

Hunt & Mitton Valve Company

Hazardous Chemical Valves



Bellows Seal Control & Isolation Valves

Control & Actuated Isolation

Manual Isolation



Hunt & Mitton Valve Company

Hazardous Chemical Valves

When you need to protect people, processes and the environment.

ISO 9001:2015 & PED Approved and Certified Manufacturers

In November 2016 the Hunt & Mitton Range of Bellows seal isolation valves were fully approved by Eurochlor, certificate No 16/01, to GEST 06/318. We are one of only six manufacturers in the world to have achieved this standard. We were the first to have their approved manufacturing location outside Europe. We also meet the requirements of USA Chlorine Institutes pamphlet 6.

Our Quality Management System is certified approved to ISO 9001:2015 by LRQA and we have a Certificate of Conformity to Module H of the European Pressure Equipment Directive 2014/68/EU issued by Lloyds Register.

With close attention to detail of the approved valve design for hazardous chemical service and a high specification of materials of each component within the product, the Hunt & Mitton range of isolating, actuated ON/OFF and control valve range offers an excellent opportunity to isolate and/or control hazardous liquids and gases.

The chemical industry has continued to develop over the last 100 years at a staggering pace. Some of the chemicals manufactured are the corner stone of many of the most common materials used today. However, these basic chemicals can be highly dangerous to people and the environment. As the demands of the chemical producers have increased, Hunt & Mitton Valve Company have developed their product range to meet their customer's very stringent needs. This is especially so in today's, safety aware and environmentally friendly world in which we live.

When customers require zero fugitive emission from the valve's stem or bonnet, you have to be able to ensure the product performance can match it. Our Bellows seal design ensures that the product stays inside the valve and dangerous emissions to people, plant and the atmosphere do not escape. Our pressure envelope wall thicknesses are in accordance with Eurochlor specifications. Small valve bodies and all sizes of bonnets are forgings. Larger valves have cast bodies which are x-rayed to ensure integrity. **Hunt and Mitton Valve Company is the only manufacturer of Eurochlor approved valves to offer 100% radiography of all castings for chlorine service.**



Hunt & Mitton Valve Company

Hazardous Chemical Valves

Control Valves for Hazardous Chemical Applications

Packed Gland and Bellows Seal Control Valves

Sizes 1" to 12" (DN25 to DN300)

Body Material cast –A352 LCC C Steel, A351 CF8M St Steel, A494 M35-1 NiCu, CW12MW NiCrMoW, CY40 NiCrFe.

End connections— Class 150, Class 300, PN40, Class 600

Our bellows seal control valve product combines the knowledge and know-how of hazardous chemical valves, designed for isolation and zero leakage to the environment, with control valves designed for modulating applications. This product has been designed with the safety features associated with the latest Euro Chlor GEST 06/318 in mind whilst maintaining the functionality of control valves such as longer stroke to provide a better flow modulation, smoother flow paths and a better pressure recovery factor compared to that of an ON/OFF globe valve. The body assembly has a wider chest to allow the use of more sophisticated trims such as multi-stage low noise for gases and anti-cavitation for liquid applications.

Applications

Severe services for hazardous chemicals including the following fluids:

Cl ₂	Chlorine - Liquid and Gas
HF	Hydrogen Flouride Liquid and Gas
COCl ₂	Phosgene
AHCl	Anhydrous Hydrogen Chloride
EDC	Ethylene DiChloride
VCM	Vinyl Chloride Monomer
NH ₃	Liquid Ammonia
HCN	Hydrogen Cyanide
TiCl ₄	Titanium Tetrachloride (Tickle)



Meets the requirements of body wall thickness of Euro Chlor GEST 06/318.

Valve Sizing Coefficient / Cv Rating for Contoured, Single-Stage and Double-Stage Trims for ASME Class 150, Class 300, Class 600, PN16, PN25 and PN40 Series 5601 and 5801 Control Valves.

	Cv DN25	Cv DN40	Cv DN50	Cv DN80	Cv DN100	Cv DN150	Cv DN200
<i>Valve Stroke (mm)</i>	18	25	25	30	40	50	75
Contour EQ%	19	40	58	130	190	406	710
Contour Linear	19	40	58	130	190	406	710
Single Stage Cage Linear	19	39	55	114	182	347	657
Single Stage Cage EQ%	17	35	50	101	167	323	543
2 Stage Linear anti cavitation	9	21	26	52	88	172	345
2 Stage Linear low noise Gas	10	23	33	62	96	188	360

The above represent the standard valve capacities. Reduced capacities including trickle spline trims are also available for each valve size for lower flow applications. 3 and 4 stage Linear Cages can be provided if required for high pressure drop conditions.

Hunt & Mitton Valve Company

Hazardous Chemical Valves

Features of Bellows Seal Control Valve

Throttling and control function with zero leakage to atmosphere, reliable process isolation and robust designs for ease of operation and maintenance.

