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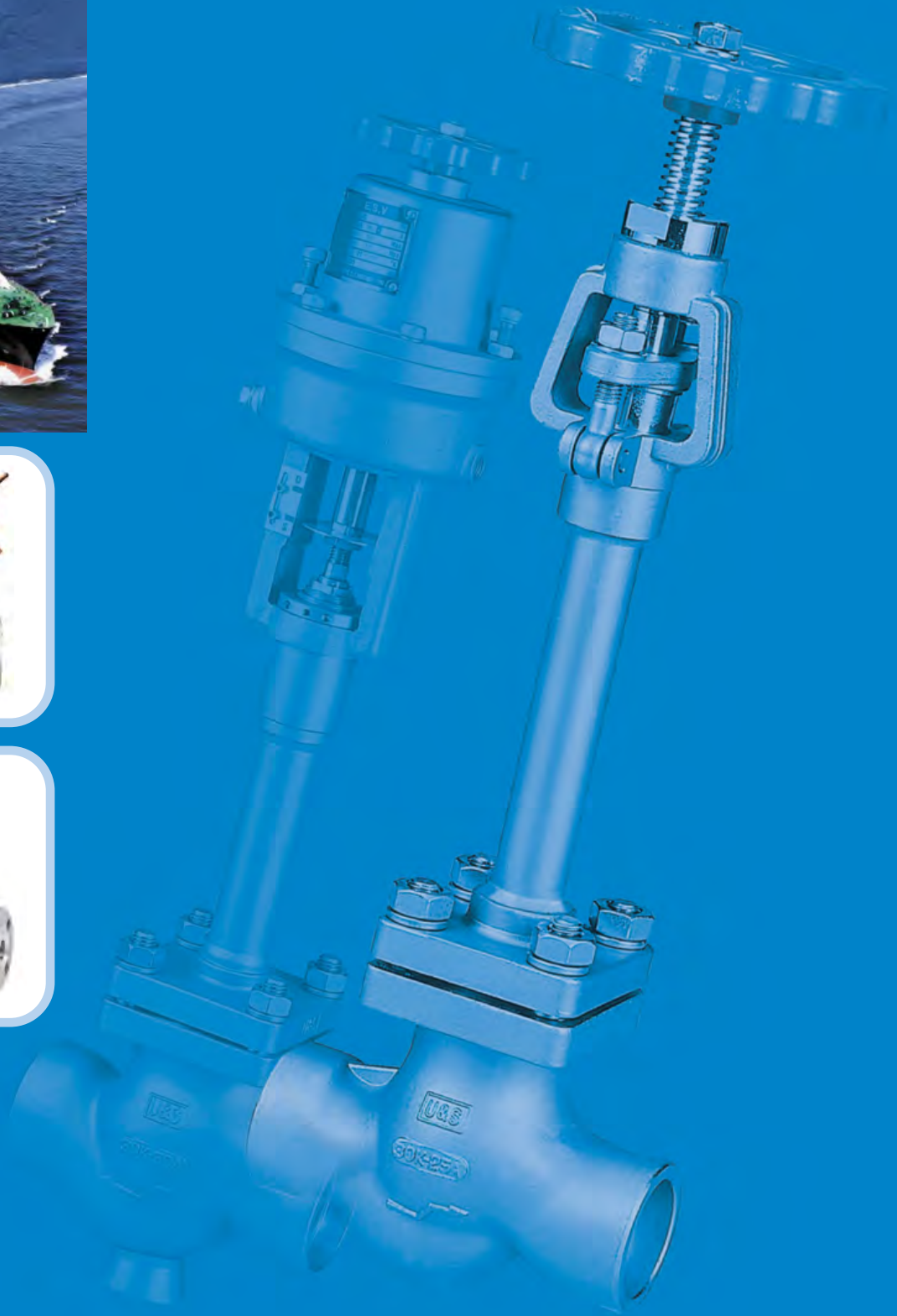
LIFE MATTERS



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# U&S

## TOTAL GAS ENGINEERING



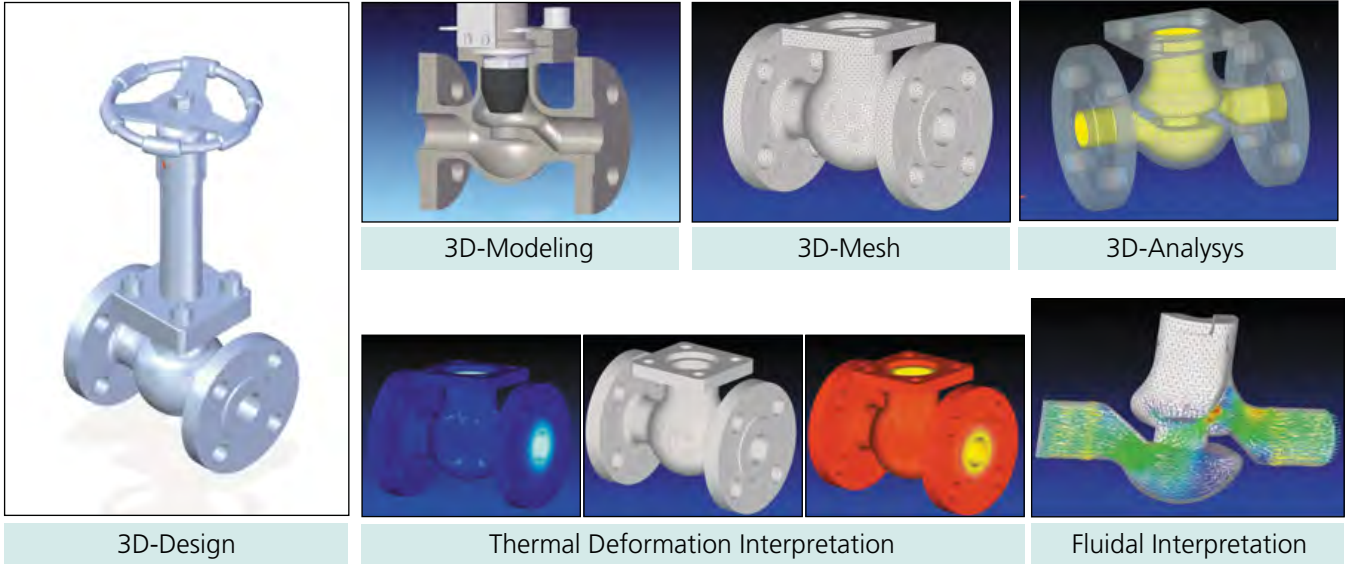
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## Design Verification



## Quality Verification



# Factory System Products



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DIVERT VALVE .....	18
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# Figure Number Coding

## Coding and Ordering Information

MODEL : U&S - **C** **S** **L** - **SW** **25** - **30**

### PART

C - CRYOGENIC VALVE  
 R - REGULATOR  
 E - ECONOMIZER  
 V - VALVE  
 A - AUTO CHANGER  
 S - SAFETY VALVE  
 CE - EXTENDED CRYOGENIC  $\frac{V}{V}$   
 (FOR LGC & SMALL TANK)  
 L - LPG  
 N - LNG  
 MN - MARINE LNG  
 MP - MARINE LPG

### MATERIAL

B - BRASS  
 S - STS  
 A - AL  
 G - GCD(DUCTILE IRON)  
 C - CARBON STEEL

### TYPE

S - SHORT GLOBE VALVE  
 L - LONG GLOBE VALVE  
 H - HIGH PRESSURE(HIGHER THAN 20kg/cm<sup>2</sup>)  
 M - MIDDLE PRESSURE(LOWER THAN 20kg/cm<sup>2</sup>)  
 G - 3-WAY-GAUGE  
 D - 3-WAY-DIVERT  
 C - CHECK VALVE (LIFT)  
 I - CHECK VALVE (INLINE)  
 W - CHECK VALVE (SWING)  
 T - STRAINER  
 E - EMERGENCY SHUT-OFF VALVE  
 V - VACUUM VALVE  
 O - CONTROL VALVE  
 X - EXCESS FLOW VALVE  
 BB - BOLTED BONNET

### RATING

10 - 10K  
 20 - 20K  
 30 - 30K  
 150 - 150LB  
 300 - 300LB  
 600 - 600LB  
 900 - 900LB  
 1200 - 1200LB  
 1500 - 1500LB

### SIZE

8 - 8A(1/4")  
 10 - 10A(3/8")  
 15 - 15A(1/2")  
 20 - 20A(3/4")  
 25 - 25A(1")  
 40 - 40A(1-1/2")  
 50 - 50A(2")

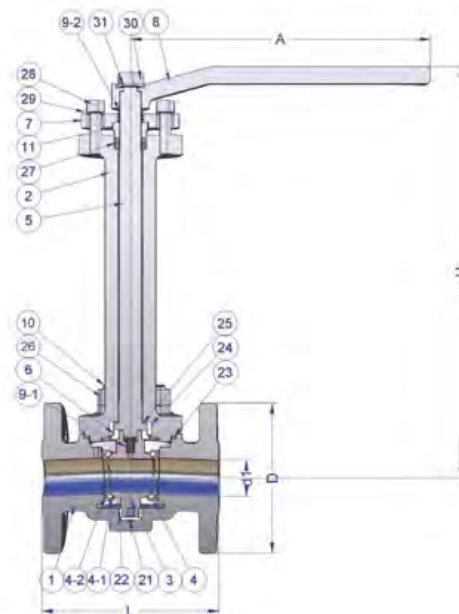
### CONNECTION

S - SCREW  
 F - FLANGE  
 BW - BUTT WELDING  
 SW - SOCKET WELDING  
 UW - UNION WELDING



# MARINE LNG STS TOP ENTRY BALL VALVE

## Model : U&S-MNSB



Model : U&S-MNSB(ノ)

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### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	CF8M
2	BONNET	CF8M
3	BALL	STS 316
4	SEAT RING	STS 316
4-1	PACKING	PCTFE
4-2	PACKING	GRAPHITE
5	STEM	STS 316
6	BALL SLEEVE	STS 316
7	FLANGE GLAND	CF8M
8	HANDLE	CF8M
9-1	SPRING	STS 316
9-2	SPRING	STS 316
10	STUD BOLT	STS 316

NO	PART NAME	MATERIAL
11	GLAND	STS 316
21	BALL PACKING	PTFE
22	LOWER BEARING	PCTFE
23	BONNET GASKET	GRAPHITE
24	UPPER BEARING	PCTFE
25	STEM BEARING	GRAPHITE
26	LOCK NUT	STS 316
27	STEM PACKING	GRAPHITE
28	WRENCH BOLT	STS 316
29	LOCK WASHER	STS 316
30	NUT	STS 316
31	SPRING WASHER	STS 316

