



HIGH PRESSURE STOP VALVES

TYPE MHPSV

INTRODUCTION

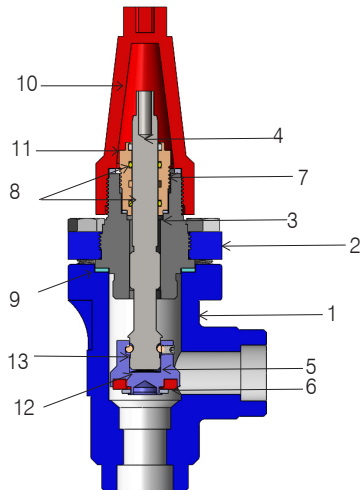
The MHPSV Stop Valves are refrigerant shut-off valves designed to be socket-welded or butt-welded directly to steel piping, thereby eliminating potential leaky flanges or threaded joints and simplifying installation. These valves fit all requirements of the latest refrigeration technology and have desired flow characteristics with a low pressure drop design. The MHPSV has specialised internal back-seating support which allows the shaft seal (packing gland) to be replaced while the valve is still under working condition. Interchangeable handwheel or seal cap available. These valves are available in angle and globe types. The Teflon seat lends durability to the seating surface.

DESIGN FEATURES

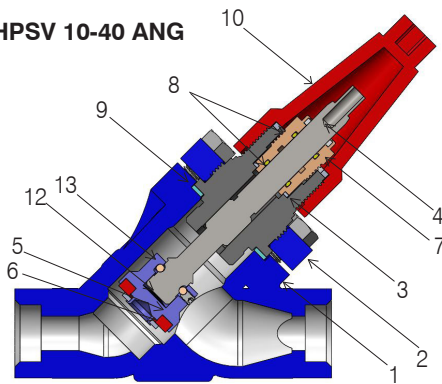
- Maximum working pressure: 798 psi g (55 bar g)
- Fluid temperature range: -60°C to + 150°C (-76°F to 302°F)
- Application: Ammonia, Fluorocarbons, Carbon Dioxide
- Material: Body: LCC A352 Cast Steel Body
- Internals: SS304
- Seat: PTFE
- Connections: DN10-40 – Socket/Butt Weld
- DN50-300 – Butt Weld.
- Reliable Back Seating.

MATERIAL SPECIFICATION

MHPSV 10-40



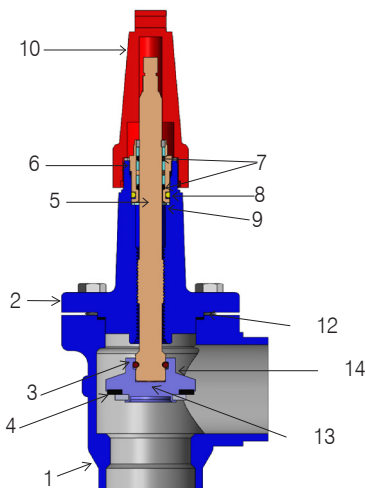
MHPSV 10-40 ANG



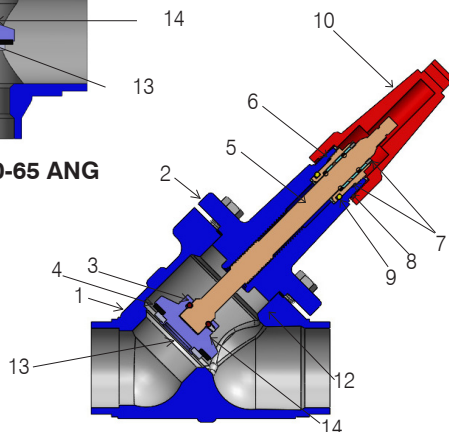
MHPSV 10-40 STR

SR. NO.	PART	MATERIAL	ASTM
1	Housing/valve body	Steel	G20Mn5QT
2	Bonnet flange	Steel	G20Mn5QT
3	Bonnet insert	Steel	230M07
4	Spindle	Stainless steel	X5CrNi18-10
5	Cone	Steel	X5CrNi18-10
6	Cone seal	Teflon	PTFE
7	Packing gland	Stainless steel	X5CrNi18-10
8	O ring in packing gland	Rubber	Neoprene
9	Gasket	Non asbestos, Non metallic	
10	Seal cap	Aluminium	
11	Gasket for seal cap	Nylon	Nylon 6
12	Disk spring	Steel	
13	Ball	Steel	X20Cr13
14	Handwheel	Stainless Steel	GX5CrNi19-10

