

SOOSUNG **CHECK VALVES**



**Working on the Basis of
Quality and Confidence**



GREETINGS

Dear valued customers,

Soosung Valve Ind. Co., Ltd. (SSV) has been established in 1999 and have been manufacturing the following products; Dual Plate Check Valve, Non Slam Nozzle (Axial Flow) Check Valve, Smolensky Check Valve, Non Slam Tilting Check Valve, Foot Valve. Our products have been used in wide applications and industries such as Oil & Gas, Petrochemical, LNG Terminal, Desalination, Offshore & Onshore and so on.

Under the slogan of "Making Confident Company", all employees put all their efforts with sweat from product to post-delivery (after service).

We are always opened to hear VOC to fulfill customer satisfaction with best technical support and quality assurance to become best company with high competitiveness, and customer satisfaction is the main goal of SSV.

We keep putting our effort on becoming boastless and humble company to grow and get improved with our customer together, and also we adopt ESG management for respecting human rights and for keeping law by no emission to environment in order for us to have sustainable company.

We appreciate your support and encouragement and we promise you that we will endeavor to be global company by continuous growth.

SOOSUNG VALVE Ind. Co., Ltd.

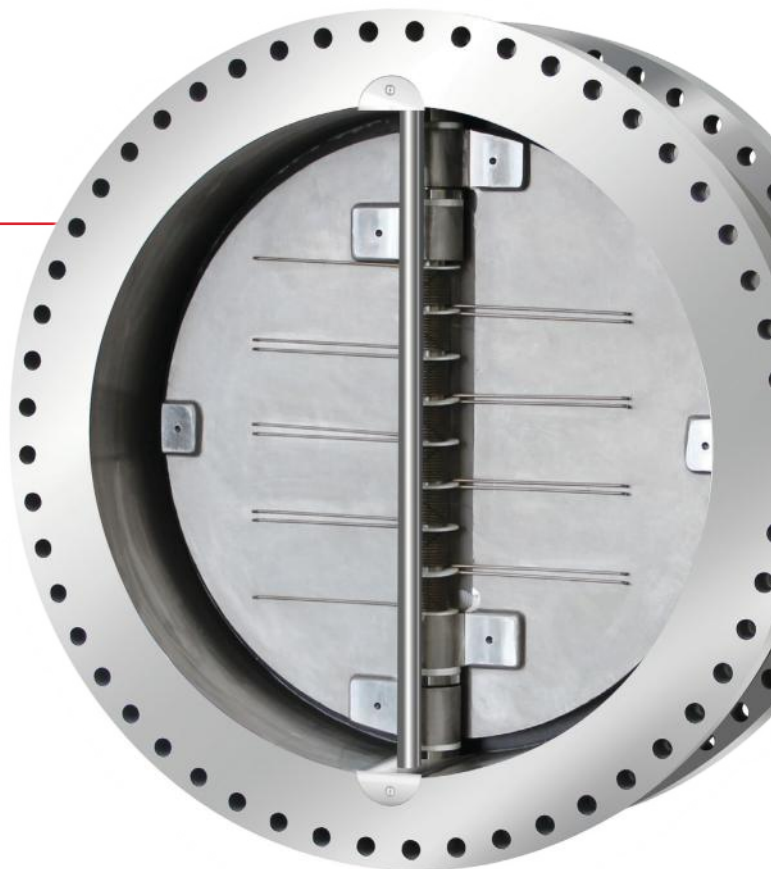
Working on the Basis of Quality and Confidence

COMPANY HISTORY

- May. 1999 Established "Soosung Valve Ind. Co., Ltd."
- Jul. 2000 Approved ISO 9001, KS 9001 Certificate by BVQ
- Feb. 2003 Started to produce Low temp & Cryogenic service valves
Selected as a company to produce facilities for Nuclear Power Generation
- Aug. 2004 Nominated as "Clean Factory" by KOREA Occupational Safty & Health Agency
- May. 2006 Moved to new factory site (Jiyoung-Dong, ilsandong-Gu, Goyang-City)
Approved to use API 6D monogram (Cert. No.: 6D-0718)
- May. 2007 Started to produce Cleaning valves (Pickling & Oxygen service)
- Mar. 2008 Obtained Fire-safety Certificate to API 607 and API 6FA
(by Velosi Became a member of Korea International Trade Association)
- Jul. 2010 Moved to new factory in Geomdan Industrial Complex in Incheon
- Sep. 2012 Trading Division was separated and established as a subsidiary,
named "SSV Coporation" in Goyang City, Gyeonggi-do
- Jan. 2013 Approved to KC Certificate by Korean water and sewage Association
(Cert. No.: KCW-2013-0036)
- May. 2014 Obtained UL Certificate, Registered to KEPCO
(Korea Power Engineering Company) E&C Certificate
- Mar. 2016 Obtained a certificate of ISO14001 by OQS
- Jul. 2016 Vendor registered to Kuwait Oil Company (KOC)
- Jul. 2016 Obtained a certificate of KFI Certificate by Korea Fire Institute
- Apr. 2018 Achieved TRCU Certificate
- Jul. 2019 Obtained a certificate of CE
- Aug. 2019 Vendor registered to ADNOC
- Feb. 2023 Obtained a certificate of ABS

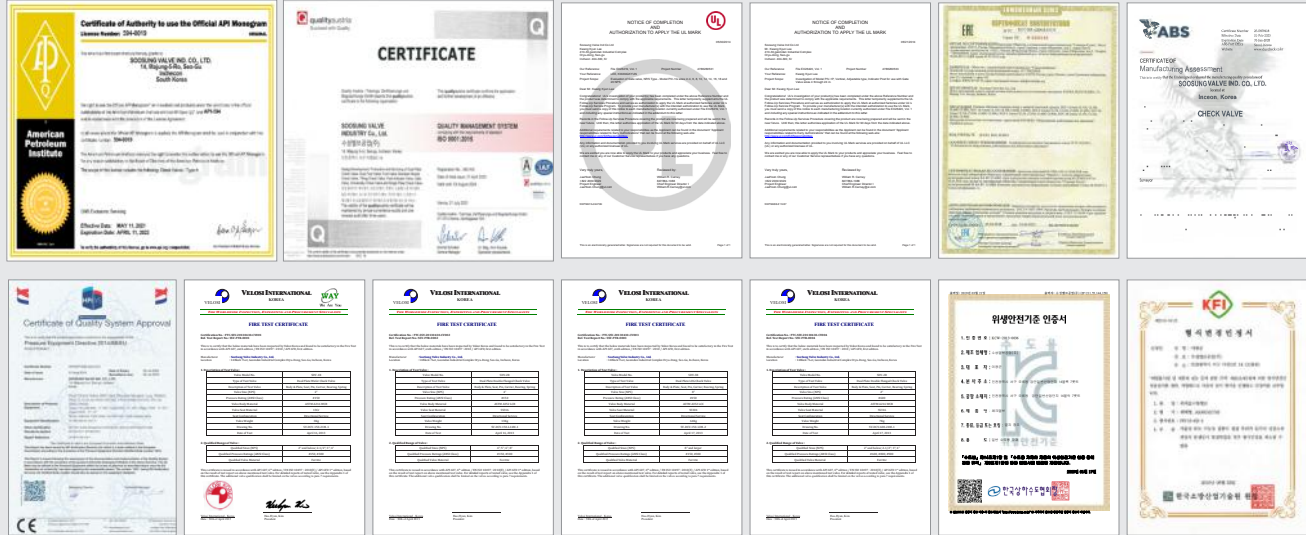
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QUALITY CERTIFICATES

- ISO 9001 / ISO14001 Certificate by OQS
- API Monogram / API 594
- FIRE TEST CERTIFICATE
- UL listed issued by UL
- KFI / CE / ABS / TRCU



MAIN CUSTOMERS



ORDERING INFORMATION

EXAMPLE

TYPE	SIZE	PRESSURE RATING	FLANGE FACING	BODY MATERIAL	PLATE MATERIAL	SEAT MATERIAL	SPRING MATERIAL	SPRING TORQUE
SDV-1	6	A3	R	W	S3	N	X	-
WAFER	6"	150LB	R.F	A216 WCB	A351 CF8	NBR	INCONEL -X750	-

VALVE TYPE

Code	Valve Type
SDV-1	WAFER
SDV-1R	WAFER&RETAINERLESS
SDV-2	FLANGE
SDV-2R	FLANGE&RETAINERLESS
SDV-3	LUG
SDV-3R	LUG&RETAINERLESS
SDV-4	BUTTWELD
SDV-5	HUB END
SDV-1L,2L,3L	RUBBER LINING
BDV-1,2,3	BY-PASS
NCV-1	NOZZLE
TCV-1	TILTING
SFV-1	FOOT (LEVER)
DFV-1	FOOT (DUAL)
SMC-1	SMOLENSKY
PIV-1	POST INDICATOR GATE VALVE
PIV-2	POST INDICATOR GATE VALVE (RUBBER LINING)
SSV-1	SINGLE PLATE (Short)
SSV-2	SINGLE PLATE (LONG)

SIZE

SIZE (inch - mm)	
Inch(")	ASME, AWWA & API Standards
mm	KS, JIS & DIN Standards

PRESSURE

Standard	KS	JIN	ASME	ISO DIN	AWWA C207
Code	K	J	A	P	AW
0	5	5	-		C
1	10	10	125	10	D
2	16	16	250	16	E
3	20	20	150	25	
4	30	30	300	40	
5	40	40	400	64	
6	63	63	600	100	
7	-	-	900	150	
8	-	-	1500	250	
9	-	-	2500	420	

FLANGE FACING

Code	Face Type	Roughness	Designation
F	Flat Face	63AARH	Smooth Finish
R	Raised Face	125~250AARH	Spiral Serrated
R1	Raised Face	63AARH	Smooth Finish
J	Ring Type Joint	63AARH	Smooth Finish
H	Hub End		
BW	Buttwelding		

BODY / PLATE MATERIAL

Code	KS/JIS Standard	ASTM Standard
Cast & Ductile Iron		
C	FC250/FC200	A126 Class B
D	FCD450	A536
D1	FCD-S	A395
Cast Steel		
W	SCPH2	A216 WCB
L		A352 LCC
L1		A352 LCB
L2	SCPL11	A352 LC1
W1	SCPH21	A217 WC6
W2	SCPH32	A217 WC9
W3		A216 WCC
W4	SCPH11	A217 WC1
C5	SCPH61	A217 C5
Stainless & Alloy Steel		
S1	SCS1	A217 CA15
S2		A217 C12
S3	SCS13	A351 CF8
S4	SCS14	A351 CF8M
S7	SCS21	A351 CF8C
S5	SCS19	A351 CF3
S6	SCS16	A351 CF3M
A	ALBC3	B148 C95800
A2		B148 C95200
B	BC6	B584 C83600
M3	MONEL	A494 M35-1
S8	DUPLEX	A890 4A
S9	DUPLEX	A890 5A
S10	DUPLEX	A890 6A
C1	INCONEL825	A494 CU5MCuC
C2	INCONEL625	A494 CW6MC

SEAT MATERIAL

Code	Designation	Applied Temp
N	NBR	0°C~80°C
C	CR	-10°C~80°C
V	VITON	-30°C~150°C
E	EPDM	-10°C~100°C
P	PTFE	0°C~ 260°C
M	METAL	
S3	SUS 304	-268°C ~ 538°C
S4	SUS 316	
SL	SUS316L	-268°C ~ 425°C
M3	MONEL	-196°C ~ 475°C
H6	STELLITE#6 (on Body)	-268°C ~ 538°C
F6	STELLITE#6 (on Body&Plate)	
S1	SUS 410	-29°C ~ 538°C
C1	ALLOY 825	-200°C ~ 538°C
C2	ALLOY 625	
C1L	Internal Alloy 825 Cladding	
C2L	Internal Alloy 625 Cladding	

SPRING MATERIAL

Code	Designation	Limits (Max)
S	STS 316 WPA	121°C
X	INCONEL X-750	538°C
M1	MONEL-K500	230°C

SPRING TORQUE

Code	Torque	Liquid		Pnuematic		
		Up to 0.88MPa	Over 0.88MPa	Up to 0.1MPa	Over 0.1MPa	Up to 0.01MPa
S	Standard Torque	O	-	-	O	-
X	Low Torque	-	-	O	-	-
M1	Mini Torque	-	-	-	-	O
M1	High Torque	-	O	-	-	-

MAJOR SUPPLIES OF SSV

WAFER TYPE

MODEL NO **SDV-1**

- **DIAMETER**
40A(1½") ~ 1800A(72")
- **PRESSURE**
10K ~ 63K, 125LB ~ 2500LB



WAFER & RETAINERLESS TYPE

MODEL NO **SDV -1R**

- **DIAMETER**
40A(1½") ~ 1800A(72")
- **PRESSURE**
10K ~ 63K, 125LB ~ 2500LB



FLANGE TYPE

MODEL NO **SDV-2**

- **DIAMETER**
40A(1½") ~ 1800A(72")
- **PRESSURE**
10K ~ 63K, 125LB ~ 2500LB



FLANGE & RETAINERLESS TYPE

MODEL NO **SDV-2R**

- **DIAMETER**
40A(1½") ~ 1800A(72")
- **PRESSURE**
10K ~ 63K, 125LB ~ 2500LB



LUG TYPE

MODEL NO **SDV-3**

- **DIAMETER**
40A(1½") ~ 1800A(72")
- **PRESSURE**
10K ~ 63K, 125LB ~ 2500LB



LUG & RETAINERLESS TYPE

MODEL NO **SDV-3R**

- **DIAMETER**
40A(1½") ~ 1800A(72")
- **PRESSURE**
10K ~ 63K, 125LB ~ 2500LB



BUTTWELD TYPE

MODEL NO **SDV-4**

- **DIAMETER**
80A(3") ~ 600A(24")
- **PRESSURE**
150LB ~ 2500LB



HUB END TYPE

MODEL NO **SDV-5**

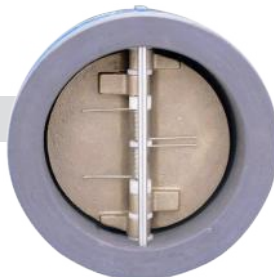
- **DIAMETER**
50A(2") ~ 450A(18")
- **PRESSURE**
900LB ~ 2500LB



RUBBER LINING TYPE

MODEL NO **SDV-1L**

- **DIAMETER**
50A(2") ~ 1800A(72")
- **PRESSURE**
10K, 125LB, 150LB



BY-PASS TYPE

MODEL NO **BDV-3**

- **DIAMETER**
40A(1½") ~ 800A(32")
- **PRESSURE**
10K, 20K 150LB ~ 300LB



NON SLAM CHECK VALVE NOZZLE TYPE

MODEL NO **NCV-1**

- **DIAMETER**
25A(1") ~ 1500A(60")
- **PRESSURE**
125LB ~ 2500LB



NON SLAM CHECK VALVE TILTING TYPE

MODEL NO **TCV-1**

- **DIAMETER**
100A(4") ~ 1500A(60")
- **PRESSURE**
125LB ~ 300LB



SINGLE PLATE CHECK VALVE SHORT TYPE

MODEL NO **SSV-1**

- **DIAMETER**
40A(1½") ~ 700A(28")
- **PRESSURE**
125LB ~ 150LB



SINGLE PLATE CHECK VALVE LONG TYPE

MODEL NO **SSV-2**

- **DIAMETER**
50A(2") ~ 900A(36")
- **PRESSURE**
125LB ~ 300LB



SMOLENSKY CHECK VALVE

MODEL NO **SMC-1**

- **DIAMETER**
40A(1½") ~ 600A(24")
- **PRESSURE**
10K ~ 40K, 150LB, 300LB



FOOT VALVE DUAL TYPE

MODEL NO **DFV-1**

- **DIAMETER**
50A(2") ~ 600A(32")
- **PRESSURE**
10K, 20K, 150LB, 300LB



FOOT VALVE LEVER TYPE

MODEL NO **SFV-1**

- **DIAMETER**
50A(2") ~ 750A(30")
- **PRESSURE**
10K, 20K, 150LB, 300LB



DUAL PLATE CHECK VALVE

APPLICATION

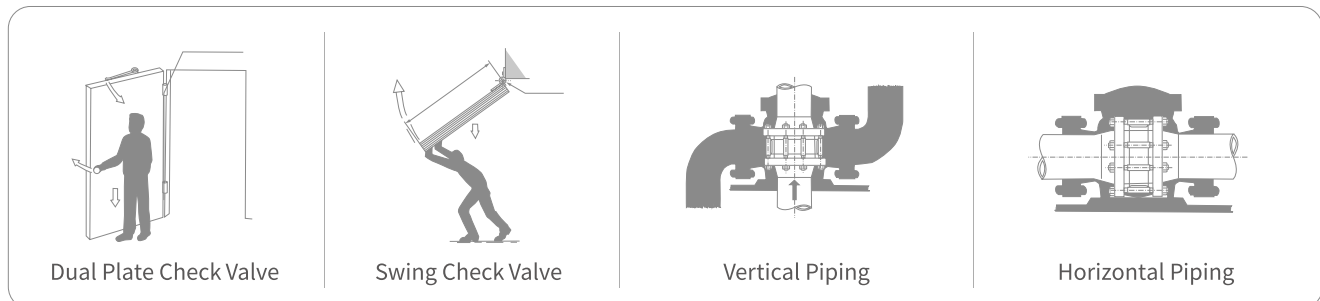
Dual Plate Check Valves have been used successfully in following plants

- Oil & Gas
- Petrochemical
- Power Generation
- Refinery
- Onshore / Offshore
- Chemical Plant
- Nuclear
- Waste Incineration
- Water System
- LNG
- Shipbuilding
- Steel Industry
- General industry



ADVANTAGE

- Face-to-face dimensions for Dual Plate Wafer Check Valves are about one fourth of a Swing Check Valve.
- Weight is as little as about 20% of the corresponding Swing Check Valve due to the compact design.
- Dual Plate Wafer Check Valves have a spring design to close valves more efficiently when the back flow occurs to reduce the water hammer.
- These valves have the lower pressure drop than Swing Check Valves because of little friction resistance.
- Dual Plate Wafer Check Valves are less expensive than Swing Check Valves because of the lightness and compact design. These valves are also easier and less expensive to install and maintain because of fewer piping supports and easy handling for installation.
- Because Dual Plate Wafer Check Valves are flangeless, they are installed between flanges.
- Normal installation method for horizontal flow is with the hinge pin in vertical position.
- Installation is available for both horizontal and vertical piping.