### DIMENSION

SIZE	L	d1	D	H	A
15A	108	15	89	266.7	215
25A	127	25	108	293.7	215

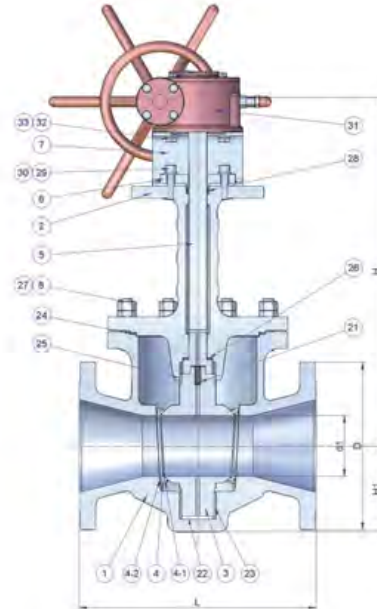
### SPECIFICATION

- Hydrostatic test pressure : 225LB
- Pneumatic test pressure : 165LB
- Fluid : LNG, LIN, LOX, LAr
- Fire safety design
- Anti-static device

- Design Pressure : 150LB
- Design Temperature : -196°C ~ +80°C
- Design Code : BS 5351, BS6364, API 6D, API 607
- Cryogenic test

# MARINE LNG STS TOP ENTRY BALL VALVE

## Model : U&S-MNSB



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	CF8M
2	BONNET	CF8M
3	BALL	STS 316
4	SEAT RING	STS 316
4-1	PACKING	PCTFE
4-2	PACKING	GRAPHITE
5	STEM	STS 316
6	FLANGE GLAND	STS 316
7	BRACKET	STS 316
8	STUD BOLT	STS 316
21	SPRING	STS 316
22	BALL PACKING	PTFE

NO	PART NAME	MATERIAL
23	LOWER BEARING	PCTFE
24	BONNET GASKET	GRAPHITE
25	UPPER BEARING	PCTFE
26	STEM BEARING	GRAPHITE
27	LOCK NUT	STS 316
28	STEM PACKING	GRAPHITE
29	WRENCH BOLT	STS 316
30	LOCK WASHER	STS 316
31	GEAR BOX	A536 ㉔
32	HEX BOLT	STS 316
33	SPRING WASHER	STS 316

### DIMENSION

SIZE	L	d1	D	H1	H
80A	283	76	191	82	405
150A	394	101.6	279.5	143	575.3
200A	457	152	343	185	618

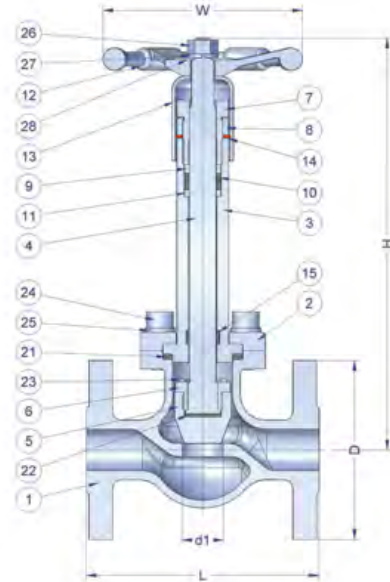
### SPECIFICATION

- Hydrostatic test pressure : 225LB
- Pneumatic test pressure : 165LB
- Fluid : LNG, LIN, LOX, LAR
- Fire safety design
- Anti-static device

- Design Pressure : 150LB
- Design Temperature : -196°C ~ +80°C
- Design Code : BS 5351, BS6364, API 6D, API 607
- Cryogenic test

# MARINE LNG STS GLOBE TYPE NEEDLE VALVE

## Model : U&S-MNSG



Model : U&S-MNSG

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### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	CF8M
2	BONNET FLANGE	CF8M
3	EXTENDED BONNET	CF8M
4	STEM	STS 316
5	DISC	STS 316
6	STEM LOCK NUT	STS 316
7	GLAND	STS 316
8	GLAND LOCK NUT	STS 316
9	SLEEVE	STS 316
10	PACKING	GRAPHITE
11	FLAT WASHER	STS 316
12	HAND WHEEL	CF8M

NO	PART NAME	MATERIAL
13	POSITION INDICATOR CAP	STS 316
14	POSITION INDICATOR	MC NYLON
15	PACKING	PTFE
21	PACKING	GRAPHITE
22	PACKING	GRAPHITE
23	STOP RING	STS 316
24	WRENCH BOLT	STS 316
25	SPRING WASHER	STS 316
26	HEX NUT	STS 316
27	SPRING WASHER	STS 316
28	NAME PLATE	STS 316

### DIMENSION

SIZE	L	d1	D	H	W
15A	115	15	88.9	208	100
25A	140	25	108	258	120
32A	165	32	117	268	120

### SPECIFICATION

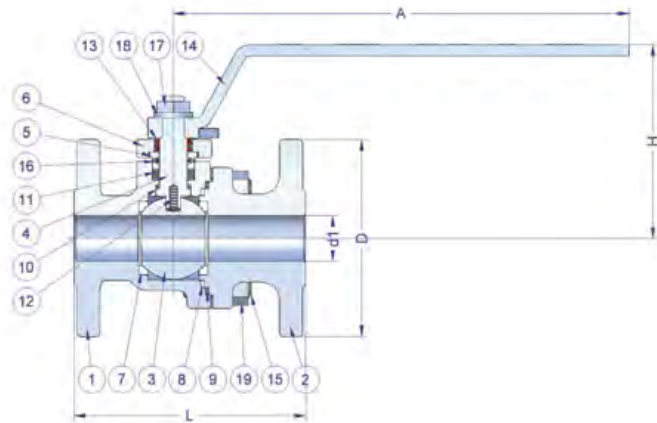
- Hydrostatic test pressure : 225LB
- Pneumatic test pressure : 165LB
- Fluid : LNG
- Fire safety design

- Design Pressure : 150LB
- Design Temperature : -196°C ~ +80°C
- Design Code : BS6364, API 6D, API 6FA
- Cryogenic test



# MARINE LPG STS SIDE ENTRY 2 PIECE BALL VALVE

## Model : U&S-MPSB



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	CF8M
2	COVER	CF8M
3	BALL	STS 316
4	STEM	STS 316
5	GLAND	STS 316
6	FLANGE GLAND	STS 316
7	BALL PACKING	PTFE
8	PACKING	PTFE
9	PACKING	GRAHPITE
10	STEM BEARING	PTFE

NO	PART NAME	MATERIAL
11	STEM PACKING	GRAHPITE
12	SPRING	STS 316
13	SPRING	STS 316
14	HANDLE	CF8M
15	STUD BOLT	STS 316
16	O-RING	VITON
17	NUT(3番)	STS 316
18	SPRING WASHER	STS 316
19	NUT	STS 316

### DIMENSION (150LB)

SIZE	L	d1	D	H	A
25A	127	25	108	106	250
40A	165	38	127	118.5	280
50A	178	50	152	126.5	280
80A	203	80	191	164	320

### DIMENSION (300LB)

SIZE	L	d1	D	H	A
25A	165	25	124	106	250
40A	190	38	156	118.5	280
50A	216	50	165	126.5	280
80A	283	80	210	164	320

### SPECIFICATION

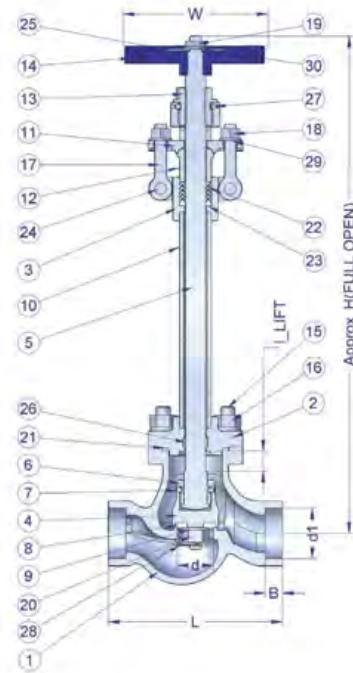
- Hydrostatic test pressure : 225LB
- Pneumatic test pressure : 165LB
- Design Pressure : 150LB
- Design Temperature : -50°C ~ +100°C
- Fluid : LPG
- Design Code : BS5351, API 6D, API 607
- Fire safety design
- Anti-static device

### SPECIFICATION

- Hydrostatic test pressure : 450LB
- Pneumatic test pressure : 330LB
- Design Pressure : 300LB
- Design Temperature : -50°C ~ +100°C
- Fluid : LPG
- Design Code : BS5351, API 6D, API 607
- Fire safety design
- Anti-static device

# CRYOGENIC STS LONG-STEM VALVE

## Model : U&S-CSL-SW



Model : U&S-CSL-SW

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### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	SSC 13
2	BONNET	SSC 13
3	YOKE	SSC 13
4	DISC	STS 304
5	STEM	STS 304
6	DISC STEM NUT	STS 304
7	LOCK BOLT	STS 304
8	DISC SOFT SEAT	PCTFE
9	SEAT WASHER	STS 304
10	EXTENDED PIPE	STS 304 TP
11	GLAND FLANGE	SSC 13
12	GLAND	STS 304
13	YOKE BUSH	C3771
14	HANDWHEEL	ALDC8
15	BONNET BOLT	STS 304

NO	PART NAME	MATERIAL
16	BONNET BOLT NUT	STS 304
17	GLAND BOLT	STS 304
18	GLAND BOLT NUT	STS 304
19	HANDWHEEL NUT	STS 304
20	HEXAGON NUT	STS 304
21	GASKET	V#7020
22	PACKING	PTFE
23	ADAPTER	PTFE
24	PIN	STS 304
25	NAME PLATE	A1100P
26	BUSH	PTFE
27	LOCK BOLT	STS 304
28	SPLIT PIN	STS 304
29	SPRING WASHER	STS 304
30	SPRING WASHER	STS 304