MHPSV 50-65



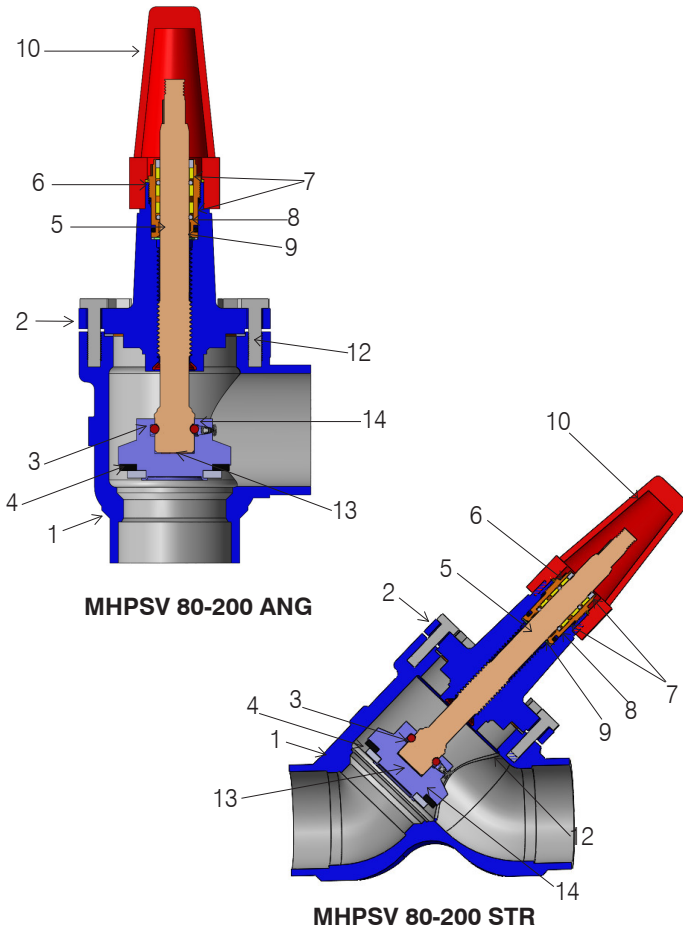
MHPSV 50-65 ANG



MHPSV 50-65 STR

SR. NO.	PART	MATERIAL	ASTM
1	Housing/valve body	Steel	G20Mn5QT
2	Valve bonnet	Steel	G20Mn5QT
3	Cone	Stainless steel	X5CrNi18-10
4	Cone seal	Teflon	PTFE
5	Spindle	Stainless steel	X5CrNi18-10
6	Packing gland	Stainless steel	X5CrNi18-10
7	O ring in packing gland	Rubber	Neoprene
8	O ring on packing gland	Rubber	Neoprene
9	Packing washer	Stainless steel	X5CrNi18-10
10	Seal cap	Aluminium	AL LM24
11	Gasket for seal cap	Non asbestos, Non metallic	NYLON 6
12	Gasket	Non asbestos, Non metallic	
13	Disk spring	Steel	
14	Ball	Steel	
15	Handwheel	Stainless Steel	GX5CrNi19-10

MHPSV 80-200



SR. NO.	PART	MATERIAL	ASTM
1	Housing/valve body	Steel	G20Mn5QT
2	Valve bonnet	Steel	G20Mn5QT
3	Cone	Stainless steel	X5CrNi18-10
4	Cone seal	Teflon	PTFE
5	Spindle	Stainless steel	X5CrNi18-10
6	Packing gland	Stainless steel	X5CrNi18-10
7	O ring in packing gland	Rubber	Neoprene
8	O ring on packing gland	Rubber	Neoprene
9	Packing washer	Stainless steel	X5CrNi18-10
10	Seal cap	Aluminium	AL LM24
11	Gasket for seal cap	Non asbestos, Non metallic	NYLON 6
12	Gasket	Non asbestos, Non metallic	
13	Disk spring	Steel	
14	Ball	Steel	
15	Handwheel	Stainless Steel	GX5CrNi19-10

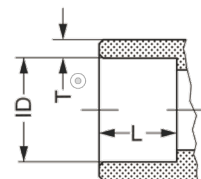
CONNECTIONS

Size		ID mm	T mm	ID Inch	T Inch	L mm	L Inch	K _{v-angle} m ³ /h	K _{v-straight} m ³ /h
mm	Inch								

Socket welding ANSI (B16.11)

10	3/8	17.3	3.1	0.68	0.12	8	0.31	4.5	3.2
15	1/2	21.8	6	0.858	0.235	10	0.39	7.0	5.0
20	3/4	27.2	4.6	1.071	0.181	13	0.51	14.6	10.5
25	1	33.9	7.2	1.335	0.284	13	0.51	24.8	17.5
32	1 1/4	42.7	6.1	1.743	0.24	13	0.51	42.6	30.0
40	1/2	48.8	6.6	1.921	0.26	13	0.51	45.2	32.0

SOC

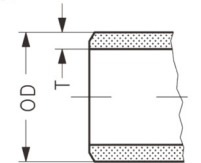


Size		OD mm	T mm	OD Inch	T Inch	K _{v-angle} m ³ /h	K _{v-straight} m ³ /h
mm	Inch						

Butt-weld ANSI (B 36.10 Schedule 40)

