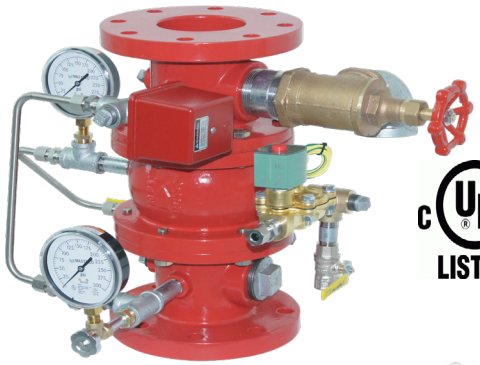
FIRE WATER CONTROL

CR MINING SOLUTIONS



FIRE DELUGE VALVE MODEL: MDV-1

MASTECO

Features

Masteco introdues innovatively designed deluge valve providing long sevice life simple instalation and easy operation with compact size.

Deluge valve is a system control valve in a deluge system. When the detection system is activated deluge valve is opened by pneumatic, hydraulic or electrical signal. Water is then discharged trough the sprinkler heads or spray nozzles in the system.

With foam systems, deluge valves can be used to protect aircraft hangers and storage tanks containing flammble liquids.

Applications

Powerplant, conveyor belt, aircraft hanger, transformers, storage tanks and many more.

Material

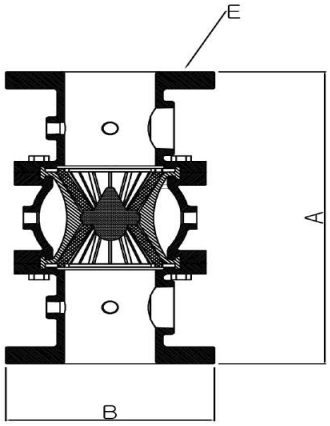
- Body : Ductile iron
- Tube diaphram: EPDM
- Disk: Stainless steel
- Disk guide: Stainless steel

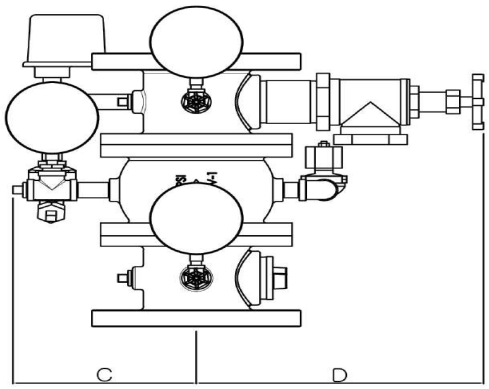
Specifications

- Colour: Red
- Size: 3", 4" 6", 8", 10"
- Working pressure: 250psi (17.2 bar)
- Test pressure:
- Body:1000psi (69bar) -
- Diaphram:500psi (34.5 bar)
- Working temperature: 0-83 °C

Diamensions (mm)

Size	A	B	C	D	F	Product number
3" (DN80)	340	190.5	160	250	ANSi B16.5 Class 150 lbs Flange	M-DV03FF-250
4" (DN100)	413	228.6	200	315		M-DV04FF-250
6" (DN150)	446	279.4	250	365		M-DV06FF-250
8: (DN200)	513	342.9	300	415		M-DV08FF-250
10" (DN250)	570	406.4	350	465		M-DV10FF-250





FIRE ALARM VALVE MODEL: MWAV-1

MASTECO

Features

An alarm valve prevents a reverse flow of water from the installation into the fire-pump room, but in case a fire sprinkler is activated (opened) due to fire, the alarm valve will open and permit water flow into the system.

The alarm valve prevents a reverse flow of water or air pressure from the installation into the fire-pump room. In case a fire sprinkler is activated (opened) due to fire, the alarm valve will open and permit water flow into the system and a pressure switch gives a signal to activate the fire-pump.

Technical Specifications

Approvals	UL AND FM APPROVED			
Model name	MWAV-1			
Normal valve size	2 1/2 " (DN 65)	3 " (DN 80)	4" (DN 100)	6" (DN 150)
Working water pressure range	1.4 - 14 BAR (140-1400 KPa)			
End connections	Flange x Flange (ANSI ,KS .JIS) Groove x Groove			
Weight (for machined body with flage	13.1 kg	14.7 kg	16.7 kg	18.2 kg
Instalation position	Vertical position			
Hydrostatic test pressure	28 bar (2800 KPa)			
Friction loss	2 1/2 " (DN 65)		3 " (DN 80	
	Water flow (L/m) 851.72 +	Net loss(KPa) 2.69	Water flow (L/m) 1313.54+	Net loss(KPa) 3.24
	4" (DN 100)		6" (DN 150)	
	Water flow (L/m) 2252.32+	Net loss(KPa) 6.9	Water flow (L/m) 5114.09+	Net loss(KPa) 5.7