- Control valve body with long stroke to enable good fluid control from the minimum to maximum process conditions.
- Special trims designed to suit specific applications: variety of options available including contoured, single-stage and multi-stage catering for a variety of fluid conditions including noisy gases and flashing/ cavitating liquids.
- Field proven designs and decades of service experience in a wide range of applications in the chemical, oil, gas, petrochemical and power industries.
- 2 or 3 ply UNS N10276 bellows and UNS N10276 end rings.
- Open bellows design for ease of examination and maintenance and no bellows damage due to trapped corrosion products.
- All testing performed to the requirements of the latest Euro Chlor GEST 06/318 , ANSI B16.34 and ANSI/ FCI 70.2 .
- Flow characteristics: Linear, Equal Percentage and specials.
- Sizing software for fluid flow capacity and noise calculations in accordance with IEC 60534-2-1 and IEC 60534-8-3 respectively.
- Variety of actuators, positioners and accessories as per end-user's requirements. Pneumatic spring diaphragm/ piston-cylinder and electro-hydraulic actuators. Pneumatic, electro-pneumatic and SMART(HART) and Fieldbus enabled positioners. Limit switches and solenoid valves.

Valve Design Features

Body & Bonnet

- Minimum wall thickness in accordance with GEST 06/318 (API600).
- GEST 06/318 NDE including castings to ASTM E446 Level 2.
- All material options available, carbon steel (LT, HT), stainless steel, duplex stainless steel and nickel alloy.
- ISA-75.08.01-2002 standard face-to-face.

Bellows

- Bellows guaranteed for at least 100,000 Open/Close/Open cycles per GEST 06/318.

Auxiliary Stuffing Box

- 5 ring PTFE chevron packing set, spring loaded, requires no routine maintenance.
- Leak detection tapping to the inter space between bellows seal and auxiliary gland available as option.

Bolting

- Low alloy steel bolting Xylan coated to minimise corrosion and to facilitate easy maintenance.

Trim

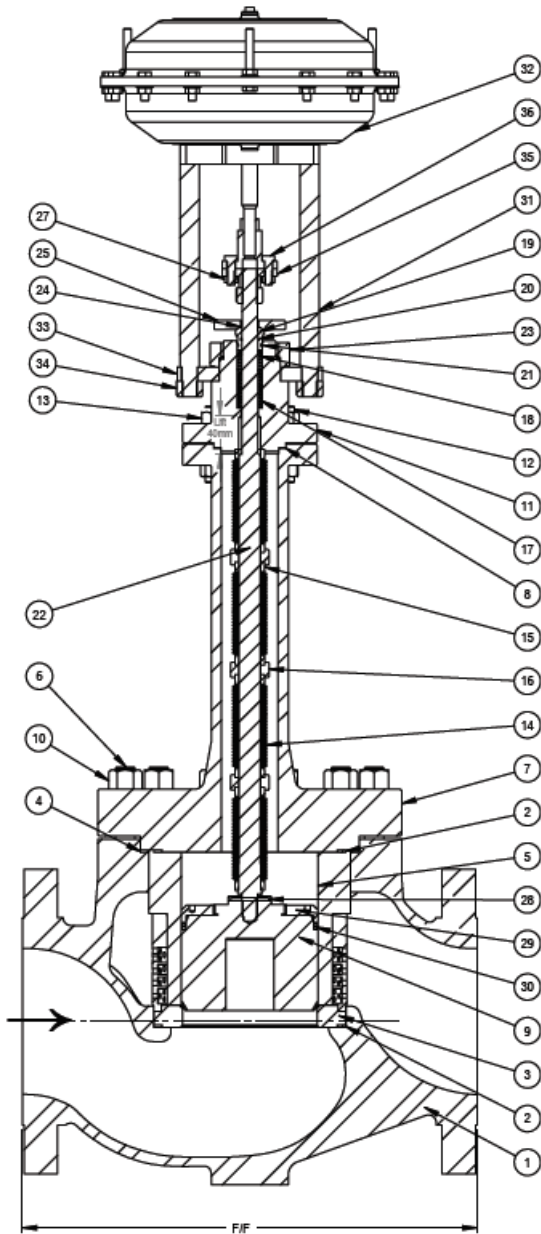
- Replaceable.
- Stellited sealing surface as standard. Soft seal seat available as option.
- Plug pinned to stem to ensure repeatable flow control.

