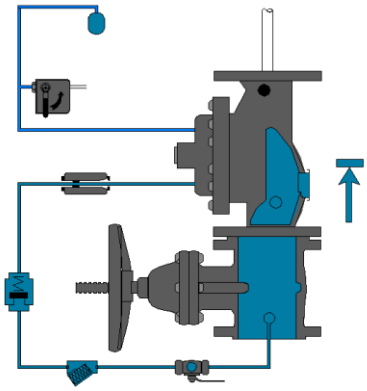
DIAPHRAGM DELUGE VALVE REMOTE RESET

MODEL AG 400-R REMOTE RESET (ON/OFF)
Hydraulic Actuation
(Ductile Iron, Nickel Aluminum Bronze, Cast Steel)





PRODUCT DESCRIPTION

Deluge Valve is known as a system control valve in a deluge system, used for fast application of water in a spray system. Deluge valve protects areas such as power transformer installation, storage tank, conveyor protection and other industrial application etc. With the addition of foaming agent deluge valve can be used to protect aircraft hangar and inflammable liquid fire.

TECHNICAL DATA

Model	AG 400-R
Materials	D: Ductile Iron ASTM A536 S: Cast Steel ASTM A216 WCB N: Nickel Aluminum Bronze BS1400 Gr AB2
Nominal size	DN50 (2”), DN80 (3”), DN100 (4”), DN150 (6”) & DN200 (8”)
Service pressure	1,4 to 17,5 Bar (20 to 250 psi)
Threaded opening	BSPT
Installation position	Vertical or Horizontal mounting
Factory hydrostatic test pressure	35 Kg/sq.cm. (500 psi)
Flange connection	ANSI B 16.5
Service	Without removal from line
Trim	Galvanized tubing and fittings and brass accessories Stainless Steel (SS-316) tubing and fittings and brass accessories Stainless Steel (SS-316) tubing, fittings and accessories Monel and Nickel Aluminum Bronze tubing, fittings and accessories
Operation	Diaphragm operated with rubber to metal drip-tight positive sealing
Net weight without trim	2” DN50 - 32 Kg 3” DN80 - 35 Kg 4” DN100 - 50 Kg 6” DN150 - 79 Kg 8” DN200 - 153 Kg
Finish	Internal and external surfaces epoxy coated for extra protection Red RAL 3002

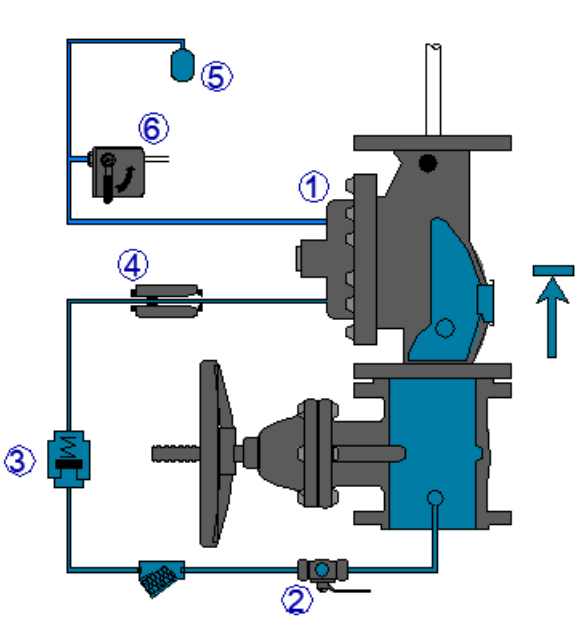
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OPERATION: MODEL AG 400-R HYDRAULIC ACTUATION