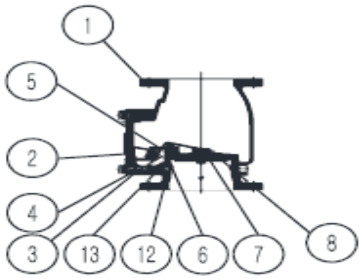


Figure 1 Cross section

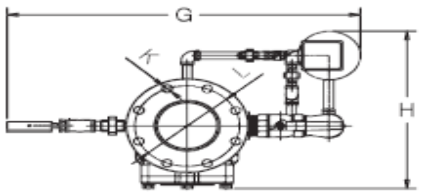


Figure 2 Top view

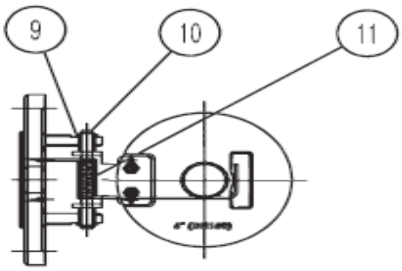


Figure 3 Top view(Clapper)

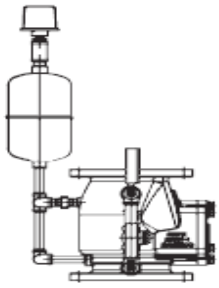


Figure 4 Side view(Left)

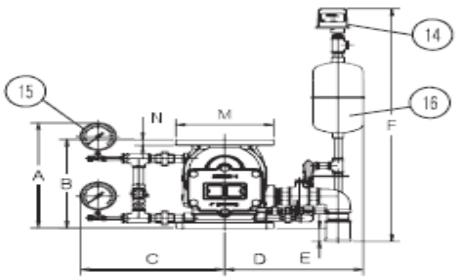


Figure 5 Front view

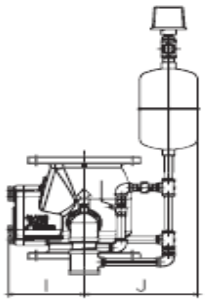


Figure 6 Side view(Right)

Diamensions (mm)

Size	A	B	C	D	E
2 1/2" (DN 65)	342	255	355	335 295*	41
3" (DN 80)	351	280	355	335 295*	37
4" (DN 100)	366.9	287.8	371	373 338*	51.6
6" (DN 150)	395.4	336.6	413	397 362*	46.6

Diamensions (mm)

Size	F	G	H	I	J
2 1/2" (DN 65)	859 481	690 650	376 348	117	259 231
3" (DN 80)	863 485	690 650	386 358	127	259 231
4" (DN 100)	867 471*	744 709*	408 380*	149	259 231
6" (DN 150)	868 472*	810 775*	470 442*	188	282 254

Diamensions (mm)

Size		K	L	M	N
2 1/2" (DN 65)	ANSI	19	139.7	177.8	22.4
	KS/JIS	19	140	175	18
3" (DN 80)	ANSI	19	152.4	190.5	23.9
	KS/JIS	19	150	185	18
4" (DN 100)	ANSI	19	190.5	228.6	23.9
	KS/JIS	19	175	210	18
6" (DN 150)	ANSI	22	241.3	279.4	25.4
	KS/JIS	23	240	280	22

- Refer to ANSI B16.5 and KS B 1503 JIS B 2220
  *for constant presure option

Material

ITEM	DESCRIPTION	MATERIAL	ITEM	DESCRIPTION	MATERIAL
1	Body	Ductile iron	9	Buching	Brass
2	Cover	Ductile iron	10	Hinge pin	stainless steel
3	Cover packing	NBR	11	Spring	stainless steel
4	Clapper	Ductile iron	12	O-ring	NBR
5	Hinge plate	Stainless steel	13	O-ring	NBR
6	Seal ring	Stainless steel	14	Alarm	-
7	Seat	NBR	15	Water gauge	-
8	Washer	Stainless steel	16	Reataded chamber	Stainless steel

- Item NO. 12 & 13 are desginated as AA333 & AN336 for Masteco alarm check Valve 2 1/2" (DN 65)
- Item NO. 12 & 13 are desginated as AA329 & AN342 for Masteco alarm check Valve 3" (DN 80)
- Item NO. 12 & 13 are desginated as AA345 & AN349 for Masteco alarm check Valve 4" (DN 100)
- Item NO. 12 & 13 are desginated as AA359 & AN362 for Masteco alarm check Valve 6" (DN 150)

*Option water motor alarm

MASTECO

FIRE WATER MOTOR GONG

FM APPROVED

Features

Water Motor Gong is a device which sounds a locally audible alarm when a fire protection system operates, usually when an alarm valve trips. The flow from the alarm valve pressure port is piped to the inlet of the water motor gong housing, which induces the impeller to spin the drive shaft and rotate the striker assembly. The rotating striker impacts the inside of the shell, thereby producing the audible alarm.