Hunt & Mitton Valve Company

Hazardous Chemical Valves

General Arrangement Drawing—Parts & Material List

Typical Material Selection for Liquid Chlorine Service



ITEM NO.	DESCRIPTION	QTY.	MATERIAL
1	DN150 QS BODY WITH 300RF FLANGES	1	A352 LCC
2	GASKET	2	Monel & GRAPHITE
3	SEAT	1	A479 316+ST6
4	GASKET	1	Monel & GRAPHITE
5	CAGE	1	316SS+Chrome HF
6	M20 STUD	12	A320 L7M+Xylan1424
7	BELLOWS CONNECTOR TUBE	1	A350 LF2
8	GASKET	1	GYLON 3510
9	PLUG	1	A479 316+ST6
10	M20 NUT - HEAVY	12	A320 L7M+Xylan 1424
11	BONNET	1	A350 LF2
12	M12 STUD BOLTS	4	A320 L7M+Xylan 1424
13	M12 NUT - HEAVY	9	A320 L7M+Xylan 1424
14	BELLOWS	4	UNS N10276
15	BELLOWS END RING	8	UNS N10276
16	BELLOWS CONECTOR RING	3	UNS N10276
17	SPRING	1	STAINLESS STEEL
18	PACKING SET	1	PTFE
19	GLAND FOLLOWER	1	A479 316
20	O'Rings	1	EPDM
21	O'Rings	1	EPDM
22	STEM	1	UNS N06022
23	LOCK RING(A)	1	UNS S43100
24	FELT WASHER	1	FELT
25	GLAND PLATE	1	A479 316
26	M8 STUD	2	A320 L7M+Xylan1424
27	M8 NUT	4	A320 L7M+Xylan 1424
28	SPIROL PIN - HEAVY DUTY	1	316 SS
29	PLUG TOP	1	A479 316
30	PISTON RING	1	PTFE/ELGILOY
31	PILLAR	2	TYPE 316
32	ACTUATOR PA 60	1	
33	ACTUATOR MOUNTING PLATE	1	316 SS
34	M16 NUT - HEAVY	3	A320 L7M+Xylan 1424
35	ACTUATOR COUPLING	1	316 SS
36	M8 BOLTS	2	A320 L7M+Xylan 1424

Other Materials are available.

Material Selection will be changed to suit the application.

Hunt & Mitton Valve Company

Hazardous Chemical Valves

Actuated Bellows Seal Isolation Valves—Emergency Shutdown

Series 8850/1

Sizes Forged 1/2" to 2" (DN15 to DN50)

Body Material - C Steel A350 LF2, S Steel F316.

Sizes Cast 2 1/2" to 16" (DN65 to DN400)

Body Material - A352 LCC Carb Steel, A351 CF8M St Steel, A494 M35-1 NiCu, CW12MW NiCrMoW, CY40 NiCrFe.

End connections—1/2" to 1 1/2" (DN15 to DN40) Screwed End, Socket Weld.
1/2" to 16" (DN15 to DN400) flanged Class 150, Class 300, PN16, PN25 and PN40.

The valves can be fitted with air regulator sets, Solenoid valves for open or emergency shutdown and or, air lock valves for fail in place. A greater level of flexibility to meet customer operational and control needs of their processes.



Features & Benefits

Containment of Dangerous Emissions

All valves are fitted with a UNS N10276 bellows seal guaranteed for 20,000 Open/Close/Open cycles. Valves are also designed with back up secondary pure PTFE packing glands and seals as standard.



Repeatable tight closure and isolation.

For metal to metal seated valves the disc is harder than the seat minimising disc damage during operation ensuring long life for the seating surfaces.

Polymer ring soft seat plugs are also available.

Open Bellows Design

Our design of open bellows and bolted top assembly gives easy access to inspect the bellows assembly area. The open design ensures that any corrosion products in the fluid do not get trapped around the bellows causing damage and early failure.



Body Integrity and wall thickness

Small valve bodies and all sizes of bonnets are forgings. Cast body integrity is monitored by 100% x-ray inspection, while wall thickness is in accordance with Eurochlor specifications for use on liquid chlorine services.

Hunt & Mitton Valve Company

Hazardous Chemical Valves

Actuated ON / OFF Isolating Valves with Bellows Seal — Emergency Shutdown Series 8850 & 8851 Contd.

Actuators

Pneumatic or electric actuators are available. The valves can be fitted with air regulator sets, Solenoid valves for open or emergency shutdown and or, air lock valves for fail in place.



Xylan coated

All studs and nuts are coated with Whitford Xylan anti corrosion, self lubricating compound .



Bellows seals are made from UNS N10276. They are welded in to position on the bonnet and stem and are subject to 100% DPI.

Seat and plug are stellite finished to ensure a hard wearing and positive shut off.

Design & Performance

With a strength in design and excellent materials for the containment and isolation of hazardous liquids and gases, the Fig 8850/1 range has built an enviable reputation for long service life and excellent performance.

Hunt & Mitton Valve Company

Hazardous Chemical Valves

Manual Bellows Seal Isolation Valves—Series 8800/1 Straight pattern — Series 8901 Angle Pattern

Sizes Series 8800 1/2" to 2" (DN15 to DN50)

Body Material Forged - C Steel A350 LF2, S Steel F316.

Sizes Series 8801 2 1/2" to 16" (DN65 to DN400)

Sizes Series 8901 1" to 6" (DN25 to DN150)

Body Material Cast - A352 LCC Carb Steel, A351 CF8M St Steel, A494 M35-1 NiCu, CW12MW NiCrMoW, CY40 NiCrFe.

End connections— 1/2" to 1 1/2" (DN15 to DN40) Screwed End, Socket Weld.

1/2" to 16" (DN15 to DN400) flanged Class 150, Class 300, PN16, PN25 and PN40.

Design & Performance

With a strength in design and excellent materials for the containment and isolation of hazardous liquids and gases, the series 8800/1 & 8901 ranges have built an enviable reputation for long service life and excellent performance.

Containment of Dangerous Emissions

All valves are fitted with a UNS N10276 bellows seal guaranteed for the life of the valve. Valves are also designed with back up secondary pure PTFE packing glands and seals as standard.

Repeatable tight closure and isolation.

For metal to metal seated valves the disc is harder than the seat minimising disc damage during operation ensuring long life for the seating surfaces.