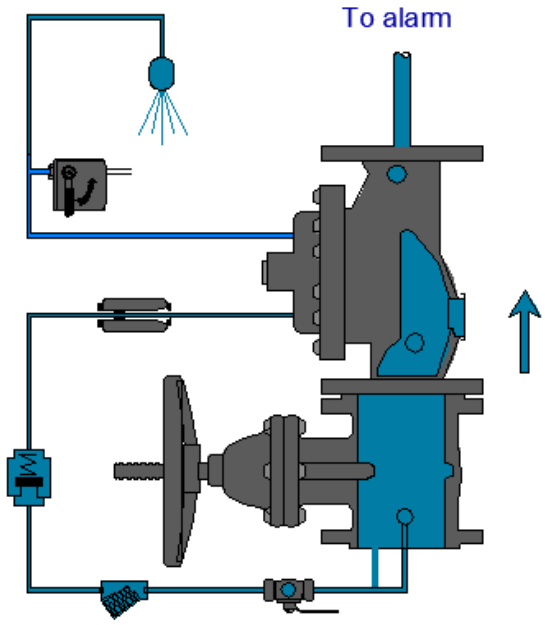
The Model AG 400-R from AG Fire Sprinkler is suitable for systems that include wet pilot lines with closed fusible plugs (thermal releases), and piping systems with a wide variety of open nozzles. The typical wet pilot line, is installed in the covered area and connected to the valve trim. Providing boosted local pressure release from its control chamber, the model AG 400-R is recommended for systems with remote and/or elevated pilot line fusible plugs.

In the SET position line-pressure, which is supplied to the main valve's control chamber **(1)** by the priming line **(2)**, through a check valve **(3)**, and a restriction **(4)** and the wet pilot line **(5)**, is trapped by the check valve, by the closed wet pilot line and by a closed Manual Emergency Release **(6)**. The trapped pressure holds the main valve's diaphragm and plug against the valve seat, sealing it drip-tight and keeping the system piping dry.

Under FIRE or TEST conditions, a pilot line hydraulic pressure drop when the closed sprinklers' bulb is broken **(2)** causing water to exit through the sprinklers faster than it can be supplied. Pressure is then released from the main valve's control chamber through the sprinklers **(2)**, or the Manual Emergency Release, allowing the main valve to fully open and water to flow into the system piping and to the alarm device (if mounted).



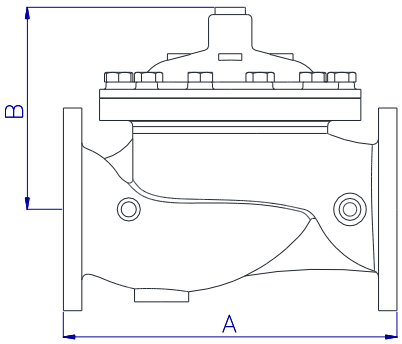
Valve Closed (Set position)



Valve Opened (operating condition)