SPRING SELECTION GUIDE

- **Standard Spring**
Suitable for the line pressure of 0.298MPa through 0.89MPa without any pressure loss and the upward flow direction of vertical installation.
- **Low Coil Spring**
Ideal for gas with the line pressure of 0.1MPa and under.
- **High Coil Spring**
Suitable for the line pressure of 0.88MPa.

THE SEAT DESIGN OF DUAL PLATE CHECK VALVE

- **No leak, no distortion seals**
Seat design can be furnished with the resilient seal materials that provide tight seals without leakage and metal seals with minimum leakage.

OPENING PRESSURE

NOMINAL SIZE		STD SPRING	LOW COIL SPRING	WHEN ADD TO PLATE WEIGHT (STD SPRING)
A(mm)	B(inch)			
50	2"	16mbar	9mbar	22mbar
65	2½"	17	8	23
80	3"	21	8	28
100	4"	12	5	19
125	5"	12	5	22
150	6"	13	6	24
200	8"	15	8	27
250	10"	16	6	30
300	12"	19	9	34
350	14"	16	6	33
400	16"	17	8	36
450	18"	17	9	39
500	20"	13	6	36
600	24"	14	4	38

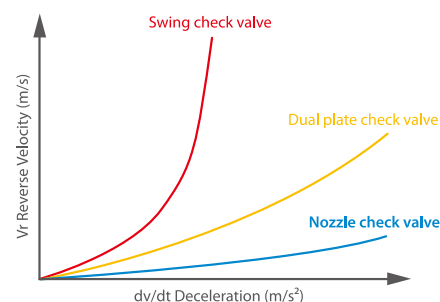
* Minimum pressure of valve opening for Horizontal installation UP-(When fluid flows from down to up) add to the weight of plate Down-(When fluid flows from up to down)100A(4")&LARGER; need to the spring with more coil numbers.

FLOW COEFFICIENT (Cv)

NOMINAL SIZE		Cv
A(mm)	B(inch)	
50A	2"	53
65A	2½"	83
80A	3"	139
100A	4"	271
125A	5"	483
150A	6"	800
200A	8"	1509
250A	10"	2640
300A	12"	4073
350A	14"	5303
400A	16"	7342
450A	18"	9946
500A	20"	12960
600A	24"	20500

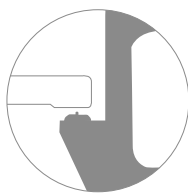
ADVANTAGE

- Due to swing check valve internal design, water hammer and pressure surge problems can easily occur if the valve is not properly sized for the application. Many piping system failure can be attributed to the improper installation of check valves.
- Soosung valve's Non-slam Nozzle check valve has a venturi port design that reduces flow resistance and improves flow efficiency. The spring loaded disc gives a tight disc&seat closure seal at all working pressures.
- Soosung valve's dual-plate check valve disc has a slim plate design which offers less restriction to flow at full open position. compared with many of other manufacturers Soosung valve's dual-plate check valve pressure drop is substantially lower.

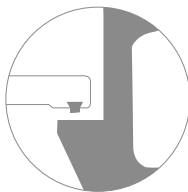


RESILIENT SEALS

- **Typical Figure**
Seal is bonded on plate seat for high pressure design.
Under 2"~ 3": ANSI 600 Series and under 4" and larger : ANSI 300 series and under.

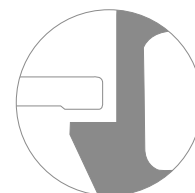


- **Typical Figure**
Seal is bonded on plate seat for high pressure design.
2"~ 3": ANSI 900 series and over 4" and larger : ANSI 400 series and over.

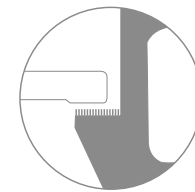


METAL TO METAL SEATS

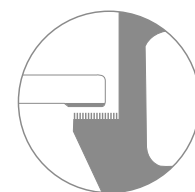
- **Typical Figure**
Body and plate are same material.
(e.g. carbon steel, stainless steel, bronze.)



- **Typical Figure**
All Material Most ANSI 150 and 300 Series.
Overlay material is welded. Body seat only. Plate is same material as overlay.
(e.g. if body seat is 316ss, plates are 316ss.)



- **Typical Figure**
Most of ANSI 400 series and higher rating.
Overlay material is welded on seat surface of body and plate.



DUAL PLATE CHECK VALVE

WAFER TYPE

MODEL NO **SDV-1**

- **DIAMETER**
40A(1½") ~ 1800A(72")
- **PRESSURE**
10K ~ 63K, 125LB ~ 2500LB



WAFER & RETAINERLESS TYPE

MODEL NO **SDV -1R**

- **DIAMETER**
40A(1½") ~ 1800A(72")
- **PRESSURE**
10K ~ 63K, 125LB ~ 2500LB



FLANGE TYPE

MODEL NO **SDV-2**

- **DIAMETER**
40A(1½") ~ 1800A(72")
- **PRESSURE**
10K ~ 63K, 125LB ~ 2500LB



FLANGE & RETAINERLESS TYPE

MODEL NO **SDV-2R**

- **DIAMETER**
40A(1½") ~ 1800A(72")
- **PRESSURE**
10K ~ 63K, 125LB ~ 2500LB



LUG TYPE

MODEL NO **SDV-3**

- **DIAMETER**
40A(1½") ~ 1800A(72")
- **PRESSURE**
10K ~ 63K, 125LB ~ 2500LB



LUG & RETAINERLESS TYPE

MODEL NO **SDV-3R**

- **DIAMETER**
40A(1½") ~ 1800A(72")
- **PRESSURE**
10K ~ 63K, 125LB ~ 2500LB



BUTTWELD TYPE

MODEL NO **SDV-4**

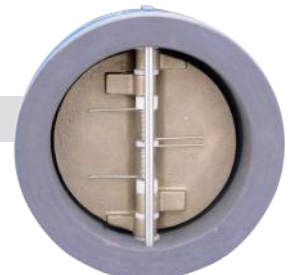
- **DIAMETER**
80A(3") ~ 600A(24")
- **PRESSURE**
150LB ~ 2500LB



RUBBER LINING TYPE

MODEL NO **SDV-1L**

- **DIAMETER**
50A(2") ~ 1800A(72")
- **PRESSURE**
10K, 125LB, 150LB



HUB END TYPE

MODEL NO **SDV-5**

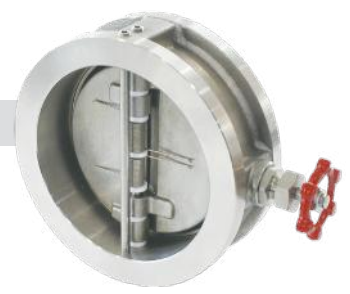
- **DIAMETER**
50A(2") ~ 450A(18")
- **PRESSURE**
900LB ~ 2500LB



BY-PASS TYPE

MODEL NO **BDV-3**

- **DIAMETER**
40A(1½") ~ 800A(32")
- **PRESSURE**
10K, 20K 150LB ~ 300LB



FEATURES

- Wafer type, light weight and suitable for the limited space of piping. Spring is installed inside the valve.
- Shock and noise are reduced by any possible water-hammer.
- Rubber seat ensures the perfect seal.
- Horizontal and vertical installation is applicable.
- Widely used for the basic piping, water, sewerage and various piping.
- By-pass Type valve can be substituted for Smolensky check valve.
- Rubber Lining Type is suitable for sea water application.
- Retainerless Type. No holes through the body wall, so leakage to the outside is implissible, and therefore Fugitive Emission-free.

SPECIFICATION

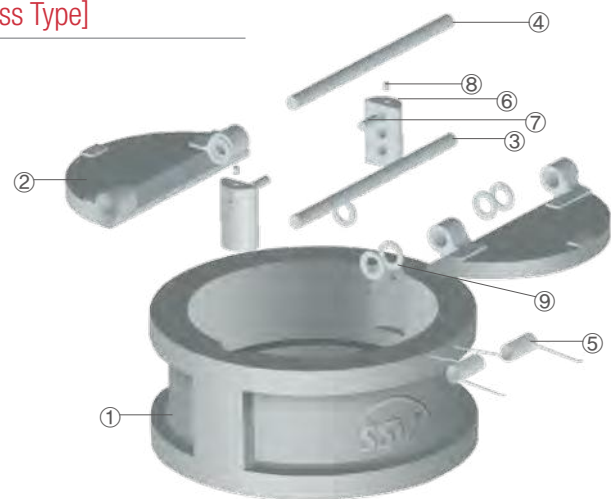
DIAMETER	40A(1½") ~ 1800A(72")
APPLICABLE PRESSURE	• 10K ~ 63K • 125LB ~ 2500LB
CONNECTING ENDS	WAFER TYPE, FLANGE TYPE, LUG TYPE, RETAINERLESS TYPE, Buttweld End Type, Hub End Type
TEST Standard	According to KS B2304, API 598
NUMBER OF SPRING	1½" ~ 5"(1EA), 6" ~ 22"(2EA), 24" ~ 72"(4~8EA)

EXPLODED VIEW DUAL CHECK VALVE [Wafer & Retainerless Type]

COMPONENTS

NO	NAME	Q'ty
1	BODY	1
2	PLATE	2
3	HINGE PIN	1
4	STOP PIN	1
5	SPRING	1~10
6	CARRIER	2
7	KEEPER SCREW	2
8	DOWEL SCREW	2
9	BEARING	4~10

* EYE BOLT Supplied for Valves over 6".



PRODUCTION MATERIALS

PART NAME	NAME
BODY	Cast Iron, Carbon Steel, Alloy Steel, Special Alloy Steel, Stainless Steel, Al-Bronze, Duplex Stainless
PLATE	Carbon Steel, Alloy Steel, Special Alloy Steel, Stainless Steel, Al-Bronze, Duplex Stainless

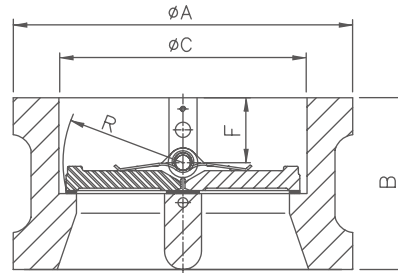
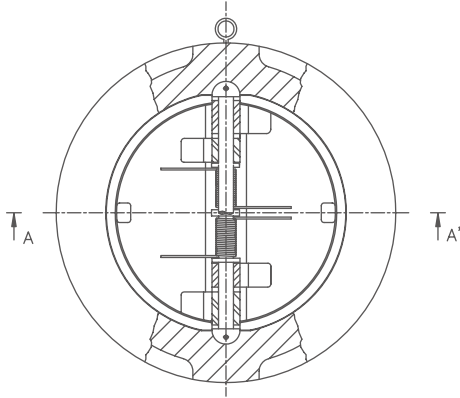
* The material can be changed by customer's request.

Trim Number Chart (to API 594)

API Trim No.	Normal Trim	Body Seat Surface	Plate Seat Surface	Hinge Pin Stop Pin
1	F6	13Cr	13Cr	A276-T410
2	304	18Cr-8Ni	18Cr-8Ni	A276-T304
5	HARD FACE(HF)	Stellite No. 6	Stellite No. 6	A276-T410
8	F6 & HF	Stellite No. 6	13Cr	A276-T410
9	MONEL	Ni-Cu ALLOY	Ni-Cu ALLOY	UNS N04400

API Trim No.	Normal Trim	Body Seat Surface	Plate Seat Surface	Hinge Pin Stop Pin
10	316	18Cr-8Ni-Mo	18Cr-8Ni-Mo	A276-T316
12	316 & HF	Stellite No. 6	18Cr-8Ni-Mo	A276-T316
13	ALLOY20	19Cr-29Ni	19Cr-29Ni	B473
14	ALLOY20 & HF	Stellite No. 6	19Cr-29Ni	B473
16	HARD FACE(HF)	Stellite No. 6	Stellite No. 6	A276-T316

INSTALLATION DIMENSIONS(1) KS(JIS)•ASME(ANSI)

WAFER TYPE (SDV-1, SDV-1R)**ASME B16.5 / JIS B2220 (KS B1511)**

SECTION A-A'

Size mm(inch)	Pressure Rating (KS, ANSI)	Type Facing	Dimensions(mm)					Flange Bolt Circle(mm)	No. of Bolts	Bolt Dia.	Bolt Length(mm)		Weight (kg)
			ϕA	B	ϕC	F	R				FF - RF	RTJ	
50 (2")	10K	FF	101	54	60	27	27	120	4	M16	125	-	3
	20K	RF.FF	101	60	60	33	27	120	8	M16	140	-	3
	125	FF	105	54	60	27	27	121.0	4	5/8	145	-	3
	250	FF	111	54	60	25	27	127.0	8	5/8	160	-	4
	150	RF.R-22	105	60	60	33	27	120.6	4	5/8	160	170	3
	300	RF.R-23	111	60	60	33	27	127.0	8	5/8	165	185	4
	600	RF.R-23	111	60	60	33	27	127.0	8	5/8	185	190	4
	900	RF.R-24	143	70	57	33	27	165.1	8	7/8	240	245	6
	1500	RF.R-24	143	70	57	33	27	165.1	8	7/8	240	245	7
	2500	RF.R-26	146	70	57	33	27	171.4	8	1	280	280	8
65 (2½")	10K	FF	121	54	73	27	33	140	4	M16	130	-	4
	20K	RF.FF	121	67	73	32	33	140	8	M16	150	-	5
	125	FF	124	60	73	27	33	140.0	4	5/8	155	-	4
	250	FF	130	60	73	25	33	149.0	8	3/4	180	-	5
	150	RF.R-25	124	67	73	32	33	139.7	4	5/8	175	185	4
	300	RF.R-26	130	67	73	32	33	149.4	8	3/4	185	205	5
	600	RF.R-26	130	67	73	32	33	149.4	8	3/4	205	215	5
	900	RF.R-27	165	83	68	35	33	190.5	8	1	265	275	7
	1500	RF.R-27	165	83	68	35	33	190.5	8	1	270	275	8
	2500	RF.R-28	168	83	68	35	33	196.8	8	1½	305	315	10
80 (3")	10K	FF	131	57	89	30	41	150	8	M16	135	-	5
	20K	RF.FF	137	73	89	36	41	160	8	M20	170	-	7
	125	FF	137	67	89	30	41	152.0	4	5/8	165	-	5
	250	FF	149	67	89	27	41	168.0	8	3/4	195	-	7
	150	RF.R-29	137	73	89	36	41	152.4	4	5/8	180	190	6
	300	RF.R-31	149	73	89	36	41	168.1	8	3/4	200	215	7
	600	RF.R-31	149	73	89	36	41	168.1	8	3/4	220	225	7
	900	RF.R-31	168	83	89	34	42	190.5	8	7/8	255	260	13
	1500	RF.R-35	175	83	89	34	42	203.2	8	1½	285	295	14
	2500	RF.R-32	197	86	89	36	42	228.6	8	1½	335	345	18
100 (4")	10K	FF	156	64	114	32	54	175	8	M16	145	-	6
	20K	RF.FF	162	73	114	38	55	185	8	M20	175	-	8
	125	FF	175	67	114	32	54	191.0	8	5/8	175	-	6
	250	FF	181	67	114	30	54	200.0	8	3/4	200	-	8
	150	RF.R-36	175	73	114	38	54	190.5	8	5/8	180	190	8
	300	RF.R-37	181	73	114	38	55	200.2	8	3/4	205	225	9
	600	RF.R-37	194	79	114	42	55	215.9	8	7/8	250	255	12
	900	RF.R-37	206	102	114	40	55	235.0	8	1½	300	305	18
	1500	RF.R-39	210	102	114	40	55	241.3	8	1½	325	335	21
	2500	RF.R-38	235	105	114	34	55	273.0	8	1½	385	400	27

Size mm(inch)	Pressure Rating (KS, ANSI)	Type Facing	Dimensions(mm)					Flange Bolt Circle(mm)	No. of Bolts	Bolt Dia.	Bolt Length(mm)		Weight (kg)
			ØA	B	ØC	F	R				FF - RF	RTJ	
125 (5")	10K	FF	187	70	141	33	65	210	8	M20	165	-	9
	20K	RF.FF	197	86	141	41	65	225	8	M22	195	-	14
	125	FF	197	83	141	33	65	216.0	8	3/4	200	-	9
	250	FF	216	83	141	38	65	235.0	8	3/4	225	-	14
	150	RF.R-41	197	86	141	41	65	215.9	8	3/4	200	215	10
	300	RF.R-41	216	86	141	41	65	235.0	8	3/4	225	240	14
150 (6")	600	RF.R-41	241	105	141	40	65	266.7	8	1	295	305	23
	10K	FF	217	76	168	35	79	240	8	M20	170	-	10
	20K	RF	235	98	168	44	79	260	12	M22	215	-	19
	125	FF	222	95	168	35	79	241	8	3/4	210	-	10
	250	FF	257	95	168	43	79	270	12	3/4	240	-	19
	150	RF.R-43	222	98	168	44	79	241.3	8	3/4	215	230	16
	300	RF.R-43	251	98	168	44	79	269.7	12	3/4	240	255	19
	600	RF.R-45	267	136	168	46	82	292.1	12	1	335	340	33
	900	RF.R-45	289	159	168	56	82	317.5	12	1½	380	385	66
200 (8")	1500	RF.R-46	283	159	168	56	82	317.5	12	1½	445	460	65
	2500	RF.R-47	318	159	168	56	82	368.3	8	2	535	550	72
	10K	FF	267	95	219	42	102	290	12	M20	195	-	19
	20K	RF.FF	279	127	219	48	102	305	12	M22	250	-	36
	125	FF	279	127	219	42	102	299	8	3/4	250	-	19
	250	FF	308	127	219	48	102	330	12	7/8	290	-	36
	150	RF.R-48	279	127	219	48	102	298.4	8	3/4	250	265	32
	300	RF.R-49	308	127	219	48	102	330.2	12	7/8	290	305	40
	600	RF.R-49	321	165	219	54	105	349.2	12	1½	385	390	68
250 (10")	900	RF.R-49	359	206	219	73	105	393.7	12	1½	455	465	107
	1500	RF.R-50	352	206	210	73	105	393.7	12	1½	530	545	121
	2500	RF.R-51	387	206	210	73	105	438.2	12	2	620	645	140
	10K	FF	330	108	274	42	126	310	12	M22	215	-	31
	20K	RF.FF	353	146	274	52	126	380	12	M24	280	-	51
	125	FF	340	140	274	42	126	362	12	7/8	280	-	31
	250	FF	362	140	274	48	126	387	16	1	325	-	51
	150	RF.R-52	340	146	274	56	126	362	12	7/8	285	300	55
	300	RF.R-53	362	146	274	52	126	387.4	16	1	330	345	67
300 (12")	600	RF.R-53	400	213	274	70	133	431.8	16	1½	455	465	121
	900	RF.R-53	435	241	274	87	133	469.9	16	1½	505	510	188
	1500	RF.R-54	435	248	265	87	133	482.6	12	1½	615	630	195
	2500	RF.R-55	476	254	265	87	133	539.8	12	2½	770	810	230
	10K	FF	375	143	324	58	152	400	16	M22	255	-	56
	20K	RF.FF	403	181	324	70	152	430	16	M24	320	-	88
	125	FF	410	181	324	58	152	432	12	7/8	320	-	56
	250	FF	422	181	324	70	152	451	16	1½	380	-	90
	150	RF.R-56	410	181	324	70	152	431.8	12	7/8	325	335	94
350 (14")	300	RF.R-57	422	181	324	70	152	450.8	16	1½	380	395	108
	600	RF.R-57	457	229	324	67	152	489	20	1½	480	485	178
	900	RF.R-57	498	292	318	100	150	533.4	20	1½	575	580	284
	1500	RF.R-58	521	305	318	102	150	571.5	16	2	710	735	380
	2500	RF.R-60	549	305	316	103	150	619.3	12	2½	875	915	440
	10K	FF	420	184	356	94	170	445	16	M22	300	-	71
	20K	RF.FF	447	222	356	94	170	480	16	M30	370	-	176
	125	FF	451	184	356	94	170	476	12	1	335	-	71
	250	FF	486	222	356	94	170	514	20	1½	425	-	176
	150	RF.R-59	451	184	356	90	170	476.2	12	1	340	355	120
	300	RF.R-61	486	222	356	94	170	514.4	20	1½	425	440	176
	600	RF.R-61	492	273	356	103	164	527	20	1½	535	545	220
	900	RF.R-62	521	356	350	130	168	558.8	20	1½	655	670	365
	1500	RF.R-63	578	356	350	130	168	635	16	2½	795	825	405

* KS DESIGN FACE TO FACE MAKER STANDARD.