Polymer ring soft seat plugs are also available.

Open Bellows Design

Our design of open bellows and bolted top assembly gives easy access to inspect the bellows assembly area. The open design ensures that any corrosion products in the fluid do not get trapped around the bellows causing damage and early failure. The bellows are guaranteed for the life of the valve.

Body Integrity and wall thickness

Small valve bodies and all sizes of bonnets are forgings. Cast body integrity is monitored by 100% x-ray inspection, while wall thickness is in accordance with Eurochlor specifications for use on liquid chlorine services.

Hand Wheel Easy Operation

We have ensured that the manual valves are easy to operate using cast three or four spoke large diameter wheels and the use of needle and ball bearings are fitted on sizes 1 1/2" (DN40) and above to ensure easy operation and rotation when opening and closing the valve.

Xylan coated

All studs and nuts are coated with Whitford Xylan anti corrosion, self lubricating compound .



Series 8800/1



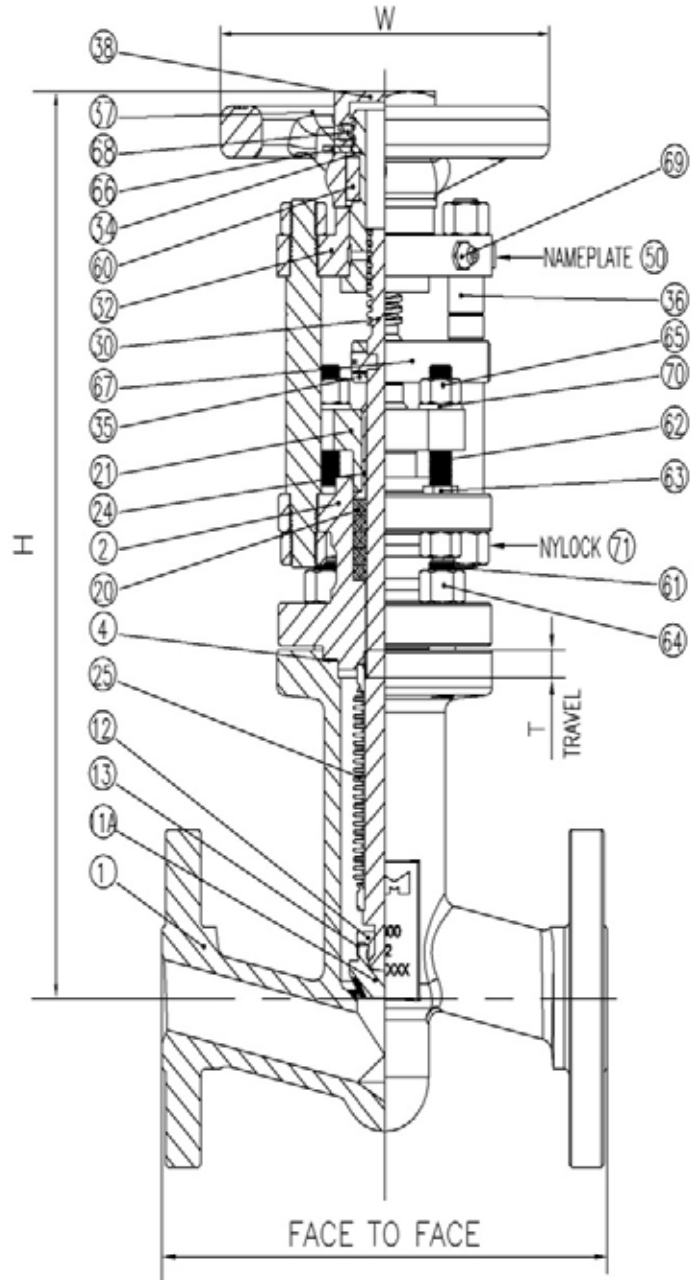
Series 8901

Hunt & Mitton Valve Company

Hazardous Chemical Valves

Standard Parts & Materials List for Liquid Chlorine Service

Series 8800/1, 8901		
Ref	Description	Materials
1	Body	Carb St ASTM A350 LF2/A352 LCC + Stellite 21
2	Bonnet	Carb. Steel ASTM A350 LF2
4	Body/Bonnet Gasket	Gylon 3510
11A	Disc	Stainless Steel 316Ti (1.4571) + Stellite 6
12	Disc Nut	Carb. Steel ASTM A350 LF2 + Stellite 6
13	Disc Lock Washer	Stainless Steel UNS S43100
20	Packing Ring	Pure PTFE
21	Packing Gland	Stainless Steel A182 F316
24	Gland Scraper Bush	PTFE
25	Bellows	UNS N10276 (2.4819)
30	Stem	SS UNS S31803 /NiCrMoW UNS N06022
32	Yoke Flange	Carb. Steel AISI 1035
34	Yoke Sleeve	Aust. Ductile Iron A439 D2
35	Anti Rotation Bridge	Carb. Steel AISI 1035
36	Pillar	Carb. Steel AISI 1035
37	Handwheel	SG Iron BS EN 1563 EN-GJS-420-12
38	Handwheel Locknut	Carb. Steel AISI 1035
50	Name Plate	Stainless Steel 316
60	Key	Carb. Steel AISI 1025
61	Stud	Alloy Steel A320 L7M Xylan 1424
62	Stud bolt	Alloy Steel A320 L7M Xylan 1424
63	Lock Nut	Stainless Steel A4-70
64	Nut	Alloy Steel A320 L7M Xylan 1424
65	Nut	Alloy Steel A320 L7M Xylan 1424
66	Washer	Carb. Steel AISI 1020
67	Dog Point Screw	Stainless Steel 316
68	Set Screw	Stainless Steel 316
69	Lubricator	A570 GR.A
70	Washer	Stainless Steel 316
71	Nut Nylock	Carb. Steel AISI 1045 / Nylock