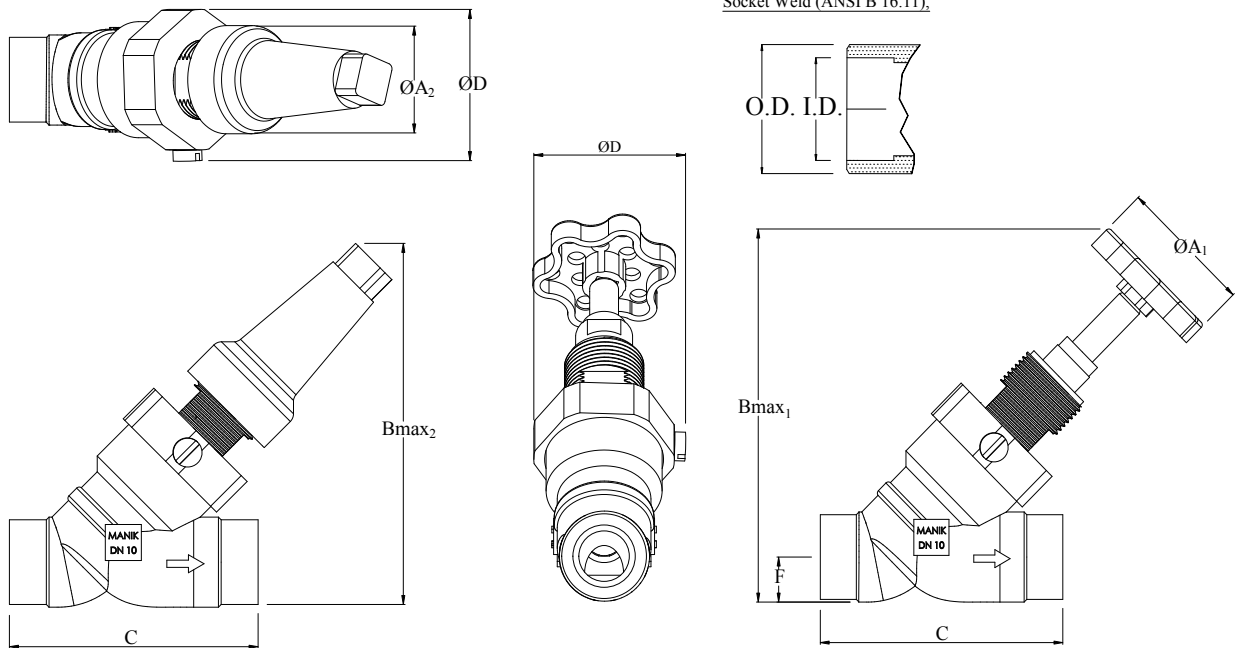
50	2	60.3	3.9	2.37	0.15	80	67.5
65	2 1/2	73.0	5.2	2.87	0.20	120	97.5
80	3	88.9	5.5	3.50	0.22	182	152.5
100	4	114.3	6.0	4.50	0.24	313	278.5
125	5	141.3	6.6	5.56	0.26	514	470.5
150	6	168.3	7.1	6.63	0.28	785	597.5
200	8	219.1	8.2	8.63	0.32	1168	1024.5
250	10	273	6.7	10.7	0.26	1610	N.A.
300							

ANSI



DIMENSIONS :

MHPSV 10 SOC GLOBE

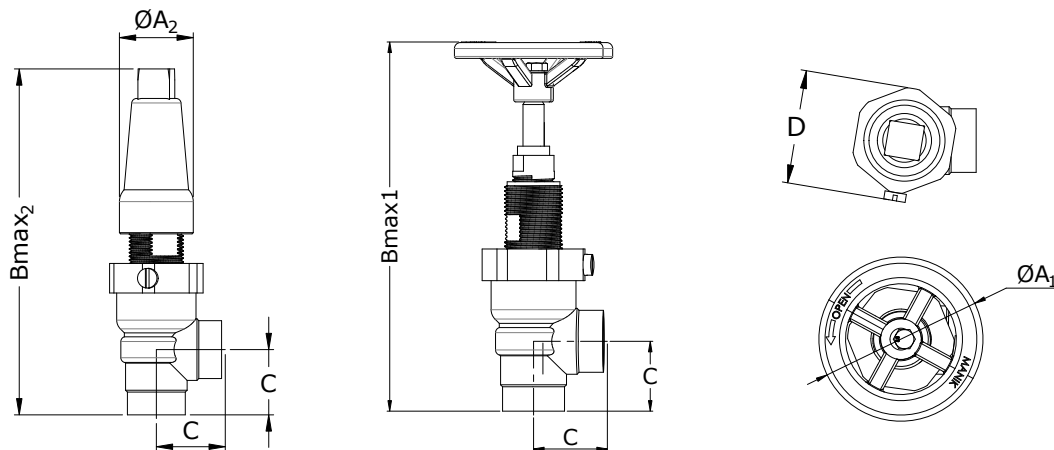


Socket Weld (ANSI B 16.11).

Socket Weld ANSI (B 16.11), DN 10 (3/8 in.)