### DIMENSION

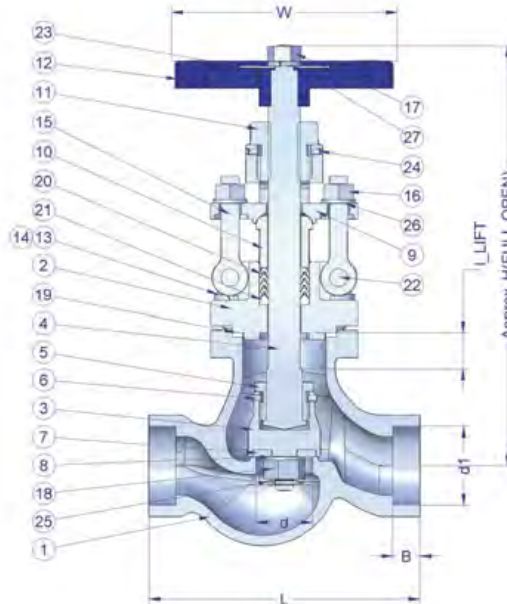
SIZE	d	d1	L	B	I	H	W	MASS(kg)
15A	15	22	90	9	12	352	100	2.3
20A	20	28	100	10	12	359	100	2.6
25A	25	35	120	10	12	361	100	3.0
40A	40	49	150	12.5	16	431	140	7.2
50A	50	61	180	14.5	18	470	140	8.8
65A	65	B.W	216	17	28	590	200	14.0
80A	80	B.W	241	21	32	630	200	20.0
100A	100	B.W	292	24	38	740	250	35.0

### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup> (30kg/cm<sup>2</sup> ~ 60kg/cm<sup>2</sup>)
- Pneumatic test pressure : 33kg/cm<sup>2</sup> (22kg/cm<sup>2</sup> ~ 44kg/cm<sup>2</sup>)
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>, LNG, C<sub>2</sub>H<sub>4</sub>
- Design Pressure : 30kg/cm<sup>2</sup> (20kg/cm<sup>2</sup> ~ 40kg/cm<sup>2</sup>)
- Design Temperature : -196°C ~ +60°C

# CRYOGENIC STS SHORT-STEM VALVE

## Model : U&S-CSS-SW



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	SSC 13
2	BONNET	SSC 13
3	DISC	STS 304
4	STEM	STS 304
5	DISC STEM NUT	STS 304
6	LOCK BOLT	STS 304
7	DISC SOFT SEAT	PCTFE
8	SEAT WASHER	STS 304
9	GLAND FLANGE	SSC 13
10	GLAND	STS 304
11	YOKE BUSH	C3771
12	HANDWHEEL	ALDC8
13	BONNET BOLT	STS 304
14	BONNET BOLT NUT	STS 304

NO	PART NAME	MATERIAL
15	GLAND BOLT	STS 304
16	GLAND BOLT NUT	STS 304
17	HANDWHEEL NUT	STS 304
18	HEXAGON NUT	STS 304
19	GASKET	V#7020
20	PACKING	PTFE
21	ADAPTER	PTFE
22	PIN	STS 304
23	NAME PLATE	A1100P
24	LOCK BOLT	STS 304
25	SPLIT PIN	STS 304
26	SPRING WASHER	STS 304
27	SPRING WASHER	STS 304

### DIMENSION

SIZE	d	d1	L	B	l	H	W	MASS(kg)
15A	15	22	90	9	12	193	100	2.0
20A	20	28	100	10	12	200	100	2.3
25A	25	35	120	10	12	202	100	2.7
40A	40	49	150	12.5	16	252	140	6.2
50A	50	61	180	14.5	18	268	140	7.7
65A	65	B.W	216	17	25	310	200	12.2
80A	80	B.W	241	21	32	340	200	17.5
100A	100	B.W	292	24	38	388	250	30.0

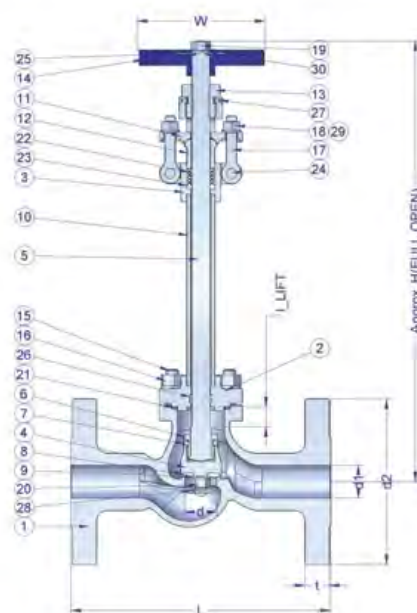
### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup> (30kg/cm<sup>2</sup> ~ 60kg/cm<sup>2</sup>)
- Pneumatic test pressure : 33kg/cm<sup>2</sup> (22kg/cm<sup>2</sup> ~ 44kg/cm<sup>2</sup>)
- Fluid : Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>, NG, C<sub>2</sub>H<sub>4</sub>

- Design Pressure : 30kg/cm<sup>2</sup> (20kg/cm<sup>2</sup> ~ 40kg/cm<sup>2</sup>)
- Design Temperature : -40°C ~ +60°C

# CRYOGENIC STS LONG-STEM VALVE

## Model : U&S-CSL-F(Flange)



Model : U&S-CSL-F(Flange)

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### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	SSC 13
2	BONNET	SSC 13
3	YOKE	SSC 13
4	DISC	STS 304
5	STEM	STS 304
6	DISC STEM NUT	STS 304
7	LOCK BOLT	STS 304
8	DISC SOFT SEAT	PCTFE
9	SEAT WASHER	STS 304
10	EXTENDED PIPE	STS 304 TP
11	GLAND FLANGE	SSC 13
12	GLAND	STS 304
13	YOKE BUSH	C3771
14	HANDWHEEL	ALDC8
15	BONNET BOLT	STS 304

NO	PART NAME	MATERIAL
16	BONNET BOLT NUT	STS 304
17	GLAND BOLT	STS 304
18	GLAND BOLT NUT	STS 304
19	HANDWHEEL NUT	STS 304
20	HEXAGON NUT	STS 304
21	GASKET	V#7020
22	PACKING	PTFE
23	ADAPTER	PTFE
24	PIN	STS 304
25	NAME PLATE	A1100P
26	BUSH	PTFE
27	LOCK BOLT	STS 304
28	SPLIT PIN	STS 304
29	SPRING WASHER	STS 304
30	SPRING WASHER	STS 304

### DIMENSION

SIZE	d	d1	L	d2	t	l	H	W
15A	15	15	152	95	12	12	352	100
20A	20	20	178	100	14	12	359	100
25A	25	25	203	125	14	12	361	100
40A	40	40	229	140	16	16	431	140
50A	50	50	267	155	16	18	470	140
65A	65	65	292	175	18	22	590	200
80A	80	80	318	185	18	25	710	200
100A	100	100	356	210	18	35	820	250
125A	125	125	400	250	20	42	950	250
150A	150	150	444	280	22	50	1100	250

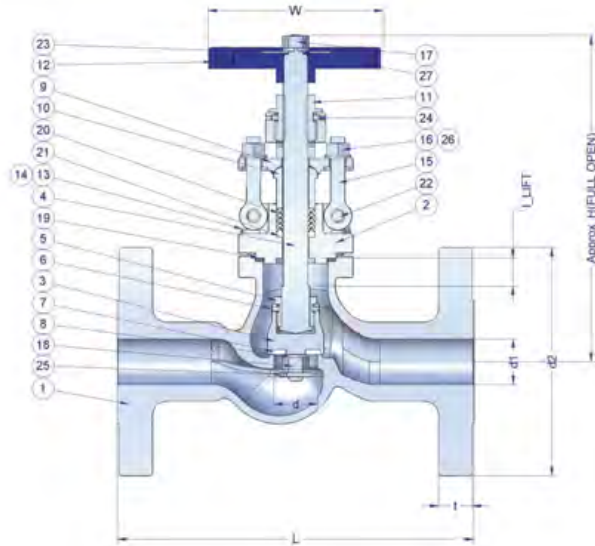
### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup> (30kg/cm<sup>2</sup> ~ 60kg/cm<sup>2</sup>)
- Pneumatic test pressure : 33kg/cm<sup>2</sup> (22kg/cm<sup>2</sup> ~ 44kg/cm<sup>2</sup>)
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>, LNG, C<sub>2</sub>H<sub>4</sub>
- Design Pressure : 30kg/cm<sup>2</sup> (20kg/cm<sup>2</sup> ~ 40kg/cm<sup>2</sup>)
- Design Temperature : -196°C ~ +60°C

※For the flange type, detail specification should be advised on purchase order.

# CRYOGENIC STS SHORT-STEM VALVE

## Model : U&S-CSS-F(Flange)



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	SSC 13
2	BONNET	SSC 13
3	DISC	STS 304
4	STEM	STS 304
5	DISC STEM NUT	STS 304
6	LOCK BOLT	STS 304
7	DISC SOFT SEAT	PCTFE
8	SEAT WASHER	STS 304
9	GLAND FLANGE	SSC 13
10	GLAND	STS 304
11	YOKE BUSH	C3771
12	HANDWHEEL	ALDC8
13	BONNET BOLT	STS 304
14	BONNET BOLT NUT	STS 304

NO	PART NAME	MATERIAL
15	GLAND BOLT	STS 304
16	GLAND BOLT NUT	STS 304
17	HANDWHEEL NUT	STS 304
18	HEXAGON NUT	STS 304
19	GASKET	V#7020
20	PACKING	PTFE
21	ADAPTER	PTFE
22	PIN	STS 304
23	NAME PLATE	A1100P
24	LOCK BOLT	STS 304
25	SPLIT PIN	STS 304
26	SPRING WASHER	STS 304
27	SPRING WASHER	STS 304

### DIMENSION

SIZE	d	d1	L	d2	t	l	H	W
15A	15	15	152	95	12	12	193	100
20A	20	20	178	100	14	12	200	100
25A	25	25	203	125	14	12	202	100
40A	40	40	229	140	16	16	252	140
50A	50	50	267	155	16	18	268	140
65A	65	65	292	175	18	25	310	200
80A	80	80	318	185	18	32	340	200
100A	100	100	356	210	18	38	388	250
125A	125	125	400	250	20	42	600	250
150A	150	150	444	280	22	50	725	250

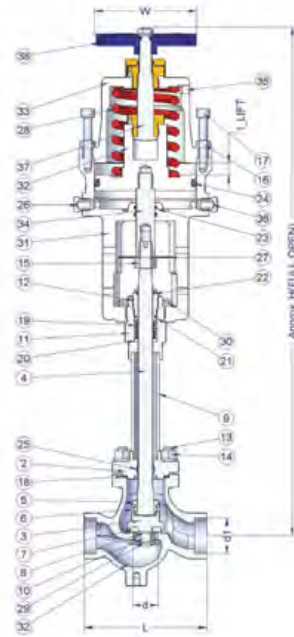
### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup> (30kg/cm<sup>2</sup> ~ 60kg/cm<sup>2</sup>)
- Pneumatic test pressure : 33kg/cm<sup>2</sup> (22kg/cm<sup>2</sup> ~ 44kg/cm<sup>2</sup>)
- Fluid : Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>, NG, C<sub>2</sub>H<sub>4</sub>
- Design Pressure : 30kg/cm<sup>2</sup> (20kg/cm<sup>2</sup> ~ 40kg/cm<sup>2</sup>)
- Design Temperature : -40°C ~ +60°C

\*For the flange type, detail specification should be advised on purchase order.