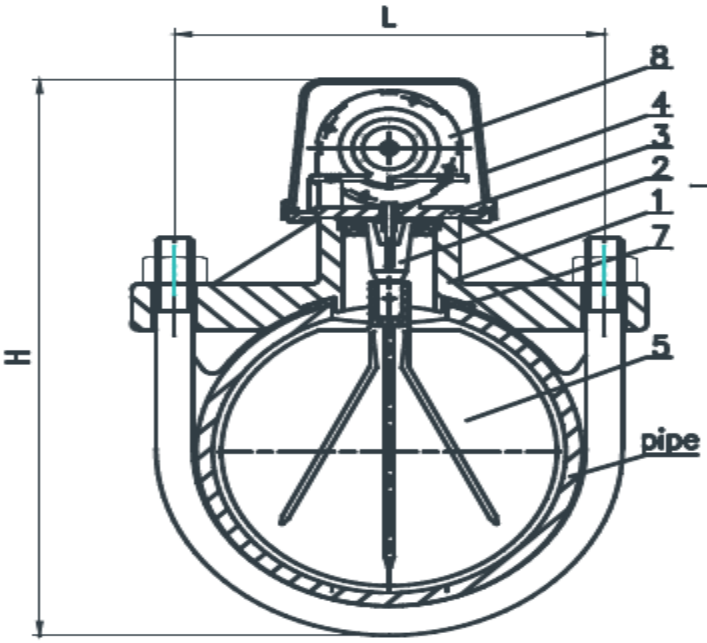
Technical Specifications	
Type	Hydraulically operated mechanical hydraulic bel
Working pressure	1.2MPa
Action pressure	not more than 0.035MPa
Flow coefficient K	5.28
Alarm sound	at 0.035MPa water pressure, greater than 70dB; at 0.2MPa water pressure, greater than 85dB
Inlet	R3 / 4, Drainage interface R1
Side pipe	Galvanized steel pipe and cast iron fittings
Bel inlet	pipe is not less than DN20, the length should not exceed 20m. Alarm bell height from the alarm shall not exceed 5m

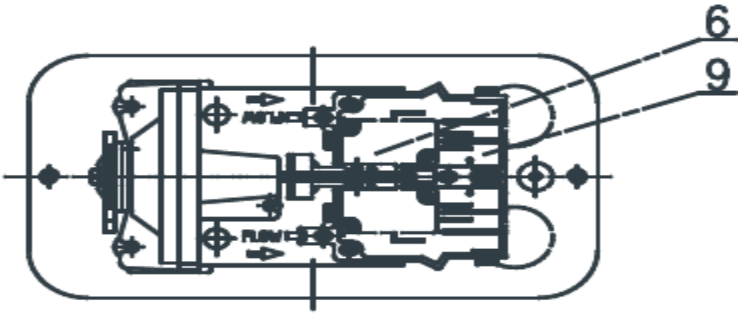
FIRE WATER FLOW DETECTOR

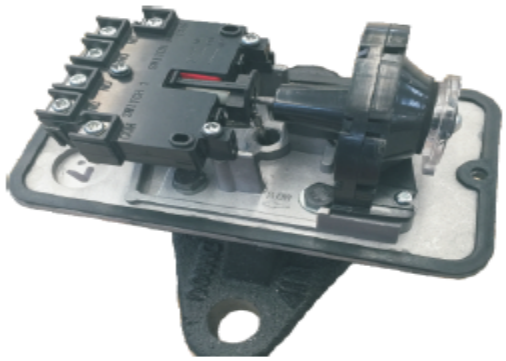
Advantages

- Designed for both indoor and outdoor use; temperature range 0° C to 68° C.
- Equipped with tamper resistant screws to prevent unauthorized entry.
- Two synchronized switches are enclosed in a durable terminal block. Terminals are easy to read and wire.
- Built-In mechanical time delay feature; minimizing the risk of false alarms due to pressure surges or air trapped in the system.
- The IM6001 offers excellent performance during riser vibrations caused by large in-rushes of water.
- Designed and built for accuracy and durability.