INSTALLATION DIMENSIONS(1) KS(JIS)•ASME(ANSI)

WAFER TYPE (SDV-1, SDV-1R)

Size mm(inch)	Pressure Rating (KS, ANSI)	Type Facing	Dimensions(mm)					Flange Bolt Circle(mm)	No.of Bolts	Bolt Dia.	Bolt Length(mm)		Weight (kg)
			ØA	B	ØC	F	R				FF - RF	RTJ	
400 (16")	10K	FF	483	191	406	86	195	510	16	M24	315	-	99
	20K	RF,FF	507	232	406	95	195	540	16	M30	405	-	277
	125	FF	514	191	406	89	195	540	16	1	350	-	99
	250	FF	540	232	406	97	195	572	20	1½	450	-	277
	150	RF,R-64	514	191	406	86	195	539.8	16	1	350	365	159
	300	RF,R-65	540	232	406	95	195	571.5	20	1½	450	465	227
	600	RF,R-65	565	305	406	92	198	603.2	20	1½	585	595	320
	900	RF,R-66	575	384	406	137	198	616	20	1¾	700	715	530
	1500	RF,R-67	641	384	406	137	198	704.8	16	2½	865	900	620
450 (18")	10K	FF	538	203	457	86	219	565	20	M24	325	-	130
	20K	RF,FF	572	264	457	127	219	605	20	M30	440	-	301
	125	FF	549	203	457	86	219	578	16	1½	375	-	130
	250	FF	597	264	457	102	219	629	24	1½	490	-	301
	150	RF,R-68	549	203	457	86	219	577.8	16	1½	375	390	185
	300	RF,R-69	597	264	457	127	219	628.6	24	1½	490	505	270
	600	RF,R-69	613	362	457	121	228	654	20	1¾	665	675	450
	900	RF,R-70	638	451	457	167	232	685.8	20	1¾	805	825	620
	1500	RF,R-71	705	468	457	167	216	774.7	16	2¾	995	1035	800
500 (20")	10K *	FF	593	213	508	89	244	620	20	M24	345	-	180
	20K	RF,FF	627	292	508	108	244	660	20	M30	475	-	373
	125 *	FF	606	213	508	89	244	635	20	1¾	390	-	180
	250 *	FF	654	292	508	109	244	686	24	1½	525	-	373
	150	RF,R-72	606	219	508	89	244	635	20	1¾	400	410	210
	300	RF,R-73	654	292	508	108	244	685.8	24	1½	520	545	350
	600	RF,R-73	683	368	508	116	248	723.9	24	1¾	685	695	551
	900	RF,R-74	699	451	508	116	248	749.3	20	2	825	845	860
	1500	RF,R-75	755	533	508	116	248	831.8	16	3	1105	1140	1300
600 (24")	10K *	FF	697	222	610	87	292	730	24	M30	370	-	258
	20K	RF,FF	731	318	610	122	292	770	24	M36	525	-	598
	125 *	FF	718	222	610	87	292	749	20	1½	420	-	258
	250 *	FF	775	318	610	122	292	813	24	1½	575	-	541
	150	RF,R-76	718	222	610	86	292	749.3	20	1½	420	430	292
	300	RF,R-77	775	318	610	122	292	812.8	24	1½	575	600	540
	600	RF,R-77	791	438	610	133	295	838.2	24	1¾	795	810	950
	900	RF,R-78	838	495	610	149	300	901.7	20	2½	960	990	1360
	1500	RF,R-79	901	559	610	149	300	990.6	16	3½	1205	1255	2800
650 (26")	125 *	FF	775	222	660	90	316	806.4	24	1½	460	-	380
	150	RF	775	222	660	90	316	806.4	24	1½	470	-	420
	300	RF,R-93	835	318	660	110	316	876.3	28	1¾	610	630	590
	600	RF,R-93	867	457	660	122	312	914.4	28	1¾	820	840	1110
	900	RF,R-100	883	533	660	122	312	952.5	20	2¾	1005	1050	1560
700 (28")	10K	FF	807	321	711	132	327	840	24	M30	475	1120	480
	125 *	FF	832	321	711	132	337	863.6	28	1½	560	-	480
	150	RF	832	305	711	132	337	863.6	28	1½	555	-	580
	300	RF,R-94	898	368	711	132	351	939.8	28	1¾	670	695	750
	600	RF,R-94	914	483	711	165	347	965.2	28	2	890	900	1295
	900	RF,R-101	946	572	711	165	347	1022.4	20	3	1070	1105	1818

Size mm(inch)	Pressure Rating (KS, ANSI)	Type Facing	Dimensions(mm)					Flange Bolt Circle(mm)	No.of Bolts	Bolt Dia.	Bolt Length(mm)		Weight (kg)
			ØA	B	ØC	F	R				FF - RF	RTJ	
750 (30")	10K	FF	867	305	762	156	365	900	24	M30	530	-	530
	125 *	FF	883	305	762	127	365	914	28	1½	515	-	530
	150	RF	883	305	762	137	365	914.4	28	1½	560	-	660
	300	RF RJ95	953	368	762	137	365	997	28	1½	685	710	960
	600	RF.R-95	971	505	762	165	362	1022.4	28	2	895	910	1500
	900	RF.R-102	1009	635	762	165	362	1085.8	20	3	1150	1185	2130
800 (32")	10K	FF	917	356	813	156	397	950	28	M30	535	-	650
	125 *	FF	940	356	813	156	397	977.9	28	1½	630	-	660
	150	RF	940	356	813	156	397	977.9	28	1½	635	-	768
	300	RF.R-96	1006	368	813	119	389	1054.1	28	1½	710	740	1180
	600	RF.R-96	1022	533	813	145	370	1079.5	28	2¼	940	965	1750
	900	RF.R-103	1073	660	813	145	370	1155.7	20	3¼	1205	1240	2340
900 (36")	10K *	FF	1017	368	914	146	440	1050	28	M30	610	-	880
	125 *	FF	1048	368	914	146	440	1086	32	1½	605	-	880
	150	RF	1048	368	914	146	440	1085.8	32	1½	665	-	986
	300	RF 98	1117	483	914	165	440	1168.4	32	2	840	-	1609
	600	RF.R-98	1130	635	914	210	445	1193.8	28	2½	1075	1195	2635
	900	RF.R-105	1200	718	914	210	445	1289	20	3½	1300	1350	3250
1000 (40")	10K	FF	1121	419	1016	160	495	1160	28	M36	610	-	1010
	125 *	FF	1162	419	1016	160	495	1200.2	36	1½	710	-	1050
	150	RF	1162	432	1016	160	495	1200.2	36	1½	740	-	1390
	300	RF	1114	546	1016	191	499	1155.7	32	1¾	900	-	1950
	600	RF	1155	660	1016	238	492	1212.8	32	2¼	1150	-	2837
	900	RF	1250	762	1016	238	492	1339.8	24	3½	1395	-	4571
1050 (42")	125 *	FF	1219	432	1067	168	603	1257	36	1½	680	-	1260
	150	RF	1219	432	1067	168	603	1257.3	36	1½	740	-	1463
	300	RF	1168	568	1067	175	591	1206.5	32	1¾	930	-	2240
	600	RF	1219	702	1067	240	520	1282.7	28	2½	1225	-	3375
	900	RF	1302	787	1067	260	520	1390.6	24	3½	1440	-	5350
1200 (48")	125 *	FF	1384	524	1219	178	603	1422	44	1½	780	-	2055
	150	RF	1384	524	1219	178	603	1422.4	44	1½	855	-	2180
	300	RF	1324	629	1219	171	591	1371.6	32	1¾	1035	-	3300
	600	RF	1391	787	1219	270	591	1460.5	32	2¾	1365	-	4432
1350 (54")	150	RF	1549	591	1372	168	669	1593.8	44	1¾	965	-	2800
	300	RF	1492	718	1372	270	666	1549.4	28	2¼	1185	-	4120
1500 (60")	150	RF	1715	660	1524	279	740	1759	52	1¾	1055	-	3538
1800 (72")	150	RF	2051	914	1829	367	891	2096	60	1¾	1265	-	6350
2250 (90")	150	RF	2532	1289	2270	512	1110	2590.8	68	2¼	-	-	

VALVE SIZE	1 1/2", 2", 3", ..., 24"	26", 28", ..., 60"	72", 90"
FLANGE STANDARD	ASME B 16.5	ASME B 16.47 SERIES A(MSS SP44)	AWWA C207 CLASS D(175~150PSI)

* If you need above the size of 90", Please contact us.

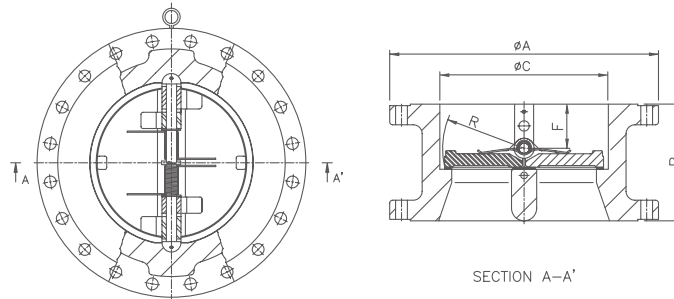
INSTALLATION DIMENSIONS(1) KS(JIS)•ASME(ANSI)

WAFER TYPE (SDV-1, SDV-1R)**ASME B16.47 SERIES B**

Size mm(inch)	Pressure Rating (KS, ANSI)	Type Facing	Dimensions(mm)					Flange Bolt Circle(mm)	No.of Bolts	Bolt Dia.	Bolt Length(mm)		Weight (kg)
			ØA	B	ØC	F	R				FF - RF	RTJ	
650 (26")	150	RF	725	222	629	90	316	744.5	36	3/4	375	-	350
	300	RF.R-93	771	318	629	90	316	803.1	32	1 1/4	600	640	570
	600	RF.R-93	765	457	629	122	312	806.4	28	1 5/8	820	835	910
	900	RF.R-100	838	533	629	122	312	901.7	20	2 1/2	990	1025	1420
700 (28")	150	RF	776	305	680	132	337	795.3	40	3/4	465	-	509
	300	RF.R-94	826	368	680	132	351	857.2	36	1 1/4	650	690	725
	600	RF.R-94	819	483	680	165	347	863.6	28	1 3/4	860	875	1040
	900	RF.R-101	902	572	680	165	347	971.6	20	2 3/4	1070	1105	1580
750 (30")	150	RF	827	305	735	137	365	846.1	44	3/4	460	-	540
	300	RF.R-95	886	368	735	137	365	920.8	36	1 3/8	665	700	882
	600	RF.R-95	880	505	735	165	362	927.1	28	1 7/8	910	925	1310
	900	RF.R-102	959	635	735	165	362	1035.0	20	3	1160	1195	2015
800 (32")	150	RF	881	356	784	156	397	900.2	48	3/4	520	-	668
	300	RF.R-96	940	368	784	119	389	977.9	32	1 1/2	700	730	1010
	600	RF.R-96	933	533	784	145	370	984.2	28	2	955	975	1560
	900	RF.R-103	1016	660	784	145	370	1092.2	20	3 1/4	1195	1230	2280
900 (36")	150	RF	987	368	865	143	440	1009.6	44	7/8	550	-	860
	300	RF.R-98	1048	483	865	165	440	1089.2	32	1 5/8	815	850	1310
	600	RF.R-98	1048	635	865	210	445	1104.9	28	2 1/4	1100	1125	2154
	900	RF.R-105	1124	718	865	210	445	1200.2	24	3	1280	1325	3184
1000 (40")	150	RF	1095	432	987	160	495	1120.6	44	1	635	-	1182
	300	RF	1150	546	987	191	499	1190.8	40	1 5/8	905	-	1960
1050 (42")	150	RF	1146	432	1062	168	508	1171.4	48	1	640	-	1290
	300	RF	1200	568	1062	168	508	1244.6	36	1 3/4	940	-	2080
1200 (48")	150	RF	1307	524	1193	178	603	1335	44	1 1/8	750	-	2050
	300	RF	1368	629	1193	171	591	1416.0	40	1 7/8	1025	-	3500
1350 (54")	150	RF	1464	591	1281	168	669	1492.2	56	1 1/8	830	-	2690
	300	RF	1530	718	1281	270	666	1577.8	48	1 7/8	1130	-	4290



FLANGE TYPE (SDV-2, SDV-2R)



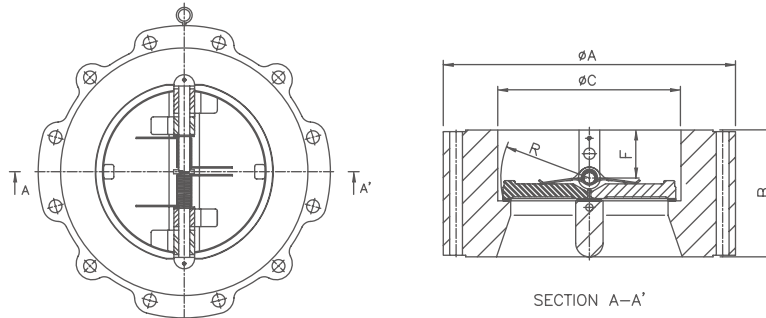
Size mm(inch)	Pressure Rating (KS, ANSI)	Type Facing	Dimensions(mm)					Flange Bolt Circle(mm)	No.of Bolts	Bolt Dia.	Bolt Length(mm)		Weight (kg)
			ØA	B	ØC	F	R				FF - RF	RTJ	
50 (2")	150	RF.R-22	152	114	60	54	27	120.6	4	5/8	95	105	7
	300	RF.R-23	165	114	60	62	27	127	8	5/8	100	115	8
	600	RF.R-23	165	121	60	62	27	127	8	5/8	120	125	10
	900	RF.R-24	216	165	57	32	27	165.1	8	7/8	165	170	24
	1500	RF.R-24	216	165	57	33	27	165.1	8	7/8	165	170	32
80 (3")	2500	RF.R-26	235	225	57	33	27	171.4	8	1	195	200	48
	150	RF.R-29	190	121	89	57	41	152.4	4	5/8	105	115	15
	300	RF.R-31	210	121	89	70	41	168.1	8	3/4	125	140	15
	600	RF.R-31	210	143	89	68	41	168.1	8	3/4	140	145	20
	900	RF.R-31	241	165	89	29	42	190.5	8	7/8	165	170	34
100 (4")	1500	RF.R-35	267	207	89	34	42	203.2	8	1 1/8	195	200	72
	2500	RF.R-32	305	280	89	36	42	228.6	8	1 1/4	240	250	102
	150	RF.R-36	229	121	114	60	54	190.5	8	5/8	105	115	18
	300	RF.R-37	254	121	114	60	55	200.2	8	3/4	130	145	24
	600	RF.R-37	273	165	114	68	55	215.9	8	7/8	165	170	39
150 (6")	900	RF.R-37	292	197	114	56	55	235	8	1 1/8	190	195	52
	1500	RF.R-39	311	225	114	40	55	241.3	8	1 1/4	215	220	85
	2500	RF.R-38	356	330	114	34	55	273	8	1 1/2	275	285	170
	150	RF.R-43	279	130	168	59	79	241.3	8	3/4	120	125	27
	300	RF.R-43	318	130	168	59	79	269.7	12	3/4	140	155	42
200 (8")	600	RF.R-45	356	194	168	106	82	292.1	12	1	190	195	80
	900	RF.R-45	381	219	168	73	82	317.5	12	1 1/8	215	220	109
	1500	RF.R-46	394	292	168	56	82	317.5	12	1 3/8	280	285	223
	2500	RF.R-47	483	454	168	56	82	368.3	8	2	360	375	360
	150	RF.R-48	343	127	219	48	102	298.4	8	3/4	125	130	51
250 (10")	300	RF.R-49	381	152	219	74	102	330.2	12	7/8	155	170	69
	600	RF.R-49	419	219	219	96	105	349.2	12	1 1/8	215	220	132
	900	RF.R-49	470	254	219	108	105	393.7	12	1 3/8	240	245	185
	1500	RF.R-50	483	340	210	73	105	393.7	12	1 5/8	310	320	320
	2500	RF.R-51	552	489	210	73	105	438.2	12	2	400	420	680
300 (12")	150	RF.R-52	406	146	274	56	126	362	12	7/8	135	140	88
	300	RF.R-53	444	178	274	73	126	387.4	16	1	180	190	108
	600	RF.R-53	508	244	274	70	133	431.8	16	1 1/4	235	240	230
	900	RF.R-53	546	267	274	87	133	469.9	16	1 3/8	255	260	320
	1500	RF.R-54	584	387	265	87	133	482.6	12	1 7/8	355	365	570
350 (14")	2500	RF.R-55	673	622	265	87	133	539.8	12	2 1/2	500	530	1182
	150	RF.R-56	483	181	324	70	152	431.8	12	7/8	140	145	130
	300	RF.R-57	521	181	324	70	152	450.8	16	1 1/8	190	205	180
	600	RF.R-57	559	229	324	67	152	489.0	20	1 1/4	240	245	275
	900	RF.R-57	610	292	318	100	150	533.4	20	1 3/8	275	280	380
350 (14")	1500	RF.R-58	673	435	318	102	150	571.5	16	2	395	410	820
	2500	RF.R-60	762	686	316	103	150	619.3	12	2 3/4	550	585	1200
	150	RF.R-59	533	184	356	90	170	476.2	12	1	150	165	170
	300	RF.R-61	584	222	356	94	170	514.4	20	1 1/8	195	210	285
	600	RF.R-61	603	273	356	103	164	527	20	1 3/8	255	260	389
350 (14")	900	RF.R-62	641	356	350	130	168	558.8	20	1 1/2	290	305	535
	1500	RF.R-63	749	476	350	130	168	635	16	2 1/4	425	450	1080