# CRYOGENIC STS EMERGENCY SHUT-OFF VALVE

## Model : U&S-CSE(E.S.V)-SW



Model : U&S-CSE(E.S.V)-SW

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### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	SSC 13
2	BONNET	SSC 13
3	DISC	STS 304
4	STEM	STS 304
5	DISC STEM NUT	STS 304
6	LOCK BOLT	STS 304
7	DISC SOFT SEAT	PCTFE
8	SEAT WASHER	STS 304 TP
9	EXTENDED PIPE	STS 304
10	HEXAGON NUT	STS 304
11	STUFFING BOX	STS 304
12	GLAND	STS 304
13	BONNET BOLT	STS 304
14	BONNET BOLT NUT	STS 304
15	HEXAGON NUT	STS 304
16	HEXAGON NUT	STS 304
17	WRENCH BOLT	STS 304
18	GASKET	V#7020
19	PACKING(D)	PTFE

NO	PART NAME	MATERIAL
20	ADAPTER	PTFE
21	O-RING	VITON
22	O-RING	VITON
23	O-RING	N B R
24	O-RING	N B R
25	BUSH	PTFE
26	PLUG	C3604
27	INDICATOR PLATE	STS 304
28	SPRING	SUP 10
29	SPLIT PIN	STS 304
30	ADAPTER	STS 304
31	CYLINDER	AC3A-F
32	PISTON	C3771
33	CYLINDER COVER	AC3A-F
34	PISTON ROD	STS 304
35	EXHAUST PLUG	C3604
36	FUSE METAL	FAI0092
37	STAM	STS 304
38	HANDWHEEL	OPTION

### DIMENSION

SIZE	d	d1	L	I	H		W
					LIQUIDE	GAS	
15A	15	22	90	11	560	455	100
20A	20	28	100	11	560	455	100
25A	25	35	120	12	570	465	100
40A	40	49	150	16	645	500	140
50A	50	61	180	18	765	515	140
65A	65	B.W	216	28	815	535	200
80A	80	B.W	241	32	1000	760	200
100A	100	B.W	292	38	1180	900	250

### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup> (30kg/cm<sup>2</sup>)
- Pneumatic test pressure : 33kg/cm<sup>2</sup> (22kg/cm<sup>2</sup>)
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>, LNG, C<sub>2</sub>H<sub>4</sub>

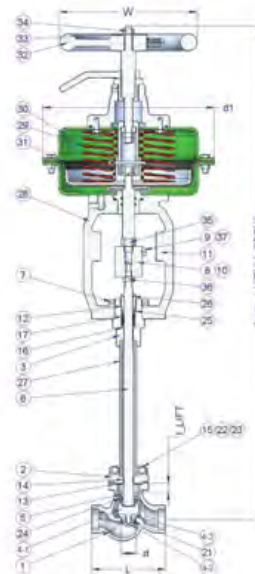
- Design Pressure : 30kg/cm<sup>2</sup> (20kg/cm<sup>2</sup>)
- Design Temperature : -196°C ~ +60°C

※For the flange type, detail specification should be advised on purchase order.

※Emergency Shut off Valve for CO<sub>2</sub> Gas is different in some part, to be produced with CO<sub>2</sub> Short Stem.

# CRYOGENIC STS CONTROL VALVE

## Model : U&S-CSO-SW



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	SSC 13
2	BONNET FLANGE	SSC 13
3	EXTENDED BONNET	STS 304
4-1	DISC	STS 304
4-2	COVER	STS 304
4-3	SEAT	PCTFE
5	DISC STEM NUT	STS 304
6	STEM	STS 304
7	ADAPTER	STS 304
8	CONNECTOR	S45C
9	INDICATOR	STS 304
10	GUIDE	STS 304
11	INDICATOR PLATE	STS 304
12	GLAND	STS 304
13	GASKET	#7020
14	PACKING	PTFE
15	STUD BOLT	STS 304
16	PACKING ADATOR	PTFE

NO	PART NAME	MATERIAL
17	U-PACKING	PTFE
21	SET SCREW	STS 304
22	SPRING WASHER	STS 304
23	HEX NUT	STS 304
24	SET SCREW	STS 304
25	O-RING	VITON
26	O-RING	VITON
27	EXTENDED PIPE	STS 304
28	YOKE	FCD450
29	SPRING	SUP-9
30	DIAPHRAGM CASING	SS41
31	DIAPHRAGM	NBR
32	HAND WHEEL	AL
33	SPRING WASHER	STS 304
34	HEX NUT	STS 304
35	HEX NUT	STS 304
36	HEX NUT	STS 304
37	HEX NUT	STS 304

### DIMENSION

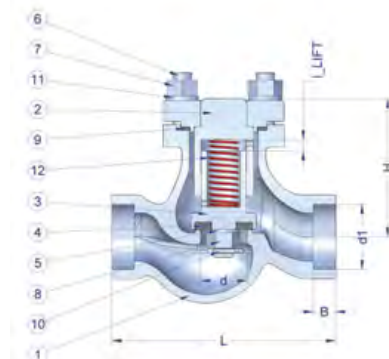
SIZE	d	d1	L	I	H		W
					LIQUIDE	GAS	
15A	15	275	90(S.W)	15	785	573	160
20A	20	275	100(S.W)	15	820	580	160
25A	25	275	120(S.W)	15	820	582	160
40A	40	275	150(S.W)	20	840	600	160
50A	50	355	180(S.W)	25	985	690	200
65A	65	355	216(S.W)	30	985	710	200
80A	80	355	241(S.W)	35	1055	732	200
100A	100	465	292(S.W)	45	1315	870	200
125A	125	465	385(F/L)	55	1430	940	200
150A	150	465	385(F/L)	70	1450	1000	200
200A	200	520	395(F/L)	90	1550	1100	280

### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup> (30kg/cm<sup>2</sup>)
  - Pneumatic test pressure : 33kg/cm<sup>2</sup> (22kg/cm<sup>2</sup>)
  - Fluid : Gas, Air, Steam
  - Design Pressure : 30kg/cm<sup>2</sup> (20kg/cm<sup>2</sup>)
  - Design Temperature : -196°C ~ +60°C
- ※Some items can be made according to th customer's specification.

# CRYOGENIC STS CHECK VALVE

## Model : U&S-CSC-SW



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	SSC 13
2	BONNET	SSC 13
3	DISC	STS 304
4	DISC SOFT SEAT	PCTFE
5	SEAT WASHER	STS 304
6	BONNET BOLT	STS 304
7	BONNET BOLT NUT	STS 304
8	HEXAGON NUT	STS 304
9	GASKET	V#7020
10	SPLIT PIN	STS 304
11	GUIDE	STS 304
12	SPRING	STS 304

### DIMENSION

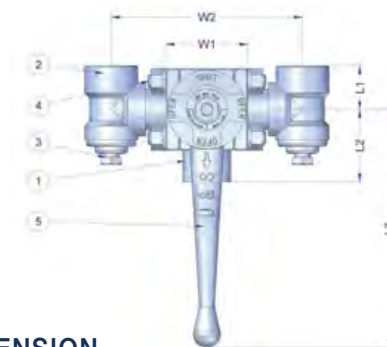
SIZE	d	d1	L	B	I	H
15A	15	22	90	9	11	70
20A	20	28	100	10	11	75
25A	25	35	120	10	12	78
40A	40	49	150	12.5	16	102
50A	50	61	180	14.5	18	110
65A	65	B.W	216	17	28	115
80A	80	B.W	241	21	32	132
100A	100	B.W	292	24	38	161

### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup>
  - Pneumatic test pressure : 33kg/cm<sup>2</sup>
  - Design Pressure : 30kg/cm<sup>2</sup>
  - Design Temperature : -196°C ~ +60°C
  - Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>, LNG, C<sub>2</sub>H<sub>4</sub>
- ※For the flange type, detail specification should be advised on purchase order.

# CRYOGENIC STS 3-WAY DIVERT VALVE

## Model : U&S-CSD-S



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	STS 304
2	SIDE BODY	STS 304
3	PLUG NIPPLE	OPTION
4	FIXED BOLT	STS 304
5	HANDLE	ALDC 8

### DIMENSION

SIZE	L1	L2	L3	W1	W2	Connector
15A	39	52	174	64	166	1/2 "
20A	39	52	174	64	166	3/4 "
25A	39	52	174	64	166	1 "
40A	87.5	88.5	262	103	290	1 1/2 "
50A	87.5	88.5	262	103	290	2 "

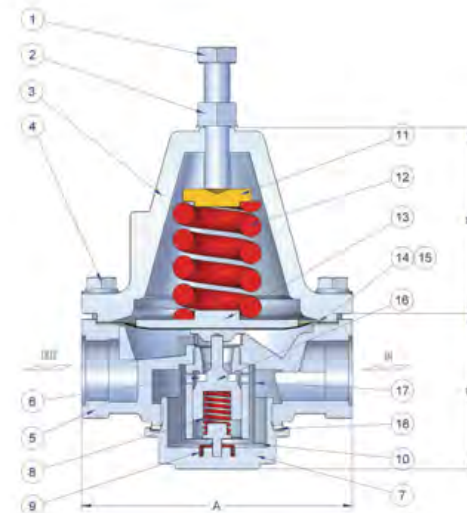
### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup>
- Pneumatic test pressure : 33kg/cm<sup>2</sup>
- Design Pressure : 30kg/cm<sup>2</sup>
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>, LNG, C<sub>2</sub>H<sub>4</sub>
- Design Temperature : -196°C ~ +60°C



# CRYOGENIC STS REGULATOR

## Model : U&S-RSM-S



### MATERIAL

NO	PART NAME	MATERIAL
1	ADJUST SCREW	STS 304
2	LOCK NUT	STS 304
3	BONNET	SSC 13
4	BOLT / NUT	STS 304
5	BODY	SSC 13
6	DISC PACKING	PCTFE
7	CAPSULE	STS 304
8	SMALL SPRING	STS 304
9	SPRING	STS 304

NO	PART NAME	MATERIAL
10	DISC PLANE	STS 304
11	SPRING CUP	C3771
12	WORK SPRING	STS 304
13	DIAPHRAGM SHEET	C3771
14	DIAPHRAGM	STS 3116
15	DIAPHRAGM PACKING	T#1901
16	ORIFICE DISC	STS 304
17	FILTER	STS 304
18	PACKING	PTFE + CU

### DIMENSION

SIZE	A	B	C	Connector
15A	119	83	78	PT 1/2 "
25A	149	110	83	PT 1 "