DIMENSION MHPSV	DIM. O.D. (mm)	DIM. I.D. (mm)	DIM. A ₁ (mm)	DIM. A ₂ (mm)	DIM. Bmax ₁ (mm)	DIM. Bmax ₂ (mm)	DIM. C (mm)	DIM. D (mm)	DIM. F (mm)
MHPSV 10	23.5	17.3	60	38	110	105	61	42	13

MHPSV 10 SOC ANG

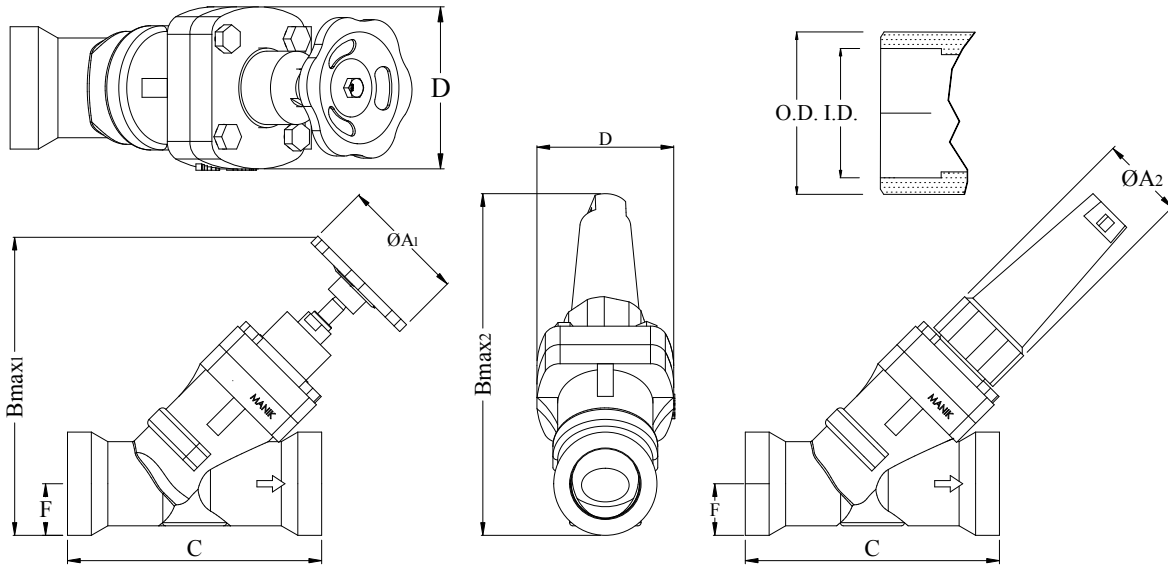


Socket Weld ANSI (B 16.11), DN 10 (3/8 in.)

DIMENSION MHPSV	DIM. O.D. (mm)	DIM. I.D. (mm)	DIM. A ₁ (mm)	DIM. A ₂ (mm)	DIM. Bmax ₁ (mm)	DIM. Bmax ₂ (mm)	DIM. C (mm)	DIM. D (mm)
MHPSV 10	23.5	17.3	30	30	141	141	26.5	42

MHPSV 15-40 SOC GLOBE

Socket Weld (ANSI B 16.11),

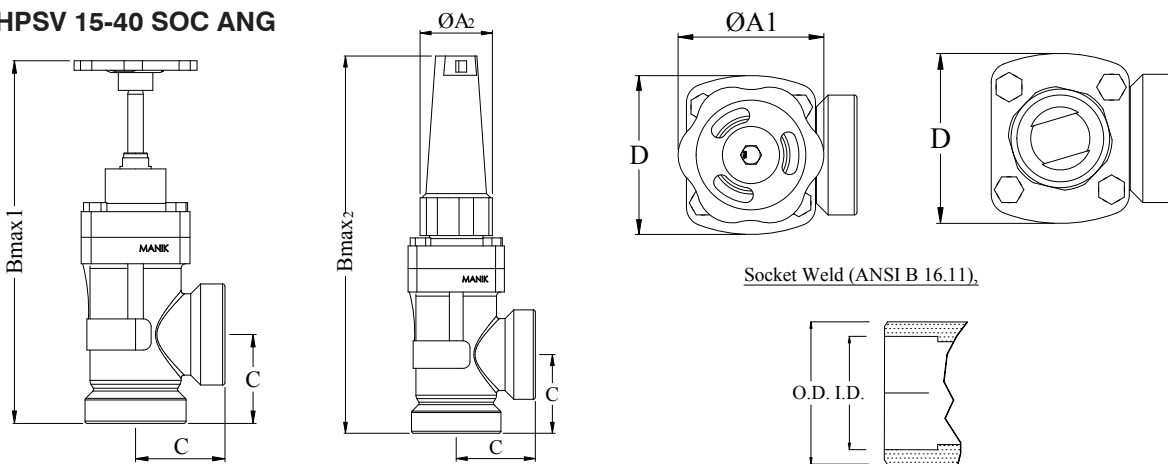


Socket Weld ANSI (B 16.11), DN 15-40 (1/2 - 1 1/2 in.)

