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The Company

The inception of the company was sometime in 1970's in the name of "The New Bhagya Lakshmi Pattern Works" with the motto to make wooden patterns of various castings, which ultimately became specialized in making pattern of various types of Industrial Valves in passage of years. From the year 2005, the company started manufacturing various types of Industrial Valves with the support of experienced technocrats and setup a factory for the same in the district of Howrah.

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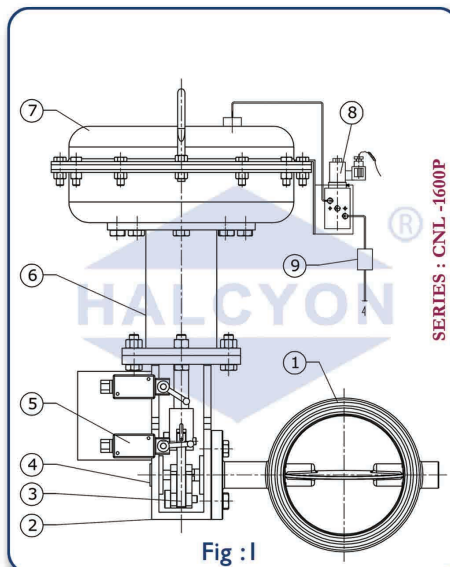
Since then the company has manufactured and supplied various types of Valves including Sluice Gates and some critical application Valves to most of the prestigious plants and Projects in India, Eg Atomic Research Department, TISCO, SAIL, RAIL, BHEL, IOCL, NTPC, HINDALCO, ORDNANCE FACTORY etc. The Company has already accredited ISO-9001:2008 & ISO-14001:2004 by 2016 and in the process of diversification and Development of sophisticated valves with its sister concern M/s Halcyon Valves Automation to meet the need of 21st Century.

ALL UNITS IN PSI

Service Temp.		Class 150					Class 300					Class 600				
OF	OC	WCB (a)	WCI (b) (c)	WC6 (c)	WC9 (c)	C5 (c)	WCB (a)	WCI (b) (c)	WC6 (c)	WC9 (c)	C5 (c)	WCB (a)	WCI (b) (c)	WC6 (c)	WC9 (c)	C5 (c)
-20 to 100	-29 to 38	285	265	290	290	290	40	695	750	750	750	1480	1390	1500	1500	1500
200	93	260	260	260	260	260	675	680	750	750	745	1350	1360	1500	1500	1490
300	149	230	230	230	230	230	655	655	720	720	715	1315	1305	1445	1445	1430
400	204	200	200	200	200	200	635	640	695	705	750	1270	1280	1385	1410	1410
500	260	170	170	170	170	170	600	620	665	665	745	1200	1245	1330	1330	1330
600	316	140	140	140	140	140	550	605	605	605	715	1095	1210	1210	1210	1210
650	343	125	125	125	125	125	535	590	590	590	590	1075	1175	1175	1175	1175
700	371	110	110	110	110	110	535	570	570	570	570	1065	1135	1135	1135	1135
750	399	95	95	95	95	95	505	530	530	530	530	1010	1065	1065	1065	1055
800	427	80	80	80	80	80	410	510	510	510	510	825	1015	1015	1015	1075
850	454	65	65	65	65	65	270	485	485	485	485	535	975	975	975	965
900	482	50	50	50	50	50	170	450	450	450	450	345	900	900	900	740
950	510	35	35	35	35	35	105	280	320	375	275	205	560	640	755	50
1000	538	20	20	20	20	20	506	165	215	260	200	105	330	430	520	400
1050	566			20*	20*	20*			145	175	145			290	350	290
1100	593			20*	20*	20*			95	110	100			190	220	200
1150	621			20*	20*	20*					60					125
1200	649			15*	15*	15*					35					70
Hydrostatic Shell Test pressure		450	425		450		1125	1075		1150		2250	2100		2275	
		31.5	29		31.5		79	75		805		157.5	147		154	
Valve Closure Test Pressure	Fluid	315	300		320		825	770		830		1630	1535		1655	
		22.00	21.00		22.5		58	54		58		114	107		116	
	AIR			100/7					100/7					100/7		

CHEMICAL COMPOSITION OF GENERAL USED MATERIALS

STANDARD		GEN NAME		CHEMICAL PROPERTIES (%)- MAXIMUM UNLESS SPECIFIED												PHYSICAL PROPERTIES	
AMERICAN	GRAD E	INDIAN		E	MN	P	S	Si	Cr	Ni	Mo	Cu	V			T.S.Mpa	
ASTM A126	CIB	IS-210	FG-200	CI	0.6-0.9	0.4	0.08	1.2-0.8	0.15	-	-	0.1	-	-	200	230	-
ASTM A536	60-40-80	IS-1865	SG-60	SG IRON	0.7-1.5	0.08	-	1.0-2.8	1.0-2.8	18-22	-	-	-	-	600	370	2
ASTM A216	WCB	IS-2856	GR 2	CS	1.0	0.04	0.045	0.6	0.5	0.5	0.2	0.3	0.3	-	485-655	205	22
ASTM A351	CF8	IS-7806	GR 3	SS-304	1.5	0.04	0.04	1.5	18-21	8-11	0.5	-	-	-	485	205	35
ASTM A351	CF8M	IS-7806	GR 3	SS-316	1.5	0.04	0.04	1.5	18-21	9-12	2-3	-	-	-	485	205	30
ASTM A217	WC6	IS-3038	GR 4	ALLOY STEEL	-	-	-	-	1.0	0.4	0.5	-	-	-	480	280	17



SERIES : CNL -1600P

Fig : 1

OTHER TYPE CONTROL VALVE



SERIES : CNL -1600P

SERIES : CNL -1645P

Note: Face to face dimension available on request.

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33

TECHNICAL DATA

MFG. RANGE	40 MM TO 600 MM
PRESSURE RATING	CLASS: 150# TO 900#
FLANGE STD. CONFORMITY	IS / BS / ANSI / DIN OR ON REQUEST
INSPECTION & TESTING	API-598

MATERIAL OF CONSTRUCTION

SL. No.	DESCRIPTION	MATERIALS & SPECN.
1	VALVE	CS/CI/SS/GM/DUPLEX STEEL
2	BOTTOM BRACKET	MILD STEEL FABRICATED
3	LEVER	
4	POSITION INDICATOR	MFG. STD.
5	LIMIT SWITCH	5/2 WAY STANDARD MAKE
6	TOP BRACKET	CS/CI/SS/GM
7	PNEUMATIC AIR CYLINDER FOR DIAPHRAGM COMPRESSOR	MFG. STD.
8	SOLENOID VALVE	STD
9	FRL UNIT	STD

ACCESSORIES:

Actuator Details :-

Method of transmission : Diaphragm Operated
 Single Acting : Air to open & Spring to closed fail Safe To Closed
 Air Pressure : Normal air supply pressure - 5 Kg/Cm² (g)
 Max. air supply pressure - 7 Kg/Cm² (g)
 Actuator Mounting : ISO 5211
 Actuation : Reciprocation Stroke

Limit Switch Details :-

Enclosure : Contact type Limit Switch Enclosure IP 65
 No. of Contacts : 2 Nos NC Switch Fitted as (1NO + 1NC - SPDT type)

3/2 Way Namur Standard Solenoid Valves :-

End Connections : 1/2" BSP (F)
 Operating Pressure : 2 to 10 Bar
 Coil Voltage : 24 V DC
 Coil Enclosure : Weather Proof IP 65
 Body Material : Aluminium

VOLUME BOOSTER

End Connections : 1/4" BSP (F)
 Supply Pressure : 40 or 150 PSI
 Out Put Capacity : 13.5 SCFM
 Body Material : Aluminium

AIR LOCK

End Connections : 1/4" BSP (F)
 Supply Pressure : 100 PSI
 Body Material : Aluminium

OTHER ACCESSORIES:

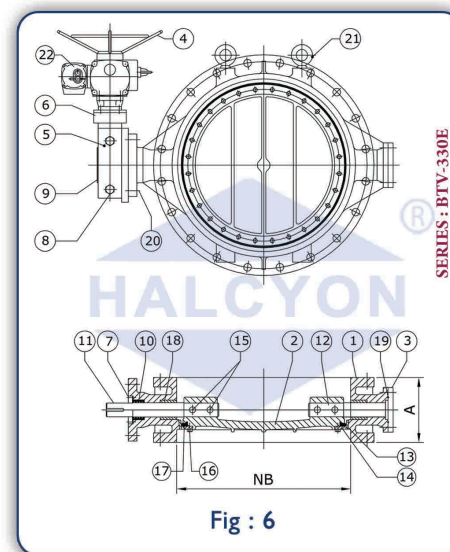
PNEUMATIC VALVE POSITIONER

AIR FILTER PRESSURE REGULATOR

I/P CONVERTER

POSITION TRANSMITTER

PROXIMITY SWITCH



SERIES : BTV-330E

Fig : 6

DESIGN FEATURES

MFG. / DESIGN STD.	BS 5155, IS:13095, AWWA C-504
MFG. RANGE	300 mm TO 1200 mm UP TO 2000 mm AVAILABLE ON REQUEST
PRESSURE RATING	PN 1.0, PN 1.6, PN 2.0, PN 2.5, PN 4.0
FLANGE ENDS	BS / IS / ANSI / DIN
SPECIAL FEATURES	VALVES FULLY PROTECTED FROM CORROSION BY ELECTRO-STATICALLY APPLYING EPOXY POWDER / LIQUID COATING. HIGH PERFORMANCE GEAR BOX & ELECTRICAL ACTUATOR

MATERIAL OF CONSTRUCTION

SL. No.	DESCRIPTION	MATERIAL	SPECIFICATION
1	BODY	C.I. / D.I. / C.S. / M.S. FAB.	BS / DIN / BS / ASTM SPECIFICATION
2	DISC	STEEL	IS:2062 Gr.A
3	END COVER	STEEL	-
4	HAND WHEEL	ATTACHED WITH ACTUATOR	-
5	WORM GEAR BOX	MFR'S STD.	-
6	SPUR GEAR BOX	M.S.	IS:2062, Gr.A
7	GLAND PLATE	L.T. STEEL	-
8	LIMIT STOP SCREW	MFR'S STD.	-
9	INDICATOR	MFR'S STD.	-
10	PACKING (Rubber 'O' Ring)	NITRILE RUBBER (Shore Hardness 70±5)	-
11	DRIVE SHAFT	STAINLESS STEEL	AISI-410
12	STUB SHAFT	NICKEL WELD OVERLAY	AISI-304
13	BODY SEAT RING	STAINLESS STEEL	AISI-304
14	SEAL RETAINING RING	STAINLESS STEEL	AISI-304
15	DOWEL PIN	STAINLESS STEEL	AISI-304
16	INTERNAL FASTENERS	NITRILE RUBBER (Shore Hardness 70±5)	-
17	DISC SEAL	L.T. BRONZE	IS:318 Gr. LTB 2
18	BEARING BUSHES	NITRILE RUBBER (Shore Hardness 70±5)	-
19	PACKING (Rubber 'O' Ring)	NITRILE RUBBER (Shore Hardness 70±5)	-
20	BOLTS & NUTS	CARBON STEEL	IS:1367 CL-4.6 & 4.0
21	LIFTING LUG	CARBON STEEL	FORGED QUALITY
22	ELECTRICAL ACTUATOR	'LIMITORQUE' / 'ROTORK' / 'AUMA' MAKE	-

DIMENSIONS(MM)

SIZE	150	200	250	300	350	400	450	500	600	700	750	800	900	1000	1100	1200	1300	1400	1500	1600	1800	2000
A	140	152	165	178	190	216	222	229	267	292	305	318	330	410	440	470	500	530	560	600	670	760

TABLE : I

All dimensions are in mm

TURBINE INLET VALVE



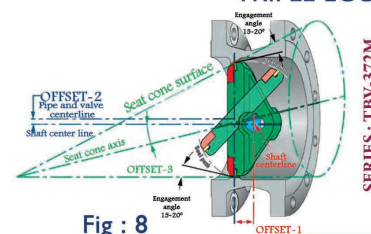
SERIES : TCV-340H

Fig : 7

FEATURES :

- ★ VALVES DESIGN LOW HEAD LOSS.
- ★ INBUILT HYDRAULIC POWER PACK.
- ★ MOTOR - 1 HP TO 5 HP
- ★ PLC TO CONTROL THE VALVES.
- ★ MANUAL PUMP OPERATION (OPTIONAL).
- ★ LIMIT SWITCHES AS OPEN CLOSE INDICATOR/SIGNAL.
- ★ DC VALVES TO ENERGIZED HYDRAULIC CYLINDER.
- ★ COUNTER WEIGHT TO CLOSE THE VALVES.
- ★ AUTOMATIC CLOSE THE VALVE IN CASE OF SUDDENLY POWER OFF.