FLANGE TYPE (SDV-2, SDV-2R)

Size mm(inch)	Pressure Rating (KS, ANSI)	Type Facing	Dimensions(mm)					Flange Bolt Circle(mm)	No.of Bolts	Bolt Dia.	Bolt Length(mm)		Weight (kg)
			ØA	B	ØC	F	R				FF - RF	RTJ	
400 (16")	150	RF.R-64	597	191	406	86	195	539.8	16	1	155	165	200
	300	RF.R-65	648	232	406	95	195	571.5	20	1 1/4	210	225	357
	600	RF.R-65	686	305	406	92	198	603.2	20	1 1/2	275	280	518
	900	RF.R-66	705	384	406	137	198	616	20	1 5/8	305	315	710
	1500	RF.R-67	826	537	406	137	198	704.8	16	2 1/2	465	495	1400
450 (18")	150	RF.R-68	635	203	457	86	219	577.8	16	1 1/8	170	175	247
	300	RF.R-69	711	264	457	127	219	628.6	24	1 1/4	215	230	430
	600	RF.R-69	743	362	457	121	228	654	20	1 5/8	290	295	710
	900	RF.R-70	787	451	457	167	232	685.8	20	1 7/8	345	360	980
	1500	RF.R-71	914	565	457	167	216	774.7	16	2 3/4	510	540	1930
500 (20")	150	RF.R-72	693	219	508	89	244	635	20	1 1/8	175	185	306
	300	RF.R-73	775	292	508	108	244	685.8	24	1 1/4	220	240	540
	600	RF.R-73	813	368	508	116	248	723.9	24	1 5/8	305	315	924
	900	RF.R-74	857	451	508	116	248	749.3	20	2	360	375	1390
	1500	RF.R-75	984	629	508	116	248	831.8	16	3	555	585	2500
600 (24")	150	RF.R-76	813	222	610	86	292	749.3	20	1 1/4	190	200	435
	300	RF.R-77	914	318	610	122	292	812.8	24	1 1/2	245	270	760
	600	RF.R-77	940	438	610	133	295	838.2	24	1 7/8	345	355	1335
	900	RF.R-78	1041	495	610	149	300	901.7	20	2 1/2	450	475	1890
	1500	RF.R-79	1168	733	610	149	300	990.6	16	3 1/2	630	665	3600
650 (26")	150	RF	870	222	660	90	316	806.4	24	1 1/4	240	-	610
	300	RF.R-93	972	318	660	90	316	876.3	28	1 5/8	285	310	1080
	600	RF.R-93	1016	457	660	122	312	914.4	28	1 7/8	370	385	1780
	900	RF.R-100	1086	533	660	122	312	952.5	20	2 3/4	480	505	2080
700 (28")	150	RF	927	305	711	132	333	863.6	28	1 1/4	250	-	770
	300	RF.R-94	1035	368	711	132	333	939.8	28	1 5/8	300	325	1260
	600	RF.R-94	1073	483	711	165	330	965.2	28	2	385	395	1990
	900	RF.R-101	1168	572	711	165	330	1022.4	20	3	500	525	2600
750 (30")	150	RF	984	305	762	137	371	914.4	28	1 1/4	255	-	834
	300	RF.R-95	1092	368	762	137	375	997	28	1 3/4	320	340	1397
	600	RF.R-95	1130	505	762	165	362	1022.4	28	2	390	405	2240
	900	RF.R-102	1232	635	762	165	362	1085.8	20	3	510	540	3268
800 (32")	150	RF	1060	356	813	119	389	977.9	28	1 1/2	285	-	1096
	300	RF.R-96	1149	368	813	119	389	1054.1	28	1 7/8	340	365	1760
	600	RF.R-96	1194	533	813	145	370	1079.5	28	2 1/4	405	425	2600
	900	RF.R-103	1314	660	813	145	370	1155.7	20	3 1/4	540	570	3650
900 (36")	150	RF	1168	368	914	143	452	1085.8	32	1 1/2	300	-	1240
	300	RF.R-98	1270	483	914	165	452	1168.4	32	2	360	385	2362
	600	RF.R-98	1314	635	914	210	445	1193.8	28	2 1/2	435	450	3500
	900	RF.R-105	1460	718	914	210	445	1289	20	3 1/2	580	615	4855
1000 (40")	150	RF	1289	432	1016	153	499	1200.2	36	1 1/2	300	-	1590
	300	RF	1238	546	1016	191	499	1155.7	32	1 5/8	360	-	2480
	600	RF	1321	660	1016	238	492	1212.8	32	2 1/4	490	-	4120
	900	RF	1511	762	1016	238	492	1339.8	24	3 1/2	630	-	6500
1050 (42")	150	RF	1346	432	1067	173	527	1257.3	36	1 1/2	315	-	2062
	300	RF	1289	568	1067	148	522	1206.5	32	1 5/8	370	-	2630
	600	RF	1403	702	-	-	-	1282.7	28	2 1/2	520	-	4895
	900	RF	1562	787	-	-	-	1390.6	24	3 1/2	650	-	7120
1200 (48")	150	RF	1511	524	1219	178	603	1422.4	44	1 1/2	340	-	3350
	300	RF	1467	629	1219	171	591	1371.6	32	1 7/8	410	-	4160
	600	RF	1594	787	1219	-	-	1460.5	32	2 3/4	575	-	7024
1350 (54")	150	RF	1683	591	1370	180	663	1593.8	44	1 3/4	380	-	3495
	300	RF	1657	718	1370	-	-	1549.4	28	2 1/4	470	-	5760
1500 (60")	150	RF	1854	660	1524	279	740	1759	52	1 3/4	400	-	-
	300	RF	1810	838	1524	-	-	1701.8	32	2 1/4	490	-	-
VALVE SIZE			1 1/2", 2", 3", ..., 24"					26", 25", ..., 60"			72", 90"		
FLANGE STANDARD			ANSI B16.5					ASME B16.47 SERIES A(MSS SP44)			AWWA C207 CLASS D		

* If you need above the size of 1500, Please contact us.

LUG TYPE (SDV-3, SDV-3R)



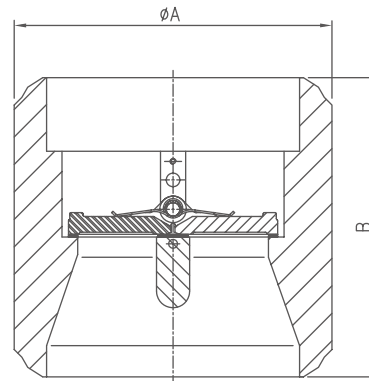
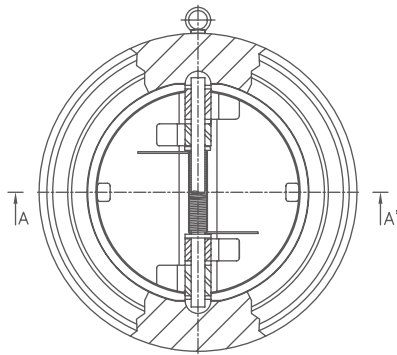
Size mm(inch)	Pressure Rating (KS, ANSI)	Type Facing	Dimensions(mm)					Flange Bolt Circle(mm)	No. of Bolts	Bolt Dia.	Bolt Length(mm)		Weight (kg)
			ØA	B	ØC	F	R				FF - RF	RTJ	
50 (2)	150	RF.R-22	152	60	60	33	27	120.6	4	5/8	160	170	7
	300	RF.R-23	165	60	60	33	27	127	8	5/8	165	185	8
	600	RF.R-23	165	60	60	33	27	127	8	5/8	185	190	8
	900	RF.R-24	216	70	57	33	27	165.1	8	7/8	240	245	16
	1500	RF.R-24	216	70	57	33	27	165.1	8	7/8	240	245	16
	2500	RF.R-26	235	70	57	33	27	171.4	8	1	280	280	29
80 (3)	150	RF.R-29	190	73	89	36	41	152.4	4	5/8	180	190	12
	300	RF.R-31	210	73	89	36	41	168.1	8	3/4	200	215	14
	600	RF.R-31	210	73	89	36	41	168.1	8	3/4	220	225	14
	900	RF.R-31	241	83	89	34	42	190.5	8	7/8	255	260	25
	1500	RF.R-35	267	83	89	34	42	203.2	8	1 1/8	285	295	29
	2500	RF.R-32	305	86	89	36	42	228.6	8	1 1/4	335	345	40
100 (4)	150	RF.R-36	229	73	114	38	54	190.5	8	5/8	180	190	19
	300	RF.R-37	254	73	114	38	55	200.2	8	3/4	205	225	23
	600	RF.R-37	273	79	114	42	55	215.9	8	7/8	250	255	30
	900	RF.R-37	292	102	114	40	55	235	8	1 1/8	300	305	45
	1500	RF.R-39	311	102	114	40	55	241.3	8	1 1/4	325	335	51
	2500	RF.R-38	356	105	114	34	55	273	8	1 1/2	395	400	82
150 (6)	150	RF.R-43	279	98	168	44	79	241.3	8	3/4	215	230	32
	300	RF.R-43	318	98	168	44	79	269.7	12	3/4	240	255	45
	600	RF.R-45	356	136	168	46	82	292.1	12	1	335	340	81
	900	RF.R-45	381	159	168	56	82	317.5	12	1 1/8	380	385	115
	1500	RF.R-46	394	159	168	56	82	317.5	12	1 1/8	445	460	118
	2500	RF.R-47	483	159	168	56	82	368.3	8	2	535	550	197
200 (8)	150	RF.R-48	343	127	219	48	102	298.4	8	3/4	250	265	63
	300	RF.R-49	381	127	219	48	102	330.2	12	7/8	290	305	78
	600	RF.R-49	419	165	219	54	105	349.2	12	1 1/8	385	390	134
	900	RF.R-49	470	206	219	73	105	393.7	12	1 1/8	455	465	217
	1500	RF.R-50	483	206	210	73	105	393.7	12	1 1/8	530	545	283
	2500	RF.R-51	552	206	210	73	105	438.2	12	2	620	645	300
250 (10)	150	RF.R-52	406	146	274	56	126	362	12	7/8	285	300	93
	300	RF.R-53	444	146	274	52	126	387.4	16	1	330	345	115
	600	RF.R-53	508	213	274	70	133	431.8	16	1 1/4	455	465	234
	900	RF.R-53	546	241	274	87	133	469.9	16	1 1/8	505	510	330
	1500	RF.R-54	584	248	265	87	133	482.6	12	1 1/8	615	630	361
	2500	RF.R-55	673	254	265	87	133	539.8	12	2 1/2	770	610	512
300 (12)	150	RF.R-56	483	181	324	70	152	431.8	12	7/8	325	335	170
	300	RF.R-57	521	181	324	70	152	450.8	16	1 1/8	380	395	242
	600	RF.R-57	559	229	324	67	152	489	20	1 1/4	480	485	304
	900	RF.R-57	610	292	318	100	150	533.4	20	1 1/8	575	580	509
	1500	RF.R-58	673	305	318	102	150	571.5	16	2	710	735	637
	2500	RF.R-60	762	305	316	103	150	619.3	12	2 3/4	875	915	880
350 (14)	150	RF.R-59	533	184	356	90	170	476.2	12	1	340	355	200
	300	RF.R-61	584	222	356	94	170	514.4	20	1 1/8	425	440	310

LUG TYPE (SDV-3, SDV-3R)

Size mm(inch)	Pressure Rating (KS, ANSI)	Type Facing	Dimensions(mm)					Flange Bolt Circle(mm)	No.of Bolts	Bolt Dia.	Bolt Length(mm)		Weight (kg)
			ØA	B	ØC	F	R				FF - RF	RTJ	
350 (14")	600	RF.R-61	603	273	356	103	164	527	20	1%	535	540	430
	900	RF.R-62	641	356	350	130	168	558.8	20	1½	655	670	775
	1500	RF.R-63	749	356	350	130	168	635	16	2¼	795	825	896
400 (16")	150	RF.R-64	597	191	406	86	195	539.8	16	1	350	365	246
	300	RF.R-65	648	232	406	95	195	571.5	20	1¼	450	465	440
	600	RF.R-65	686	305	406	92	198	603.2	20	1½	585	595	620
	900	RF.R-66	705	384	406	137	198	616	20	1%	700	715	895
	1500	RF.R-67	826	384	406	137	198	704.8	16	2½	865	900	1280
450 (18")	150	RF.R-68	635	203	457	86	219	577.8	16	1½	375	390	290
	300	RF.R-69	711	264	457	127	219	628.6	24	1¼	490	505	558
	600	RF.R-69	743	362	457	121	228	654	20	1%	665	675	902
	900	RF.R-70	787	451	457	167	232	685.8	20	1½	805	825	1188
	1500	RF.R-71	914	468	457	167	216	774.7	16	2¾	995	1035	1780
500 (20")	150	RF.R-72	693	219	508	89	244	635	20	1½	400	410	348
	300	RF.R-73	775	292	508	108	244	685.8	24	1¼	520	545	766
	600	RF.R-73	813	368	508	116	248	723.9	24	1%	685	695	1072
	900	RF.R-74	857	451	508	116	248	749.3	20	2	825	845	1496
	1500	RF.R-75	984	533	508	116	248	831.8	16	3	1105	1140	2235
600 (24")	150	RF.R-76	813	222	610	86	292	749.3	20	1¼	420	430	510
	300	RF.R-77	914	318	610	122	292	812.8	24	1½	575	600	1190
	600	RF.R-77	940	438	610	133	295	838.2	24	1%	795	610	1825
	900	RF.R-78	1041	495	610	149	300	901.7	20	2½	960	990	2351
	1500	RF.R-79	1168	559	610	149	300	990.6	16	3½	1205	1255	3250
650 (26")	150	RF	870	222	660	90	316	806.4	24	1¼	470	-	680
	300	RF.R-93	972	318	660	90	316	876.3	28	1%	610	635	1308
	600	RF.R-93	1016	457	660	122	312	914.4	28	1½	820	840	2227
	900	RF.R-100	1086	533	660	122	312	952.5	20	2¾	1005	1050	2860
700 (28")	150	RF	927	305	711	132	351	863.6	28	1¼	555	-	970
	300	RF.R-94	1035	368	711	132	351	939.8	28	1½	670	695	1670
	600	RF.R-94	1073	483	711	165	347	965.2	28	2	890	900	2480
	900	RF.R-101	1168	572	711	165	347	1022.4	20	3	1070	1105	3080
750 (30")	150	RF	984	305	762	137	371	914.4	28	1¼	560	-	1029
	300	RF.R-95	1092	368	762	137	375	997	28	1¼	685	710	1870
	600	RF.R-95	1130	505	762	165	362	1022.4	28	2	895	910	2880
	900	RF.R-102	1232	635	762	165	362	1085.8	20	3	1150	1185	3956
800 (32")	150	RF	1060	356	813	119	389	977.9	28	1½	635	-	1569
	300	RF.R-96	1149	368	813	119	389	1054.1	28	1%	710	740	2320
	600	RF.R-96	1194	533	813	145	370	1079.5	28	2¼	940	965	3238
	900	RF.R-103	1314	660	813	145	370	1155.7	20	3¼	1205	1240	4381
900 (36")	150	RF	1168	368	914	143	452	1085.9	32	1½	665	-	1824
	300	RF.R-98	1270	483	914	165	452	1168.4	32	2	840	875	3351
	600	RF.R-98	1314	635	914	210	445	1193.8	28	2½	1010	1095	4870
	900	RF.R-105	1460	718	914	210	445	1289	20	3½	1300	1350	6434
1000 (40")	150	RF	1289	432	1016	499	499	1200.2	36	1½	730	-	2470
	300	RF	1238	546	1016	499	499	1155.7	32	1%	900	-	4290
	600	RF	1321	660	1016	492	492	1212.8	32	2¼	1150	-	5120
	900	RF	1511	762	1016	492	492	1339.8	24	3½	1395	-	8416
1050 (42")	150	RF	1346	432	1067	527	527	1257.3	36	1½	740	-	2820
	300	RF	1289	568	1067	522	522	1206.5	32	1%	930	-	4820
	600	RF	1403	702	1067	240	520	1282.7	28	2½	1225	-	6240
	900	RF	1562	787	1067	260	520	1390.6	24	3½	1440	-	-
1200 (48")	150	RF	1511	524	1219	178	603	1422.4	44	1½	855	-	4171
	300	RF	1467	629	1219	171	591	1371.6	32	1%	1035	-	6236
	600	RF	1594	787	1219	270	591	1460.5	32	2¾	1365	-	-
1350 (54")	150	RF	1683	591	1372	180	663	1593.8	44	1¼	965	-	-
	300	RF	1657	718	1372	270	666	1549.4	28	2¼	1185	-	-
1500 (60")	150	RF	1854	660	1524	279	740	1759	52	1¼	1055	-	-
	300	RF	1810	838	1524	-	-	1701.8	32	2¼	1330	-	-

BUTTWELD TYPE (SDV-4)

BUTTWELD TYPE INSTALLATION DIMENSIONS (ASME B 16.25)



SECTION A-A'