DIMENSION MHPSV	DIM. O.D. (mm)	DIM. I.D. (mm)	DIM. A ₁ (mm)	DIM. A ₂ (mm)	DIM. Bmax ₁ (mm)	DIM. Bmax ₂ (mm)	DIM. C (mm)	DIM. D (mm)	DIM. F (mm)
MHPSV 15	33.8	21.8	60	38	160	150	121	72	16.9
MHPSV 20	36.4	27.2	60	38	160	150	121	72	18.2
MHPSV 25	48.3	33.9	80	50	235	270	160	90	24.2
MHPSV 32	54.9	42.7	80	50	235	270	160	90	27.5
MHPSV 40	62.0	48.8	80	50	235	270	160	90	31.0

MHPSV 15-40 SOC ANG

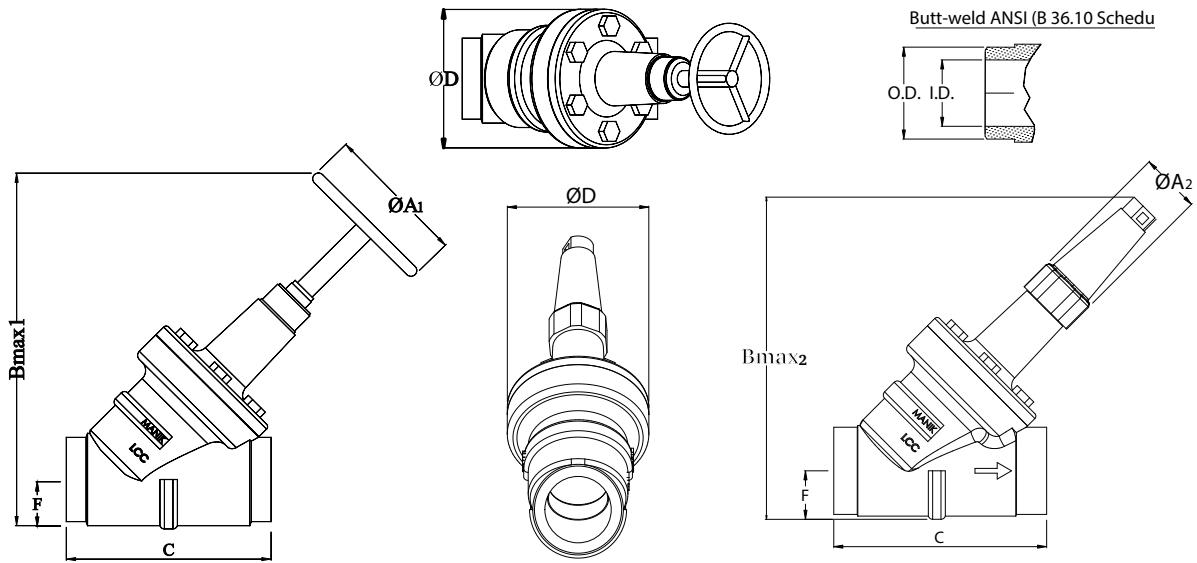
Socket Weld (ANSI B 16.11),



Socket Weld ANSI (B 16.11), DN 15-40 (1/2 - 1 1/2 in.)

DIMENSION MHPSV	DIM. O.D. (mm)	DIM. I.D. (mm)	DIM. A ₁ (mm)	DIM. A ₂ (mm)	DIM. Bmax ₁ (mm)	DIM. Bmax ₂ (mm)	DIM. C (mm)	DIM. D (mm)
MHPSV 15	33.8	21.8	60	38	180	192	45.0	72
MHPSV 20	36.4	27.2	60	38	180	192	45.0	72
MHPSV 25	48.3	33.9	80	50	235	270	55.0	90
MHPSV 32	54.9	42.7	80	50	235	270	55.0	90
MHPSV 40	62.0	48.8	80	50	235	270	55.0	90