TRIPLE ECCENTRIC BUTTERFLY VALVE



SERIES : TBV-372M

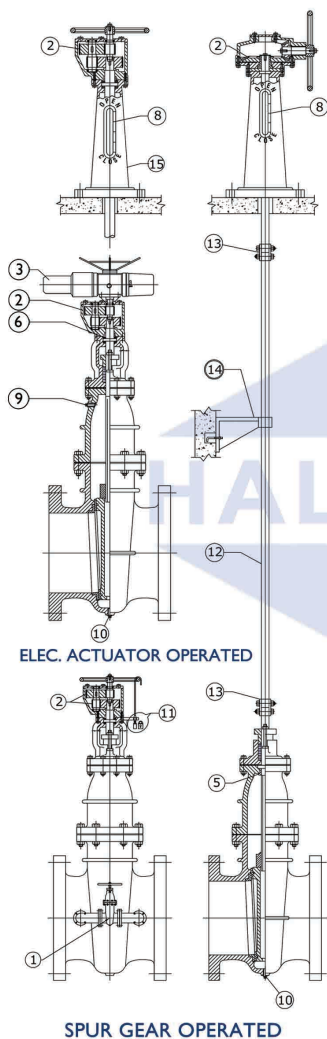
Fig : 8

FEATURES :

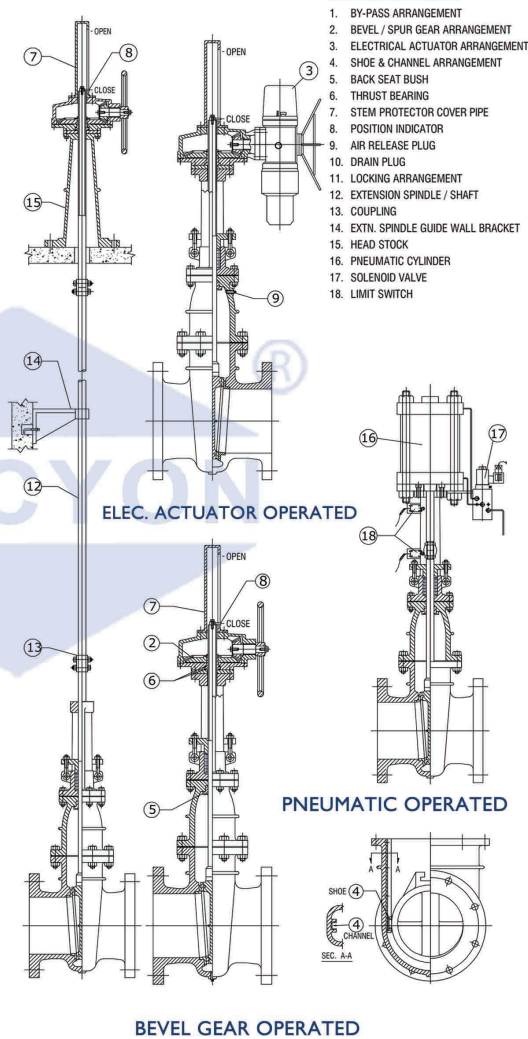
- ★ FRICTION LESS CLOSURE
- ★ SUPER LONG USAGE LIFE
- ★ METAL TO METAL SEATED WITH ZERO LEAKAGE.
- ★ TEMP. 196 °C TO 820°C
- ★ PRESSURE RATING CL-150# TO CL-900#.
- ★ BLOW OUT PROOF STEM
- ★ ISO 5211 MOUNTING FLANGE
- ★ OPTIONAL STELLITED SEAT

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33

NON-RISING STEM GATE VALVE



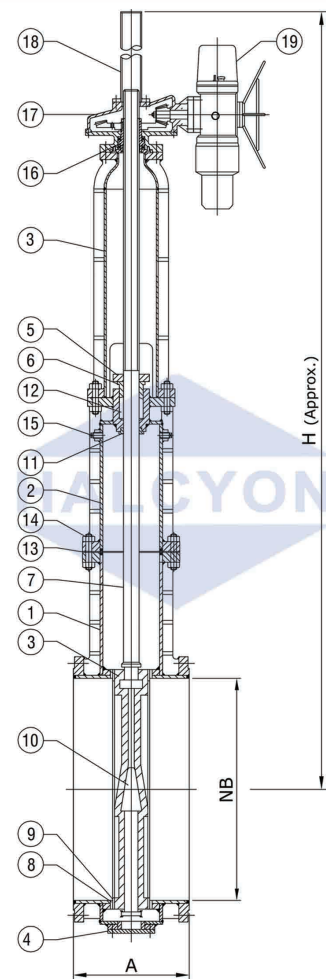
RISING STEM GATE VALVE



ACCESSORIES:

1. BY-PASS ARRANGEMENT
2. BEVEL / SPUR GEAR ARRANGEMENT
3. ELECTRICAL ACTUATOR ARRANGEMENT
4. SHOE & CHANNEL ARRANGEMENT
5. BACK SEAT BUSH
6. THRUST BEARING
7. STEM PROTECTOR COVER PIPE
8. POSITION INDICATOR
9. AIR RELEASE PLUG
10. DRAIN PLUG
11. LOCKING ARRANGEMENT
12. EXTENSION SPINDLE / SHAFT
13. COUPLING
14. EXTN. SPINDLE GUIDE WALL BRACKET
15. HEAD STOCK
16. PNEUMATIC CYLINDER
17. SOLENOID VALVE
18. LIMIT SWITCH

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33



SERIES : GTV-1156E

MATERIAL OF CONSTRUCTION

SL. No.	DESCRIPTION	MATERIALS & SPECN.
1.	BODY	M.S. IS:2062 Gr. A
2.	BONNET	
3.	YOKE	
4.	DRAIN COVER	
5.	GLAND FLANGE	
6.	GLAND	S.S 410 / 304 / 316
7.	STEM	S.S 410 / 304 / 316 / 431
8.	BODY SEAT	S.S 410 / 304 / 316
9.	WEDGE SEAT FACING	13% Cr.OVERLAY ON WCB / CA-15 / CF8 / CF8M
10.	SPRADER	S.S 410 / 304 / 316
11.	BACK SEAT	S.S 410 / 304 / 316
12.	GLAND PACKING	MACHINE BRAIDED METALLIC WIRE REINFORCEMENT ASB / GRAFOIL / PTFE
13.	GASKET	SP.WOUND-S.S-304-ASB / GRAPH.FILLER
14.	STUDS & NUTS	ASTM A193, Gr.B7 & A194, Gr.2H / S.S 304
15.	AIR RELEASE PLUG	S.S 304
16.	SLEEVE BUSH	CARBON STEEL / LTb
17.	BEVEL GEAR UNIT	MFR'S STD.
18.	STEM PROTECTING COVER	GI TUBE
19.	ELEC. ACTUATOR	'ROTORK' / 'LIMITORQUE' / 'AUMA' MAKE

DESIGN FEATURE

DESIGN STANDARD	MFR'S STANDARD
MFG. RANGE	400 MM TO 2000 MM
FACE TO FACE	FACE TO FACE AS PER MFR'S STD. / DONTKIN FIG. 662. / ON REQUEST
END CONNECTION	FLANGE END & DRILLED TO IS:6392, TABLE-5 / CUSTOMER REQUIREMENT
TESTING STANDARD	API 598
OPERATION	MANUAL, GEARED & ELECTRICAL ACTUATOR
APPLICATION	SUITABLE FOR HANDLING WATER, AIR, GAS AND LIQUID WITH CORROSIVE PROPERTIES.
FEATURE	DOUBLE FLANGED OUTSIDE SCREW, RISING STEM, YOKE TYPE, BACK SEAT BUSH, DRAIN COVER, AIR RELEASE PLUG & LANTERN RING

HYDROSTATIC TEST PRESSURE IN PSI (Kg/Cm²)

RATING	BODY	SEAT	AIR
PN-0.4 (Max)	85 (6)	57 (4)	45 (3)

NOTE:- ALL DIMENSIONS ARE IN MM. FOR ANY OTHER MOC AND HIGHER SIZE PLEASE REFER TO US. WE RESERVE THE RIGHT TO MAKE CHANGES IN DRAWING DUE TO TECHNICAL UP GRADATION.

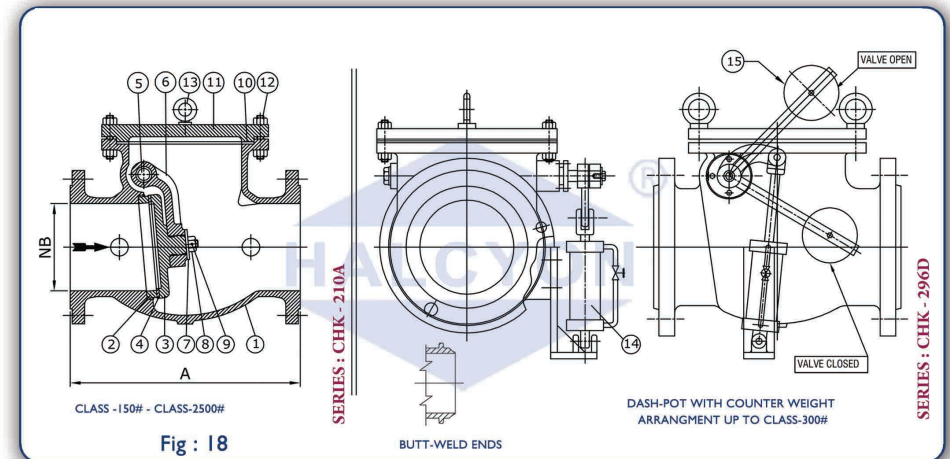
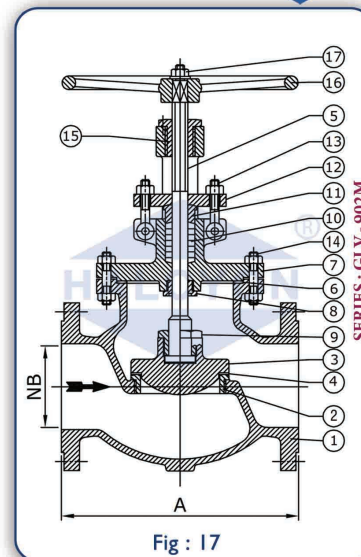
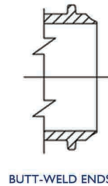
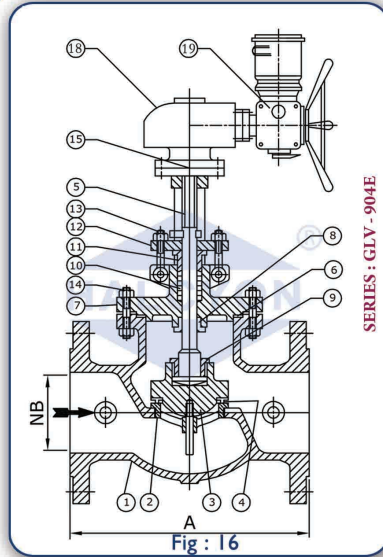
DIMENSIONS FOR FACE TO FACE (A)

TABLE - 3

SIZE	400	450	500	600	700	750	800	900	1000	1100	1200	1300	1400	1500	1600	1800	2000
A	298	311	330	349	381	406	470	470	508	527	559	699	762	762	914	914	-
H	1880	2050	2260	2660	3180	3277	3626	3912	4370	4560	5160	5700	5850	6375	-	7565	-

All dimensions are in mm

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33



MATERIAL OF CONSTRUCTION FOR CL - 150# TO CL - 2500#

SL. No.	DESCRIPTION	MATERIALS & SPECN.
1.	BODY	WCB / LCB / CF8 / CF8M
2.	BODY SEAT	S.S 410 / 304 / 316
3.	DISC	WCB / LCB / CF8 / CF8M
4.	DISC SEAT FACING	13% Cr.OVERLAY ON WCB / CA-15 / CF8 / CF8M
5.	HINGE PIN	S.S 410 / 304 / 316 / 431
6.	HINGE	WCB / LCB / CF8 / CF8M
7.	WASHER	S.S 410 / 304
8.	DISC LOCK NUT	S.S 410 / 304 / 316
9.	LOCKING PIN / SPLIT PIN	S.S 410 / 304
10.	GASKET	RUBBER / SP.WOUND-S.S-304-ASB / GRAF FILLER
11.	COVER	WCB / LCB / CF8 / CF8M
12.	STUDS & NUTS	ASTM A193, Gr.B7 & A194, Gr.2H / S.S 304
13.	LIFTING EYE BOLTS	ASTM A105 / S.S 304
14.	DASH-POT ARRANGEMENT	STEEL
15.	COUNTER WEIGHT & LEVER	MILD STEEL

DESIGN FEATURES	
DESIGN STANDARD	BS 1868
MFG. RANGE	50 MM TO 600 MM
FACE TO FACE	ASME B16.10
END CONNECTION	FLANGE END & DRILLED TO ASME- B16.5
TESTING STANDARD	API 598
OPERATION	SELF OPERATED
APPLICATION	SUITABLE FOR HANDLING WATER, AIR, GAS & LIQUID WITH CORROSIVE PROPERTIES.
FEATURE	SCOUR PLATE AND ROBUST ONE PIECE DESIGN TO WITHSTAND SEVERE SHOCK OF CHECK VALVE SERVICE. DIFFERENT ARRANGEMENT LIKE DASHPOT COUNTER WEIGHT, DRAIN PLUG AND BY-PASS ARE AVAILABLE.

HYDROSTATIC TEST PRESSURE IN Kg/Cm² g

CLASS	BODY	SEAT	AIR
150#	32	22	6
300#	79	57	6
600#	156	114	6
900#	237	174	6
1500#	395	290	6
2500#	653	479	6

DIMENSIONS FOR FACE TO FACE (A)

CLASS	SIZE	50	65	80	100	125	150	200	250	300	350	400	450	500
150#	A	203	216	241	292	330	356	495	622	698	787	914	978	978
300#	A	267	292	317	356	400	444	533	622	711	-----	-----	-----	-----
600#	A	292	330	356	432	508	559	661	787	838	889	991	1092	1194
900#	A	368	419	381	457	559	610	737	838	965	1029	1130	1219	1321
1500#	A	368	419	470	546	673	705	832	991	1130	1257	1384	1537	1664
2500#	A	451	508	578	673	794	914	1022	1270	1422	-----	-----	-----	-----

All dimensions are in mm

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33

DESIGN FEATURES	
DESIGN STANDARD	BS 1873
MFG. RANGE	50 MM TO 600 MM
FACE TO FACE	ASME B16.10
END CONNECTION	FLANGE END & DRILLED TO ASME- B16.5
TESTING STANDARD	API 598
OPERATION	MANUAL, GEARED, ELECTRICAL ACTUATOR, HYDRAULIC & PNEUMATIC.
APPLICATION	SUITABLE FOR HANDLING WATER, AIR, GAS & LIQUID WITH CORROSIVE PROPERTIES.
FEATURE	DOUBLE FLANGED OUTSIDE SCREW, RISING STEM, YOKE TYPE, TWO PIECES GLAND, RENEWABLE SCREWED BODY SEAT RING, BACK SEAT BUSH.