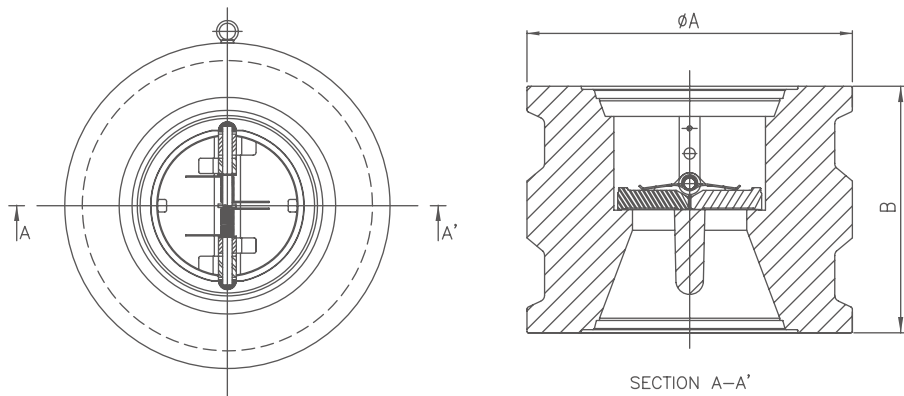
Size mm(inch)	Pressure Rating (KS, ANSI)	Dimensions(mm)		Weight (kg)
		ØA	B	
80 (3")	150	98	136	6.6
	300	98	136	6.6
	600	113.3	136	7
	900	113.3	136	7
	1500	113.3	136	7
100 (4")	150	129.5	120.7	6.9
	300	129.5	120.7	7.4
	600	135.6	120.7	8.5
	900	146.7	165.1	14
	1500	155.1	165.1	16
150 (6")	2500	235	165.1	19
	150	168.3	136.5	13
	300	168.3	136.5	13
	600	171.9	136.5	15
	900	228.8	206.4	28
200 (8")	1500	228.8	206.4	37
	2500	228.8	206.4	44
	150	226.5	152.4	22
	300	226.5	152.4	25
	600	239.5	215.9	43
250 (10")	900	252.2	292.1	69
	1500	284.2	292.1	92
	2500	312.6	292.1	113
	150	270.6	187.3	43
	300	270.6	187.3	43

Size mm(inch)	Pressure Rating (KS, ANSI)	Dimensions(mm)		Weight (kg)
		ØA	B	
300 (12")	600	329.5	215.9	63
	900	329.5	215.9	69
	1500	351.8	292.1	117
	2500	372.6	317.5	159
	1500	419.2	349.3	234
350 (14")	2500	367.3	412.8	344
	150	380	260.4	102
	300	380	260.4	113
	600	381.8	355.6	199
	900	381.8	355.6	231
400 (16")	1500	429.6	355.6	264
	150	425.3	304.8	146
	300	425.3	304.8	164
	600	441	400.1	263
	900	469.5	400.1	315
450 (18")	1500	493.8	438.2	434
	150	475.4	330.2	190
	300	475.4	330.2	215
	600	487.5	409.6	306
	900	519.5	447.7	423
500 (20")	1500	555.4	457.2	568
	150	526.7	400.1	273
	300	526.7	400.1	213
	600	539.9	495.3	461
	900	578	546.1	637
600 (24")	1500	621.7	546.1	855
	150	609.6	342.9	361
	300	609.6	419.1	458
	600	635.4	546.1	722
	900	680.1	603.2	1050
	1500	738.5	660.4	1401

*The nominal bore of the valve will be determined by the pipe schedule selected by the customer and be in accordance with ASME B 16.25. Valve size is not specified in the above table, please contact us. Customer must state pipe schedule at time of inquiry.

HUB END TYPE (SDV-5)

HUB END TYPE INSTALLATION DIMENSIONS

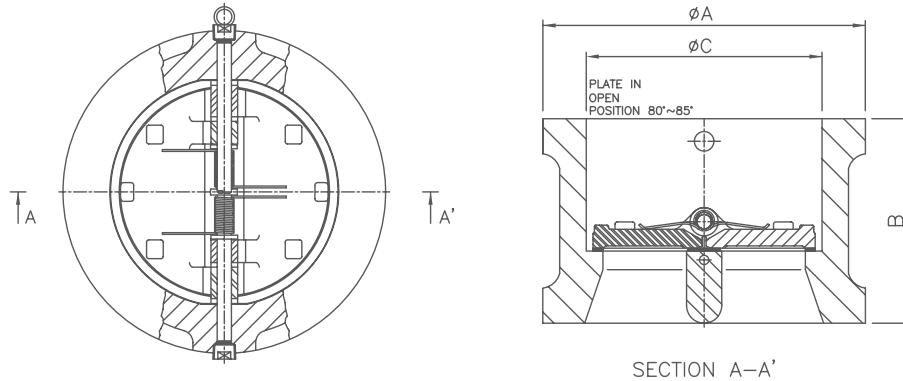


Size mm(inch)	Pressure Rating (KS, ANSI)	Seal Ring No.	Dimensions(mm)		Weight (kg)
			ØA	B	
50 (2")	900	13~20	92	136	13
	1500		23~27	136	13
	2500		31~40	136	13
80 (3")	900	23~27	127	158	28
	1500		52~82	158	28
	2500		72~97	158	28
100 (4")	900	31~40	152	220	44
	1500		106~130	220	44
	2500		120~140	220	44
150 (6")	900	40~62	235	279	136
	1500		235	279	136
	2500		235	279	136
200 (8")	900	52~82	292	311	242
	1500		292	311	242
	2500		292	311	242
250 (10")	900	72~97	346	381	319
	1500		346	381	319
	2500		346	381	319
300 (12")	900	82~120	406	431	440
	1500		406	431	440
	2500		406	431	440
350 (14")	900	106~130	470	482	645
	1500		470	482	645
400 (16")	900	120~140	533	533	750
	1500		533	533	750
450 (18")	900	152~170	552.5	584	1230
	1500		552.5	584	1230

*Valve size is not specified in the above table. Please contact us. Customer must provide hub drawings with inquiries and orders. Hubs, seal ring and clamp assemblies are not supplied with hub end type valve.

EXTENDED BODY TYPE WAFER CHECK VALVE (SDV-6)

INSTALLATION DIMENSIONS (ASME B16.5 & ASME B16.47 Ser.A)



Size (inch)	RATING (ASME)	Dimensions(mm)			Connection Bolt			Weight (kg)
		ØA	B	C	No.	Dia.	Length	
10"	150	340	184	274	12	7/8	320	75
	300	362	184	274	16	1	365	80
	600	400	251	274	16	1 1/4	490	128
	900	435	260	274	16	1 3/8	520	210
	1500	435	292	274	12	1 7/8	660	220
	2500	476	292	274	12	2 1/2	810	230
12"	150	410	229	324	12	7/8	370	110
	300	422	229	324	16	1 1/8	425	120
	600	457	295	324	20	1 1/4	545	165
	900	498	325	324	20	1 3/8	605	275
	1500	521	353	324	16	2	760	365
	2500	549	353	324	12	2 3/4	920	420
14"	150	451	213	356	12	1	370	116
	300	486	260	356	20	1 1/8	460	185
	600	492	324	356	20	1 3/8	585	220
	900	521	371	356	20	1 1/2	670	465
	1500	578	371	356	16	2 1/4	810	490
16"	150	514	241	406	16	1	400	160
	300	540	283	406	20	1 1/4	500	242
	600	565	368	406	20	1 1/2	650	320
	900	575	394	406	20	1 5/8	710	705
	1500	641	419	406	16	2 1/2	900	760
18"	150	549	264	457	16	1 1/8	440	190
	300	597	318	457	24	1 1/4	540	317
	600	613	425	457	20	1 5/8	730	480
	900	638	460	457	20	1 7/8	815	640
	1500	705	514	457	16	2 3/4	1040	957

Size (inch)	RATING (ASME)	Dimensions(mm)			Connection Bolt			Weight (kg)
		ØA	B	C	No.	Dia.	Length	
20"	150	606	298	508	20	1 1/8	480	250
	300	654	349	508	24	1 1/4	580	410
	600	683	445	508	24	1 5/8	760	700
	900	699	495	508	20	2	870	720
	1500	756	556	508	16	3	1125	1065
	150	718	349	610	20	1 1/4	550	390
24"	300	775	406	610	24	1 1/2	660	660
	600	791	540	610	24	1 7/8	895	1015
	900	838	565	610	20	2 1/2	1030	1370
	1500	902	632	610	16	3 1/2	1275	1960
	26"	150	775	457	24	1 1/4	695	790
28"	300	899	514	711	28	1 5/8	810	900
	600	914	584	711	28	2	965	1490
30"	150	883	457	762	28	1 1/4	710	700
	300	953	524	762	28	1 3/4	840	1115
	600	972	680	762	28	2	1065	1700
	900	1010	734	762	20	3	1245	2800
32"	150	940	530	813	28	1 1/2	810	750
36"	150	1048	556	914	32	1 1/2	850	1230
	300	1118	635	914	32	2	990	1800
	600	1130	787	914	28	2 1/2	1220	3170
42"	150	1219	654	1067	36	1 1/2	965	1740
	300	1168	810	1067	32	1 5/8	1170	2900
48"	150	1384	784	1219	44	1 1/2	1115	2700
	300	1324	889	1219	32	7/8	1295	3420
	600	1391	1019	1219	32	2 3/4	1595	4520
54"	150	1549	832	1372	44	1 3/4	1200	3450

* Valve size is not specified in the above table, please contact us.

Extended body design applicable for extremely fast opening condition such as compressor discharge and steam extraction line. Extended type has special plate configuration to allow each plate to strike the stop pin in its center of persussion. To absorb high impacts the stop pin and hinge lugs are oversized.

NON-SLAM CHECK VALVE (NOZZLE TYPE)

NOZZLE TYPE MODEL NO NCV-1



FEATURES

- Non-Slam Nozzle Check valves are specifically designed for fastreversing systems where backflow is a constant concern. In such critical service applications, nozzle check valves offer the following benefits.
- Minimizes the damaging effects of water hammer in fluid systems.
- Removal of chatter associated with conventional valves in reciprocating compressor service.
- Protects rotating equipment from damage due to flow reversal.
- Minimizes pressure loss in piping systems.
- Provides quick dynamic response reducing reverse velocity.

APPLICATIONS

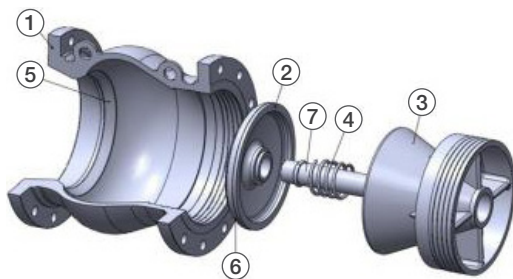
- GAS Transmission
(Compressor Suction / Discharge)
- Power Generation
(Cooling Water / Steam)
- Petrochemical Processing
- Water Transmission
(Pump Station)

SPECIFICATION

PRESSURE / SIZE	ASME 125LB~2500LB(2"~60")
BODY, DISC MATERIAL	CARBON STEEL, ALLOY STEEL, STAINLESS STEEL, DUPLEX, MONEL
SPRING MATERIAL	INCONEL X-750, INCONEL 625
VALVE TEST	API 598, ASME B16.34
VALVE FACE TO FACE	API 6D
FLANGES	ASME B16.5, B16.47, B16.25
END CONNECTION	FLANGE END, BW END

Diffuser Type(NCV-1D)

Valve size 1"(DN25) ~ 60"(DN1500), CLASS 150~2500

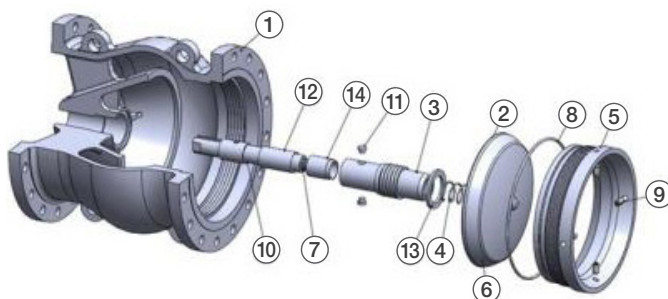


DESCRIPTION OF PARTS

NO	PART NAME	Q'ty
1	BODY	1
2	DISC	1
3	DIFFUSER	1
4	SPRING	1
5	SEAT	1
6	DISC SEAT	1
7	STEM	1

Seat-Ring Type(NCV-1S) :

Valve size 16"(DN400) ~ 60"(DN1500), CLASS 150~600



DESCRIPTION OF PARTS

NO	PART NAME	Q'ty
1	BODY	1
2	DISC	1
3	DISC STEM HOLDER	1
4	SPRING	1
5	BODY SEAT RING	1
6	DISC SEAT	1
7	DISC STEM	1
8	SEAT O-RING	1
9	SET SCREW	4
10	BUSH	1
11	GUIDE PIN	2
12	COLLAR	1
13	SPRING PLACE	1
14	GUIDE BUSH	1

Size mm(inch)	Pressure Rating (ANSI)	Type Facing	Dimensions(mm)			Flange Bolt Circle (mm)	No.of Bolts	Bolt Dia.	Bolt Length(mm)		Weight(kg)	
			Flange OD	Face to Face					FF - RF	RTJ	Long	Short
				Long	Short							
25 (1")	150	RF.R-15	108	127	100	79.2	4	1/2	75	85	6	4
	300	RF.R-16	124	216	100	88.9	4	5/8	90	100	7	4
	600	RF.R-16	124	216	100	88.9	4	5/8	105	110	8	5
	900	RF.R-16	149	254	150	101.6	4	7/8	145	145	16	12
	1500	RF.R-16	149	254	150	101.6	4	7/8	145	145	16	12
	2500	RF.R-18	159	308	160	108	4	7/8	155	160	21	17
40 (1 1/2")	150	RF.R-19	117	165	120	98.6	4	1/2	80	90	8	6
	300	RF.R-20	133	241	120	114.3	4	3/4	105	115	11	7
	600	RF.R-20	133	241	120	114.3	4	3/4	120	125	16	11
	900	RF.R-20	159	305	170	124	4	1	160	160	22	13
	1500	RF.R-20	159	305	170	124	4	1	160	160	27	22
	2500	RF.R-23	184	384	210	146	4	1 1/8	190	195	48	31
50 (2")	150	RF.R-22	152	203	120	120.6	4	5/8	95	105	9	7
	300	RF.R-23	165	267	120	127	8	5/8	100	115	13	9
	600	RF.R-23	165	292	120	127	8	5/8	120	125	22	15
	900	RF.R-24	216	368	170	165.1	8	7/8	165	170	37	26
	1500	RF.R-24	216	368	170	165.1	8	7/8	165	170	37	26
	2500	RF.R-26	235	451	210	171.4	8	1	195	200	54	37
80 (3")	150	RF.R-29	190	241	120	152.4	4	5/8	105	115	16	13
	300	RF.R-31	210	318	150	168.1	8	3/4	125	140	26	18
	600	RF.R-31	210	356	150	168.1	8	3/4	140	145	38	26
	900	RF.R-31	241	381	190	190.5	8	7/8	165	170	43	32
	1500	RF.R-35	267	470	220	203.2	8	1 1/8	195	200	65	45
	2500	RF.R-32	305	578	270	228.6	8	1 1/4	240	250	119	83
100 (4")	150	RF.R-36	229	292	140	190.5	8	5/8	105	115	28	20
	300	RF.R-37	254	356	170	200.2	8	3/4	130	145	41	31
	600	RF.R-37	273	432	170	215.9	8	7/8	165	170	63	40
	900	RF.R-37	292	457	210	235	8	1 1/8	190	195	73	53
	1500	RF.R-39	311	546	240	241.3	8	1 1/4	215	220	107	69
	2500	RF.R-38	356	673	310	273	8	1 1/2	275	285	178	131
150 (6")	150	RF.R-43	279	356	210	241.3	8	3/4	120	125	44	38
	300	RF.R-43	318	445	210	269.7	12	3/4	140	155	80	55
	600	RF.R-45	356	559	210	292.1	12	1	190	195	137	82
	900	RF.R-45	381	610	230	317.5	12	1 1/8	215	220	171	107
	1500	RF.R-46	394	705	310	317.5	12	1 3/8	280	285	231	160
	2500	RF.R-47	483	914	430	368.3	8	2	360	375	487	324
200 (8")	150	RF.R-48	343	495	280	298.4	8	3/4	125	130	90	71
	300	RF.R-49	381	533	280	330.2	12	7/8	155	170	120	91
	600	RF.R-49	419	660	280	349.2	12	1 1/8	215	220	213	135
	900	RF.R-49	470	737	280	393.7	12	1 3/8	240	245	307	189
	1500	RF.R-50	483	832	350	393.7	12	1 5/8	310	320	390	269
	2500	RF.R-51	552	1022	460	438.2	12	2	400	420	743	480

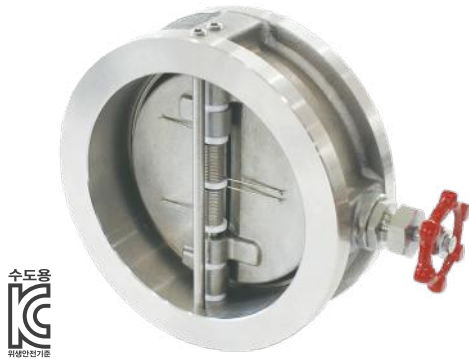
Size mm(inch)	Pressure Rating (ANSI)	Type Facing	Dimensions(mm)			Flange Bolt Circle (mm)	No.of Bolts	Bolt Dia.	Bolt Length(mm)		Weight(kg)	
			Flange OD	Face to Face					FF - RF	RTJ	Long	Short
				Long	Short							
250 (10")	150	RF.R-52	406	622	350	362	12	7/8	135	140	151	120
	300	RF.R-53	444	622	350	387.4	16	1	180	190	184	152
	600	RF.R-53	508	787	350	431.8	16	1 1/4	235	240	380	252
	900	RF.R-53	546	838	350	469.9	16	1 3/8	255	260	530	303
	1500	RF.R-54	584	991	400	482.6	12	1 7/8	355	365	710	461
	2500	RF.R-55	673	1270	580	539.8	12	2 1/2	500	530	1442	952
300 (12")	150	RF.R-56	483	699	350	431.8	12	7/8	140	145	285	282
	300	RF.R-57	521	711	350	450.8	16	1 1/8	190	205	331	305
	600	RF.R-57	559	838	375	488.9	20	1 1/4	240	245	516	426
	900	RF.R-57	610	965	430	533.4	20	1 3/8	275	280	885	675
	1500	RF.R-58	673	1130	450	571.5	16	2	395	410	1202	900
	2500	RF.R-60	762	1422	580	619.3	12	2 3/4	550	580	2542	2073
350 (14")	150	RF.R-59	533	787	405	476.2	12	1	150	165	428	347
	300	RF.R-61	584	838	405	514.3	20	1 1/8	195	210	538	445
	600	RF.R-61	603	889	440	527	20	1 3/8	255	260	652	538
	900	RF.R-62	641	1029	400	558.8	20	1 1/2	290	305	1328	695
	1500	RF.R-63	749	1257	490	635	16	2 1/4	425	450	2237	1600
400 (16")	150	RF.R-64	597	864	455	539.8	16	1	155	165	489	415
	300	RF.R-65	648	864	455	571.5	20	1 1/4	210	225	530	530
	600	RF.R-65	686	991	500	603.2	20	1 1/2	275	280	790	790
	900	RF.R-66	705	1130	470	615.9	20	1 5/8	305	315	1220	1220
	1500	RF.R-67	826	1384	530	704.8	16	2 1/2	465	495	1840	1840
450 (18")	150	RF.R-68	635	978	520	577.8	16	1 1/8	170	175	814	538
	300	RF.R-69	711	978	520	628.6	24	1 1/4	215	230	820	690
	600	RF.R-69	743	1092	565	654	20	1 5/8	290	295	1547	1355
	900	RF.R-70	787	1219	530	685.8	20	1 7/8	345	360	2021	1440
	1500	RF.R-71	914	1537	580	774.7	16	2 3/4	510	540	3677	2700
500 (20")	150	RF.R-72	693	978	570	635	20	1 1/8	175	185	980	720
	300	RF.R-73	775	1016	570	685.8	24	1 1/4	220	240	1173	1090
	600	RF.R-73	813	1194	625	723.9	24	1 5/8	305	315	1537	1380
	900	RF.R-74	857	1321	595	749.3	20	2	360	375	2941	2120
	1500	RF.R-75	984	1664	655	831.8	16	3	555	585	4176	2950
600 (24")	150	RF.R-76	813	1295	685	749.3	20	1 1/4	190	200	1310	1152
	300	RF.R-77	914	1346	685	812.8	24	1 1/2	245	270	1514	1370
	600	RF.R-77	940	1397	745	838.2	24	1 7/8	345	355	2411	1935
	900	RF.R-78	1041	1549	665	901.7	20	2 1/2	450	475	3686	3182
	1500	RF.R-79	1168	1943	750	990.6	16	3 1/2	630	665	6046	5190