Technical Specifications	
Flow sensitivity range	115-38L/M
Contact rating:	8A@250VAC, 3A@24VDC, 2.5A@ 30VDC
Working Pressure	31 bar
Working Temperature	0 - 68° C.
Corrosion Protection	Fusion bonded epoxy coated interior Exterior Ennamel spray paint, interior and exterior
Approvals	FM/UL,Gost Approved







Material spesifications		
NO	**Part name**	**Material**
1	Saddle	Di,A356 65-45-12
2	Holder	SS304+EPDM
3	Plate	Aluminium alloy
4	Cover	Aluminium alloy
5	Paddle	Plastic
6	Microswitch	Plastic
7	Gasket	EPDM
8	Retarding device	Plastic
9	Terminal box	Plastic

Diamentions (mm)							
Size	**DN 50**	**DN 65**	**DN 80**	**DN100**	**DN 125**	**DN 150**	**DN 200**
L	84	92	104	133	160	187	239
H	190	200	220	245	270	300	350
Normal pipe size OD	60.3	73	88.9	114.3	141.3	168.3	219.1
Pipe wall thickness	2.77 - 3.91	3.05 - 5.16	3.05 - 5.49	3.05 - 6.02	3.40 - 6.55	3.40 - 7.11	3.76 - 8.18

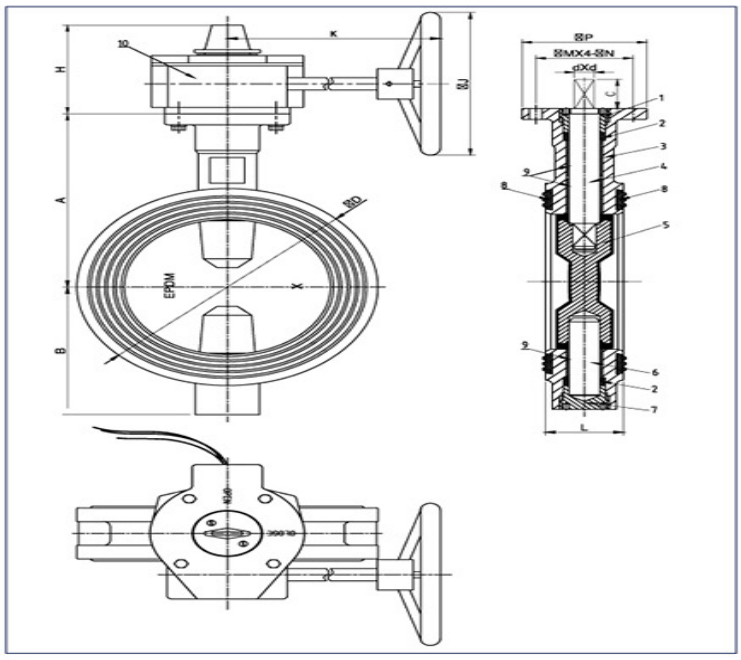
WAFER TYPE SIGNAL BUTTERFLY VALVE

FM APPROVED

c UL us LISTED

Features

- **Maximumworkingpressure:20.6bar(Maxtestpressure41.3bar)**
- **Maximum working temperature: 120** ° C.
- **Application: indoor and outdoor use**
- **Double-seal disc: Resilient EPDM coated**
- **Factory installed su[ervisory tamper switch assembly**



Technical Specifications	
Design standard	API609
Top Flange standard	ISO 5211
Face to face standard	ASME B16.10
Working pressure	17.2bar Other availible upon request
Temperature range	0 - 80° C.
Corrosion Protection	Fusion bonded epoxy in accordance with ANSI/AWAA C550
Sizes	2”-12”
Test standard	FM1112/UL1091

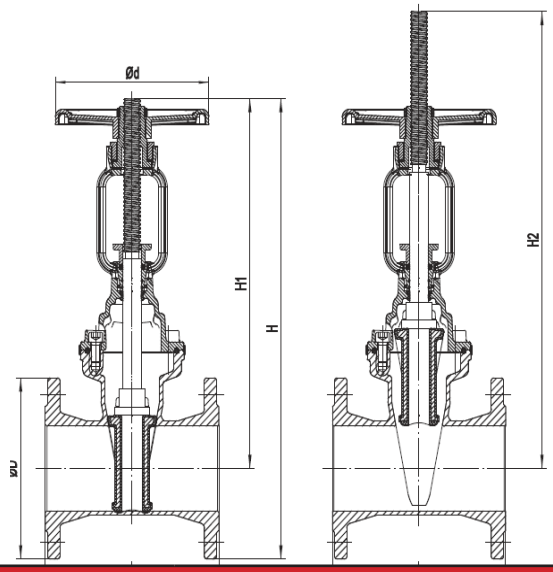
Material spesifications		
No	Part name	Material
1	Upper shaft sealing nut	WCB
2	Shaft seal	EPDM
3	Body	DI
4	Upper shaft	SS416
5	Dice	DI+EPDM
6	Lower shaft	SS416
7	Lower shaft sealing nut	WCB
8	End face seal	EPDM
9	Stem bushing	PTFE
10	Signal gearbox	DI