HYDROSTATIC TEST PRESSURE IN Kg/Cm² g

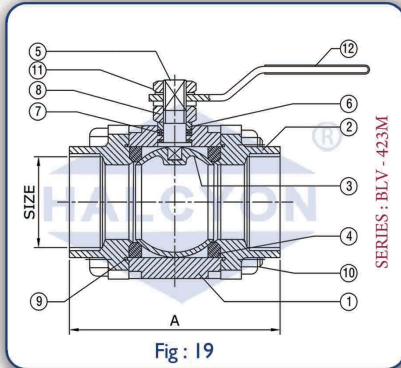
CLASS	BODY	SEAT	AIR
150#	32	22	6
300#	79	57	6
600#	156	114	6
900#	237	174	6
1500#	395	290	6
2500#	653	479	6

DIMENSIONS FOR FACE TO FACE (A)

CLASS	SIZE	50	65	80	100	125	150	200	250	300	350	400	450	500
150#	A	203	216	241	292	330	356	495	622	698	787	914	978	978
300#	A	267	292	317	356	400	444	533	622	711	-----	-----	-----	-----
600#	A	292	330	356	432	508	559	661	787	838	889	991	1092	1194
900#	A	368	419	381	457	559	610	737	838	965	1029	1130	1219	1321
1500#	A	368	419	470	546	673	705	832	991	1130	1257	1384	1537	1664
2500#	A	451	508	578	673	794	914	1022	1270	1422	-----	-----	-----	-----

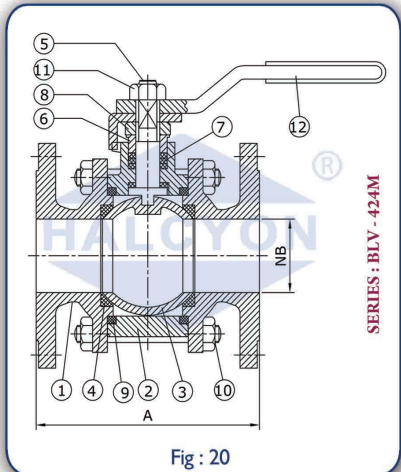
All dimensions are in mm

TABLE - 4



DIMENSIONS FOR FACE TO FACE (A) TABLE - 5

VALVE SIZE	15	20	25	32	40	50
CLASS 150#	65	65	80	98	105	125
CLASS 800#	92	120	127	140	152	152
CLASS 1500#	92	120	127	140	152	152
CLASS 2500#	120	130	150	150	170	170



DIMENSIONS FOR FACE TO FACE (A)

CLASS	SIZE	15	20	25	40	50	80	100	150	200	250	300	350	400	450	500	600
150#	A	108	118	127	165	178	203	229	394	457	533	610	686	762	864	914	1067
300#	A	140	152	165	190	216	282	305	403	501	568	648	762	838	914	991	1143
600#	A	165	190	216	241	292	356	432	559	660	787	838	889	991	1092	1194	1397

All dimensions are in mm

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33

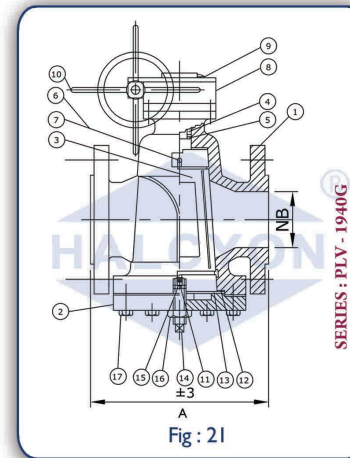
TECHNICAL DATA	
MFG. / DESIGN STD.	BS 5351
MFG. RANGE	15 MM TO 50 MM
RATING	PN-1.0, PN-1.6 & PN-2.0 / CL-150#
END CONNECTION	SCREWED END : IS:554 / BSP / NPT
WORKING TEMP.	UPTO 150°C
OPERATION	LEVER OPERATED
APPLICATION	WATER/OIL/GAS

SL. No.	DESCRIPTION	MATERIALS & SPECN.
1.	BODY	CI / A105 / CF8 / CF8M
2.	BODY CONNECTOR	
3.	BALL	SS AISI-304 / 316
4.	BALL SEALS	PTFE / TEFLON
5.	STEM	SS AISI-410 / 304 / 316
6.	GLAND	SS AISI-410 / 304 / 316
7.	GLAND PACKING	PTFE / TEFLON
8.	GLAND NUT	SS AISI-410 / 304 / 316
9.	BODY SEAL	PTFE
10.	STUDS & NUTS	CARBON STEEL / SS
11.	STEM NUT	CARBON STEEL / SS
12.	LEVER / HANDLE	MS WITH PVC SLEEVE

TECHNICAL DATA	
MFG. / DESIGN STD.	BS 5351 / API 602
MFG. RANGE	15 MM TO 600 MM
RATING	PN-1.0, PN-1.6 & PN-2.0 / CL-150#
END CONNECTION	FLANGE END : IS / BS / ANSI / DIN STANDARD
WORKING TEMP.	UPTO 150°C
OPERATION	LEVER OPERATED/ GEAR OPERATED
APPLICATION	WATER/OIL/GAS

SL. No.	DESCRIPTION	MATERIALS & SPECN.
1.	BODY	CI / A105 / CF8 / CF8M
2.	BODY CONNECTOR	
3.	BALL	SS AISI-304 / 316
4.	BALL SEALS	PTFE / TEFLON
5.	STEM	SS AISI-410 / 304 / 316
6.	GLAND	SS AISI-410 / 304 / 316
7.	GLAND PACKING	PTFE / TEFLON
8.	GLAND NUT	SS AISI-410 / 304 / 316
9.	BODY SEAL	PTFE
10.	STUDS & NUTS	CARBON STEEL / SS
11.	STEM NUT	CARBON STEEL / SS
12.	LEVER / HANDLE	MS WITH PVC SLEEVE

TABLE - 6



HYDROSTATIC TEST PRESSURE IN PSI (Kg/Cm²)

CLASS	BODY	SEAT	AIR
150#	32	22	6
300#	79	57	6
600#	156	114	6
900#	237	174	6
1500#	395	290	6
2500#	653	479	6

DIMENSIONS FOR FACE TO FACE (A)

TABLE - 7

CLASS	SIZE	40	50	80	100	150	200	250	300	350
150#	A	165	178	200	229	267	292	330	356	---
300#	A	146	190	229	279	403	419	457	501	762
600#	A	229	292	356	432	559	660	787	838	---
900#	A	305	368	381	457	610	737	838	---	---

All dimensions are in mm

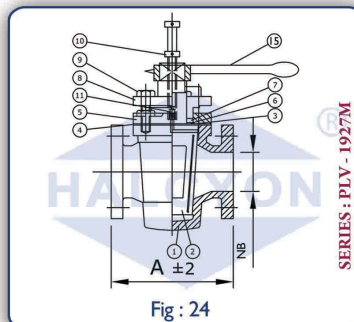
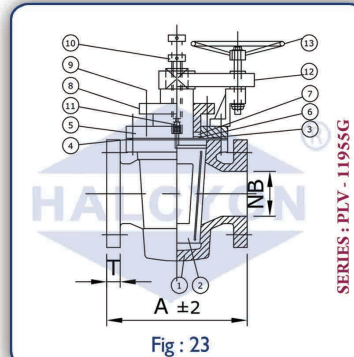
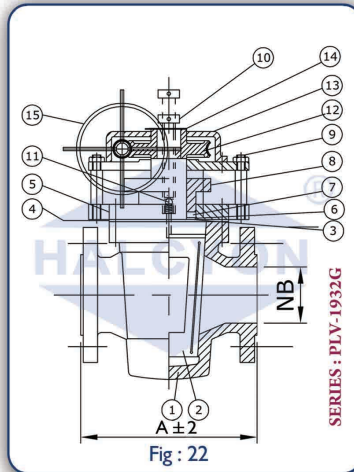
FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33

MATERIAL OF CONSTRUCTION

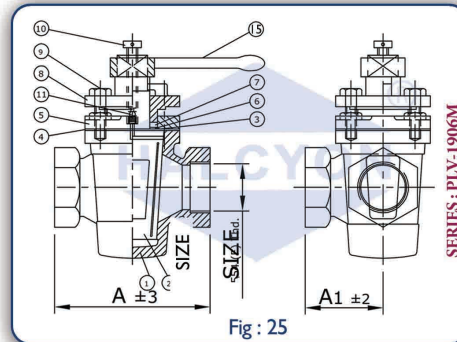
S.No.	DESCRIPTION	MATERIALS & SPECN.
1	BODY	C.S. ASTM A216 Gr. WCB
2	COVER	- DO -
3	PLUG	- DO -
4	GLAND	- DO -
5	GLAND PACKING	RUBBERISED ASBESTOS
6	LUBRICANT SCREW	ASTM A193 Gr. B7
7	CHECK VALVE	S.S. AISI-304
8	WORM GEAR BOX	C.S. ASTM A216 Gr.WCB
9	POSITION INDICATOR	CARBON STEEL
10	HAND WHEEL	M.S. IS:2062 (FAB.)
11	BALL	STEEL
12	GASKET	C.A.F.
13	DIAPHRAGM /SHIM	M.S. NICKLE PLATED
14	PRESSURE SCREW	ASTM A193 Gr. B7
15	PRESSURE PLATE	C.S. ASTM A216 Gr.WCB
16	LOCK NUT	ASTM A194 Gr. 2H
17	BOLTS & NUTS	ASTM A193 Gr. B7 & A194 Gr. 2H

DESIGN FEATURES:

- ★ MANUFACTURING STANDARD - API-599/API-6D
- ★ FACE TO FACE AS PER ANSI B 16.10, SHORT PATTERN
- ★ ENDS FLANGED & DRILLED AS PER ASME B 16.5 R. F.
- ★ TESTED AS PER BS : 6755 PAT-I
- ★ STANDARD PLUG/PRESSURE BALANCED INVERTED PLUG
- ★ ALSO AVAILABLE IN CLASS 1500, 2500



S.No.	DESCRIPTION	MATERIALS & SPECN.
1	BODY	C.S. ASTM A216 Gr. WCB
2	PLUG	C.S. ASTM A216 Gr. WCB
3	SHIM	S.S AISI-304
4	GASKET	COMPRESSFD ASBESTOS FIBER
5	COVER	C.S. ASTM A216 Gr. WCB
6	GLAND RING	STEEL
7	GLAND PACKING	RUBBERISED ASBESTOS
8	GLAND	C.S. ASTM A216 Gr. WCB
9	PILLER & NUTS	ASTM A193 Gr. B7 & A194 Gr. 2H
10	LUBRICANT SCREW	ASTM A193 Gr. B7
11	CHECK VALVE	G.M. IS:318 Gr.2
12	WORM GEAR & PINION	C.S. ASTM A216 Gr.WCB
13	GEAR BOX	C.S. ASTM A216 Gr.WCB / C.I.
14	POSITION INDICATOR	BRASS / AL. ALLOY
15	HAND WHEEL / LEVER	C.S. ASTM A216 Gr.WCB / M.S. FAB.



DESIGN FEATURES:

- ★ MANUFACTURING STANDARD - API-599/API-6D
- ★ FACE TO FACE AS PER ANSI B 16.10, SHORT PATTERN
- ★ ENDS SCREWED AS PER BSP / NPT / FLANGED
- ★ TESTED AS PER BS : 6755 PAT-I
- ★ STANDARD PLUG / INVERTED PLUG
- ★ ALSO AVAILABLE IN CLASS 1500, 2500

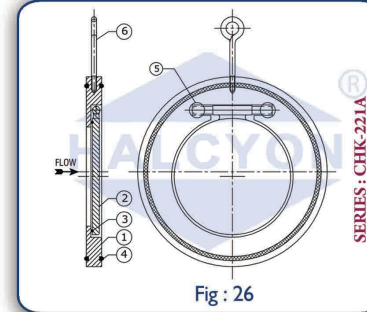
HYDROSTATIC TEST PRESSURE IN (Kg/Cm ²)			
CLASS	BODY	SEAT	AIR
150#	32	22	6
300#	79	57	6
600#	156	114	6
900#	237	174	6
1500#	395	290	6
2500#	653	479	6

DIMENSIONS FOR FACE TO FACE (A) TABLE - 8

CLASS	SIZE	25	32	40	50	80	100	150	200
SCRWED	A	111	127	127	152	196	273	---	---
FLANGED	A	140	152	165	178	190	229	267	292
A	A1	55	63	63	76	98	136	---	---

All dimensions are in mm

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33



SINGLE PLATE CHECK VALVE (50 NB TO 600 NB)

MATERIAL OF CONSTRUCTION

SL. No.	DESCRIPTION	MATERIALS & SPECN.
1	BODY	CS / MS / SS
2	DISC	
3	SEAL 'O' RING	NITRILE RUBBER/PTFE
4	GASKET 'O' RING	
5	CAP	STAINLESS STEEL
6	LIFTING EYE BOLT	CARBON STEEL