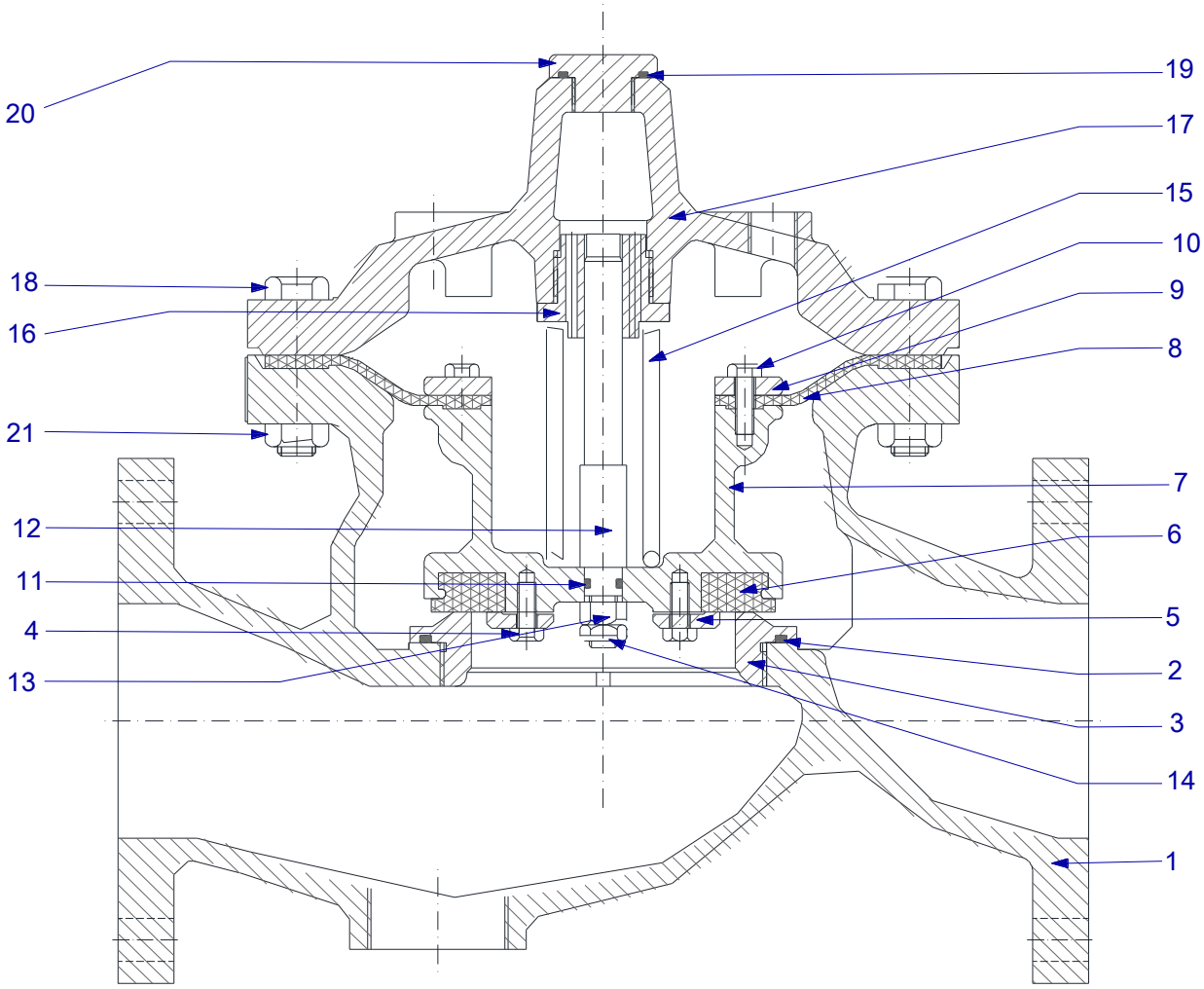
DIMENSIONS

VALVE NOMINAL SIZE	A (mm)	B (mm)
50 DN (2”)	320	232
80 DN (3”)	372	232
100 DN (4”)	412	245
150 DN (6”)	462	282
200 DN (8”)	552	332



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MATERIALS



NA - PART REPLACEMENT NOT AVAILABLE

* Stainless Steel is standard supply Bronze is optional supply.