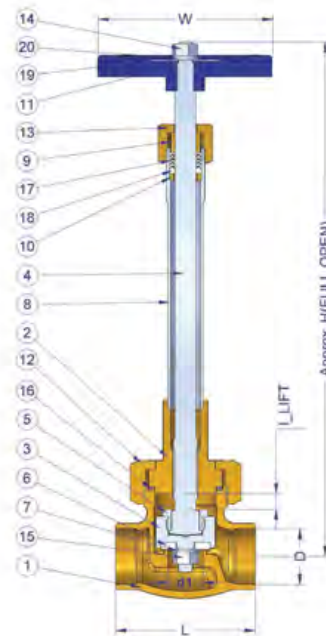
### SPECIFICATION

- Delivery Pressure Range : From : 25 To : 250psi
- Maximum Initial Pressure : 480psi
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>, LNG, C<sub>2</sub>H<sub>4</sub>

- Design Pressure : 30kg/cm<sup>2</sup>
- Design Temperature : -196°C ~ +60°C

# CRYOGENIC BC LONG-STEM VALVE

## Model : U&S-CBL-SW



Model : U&S-CBL-SW

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### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	BC 7
2	BONNET	BC 6
3	DISC	C 3604
4	STEM	STS 304
5	DISC STEM NUT	C3604
6	SOFT SEAT	PCTFE
7	SEAT WASHER	STS 304
8	EXTENDED PIPE	STS 304 TP
9	GLAND	C3604
10	PACKING RING	C3604

NO	PART NAME	MATERIAL
11	HANDWHEEL	ALDC8
12	UNION NUT	BC 6
13	GLAND NUT	C3604
14	HANDWHEEL NUT	STS 304
15	HEXAGON NUT	STS 304
16	GASKET	V#7020
17	PACKING	PTFE
18	ADAPTER	PTFE
19	NAME PLATE	A1100P
20	SPRING WASHER	STS 304

### DIMENSION

SIZE	d1	L	D	I	H	W
8A	13	65	14	8	195	65
10A	13	65	17.5	8	195	65
15A	15	65	22	9	230	80
20A	20	80	27.5	10	298	100
25A	25	80	34.5	11	300	100
40A	40	120	49	18	360	140
50A	50	140	61	21	400	140

### SPECIFICATION

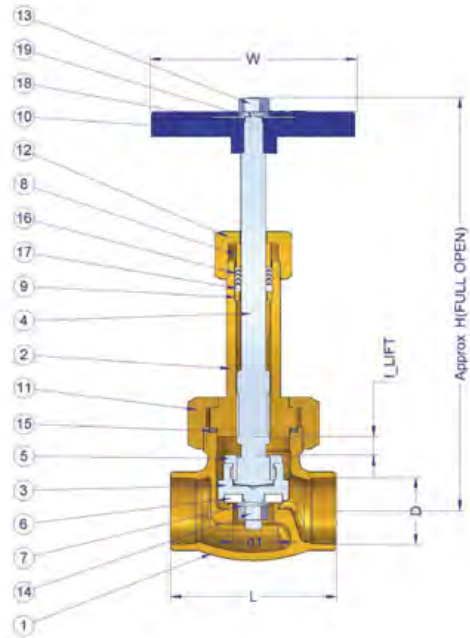
- Hydrostatic test pressure : 45kg/cm<sup>2</sup> (30kg/cm<sup>2</sup>)
- Pneumatic test pressure : 33kg/cm<sup>2</sup> (22kg/cm<sup>2</sup>)
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>

- Design Pressure : 30kg/cm<sup>2</sup> (20kg/cm<sup>2</sup>)
- Design Temperature : -196°C ~ +60°C

※For screw type, 15A, 20A, 25A only can be produced.  
 ※For pipe welding type, length should be advised on the purchase order.

# CRYOGENIC BC SHORT-STEM VALVE

## Model : U&S-CBS-SW



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	BC 7
2	BONNET	BC 6
3	DISC	C 3604
4	STEM	STS 304
5	DISC STEM NUT	C3604
6	SOFT SEAT	PCTFE
7	SEAT WASHER	STS 304
8	GLAND	C3604
9	PACKING RING	C3604
10	HANDWHEEL	ALDC8

NO	PART NAME	MATERIAL
11	UNION NUT	BC 6
12	GLAND NUT	C3604
13	HANDWHEEL NUT	STS 304
14	HEXAGON NUT	STS 304
15	GASKET	V#7020
16	PACKING	PTFE
17	ADAPTER	PTFE
18	NAME PLATE	A1100P
19	SPRING WASHER	STS 304

### DIMENSION

SIZE	d1	L	D	I	H	W
8A	13	65	14.0	8	130	65
10A	13	65	17.5	8	130	65
15A	15	65	22.0	9	170	80
20A	20	80	27.5	10	190	100
25A	25	80	34.5	11	200	100
40A	40	120	49.0	18	255	140
50A	50	140	61.0	21	260	140

### SPECIFICATION

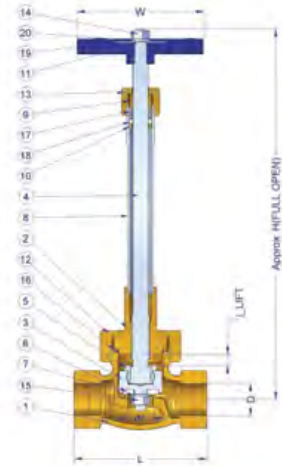
- Hydrostatic test pressure : 45kg/cm<sup>2</sup> (30kg/cm<sup>2</sup>)
- Pneumatic test pressure : 33kg/cm<sup>2</sup> (22kg/cm<sup>2</sup>)
- Fluid : Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>

- Design Pressure : 30kg/cm<sup>2</sup> (20kg/cm<sup>2</sup>)
- Design Temperature : -40°C ~ +60°C

※For screw type, 15A, 20A, 25A only can be produced.  
 ※For pipe welding type, length should be advised on the purchase order.

# CRYOGENIC BC LONG-STEM VALVE

## Model : U&S-CBL-S



### MATERIAL

NO	PART NAME	MATERIAL	NO	PART NAME	MATERIAL
1	BODY	BC 7	11	HANDWHEEL	ALDC8
2	BONNET	BC 6	12	UNION NUT	BC 6
3	DISC	C 3604	13	GLAND NUT	C3604
4	STEM	STS 304	14	HANDWHEEL NUT	STS 304
5	DISC STEM NUT	C3604	15	HEXAGON NUT	STS 304
6	SOFT SEAT	PCTFE	16	GASKET	V#7020
7	SEAT WASHER	STS 304	17	PACKING	PTFE
8	EXTENDED PIPE	STS 304 TP	18	ADAPTER	PTFE
9	GLAND	C3604	19	NAME PLATE	A1100P
10	PACKING RING	C3604	20	SPRING WASHER	STS 304

※For screw type, 15A, 20A, 25A only can be produced.  
 ※For pipe welding type, length should be advised on the purchase order.

### DIMENSION

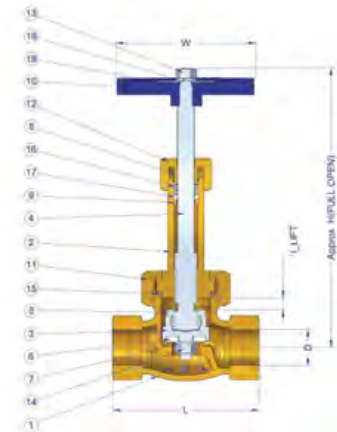
SIZE	d1	L	D	I	H	W
15A	15	88	PT 1/2"	9	230	80
20A	20	105	PT 3/4"	10	298	100
25A	25	110	PT 1"	11	300	100

### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup> (30kg/cm<sup>2</sup>)
- Design Pressure : 30kg/cm<sup>2</sup> (20kg/cm<sup>2</sup>)
- Pneumatic test pressure : 33kg/cm<sup>2</sup> (22kg/cm<sup>2</sup>)
- Design Temperature : -196°C ~ +60°C
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>

# CRYOGENIC BC SHORT-STEM VALVE

## Model : U&S-CBS-S



### MATERIAL

NO	PART NAME	MATERIAL	NO	PART NAME	MATERIAL
1	BODY	BC 7	11	UNION NUT	BC 6
2	BONNET	BC 6	12	GLAND NUT	C3604
3	DISC	C 3604	13	HANDWHEEL NUT	STS 304
4	STEM	STS 304	14	HEXAGON NUT	STS 304
5	DISC STEM NUT	C3604	15	GASKET	V#7020
6	SOFT SEAT	PCTFE	16	PACKING	PTFE
7	SEAT WASHER	STS 304	17	ADAPTER	PTFE
8	GLAND	C3604	18	NAME PLATE	A1100P
9	PACKING RING	C3604	19	SPRING WASHER	STS 304
10	HANDWHEEL	ALDC8			

※For screw type, 15A, 20A, 25A only can be produced.  
 ※For pipe welding type, length should be advised on the purchase order.

### DIMENSION

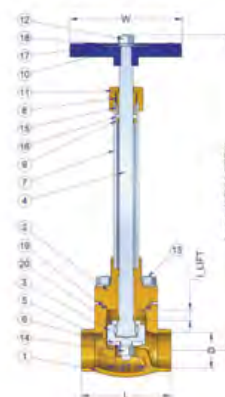
SIZE	d1	L	D	I	H	W
15A	15	88	PT 1/2"	9	170	80
20A	20	105	PT 3/4"	10	190	100
25A	25	110	PT 1"	11	200	100

### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup> (30kg/cm<sup>2</sup>)
- Design Pressure : 30kg/cm<sup>2</sup> (20kg/cm<sup>2</sup>)
- Pneumatic test pressure : 33kg/cm<sup>2</sup> (22kg/cm<sup>2</sup>)
- Design Temperature : -40°C ~ +60°C
- Fluid : Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>

# CRYOGENIC BC LONG-STEM VALVE

## Model : U&S-CBL(BB)-SW



### MATERIAL

NO	PART NAME	MATERIAL	NO	PART NAME	MATERIAL
1	BODY	BC 7	11	GLAND NUT	C3604
2	BONNET	BC 6	12	HANDWHEEL NUT	STS 304
3	DISC	C 3604	13	HEXAGON NUT	STS 304
4	STEM	STS 304	14	BOLT & NUT & S/W	STS 304
5	SOFT SEAT	PCTFE	15	PACKING	PTFE
6	SEAT WASHER	STS 304	16	ADAPTER	PTFE
7	EXTENDED PIPE	STS 304 TP	17	NAME PLATE	A1100P
8	GLAND	C3604	18	SPRING WASHER	STS 304
9	PACKING RING	C3604	19	GASKET	V#7020
10	HANDWHEEL	ALDC8	20	DISC STEM NUT	C3604

※For screw type, 15A, 20A, 25A only can be produced.  
 ※For pipe welding type, length should be advised on the purchase order.