DESIGN STANDARD : AS PER API-6D WAFER END

★ RANGE 25 MM TO 1200 MM

MATERIAL OF CONSTRUCTION OF CL-150# & CL-300#

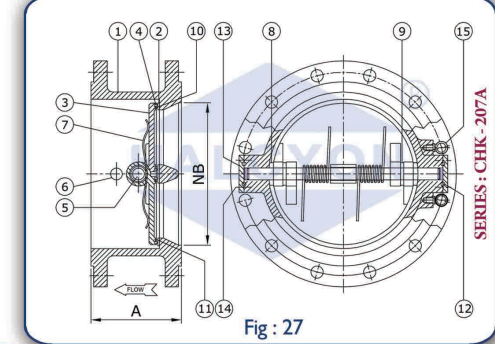
SL. No.	DESCRIPTION	MATERIALS & SPECN.
1.	BODY	WCB / LCB / CF8 / CF8M
2.	BODY SEAT	S.S CF8 / CF8M
3.	DISC	WCB / LCB / CF8 / CF8M
4.	DISC SEAT RING	NITRILE RUBBER / CF8 / CF8M
5.	HINGE PIN	S.S 410 / 304 / 316 / 431
6.	STOP PIN	S.S 410 / 304 / 316 / 431
7.	SPRING	S.S 304 / 316
8.	BODY LUG BEARING	S.S 304 / 316
9.	DISC LUG BEARING	S.S 304 / 316
10.	RETAINER RING	CARBON STEEL / S.S-304 / 316
11.	INTERNAL FASTENERS	S.S 304
12.	O - RING / GASKET	RUBBER / CAF / PTFE
13.	END COVER PLATE / PLUG	CARBON STEEL / S.S-304 / 316
14.	EXTERNAL FASTENERS	ASTM A193, Gr.B7 & A194, Gr.2H / S.S 304
15.	LIFTING EYE BOLTS	ASTM A105 / S.S 304

DIMENSIONS FOR FACE TO FACE OF DPCV (A)

VALVE SIZE		50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	750	800	900	1050	1100	1200
CLASS	150#	60	67	73	73	*83	98	127	146	181	184	191	203	219	222	*305	305	*356	368	432	*440	524
	300#	60	67	73	73	*83	98	127	146	181	222	232	264	292	318	-	-	-	-	-	-	-
	600#	60	67	73	79	-	137	165	213	229	273	305	362	368	438	-	-	-	-	-	-	-
	900#	70	83	83	102	-	159	206	241	292	356	384	451	451	495	-	-	-	-	-	-	-

All dimensions are in mm

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33



DUAL PLATE CHECK VALVE

DESIGN FEATURES

DESIGN STANDARD	API 594
MFG. RANGE	50 MM TO 1500 MM
FACE TO FACE	API 594
END CONNECTION	WAFFER / FLANGE END & DRILLED TO ASME- B16.5
TESTING STANDARD	API 598
OPERATION	SELF OPERATED
APPLICATION	SUITABLE FOR HANDLING WATER, AIR, GAS & LIQUID WITH CORROSIVE PROPERTIES.
FEATURE	DOUBLE SPRING ACTION ENSURE TIGHT SHUT OFF, POSITION INSTALLATION VERTICAL OR HORIZONTAL. NO HAMMER EFFECT DURING CLOSING, BOTH METAL TO METAL AND RESILIENT SEALING IS AVAILABLE.
CAUTION	FOR HORIZONTAL FLOW APPLICATION, VALVE MUST BE INSTALLED WITH DISC HINGE PIN IN THE VERTICAL POSITION TO ENSURE PROPER OPERATION.

HYDROSTATIC TEST PRESSURE IN (Kg/Cm²)

CLASS	BODY	SEAT	AIR
150#	32	22	6
300#	79	57	6
600#	156	114	6
900#	237	174	6
1500#	395	290	6
2500#	653	479	6

TABLE - 9

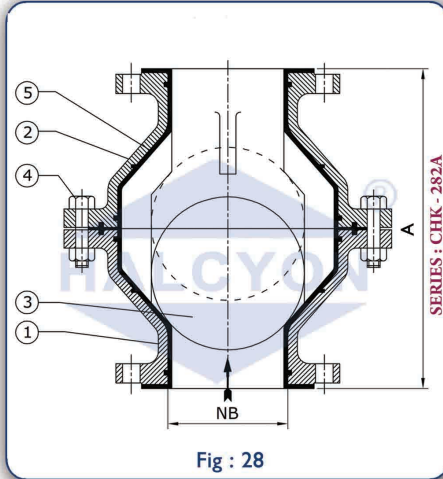


Fig : 28

TECHNICAL DATA	
MFG. / DESIGN STD.	MANUFACTURER'S STD
MFG. RANGE	20 MM TO 300 MM
FACE TO FACE. RANGE	AS PER BS-6185
PRESSURE RATING	PN 1.0 / PN-1.6
FLANGE STD.CONFORMITY	IS / BS / ANSI / DIN OR ON REQUEST
INSWPECTION & TESTING	API-598

★ SUITABLE FOR ACID LINE.

MATERIALS OF CONSTRUCTION		
SL. No.	DESCRIPTION	MATERIALS & SPECN.
1	INLET BODY	CI TO IS: 210 FG. 200 / 220 / 260
2	OUTLET BODY	DI TO IS: 1865 Gr. 500/7 CS TO ASTM A216 Gr.WCB / IS:1030
3	BALL	VIRGIN PTFE, D-1457
4	BOLTS / STUDS & NUTS	ASTM A193, Gr.B7 & A194, Gr.2H
5	LINING :-	FEP : D-2116 TYPE-III, PFA : D-3307, TYPE-II

DIMENSIONS FOR FACE TO FACE (A)

TABLE - 10

SIZE	15	20	25	40	50	65	80	100	150	200	250	300
A	130	150	127	165	178	216	203	229	400	600	-	-

All dimensions are in mm

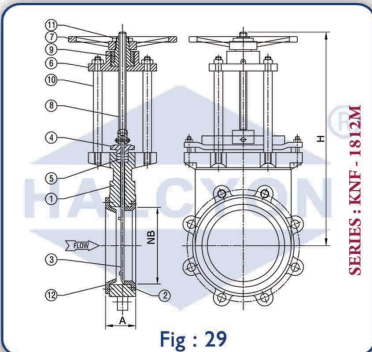


Fig : 29

CLASS -150#

NOMINAL PIPE SIZE			
INCH	mm	A	H
2	50	43	285
2½	65	46	295
3	80	50	315
4	100	52	365
5	125	56	400
6	150	60	475
8	200	70	540
10	250	80	630
12	300	90	780

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33

TECHNICAL DATA	
MFG. / DESIGN STD.	MSS-SP 81 / DVPL DESIGN
MFG. RANGE	50 MM TO 500 MM
END CONNECTION	WAFER / LUGGED
OPERATION	MANUAL, GEARED, ELECTRICAL ACTUATOR, PNEUMATIC ACTUATOR & EXTENSION SPINDLE WITH HEAD STOCK.
TESTING STD.	MSS-SP 81
HYD. TEST PRESSURE	MSS-SP 81
LEAKAGE CLASS	SOFT SEAT :- VI (BUBBLE TIGHT SHUT OFF) METAL SEAT :- 40ml / min / in (1.6ml / min / mm)

MATERIALS OF CONSTRUCTION		
SL. No.	DESCRIPTION	MATERIALS & SPECN.
1.	BODY	CI / DI / CS
2.	BODY SEAT	SS 304 / 316
3.	KNIFE PLATE	
4.	GLAND	CI / DI / CS
5.	GLAND PACKING	JUTE / HEMP
6.	BRIDGE	CI / DI / CS
7.	HAND WHEEL	CI / MS
8.	STEM	SS 410 / 304 / 316 / 431
9.	SLEEVE BUSH	LTB
10.	PILLER (ROD / PLATE)	MS IS:2062 Gr.A
11.	LOCK NUT	CARBON STEEL
12.	DEFLECTION CONE	CAST NI-HARD MATL.

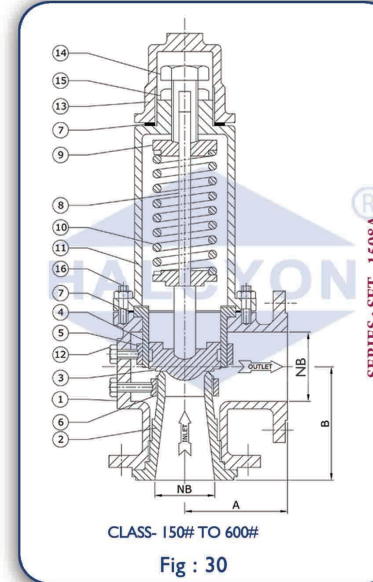


Fig : 30

CLASS- 150# TO 600#

TECHNICAL DATA	
MFG. / DESIGN STD.	MANUFACTURER'S STD
MFG. RANGE	25 MM TO 250 MM
FACE TO FACE. RANGE	MANUFACTURER'S STD
PRESSURE RATING	UP TO CLASS- 600#
FLANGE STD.CONFORMITY	IS / BS / ANSI / DIN OR ON REQUEST
SET PRESSURE	ON REQUEST

MATERIALS OF CONSTRUCTION		
SL. No.	DESCRIPTION	MATERIALS & SPECN.
1	BODY	C.S. ASTM A216, Gr.WCB
2	NOZZLE	STAINLESS STEEL AISI-304
3	DISC	STAINLESS STEEL AISI-304
4	GUIDE	13% Cr. S.S. AISI-410
5	GUIDE RING	STAINLESS STEEL AISI-316
6	NOZZLE RING	STAINLESS STEEL AISI-316
7	GASKET	SPIRAL WOUND S.S. AISI-304
8	SPINDLE	STAINLESS STEEL AISI-304
9	SPRING WASHER	EN-19
10	SPRING	SPRING STEEL
11	BONNET	C.S. ASTM A216, Gr.WCB
12	SET SCREW	ASTM A193, Gr. B7
13	CAP	C.S. ASTM A216, Gr.WCB
14	ADJUSTABLE BOLT	ASTM A193, Gr. B7
15	LOCK NUT	ASTM A194, Gr. 2H
16	STUDS & NUTS	ASTM A193, Gr. B7 & A194, Gr. 2H

DIMENSIONS FOR FACE TO FACE (A)

TABLE - 11

SIZE	INLET x OUTLET	ORIFICE DSG. LETTER	ORIFICE AREA SQ. INCH	FLANGE RATING		CENTER TO FACE	
				INLET	OUTLET	INLET-B	OUTLET-A
1 x 2	25 x 50	D	0.110	150/300/600	150	105	114
1 x 2	25 x 50	E	0.196	150/300/600	150	105	114
1½ x 2	40 x 50	F	0.307	150/300	150	124	121
1½ x 2½	40 x 65	G	0.503	150/300	150	124	121
2 x 3	50 x 80	H	0.785	300/600	150	130	124
2 x 3	50 x 80	J	1.287	150/300	150	137	124
2½ x 4	65 x 100	J	1.287	300/600	150	137	143
3 x 4	80 x 100	K	1.838	150/300	150	156	162
3 x 4	80 x 100	K	1.838	600	150	184	181
3 x 4	80 x 100	L	2.853	150/300	150	156	165
3 x 6	80 x 150	K	1.838	900	150	198	216
4 x 6	100 x 150	L	2.853	300	150	179	181
4 x 6	100 x 150	L	2.853	600	150	179	203
4 x 6	100 x 150	M	3.60	150/300	150	179	184
4 x 6	100 x 150	N	4.34	150/300	150	197	210
4 x 6	100 x 150	P	6.38	150/300	150	181	229
6 x 8	150 x 200	Q	11.05	150/300/600	150	240	241
6 x 8	150 x 200	R	16.00	150/300	150	240	267
6 x 10	150 x 250	R	16.00	300/600	150	240	241
8 x 10	200 x 250	T	26.00	150/300	150	276	279

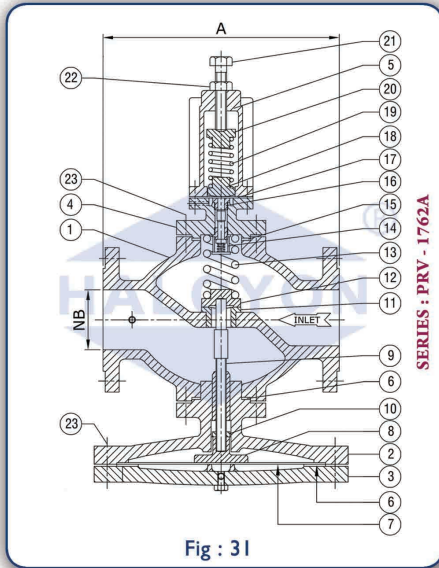
All dimensions are in mm

LOW SET PRESSURE LIMITS FOR SAFETY RELIEF VALVE		
TYPE	ORIFICE LETTER	LOW SET PR. LIMITS PSIG (Kg/cm2)
CONVENTIONAL	D-T	5 (0.35)
BALANCED BELLOWS	D-T	25 (1.75)

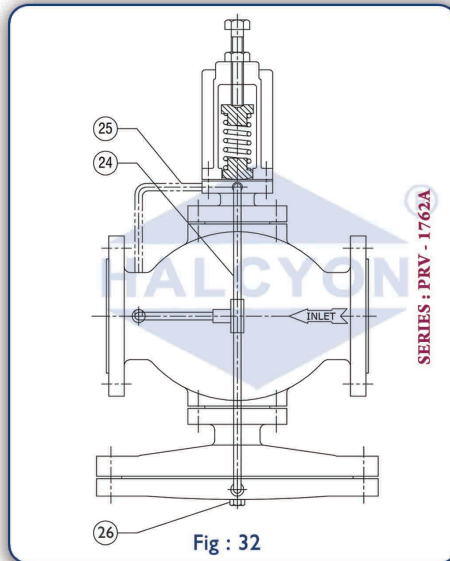
FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33

DESIGN FEATURES :

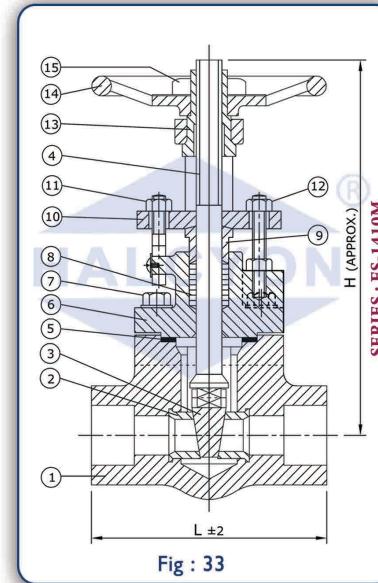
- * MANUFACTURING STANDARD : API-526.
- * ENDS FLANGED (DRILLED OR UNDRILLED) AS PER ASME B 16.5, CLASS150,300,600 RF.
- * BODY HYDROSTATIC TEST PRESSURE TWICE THE SET PRESSURE.
- * SET PRESSURE RANGE 1 BAR TO 120 BAR.
- * TEST PRESSURE ASME CODE SECTION VIII DIV.1.
- * ALSO AVAILABLE IN CAST ALSO STEEL (WC 6, WC 9) AND ALSO STAINLESS STEEL (CF 3/CF 3M).
- * PACKED LEVER AND TEST GAUGE OPTIONAL.
- * BALANCED BELLOWS WITH AUXILIARY BALANCING PISTON ON REQUEST.
- * LARGE ORIFICE VALVES AVAILABLE ON REQUEST.
- * STEAM JACKET AVAILABLE ON REQUEST.
- * SOFT SEATED VALVES ARE AVAILABLE FOR LOW TEMPERATURE AND CRITICAL SERVICE.
- * TEST TAG ON REQUEST.
- * PACKED LIFTING LEVER ON REQUEST.
- * PACKED LIFTING LEVER WITH TEST TAG ON REQUEST.