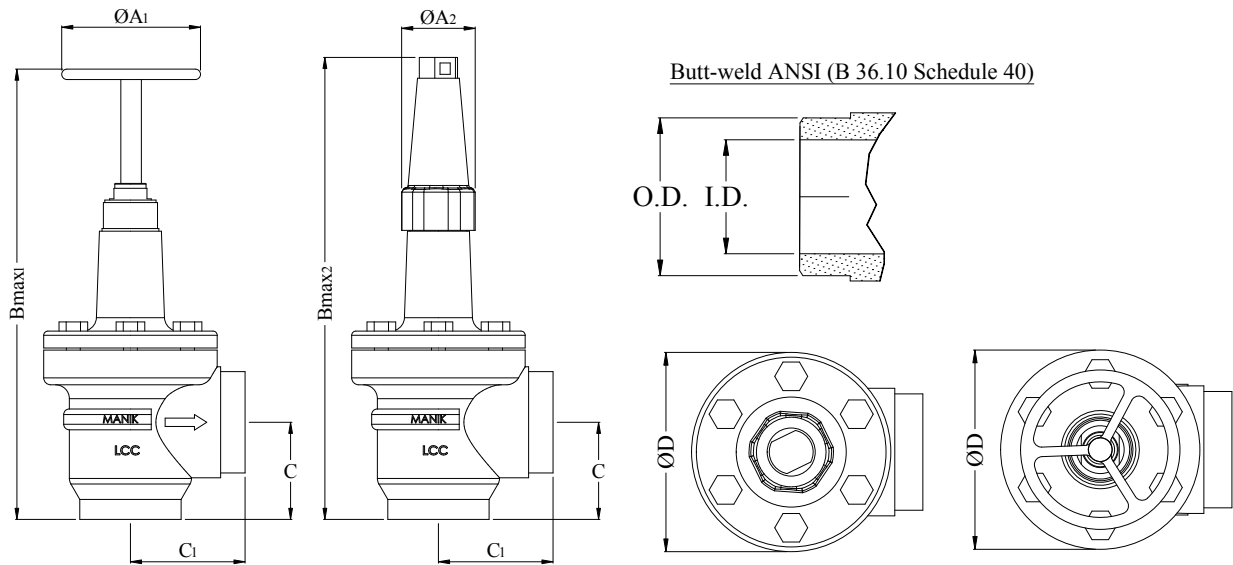
MHPSV 50-65 BW GLOBE



Butt-weld ANSI (B 36.10 Schedule 40), DN 50 - 65 (2 - 2½ in.)

DIMENSION MHPSV	DIM. O.D. (mm)	DIM. I.D. (mm)	DIM. A ₁ (mm)	DIM. A ₂ (mm)	DIM. Bmax ₁ (mm)	DIM. Bmax ₂ (mm)	DIM. C (mm)	DIM. D (mm)	DIM. F (mm)
MHPSV 50	60.3	52.5	100	50	260	265	168	110	32
MHPSV 65	73.0	62.6	100	50	285	290	184	125	40

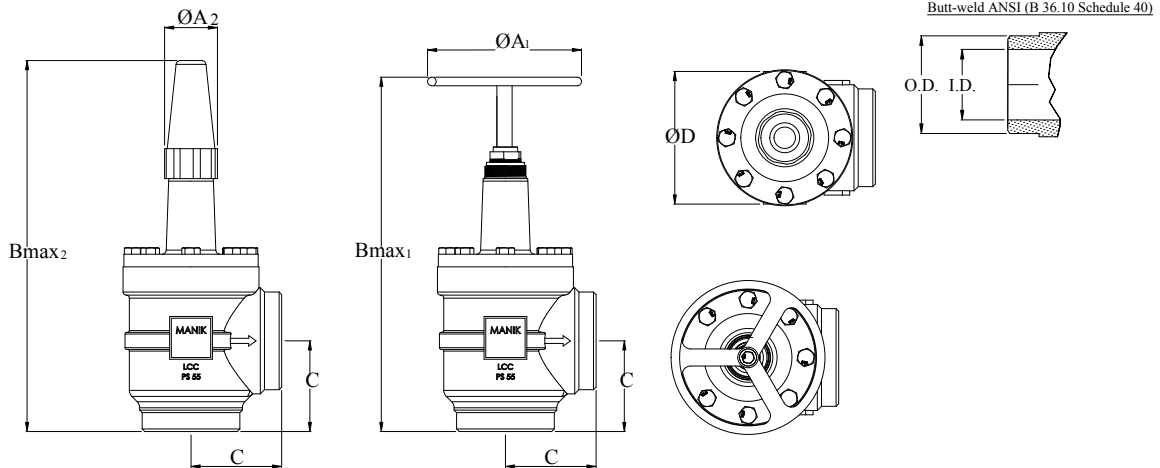
MHPSV 50-65 BW ANG



Butt-weld ANSI (B 36.10 Schedule 40), DN 50 - 65 (2 - 2½ in.)

DIMENSION MHPSV	DIM. O.D. (mm)	DIM. I.D. (mm)	DIM. A ₁ (mm)	DIM. A ₂ (mm)	DIM. Bmax ₁ (mm)	DIM. Bmax ₂ (mm)	DIM. C (mm)	DIM. C ₁ (mm)	DIM. D (mm)
MHPSV 50	60.3	52.5	100	50	284	315	60.0	72.5	110
MHPSV 65	73.0	62.6	100	50	310	335	70	82.5	125