The above materials are an example for a typical chlorine service. Other Material options are available for a wide range of hazardous chemical applications. Please consult the sales office.

Hunt & Mitton Valve Company

Hazardous Chemical Valves

Manual Packed Gland Isolation Valves—Series 6800/1

Sizes Forged 1" to 1 1/2" (DN25 to DN40)

Body Material - C Steel A350 LF2. S Steel F316.

Sizes Cast 2" to 6" (DN50 to DN150)

Body Material - A352 LCC Carb Steel, A351 CF8M St Steel, A494 M35-1 NiCu, CW12MW NiCrMoW, CY40 NiCrFe.

End connections— 1/2" to 1 1/2" (DN15 to DN40) Screwed End, Socket Weld.

1/2" to 6" (DN15 to DN150) flanged Class 150, Class 300, PN16, PN25 and PN40.

Design & Performance

With a strength in design in accordance with GEST 90/150 and excellent materials for the containment and isolation of hazardous liquids and gases, the Fig 6800/1 range has built an enviable reputation for long service life and excellent performance.

Containment of Dangerous Emissions

All valves are fitted with a pure PTFE packing twice the length of valve travel and protected by a gland scraper bush as standard.

Repeatable tight closure and isolation.

For metal to metal seated valves the disc is harder than the seat minimising disc damage during operation ensuring long life for the seating surfaces.

Polymer ring soft seat plugs are also available.

Packed Gland Design

Our design of packed gland combined with a deep packing chamber of more than twice the travel ensures zero leakage.

Body Integrity and wall thickness

Small valve bodies and all sizes of bonnets are forgings. Cast body integrity is monitored by 100% x-ray inspection, while wall thickness is in accordance with Eurochlor specifications for use on liquid chlorine services.

Hand Wheel Easy Operation

We have ensured that the manual valves are easy to operate using cast three or four spoke large diameter wheels and the use of needle roller thrust bearings fitted on sizes 3" (DN80) and above Class 300 rating, to ensure easy operation and rotation when opening and closing the valve.

Xylan coated

All studs and nuts are coated with Whitford Xylan anti corrosion, self lubricating compound .