Size mm(inch)	Pressure Rating (ANSI)	Type Facing	Dimensions(mm)			Flange Bolt Circle (mm)	No.of Bolts	Bolt Dia.	Bolt Length(mm)		Weight(kg)	
			Flange OD	Face to Face					FF - RF	RTJ	Long	Short
				Long	Short							
700 (28")	150	RF	927	1448	800	863.6	28	1 1/4	250	–	2006	1560
	300	RF.R-94	1035	1499	800	939.8	28	1 5/8	300	325	2387	2200
	600	RF.R-94	1073	1600	870	965.2	28	2	385	395	3934	2660
	900	RF.R-101	1168	–	860	1022.4	20	3	500	525	–	4650
750 (30")	150	RF	984	1524	855	914.4	28	1 1/4	255	–	2547	1965
	300	RF.R-95	1092	1594	855	997	28	1 3/4	320	340	2645	2394
	600	RF.R-95	1130	1651	930	1022.4	28	2	390	405	3935	3000
	900	RF.R-102	1232	–	925	1085.9	20	3	510	540	–	4750
800 (32")	150	RF	1060	–	910	977.9	28	1 1/2	285	–	–	2186
	300	RF.R-96	1149	–	910	1054.1	28	1 7/8	340	365	–	3124
	600	RF.R-96	1194	–	990	1079.5	28	2 1/4	405	425	–	4017
	900	RF.R-103	1314	–	925	1155.7	20	3 1/4	540	570	–	6120
900 (36")	150	RF	1168	1956	1030	1085.9	32	1 1/2	300	–	2714	2605
	300	RF.R-98	1270	2083	1030	1168.4	32	2	360	385	4358	3670
	600	RF.R-98	1314	2083	1120	1193.8	28	2 1/2	435	450	8779	4500
	900	RF.R-105	1460	–	1050	1289.1	20	3 1/2	580	615	–	7250
1000 (40")	150	RF	1289	–	1135	1200.2	36	1 1/2	300	–	–	3375
	300	RF	1238	–	1135	1155.7	32	1 5/8	360	–	–	4901
	600	RF	1321	–	1240	1212.9	32	2 1/4	490	–	–	5420
	900	RF	1511	–	1185	1339.9	24	3 1/2	630	–	–	840
1050 (42")	150	RF	1346	–	1195	1257.3	36	1 1/2	315	–	–	4100
	300	RF	1289	–	1195	1206.5	32	1 5/8	370	–	–	5620
	600	RF	1403	–	1300	1282.7	28	2 1/2	520	–	–	6584
	900	RF	1562	–	1250	1390.7	24	3 1/2	650	–	–	9920
1200 (48")	150	RF	1511	–	1365	1422.4	44	1 1/2	340	–	–	5275
	300	RF	1467	–	1365	1371.6	32	1 7/8	410	–	–	5325
	600	RF	1594	–	1485	1460.5	32	2 3/4	575	–	–	10250
	900	RF	1784	–	1450	1587.5	24	4	730	–	–	14400
1350 (54")	150	RF	1683	–	1530	1593.9	44	1 3/4	380	–	–	9450
	300	RF	1657	–	1530	1549.4	28	2 1/4	470	–	–	10140
	600	RF	1778	–	1670	1632	32	3	630	–	–	12400
1500 (60")	150	RF	1854	–	1710	1759	52	1 3/4	400	–	–	10800
	300	RF	1810	–	1710	1701.8	32	2 1/4	490	–	–	11100
	600	RF	1994	–	1855	1822.4	28	3 1/2	700	–	–	18500
VALVE SIZE			1", 1 1/2", 2", 3", ..., 24"					26", 25", ..., 60"				
FLANGE STANDARD			ASME B16.5					ASME B16.47 SERIES A(MSS SP44)				

* Valve sizes not listed above are available on application, please contact us.

BY-PASS TYPE (BDV-1,2,3)

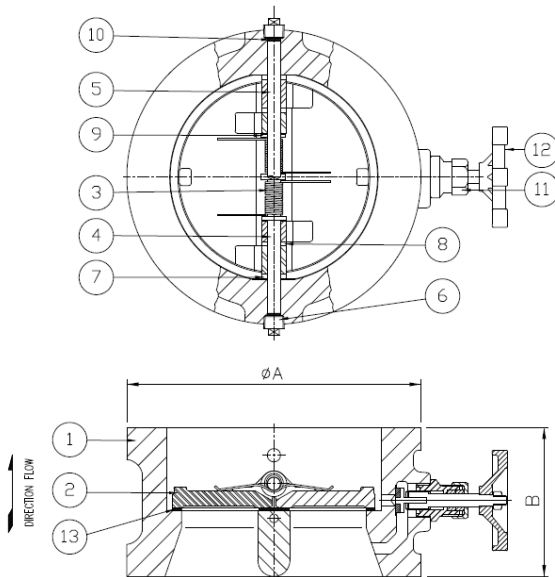
BY-PASS VALVE



DESCRIPTION OF PARTS

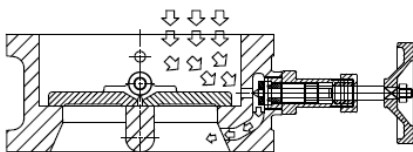
NO	NAME	MATERIAL				Q'ty
1	BODY	FC200	SCPH2	SCS13	SCS14	1
2	PLATE	SCS13	SCS13	SCS13	SCS14	2
3	SPRING	STS 316WPA, INCONEL X-750				1~4
4, 5	PIN	STS304	STS304	STS304	STS316	2
6	PLUG	SM25C	SM25C	STS304	STS316	4
7, 8, 9	BEARING	PTFE				4~11
10	PIN STABILIZER	PTFE, NBR, VITON, EPDM				4
11	BY-PASS	BRASS	STS304	STS304	STS316	1SET
12	HANDLE	FC200 (RED EPOXY COATING)				1
13	SEAT	PTFE, NBR, VITON, EPDM				

DIMENSION



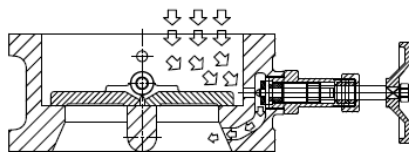
SIZE	RATING	DIMENSIONS		SIZE	RATING	DIMENSIONS	
		ØA	B			ØA	B
50A (2")	10K	101	54	250A (10")	10K	330	108
	20K	101	60		20K	353	146
	150	105	60		150	340	146
65A (2 1/2")	10K	121	54	300A (12")	10K	375	143
	20K	121	67		20K	403	181
	150	124	67		150	410	181
80A (3")	10K	131	57	350A (14")	10K	420	184
	20K	137	73		20K	447	222
	150	137	73		150	451	184
100A (4")	10K	156	64	400A (16")	10K	483	191
	20K	162	73		20K	507	232
	150	175	73		150	514	191
125A (5")	10K	187	70	450A (18")	10K	538	203
	20K	197	86		20K	572	264
	150	197	86		150	549	203
150A (6")	10K	217	76	500A (20")	10K	593	213
	20K	235	98		20K	627	292
	150	222	98		150	606	219
200A (8")	10K	267	95	600A (24")	10K	697	222
	20K	279	127		20K	731	318
	150	279	127		150	718	222

ANTI PRESSURE SURGE TYPE MODEL NO BDV-3S



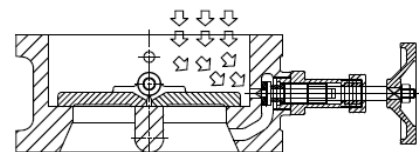
BY PASS VALVE FULL OPEN

- Bypass the fluid inside the valve



BY PASS VALVE PARTIAL OPEN

- When a water-hammer occurs, relieves rising surge pressure



BY PASS VALVE FULL CLOSE

- Bypass line is blocked

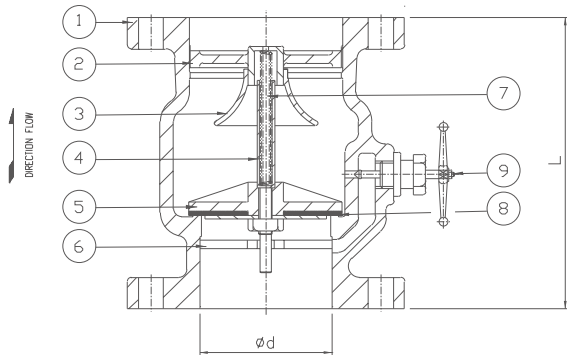
* Please contact us if you would like to know more details.

SMOLENSKY CHECK VALVE

SMOLENSKY CHECK VALVE MODEL NO SMC-1



< Patent No : 10-1383676 >



FEATURES

- No water hammer, reaction time of disc is very quick and it is closed with the spring tension before the reverse flow activated.
- Design is simple and easy for repair.
- By-pass valve installed to the body easily drains the water in case of repair/replacement.
- Rubber packing ensures the tight sealing and it is simple to replace.
- Horizontal and vertical installation is applicable. In case of horizontal installation of large diameter valves, it is necessary to use supports.
- Standard flange ends conform to KS but we can meet buyer's flange ends requirement.
- Body material can be Cast Steel, Bronze and SUS, etc. depending on the fluid to be used, temperature and pressure.

SPECIFICATION

DIAMETER	50A(2") ~ 600A(24")
APPLICABLE PRESSURE	10K ~ 40K 150LB ~ 300LB
CONNECTING ENDS	FLANGE TYPE
TEST METHOD	WATER, AIR, GAS AND OIL
APPLICABLE TEMPERATURE	URETHANE, NBR : Under 100°C PTFE(Teflon) : Under 240°C

DIMENSION

SIZE	ØD	10K(L)	20K(L)	SIZE	ØD	10K(L)	20K(L)
50A	50	182	184	300A	300	600	600
65A	65	194	200	350A	350	715	715
80A	80	210	218	400A	400	825	825
100A	100	218	220	450A	450	880	880
125A	125	263	263	500A	500	940	940
150A	150	288	291	600A	600	1050	1050
200A	200	407	420	700A	700	1130	1130
250A	250	460	480				

* For over Ø350, it. is going to be done by request.

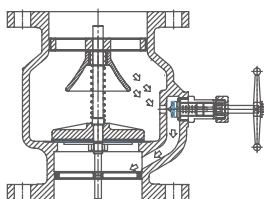
* 1 Piece Body Design : 50A ~ 250A

* 2 Pieces Body Design : 300A and over

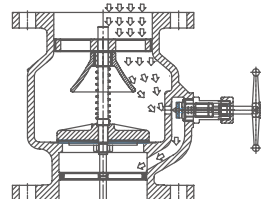
DESCRIPTION OF PARTS

NO	NAME	MATERIAL			Q'ty
1	BODY	SCPH2	SCS13	SCS14	1
2	TOP GUIDE	SCS13	SCS13	SCS14	1
3	BUFFER RING	SCS13	SCS13	SCS14	1
4	STEM	STS304	STS 304	STS 316	1
5	DISC	SCS13	SCS13	SCS14	1
6	BOTTOM GUIDE	SCS13	SCS13	SCS14	1
7	SPRING	STS 316 WPA			1
8	DISC SEAT	EPPM, URETHANE, NBR, PTFE			1
9	BY PASS VALVE	STS 304	STS 304	STS 304	1

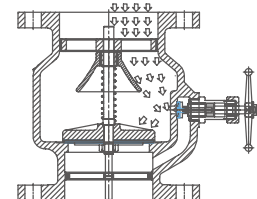
ANTI PRESSURE SURGE TYPE MODEL NO SMC-1S



BY PASS VALVE FULL OPEN
Bypass the fluid inside the valve



BY PASS VALVE PARTIAL OPEN
When a water-hammer occurs, relieves rising surge pressure

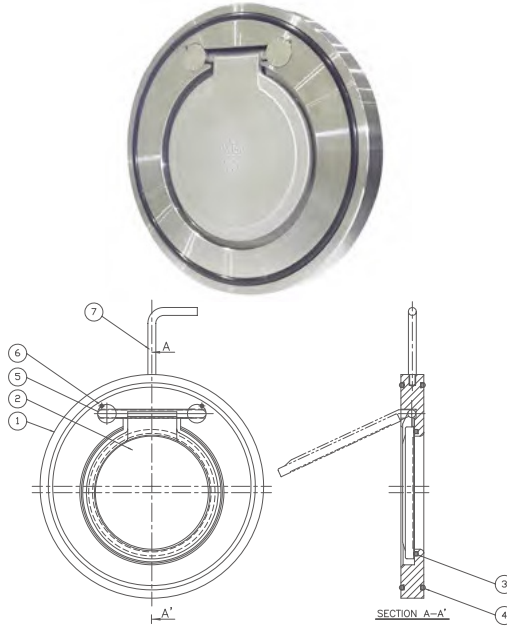


BY PASS VALVE FULL CLOSE
Bypass line is blocked

* Please contact us if you would like to know more details.

SINGLE PLATE WAFER CHECK VALVE

SHORT PATTERN DESIGN MODEL NO SSV-1



FEATURES

- The low weight and short FACE-TO-FACE Dimensions provide an economical, space-saving solution. Additionally, Flange gaskets are typically not required due to the built-in, body seal o-rings.
- The replaceable soft seal fitted in the body ensures a tight shut-off to prevent backflow.
- Easy to handle and maintain
- Minimal head loss

SPECIFICATION

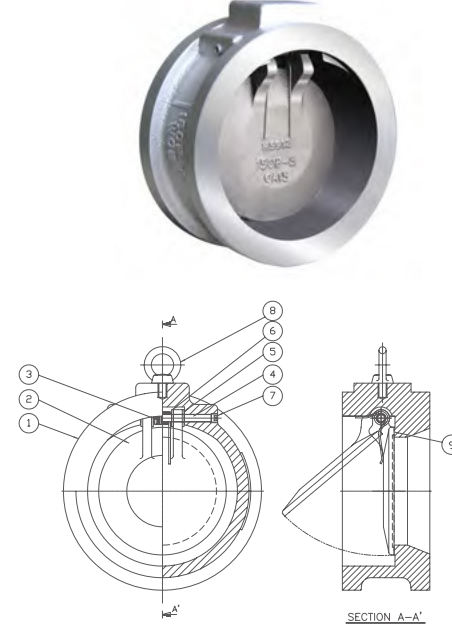
DIAMETER	40A(1 1/2")~700A(28")
APPLICABLE PRESSURE	5K, 10K, PN6, PN10, PN16, CLASS 125, 150
CONNECTING ENDS	WAFER – FLAT FACE
TEST METHOD	KS B2304, API598

DESCRIPTION OF PARTS

NO	PART NAME	MATERIAL	Q'ty
1	BODY	A283, A105, A240-304, 316	1
2	CLAPPER PLATE	A351 CF8, CF8M	1
3	SEAT	NBR, VITON, EPDM	-
4	GASKET	NBR, VITON, EPDM	2
5	WASHER	304SS, 316SS	2
6	SCREW	304SS, 316SS	2
7	L-BOLT	304SS	1

*The material can be changed by customer's request.

LONG PATTERN DESIGN MODEL NO SSV-2



FEATURES

- Single disc-spring closure-provides unobstructed flow and reduces damaging water hammer.
- Light weight easier to handle and install.
- Rubber and metal seat is available

SPECIFICATION

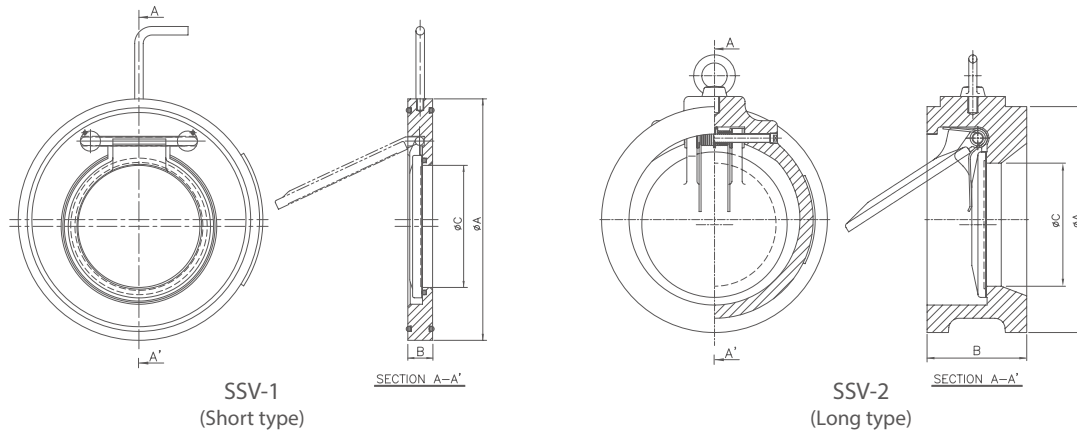
DIAMETER	50A(2") ~ 900A(36")
APPLICABLE PRESSURE	10K, 20K PN10, PN16, PN25, CLASS 125, 150, 300
CONNECTING ENDS	WAFER – FF & RF
TEST METHOD	KS B2304, API598

DESCRIPTION OF PARTS

NO	PART NAME	MATERIAL	Q'ty
1	BODY	A216 WCB, A351 CF8, CF8M	1
2	PLATE	A351 CF8, CF8M	1
3	SPRING	STS316WPA, INCONEL X-750	2
4	HINGE PIN	A276-304, 316	1
5	BODY BEARING	STAINLESS STEEL/PTFE	2
6	SPRING BEARING	STAINLESS STEEL/PTFE	2
7	PLUG	A105, 304SS, 316SS	1
8	EYE BOLT	A105	1
9	L-BOLT	METAL, RUBBER	-

*The material can be changed by customer's request.