SERIES : PRV - 1762A



SERIES : PRV - 1762A



SERIES : FS-1410M

SL. No.	DESCRIPTION	MATERIALS & SPECN.
1	BODY	CAST STEEL ASTM A216,Gr.WCB
2	MAIN DIAPHRAGMS CHAMBER	CAST STEEL ASTM A216,Gr.WCB
3	BOTTOM COVER	CAST STEEL ASTM A216,Gr.WCB
4	MIDDLE COVER	CAST STEEL ASTM A216,Gr.WCB
5	BRIDGE COVER	CAST STEEL ASTM A216,Gr.WCB
6	GASKET	STAINLESS STEEL REINFORCED EXFOLIATED GRAPHITE
7	MAIN DIAPHRAGM	STAINLESS STEEL AISI-316
8	PLATE	S.S ASTM A351, CF8
9	PUSH ROD	STAINLESS STEEL AISI-304
10	LOCK NUT	ASTM A194, Gr. 2H / S.S.
11	MAIN VALVE SEAT	STAINLESS STEEL AISI-304
12	VALVE	S.S ASTM A351, CF8
13	MAIN VALVE RETURN SPRING	S.S. BS: 2056 - 302 S16
14	INTERNAL STRAINER	STAINLESS STEEL AISI-304
15	GASKET	STAINLESS STEEL REINFORCED EXFOLIATED GRAPHITE
16	PILOT VALVE	STAINLESS STEEL AISI-304
17	PILOT DIAPHRAGM	STAINLESS STEEL AISI-316
18	BOTTOM SPRING PLATE	CARBON STEEL BS: 970 EN-8
19	PRESSURE ADJ. SPRING	S.S. BS: 2056 - 302
20	TOP SPRING PLATE	CARBON STEEL BS: 970 EN-8
21	ADJUSTMENT SCREW	ASTM A193, Gr. B7
22	ADJUSTMENT LOCK NUT	ASTM A194, Gr. 2H
23	BOLTS & NUTS	ASTM A193, Gr. B7 / A194, Gr. 2H
24	CONTROL PIPE ASSEMBLY	STAINLESS STEEL AISI-304
25	BALANCE PIPE ASSEMBLY	STAINLESS STEEL AISI-304
26	PLUG	STAINLESS STEEL AISI-304

TECHNICAL DATA

MFG. / DESIGN STD.	MANUFACTURER'S STD
MFG. RANGE	25 MM TO 150 MM
FACE TO FACE RANGE	MANUFACTURER'S STD
PRESSURE RATING	UP TO CLASS- 300#
FLANGE STD.CONFORMITY	IS / BS / ANSI / DIN OR ON REQUEST
SET PRESSURE	ON REQUEST

PRESSURE REDUCING VALVE (PRV)

DIMENSIONS FOR FACE TO FACE (L) TABLE - 12

CLASS	SIZE	25	40	50	65	80	100	150
150#	A	172	180	210	215	290	342	470
300#	A	172	180	210	215	290	342	470
600#	A	172	180	210	215	290	342	470

All dimensions are in mm

DESCRIPTION:

* Self Acting, Pilot & Piston operated Reducing. The Valve Spring Balance principal. The Downstream pressure is Sense Diaphragm which is balanced by the Spring Tension. Increasing spring tension increases outlet pressure and maintain constant outlet pressure, irrespective of change in upstream pressure.

DESIGN FEATURES:

- * MANUFACTURING STANDARD - ANSI B16.34
- * FACE TO FACE AS PER MANUFACTURERS STANDARD
- * ENDS - FLANGED & DRILLED AS PER ANSI B16.5 R.F.
- * TESTING STANDARD : API - 598 / BS: 6755 PART 1
- * ALOS AVAILABLE IN CAST ALLOY STEEL (WC6, WC9) & ALLOY STAINLESS STEEL (CF3 / CF3M)

MATERIALS OF CONSTRUCTION

SL. No.	DESCRIPTION	MATERIALS / SPECN.
1.	BODY	ASTM A 105 (Parkerised)
2.	BODY SEAT	13% Cr. S.S. A182 F6a
3.	VALVE / DISC	13% Cr. S.S. A182 F6a
4.	SPINDLE	13% Cr. S.S. (NO CASTING)
5.	GASKET	S.S. 304 Sprl wound with CAFLR
6.	BONNET	ASTM A 105 (Parkerised)
7.	BONNET BOLT	ASTM A 193 GR. B7
8.	GLAND PACKING	GR.ASBESTOS WITH INCONEL WIRE REINFORCEMENT / GRAFOIL
9.	GLAND	13% Cr. S.S. A182 F6a
10.	GLAND FLANGE	ASTM A 307 GR. B / IS:2062 GR.B
11.	EYE BOLTS & NUTS	ASTM A 193 GR. B7 / A194 GR.2H
12.	STUDS & NUTS	ASTM A 193 GR. B7 / A194 GR.2H
13.	THREAD BUSH	ASTM A 307 GR. B / IS:2062 GR.B
14.	HAND WHEEL	MCI / M.S. FAB.
15.	HAND WHEEL NUT	ASTM A 194 GR. 2H

DESIGN FEATURES

- * MANUFACTURING STANDARD - BS 5352 / ASME B16.34
- * INSPECTION & TESTING - BS 6755 Pt 1 / ASME B16.34
- * ENDS:-
SOCKET WELD - ANSI B16.11
SCREWED - NPT ANSI B1.20.1 / BSPT BS 21
BUTT WELD - ANSI B16.25
FLANGED (WELDED)- ANSI B16.5 / IS:6392 / BS 4504 OR CUSTOMER'S REQUIREMENT.
- * STELLITE SEAT FACING CAN ALSO BE PROVIDED AT EXTRA COST.
- * MANUFACTURING RANGE - 6 MM TO 50 MM NB

TEST PRESSURE

	HYDROSTATIC		AIR
CLASS / RATING	BODY	SEAT & BACK SEAT	SEAT
150 #	32	22	5.6
300 #	79	57	5.6
600 #	156	114	5.6
800 #	211	141	5.6

DIMENSIONS FOR FACE TO FACE (L)

TABLE - 13

S I Z E	CL.-150 TO 800				H	W
	L			FLANGE ENDS		
	SCREWED, SOCKET & BUTT- WELD ENDS	CL.-150-300				
		CL.-600-800				
6	84	-	-	153	86	
15	84	152.4	165.1	158	86	
20	84	177.8	190.5	161	86	
25	95	203.2	215.9	184	114	
40	115	228.2	241.3	265	178	
50	135	-	-	275	178	

All dimensions are in mm

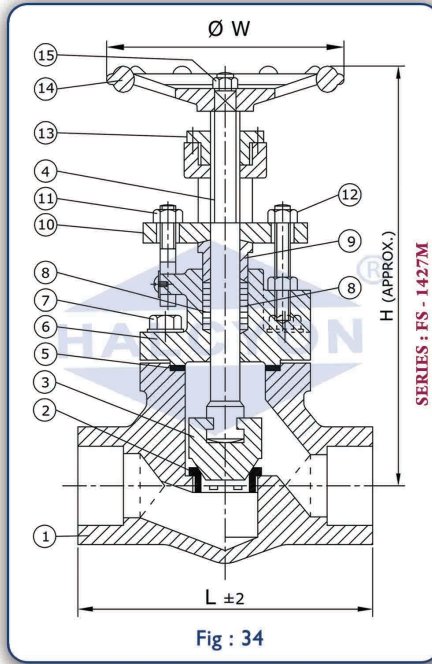


Fig : 34

MATERIAL CONSTRUCTION

SL. No.	DESCRIPTION	MATERIALS / SPECN.
1.	BODY	ASTM A 105 (Parkerised)
2.	BODY SEAT	13% Cr. S.S. A182 F6a
3.	VALVE / DISC	13% Cr. S.S. A182 F6a
4.	SPINDLE	13% Cr. S.S. (NO CASTING)
5.	GASKET	S.S. 304 Sprl wound with CAFLR
6.	BONNET	ASTM A 105 (Parkerised)
7.	BONNET BOLT	ASTM A 193 GR. B7
8.	GLAND PACKING	GR.ASBESTOS WITH INCONEL WIRE REINFORCEMENT / GRAFOIL
9.	GLAND	13% Cr. S.S. A182 F6a
10.	GLAND FLANGE	ASTM A 307 GR. B / IS:2062 GR.B
11.	EYE BOLTS & NUTS	ASTM A 193 GR. B7 / A194 GR.2H
12.	STUDS & NUTS	ASTM A 193 GR. B7 / A194 GR.2H
13.	THREAD BUSH	ASTM A 307 GR. B / IS:2062 GR.B
14.	HAND WHEEL	MCI / M.S. FAB.
15.	HAND WHEEL NUT	ASTM A 194 GR. 2H

DESIGN FEATURES

- * MANUFACTURING STANDARD - BS 5352 / ASME B16.34
- * INSPECTION & TESTING - BS 6755 Pt 1 / ASME B16.34
- * ENDS:-
 - SOCKET WELD - ANSI B16.11
 - SCREWED - NPT ANSI B1.20.1 / BSPT BS 21
 - BUTT WELD - ANSI B16.25
 - FLANGED (WELDED) - ANSI B16.5 / IS:6392 / BS 4504 OR CUSTOMER'S REQUIREMENT.
- * STELLITE SEAT FACING CAN ALSO BE PROVIDED AT EXTRA COST.
- * MANUFACTURING RANGE - 6 MM TO 50 MM NB

TEST PRESSURE

CLASS / RATING	HYDROSTATIC		AIR
	BODY Kg/cm ² (g)	SEAT & BACK SEAT Kg/cm ² (g)	SEAT Kg/cm ² (g)
150 #	32	22	5.6
300 #	79	57	5.6
600 #	156	114	5.6
800 #	211	141	5.6

DIMENSIONS FOR FACE TO FACE (L)

TABLE - 14

S I Z E	CL.-150 TO 800				
	L			H	W
	SCREWED, SOCKET & BUTT- WELD ENDS	FLANGE ENDS			
		CL.-150-300	CL.-600-800		
6	84	-	-	164	86
15	84	152.4	165.1	164	86
20	95	177.8	190.5	185	114
25	115	203.2	215.9	212	114
40	175	228.2	241.3	288	178
50	175	-	-	-	-

All dimensions are in mm

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33

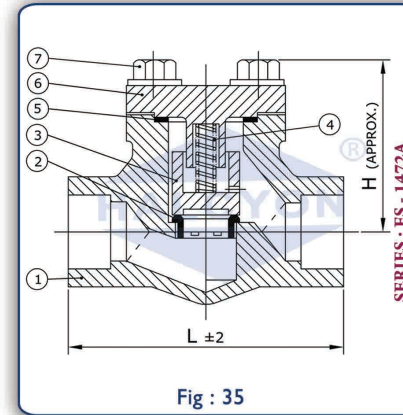


Fig : 35

MATERIAL CONSTRUCTION

SL. No.	DESCRIPTION	MATERIALS / SPECN.
1.	BODY	ASTM A 105 (Parkerised)
2.	BODY SEAT	13% Cr. S.S. A182 F6a
3.	VALVE / DISC	13% Cr. S.S. A182 F6a
4.	SPRING	SPRING STEEL
5.	GASKET	S.S. 304 Sprl wound with CAFLR
6.	COVER	ASTM A 105 (Parkerised)
7.	COVER BOLT	ASTM A 193 GR. B7