Diamentions (mm)													
Size	A	B	C	D	H	K		J	P	M	N	d	L
2”	110	85	32	100	111	153	218	152	90	70	9	10	42
2 1/2”	125	95	32	112	111	153	218	152	90	70	9	10	44.2
3”	140	100	32	120	111	153	218	152	90	70	9	11	45.3
4”	160	100	32	161	111	153	218	152	90	70	9	14	52
5”	170	125	32	182	111	153	218	152	90	70	9	14	54.4
6”	190	140	32	216	111	153	218	200	90	70	9	16	55.8
8”	230	175	32	260	126	210	232	300	125	102	12	19	60.5
10”	260	200	45	320	126	210	232	300	125	102	12	24	66.5
12”	300	240	45	375	161	249		350	150	125	14	26	76.9

RESILIENT SEATED GATE VALVE FLAGED END

Material spesifications

Parts	Material
Body	Ductile iron
Wedge	Ductile iron+EPDM
Stem nut	Bronze
Stem	SS341, SS304,SS316 or bronze
Bonnet	Ductile iron
Bonnet gasket	EPDM
Sealing ring	EPDM
Yoke	Ductile iron
Sliding disc	Bronze
Screw	Carbon steel with hot dip galvaization
O-rings	EPDM
Handweel	Ductile iron



Technical Specifications

Size	DN50 -DN300
Working pressure	PN16 - PN25
Valve standard	BS5163
Flange standard	EN1092-2
Temperature range	0 - 80° C.

Diamentions (mm)

Dimensions		Pressure rating	Size (mm)					
DN	Inch	PN	θD	L	H1	H2	H	θ d
50	2	16	165	178	358.5	420.5	441	203
		25		216				
65	2 1/2	16	185	190	359.5	429.5	452	203
		25		241				
80	3	16	200	203	378	462	478	203
		25		283				
100	4	16	220	229	449.5	553	559.2	203
		25	235	305			567	
150	6	16	267	267	591.5	747	734	300
		25	270	403			741.5	
200	8	16	292	292	735.5	938	905.5	330
		25	419	419			915.5	
250	10	16	330	350	900.5	1161	1100.5	406
		25	457	457			1113	
300	12	16	356	356	1045.5	1353	1273	406
		25	502	502			1288	

FLANGED SWING CHECK VALVE

Technical Specifications	
Connection ends	ASME B16.1 Class 125
Working pressure	14bar, 17.2bar, 20,6bar are avalible on request
Temperature range	0 - 80° C.
Corrosion protection	Fusion bonded epoxy in accordance with ANSI/AWAA C550
Approvals	FM/UL Approved

Spesifications							
DN		Diamentions (mm)					
Inch	mm	L	D	D1	b		H
2	50	203	152	120.5	16	4-19.1	133
2 1/2	65	254	178	139.5	17.5	4-19.1	150
3	80	278	191	152.5	19	4-19.1	243
4	100	330	229	190.5	24	8-19.1	284
6	150	406	279	241.5	25.5	8-22.2	290
8	200	495	343	298.5	28.5	8-22.2	330
10	250	622	406	362	30.5	12-25.4	350
12	300	660	483	432	32	12-25.4	376

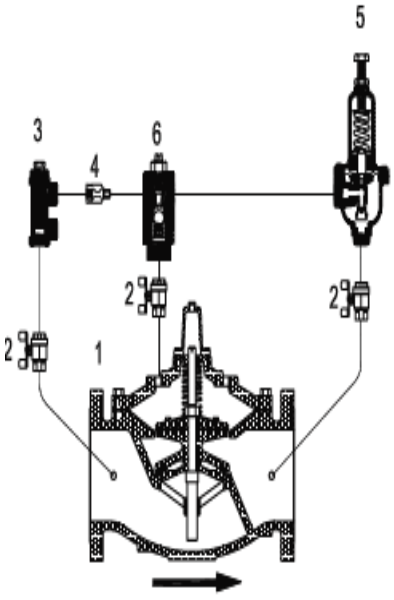
PRESSURE REDUCING VALVE

KEY FEATURES

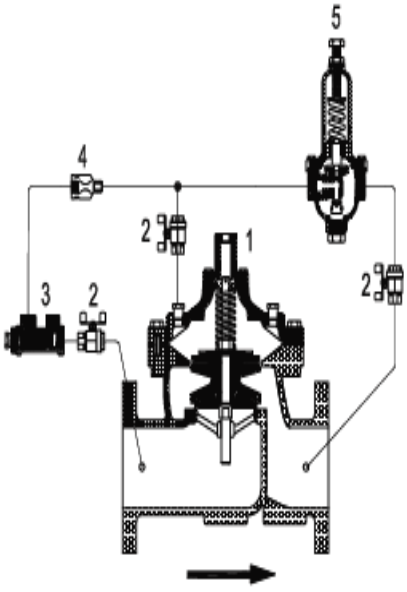
- UL and ULC listed to ANSI/UL 1468, 1739
- Reliable diaphragm actuated
- Hydraulically operated design
- Stainless steel fasteners
- Class 150, 300 flanges, grooved and threaded
- Heat-fused red epoxy coating
- Available in globe and angle style