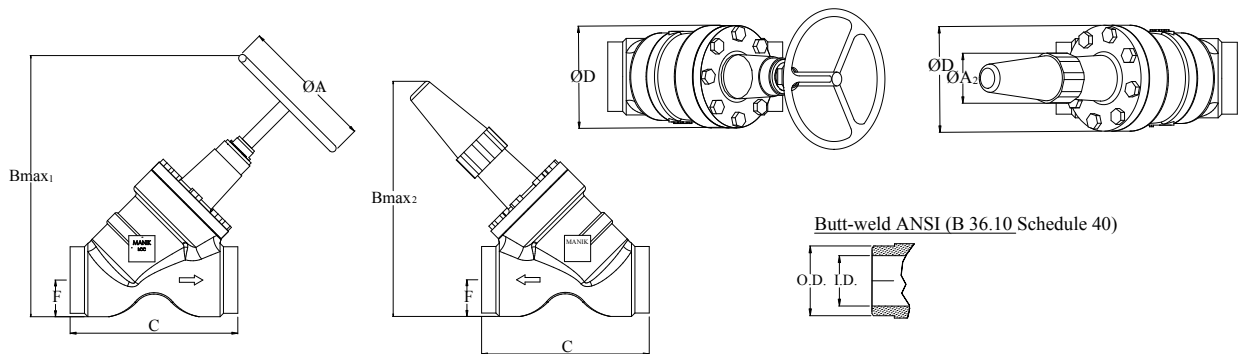
MHPSV 80-200 BW ANG



Butt-weld ANSI (B 36.10 Schedule 40), DN 80 - 200 (3 - 8 in.) ANG

DIMENSION MHPSV	DIM. O.D. (mm)	DIM. I.D. (mm)	DIM. A ₁ (mm)	DIM. A ₂ (mm)	DIM. Bmax ₁ (mm)	DIM. Bmax ₂ (mm)	DIM. C (mm)	DIM. D (mm)
MHPSV 80	88.9	77.9	200	58	388	373	90	129
MHPSV 100	114.3	102.3	250	58	437	432	106	156
MHPSV 125	141.3	128.1	315	74	533	517	128	193
MHPSV 150	168.3	154.1	315	74	568	564	145	219
MHPSV 200	219.1	202.7	400	86	678	675	180	276

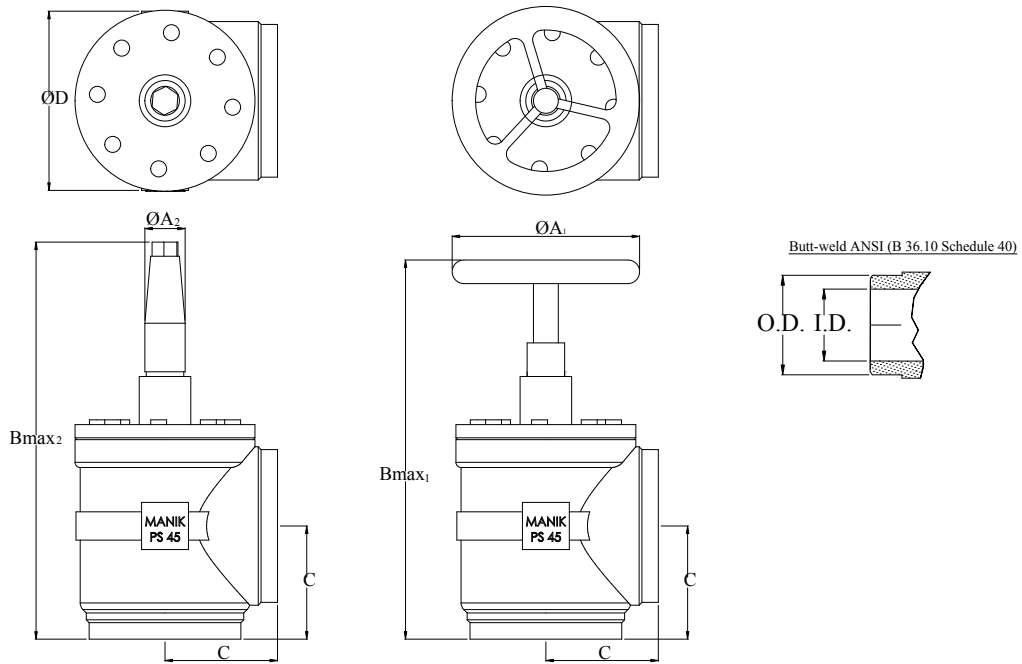
MHPSV 80-200 BW GLOBE



Butt-weld ANSI (B 36.10 Schedule 40), DN 80 - 200 (3 - 8 in.) GLOBE

DIMENSION MHPSV	DIM. O.D. (mm)	DIM. I.D. (mm)	DIM. A ₁ (mm)	DIM. A ₂ (mm)	DIM. Bmax ₁ (mm)	DIM. Bmax ₂ (mm)	DIM. C (mm)	DIM. D (mm)	DIM. F (mm)
MHPSV 80	88.9	77.9	200	58	367	322	216	129	48
MHPSV 100	114.3	102.3	250	58	443	375	264	156	60
MHPSV 125	141.3	128.1	315	74	538	456	322	193	74
MHPSV 150	168.3	154.1	315	74	594	505	370	219	91
MHPSV 200	219.1	202.7	400	86	726	613	464	276	117

MHPSV 250-300 BW ANG



Butt-weld ANSI (B 36.10 Schedule 40), DN 250-300 ANG

DIMENSION MHPSV	DIM. O.D. (mm)	DIM. I.D. (mm)	DIM. A_1 (mm)	DIM. A_2 (mm)	DIM. B_{max_1} (mm)	DIM. B_{max_2} (mm)	DIM. C (mm)	DIM. D (mm)
MHPSV 250	273	260.4	400	86	747	785	210	334
MHPSV 300	323.9	303.7	500	86	852	845	240	384