DESIGN FEATURES

- * MANUFACTURING STANDARD - BS 5352 / ASME B16.34
- * INSPECTION & TESTING - BS 6755 Pt 1 / ASME B16.34
- * ENDS:-
 - SOCKET WELD - ANSI B16.11
 - SCREWED - NPT ANSI B1.20.1 / BSPT BS 21
 - BUTT WELD - ANSI B16.25
 - FLANGED (WELDED) - ANSI B16.5 / IS:6392 / BS 4504 OR CUSTOMER'S REQUIREMENT
- * STELLITE SEAT FACING CAN ALSO BE PROVIDED AT EXTRA COST.
- * MANUFACTURING RANGE - 6 MM TO 50 MM NB

HYD. TEST PRESSURE

CLASS / RATING	BODY Kg/cm ² (g)	SEAT Kg/cm ² (g)
150 #	32	22
300 #	79	57
600 #	156	114
800 #	211	141

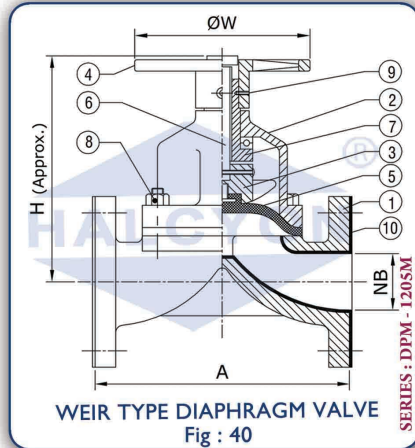
DIMENSIONS FOR FACE TO FACE (L)

TABLE - 15

S I Z E	CL.-150 TO 800			
	L			H
	SCREWED, SOCKET & BUTT- WELD ENDS	FLANGE ENDS		
		CL.-150-300	CL.-600-800	
6	84	-	-	64
15	84	139.1	165.1	64
20	95	152.4	190.5	76
25	115	165.1	215.9	88
40	175	190.5	241.3	117
50	175	-	-	117

All dimensions are in mm

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33



TECHNICAL DATA	
MFG. / DESIGN STD.	BS-5156
MFG. RANGE	20 MM TO 300 MM
PRESSURE RATING	PN 1.0 / PN-1.6
FOR FLANGE END	FLANGE END- IS / BS / ANSI / DIN STANDARD

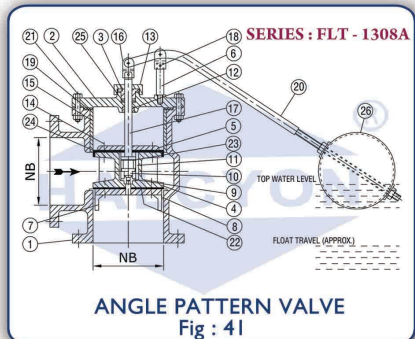
MATERIALS OF CONSTRUCTION		
SL. No.	DESCRIPTION	MATERIALS & SPECN.
1	BODY	CI / DI / CS
2	BONNET	
3	COMPRESSOR	
4	HAND WHEEL	
5	DIAPHRAGM	NEOPRINE RUBBER
6	SPINDLE	S.S 410 / 304 / 316 / 431
7	SPINDLE NUT	BRONZE
8	STUDS / BOLTS & NUTS	CARBON STEEL
9	GRUB SCREWS	CARBON STEEL
10	LINING (3mm THIK.)	NBR/BUTYLE/PTFE/GLASS/EBONITE

DIMENSIONS FOR FACE TO FACE (A)

TABLE - 19

SIZE	20	25	40	50	65	80	100	150	200	250	300
A	117	127	159	191	216	254	305	406	521	635	749
H	90	110	130	145	185	200	220	330	430	660	660
ØW	75	90	110	130	155	175	220	310	440	505	670

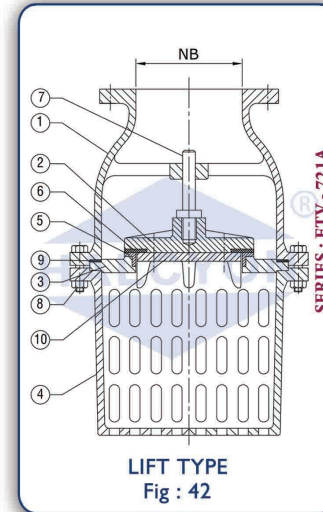
All dimensions are in mm



TECHNICAL DATA	
MFG. / DESIGN STD.	G&K (H-48)
MFG. RANGE	50 MM TO 600 MM
PRESSURE RATING	PN 1.0
END CONNECTION	IS / BS / ANSI / DIN STANDARD
WORKING TEMP.	UPTO 80°C
OPERATION	SELF OPERATION
APPLICATION	WATER SUPPLY SYSTEM

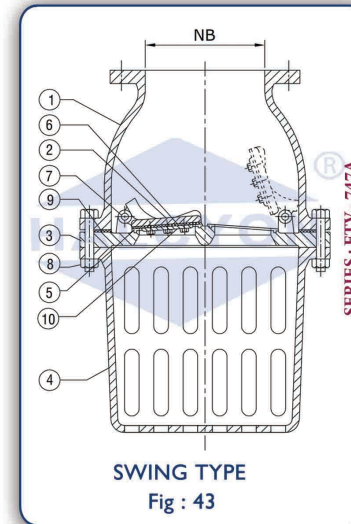
MATERIALS OF CONSTRUCTION		
SL. No.	DESCRIPTION	MATERIALS & SPECN.
1	BODY	CI / DI
2	COVER	
3	GLAND	
4	VLAVE	
5	PLATE	MS (GALVD.)
6	FULCRUM	
7	PROOTED VALVE	
8	VALVE SEAT RING	
9	BUSH	LTB
10	PILOT VALVE	
11	PILOT VALVE SEAL RING	
12	COVER BUSH	
13	GLAND / GLAND NUT	CI / DI
14	STUDS / BOLTS & NUTS	CARBON STEEL
15	LINER	LTB
16	LINK	MS (GALVD.)
17	SPINDLE	SS 410 / 304 / 316 / 431
18	PINS	SS 410
19	GASKET	RUBBER
20	LEVER	MS (GALVD.)
21	STUDS / BOLTS / NUTS	CARBON STEEL
22	VALVE SEAT WASHER	RUBBER
23	PILOT VALVE WASHER	
24	'U' SEAL	LEATHER
25	GLAND PACKING	JUTE & HEMP
26	FLOAT BALL	TINNED COPPER

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33



TECHNICAL DATA	
MFG. / DESIGN STD.	AS PER IS:4038
MFG. RANGE	25 MM TO 450 MM
HYD. TESTING	HOUSING- 6Kg/Cm ² (g) & SEAT-2Kg/Cm ² (g)
FLANGE END	IS / BS / ANSI / DIN STANDARD
WORKING TEMP.	UPTO 80°C
OPERATION	SELF OPERATION
APPLICATION	WATER SUPPLY SYSTEM / IRRIGATION SYSTEM

MATERIALS OF CONSTRUCTION		
SL. No.	DESCRIPTION	MATERIALS & SPECN.
1	BODY	CI / DI
2	DISC	
3	DIAPHRAGM	
4	STRAINER	
5	FACE SEAT	L.T. BRONZE
6	DISC SEAT / SEAL	NATURAL / SYNTHETIC RUBBER
7	GUIDE PIN	S.S.
8	BOLTS & NUTS	IS:1367 CL-4.6 & 4
9	GASKET	RUBBER
10	DISC SEAT HOLDER	CI / DI / GI



TECHNICAL DATA	
MFG. / DESIGN STD.	AS PER IS:4038
MFG. RANGE	350 MM TO 600 MM
HYD. TESTING	HOUSING- 6Kg/Cm ² (g) & SEAT-2Kg/Cm ² (g)
END CONNECTION	FLANGE END - IS / BS / ANSI / DIN STANDARD
WORKING TEMP.	UPTO 80°C
OPERATION	SELF OPERATION
APPLICATION	WATER SUPPLY SYSTEM / IRRIGATION SYSTEM

MATERIALS OF CONSTRUCTION		
SL. No.	DESCRIPTION	MATERIALS & SPECN.
1	BODY	CI / DI
2	DISC	
3	DIAPHRAGM	
4	STRAINER	
5	FACE SEAT	L.T. BRONZE
6	DISC SEAT / SEAL	NATURAL / SYNTHETIC RUBBER
7	HINGE PIN	S.S.
8	BOLTS & NUTS	IS:1367 CL-4.6 & 4
9	GASKET	RUBBER
10	DISC SEAT HOLDER	CI / DI / GI

All dimensions are in mm

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33

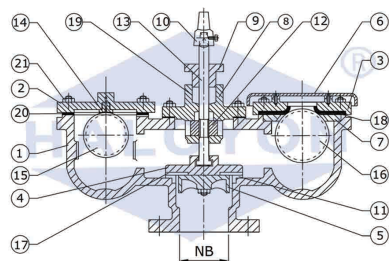


Fig : 49

DOUBLE AIR VALVE WITH IN-BUILT ISOLATING VALVE (DS-1 / H-40)

SERIES : AV-1771

DESIGN FEATURES	
MFG. / DESIGN STD.	IS:14845 (DS-1) / G&K (H-40)
MFG. RANGE	40 mm TO 200 mm
PRESSURE RATING	PN 1.0, PN 1.6
FLANGE END	BS / IS / ANSI / DIN

MATERIALS OF CONSTRUCTION		
SL. No.	DESCRIPTION	MATERIALS & SPECN.
1	BODY	CI / DI / SS
2	HIGH PRESSURE COVER	
3	LOW PRESSURE COVER	
4	VALVE	
5	VALVE HOLDER	
6	COWL	
7	JOINT SUPPORT RING	
8	COVER	
9	GLAND	
10	CAP	
11	SEAT RING	L.T. BRONZE / SS
12	SPINDLE NUT	STAINLESS STEEL
13	SPINDLE	
14	H.P. ORIFICE	L.T. BRONZE / SS
15	BALL FOR H.P. CHAMBER	SOFT RUBBER COATED SEASONED TIMBER / SS
16	BALL FOR L.P. CHAMBER	HARD VULCANITE COATED SEASONED TIMBER / SS
17	VALVE SEAT	L.T. BRONZE / SS
18	L.P. SEAT RING	RUBBER
19	PACKING	JUTE & HEMP
20	GASKET	RUBBER
21	BOLTS & NUTS	CARBON STEEL / SS

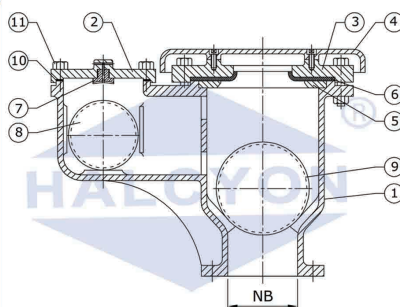


Fig : 50

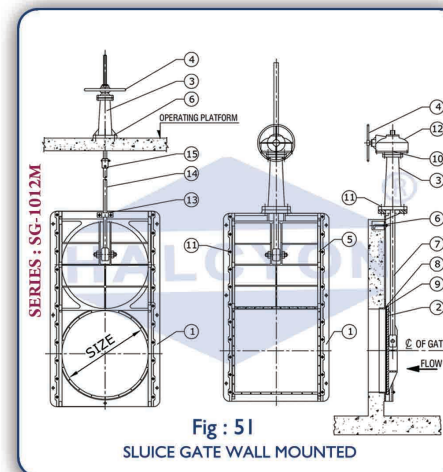
KINETIC DOUBLE AIR VALVE (DK / H-42K)

SERIES : AV - 188K

DESIGN FEATURES	
MFG. / DESIGN STD.	IS:14845 (DK) / G&K (H-42 K)
MFG. RANGE	40 mm TO 200 mm
PRESSURE RATING	PN 1.0, PN 1.6
FLANGE END	BS / IS / ANSI / DIN

MATERIALS OF CONSTRUCTION		
SL. No.	DESCRIPTION	MATERIALS & SPECN.
1	BODY	CI / DI / SS
2	HIGH PRESSURE COVER	
3	LOW PRESSURE COVER	
4	COWL	
5	JOINT SUPPORT RING	
6	L.P. SEAT RING	NATURAL RUBBER
7	H.P. ORIFICE PLUG	L.T. BRONZE / SS
8	BALL FOR H.P. CHAMBER	SOFT RUBBER COATED SEASONED TIMBER / SS
9	BALL FOR L.P. CHAMBER	HARD VULCANITE COATED SEASONED TIMBER / SS
10	H.P. COVER GASKET	NATURAL RUBBER
11	BOLTS & NUTS	CARBON STEEL / SS

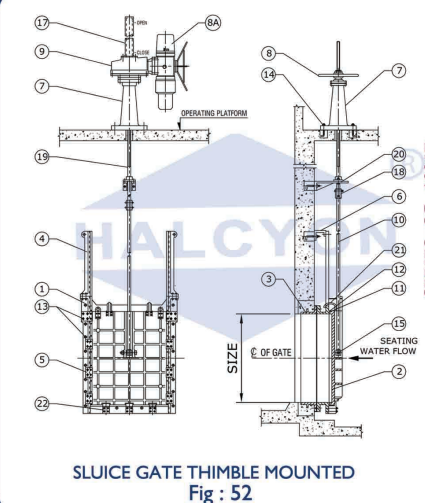
FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33

Fig : 51
SLUICE GATE WALL MOUNTED

SERIES : SG-1012M

DESIGN FEATURES	
MFG. RANGE	CIRCULAR : 200 mm TO 1200 mm, OTHER ANY SIZE ON REQUEST SQUARE : 200 mm TO 1200 mm, OTHER ANY SIZE ON REQUEST RECTANGULAR : 300 mm x 375 mm TO 1200 mm x 1050 mm, OTHER ANY SIZE ON REQUEST
MFG. / DESIGN STD.	IS: 3042
TYPE	RISEING / NON - RISEING
CLASS	CL-1, CL-2, CL-3.
OPERATION	MANUAL / GEAR / ELEC. ACTUATOR / PNEUMATIC / CHAIN PULLY