** Ductile Iron is standard supply Bronze/Stainless Steel is optional supply.

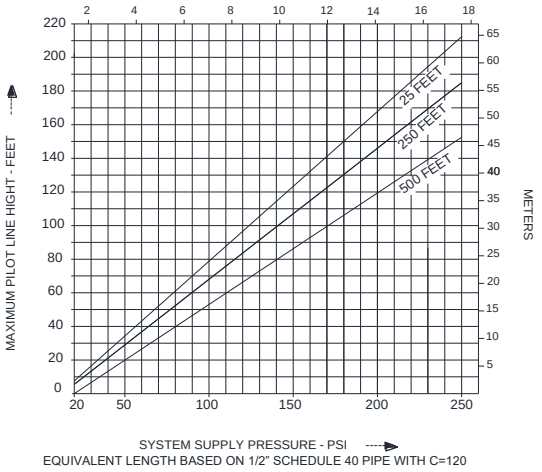
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N	DESCRIPTION	QUANTITY			D: DUCTILE IRON ASTM A 536-77 GRADE 65-45-12					N: NICKEL ALUMINIUM BRONZE BS1400 Gr AB2					S: CAST STEEL ASTM A216-WBC				
		8"	6/4"	3/2"	MATERIAL	PART NUMBER				MATERIAL	PART NUMBER				MATERIAL	PART NUMBER			
						8"	6"	4"	3/2"		8"	6"	4"	3/2"		8"	6"	4"	3/2"
1	Housing	1	1	1	Ductile iron	NA	NA	NA	NA	Al. bronze	NA	NA	NA	NA	Cast Steel	NA	NA	NA	NA
2	"O" ring	1	1	1	Neoprene rubber	8561	9783	9784	9791	Neoprene rubber	8561	9783	9784	9791	Neoprene rubber	8561	9783	9784	9791
3	Seat	1	1	1	Stainless Steel*	4025	3993	4003	4017	Al. bronze*	4155	3925	3955	3986	Stainless Steel*	4025	3993	4003	4017
4	Bolt	8	4	-	Stainless Steel	9151	9112	9112	-	Monel 400	9898	9899	9899	-	Stainless Steel*	9151	9112	9112	-
5	Rubber clamp	1	1	1	Ductile iron**	4026	3994	4004	4018	Al. bronze**	4156	3926	3956	3984	Ductile iron**	4026	3994	4004	4018
6	Rubber seat	1	1	1	Neoprene rubber	4027	4000	4005	4023	Neoprene rubber	4027	4000	4005	4023	Neoprene rubber	4027	4000	4005	4023
7	Clapper	1	1	1	Ductile iron**	4034	3990	4011	4041	Al. bronze	4153	3927	3953	3985	Ductile iron**	4034	3990	4011	4041
8	Diaphragm	1	1	1	Neoprene rubber	4035	2427	2507	2786	Neoprene rubber	4035	2427	2507	2786	Neoprene rubber	4035	2427	2507	2786
9	Clamp ring	1	1	1	Ductile iron**	4030	2424	2504	2788	Al. bronze	4158	3918	3958	3978	Ductile iron**	4030	2424	2504	2788
10	Bolt	12	8	8	Stainless Steel	8806	9151	9187	9187	Monel 400	9842	9898	9898	9898	Stainless Steel	8806	9151	9187	9187
11	"O" ring	1	1	1	Neoprene rubber	9986	9986	9986	9986	Neoprene rubber	9986	9986	9986	9986	Neoprene rubber	9986	9986	9986	9986
12	Spindle	1	1	1	Stainless Steel	4029	3996	4007	4020	Monel 400	4157	3917	3957	3977	Stainless Steel	4029	3996	4007	4020
13	nut	1	1	1	Stainless Steel	9185	8838	8838	9185	Monel 400	9896	9896	9896	9896	Stainless Steel	9185	8838	8838	9185
14	Lock nut	1	1	1	Stainless Steel	9186	9184	9184	9186	Monel 400	9897	9897	9897	9897	Stainless Steel	9186	9184	9184	9186
15	Spring	1	1	1	Stainless Steel	2980	2979	2978	2977	Inconel-X-750	4154	3914	3954	3974	Stainless Steel	2980	2979	2978	2977
16	Adaptor	1	1	1	Brass	4033	3998	4010	3983	Al. bronze	4159	3919	3959	3979	Brass	4033	3998	4010	3983
17	Cover	1	1	1	Ductile iron	NA	NA	NA	NA	Al. bronze	NA	NA	NA	NA	Cast Steel	NA	NA	NA	NA
18	Bolt	16	12	12	Carbon Steel	9008	9049	9051	8692	Stainless Steel	9841	9841	8804	9123	Carbon Steel	9008	9049	9051	8692
19	"O" ring	1	1	1	Neoprene rubber	9982	9982	9982	9982	Neoprene rubber	9982	9982	9982	9982	Neoprene rubber	9982	9982	9982	9982
20	Plug	1	1	1	Steel Plated	2514	2514	2514	2514	Al. bronze	3920	3920	3920	3920	Steel Plated	2514	2514	2514	2514
21	Allen bolt	6	-	-	Stainless Steel	8843	-	-	-	Stainless Steel	9843	-	-	-	Stainless Steel	8843	-	-	-