DIMENSION



Size	Rating	Dimensions(mm)								Weight(kg)	
		ØA	B		ØC	No of Bolts	Bolt Dia.	Bolt Length (mm)		Short	Short
			Short	Long				SHORT	LONG		
40A (1 1/2")	10K	86	19	-	22	4	M16	105	-	1.5	-
	150	86	19	-		4	1/2	110	-	1.1	-
50A (2")	10K	101	19	60	31	4	M16	110	131	1.2	2.4
	150	105	19	60		4	5/8	115	160	1.3	2.5
65A (2 1/2")	10K	121	19	67	40	4	M16	110	143	1.6	3.2
	150	124	19	67		4	5/8	120	175	1.7	3.4
80A (3")	10K	131	19	73	54	8	M16	120	151	1.9	4
	150	137	19	73		4	5/8	125	180	2	4.5
100A (4")	10K	156	20	73	65	8	M16	120	155	2.5	6
	150	175	19	73		8	5/8	125	180	2.7	7
125A (5")	10K	187	21	86	92	8	M20	130	180	3.1	9
	150	197	19	86		8	3/4	135	200	3.4	10
150A (6")	10K	217	22	98	110	8	M20	140	195	4.9	13
	150	222	19	98		8	3/4	135	215	5.5	14
200A (8")	10K	267	28	127	143	12	M20	140	230	11	20
	150	279	29	127		8	3/4	150	250	13	22
250A (10")	10K	330	30	146	187	12	M22	140	255	15	34
	150	340	29	146		12	7/8	165	285	18	37
300A (12")	10K	375	38	181	215	16	M22	140	295	25	49
	150	410	38	181		12	7/8	180	325	28	56
350A (14")	10K	420	41	184	260	16	M22	150	300	35	54
	150	451	44	184		12	1	200	340	40	80
400A (16")	10K	483	48	191	310	16	M24	170	315	55	86
	150	514	51	191		16	1	210	350	60	100
450A (18")	10K	538	51	203	347	20	M24	180	325	68	104
	150	549	60	203		16	1 1/8	230	375	75	110
500A (20")	10K	593	64	219	387	20	M24	185	350	108	154
	150	606	64	219		20	1 1/8	240	400	120	169
600A (24")	10K	697	75	222	460	24	M30	205	370	165	240
	150	718	75	222		20	1 1/4	270	420	175	265

*Valve sizes not listed above are available on application, please contact us.

NON-SLAM CHECK VALVE (TILTING TYPE)

TILTING TYPE MODEL NO TCV-1



FEATURES

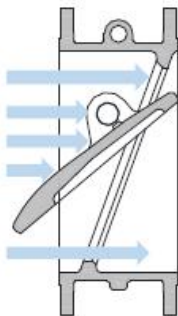
- Short disc stroke reduce water hammer.
Disc counteraction has self cushioning movement.
- Disc position indicator-make it possible to determine the opening and closing state of the disc.(applies to size 16 inc and larger)
- Inspection ports-allow up&down stream seat access, mounting ports for dashpot.

APPLICATIONS

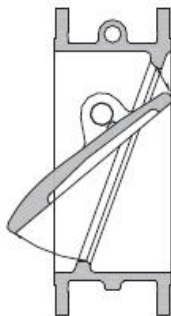
- POTABLE WATER
- WASTE WATER TREATMENT SYSTEM
- PRESSURIZED COOLANT SYSTEM
- POWER PLANT
- PUMP STATION

SPECIFICATION

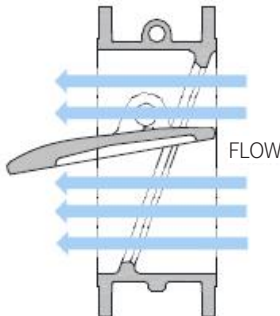
PRESSURE / SIZE	PN10, PN16, ASME 150LB / 6" ~60"
BODY, DISC MATERIAL	CARBON STEEL, ALLOY STEEL, STAINLESS STEEL, DUPLEX, MONEL
VALVE TEST	API 598, ASME B16.34
VALVE FACE TO FACE	EN558-1 SERIES 14
FLANGES	ASME B16.5, B16.47, PN10
END CONNECTION	FLANGE END, WAFER END



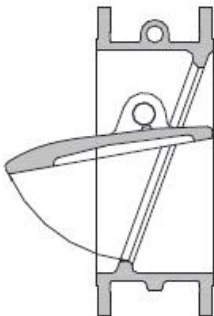
Non-Slam Characteristics



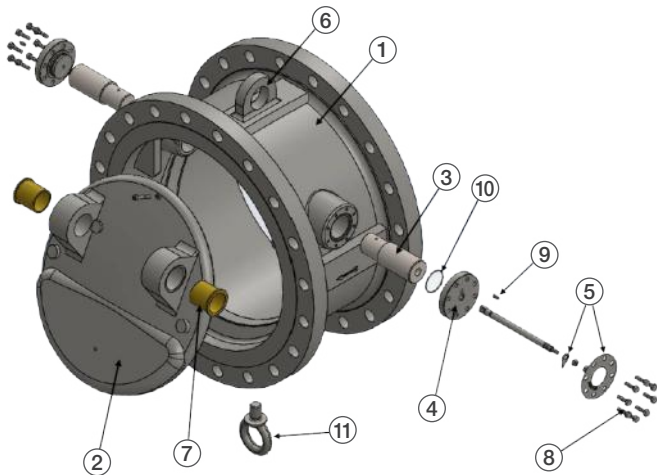
Unique disk movement



Laminar Flow

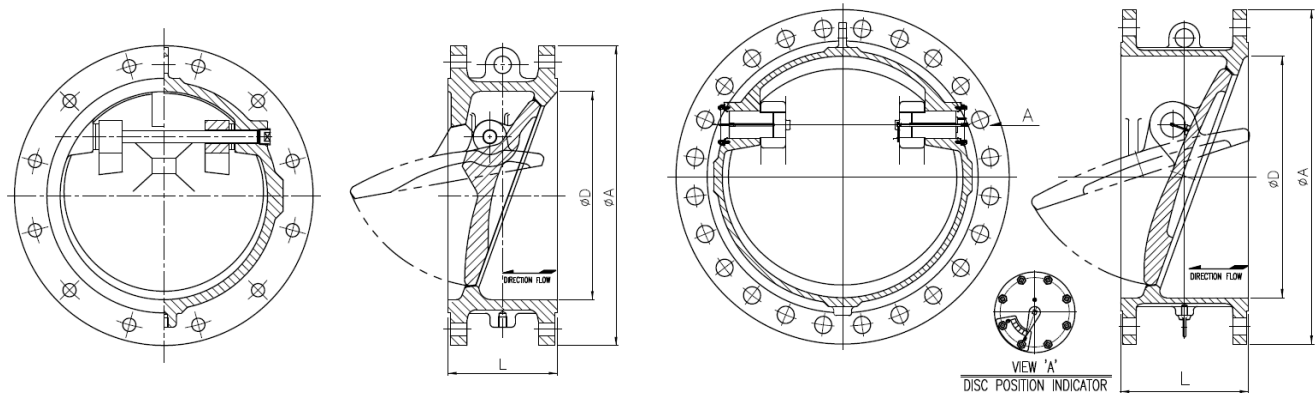


Rapid opening/
Quicker closing



DESCRIPTION OF PARTS

NO	PART NAME	Q'ty
1	BODY	1
2	DISC	1
3	HINGE PIN	2
4	HINGE PIN COVER	2
5	INDICATOR	1
6	LIFTING LUG	1
7	HINGE PIN BUSH	2
8	HINGE COVER BOLT	2SET
9	GREASE FITTING	2
10	COVER O-RING	4
11	EYE BOLT	1



VALVE SIZE 6" ~ 14"

VALVE SIZE 16" ~ 60"

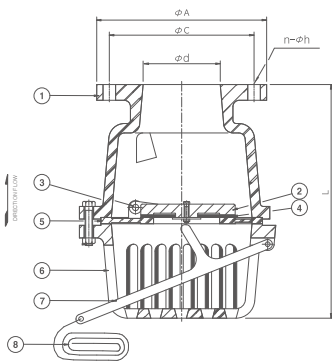
Size mm(inch)	Pressure Rating	Type Facing	Dimensions(mm)			Flange Bolt Circle(mm)	No. of Bolts	Bolt Dia.	Bolt Length(mm)	Weight (kg)
			øA	L	øD				FF - RF	
150 (6")	PN10	RF, FF	285	210	150	240	8	M20	12	32
	150	RF, FF	279			241.3	8	3/4	120	35
200 (8")	PN10	RF, FF	340	230	200	295	8	M20	120	52
	150	RF, FF	343			298.4	8	3/4	125	68
250 (10")	PN10	RF, FF	395	250	250	350	12	M20	125	75
	150	RF, FF	406			362	12	7/8	135	95
300 (12")	PN10	RF, FF	445	270	300	400	12	M20	130	105
	150	RF, FF	483			431.8	12	7/8	140	142
350 (14")	PN10	RF, FF	505	290	350	460	16	M20	140	140
	150	RF, FF	533			476.2	12	1	150	186
400 (16")	PN10	RF, FF	565	310	400	515	16	M24	150	152
	150	RF, FF	597			539.8	16	1	155	236
450 (18")	PN10	RF, FF	615	330	450	565	20	M24	155	190
	150	RF, FF	635			577.8	16	1	170	290
500 (20")	PN10	RF, FF	670	350	500	620	20	M24	160	244
	150	RF, FF	693			635.0	20	1 1/8	175	376
600 (24")	PN10	RF, FF	780	390	600	725	20	M27	175	360
	150	RF, FF	813			749.3	20	1 1/4	190	536
700 (28")	PN10	RF, FF	895	430	700	840	24	M27	195	550
	150	RF, FF	927			863.6	28	1 1/4	250	810
800 (32")	PN10	RF, FF	1015	470	800	950	24	M30	210	960
	150	RF, FF	1060			977.9	28	1 1/2	285	1210
900 (36")	PN10	RF, FF	1115	510	900	1050	28	M30	225	1270
	150	RF, FF	1168			1085.9	32	1 1/2	300	1460
1000 (40")	PN10	RF, FF	1230	550	1000	1160	28	M33	250	1780
	150	RF, FF	1289			1200.2	36	1 1/2	300	1940
1200 (48")	PN10	RF, FF	1455	630	1200	1380	32	M36	280	2315
	150	RF, FF	1511			1422.4	44	1 1/2	340	2760

*Valve sizes not listed above are available on application, please contact us.

(LEVER ATTACHED SWING TYPE)

FOOT VALVE

LEVER TYPE MODEL NO SFV-1



SPECIFICATION

DIAMETER	50A(2") ~ 600A(24")
APPLICABLE PRESSURE	10K ~ 20K / 150LB ~ 300LB
CONNECTING ENDS	FLANGE TYPE
TEST METHOD	According to KS B2304, API 598

DESCRIPTION OF PARTS

NO	PART NAME	MATERIAL	
1	BODY	SCS13	SCS14
2	DISC	SCS13	SCS14
3	PIN	STS 304	STS 316
4	PACKING	URETHANE, PTFE, NBR	

NO	PART NAME	MATERIAL	
5	SEAT	SCS13	SCS14
6	SCREEN	SCS13	SCS14
7	LEVER	STS 304	STS 316
8	WIRE ROPE	STS 304	

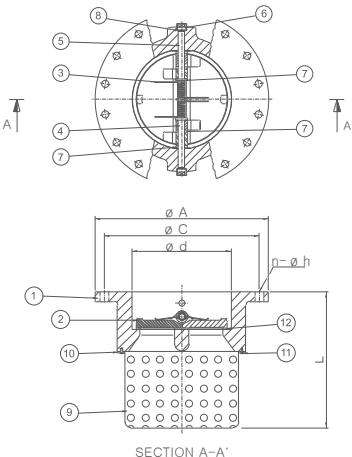
DIMENSIONS(10K)

SIZE	øA	øC	L	N-øH
50A	155	120	200	4-19
65A	175	140	205	4-19
80A	185	150	210	8-19
100A	210	175	270	8-19
125A	250	210	315	8-23
150A	280	240	360	8-23
200A	330	290	405	12-23

SIZE	øA	øC	L	N-øH
250A	400	355	495	12-25
300A	445	400	570	16-25
350A	490	445	685	16-25
400A	560	510	750	16-27
450A	620	565	850	20-27
500A	675	620	980	20-27
600A	795	730	1140	24-33

* Valve size is not specified in the above table, please contact us.

FOOT VALVE / DUAL TYPE MODEL NO DFV-1



FEATURES

- Elastic body seat that contacts the plate is formed with body and ensures the perfect sealing even after the prolonged use.
- Simple design and heavy duty stainless steel screening is easy to maintain.
- Body and plate is light weight, and designed to prevent the additional loading when operating the pump.
- The internal epoxy coating on the in/out side of the valve is possible.

DIMENSIONS(10K)

SIZE	øA	øC	ød	L	N-øH
50A	155	120	60	160	4-19
65A	175	140	73	175	4-19
80A	185	150	89	190	8-19
100A	210	175	114	190	8-19
125A	250	210	141	215	8-23
150A	280	240	168	245	8-23
200A	330	290	219	300	12-23
250A	400	355	274	355	12-25
300A	445	400	324	400	16-25
350A	490	445	356	530	16-25
400A	560	510	406	550	16-27

* Custom-tailored fabrication is available for the size over 450A(18") and the class of ansi 150LB.

SPECIFICATION

DIAMETER	50A(2") ~ 1800A(72")
APPLICABLE PRESSURE	10K ~ 20K 150LB ~ 300LB
CONNECTING ENDS	FLANGE TYPE
TEST METHOD	According to KS B2304, API 598
NUMBER OF SPRING	1-½" ~ 5": (1EA), 6" ~ 22": (2EA) 24" and over : (4EA)

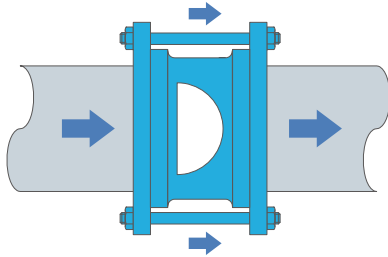
DESCRIPTION OF PARTS

NO	NAME	MATERIAL		Q'ty
		10K	150LB	
1	BODY	FC200	A216 Gr. WCB	1
2	PLATE	SCS13, BC6	CF8	2
3	LOW SPRING	STS 316 WPA		1-4
4	HINGE PIN	STS 304	A276-304	1
5	STOP PIN	STS 304	A276-304	1
6	PLUG	SM 25C	A576 1025	4
7	BEARING	PTFE		6-9
8	PIN STABILIZER	RUBBER		4
9	SCREEN	STS 304		1
10	SCREEN PAD	STS 304		1
11	BOLT	STS 304		4-8
12	SEAT	NBR, EPDM		

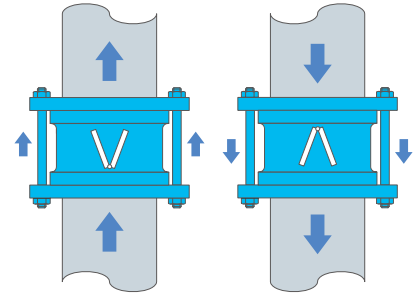
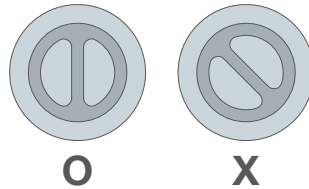
ENGINEERING DATA

BEST INSTALLATION PRACTICES

To maximise the lifecycle of a Dual plate check valve, it should be installed in accordance with following installation practices. Check valve should be installed direction arrow to match the flow direction.



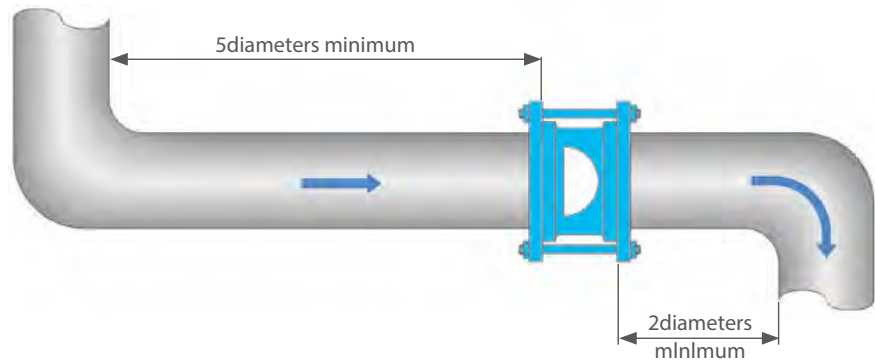
- **Horizontal Installation**
Pins must be vertical.



- **Vertical Installation**
For vertical flow down in larger valve size (10" and above), please contact "SOOSUNG VALVE".

