)
- Available in carbon, stainless, alloy, and nickel alloy steels
- Available for chlorine, cryogenic, NACE (sour gas), nuclear, oxygen, throttling, and vacuum services

Product catalogs

- Memoryseal® resilient-seated ball valves
  Document code: CAT-BV

SECURASEAL® METAL-SEATED BALL VALVES



Severe service metal-seated ball valves for high temperature, abrasive, and corrosive applications

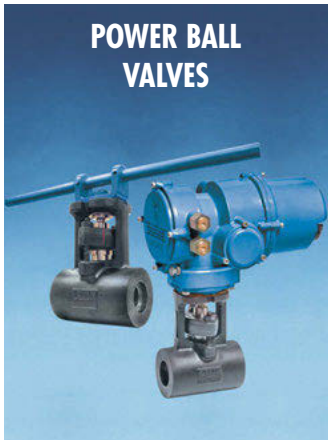
Sizes: NPS ½–24 (DN 15–600)
ASME classes: 150–4500
Temp: up to 1500°F (816°C)

- Shut-off to FCI 70-2 class 6
- Advanced trim coating technology
- Low emission stem seal with live-loaded packing as a standard feature
- Cast and forged bodies
- Available in carbon, stainless, alloy, duplex, titanium, and nickel alloy steels
- Available for aggressive slurries, batch digester capping, block and bleed, NACE (sour gas), nuclear, and oxygen service

Product catalogs

- Securaseal® metal-seated ball valves
  Document code: VEL-MS

POWER BALL VALVES



Forged, one-piece metal-seated ball valves for high temperature and high pressure applications

Sizes: NPS ½–4 (DN 15–100)
ASME classes: 3100–4500

- Forged, one-piece body
- Different coating options to best suit the application
- Double blowout proof stem
- Tested to zero-leakage
- Live-loading stem/packing standard
- Integral ISO direct mounting pad for easy automation
- Available in A105, F22, F91, and 316/316H

Product catalogs

- Power ball valves, one-piece forged metal-seated
  Document code: CAT-PBV

API 6D AND 6A BALL VALVES



API 6D and API 6A floating and trunnion-mounted ball valves for oil and gas, pipeline, offshore, LNG, and petrochemical process.

Sizes: NPS ½–60 (DN 15–1600)
ASME classes: 150–4500
API 6A classes: 2000–15000

- Side-entry or top-entry or fully welded body design
- Modular double block and bleed valves, also in compact face-to-face execution
- 3 and 4-way ball valves
- Anti blow-out stem, antistatic, fire safe design
- Soft (leakage rate: A) or metal-seated (leakage rate: D)
- Self relieving or double piston effect seats
- Available in carbon or low temperature carbon steel, stainless steel, exotic alloys
- For severe service and aggressive environments
- Extended bonnet for cryogenic applications
- Stem extension for underground service
- Full range of automation capabilities – *see Velan ABV actuator brochure at: www.velanabv.com*

Product catalogs

- Velan ABV general product line brochure
  Document code: ABV-FLB

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COKER BALL VALVES



Complete valve solutions for the delayed coker industry and high temperature slurry applications

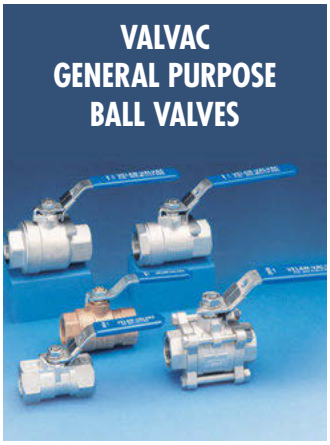
Sizes: NPS 3–36 (DN 80–900)
ASME classes: 150–900

- NPS 3–18 (DN 80–450) switch valves ASME classes 300–900
- NPS 3–36 (DN 80–900) isolation valves ASME classes 150–900
- Complete automation packages including valve interlocks through PLC or DCS
- Two wire loop controls and diagnostic packages

Product catalogs

- Coker ball valves Document code: BRO-CBV

VALVAC GENERAL PURPOSE BALL VALVES



Resilient-seated ball valves for general use and commodity applications

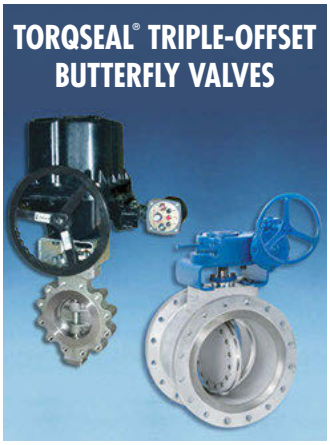
Sizes: NPS ¼–2 (DN 8–50)
WOG: 600–2000

- End-entry (two-piece), one-piece/unibody, and three-piece (bolted) body styles
- Available in carbon and stainless steel
- Seats made of glass reinforced PTFE
- Available in reduced, regular, or full port designs
- Butt weld, threaded, and socket weld connections

