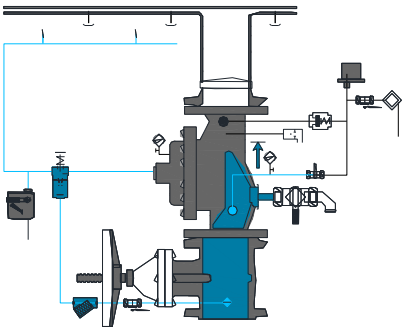
DIAPHRAGM DELUGE VALVE LOCAL RESET

MODEL AG 400-L EXTERNAL AND LOCAL RESET
Hydraulic Actuation
(Ductile Iron, Cast Steel, Nickel Aluminum Bronze)

Valve Closed





PRODUCT DESCRIPTION

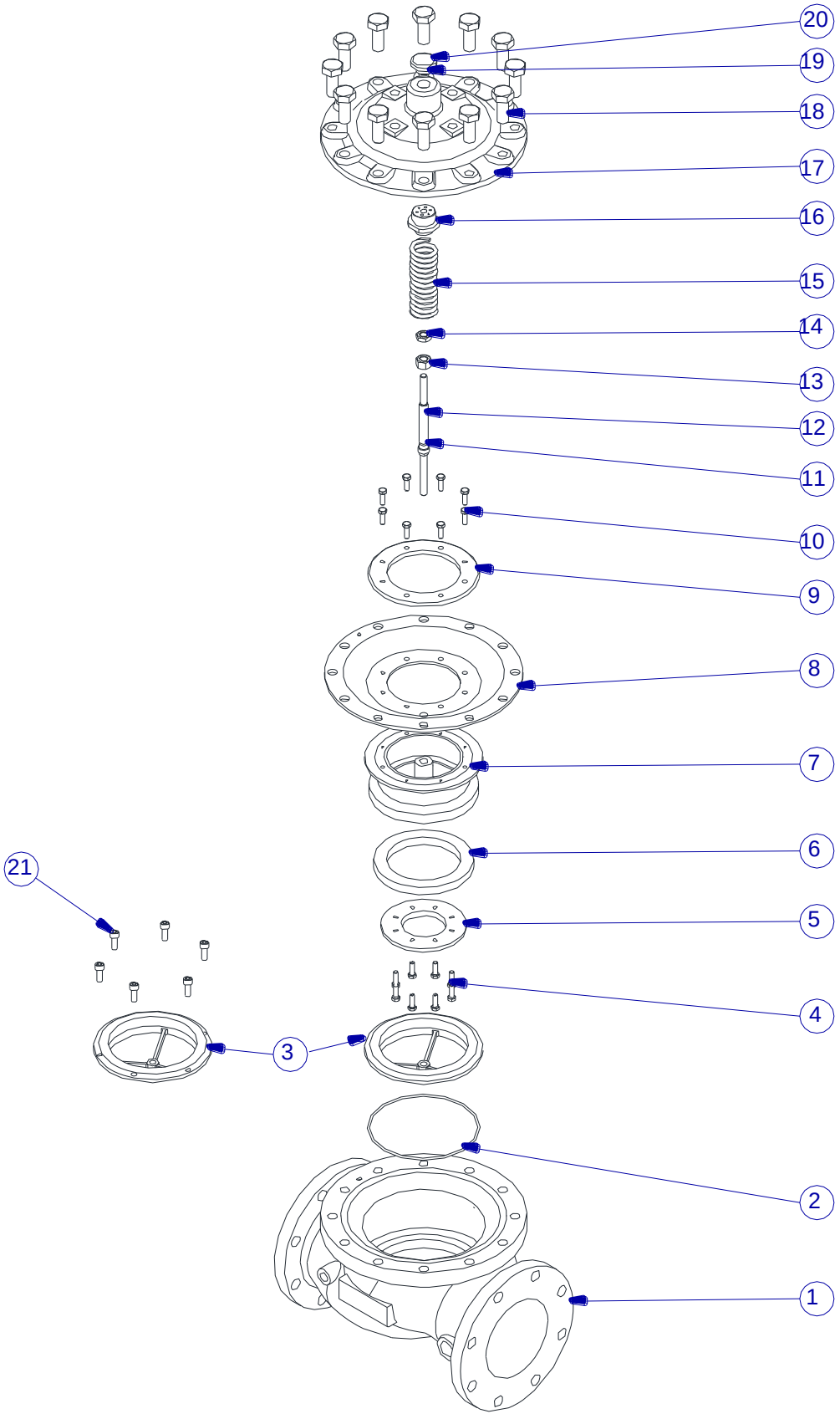
Deluge Valve is known as a system control valve in a deluge system, used for fast application of water in a spray system. Deluge valve protects areas such as power transformer installation, storage tank, conveyor protection and other industrial application etc. With the addition of foaming agent deluge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

