

HP series Forged ball valves

**Pressure rating:
3000 WOG**

**Sizes: NPS ½–3
(DN 15–80)**

**Full compliance
to: ASME B16.34**

**Fire-tested to:
API 607
Rev. 5 /
ISO 10497**



VELAN

VELAN'S PROFILE

VELAN AT A GLANCE

History

- Founded in 1950

Sales

- Over \$500 million

People

- Over 2,000 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

Quality

All major certifications and approvals

- ASME N stamp and NPT for nuclear valves (since 1970)
- ISO 9001 (since 1991)
Currently certified to ISO 9001:2008
- PED
- GOST (TR and RTN)
- API 6A and API 6D
- TA-Luft
- Quality programs fully compliant with ISO-9001, NCA 4000, ASME NQA-1 and 10 CFR 50 Appendix B, surveyed by ASME and audited by NUPIC, Northrop Grumman Newport News, DCMA, utilities, architect/ engineers, and other organizations from around the world

Headquartered in Montreal, Velan has several international subsidiaries.

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www.velan.com

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Velan is one of the world's leading manufacturers of cast and forged steel gate, globe, check, ball, triple-offset, knife gate, highly engineered severe service valves, and steam traps offering superior performance across all major industrial applications including:

- fossil, nuclear, and cogeneration power;
- oil and gas;
- refining and petrochemicals;
- chemicals and pharmaceutical;
- LNG and cryogenics;
- marine;
- subsea;
- HVAC;
- mining;
- water and wastewater; and
- pulp and paper.

The company also supplies actuators and integrated control packages to suit our customer's needs.

Founded in 1950, Velan has earned a reputation for product excellence and innovation by bringing to the market superior products with special emphasis on quality, safety, ease of operation, and long service life. Velan valves have an extremely broad installation base and are approved by major companies worldwide.

Velan concentrates on one business—the design, manufacture and marketing of steel valves and steam traps in a broad range of types and sizes for high performance service in a wide range of applications. The company's talented people are focused on Velan's core values of quality, reliability, innovation, and integrity and mission to be the world's leading valve brand.

NOTE: *The material in this catalog is for general information only and shall not be used for specific performance data and material selection without first consulting Velan. Velan reserves the right to change designs, materials or specifications without notice. Velan does not accept any liability or damages arising from the use of information in this catalog.*

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VELAN'S GLOBAL NETWORK

Head office



Montreal, Canada
Velan Inc.

- 17 production facilities
- 5 plants in North America
- 6 plants in Europe
- 6 plants in Asia
- 5 stocking and distribution centers
- Hundreds of distributors worldwide
- Over 60 service shops worldwide

Manufacturing plants

North America



Montreal, Canada
Velan Inc., Plant 1



Montreal, Canada
Velan Inc., Plant 2 and 7



Granby, Canada
Velan Inc., Plant 4 and 6



Montreal, Canada
Velan Inc., Plant 5



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



Europe



Lyon, France
Velan S.A.S.



Mennecy, France
Segault S.A.



Leicester, UK
Velan Valves Ltd.



Lisbon, Portugal
Velan Válvulas Industriais, Lda.