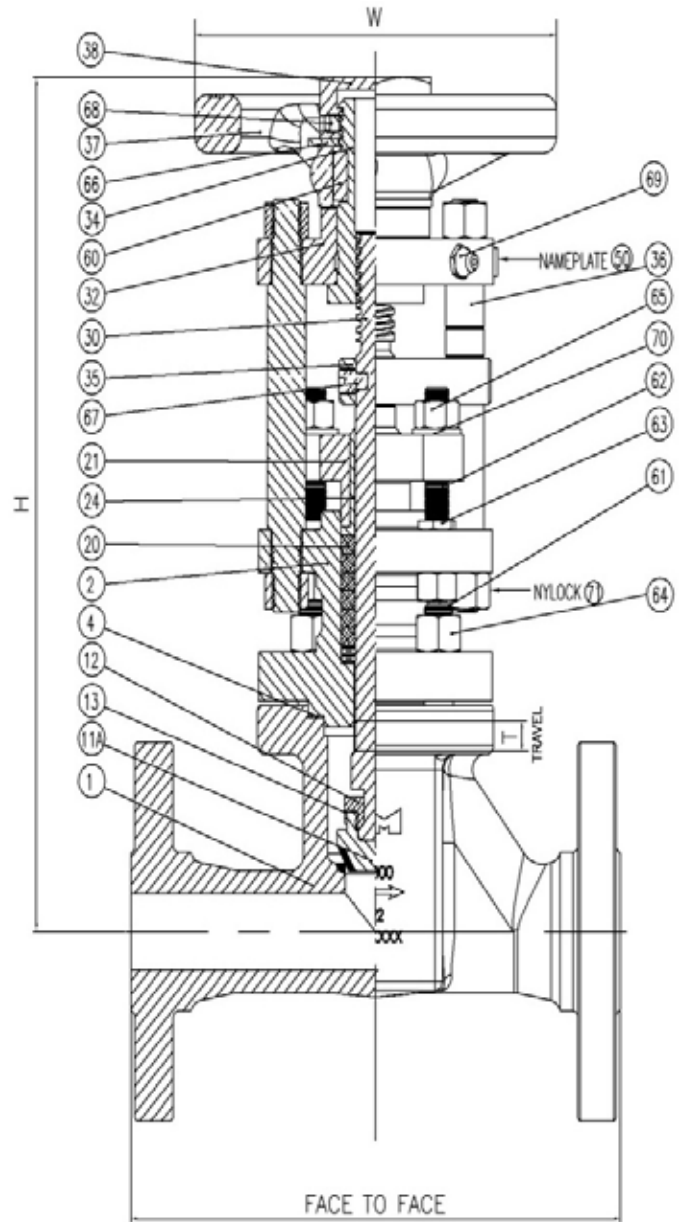


Hunt & Mitton Valve Company

Hazardous Chemical Valves

Standard Parts & Materials List for Liquid Chlorine Service

Series 6800/1		
Ref	Description	Materials
1	Body	Carb Steel ASTM A350 LF2 + Stellite 21 / Carb Steel ASTM A352 LCC + Stellite 21
2	Bonnet	Carb. Steel ASTM A350 LF2
4	Body/Bonnet Gasket	Gylon 3510
11A	Disc	Stainless Steel 316Ti (1.4571) + Stellite 6 Carb. Steel ASTM A350 LF2 + Stellite 6
12	Disc Nut	Stainless Steel UNS S43100 CuNi UNS N04400
13	Disc Lock Washer	Stainless Steel 316 CuNi UNS N04400
20	Packing Ring	Pure PTFE / Crosflon 905
21	Packing Gland	Stainless Steel A182 F316
24	Gland Scraper Bush	PFTE
30	Stem	Duplex UNS S31803 NiCrMoW UNS N06022
32	Yoke Flange	Carb. Steel AISI 1035
34	Yoke Sleeve	Aust. Ductile Iron A439 D2
35	Anti Rotation Bridge	Carb. Steel AISI 1035
36	Pillar	Carb. Steel AISI 1035
37	Handwheel	SG Iron BS EN 1563 EN-GJS-420-12
38	Handwheel Locknut	Carb. Steel AISI 1035
50	Name Plate	Stainless Steel 316
60	Key	Carb. Steel AISI 1025
61	Stud	Alloy Steel A320 L7M Xylan 1424
62	Stud bolt	Alloy Steel A320 L7M Xylan 1424
63	Lock Nut	Stainless Steel A4-70
64	Nut	Alloy Steel A320 L7M Xylan 1424
65	Nut	Alloy Steel A320 L7M Xylan 1424
66	Washer	Carb. Steel AISI 1020
67	Dog Point Screw	Stainless Steel 316
68	Set Screw	Stainless Steel 316
69	Lubricator	A570 GR.A
70	Washer	Stainless Steel 316
71	Nut Nylock	Carb. Steel AISI 1045 / Nylock



Other Material options are available for a wide range of hazardous chemical applications. Please consult the sales office.

Hunt & Mitton Valve Company

Hazardous Chemical Valves

Low Internal Volume Manual Bellows Seal Isolating Valves Series 8700/1 Globe Pattern

Polymerising Applications.

For applications which require low internal volumes of chemicals within the valve body and will be used on lower pressure applications, Hunt & Mitton's low cost globe pattern fig 8700/1 isolating valve gives tight shut off and zero emissions outside of the pressure envelope.

Manufactured from the same high material content as others in the range and fully tested at 20 bar pressure, with the bellows unit guaranteed for 10,000 cycles by our team of engineers at the factory.

Sizes Forged 1 1/2" (DN40)

Body Material - Carb steel, stainless steel or CW12MW NiCrMoW, Nickel alloy.

Sizes Cast 2" to 8" (DN50 to DN200)

Body Material - A216 WCB, A352 LCC Carb Steel, A351 CF8M St Steel, A494 M35-1 NiCu Alloy, CW12MW NiCrMoW Alloy.

End connections—Class 150, 300, PN16, 25, 40.

Design & Performance

With a strength in design and excellent materials for the containment and isolation of hazardous liquids and gases, the Series 8700/1 range have built an enviable reputation for long service life and excellent performance.

Repeatable tight closure and isolation.

For metal to metal seated valves the disc is harder than the seat minimising disc damage during operation ensuring long life for the seating surfaces.

Polymer ring soft seat plugs are also available.



Open Bellows Design

Our design of open bellows and bolted top assembly gives easy access to inspect the bellows assembly area. The open design ensures that any corrosion products in the fluid do not get trapped around the bellows causing damage and early failure.

Hunt & Mitton Valve Company

Hazardous Chemical Valves

Cv values and Face to Face Dimensions for Hand operated isolation valves and actuated Isolation valves.

Face to Face dimensions are in accordance with international standards: ASME B16.10; BS EN 558; BS 2080; GB/T 12221; JIS B2002

Series 8800/01 - 8850/51	Cv Table						
Size	DN25	DN40	DN50	DN80	DN100	DN150	DN200
Globe Class 300 flow under	12	25	45	125	200	400	710
Globe Class 150 flow under	11	23	41	113	190	380	675

Series 6800/01 - 8700/01	Cv Table						
Size	DN25	DN40	DN50	DN80	DN100	DN150	DN200
Globe Class 300 flow under	12	25	45	125	200	400	710
Globe Class 150 flow under	11	23	41	113	190	380	675