### DIMENSION

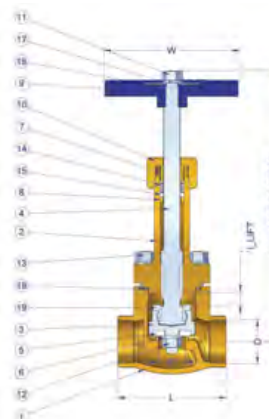
SIZE	d1	L	D	I	H	W
10A	13	65	17.5	8	195	65
15A	15	65	22	9	230	80
20A	22	80	27.5	10	298	100
25A	25	80	34.5	11	300	100
40A	40	120	49	19	360	140
50A	50	140	61	20	400	140

### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup> (30kg/cm<sup>2</sup>)
- Design Pressure : 30kg/cm<sup>2</sup> (20kg/cm<sup>2</sup>)
- Pneumatic test pressure : 33kg/cm<sup>2</sup> (22kg/cm<sup>2</sup>)
- Design Temperature : -196°C ~ +60°C
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>

# CRYOGENIC BC SHORT -STEM VALVE

## Model : U&S-CBS(BB)-SW



### MATERIAL

NO	PART NAME	MATERIAL	NO	PART NAME	MATERIAL
1	BODY	BC7	11	HAND WHEEL NUT	STS304
2	BONNET	BC6	12	HEXAGON NUT	STS304
3	DISC	C 3604	13	BOLT & NUT & S/W	STS304
4	STEM	STS304	14	PACKING	PTFE
5	SOFT SEAT	PTFE	15	ADAPTER	PTFE
6	SEAT WASHER	STS304	16	NAME PLATE	A1100P
7	GLAND	C3604	17	SPRING WASHER	STS304
8	PACKING RING	C3604	18	GASKET	V#7020
9	HAND WHEEL	ALDC8	19	DISC STEM NUT	C3604
10	GLAND NUT	C3604			

※For screw type, 15A, 20A, 25A only can be produced.  
 ※For pipe welding type, length should be advised on the purchase order.

### DIMENSION

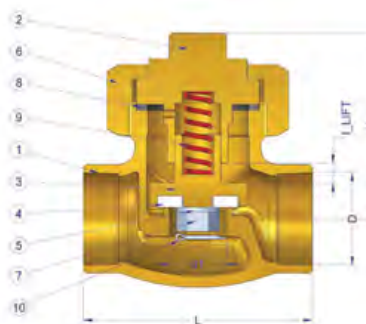
SIZE	d1	L	D	I	H	W
10A	13	65	17.5	8	130	65
15A	15	65	22	9	170	80
20A	22	80	27.5	10	190	100
25A	25	80	34.5	11	200	100
40A	40	120	49	19	255	140
50A	50	140	61	20	260	140

### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup> (30kg/cm<sup>2</sup>)
- Design Pressure : 30kg/cm<sup>2</sup> (20kg/cm<sup>2</sup>)
- Pneumatic test pressure : 33kg/cm<sup>2</sup> (22kg/cm<sup>2</sup>)
- Design Temperature : -40°C ~ +60°C
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>

# CRYOGENIC BC CHECK VALVE

## Model : U&S-CBC-SW



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	BC 7
2	BONNET	BC 6
3	DISC	BC 6
4	SOFT SEAT	PCTFE
5	SEAT WASHER	STS 304
6	UNION NUT	BC 6
7	HEXGON NUT	STS 304
8	GASKET	V#7020
9	SPRING	STS 304
10	SPLIT PIN	STS 304

### DIMENSION

SIZE	d	L	D	I	H
15A	15	65	22	7	50
20A	20	80	27.5	7	65
25A	25	80	34.5	7	65
40A	40	120	49	19	85
50A	50	140	61	20	90

### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup>
- Pneumatic test pressure : 33kg/cm<sup>2</sup>
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>
- Design Pressure : 30kg/cm<sup>2</sup>
- Design Temperature : -196°C ~ +60°C

※For pipe welding type, length should be advised on the purchase order.

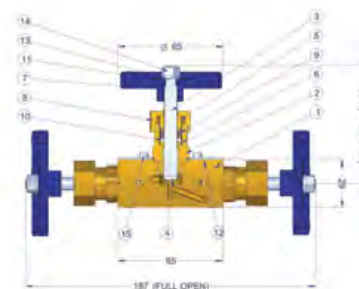
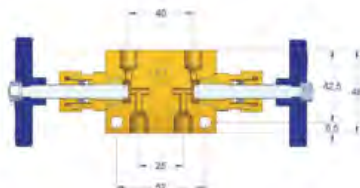
Model : U&S-CBC-SW

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Model : U&S-CBG-S

# CRYOGENIC BC GAUGE VALVE

## Model : U&S-CBG-S



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	BC 6
2	BONNET	BC 6
3	STEM	STS 304
4	SOFT SEAT	PCTFE
5	GLAND	C3604
6	PARKING RING	C3604
7	HANDWHEEL	ALDC 8
8	GLAND NUT	C3604

NO	PART NAME	MATERIAL
9	PARKING	PCTFE
10	ADAPTER	PCTFE
11	NAME PLATE	A1100 P
12	NAME PLATE	A1100 P
13	SPRING LOCK WASHER	STS 304
14	HANDWHEEL NUT	STS 304
15	WRENCH BOLT	STS 304

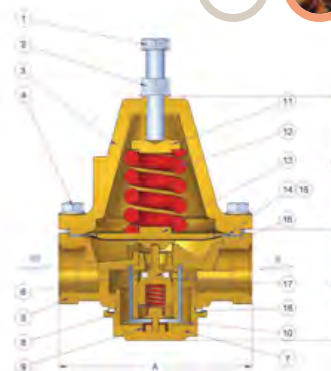
### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup>
- Pneumatic test pressure : 33kg/cm<sup>2</sup>
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>

- Design Pressure : 30kg/cm<sup>2</sup>
- Design Temperature : -196°C ~ +60°C

# CRYOGENIC BC REGULATOR

## Model : U&S-RBM-S



### MATERIAL

NO	PART NAME	MATERIAL	NO	PART NAME	MATERIAL
1	ADJUST SCREW	STS 304	10	DISC PLANE	STS 304
2	LOCK NUT	STS 304	11	SPRING CUP	C3771
3	BONNET	BC 6	12	WORK SPRING	STS 304
4	BOLT/NUT	STS 304	13	DIAPHRAGM SHEET	C3771
5	BODY	BC 6	14	DIAPHRAGM	CU, STS
6	DISC PACKING	PCTFE	15	DIAPHRAGM PACKING	T#1901
7	CAPSULE	BC 6	16	ORIFICE DISC	C3771
8	SMALL SPRING	STS 304	17	FILTER	STS 304
9	SPRING	STS 304	18	PACKING	PTFE + CU

### DIMENSION

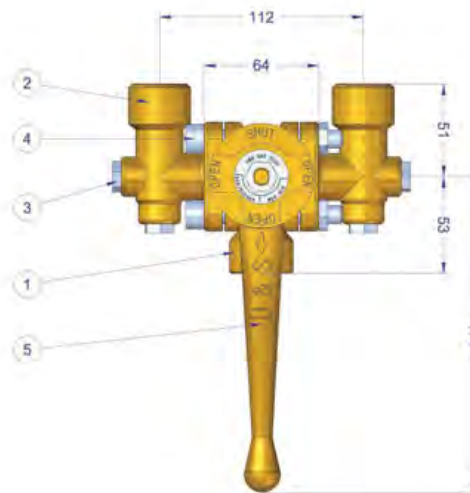
SIZE	A	B	C	Connector
15A	119	83	78	PT 1/2 "
20A	133	83	78	PT 3/4 "
25A	149	110	83	PT 1 "
40A	236	231	117	PT 1 1/2 "

### SPECIFICATION

- Delivery Middle Pressure Range : Fron:25 To:250psi
- Delivery High Pressure Range : Fron:150 To:380psi
- Maximum Initial Pressure : 400psi
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>
- Design Pressure : 30kg/cm<sup>2</sup>
- Design Temperature : -196°C ~ +60°C

# CRYOGENIC BC 3-WAY DIVERT VALVE

## Model : U&S-CBD-S



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	BC 6
2	SIDE BODY	BC 6
3	PLUG NIPPLE	BRASS
4	FIXED BOLT	STS 304
5	HANDLE	BC 6

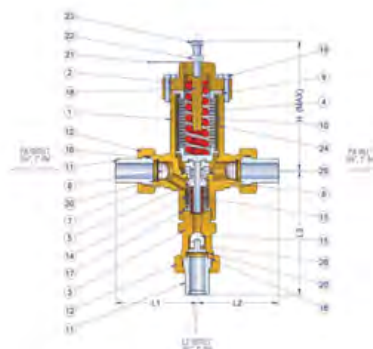
### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup>
- Pneumatic test pressure : 33kg/cm<sup>2</sup>
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>
- Design Pressure : 30kg/cm<sup>2</sup>
- Design Temperature : -196°C ~ +60°C

※Production size : 15A, 20A

# CRYOGENIC BC COMBINATION REGULATOR

## Model : U&S-REBH-BW



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	C3771
2	BONNET	C3771
3	CAPSULE SLEEVE	C3771
4	WORK SPRING	STS 304
5	ORIFICE DISC	STS 304
6	SOFT SEAT	PCTFE
7	ORIFICE GUIDE	STS 304
8	FILTER	STS 304
9	BELLOWS GASKET	V#7020
10	BELLOWS	STS 316
11	JOINT	STS 304
12	JOINT NUT	C3771
13	SMALL SPRING	STS 304

NO	PART NAME	MATERIAL
14	SMALL BELLOWS	STS 316
15	CHECK BALL	STS 304
16	GASKET	V#7020
17	GASKET	V#7020
18	SPRING RETAINER	C3771
19	BONNET BOLT	STS 304
20	RING	STS 304
21	NAME PLATE	STS 304
22	LOCK NUT	STS 304
23	ADJUST SCREW	STS 304
24	BELLOWS CASE	STS 304
25	GASKET	V#7020
26	CHECK BALL GUIDE	C 3604