Lucca, Italy
Velan ABV S.p.A., Plant 1



Lucca, Italy
Velan ABV S.p.A., Plant 2

Asia



Ansan City, South Korea
Velan Ltd., Plant 1



Ansan City, South Korea
Velan Ltd., Plant 2



Ansan City, South Korea
Velan Ltd., Plant 3



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
VelCAN



Benicia, CA, U.S.A.
VelCAL



Marietta, GA, U.S.A.
VelEAST



Houston, TX, U.S.A.
VelTEX



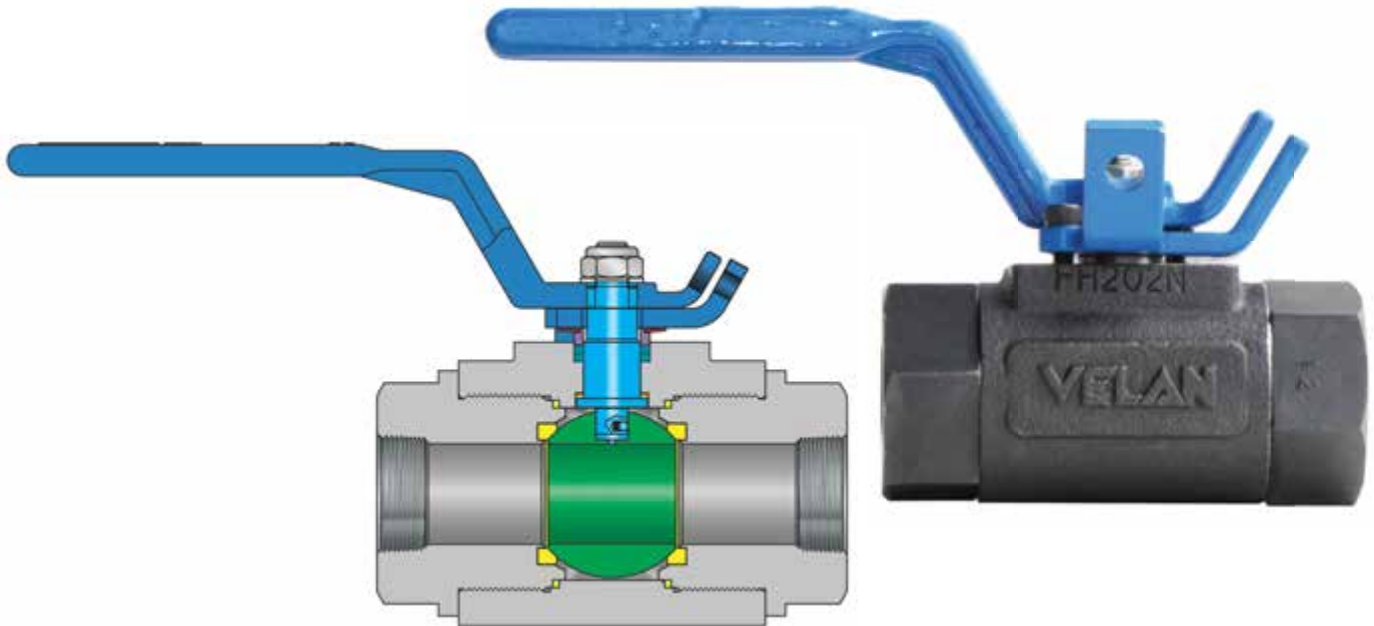
Willich, Germany
Velan GmbH

– ASME N-stamp accredited manufacturer

HP SERIES OVERVIEW

VELAN HIGH PRESSURE FORGED STEEL REGULAR AND FULL PORT BALL VALVE THREADED, SOCKET WELD, AND FLANGED ENDS, 3000 WOG

REGULAR PORT: NPS $\frac{3}{4}$ -3 (DN 20-80) , FULL PORT: NPS $\frac{1}{2}$ -2 (DN 15-50)



Velan's HP series forged 3-piece valve is a high pressure ball valve designed for the tough and rugged standards of the oilfield market in a 3000 PSI body configuration. This resilient seated valve has superior sealing characteristics in the seat, stem and body seals.

DESIGN FEATURES

- Full compliance to ASME B16.34
- Fire tested to API 607 Rev. 5/ISO 10497
- Polyoxymethylene (POM) seats
- Graphite packing
- Large robust lockable handle
- Bi-directional
- Canadian registration number (CRN)