Product catalogs

- Valvac general purpose ball valves Document code: CAT-GPBV

TORQSEAL® TRIPLE-OFFSET BUTTERFLY VALVES



Bi-directional, zero-leakage, triple-offset, metal-seated butterfly valves

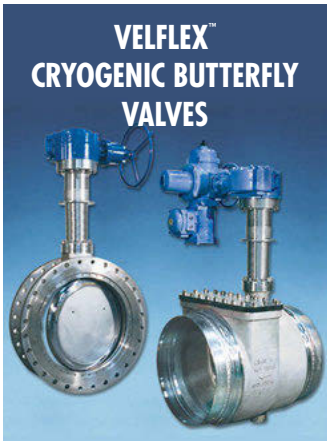
Sizes: NPS 3–80 (DN 80–2000)
ASME classes: 150–900
Temp: -425 to 1200°F (-254 to 650°C)

- Zero-leakage to API 598 resilient-seat standard
- Zero-leakage testing to API 6D standard available on request
- Bi-directional shutoff
- Fire tested to API 607/ISO 10497
- Available in lug or wafer per API 609, flanged per ISO 5752 or ASME B16.10, and butt weld per ASME B16.10 body patterns
- Available in carbon, stainless, alloy, duplex, titanium, and nickel alloy steels
- Available for cryogenic, NACE (sour gas), nuclear service, and vacuum service
- SIL 3 certified

Product catalogs

- Torqseal® triple-offset metal-seated valve Document code: CAT-BF
- Cryogenic Torqseal® triple-offset butterfly valves Document code: SAS-CTORQ

VELFLEX™ CRYOGENIC BUTTERFLY VALVES



High performance cryogenic metal-seated butterfly valves

Sizes: NPS 6–48 (DN 150–1200)
ASME classes: 150–300
Temp: down to -420°F (-252°C)

- Butt-weld end or flanged types
- Side-entry design offers easy in-line maintenance
- Bi-directional shutoff
- Zero-leakage to API 598
- Metallic seal (Velflex™ technology)
- Fire tested (API 607 rev. 4, API 6FA and BS 6755 - Part II)

Product catalogs

- Velflex® cryogenic metal-seated butterfly valves Document code: SAS-CFLEX

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Special applications

STEAM TRAPS



An extensive range of traps for steam and air lines

Sizes: NPS ⅜–3 (DN 10–80)
Temp: up to 1,100°F (593°C)
Pressure: up to 4000 psi (276 bar)
Capacities: 160,000 lb/hr (72,575 kg/hr)

- Available in Piping King arrangements
- Cage unit design for easy in-line repair
- Float bimetallic, hermetically sealed, piston-operated, space-heating, and thermodynamic types
- Optional blowdown valve, temperature controller, thermometer, and vacuum breaker available

Product catalogs

- An extensive range of traps for steam and air lines
  Document code: CAT-ST

BELLOWS SEAL VALVES



The original hermetically sealed bellows seal valves for absolute zero-leakage service

Sizes: NPS ½–12 (DN 15–300)
ASME classes: 150–1500

- Multi-ply stainless steel, inconel and hastelloy bellows for long service life
- Gate, globe (angle, needle, and stop), and control valves
- Available in carbon, stainless, alloy, and nickel alloy steels
- Available for lethal, NACE (sour gas), nuclear, and vacuum service

Product catalogs

- Hermetically sealed gate and globe bellows seal valves
  Document code: VEL-BS

CRYOGENIC CONTROL VALVES



Severe service control valves for extreme temperature applications

Sizes: NPS ¼–16 (DN 8–400)
ASME classes: 150–2500
Temp: down to -457°F (-272°C)
Cv: 0.01 to 1800

- Resilient stainless steel design
- Linear or equal percentage flow characteristics
- Top-entry for easy maintenance
- Excellent seat tightness
- Cold box adaptation
- Available in angle, straight or y-pattern patterns
- Anti-cavitation,and low dB design for critical applications
- Vacuum jacketed on request

Product catalogs

- Cryogenic control valves
  Document code: SAS-CCV

CONTROL AND CHOKE VALVES



Caged ball valves and DTP* trim control valves for severe service and choke applications

Sizes: NPS 1–48 (DN 25–1200)
ASME classes: 150–4500
API 6A classes: 2000–15000

- **KEY-C:** Control ball valve trunnion mounted with special caged trim for noise reduction and cavitation/flashing prevention. Unidirectional, only one metal seat on the up-stream part. Very high rangeability
- **DTP:** Angle body construction with multi-stage trim suitable for high energy dissipation and for high level of reliability, excellent erosion resistance, suitable for low noise applications
- Trim materials with highest mechanical performances to guarantee long trim life and low maintenance cost
- DPT choke valve for wellhead–mainly oil and gas applications
- Full range of automation capabilities – *see Velan ABV actuator brochure at: www.velanabv.com*