MATERIALS OF CONSTRUCTION		
SL. No.	DESCRIPTION	MATERIALS & SPECN.
1.	GATE FRAME	C I
2.	DOOR	
3.	HEADSTOCK	
4.	HANDWHEEL	
5.	GUIDE STRIP	CARBON STEEL
6.	ANCHOR BOLTS	
7.	SPINDLE	STAINLESS STEEL
8.	FRAME FACE SEAT	L.T.BRONZE / SS
9.	DOOR FACE SEAT	
10.	OPERATING LIFT NUT	CARBON STEEL / SS
11.	FASTENERS	
12.	BEVEL GEAR UNIT	MFR'S STD.
13.	SPINDLE GUIDE	CI / M.S
14.	EXTN. ROD	M.S / SS
15.	COUPLING	M.S / SS

Fig : 52
SLUICE GATE THIMBLE MOUNTED

SERIES : SG - 1025E

DESIGN FEATURES	
MFG. RANGE	CIRCULAR : 300 mm TO 2500 mm, OTHER ANY SIZE ON REQUEST SQUARE : 300 mm TO 2500 mm, OTHER ANY SIZE ON REQUEST RECTANGULAR : 300 mm x 400 mm TO 2500 mm x 2000 mm, OTHER ANY SIZE ON REQUEST
MFG. / DESIGN STD.	IS: 13349 / AWWA
TYPE	RISEING / NON - RISEING
CLASS	CL-1, CL-2, CL-3.
OPERATION	MANUAL / GEAR / ELEC. ACTUATOR / PNEUMATIC / CHAIN PULLY

MATERIALS OF CONSTRUCTION		
SL. No.	DESCRIPTION	MATERIALS & SPECN.
1	GATE FRAME	C I
2	DOOR / SLIDE	
3	WALL THIMBLE	
4	EXTENSION GUIDE	
5	WEDGING DEVICE (As Reqd.)	
6	FRAME SUPPORT BRACKET	CARBON STEEL / SS
7	HEADSTOCK	
8	HAND WHEEL	ROTORK / ALUMA MAKE
8A	ELEC. ACTUATOR	
9	BEVEL GEAR UNIT	MFR'S STD.
10	SPINDLE	STAINLESS STEEL
11	FRAME FACE SEAT	L.T.BRONZE / SS
12	SLIDE FACE SEAT	
13	FASTENERS FOR GATE ASSY (As Reqd.)	CARBON STEEL / SS
14	ANCHOR BOLTS	STAINLESS STEEL
15	DOOR PIN	
16	GASKET	RUBBER
17	STEM PROTECTING COVER	G.I./ POLYCARBONATE TUBE
18	COUPLING (As Reqd.)	STAINLESS STEEL
19	EXTN. SPINDLE (As Reqd.)	
20	SPINDLE GUIDE BRACKET (As Reqd.)	MILD STEEL
21	DOOR SUPPORTING GUIDE CLAMP	FABRICATED MILD STEEL
22	BOTTOM WEDGING DEVICE(As Reqd.)	CAST IRON

FOR END FLANGE DETAILS REFER PAGE NO. 32 & 33

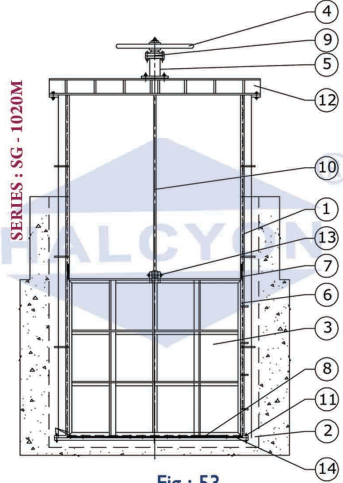


Fig : 53

OPEN CHANNEL SLUICE GATE

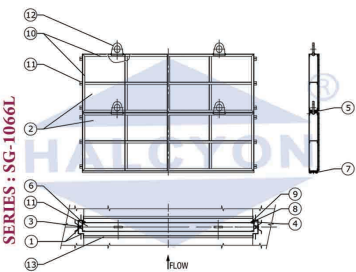


Fig : 54

MS FABRICATED STOP LOG GATE

DESIGN FEATURES

MFG. RANGE	CIRCULAR : 200 mm TO 1200 mm, OTHER ANY SIZE ON REQUEST
	SQUARE : 200 mm TO 1200 mm, OTHER ANY SIZE ON REQUEST
	RECTANGULAR : 300 mm x 375 mm TO 1200 mm x 1050 mm, OTHER ANY SIZE ON REQUEST
MFG. / DESIGN STD.	HALCYON MAKE / AWWA
TYPE	RIISING / NON - RIISING
CLASS	CL.-1, CL.-2, CL-3.
OPERATION	MANUAL / GEAR / ELEC. ACTUATOR / PNEUMATIC / CHAIN PULLY

MATERIALS OF CONSTRUCTION

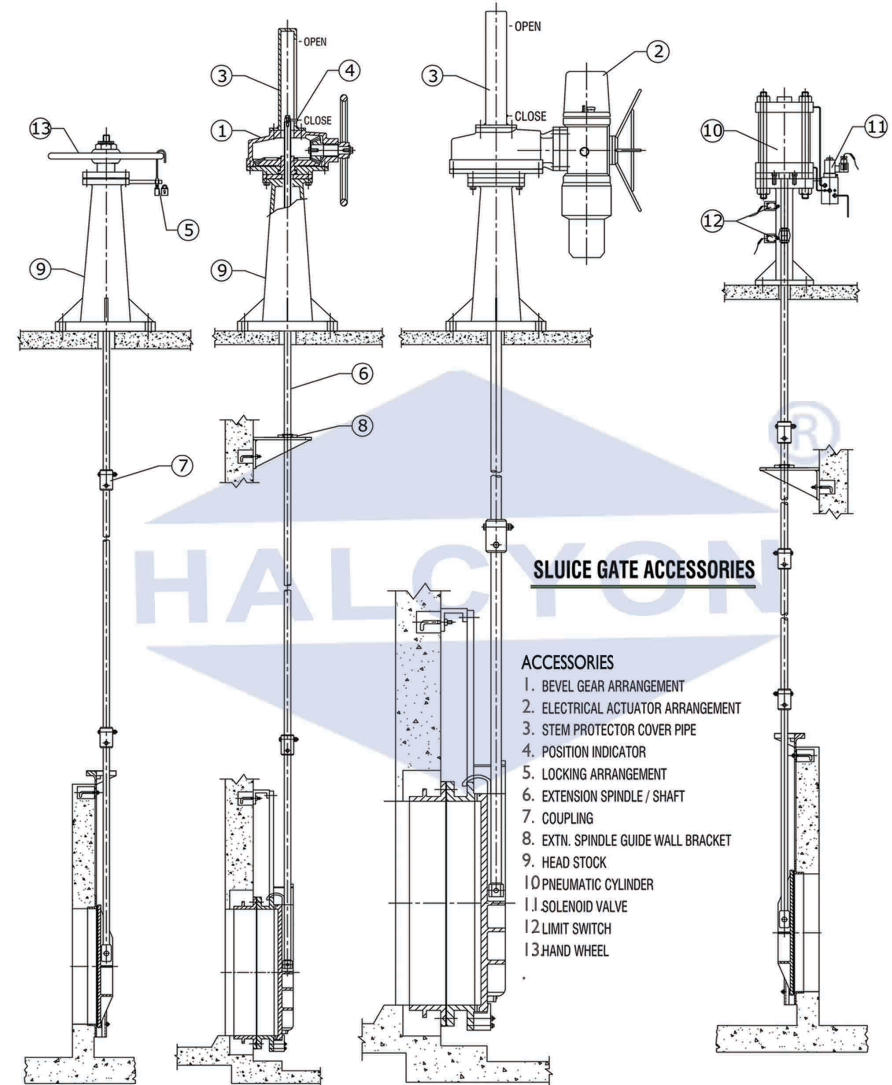
SL. No.	DESCRIPTION	MATERIALS & SPECN.
1	GATE FRAME	M.S / C I / AL
2	SIDE GUIDES	
3	SUPPORT BAR	CI / M.S.
4	SHUTTER	
5	HANDWHEEL	STAINLESS STEEL
6	HEADSTOCK	
7	SEATING FACES	RUBBER
8	RESILIENT RUBBER SEAL	
9	SEAL RETAINER STRIP	STAINLESS STEEL
10	OPERATING NUT	
11	SPINDLE (Rising)	L.T. BRONZE
12	FASTENERS (Internals)	
13	YOKES	STAINLESS STEEL
14	SHUTTER PIN	
	FLUSH BOTTOM SEAL	FAB STEEL
		RUBBER

DESIGN FEATURES

SIZE	SQUARE : 200 mm TO 1200 mm, OTHER ANY SIZE ON REQUEST
	RECTANGULAR : 300 mm x 375 mm TO 1200 mm x 1050 mm, OTHER ANY SIZE ON REQUEST
	OTHER ANY SIZE ON REQUEST
MFG. / DESIGN STD.	IS: 5620 - 1985
TYPE	RIISING
CLASS	CL.-1, CL.-2, CL-3.
OPERATION	MANUAL / CHAIN PULLY BLOCK

MATERIALS OF CONSTRUCTION

SL. No.	DESCRIPTION	MATERIALS & SPECN.
1	GUIDE FRAME	FAB. STEEL
2	STOP LOG DOOR	
3	T- GUIDE	RUBBER
4	MUSIC NOTE SEAL	
5	SEAL BETWEEN DOOR	S.S.
6	LINER/SEALING FACE	
7	FLUSH BOTTOM SEAL	RUBBER
8	SEAL RETAINER STRIP	
9	FASTENERS	STAINLESS STEEL
10	STIFFNER	
11	GUIDE LUG	CARBON STEEL
12	LIFTING LUG	
13	FRAME SUPPORT ANGLE	FAB. STEEL
14	ANCHOR ROD	



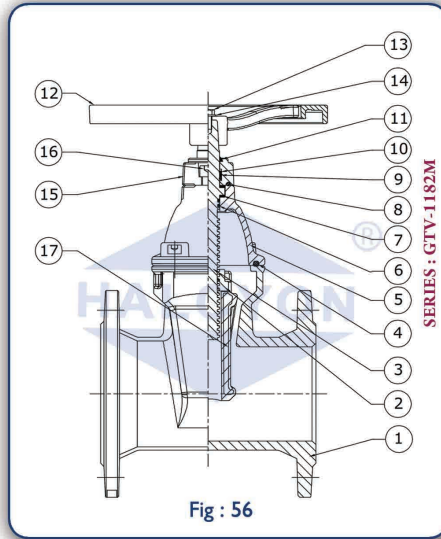
SLUICE GATE ACCESSORIES

ACCESSORIES

1. BEVEL GEAR ARRANGEMENT
2. ELECTRICAL ACTUATOR ARRANGEMENT
3. STEM PROTECTOR COVER PIPE
4. POSITION INDICATOR
5. LOCKING ARRANGEMENT
6. EXTENSION SPINDLE / SHAFT
7. COUPLING
8. EXTN. SPINDLE GUIDE WALL BRACKET
9. HEAD STOCK
10. PNEUMATIC CYLINDER
11. SOLENOID VALVE
12. LIMIT SWITCH
13. HAND WHEEL

Fig : 55

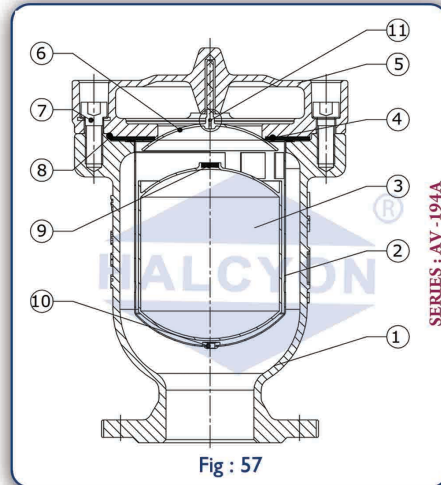
RESILIENT SEATED GATE VALVE



DESIGN FEATURES	
MFG. / DESIGN STD.	BS 5163, DIN 3352, ISO 7259
MFG. RANGE	50 mm TO 600 mm
FACE TO FACE LENGTH	BS 5163, IS:14846
PRESSURE RATING	PN 1.0, PN 1.6, PN 2.0, PN 2.5
FLANGE ENDS	BS / IS / ANSI / DIN
SPECIAL FEATURES	VALVES FULLY PROTECTED FROM CORROSION BY ELECTRO-STATICALLY APPLYING EPOXY POWDER COATING POCKET LESS BODY PASSAGE. LOW TORQUE.

MATERIALS OF CONSTRUCTION			
SL. No.	DESCRIPTION	MATERIAL	SPECIFICATION
1	BODY	DUCTILE IRON	DIN:1693 Gr.GGG-50
2	WEDGE NUT	BRASS	BS:2874 Gr. C2122
3	STEM	STAINLESS STEEL	AISI:420
4	GASKET	RUBBER	EPDM
5	BONNET	DUCTILE IRON	DIN:1693 Gr.GGG-50
6	O-RING	RUBBER	NBR
7	BUSH	PLASTIC	PC
8	O-RING	RUBBER	NBR
9	BUSH	PLASTIC	PC
10	O-RING	RUBBER	NBR
11	DUST WIPER	RUBBER	NBR
12	HAND WHEEL	CARBON STEEL	-
13	HEX BOLT	CARBON STEEL (GALVANIZED)	-
14	WASHER	CARBON STEEL (GALVANIZED)	-
15	GLAND	DUCTILE IRON	DIN:1693 Gr.GGG-50
16	IN HEX BOLT	CARBON STEEL (GALVANIZED)	-
17	WEDGE	DUCTILE IRON + VULCANIZED RUBBER	DIN:1693 Gr.GGG-50 VULCANIZED WITH EPDM

COMBINATION AIR RELEASE VALVE



DESIGN FEATURES	
MFG. / DESIGN STD.	AWWA C-512
MFG. RANGE	50 mm TO 300 mm
PRESSURE RATING	PN 1.0, PN 1.6, PN 2.0, PN 2.5
FLANGE END	BS / IS / ANSI / DIN
SPECIAL FEATURES	VALVES FULLY PROTECTED FROM CORROSION BY ELECTRO-STATICALLY APPLYING EPOXY POWDER COATING. POCKET LESS BODY PASSAGE.