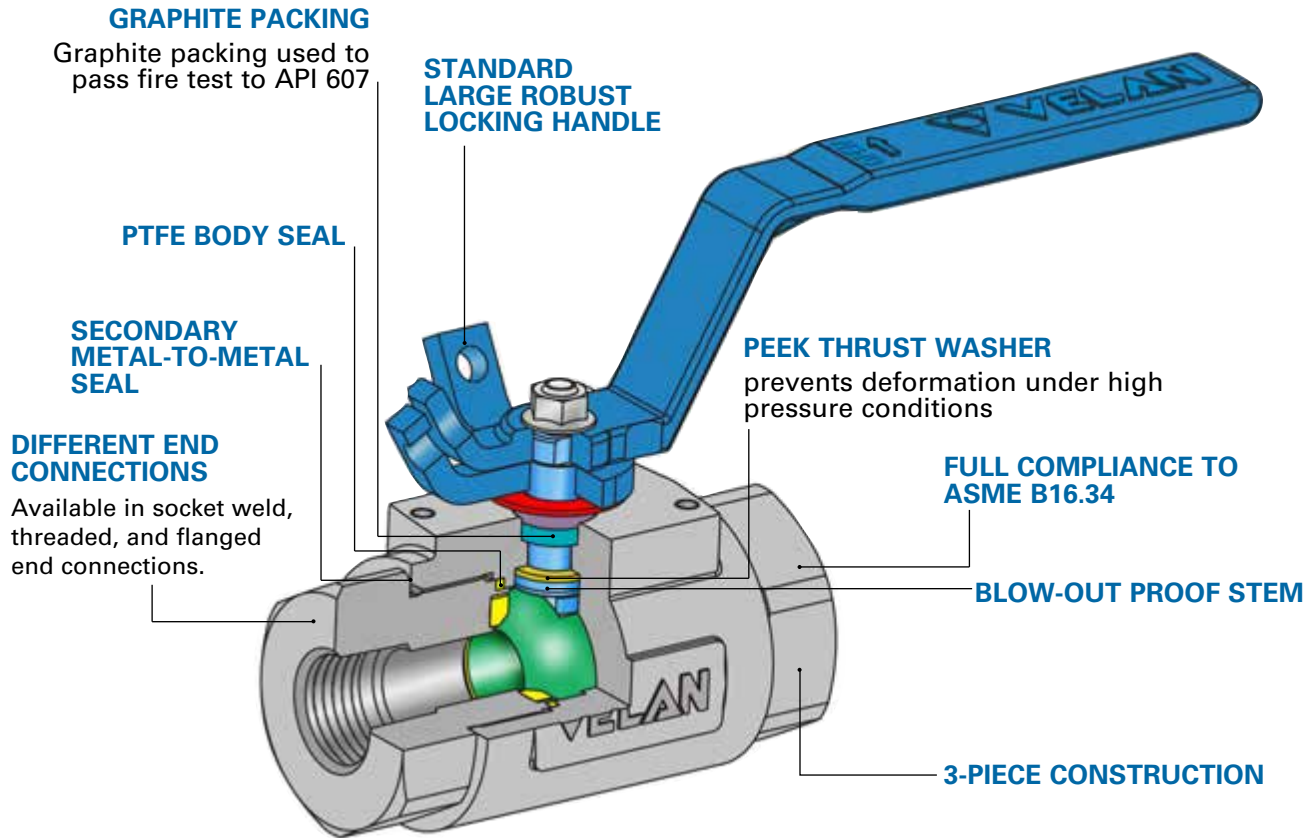
STANDARDS

- API 607 Rev. 5/ISO 10497 certified fire test
- ASME B16.34
- API 598
- MSS SP-25
- NACE MR0103