PRODUCT OVERVIEW

The UL Certified Model 106-PR-10159 and the ULC Certified Model 106-PR-8702 pilot operated pressure control valves are ideal for automatically reducing a higher inlet pressure to a steady lower discharge pressure, regardless of fluctuations in flow or inlet pressure. See chart for sizes and end configurations. The valves are based on the 106-PG-UL, A106-PG-UL, S106-PG-UL and SA106-PG-UL control valves for Model 106-PR-10159 listed product. ULC control valves are based on the 106-PG-ULC and A106-PGULC for Model 106-PR-8702. In typical pressure reducing applications, the globe style 106-PR or S106-PR is often the preferred style.



Schematic A-8702-ULC



Schematic A-10159-UL

Drawing NR.	Specifications
1	Main Valve Body – Model 106-PG-UL, A106-PG-UL, S106-PG-UL, SA106-PG-UL & 106-PG-ULC. See chart for options.
2	Lockable Isolation Valve J0044A – optional
3	Strainer J0098A – Standard 4" / 100 mm and larger
4	Fusion bonded epoxy in accordance with ANSI/ AWAA C550
5	Pressure Reducing Pilot Model 161-PR-UL, and 160-PR-ULC
6	Flow Stabilizer – Model 26 (ULC

STANDARD MATERIALS

Standard materials for pilot system components are:

- ASTM B62 bronze or ASTM B16 brass
- AISI 303 / 316 stainless steel trim
- Buna-N / EPDM diaphragm and seals

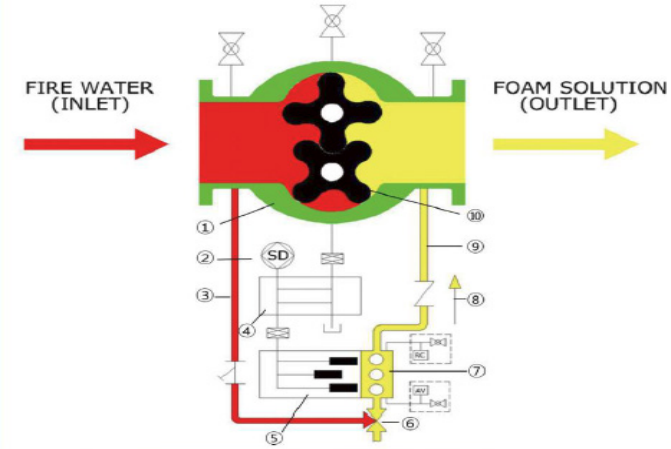
Technical Specifications

Valve size	Model 106-PR-10159		Model 106-PR-8702		Outlet pressure range UL & ULC (Bar)	End connections 106 globe & A106 angle			
	Pressure rating UL Listed		Pressure rating ULC Listed						
	Max inlet pressure 150FL (Bar)	Max inlet pressure 300FL (Bar)	Max inlet pressure 150FL (Bar)	Max inlet pressure 300FL (Bar)		Grooved	Threaded	150FL	300FL
40 mm	-	-	12.06	12.06	2.06-11.37	* Globe style only	*	*	*
50mm	12.06	20.68	12.06	12.06	2.06-11.37	* Globe style only	*	*	*
65mm	12.06	20.68	12.06	12.06	2.06-11.37	* Globe style only	*	*	*
80mm	12.06	20.68	12.06	12.06	2.06-11.37	* Globe style only	*	*	*
100mm	12.06	20.68	12.06	12.06	2.06-11.37	* Globe style only		*	*
150mm	12.06	20.68	12.06	12.06	2.06-11.37	* Globe style only		*	*
200mm	12.06	20.68	12.06	12.06	2.06-11.37	* Globe style only		*	*

FOAM SAFE WATER DRIVEN FOAM PROPORTIONER

MASTECO

Foam safe working principle



Drawing NR. Specifications	
No	Description
1	Roto pump
2	Speed driver
3	flushing
4	Speed gearbox
5	Plunger pump
6	3-way valve
7	Plunger pump head
8	Strong check valve
9	Foam injection line

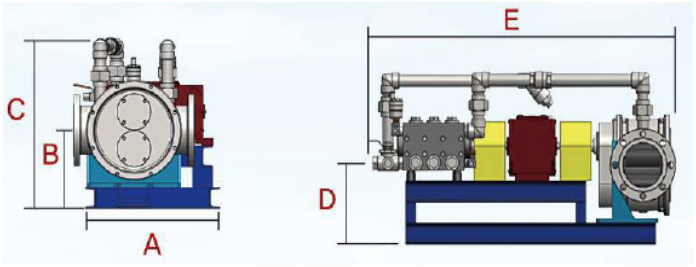
- Fire water runs rotor pump without electricity.
- Keep accurate proportioning rate irrespective of change in water pressure and flow rate.
- Adjusting gear between plunger pump and rotor pump for stable operation.
- Releasing mode and flushing mode can be switchable by 3-way valve.