### DIMENSION

SIZE	L1	L2	L3	H	CONNECTOR
20A	94	94	144	160	3/4 " BW
25A	98	98	148	162	1 " BW

### SPECIFICATION

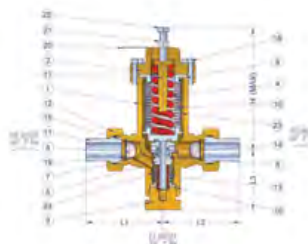
- Delivery Pressure Range : From:50 To:500psi
- Design Pressure : 40kg/cm<sup>2</sup> • Maximum Initial Pressure : 500psi
- Design Temperature : -196°C ~ +40°C
- Fluid : LN<sub>2</sub>, LO<sub>2</sub>, LAR, LCO<sub>2</sub>

Model : U&S-REBH-BW

Model : U&S-RBH-BW

# CRYOGENIC BC REGULATOR / ECONOMIZER

## Model : U&S-RBH-BW



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	C3771
2	BONNET	C3771
3	CAPSULE SLEEVE	C3771
4	WORK SPRING	STS 304
5	ORIFICE DISC	STS 304
6	SOFT SEAT	PCTFE
7	ORIFICE GUIDE	STS 304
8	FILTER	STS 304
9	BELLOWS GASKET	V#7020
10	BELLOWS	STS 316
11	JOINT	STS 304
12	JOINT NUT	C3771

NO	PART NAME	MATERIAL
13	SMALL BELLOWS	STS 316
14	GASKET	V#7020
15	GASKET	V#7020
16	GASKET	V#7020
17	SPRING RETAINER	C3771
18	BONNET BOLT	STS 304
19	RING	STS 304
20	NAME PLATE	STS 304
21	LOCK NUT	STS 304
22	ADJUST SCREW	STS 304
23	BELLOWS CASE	STS 304
24	SMALL BEUOWS	STS 304

### DIMENSION

SIZE	L1	L2	L3	H	CONNECTOR
20A	94	94	78	160	3/4 " BW
25A	98	98	78	162	1 " BW

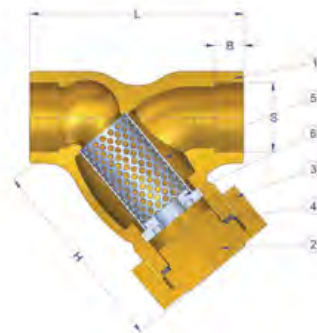
### SPECIFICATION

- Delivery Pressure Range : From:50 To:500psi
- Design Pressure : 40kg/cm<sup>2</sup> • Maximum Initial Pressure : 500psi
- Design Temperature : -196°C ~ +40°C
- Fluid : LN<sub>2</sub>, LO<sub>2</sub>, LAR, LCO<sub>2</sub>



# CRYOGENIC BC STRAINER

## Model : U&S-CBT-SW



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	BC 6
2	BONNET	C3604
3	UNION NUT	BC 6

NO	PART NAME	MATERIAL
4	GASKET	V#7020
5	SCREEN	STS 304
6	ADAPTER	STS 304

### DIMENSION

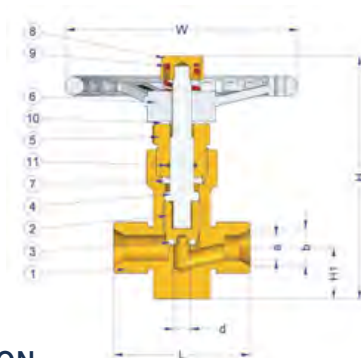
SIZE	L	S	B	H
20A	90	27.5	14	95
25A	104	34.5	14	110

### SPECIFICATION

- Hydrostatic test pressure : 45kg/cm<sup>2</sup>
- Pneumatic test pressure : 33kg/cm<sup>2</sup>
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>
- Design Pressure : 30kg/cm<sup>2</sup>
- Design Temperature : -196°C ~ +60°C

# HIGH PRESSURE STOP VALVE

## Model : U&S-VBH(250F / 250C)-BW



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	C3771
2	DISC	C3604
3	DISC SHEET	PCTFE
4	STEM	STS 304
5	NUT	C3604
6	HANDLE	AL
7	PACKING	TEFLON
8	HANDLE NUT	C3604
9	SPRING	STS 304
10	SLIDE PACKING	NYLON
11	O-RING	NBR

### DIMENSION

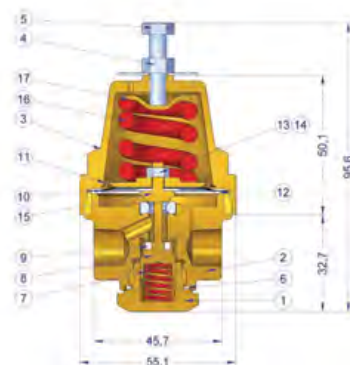
SIZE	L	H	H1	d	a	b	W
15A	110	135	30.2	10	15	22	124
20A	145	163	35	14	20	30	158.5

### SPECIFICATION

- Design Pressure : 250kg/cm<sup>2</sup>
- Design Temperature : -40°C ~ +60°C
- Fluid : Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>, LNG, C<sub>2</sub>H<sub>4</sub>, H<sub>2</sub>, He

# CRYOGENIC BC ECONOMIZER

## Model : U&S-EBM-S



### MATERIAL

NO	PART NAME	MATERIAL
1	CAPSULE	C3771
2	BODY	C3771
3	BONNET	C3771
4	LOCK NUT	STS 304
5	ADJUST SCREW	STS 304
6	SPRING	STS 304
7	DISC PACKING	PTFE
8	ORIFICE DISC	C3771
9	SOFT SEAT	STS 304

NO	PART NAME	MATERIAL
10	DIAPHRAGM	STS 304
11	DIAPHRAGM CUP	BRASS
12	DIAPHRAGM SHEET	C3771
13	WASHER	STS 304
14	HEXAGON NUT	STS 304
15	SEAT BOLT	STS 304
16	SPRING	STS 304
17	SPRING CUP	C3771

### SPECIFICATION

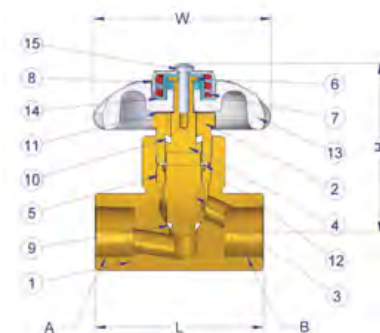
- Delivery pressure Range : 25psi(outlet), 250psi(inlet)
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>

- Maximum Initial Pressure : 400psi

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# EXTENDED STEM CRYOGENIC VALVE

## Model : U&S-CEBS-S.W / U&S-CEBL-S.W



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	C3771
2	BONNET	C3604
3	VALVE DISC	C3604
4	STEM	C3604
5	SCREW BUSH	C3604
6	WASHER	C3604
7	SPRING CAP	STS 304
8	SPRING	STS 304

NO	PART NAME	MATERIAL
9	VALVE SEAT	PCTFE
10	PACKING RING	PTFE
11	BEARING SEAT	PTFE
12	GASKET	C1100P
13	HAND WHEEL	ALDC8
14	WATER COVER	RESIN
15	BOLT/W	STS 304

### DIMENSION

SIZE	TYPE	L	H	W	A	B	SIZE	TYPE	L	H	W	A	B
10A	CEBS-W	65	75	70	ø17.5	PT 3/8"	15A	CEBS-W	65	75	70	ø22	PT 1/2"
	CEBS-S	65	75	70	PT 3/8"	PT 3/8"		CEBS-S	65	75	70	PT 1/2"	PT 1/2"
	CEBL-W	65	96	70	ø17.5	PT 3/8"		CEBL-W	65	96	70	ø22	PT 1/2"
	CEBL-S	65	96	70	PT 3/8"	PT 3/8"		CEBL-S	65	96	70	PT 1/2"	PT 1/2"

### SPECIFICATION

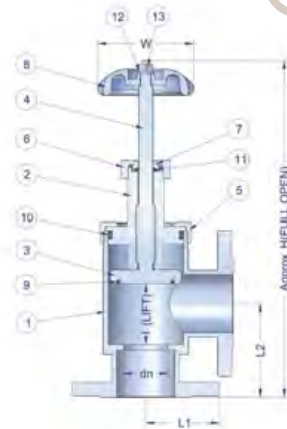
- Hydrostatic test pressure : 60kg/cm<sup>2</sup>
- Pneumatic test pressure : 44kg/cm<sup>2</sup>
- Fluid : Liquid, Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>
- Design Pressure : 40kg/cm<sup>2</sup>
- Design Temperature : -196°C ~ +60°C

Model : U&S-EBM-S

Model : U&S-CEBS-S.W / U&S-CEBL-S.W

# VACUUM VALVE

## Model : U&S-VSV-F



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	STS 304
2	BONNET	C3604
3	VALVE DISC	STS 304
4	STEM	STS 304
5	UNION NUT	C3604
6	GLAND NUT	C3604
7	GLAND	C3604

NO	PART NAME	MATERIAL
8	HANDLE	ALDC 8
9	O-RING	NBR
10	O-RING	NBR
11	O-RING	NBR
12	SPRING WASHER	STS 304
13	HEX NUT	STS 304

### DIMENSION

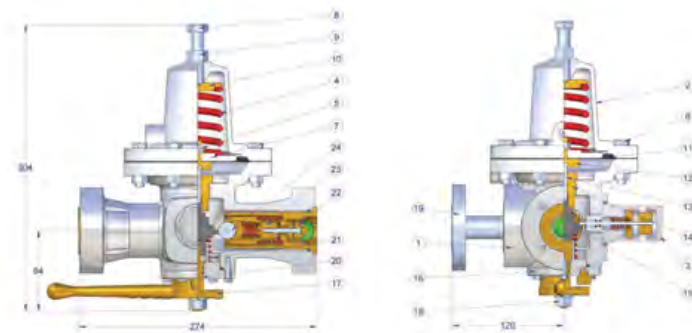
SIZE	dn	l	H	W	L1	L2
25A	21	24	201	80	55	57
40A	32	39	250	80	60	69

### SPECIFICATION

- Application : Cryogenic Storage Tank
- O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>, NG, C<sub>2</sub>H<sub>4</sub>

# AUTO CHANGER

## Model : U&S-AAH / U&S-AAM-F



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	A6061
2	COVER	AC2A-F
3	INDICATE INSTRUMENT	C3771
4	COURT SPRING	SUP4
5	NUT	SS400
6	BOLT	SS400
7	SAFEGUARD BOARD	C3771
8	LOCK BOLT	STS 304
9	LOCK NUT	STS 304
10	SPRING PRESS	C3771
11	DIAPHRAGM	C3771
12	CAM SHAFT	C3771