AVAILABLE OPTIONS

- API 6A/6D

HP SERIES DESIGN FEATURES



LIVE-LOADED BLOWOUT PROOF STEM SEAL

1. LIVE LOADING WITH ONE SPRING WASHER

ensures long service life

2. GRAPHITE PACKING

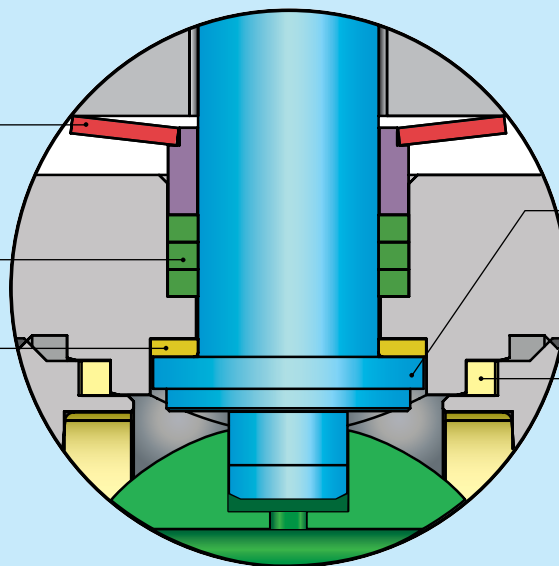
used to pass fire test to API 607

3. PEEK THRUST WASHER

prevents deformation under high pressure conditions

4. STEM SHOULDER
for blowout proof safety

5. PTFE BODY SEAL WITH SECONDARY METAL-TO-METAL SEAL
for ensured tightness



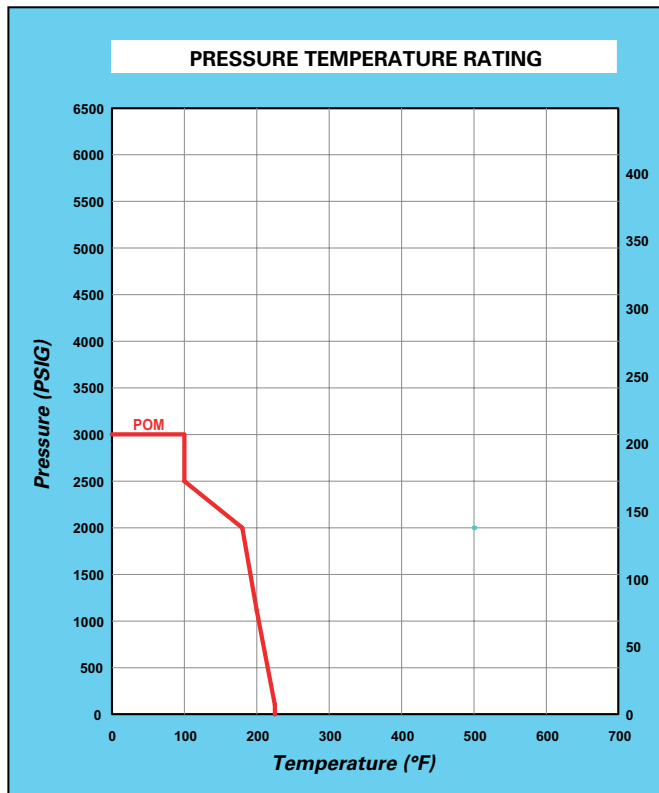
HP-3000 REGULAR AND FULL PORT TECHNICAL DATA

STANDARD MATERIALS

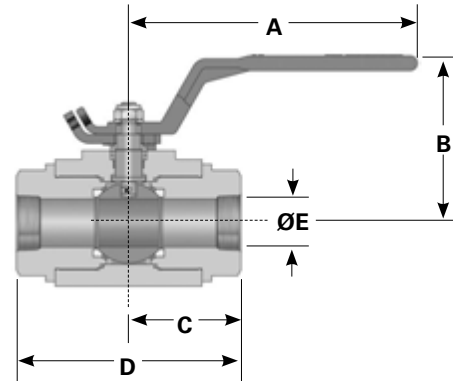
Part	Carbon Steel	Low Temp	Stainless Steel
Body	A105	LF2	F316
Body end cap	A105	LF2	F316
Stem	SS 630		
Ball	SS 630		
Thrust washer	PEEK		
Seat	POM ⁽¹⁾		
Packing rings	Die-formed flexible graphite		
Handle nut	CS plated		
Body seal	PTFE		
Locking device	Malleable iron		
Handle	Malleable iron		
Belleville washer	17-7ph		
Hex head cap screw	SS 304		
Handle washer	SS 304		
Packing bushing	SS 316		
Packing washer	SS 316		
Packing flange	WCB	WCB	CF8M
Antistatic spring	SS 302 ⁽²⁾		

(1) POM (Polyoxymethylene) is also known as Delrin® or Celcon®.

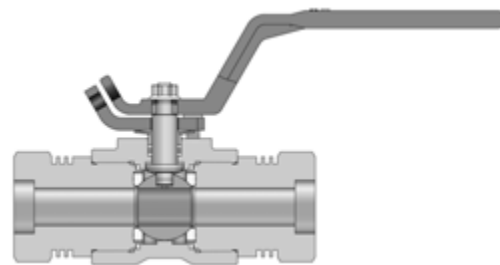
(2) For 2" (50 mm) and up.



Note: For HP-3000 NPS ¾ - 3 (20 - 80) regular port and NPS ½ - 2 (DN 15-50) full port.



NPT ENDS



SOCKET WELD ENDS

REGULAR PORT DIMENSIONS, CVs AND WEIGHTS

Size NPS DN	Dimensions									CV KV	Weight lb kg	
	A	B	C	D				ØE	NPT			
				NPT	SW	FLG 600	FLG 900					FLG 1500
¾ 20	5.00 127	3.27 83	2.19 56	4.38 111	6.25 171	7.50 191	9.00 229	9.00 229	0.50 12.7	¾-14	15 13	3.2 1.5
1 25	7.00 178	4.12 105	2.13 54	4.25 108	6.75 171	8.50 216	10.00 254	10.00 254	0.75 19.1	1-11½	37 31	4.8 2.2
1½ 40	8.50 216	4.88 124	3.00 76	6.00 154	7.50 191	9.50 241	12.00 305	12.00 305	0.94 23.9	1½-11½	55 47	9.9 4.5
2 50	10.50 267	5.98 152	3.13 80	6.25 159	8.55 217	11.50 292	14.50 368	4.50 368	1.50 38.1	2-11½	128 109	16.8 7.6
3 80	12.00 305	7.11 181	5.00 127	10.00 254	12.75 324	14.00 356	15.00 381	18.50 470	2.0 50.8	3-8	441 375	37 17