Series 8800/01, 8850/01, 6800/01, 8700/01	Face to Face Dimensions							
Size	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
Class 150 Series 3 -(Ball & Plug Valve)	N/A	117	127	N/A	165	178	N/A	203
Class 150 Series 10 -(Globe Valve)	N/A	117	127	N/A	165	203	N/A	241
Class 300RF Series 21 (Globe Valve)	152	178	203	N/A	229	267	N/A	318
Class 300LG Series 21 (Globe Valve)	162	187	213	N/A	238	276	N/A	327
Class 300LT Series 21 (Globe Valve)	165	191	216	N/A	241	279	N/A	330
Class 300RF Series 4 - (Ball & Plug Valve)	140	152	165	N/A	191	216	N/A	283
PN16, PN25, PN40 Series 1	130	150	160	180	200	230	290	310
	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400
Class 150 Series 3 -(Ball & Plug Valve)	229	N/A	267	N/A	N/A	N/A	N/A	N/A
Class 150 Series 10 -(Globe Valve)	292	N/A	406	495	622	699	787	914
Class 300RF Series 21 (Globe Valve)	356	N/A	445	559	622	711	838	914
Class 300LG Series 21 (Globe Valve)	365	N/A	454	568	632	721	848	924
Class 300LT Series 21 (Globe Valve)	368	N/A	457	572	635	724	851	927
Class 300RF Series 4 - (Ball & Plug Valve)	305	N/A	403	502	568	648	762	838
PN16, PN25, PN40 Series 1	350	400	480	600	730	850	980	1100

Hunt & Mitton Valve Company

Hazardous Chemical Valves

Inspection and Testing for Liquid Chlorine Applications

Process Control on essential components during manufacturing

- Visual check and dimensional inspection of body and bonnet, review material certs and heat treatment chart.
- Radiography on the body casting and review the reports.
- Review of MPI certificates for body and bonnets castings.
- Review of UT certificates of bar used for connector and bonnet forging.
- Visual and dimensional inspection of body connector & connector bonnet bolting material. Review of material certs. Confirm material identified with grade.
- Visual and dimensional inspection of stem, plug, cage and seat material Review of material certs. Confirm material identified with heat number.
- PMI of stem and all other non carbon steel materials.
- Visual and dimensional inspection of bellows. Review of material certs. Confirm material identified with heat number.
- Visual and dimensional inspection of PTFE gland packing from approved supplier.
- Visual and dimensional inspection of Body Connector.
- Gasket & Connector Bonnet Gasket from approved UK supplier.
- Visual and dimensional inspection of actuator, positioner and auxiliary items from approved supplier. Review of conformity certificates.
- Final Dimensional Inspection of components after machining. Confirm identification to material certificates.
- Hydrostatic Pressure Test at 1.5 x PS of body, connector and bonnet. High Pressure Pneumatic Test at 1.1 x PS of cast bodies under water.
- Clean components including welding slag on body internal surfaces. Degrease.
- Weld bellows to stem and bonnet. Record welding wire heat number and bellows stem and bonnet identification numbers.
- Inspection of bellows to stem and bellows to bonnet welds using DPI and Visual.
- External pressure test at 57 barg of bellows assembly without auxiliary gland packing.
- Assemble gland packing and pillars to bellows assembly. Record heat numbers Body, Bonnet, Plug, Seat and Stem. Also for Control Valve Connector and Cage.
- Pneumatic Pressure Test at 1.1 x PS of shell of partly open assembled valve. Pneumatic Pressure Test of seat. See Data Sheet for flow direction.
- Paint Epoxy coating. Dry each valve in oven at 120°C for minimum 3 hours. Fit metal blanking flanges with silica gel on inner face.
- Fit actuator, positioner and accessories per Data Sheet and functional test valve and actuator assembly.
- Final Inspection Visual, Dimensional, Body marking and identification plate, CE mark, Serial no, Painting, Flange Protection, SS Tag "CLEANED FOR CHLORINE SERVICE".

Hunt & Mitton Valve Company

Hazardous Chemical Valves

Hunt & Mitton Since 1842

Hunt & Mitton first developed their hazardous chemical valve range between 1948—1955 in cooperation with Imperial Chemical Industries in Birmingham UK. Since these early days Hunt & Mitton have maintained a presence in this sector of the valve industry. Today our products cover a wide range of chemical service applications. Our sizes range from DN15 (1/2") to DN400 (16") in a range of manual handwheel operated, or pneumatically / electrically actuated and fitted with solenoid valves for emergency shutdown. They include both the straight pattern for pipeline installation and angle pattern for vessel installation.