Advantages

- Water driven from proportioner. No electricity requiered.
- Incoperating stainless steel for added durability.
- Keeping exact proportioning rate as set.
- Easy to install, operate and maintain.
- No time limit firefighting application with atmospheric tank.
- Adjusting speed gearbox for stable operation of plunger pump in the range from minimum watre flow to maximum water flow rate.
- The 3-way valve switch as foam releasing mode and flush mode.

Material spesifications		
NO	Part name	Material
1	Rotor pump	Stainless steel
2	Gearbox	Carbon steel
3	3-way valve	Stainless steel
4	Frame base plate	Carbon steel
5	Punger pump	Brass
6	Strainer & check valve	Stainless steel
7	Piping	Stainless steel

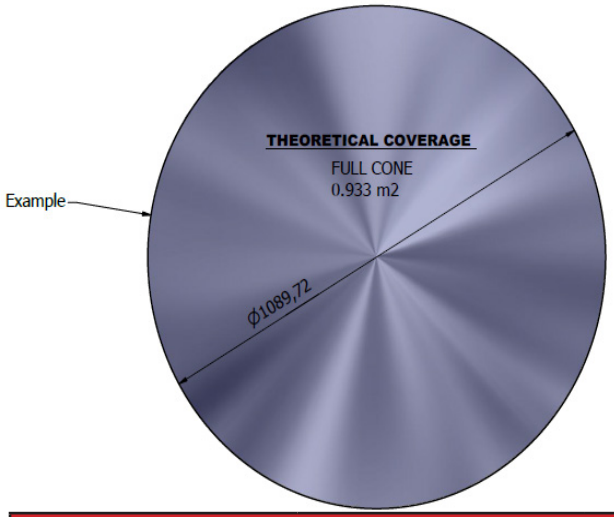
Technical Specifications					
Model	Flow rate (LPM)		Mixing ratio(%)	Water Connection ANSI 150# Flange	Foam Connection
	Min	Max			
Foam Safe-5	200	500	1/3/6	2”RF	1/2” Threaded
Foam Safe-10	300	1000	1/3/6	3”RF	3/4” Threaded
Foam Safe-16	400	1600	1/3/6	4”RF	1” Threaded
Foam Safe-25	400	2500	1/3/6	5”RF	1” Threaded
Foam Safe-40	500	4000	1/3/6	6”RF	1 1/4” Threaded
Foam Safe-60	1200	6000	1/3/6	8”RF	1 1/2” Threaded
Foam Safe-80	1200	8000	1/3/6	10”RF	1 1/2” Flanged
Foam Safe-100	1500	10000	1/3/6	12”RF	2” Flanged

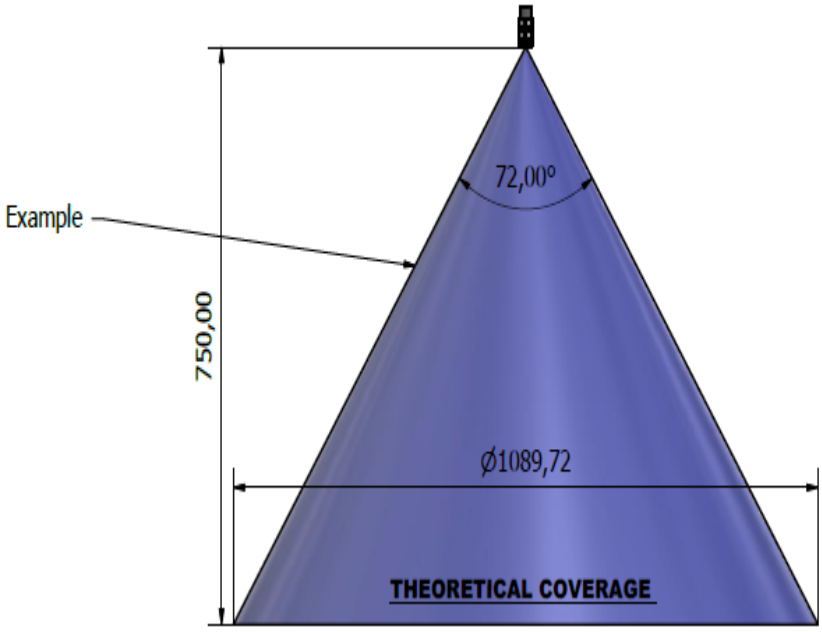


Diamentions (mm)						
Model	A	B	C	D	E	Weight (Kg)
Foam Safe-5	340	230	480	140	1000	145
Foam Safe-10	366	246	493	136	1145	212
Foam Safe-16	450	260	523	275	1145	263
Foam Safe-25	450	275	523	315	1178	269
Foam Safe-40	450	275	523	315	1397	356
Foam Safe-60	542	320	617	381	1520	637
Foam Safe-80	542	320	617	381	1650	1178
Foam Safe-100	580	420	650	425	1700	1178