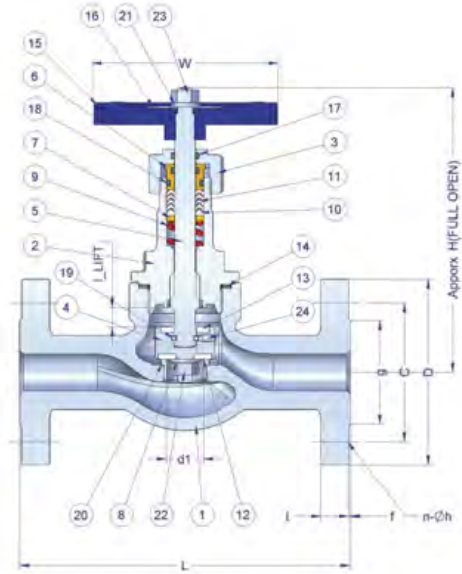
NO	PART NAME	MATERIAL
13	CAM SHAFT PIN	STS 304
14	GUIDE CUP	C3771
15	CONVERT CAM	SM45C
16	CAPSURE FLANGE	C3771
17	HANDLE	C3771
18	HANDLE NUT	STS 304
19	INLET FLANGE	AL 6061
20	SPINDLE	C3771
21	SPRING	SUP 4
22	SEAT-A	NBR / C3771
23	SEAT-B	NBR / C3771
24	CAM SHAFT	S45C

### SPECIFICATION

- Inlet pressure : 25kg/cm<sup>2</sup>
- Fluid : Gas O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>, LPG, C<sub>2</sub>H<sub>4</sub>

- Change set pressure AAH : 2~15kg/cm<sup>2</sup>
- AAM : 0.4~3kg/cm<sup>2</sup>

# LPG GLOVE VALVE 20kg/cm<sup>2</sup> FLANGE TYPE Model : U&S-LGS-F



Model : U&S-LGS-F

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## MATERIAL

NO	PART NAME	MATERIAL
1	BODY	GCD-S
2	BONNET	GCD-S
3	GLAND NUT	SS41
4	VALVE DISC	SS41
5	STEM	STS 304
6	GLAND	C3604
7	PACKING WASHER	C3604
8	SEAT RING	STS 304TP
9	SPRING	STS 304WR
10	LOWER PACKING	PTFE
11	UPPER PACKING	PTFE
12	VALVE SEAT	PTFE

NO	PART NAME	MATERIAL
13	BACK SEAT	PTFE
14	GASKET	ASBESTOS
15	HANDLE	ALDC 8
16	NAME PLATE	A 1100P
17	O-RING	NBR
18	O-RING	NBR
19	BALL	STB 2
20	FALT WASHER	STS 304
21	SPRING WASHER	STS 304
22	NYLON NUT	S10C
23	HEX NUT	S10C
24	STOP SCREW	STS 304

## DIMENSION

SIZE	d1	L	g	C	D	t	f	n-øh	l	H	W
15A	15	152	51	70	95	13	1	4-15	9,5	153	80
20A	20	178	56	75	100	15	1	4-15	10,5	164	100
25A	25	203	67	90	125	15	1	4-19	12	186	100
40A	40	229	81	105	140	16	2	4-19	17	221	140
50A	50	267	96	120	155	16	2	8-19	19,5	243	160

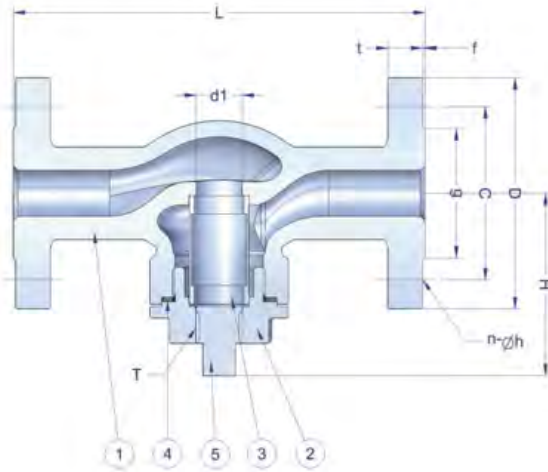
## SPECIFICATION

- Hydrostatic test pressure : 27kg/cm<sup>2</sup>
- Pneumatic test pressure : 20kg/cm<sup>2</sup>
- Fluid : LPG, NG

- Design Pressure : 18kg/cm<sup>2</sup>

# LPG STRAINER 20kg/cm<sup>2</sup> FLANGE TYPE

## Model : U&S-LGT-F



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	GCD-S
2	BONNET	GCD-S
3	SCREEN	STS 304

NO	PART NAME	MATERIAL
4	GASKET	ASBESTOS
5	PLUG BOLT	SF 45

### DIMENSION

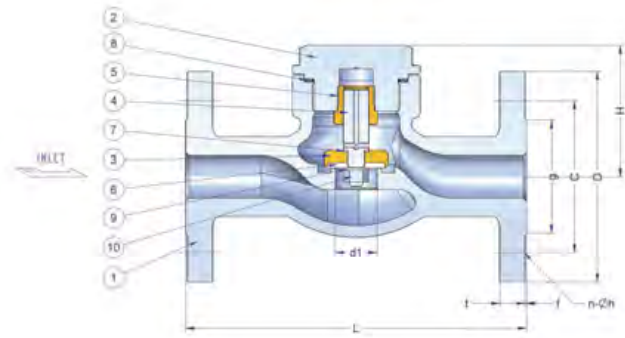
SIZE	d1	L	g	C	D	t	f	n-øh	H	T
15A	15	152	51	70	95	13	1	4-15	72	PT 3/8 "
20A	20	178	56	75	100	15	1	4-15	76	PT 3/8 "
25A	25	203	67	90	125	15	1	4-19	89	PT 3/8 "
40A	40	229	81	105	140	16	2	4-19	109	PT 1/2 "
50A	50	267	96	120	155	16	2	8-19	119	PT 1/2 "

### SPECIFICATION

- Hydrostatic test pressure : 27kg/cm<sup>2</sup>
- Pneumatic test pressure : 20kg/cm<sup>2</sup>
- Screen size : 60mesh

- Design Pressure : 18kg/cm<sup>2</sup>
- Fluid : LPG, NG

# LPG CHECK VALVE 20kg/cm<sup>2</sup> FLANGE TYPE Model : U&S-LGC-F



Model : U&S-LGC-F

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## MATERIAL

NO	PART NAME	MATERIAL
1	BODY	GCD-S
2	BONNET	GCD 400
3	VALVE DISC	STS 304
4	STEM	STS 304
5	GUIDE	C3604

NO	PART NAME	MATERIAL
6	VALVE SEAT	PTFE
7	BACK SEAT	PTFE
8	GASKET	T#1100
9	FLAT MASHER	STS 304
10	NYLON NUT	S10C

## DIMENSION

SIZE	d1	L	g	C	D	t	f	n-øh	H
25A	25	203	67	90	125	15	1	4-15	78
40A	40	229	81	105	140	16	2	4-19	94
50A	50	267	96	120	155	16	2	4-19	104

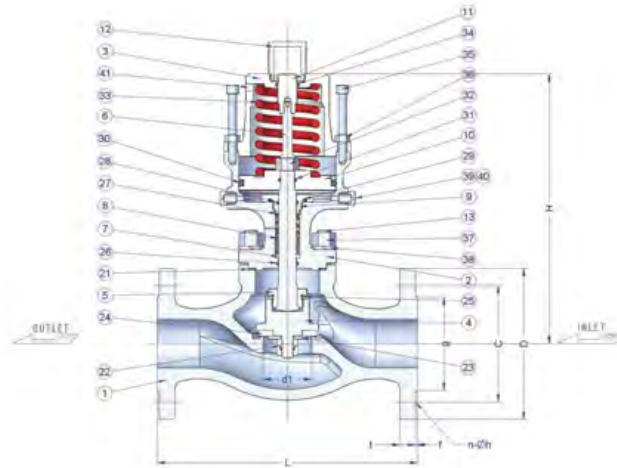
## SPECIFICATION

- Hydrostatic test pressure : 27kg/cm<sup>2</sup>
- Pneumatic test pressure : 20kg/cm<sup>2</sup>
- Fluid : LPG, NG

- Design Pressure : 18kg/cm<sup>2</sup>

# LPG EMERGENCY SHUT-OFF VALVE 20kg/cm<sup>2</sup> FLANGE TYPE

## Model : U&S-LCE-F



### MATERIAL

NO	PART NAME	MATERIAL
1	BODY	SCPH <sub>2</sub>
2	BONNET	SCS 13A
3	CYLINDER CAP	AC4C
4	VALVE DISC	S20C
5	STEM LOCK NUT	STS 304
6	STEM	STS 304
7	V-PACKING ADAPTOR	PTFE
8	V-PACKING	PTFE
9	GLAND	C3604
10	PISTON	A6061
11	ON-OFF INDICATOR	A6061
12	SIGHT GLASS	ACRYL
13	STUD BOLT	STS304
21	GASKET	ASBESTOS
22	LOCK NUT	S45C
23	WASHER	STS304
24	SOFT SEAT	PTFE

NO	PART NAME	MATERIAL
25	SET SCREW	STS 304
26	"O" RING	VITON
27	SPRING	STS 304
28	"O" RING	NBR
29	"O" RING	NBR
30	"O" RING	NBR
31	"O" RING	NBR
32	NYLON NUT	STS 304
33	SPRING	SUP 10
34	"O" RING	NBR
35	SOCKET BOLT	STS 304
36	HEX' NUT	STS 304
37	HEX' NUT	STS 304
38	SPRING WASHER	STS 304
39	FUSE METAL	C3604+Pb
40	SUCTION PLUG	C3604
41	EXHAUST PLUG	C3604

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Model : U&S-LCE-F

### DIMENSION

SIZE	d1	L	g	C	D	t	f	n-øh	H
25A	25	225	70	90	125	15	1	4-ø19	226
50A	50	267	100	120	155	16	2	8-ø19	277

### SPECIFICATION

- Hydrostatic test pressure : 27kg/cm<sup>2</sup>
- Pneumatic test pressure : 20kg/cm<sup>2</sup>
- Fluid : LPG, NG

- Design Pressure : 18kg/cm<sup>2</sup>
- Melting temperature of fuse Metal : 75°C

По вопросам продаж и поддержки обращайтесь:

Архангельск (8182)63-90-72	Калининград (4012)72-03-81	Новосибирск (383)227-86-73	Сочи (862)225-72-31
Астана +7(7172)727-132	Калуга (4842)92-23-67	Омск (3812) 21-46-40	Ставрополь (8652)20-65-13
Астрахань (8512) 99-46-04	Кемерово (3842)65-04-62	Орел (4862)44-53-42	Сургут (3462) 77-98-35
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