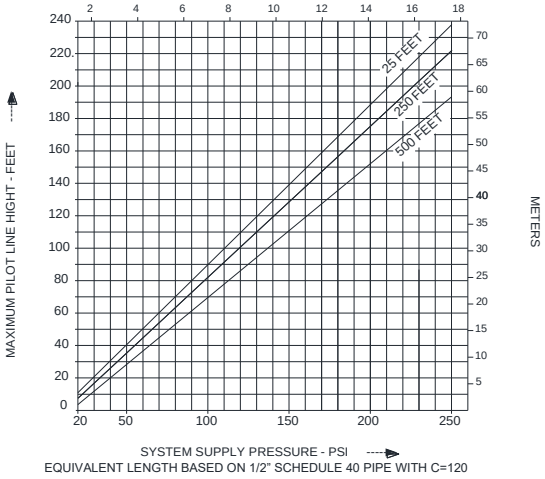
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SPRINKLER HEIGHT LIMITATION

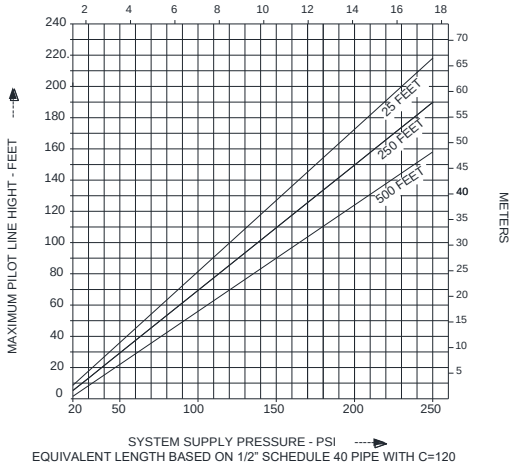
200 DN KG/SQCM AG 400-R



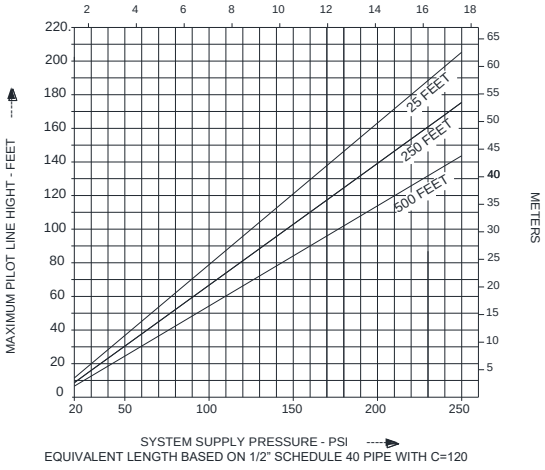
150 DN KG/SQCM AG 400-R



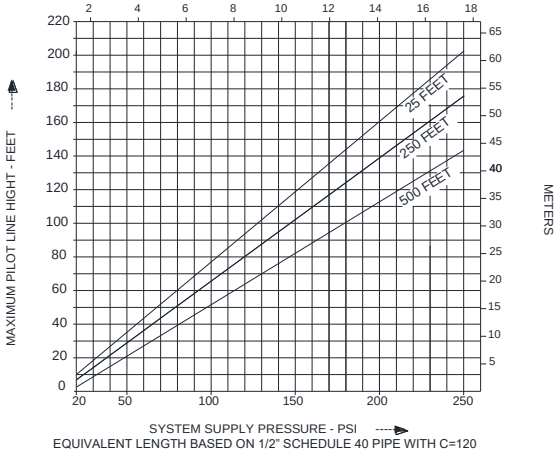
100 DN KG/SQCM AG 400-R



80 DN KG/SQCM AG 400-R

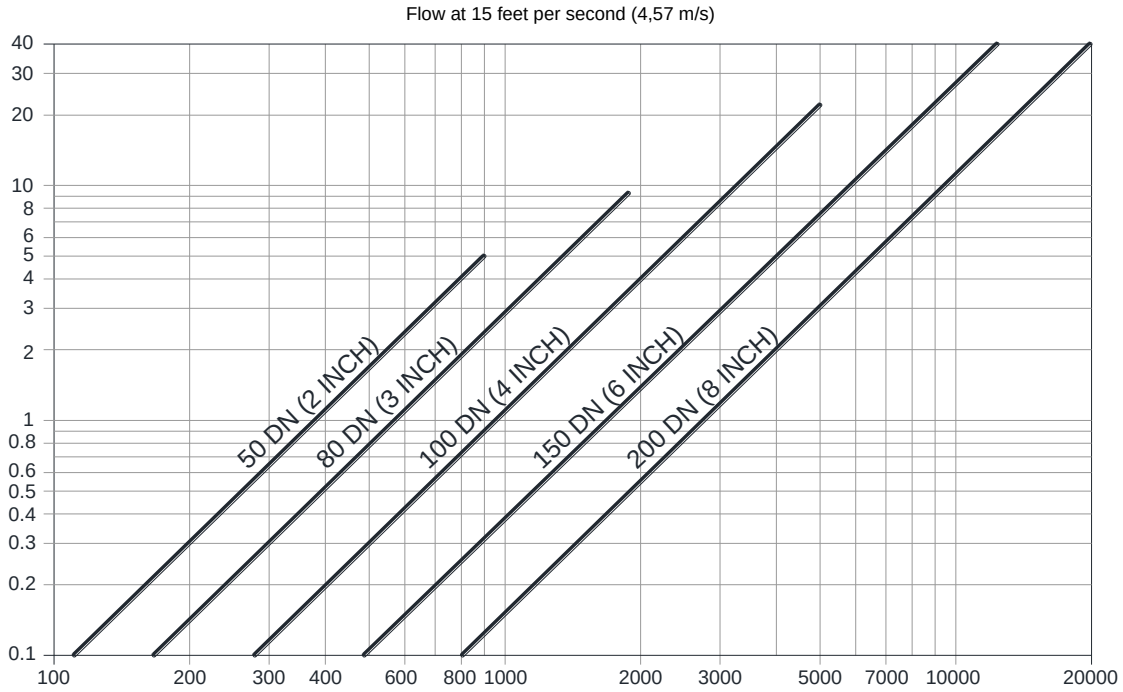


50 DN KG/SQCM AG 400-R



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FRICTION LOSS: MODEL AG 400-R



* 2.3 PSI Pressure loss @ 15 feet per second (4,57 m/s) velocity having flow of 594 lpm thru DN 50 AG 400-R
* 4.7 PSI Pressure loss @ 15 feet per second (4,57 m/s) velocity having flow of 1308 lpm thru DN 80 AG 400-R
* 4.7 PSI Pressure loss @ 15 feet per second (4,57 m/s) velocity having flow of 2255 lpm thru DN 100 AG 400-R
* 7.5 PSI Pressure loss @ 15 feet per second (4,57 m/s) velocity having flow of 5117 lpm thru DN 150 AG 400-R
* 8.4 PSI Pressure loss @ 15 feet per second (4,57 m/s) velocity having flow of 8854 lpm thru DN 200 AG 400-R