FIRE DELUGE SYSTEM NOZZLE GG SERIES

GG32 example





Material spesifications				
Body	Theared (IN)	Length (mm)	Hex (mm)	Net weight (g)

Technical Specifications																
Inlet connector NBT/ BSPT	Flow Rate	Rated orifice dia mm	Max flow freely dia mm	Flow rate (L/min										Spray Angle		
				0.5 Bar	0.7 Bar	1.5 Bar	2 Bar	3 Bar	4 Bar	5 Bar	6 Bar	7 Bar	10 Bar	0.5 Bar	1.5 Bar	6 Bar
1/2”	16	3.5	3.2	5.2	6.1	8.7	9.9	11.9	13.6	15.1	16.4	17.6	21	48°	50°	46°
	25	4.6	3.2	8.2	9.5	13.5	15.4	18.6	21	24	26	27	32	64°	67°	61°
	32	5.2	3.6	10.4	12.2	17.3	19.8	24	27	30	33	35	41	72°	75°	68°

MASTECO

UPRIGHT GLASS BULB SPRINKLER

MASTECO Glass Bulb Type Sprinklers incorporate decorative glass bulbs containing special liquid that expands and subsequently breaks
the bulb when heated to specific temperature. These sprinklers are designed to discharge water upward against the deflector creating an
umbrella-shaped spray pattern for use in various commercial application.Glass bulb Sprinkler model series are available in a variety of temperature ratings, nickel chrome and natural finishes to meet a range of design requirements.

Standard response (MT 2500)


57° C.


68° C.


79° C.


93° C.

Quick response (MT2600)

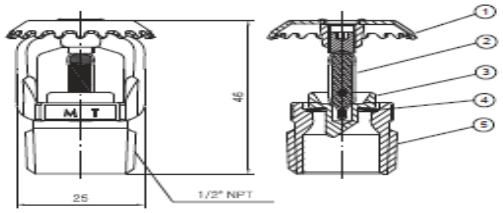

57° C.


68° C.


79° C.


93° C.

Technical Specifications		
Model nr	MT2500	MT2600
Min operating pressure	0.5 Bar	
Max working pressure	12.1 Bar	
Hydrostatic test pressure	34.5 Bar	
Thread size	1/2"BSPT/NBT	
K-Factor	80 lpm/bar1/2	
Max ambient temprerature	38° C. 65° C.	
Finish options	Natuaral, Chrome, Nikkel chrome plated	
Glass bulb size	5mm	3mm



Material spesifications		
No	Part name	Material
1	Defelctor	Copper
2	Glass Bulb	-
3	Valve cap	Brass
4	Spring seat	ni-Be+PTFE
5	Frame	Brass

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PENDENT GLASS BULB SPRINKLER

MASTECO Glass Bulb Type Sprinklers incorporate decorative glass bulbs containing special liquid that expands and subsequently breaks
the bulb when heated to specific temperature. These sprinklers are designed to discharge water upward against the deflector creating an
umbrella-shaped spray pattern for use in various commercial application.Glass bulb Sprinkler model series are available in a variety of temperature ratings, nickel chrome and natural finishes to meet a range of design requirements.

Standard response (MT 2510)


57° C.


68° C.


79° C.


93° C.

Quick response (MT2610)

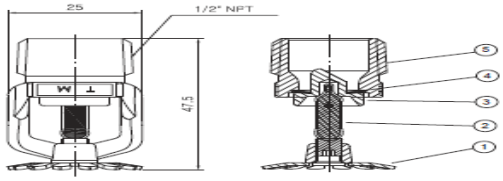

57° C.


68° C.


79° C.


93° C.

Technical Specifications		
Model nr	MT2510	MT2610
Min operating pressure	0.5 Bar	
Max working pressure	12.1 Bar	
Hydrostatic test pressure	34.5 Bar	
Thread size	1/2”BSPT or NBT	
K-Factor	80 lpm/bar1/2	
Max ambient temprerature	38° C. 65° C.	
Finish options	Natuaral, Chrome, Nikkel chrome plated	
Glass bulb size	5mm	3mm



Material spesifications		
No	Part name	Material
1	Defelctor	Copper
2	Glass Bulb	-
3	Valve cap	Brass
4	Spring seat	ni-Be+PTFE
5	Frame	Brass

SALES

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