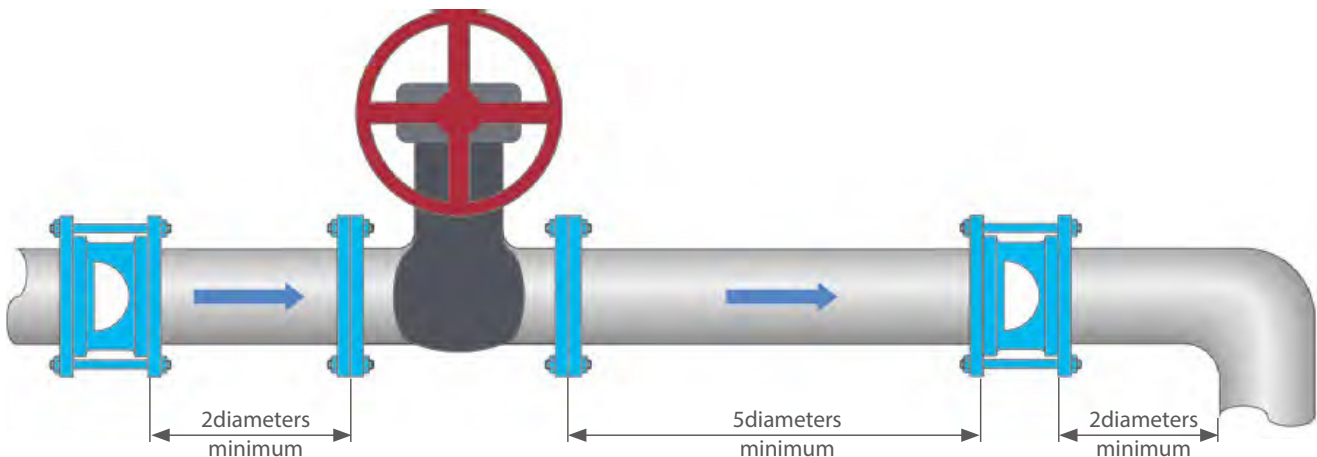
Installed in the bending line

Check valve should be installed a minimum of 5 diameter downstream of a bend(elbow) to ensure flow at valve is fully developed and turbulence is minimised. Check valve should be installed a minimum of 2 diameters upstream of a bend(elbow) to avoid choked flow.



Installed with other valve

when installed near a valve, the check valve should be installed a minimum of 5 diameters downstream and 2 diameters upstream.



ELASTOMER GENERAL TABLE

Elastomer seats have been chosen to satisfy every service need. Application suggested derive from recommendation given by the elastomer manufacturers and are purely indicative. Since many factors influence corrosion and abrasion (type of fluid, concentration, temperature, turbulence impurities etc.), the final choice is to be taken by the customer, based on characteristics and specific application.

Name	Composition	General Application	Temperature Limit	Other Limits
EPDM	Ethylene-Propylene Terpolymer	Water steam, Sea water Brine, Esters	-35°C ~ +110°C -30°F ~ +230°F	Not recommended for hydrocarbons-oils-fats
EPDM HIGH/TEMP (HT)	Copolymer	Ketone, Alkalies Caustic Soda	-35°C ~ +150°C -30°F ~ +300°F	Not recommended for hydrocarbons-oils-fats
BUNA N (NBR)	Copolymer of Bu-tadiene and hig Acrylonitrile	Hydrocarbons Oils and gas Air, Gasoline	-1°C ~ +100°C 0°C ~ +212°C	Not recommended for Solvents-Benzene-Xylo
Neoprene	Chloro butadiene	Fats, Oils Diluted mineral acids, Alkalies	-18°C ~ +90°C 0°F ~ +194°F	Not recommended for Ketones, thinners Concentrated acids.
Hypalon	Chlorosulfonated Polyethylene	Mineral acids Organic acids, Fats Oxidising substances	-18°C ~ +100°C 0°C ~ +212°C	Not recommended for Nitric acid- Steam Ketones
Viton	Fluorocarbon Polymer	Acids, Oils Hydrocarbons	-10°C ~ +160°C -14°F ~ +320°F	Not recommended for Steam Freon 22 Solvents-ketones- Esters-Alkalies
Natural rubber	Latex(vegetable)	Abrasive products	-35°C ~ +65°C -30°C ~ +150°C	Not recommended for Steam oils-Hydrocarbons
Silicone	Organic silicone Polymer	Food & Beverage	-30°C ~ +150°C -22°F ~ +300°F	Not recommended for Steam Solvents- Hydrocarbons
Teflon	Polytetrafluoro Ethylene	Solvents Corrosive Products	-40°C ~ +180°C -40°C ~ +356°C	Not recommended for Fluid containing powders. Alkaline metals(sodium. potassium) Gaseous Fluorine

Note.

The above table is merely indicative. The customer is expected to make the final decision on the suitability of seat materials for their specific applications. Therefore, in any case, we are not responsible for the elastomers selected by the customers.

CONVERSION TABLE OF KS, JIS AND ASTM MATERIAL STANDARD FOR VALVES

Application	KS Standard and material symbol		JIS Standare and material symbol		ASTM Standare and material symbol	
Steel casting for high Temp and high pressure	D4107	SCPH2	G5151	SCPH2	A216	WCB
	D4107	SCPH11	G5151	SCPH11	A217	WC1
	D4107	SCPH21	G5151	SCPH21	A217	WC6
	D4107	SCPH31	G5151	SCPH31	A217	WC9
	D4107	SCPH61	G5151	SCPH61	A217	C5
	D4107	SCPH23	G5151	SCPH23	A389	C24
Steel casting for Low Temp and high pressure	D4111	SCPL1	G5152	SCPL1	A352	LCB
	D4111	SCPL11	G5152	SCPL11	A352	LC1
	D4111	SCPL21	G5152	SCPL21	A352	LC2
	D4111	SCPL31	G5152	SCPL31	A217	LC3
Stainless steel castings	D4103	SSC1	G5121	SCS1	A217	CA15
	D4103	SSC2	G5121	SCS2	A351	
	D4103	SSC13A	G5121	SCS13A	A351	CF8
	D4103	SSC19	G5121	SCS19	A351	CF3
	D4103	SSC14A	G5121	SCS14A	A351	CF8M
	D4103	SSC16	G5121	SCS16	A351	CF3M
	D4103	SSC21	G5121	SCS21	A351	CF8C
	D4103	SSC18	G5121	SCS18	A351	CK20
Gray cast Iron	D4301	gC200	G5501	FC200	A126	B
Black heart Malleable Iron castings	D4303	BMC28	G5702	FCMB28	A197	
	D4303	BMC35	G5702	FCMB35	A197	32510
Carbon steel Forgings	D3710	SF45	G3201	SF45	A105	
Bronze castings	D6002	BC6	H5111	BC6	B584	C83600
	D6002	BC5	H5111	BC5		
Aluminum Bronze castings	D6015	AlBrC3	H5114	AlBC3	B148	C95800
Copper and Copper Alloy Bars	D5101	C3604BD	H3250	C3604BD	B16	
	D5101	C3771BD	H3250	C3771BD	B142	C37700
	D5101	C6191BD	H3250	C6191BD	B150	N0619
Carbon steel for Mechanical structure	D3752	SM10C	G4051	S10C	A576	1010
	D3752	SM20C	G4051	S20C	A576	1020
	D3752	SM25C	G4051	S25C	A576	1025
	D3752	SM45C	G4051	S45C	A576	1045
Steel for general Structure	D3503	SS400	G3101	SS400	A283	D
High temperature Alloy steel Bolts	D3706	STS304	G4303	SUS304	A193	B8
	D3755	SNB7	G4107	SNB7	A193	B7
	D3755	SNB16	G4107	SNB16	A193	B16
Stainless steel Bars	D3706	STS304-B	G4303	SUS304-B	A479	304
	D3706	STS304L-B	G4303	SUS304L-B	A479	304L
	D3706	STS316-B	G4303	SUS316-B	A479	316
	D3706	STS316L-B	G4303	SUS316L-B	A479	316L
	D3706	STS374-B	G4303	SUS374-B	A479	347
	D3706	STS321-B	G4303	SUS321-B	A479	321
	D3706	STS310S-B	G4303	SUS310S-B		
	D3706	STS630-B	G4303	SUS630-B		
Stainless steel Forgings	D4115	STSF304P	G3214	SUSF304P	A182	F304
	D4115	STSF304L	G3214	SUSF304L	A182	F304L
	D4115	STSF310	G3214	SUSF310	A182	F310
	D4115	STSF316	G3214	SUSF316	A182	F316
	D4115	STSF316L	G3214	SUSF316L	A182	F316L
	D4115	STSF347	G3214	SUSF347	A182	F347
Hot Rolled stainless steel Plates	D3705	STS304HP	G4304	SUS304HP	A240	304
	D3705	STS304LHP	G4304	SUS304LHP	A240	304L
	D3705	STS316HP	G4304	SUS316HP	A240	316
	D3705	STS316LHP	G4304	SUS316LHP	A240	316L
Carbon steel pipes for high temp pipeline	D3570	SPHT38	G3456	STPT38	A106	
	D3570	SPHT42	G3456	STPT42		
	D3570	SPHT49	G3456	STPT49		
Carbon steel pipes for pipeline	D3507	SGP	G3452	SGP	A120	

PRESSURE – TEMPERATURE RATINGS

WORKING PRESSURE. PSIG										
	TEMP °F	A216 WCB A105	A217 C5 A182 F5a	A217 WC6 A182 F17	A217 WC9 A182 F22	A325 LC3 A350 LF3	A351 CF8M A182 F315	A351 CF3M	A351 CF8 A182 F304	A351 CF3
CLASS 150	-20 to 100°	285	290	290	290	290	275	275	275	275
	200	260	260	260	260	260	240	240	235	235
	300	230	230	230	230	230	215	215	205	205
	400	200	200	200	200	220	195	195	180	180
	500	170	170	170	170	170	170	170	170	170
	600	140	150	140	140	140	140	140	140	140
	650	125	125	125	125	125	125	125	125	125
	700	110	110	110	110	-	110	110	110	110
	750	95	95	95	95	-	95	95	95	95
	800	80	80	80	80	-	80	80	80	80
	850	65	65	65	65	-	65	65	65	-
	900	50	50	50	50	-	50	-	50	-
	950	35	35	35	35	-	35	-	35	-
	1000	20	20	20	20	-	20	-	20	-
	1050	-	20	20	20	-	20	-	20	-
	1100	-	20	20	20	-	20	-	20	-
	1150	-	20	-	-	-	20	-	20	-
	1200	-	20	-	-	-	20	-	20	-
	1250	-	-	-	-	-	20	-	20	-
	1300	-	-	-	-	-	20	-	20	-
	1350	-	-	-	-	-	20	-	20	-
	1400	-	-	-	-	-	20	-	20	-
	1450	-	-	-	-	-	20	-	15	-
	1500	-	-	-	-	-	15	-	10	-
CLASS 300	-20 to 100°	740	750	750	750	750	720	720	720	720
	200	675	750	710	715	750	620	620	600	600
	300	655	730	675	675	730	560	560	530	530
	400	635	705	660	650	705	515	515	470	470
	500	600	665	650	640	685	480	480	435	435
	600	550	605	605	605	608	450	450	415	415
	650	556	590	590	590	590	445	445	410	410
	700	556	570	570	570	-	430	430	405	405
	750	505	530	530	530	-	425	425	400	400
	800	410	500	510	510	-	415	415	395	395
	850	270	440	485	485	-	405	405	390	-
	900	170	355	460	450	-	395	-	385	-
	950	105	260	380	380	-	385	-	375	-
	1000	50	190	225	270	-	365	-	325	-
	1050	-	140	140	200	-	360	-	310	-
	1100	-	105	95	115	-	325	-	260	-
	1150	-	70	-	-	-	275	-	195	-
	1200	-	45	-	-	-	205	-	155	-
	1250	-	-	-	-	-	180	-	110	-
	1300	-	-	-	-	-	140	-	85	-
	1350	-	-	-	-	-	105	-	60	-
	1400	-	-	-	-	-	75	-	50	-
	1450	-	-	-	-	-	60	-	35	-
	1500	-	-	-	-	-	40	-	25	-
CLASS 600	-20 to 100°	1450	1500	1500	1500	1500	1440	1440	1440	1440
	200	1350	1500	1425	1430	1500	1240	1240	1200	1200
	300	1315	1455	1345	1355	1455	1120	1120	1055	1055
	400	1270	1410	1315	1295	1410	1030	1030	940	940
	500	1200	1300	1285	1280	1330	955	955	875	875
	600	1095	1210	1210	1210	1210	905	905	830	830
	650	1075	1170	1175	1175	1175	890	890	815	815
	700	1065	1135	1135	1135	-	885	865	805	805
	750	1010	1065	1065	1065	-	845	845	795	795
	800	825	995	1015	1015	-	830	830	790	790
	850	535	880	975	975	-	810	810	780	-
	900	345	705	900	900	-	790	-	770	-
	950	205	520	755	755	-	775	-	750	-
	1000	105	385	445	535	-	725	-	645	-
	1050	-	280	275	400	-	720	-	620	-
	1100	-	205	190	225	-	645	-	515	-
	1150	-	150	-	-	-	550	-	390	-
	1200	-	90	-	-	-	410	-	310	-
	1250	-	-	-	-	-	365	-	220	-
	1300	-	-	-	-	-	275	-	165	-
	1350	-	-	-	-	-	205	-	125	-
	1400	-	-	-	-	-	150	-	95	-
	1450	-	-	-	-	-	115	-	70	-
	1500	-	-	-	-	-	85	-	50	-
HYDROSTATIC TEST PRESSURES IN POUNDS PER SQUARE INCH GAUGE (psig)										
CLASS 150	SHELL	450	450	450	450	400	375	375	375	375
	SEAT	315	315	315	315	290	260	260	260	260
CLASS 300	SHELL	1125	1125	1125	1125	1050	925	925	925	925
	SEAT	815	825	825	825	765	675	675	675	675
CLASS 600	SHELL	2225	2250	2250	2250	2100	1875	1875	1875	1875
	SEAT	1630	1650	1650	1650	1530	1360	1360	1360	1360

WORKING PRESSURE. PSIG										
	TEMP °F	A216 WCB A105	A217 C5 A182 F5a	A217 WC6 A182 F17	A217 WC9 A182 F22	A325 LC3 A350 LF3	A351 CF8M A182 F315	A351 CF3M	A351 CF8 A182 F304	A351 CF3
CLASS 900	-20 to 100°	2220	2250	2250	2250	2250	2160	2160	2160	2160
	200	2025	2250	2135	2150	2250	1860	1850	1800	1800
	300	1970	2185	2020	2030	2185	1540	1540	1410	1410
	400	1900	2115	1975	1945	2115	1540	1540	1410	1410
	500	1795	1995	1925	1920	1995	1435	1435	1310	1310
	600	1640	1815	1815	1815	1815	1355	1355	1245	1245
	650	1610	1765	1765	1765	1765	1330	1330	1225	1225
	700	1600	1705	1705	1705	-	1295	1295	1210	1210
	750	1510	1595	1595	1595	-	1270	1270	1195	1195
	800	1235	1490	1525	1525	-	1245	1245	1180	1180
	850	850	1315	1460	1460	-	1215	1215	1165	-
	900	515	1060	1350	1350	-	1180	-	1150	-
	950	310	780	1130	1130	-	1160	-	1125	-
	1000	155	575	670	805	-	1090	-	965	-
	1050	-	420	410	595	-	1080	-	925	-
	1100	-	310	290	340	-	965	-	770	-
	1150	-	205	-	-	-	825	-	585	-
	1200	-	135	-	-	-	620	-	465	-
	1250	-	-	-	-	-	545	-	330	-
	1300	-	-	-	-	-	410	-	245	-
	1350	-	-	-	-	-	310	-	185	-
	1400	-	-	-	-	-	225	-	145	-
	1450	-	-	-	-	-	175	-	105	-
	1500	-	-	-	-	-	125	-	70	-
CLASS 1500	-20 to 100°	3750	3750	3750	3750	3750	3600	3600	3600	3600
	200	3375	3750	3560	3580	3750	3095	3095	3000	3000
	300	3280	3640	3365	3385	3640	2795	2795	2640	2640
	400	3170	3530	3290	3240	3530	2570	2570	2350	2350
	500	2995	3325	3210	3200	3325	2390	2390	2185	2185
	600	2735	3025	3025	3025	3025	2255	2255	2075	2075
	650	2685	2940	2940	2940	2940	2220	2220	2040	2040
	700	2665	2840	2840	2840	-	2160	2160	2015	2015
	750	2520	2660	2660	2660	-	2110	2110	1990	1990
	800	2060	2485	2540	2540	-	2075	2075	1970	1970
	850	1340	2195	2435	2435	-	2030	2030	1945	-
	900	860	1765	2245	2245	-	1970	-	1920	-
	950	515	1305	1885	1885	-	1930	-	1870	-
	1000	260	960	1115	1340	-	1820	-	1610	-
	1050	-	705	685	995	-	1800	-	1545	-
	1100	-	515	480	565	-	1610	-	1285	-
	1150	-	345	-	-	-	1370	-	980	-
	1200	-	225	-	-	-	1030	-	770	-
	1250	-	-	-	-	-	910	-	550	-
	1300	-	-	-	-	-	685	-	410	-
	1350	-	-	-	-	-	515	-	310	-
	1400	-	-	-	-	-	380	-	240	-
	1450	-	-	-	-	-	290	-	170	-
	1500	-	-	-	-	-	205	-	120	-
CLASS 2500	-20 to 100°	6170	6250	6250	6250	6250	6000	6000	6000	6000
	200	5625	6250	5930	5965	6250	5160	5160	5000	5000
	300	5470	6070	5605	5640	6070	4660	4660	4400	4400
	400	5280	5880	5485	5400	5880	4280	4280	3920	3920
	500	4990	5540	5350	5330	5540	3980	3980	3640	3640
	600	4560	5040	5040	5040	5040	3760	3760	3460	3460
	650	4475	4905	4905	4905	4905	3700	3700	3400	3400
	700	4440	4730	4730	4730	-	3600	3600	3360	3360
	750	4200	4430	4430	4430	-	3520	3520	3320	3320
	800	3430	4145	4230	4320	-	3460	3450	3280	3280
	850	2230	3660	4060	4060	-	3320	3320	3240	-
	900	1430	2945	3745	3745	-	3280	-	3200	-
	950	860	2170	3145	3145	-	3220	-	3120	-
	1000	430	1600	1860	2230	-	3030	-	2685	-
	1050	-	1170	1145	1660	-	3000	-	2570	-
	1100	-	860	800	945	-	2685	-	2145	-
	1150	-	570	-	-	-	2285	-	1630	-
	1200	-	370	-	-	-	1715	-	1285	-
	1250	-	-	-	-	-	1515	-	915	-
	1300	-	-	-	-	-	1145	-	685	-
	1350	-	-	-	-	-	860	-	515	-
	1400	-	-	-	-	-	630	-	400	-
	1450	-	-	-	-	-	485	-	285	-
HYDROSTATIC TEST PRESSURES IN POUNDS PER SQUARE INCH GAUGE(psig)										
CLASS 900	SHELL	3350	3375	3375	3375	3375	2775	2775	2775	2775
	SEAT	2440	2475	2475	2475	2475	2035	2035	2035	2035
CLASS 1500	SHELL	5575	5629	5625	5625	5625	4650	4650	4650	4650
	SEAT	4075	4125	4125	4125	4125	3395	3395	3395	3395
CLASS 2500	SHELL	9275	9375	9375	9375	9375	7725	7725	7725	7725
	SEAT	6785	6875	6875	6875	6875	5660	5660	5660	5660



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