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ORDERING INFORMATION

ASSEMBLED VALVES					
SIZE	VALVE TYPE				
	DUCTILE IRON		STEEL		NICKEL – ALUMINUM – BRONZE
	TRIM TYPE		TRIM TYPE		TRIM TYPE
	GALVANIZED STEEL	STAINLESS STEEL AISI316	GALVANIZED STEEL	STAINLESS STEEL AISI316	MONEL
2” DN50	PDAG400R050H0	PDAG400R050H1	PDAG400R050H2	PDAG400R050H3	PDAG400R050H4
3” DN80	PDAG400R080H0	PDAG400R080H1	PDAG400R080H2	PDAG400R080H3	PDAG400R080H4
4” DN100	PDAG400R100H0	PDAG400R100H1	PDAG400R100H2	PDAG400R100H3	PDAG400R100H4
6” DN150	PDAG400R150H0	PDAG400R150H1	PDAG400R150H2	PDAG400R150H3	PDAG400R150H4
8” DN200	PDAG400R200H0	PDAG400R200H1	PDAG400R200H2	PDAG400R200H3	PDAG400R200H4

SEPARATED COMPONENTS			
SIZE	VALVE		
	DUCTILE IRON	STEEL	NICKEL – ALUMINUM – BRONZE
2” DN50	AG400D050U	AG400S050U	AG400N050U
3” DN80	AG400D080U	AG400S080U	AG400N080U
4” DN100	AG400D100U	AG400S100U	AG400N100U
6” DN150	AG400D150U	AG400S150U	AG400N150U
8” DN200	AG400D200U	AG400S200U	AG400N200U

SEPARATED COMPONENTS						
SIZE	TRIM TYPE					
	GALVANIZED STEEL		STAINLESS STEEL AISI316		MONEL	
	SPARED	PREMOUNTED	SPARED	PREMOUNTED	SPARED	PREMOUNTED
2” DN50	TRDR050080H0	TRDR050080H0P	TRDR050080H3	TRDR050080H3P	TRDR050080H4	TRDR050080H4P
3” DN80	TRDR050080H0	TRDR050080H0P	TRDR050080H3	TRDR050080H3P	TRDR050080H4	TRDR050080H4P
4” DN100	TRDR100200H0	TRDR100200H0P	TRDR100200H3	TRDR100200H3P	TRDR100200H4	TRDR100200H4P
6” DN150	TRDR100200H0	TRDR100200H0P	TRDR100200H3	TRDR100200H3P	TRDR100200H4	TRDR100200H4P
8” DN200	TRDR100200H0	TRDR100200H0P	TRDR100200H3	TRDR100200H3P	TRDR100200H4	TRDR100200H4P

Specify:

Model number	
Type (Actuation)	
Quantity	
Material	
Size of valve	
Flange specification	
Trim materials	
Thread Size	

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AG FIRE SPRINKLER

AG Fire Sprinkler offers a wide selection of components. Then a list of products is presented by AG Fire Sprinkler, we can offer all these components, made with precision to protect people, anywhere, anytime.

- Sprinklers
  - Standard Coverage
  - Extended Coverage
  - Storage
  - Dry
  - Accessories
- System Valves
  - Wet
  - Dry
  - Preaction Equipment
  - Accessories
- Spray System Open Nozzles
  - High Velocity Nozzles
  - Medium Velocity Nozzles
  - Window Nozzles
  - Hydroshield Nozzles
  - Mushroom Type Nozzles
- Foam equipment
  - Tanks
  - Proportioners
  - Foam Discharge Equipment
  - Foam Concentrates
- Deluge equipment for Water Spray and Foam
  - Clapper Deluge Valves
  - Diaphragm Deluge Valves
- Monitors
  - Manual Monitors
  - Remote Monitors
  - Monitor Nozzles
  - Towers and Trolleys
- Valves
  - Butterfly Valves
  - Gate Valves
  - Check Valves
  - Pressure Control Valves
  - Test and Drain
  - Hose, Hydrant and Fire Connection Valves
  - Fire Department Connections

The equipment presented in this bulletin is to be installed in accordance with the latest published Standard of the National Fire Protection Association, Factory Mutual Research Corporation, or other similar organizations and also with the provisions of governmental codes or ordinances whenever applicable.
This documentation is not contractual. AG Fire Sprinkler reserves the right to any kind of change without notice.

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