TECHNICAL DATA

MODEL	AG 400-L
MATERIAL	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”)
SEVICE PRESSURE	1.4 to 17.5 Bar (20 to 250 PSI)
THREADED OPENING	BSPT
MOUNTING	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 nickel lated accessories. Solenoid valve 175 psi Stainless Steel (SS-316) tubing and fittings. Solenoid valve 250 psi Monel tubing and fittings. Ni AL Br Accessories
WET PILOT SPRINKLER HEIGHT LIMITATION	As per graph in the catalogue
NET WEIGHT WITHOUT TRIM	DN50 - 32 Kg DN80 - 35 Kg DN100 - 50 Kg DN150 - 79 Kg DN200 - 153 Kg
FINISH	Red RAL 3000

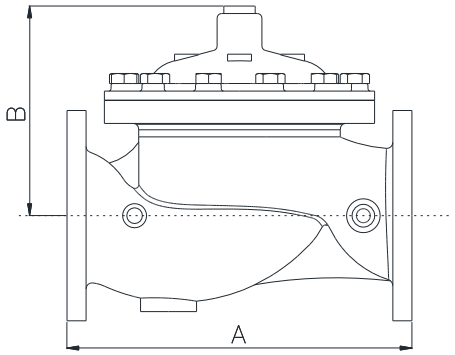
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DELUGE VALVE MODEL: AG 400-L SIZE 50 / 80 / 100 / 150 / 200 DN



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DELUGE VALVE MODEL: AG 400-L SIZE 50 / 80 / 100 / 150 / 200 DN



DIMENSION in millimeter (Approximate)

VALVE NOMINAL SIZE	A	B
50 DN	320	232
80 DN	372	232
100 DN	412	245
150 DN	462	282
200 DN	552	332

AG 400-L (DUCTILE IRON ASTM A 536-77 GRADE 65-45-12)											
ITEM Nº	**PART Nº**					**DESCRIPTION**	**QTY**				**MATERIAL SPECIFICATION**
	200 DN	**150 DN**	**100 DN**	**80 DN**	**50 DN**		**200 DN**	**150 DN**	**100 DN**	**80/50 DN**	
1	NA	NA	NA	NA	NA	HOUSING	1	1	1	1	DUCTILE IRON
2	8561	9783	9784	9791	9791	“O” RING	1	1	1	1	NEOPRENE RUBBER
3	4025	3993	4003	4017	4017	SEAT	1	1	1	1	STAINLESS STEEL*
4	9151	9112	9112	-	-	BOLT	4	4	-	8	STAINLESS STEEL
5	4026	3994	4004	4018	4018	RUBBER CLAMP	1	1	1	1	DUCTILE IRON **
6	4027	4000	4005	4023	4023	RUBBER SEAT	1	1	1	1	NEOPRENE RUBBER
7	4034	3990	4011	4041	4041	CLAPPER	1	1	1	1	DUCTILE IRON **
8	4035	2427	2507	2786	2786	DIAPHRAGM	1	1	1	1	NEOPRENE RUBBER
9	4030	2424	2504	2788	2788	CLAMP RING	1	1	1	1	DUCTILE IRON **
10	8806	9151	9151	9187	9187	BOLT	8	8	8	12	STAINLESS STEEL
11	9986	9986	9986	9986	9986	“O” RING	1	1	1	1	NEOPRENE RUBBER
12	4029	3996	4007	4020	4020	SPINDLE	1	1	1	1	STAINLESS STEEL
13	9185	8838	8838	9185	9185	NUT	1	1	1	1	STAINLESS STEEL
14	9186	9184	9184	9186	9186	LOCK NUT	1	1	1	1	STAINLESS STEEL
15	2980	2979	2978	2977	2977	SPRING	1	1	1	1	STAINLESS STEEL
16	4033	3998	4010	3983	3983	ADAPTOR	1	1	1	1	BRASS
17	NA	NA	NA	NA	NA	COVER	1	1	1	1	Ductile iron ,
18	9008	9049	9051	8692	8692	BOLT	12	12	12	16	CARBON STEEL
19	9982	9982	9982	9982	9982	“O” RING	1	1	1	1	NEOPRENE RUBBER
20	2514	2514	2514	2514	2514	PLUG	1	1	1	1	STEEL PLATED
21	8843	-	-	-	-	ALLEN BOLT	-	-	-	6	STAINLESS STEEL