MATERIALS OF CONSTRUCTION			
SL. No.	DESCRIPTION	MATERIAL	SPECIFICATION
1	BODY	DUCTILE IRON	DIN 1693 Gr. GGG-50
2	GUIDE BARREL	STAINLESS STEEL	AISI 304
3	FLOAT	STAINLESS STEEL	AISI 304
4	SEAT	NITRILE RUBBER	-
5	BONNET	DUCTILE IRON	DIN 1693 Gr. GGG-50
6	SEALING ARC	STAINLESS STEEL	AISI 304
7	BOLT	STAINLESS STEEL	AISI 304
8	O-RING	RUBBER	NBR/EPDM
9	NOZZLE	RUBBER	EPDM
10	BUFFER	RUBBER	EPDM
11	SMALL NOZZLE	STAINLESS STEEL	AISI 304

FLANGE DRILLING AS PER ASME B16.5 - 2009

CLASS	SIZE >	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
CLASS-150#	O.D.	110	115	127	150	180	190	230	255	280	345	405	485	535	595	635	700	815
	THIK.	14.7	16.3	17.9	19.5	21.7	24.3	24.3	24.3	25.9	29	30.6	32.2	35.4	37	40.1	43.3	48.1
	RF. DIA.	51	64	73	92	105	127	157	186	216	270	324	381	413	470	533	584	692
	RF. THIK.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	P.C.D.	79.4	88.9	98.4	120.7	139.7	152.4	190.5	215.9	241.3	298.5	362	431.8	476	539.8	577.9	635	749.3
	No. OF HOLES	4	4	4	4	4	4	8	8	8	8	12	12	12	16	16	20	20
CLASS-300#	HOLE DIA.	15.8	15.8	15.8	19	19	19	19	22.2	22.2	22.2	25.4	25.4	28.6	28.6	31.8	31.8	35
	O.D.	125	135	155	165	190	210	255	280	320	380	445	520	585	650	710	775	915
	THIK.	17.9	19.5	21.1	22.7	25.9	29	32.2	35.4	37	41.7	48.1	51.3	54.4	57.6	60.8	64	70.3
	RF. DIA.	51	64	73	92	105	127	157	186	216	270	324	381	413	470	533	584	692
	RF. THIK.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	P.C.D.	88.9	98.4	114.3	127	149.2	168.3	200	235	269.9	330.2	387.4	450.8	514.4	571.5	628.6	685.8	812.8
CLASS-600#	No. OF HOLES	4	4	4	8	8	8	8	8	12	12	16	16	20	20	24	24	24
	HOLE DIA.	19	19	22.2	19	22.2	22.2	22.2	22.2	22.2	25.4	28.6	31.8	31.8	35	35	35	41.3
	O.D.	125	135	155	165	190	210	275	330	355	420	510	560	605	685	710	775	940
	THIK.	24.5	27.7	29.3	32.4	35.6	38.8	42	51.5	54.7	62.6	70.5	73.7	76.9	83.2	89.6	95.9	108.6
	RF. DIA.	51	64	73	92	105	127	157	186	216	270	324	381	413	470	533	584	692
	RF. THIK.	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
CLASS-900#	P.C.D.	88.9	98.4	114.3	127	149.2	168.3	215.9	266.7	292.1	349.2	431.8	489	527	603.2	654	723.9	838.2
	No. OF HOLES	4	4	4	8	8	8	8	8	12	12	16	20	20	20	20	24	24
	HOLE DIA.	19	19	22.2	19	22.2	22.2	25.4	28.6	28.6	31.8	35	35	38.1	41.3	44.5	44.5	50.8
	O.D.				215	245	240	290	350	380	470	545	610	640	705	785	855	1040
	THIK.				38.1	41.3	38.1	44.5	50.8	55.6	63.5	69.9	79.4	85.8	88.9	101.6	108.0	139.7
	RF. DIA.				92	105	127	157	186	216	270	324	381	413	470	533	584	692
CLASS-900#	RF. THIK.				7	7	7	7	7	7	7	7	7	7	7	7	7	7
	P.C.D.				165.0	190.5	190.5	235.0	279.5	317.5	393.5	470.0	533.5	559.0	616.0	686.0	749.5	901.5
	No. OF HOLES				8	8	8	8	8	12	12	16	20	20	20	20	20	20
	HOLE DIA.				25.4	28.6	25.4	31.8	35	31.8	38.1	38.1	38.1	42	45	51	54	67
	O.D.				215	245	265	310	375	395	485	585	675	750	825	915	985	1170
	THIK.				38.1	41.3	47.7	54.0	73.1	82.6	92.1	108.0	123.9	133.4	146.1	162.0	177.8	203.2
CLASS-2500#	RF. DIA.				92	105	127	157	186	216	270	324	381	413	470	533	584	692
	RF. THIK.				7	7	7	7	7	7	7	7	7	7	7	7	7	7
	P.C.D.				165.0	190.5	203.5	241.5	292.0	317.5	394.0	482.5	571.5	635.0	705.0	775.0	832.0	990.5
	No. OF HOLES				8	8	8	8	8	12	12	12	16	16	16	16	16	16
	HOLE DIA.				25	29	32	35	41	38	44	51	54	60	67	73	79	92
	O.D.				235	265	305	355	420	485	550	675	760					
CLASS-2500#	THIK.				50.9	57.2	66.7	76.2	92.1	108.0	127.0	165.1	184.2					
	RF. DIA.				92	105	127	157	186	216	270	324	381					
	RF. THIK.				7	7	7	7	7	7	7	7	7					
	P.C.D.				171.5	197.0	228.5	273.0	324.0	368.5	438.0	540.0	619.0					
	No. OF HOLES				4	4	4	8	8	8	12	12	12					
	HOLE DIA.				29	32	35	41	48	54	54	67	73					
CLASS	SIZE >	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600



NOTES

AS PER IS : 1538, TABLE - 4,5 & 6								AS PER IS : 6392, TABLE - 17								
SIZE (mm)	FL DIA.	*FL THICK.	RF DIA.	RF THICK.	PCD	No OF HOLES	HOLE DIA	SIZE (mm)	FL DIA.	**FL THICK.	RF DIA.	RF THICK.	PCD	No OF HOLES	HOLE DIA	PIPE O.D.
50	165	16	-	-	125	4	19	10	90	14	40	2	60	4	14	17.2
65	185	16	-	-	145	4	19	15	95	14	45	2	65	4	14	21.3
80	200	21	133	-	160	4	19	20	105	16	58	2	75	4	14	26.9
100	220	22	153	-	180	8	19	25	115	16	68	2	85	4	14	33.7
125	250	22.5	183	-	210	8	19	32	140	16	78	2	100	4	18	42.4
150	285	23	209	-	240	8	23	40	150	16	88	3	110	4	18	48.3
200	340	24.5	264	-	295	8	23	50	165	18	102	3	125	4	18	60.3
250	395	26	319	-	350	12	23	65	185	18	122	3	145	4	18	76.1
300	445	27.5	367	-	400	12	23	80	200	20	138	3	160	8	18	88.9
350	505	29	427	-	460	16	23	100	220	20	158	3	180	8	18	114.3
400	565	30	477	-	515	16	28	125	250	22	188	3	210	8	18	139.7
450	615	31.5	527	-	565	20	28	150	285	22	212	3	240	8	22	168.3
500	670	33	582	-	620	20	28	175	315	24	242	3	270	8	22	193.7
600	780	36	682	-	725	20	31	200	340	24	268	3	295	12	22	219.7
700	895	38.5	797	-	840	24	31	250	405	26	320	3	355	12	26	273
750	960	40	857	-	900	24	31	300	460	28	378	4	410	12	26	323.1
800	1015	41.5	904	-	950	24	34	350	520	32	438	4	470	16	26	355.1
900	1115	44	1004	-	1050	28	34	400	580	36	490	4	525	16	30	406.1
1000	1230	47	1111	-	1160	28	37	500	715	44	610	4	650	20	33	508
1050	1258	48.5	1145	5	1160	28	37	600	840	52	725	5	770	20	36	609.1
1100	1340	50	1221	-	1270	32	37	700	910	58	795	5	840	24	36	711.1
1200	1455	53	1328	-	1380	32	40	800	1025	64	900	5	950	24	39	812.1
1500	1800	61	1745	-	1710	40	43	900	1125	72	1000	5	1050	28	39	914.1
Note:- For Flat Face: Table - 4 & 6 For Raised Face: Table - 5 * Flange Thickness as per 'Without Raised Face Thickness'. ** Flange Thickness as per 'With Raised Face Thickness'.								1000	1255	78	1115	5	1170	28	42	1016
								1200	1485	94	1330	5	1390	32	48	1220
								AS PER BS : 10 TABLE - D								
SIZE (mm)	FL DIA.	FL *THICK.	RF DIA.	RF THICK.	PCD	No OF HOLES	HOLE DIA	SIZE (mm)	FLANGE OUT DIA.	FL THICKNESS C.I.	FL THICKNESS F.S.	PCD	No OF HOLES	HOLE DIA		
10	90	16	40	2	60	4	14	15	1/2	95	9.5	12.7	66.7	4	14	
15	95	16	45	2	65	4	14	20	3/4	102	9.5	12.7	73	4	14	
20	105	18	58	2	75	4	14	25	1	114	9.5	12.7	82.55	4	14	
25	115	18	68	2	85	4	14	32	1-1/4	121	12.7	16	87.31	4	14	
32	140	18	78	2	100	4	18	40	1-1/2	133	12.7	16	98.42	4	14	
40	150	18	88	3	110	4	18	50	2	152.4	14.3	17.5	114.3	4	19	
50	165	20	102	3	125	4	18	65	2-1/2	165	14.3	17.5	127	4	19	
65	185	22	122	3	145	8	18	80	3	184	14.3	19	146	4	19	
80	200	24	138	3	160	8	18	100	4	216	17.5	19	177.8	4	19	
100	235	24	162	3	190	8	22	125	5	254	17.5	20.6	209.5	8	19	
125	270	26	188	3	220	8	26	150	6	279.4	17.5	20.6	235	8	19	
150	300	28	218	3	250	8	26	175	7	305	19	22.2	260.35	8	19	
175	350	32	260	3	295	12	30	200	8	337	19	22.2	292.1	8	19	
200	375	34	285	3	320	12	30	225	9	368	19	22.2	323.85	8	19	
250	450	38	345	3	385	12	33	250	10	406.4	19	25.4	355.6	8	22	
300	515	42	410	4	450	16	33	300	12	457	22.2	25.4	406.4	12	22	
350	580	46	465	4	510	16	36	325	13	489	22.2	25.4	438.15	12	22	
400	660	50	535	4	585	16	39	350	14	527	25.4	28.6	470	12	25	
500	755	52	615	4	670	20	42	375	15	552.5	25.4	28.6	495.3	12	25	
600	890	60	735	5	795	20	48	400	16	578	25.4	28.6	520.7	12	25	
700	995	64	840	5	900	24	48	425	17	610	28.6	28.6	552.45	12	25	
800	1140	72	960	5	1030	24	56	450	18	641	28.6	31.75	584.2	12	25	
900	1250	76	1070	5	1140	28	56	475	19	673	28.6	31.75	610	12	25	
1000	1360	80	1180	5	1250	28	56	500	20	705	31.75	31.75	641.35	16	25	
1200	1575	88	1380	5	1460	32	62	525	21	737	31.75	35	673.1	16	25	
1400	1795	98	1600	5	1680	36	62	550	22	762	31.75	35	698.5	16	29	
1600	2025	108	1815	5	1900	40	70	575	23	787.4	35	35	724	16	29	
All dimensions are in mm								600	24	825.5	35	35	755.65	16	29	
								675	27	908	38.1	38.1	844.55	20	29	
								725	29	972	38.1	38.1	901.7	20	32	
								750	30	997	41.3	41.3	927.1	20	32	
								825	33	1092	41.3	41.3	1016	20	36	
								875	35	1143	44.45	44.45	1066.8	24	36	
								900	36	1175	44.45	44.45	1092.2	24	36	
								975	39	1257	44.45	44.45	1174.75	24	36	
								1050	42	1333.5	47.6	47.6	1250.95	28	36	
								1125	45	1416	50.8	50.8	1333.5	28	36	
								1200	48	1492	50.8	50.8	1409.7	32	36	
								1350	54	1606.5	57.2	57.2	1530.35	36	36	
								1500	60	1784	60.3	60.3	1701.8	40	39	
								1650	66	1943	63.5	63.5	1860.55	40	39	

PRESSURE CONVERSION TABLE									
1 Kg/cm ²	Bar	MBar	Pa	KPa	MPa	Mm hg	MMWC	PSI	1"WC
0.0981	980.7	980.666	98.066	0.098	735.56	10.000	14.2233	393.7008	

PRESSURE CONVERSION TABLE

1 kg/cm ²	Bar	MBar	Pa	KPa	MPa	Mm hg	MMWC	PSI	1"WC
0.0981	980.7	980.666	98.066	0.098	735.56	10.000	14.2233	393.7008	