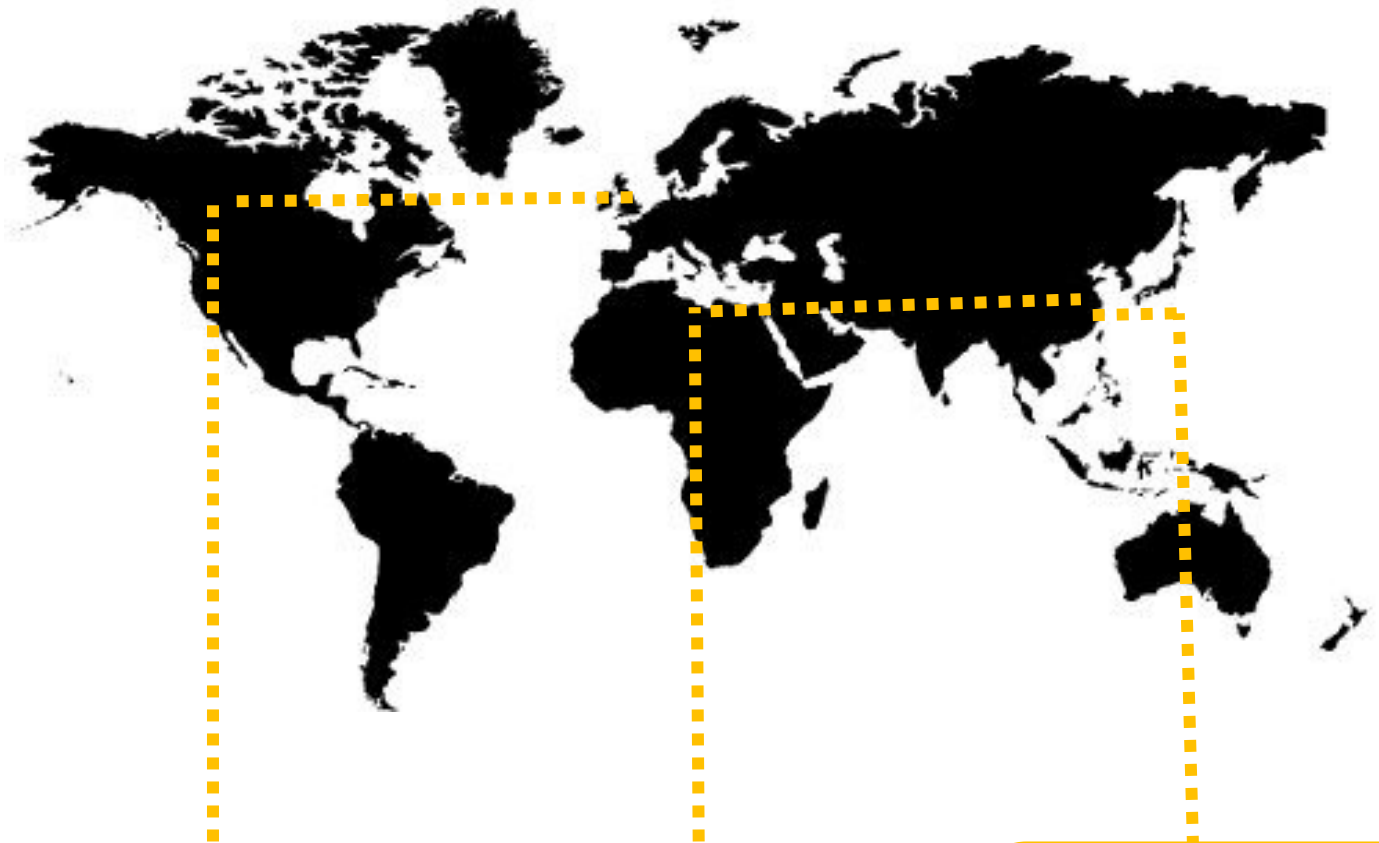
Bellows Seal Design—Control Valves, ON/OFF Actuated & Manual.

Features & Benefits

- Designed in accordance with Eurochlor's GEST 06/318 and conforming to the USA Chlorine institute pamphlet 6.
- Zero emission leakage due to bellows, auxiliary ptfе seals and gylon body bonnet joints.
- Bellows fitted as standard and guaranteed for 20,000 cycles on actuated valves, 100,000 cycles on control valves or for life on manual valves.
- Cast bodies and bonnets are 100% x-rayed to GEST 06/318.
- Control valve bodies made from castings for all sizes to give superior flow paths and high Cv values.
- Narrow seat contact surface with stellite seat and disc give repeatable tight shut off for ON/OFF Actuated & Manual valves
- Hand wheel with open and close direction complemented with bearings to allow easy, smooth and repeatable operation.
- Scraper bush fitted to ensure cleaning of stem.
- Body & bonnet tested to 1.5 x MCWP. Isolation valves seat leakage test to 1.1 x MCWP with zero bubbles leakage.
- Easy access to bellows for inspection and maintenance. Open design ensures that any corrosion products in the fluid do not get trapped around the bellows causing damage and early failure.
- Studs, bolts and nuts fully Whitford Xylan coated giving anti corrosion protection and easy maintenance.

Hunt & Mitton Valve Company

Hazardous Chemical Valves



H & M Valve Company Ltd

Cheadle Place Business Centre,
Stockport
SK8 2GL United Kingdom
Web: www.huntandmitton.net
Tel +44 (0)7903 564569
Technical

Hunt & Mitton Valve Company

Pump and Valve Industrial Park
Xinyuan Road
Dafeng District, Jiangsu
224100 China
Web: www.huntandmitton.net
Tel +86 (515) 83858602
Manufacturing

Hunt & Mitton Valve Company

RM 1108 Hui Tong Tower
#569 Jingling East Rd
Shanghai, China
sales@huntandmitton.net
Web: www.huntandmitton.net
Tel +86 (21) 53068881
Sales



Copyright © January 2019. V.3.6
All rights reserved Hunt and Mitton
Valve Company Ltd