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AG 400-L (NICKEL ALUMINIUM BRONZE BS1400 Gr AB2)											
ITEM Nº	PART Nº					DESCRIPTION	QTY				MATERIAL SPECIFICATION
	200 DN	150 DN	100 DN	80 DN	50 DN		200 DN	150 DN	100 DN	80/50 DN	
1	NA	NA	NA	NA	NA	HOUSING	1	1	1	1	AL. BRONZE BS 1400 - AB2
2	8561	9783	9784	9791	9791	“O” RING	1	1	1	1	NEOPRENE RUBBER
3	4155	3925	3955	3986	3986	SEAT	1	1	1	1	AL. BRONZE BS 1400 - AB2*
4	9898	9899	9899	-	-	BOLT	8	4	4	-	MONEL 400
5	4156	3926	3956	3984	3984	RUBBER CLAMP	1	1	1	1	AL. BRONZE BS 1400 - AB2**
6	4027	4000	4005	4023	4023	RUBBER SEAT	1	1	1	1	NEOPRENE RUBBER
7	4153	3927	3953	3985	3985	CLAPPER	1	1	1	1	AL. BRONZE BS 1400 - AB2
8	4035	2427	2507	2786	2786	DIAPHRAGM	1	1	1	1	NEOPRENE RUBBER
9	4158	3918	3958	3978	3978	CLAMP RING	1	1	1	1	AL. BRONZE BS 1400 - AB2
10	9842	9898	9898	9898	9898	BOLT	12	8	8	8	MONEL 400
11	9986	9986	9986	9986	9986	“O” RING	1	1	1	1	NEOPRENE RUBBER
12	4157	3917	3957	3977	3977	SPINDLE	1	1	1	1	MONEL 400
13	9896	9896	9896	9896	9896	NUT	1	1	1	1	MONEL 400
14	9897	9897	9897	9897	9897	LOCK NUT	1	1	1	1	MONEL 400
15	4154	3914	3954	3974	3974	SPRING	1	1	1	1	INCONEL-X-750
16	4159	3919	3959	3979	3979	ADAPTOR	1	1	1	1	AL. BRONZE BS 1400 - AB2
17	NA	NA	NA	NA	NA	COVER	1	1	1	1	AL. BRONZE BS 1400 - AB2
18	9841	9841	8801	9123	9123	BOLT	16	12	12	12	STAINLESS STEEL
19	9982	9982	9982	9982	9982	“O” RING	1	1	1	1	NEOPRENE RUBBER
20	3920	3920	3920	3920	3920	PLUG	1	1	1	1	AL. BRONZE BS 1400 - AB2
21	9843	-	-	-	-	ALLEN BOLT	6	-	-	-	MONEL 400