FULL PORT DIMENSIONS, CVs AND WEIGHTS

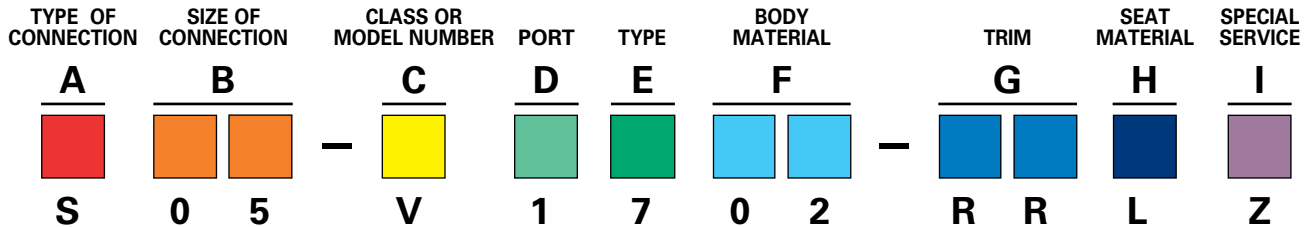
Size NPS DN	Dimensions									CV KV	Weight lb kg	
	A	B	C	D				ØE	NPT			
				NPT	SW	FLG 600	FLG 900					FLG 1500
½ 15	5.00 127	3.27 83	2.19 56	4.38 111	5.00 127	6.50 165	8.50 216	8.50 216	0.50 12.7	½-14	27 23	3 1.4
¾ 20	7.00 178	4.12 105	2.13 54	4.25 108	6.75 171	7.50 191	9.00 229	9.00 229	0.75 19.1	¾-14	52 44	4.5 2
1 25	8.50 216	4.88 124	2.75 70	5.50 140	7.50 191	8.50 216	10.00 254	10.00 254	0.94 23.9	1-11½	100 85	8.8 4
1½ 40	10.50 267	5.98 152	3.13 80	6.25 159	8.54 217	9.50 241	12.00 305	12.00 305	1.5 38.1	1-11½	275 234	16.1 7.3
2 50	12.00 305	7.11 181	3.13 80	6.25 159	12.75 324	11.50 292	14.50 368	14.50 368	2.0 50.8	2-11½	510 434	27 12

Note: The indicated weights for both regular and full port apply to NPT valves only.

HOW TO ORDER

VELAN HP SERIES FORGED BALL VALVES

The figure numbers shown on this key cover essential features of Velan HP series valves. Please use these figure numbers to ensure prompt and accurate processing of your order.



Example: NPS 1 (DN 25), threaded, HP-3000, full port valve in carbon steel body with SS630 ball and stem, POM seats and fire-tested to API-607.

A	TYPE OF CONNECTION	
C - Combination (socket weld/threaded)	S - Threaded	
F - Flanged	W - Socket weld	
B	SIZE OF CONNECTION	
Customers have the choice of specifying valve size as part of the valve figure number (B) using the numbers below, or indicating valve size separately. Sizes below are shown in NPS (DN)		
EXAMPLES:		
S05-V1702-RR LZ (valve size is part of figure number)		
1 S-V1702RR LZ (valve size is shown separately)		
03 - 1/2 (15)	05 - 1 (25)	08 - 2 (50)
04 - 3/4 (20)	07 - 1 1/2 (40)	10 - 3 (80)
C	MODEL NUMBER	
V - HP-3000		

D	PORT	
0 - Regular	1 - Full port	
E	TYPE	
7 - Three-piece valve (screwed)		
F	BODY MATERIAL	
02 - A105	13 - Stainless steel F316	26 - LF2
G	TRIM	
CODE	BALL	STEM
RR	SS 630	SS 630
H	SEAT MATERIAL	
L - POM (Delrin®)		
I	SPECIAL SERVICE	
A - Standard	Z - Fire-tested to API 607 Rev. 5/ISO 10497	

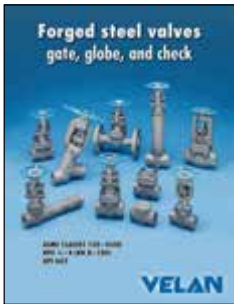
The HP series ball valve line is specifically designed to meet the rugged standards of the oilfield market in the 3000 PSI body configuration and is ideal for high pressure and temperature applications.