* *Discrete tortuous path (DPT) trim*

Product catalogs

- Velan ABV general product line brochure
  Document code: ABV-FLB

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Special applications



HIPPS* units, ball, ESDV emergency shutdown valve, and line break ball valves

Sizes: NPS ½–48 (DN 15–1200)
ASME classes: 150–4500
API 6A classes: 2000–15000

- Complete system: valve actuator and control panel; optionally, logic solver and pressure transmitters can be supplied
- Fast operation (down to less than 2 seconds for HIPPS)
- Fail close emergency action
- Hydraulic or pneumatic actuator solution, spring return or double acting with auxiliary tank
- High Safety Integrity Level (up to SIL 3 for a single actuated valve) & SIL certification
- Partial stroking test functionality to increase the reliability
- Full range of automation capabilities – *see Velan ABV actuator brochure at: www.velanabv.com*

* *HIPPS - High integrity pressure protection system.*

Product catalogs

- Velan ABV general product line brochure
  Document code: ABV-FLB



Subsea ball, gate, and check valves; hydraulic actuators and gear operators with handwheel/ROV for shallow and deep water

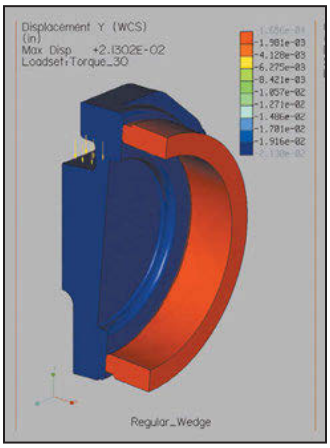
Sizes: NPS ½–48 (DN 15–1200)
ASME classes: 150–4500
API 6A classes: 2000–15000

- Valve designed and tested as per API 6DSS & API 17D
- Corrosion-resistant alloys on dynamic sealing surfaces and ring joint grooves as a minimum
- Redundant sealing for high reliability
- Valve operable down to a water depth of 11,500 ft. (3500 m)
- Suitable for high percentage of sand and solid particles
- Fully piggable design options
- Baric compensator device to avoid structural overstress
- Full range of automation capabilities – *see Velan ABV actuator brochure at: www.velanabv.com*

Product catalogs

- Velan ABV general product line brochure
  Document code: ABV-FLB

Engineered solutions



Stress calculations are done using 3D Finite Element Analysis (FEA) software, like ANSYS and Pro/Mechanica, with 3D models developed in Pro-Engineer.

Engineering expertise

Over the years, Velan has brought together a strong team of professional engineers with extensive experience in critical applications. Using advanced software applications including Finite Element Analysis (FEA), Computational Fluid Dynamics (CFD), and 3D Solid-Modeling, Velan's engineers design superior quality valves that meet the most demanding performance requirements. Our R&D facilities, equipped with steam boilers, superheaters, flow loops, and cryogenic test stands, enable us to run comprehensive testing programs.

Velan also has a long-standing history of partnering with major architects/engineers and end users to develop innovative solutions for their valving needs.

After Market

Velan After Market offers a complete range of Velan OEM After Market services, including Velan Field Engineering Services, Velan OEM Spare Part and tool support, and Velan maintenance training courses.

Velan Field Engineering Services offers customers in-line service, maintenance, and product support on all our valve products. Our team of engineers and technicians are equipped with Velan OEM tools, lapping equipment and Velan OEM parts. With many years of valve-servicing experience to nuclear and thermal power stations, refining and petrochemical plants, navy fleets, and many other industries, Velan offers true OEM service. Furthermore, Velan has a network of authorized service shops across the globe, ensuring we can meet your maintenance and service requirements whatever your location. We also have a complete library of Velan Maintenance Manuals.

Velan OEM Spare Part and tool support offers support on all Velan products. You are ensured of Velan OEM parts built to the same configuration as originally supplied. We can advise on recommended spare parts and on new projects we can advise Spare Part Interchangeability Reports (SPIRs).

AUTOMATION CAPABILITIES

Velan offers a wide range of products to address each customer application.

- Electric, hydraulic, and pneumatic actuation
- Pre-installation of switches, positioners, thrust and torque sensors, signal conditioners
- Integral control actuation and two-wire control
- Overides, limit stops, and most standard accessories

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Velan's extensive product range includes gate, globe, check, ball, triple-offset, and engineered severe service valves as well as steam traps — all of which are installed world-wide to handle diverse applications in the following industries:

- Fossil, nuclear, and cogeneration power
- Oil and gas
- Refining and petrochemicals
- Chemicals and pharmaceutical
- LNG and cryogenics
- Marine
- HVAC
- Mining
- Water and wastewater
- Pulp and paper
- Subsea

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www.velan.com

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BRO-FLB-03-17a
Printed in Canada

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