ORDERING INFO

GLOBE		Size		End Connection	Weight (Kg)
Hand Wheel	Cap	Inch	mm		
MHPSV-10-G-H-S	MHPSV-10-G-C-S	3/8"	10	Socket Weld	1.1
MHPSV-10-G-H-B	MHPSV-10-G-C-B			Butt Weld	1.2
MHPSV-15-G-H-S	MHPSV-15-G-C-S	1/2"	15	Socket Weld	2.6
MHPSV-15-G-H-B	MHPSV-15-G-C-B			Butt Weld	2.4
MHPSV-20-G-H-S	MHPSV-20-G-C-S	3/4"	20	Socket Weld	2.6
MHPSV-20-G-H-B	MHPSV-20-G-C-B			Butt Weld	2.4
MHPSV-25-G-H-S	MHPSV-25-G-C-S	1"	25	Socket Weld	4.6
MHPSV-25-G-H-B	MHPSV-25-G-C-B			Butt Weld	4.2
MHPSV-32-G-H-S	MHPSV-32-G-C-S	1-1/4"	32	Socket Weld	4.6
MHPSV-32-G-H-B	MHPSV-32-G-C-B			Butt Weld	4.2
MHPSV-40-G-H-S	MHPSV-40-G-C-S	1-1/2"	40	Socket Weld	4.6
MHPSV-40-G-H-B	MHPSV-40-G-C-B			Butt Weld	4.4
MHPSV-50-G-H-B	MHPSV-50-G-C-B	2"	50	Butt Weld	7.4
MHPSV-65-G-H-B	MHPSV-65-G-C-B	2-1/2"	65	Butt Weld	9.5
MHPSV-80-G-H-B	MHPSV-80-G-C-B	3"	80	Butt Weld	14.7
MHPSV-100-G-H-B	MHPSV-100-G-C-B	4"	100	Butt Weld	25
MHPSV-125-G-H-B	MHPSV-125-G-C-B	5"	125	Butt Weld	40.8
MHPSV-150-G-H-B	MHPSV-150-G-C-B	6"	150	Butt Weld	62.5
MHPSV-200-G-H-B	MHPSV-200-G-C-B	8"	200	Butt Weld	112
MHPSV-250-G-H-B	MHPSV-250-G-C-B	10"	250	Butt Weld	
MHPSV-300-G-H-B	MHPSV-300-G-C-B	12"	300	Butt Weld	

ANGLE		Size		End Connection	Weight (Kg.)
Hand Wheel	Cap	Inch	mm		
MHPSV-10-A-H-S	MHPSV-10-A-C-S	3/8"	10	Socket Weld	0.9
MHPSV-10-A-H-B	MHPSV-10-A-C-B			Butt Weld	0.9
MHPSV-15-A-H-S	MHPSV-15-A-C-S	1/2"	15	Socket Weld	2.1
MHPSV-15-A-H-B	MHPSV-15-A-C-B			Butt Weld	1.9
MHPSV-20-A-H-S	MHPSV-20-A-C-S	3/4"	20	Socket Weld	2.1
MHPSV-20-A-H-B	MHPSV-20-A-C-B			Butt Weld	1.9
MHPSV-25-A-H-S	MHPSV-25-A-C-S	1"	25	Socket Weld	3.6
MHPSV-25-A-H-B	MHPSV-25-A-C-B			Butt Weld	3.4
MHPSV-32-A-H-S	MHPSV-32-A-C-S	1-1/4"	32	Socket Weld	3.6
MHPSV-32-A-H-B	MHPSV-32-A-C-B			Butt Weld	3.4
MHPSV-40-A-H-S	MHPSV-40-A-C-S	1-1/2"	40	Socket Weld	3.6
MHPSV-40-A-H-B	MHPSV-40-A-C-B			Butt Weld	3.4
MHPSV-50-A-H-B	MHPSV-50-A-C-B	2"	50	Butt Weld	5.6
MHPSV-65-A-H-B	MHPSV-65-A-C-B	2-1/2"	65	Butt Weld	7.4
MHPSV-80-A-H-B	MHPSV-80-A-C-B	3"	80	Butt Weld	13.3
MHPSV-100-A-H-B	MHPSV-100-A-C-B	4"	100	Butt Weld	21
MHPSV-125-A-H-B	MHPSV-125-A-C-B	5"	125	Butt Weld	33.8
MHPSV-150-A-H-B	MHPSV-150-A-C-B	6"	150	Butt Weld	38.3
MHPSV-200-A-H-B	MHPSV-200-A-C-B	8"	200	Butt Weld	80
MHPSV-250-A-H-B	MHPSV-250-A-C-B	10"	250	Butt Weld	123
MHPSV-300-A-H-B	MHPSV-300-A-C-B	12"	300	Butt Weld	175