Should you have requirements for lower pressure process applications please refer to our Memoryseal® catalog. Our Memoryseal® design is ideally suited for lower pressure process applications due to superior features such as E20 packing chambers, fire test to API 607 / ISO 10497, pre-drilled mounting pads for actuation, and our patented Memoryseal® flexible seats.

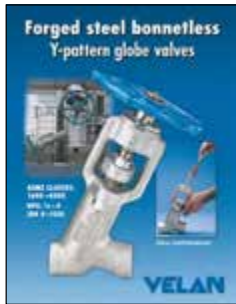


The most comprehensive line of industrial forged and cast steel gate, globe, check, ball, butterfly, and knife gate valves and steam traps.

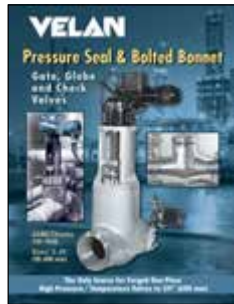
ASME pressure classes 150–4500 in carbon, alloy, and stainless steel



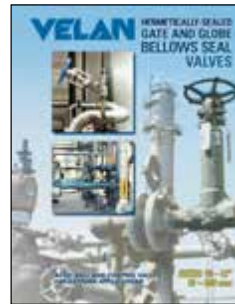
CAT-SFV



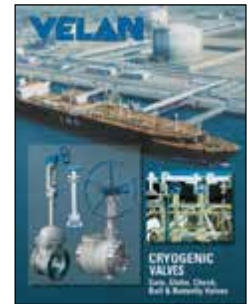
CAT-BG



VEL-PS



VEL-BS



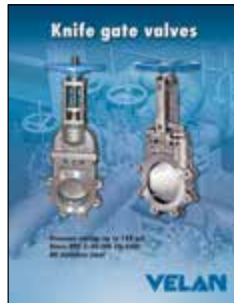
VEL-CRYO



CAT-CSV



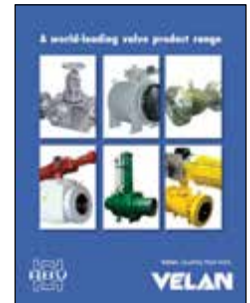
VEL-API-603



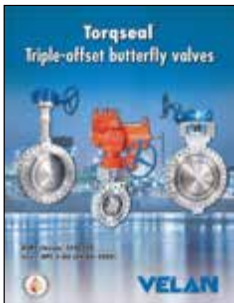
CAT-KGV



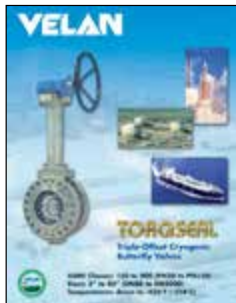
CAT-DPCV



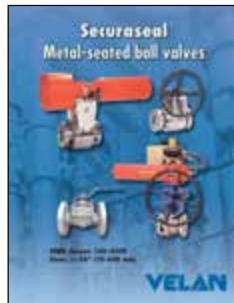
BRO-FLBABV



CAT-BF



CAT-SAS-CTORQ



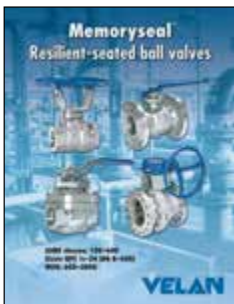
VEL-MS



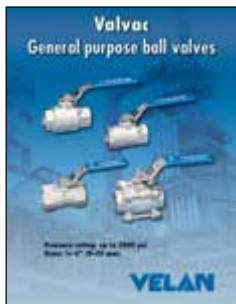
CAT-PBV



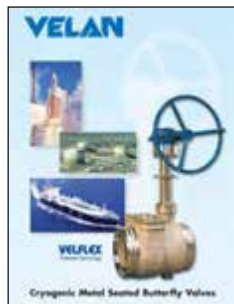
BRO-CBV



CAT-BV



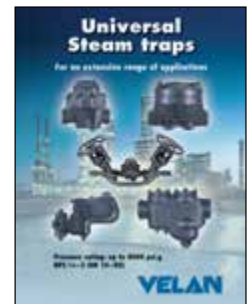
CAT-GPBV



CAT-SAS-CFLEX



CAT-SAS-CCON



CAT-ST

Headquartered in Montreal, Canada, Velan has several international subsidiaries. For general inquiries:

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www.velan.com

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