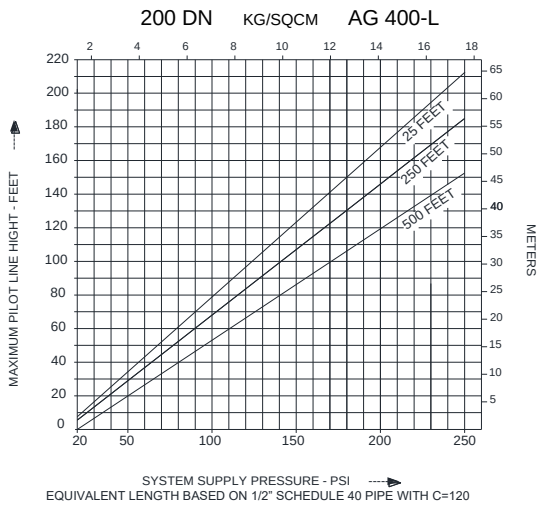
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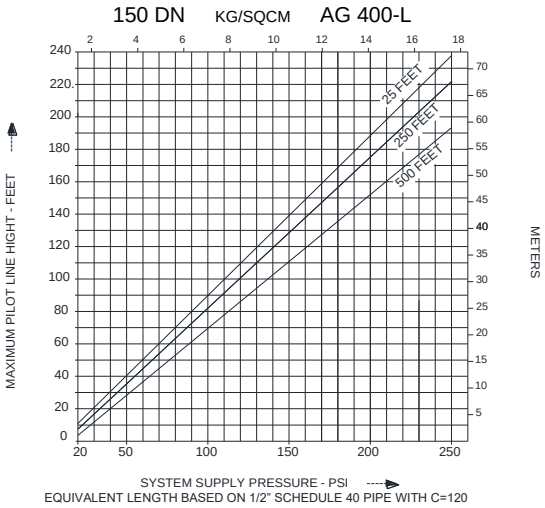
AG 400-L (CAST STEEL ASTM A216-WBC)											
ITEM Nº	PART Nº					DESCRIPTION	QTY				MATERIAL SPECIFICATION
	200 DN	150 DN	100 DN	80 DN	50 DN		200 DN	150 DN	100 DN	80/50 DN	
1	NA	NA	NA	NA	NA	HOUSING	1	1	1	1	CAST STEEL
2	8561	9783	9784	9791	9791	“O” RING	1	1	1	1	NEOPRENE RUBBER
3	4025	3993	4003	4017	4017	SEAT	1	1	1	1	STAINLESS STEEL*
4	9151	9112	9112	-	-	BOLT	4	4	-	8	STAINLESS STEEL
5	4026	3994	4004	4018	4018	RUBBER CLAMP	1	1	1	1	DUCTILE IRON **
6	4027	4000	4005	4023	4023	RUBBER SEAT	1	1	1	1	NEOPRENE RUBBER
7	4034	3990	4011	4041	4041	CLAPPER	1	1	1	1	DUCTILE IRON **
8	4035	2427	2507	2786	2786	DIAPHRAGM	1	1	1	1	NEOPRENE RUBBER
9	4030	2424	2504	2788	2788	CLAMP RING	1	1	1	1	DUCTILE IRON **
10	8806	9151	9151	9187	9187	BOLT	8	8	8	12	STAINLESS STEEL
11	9986	9986	9986	9986	9986	“O” RING	1	1	1	1	NEOPRENE RUBBER
12	4029	3996	4007	4020	4020	SPINDLE	1	1	1	1	STAINLESS STEEL
13	9185	8838	8838	9185	9185	NUT	1	1	1	1	STAINLESS STEEL
14	9186	9184	9184	9186	9186	LOCK NUT	1	1	1	1	STAINLESS STEEL
15	2980	2979	2978	2977	2977	SPRING	1	1	1	1	STAINLESS STEEL
16	4033	3998	4010	3983	3983	ADAPTOR	1	1	1	1	BRASS
17	NA	NA	NA	NA	NA	COVER	1	1	1	1	CAST STEEL
18	9008	9049	9051	8692	8692	BOLT	12	12	12	16	CARBON STEEL
19	9982	9982	9982	9982	9982	“O” RING	1	1	1	1	NEOPRENE RUBBER
20	2514	2514	2514	2514	2514	PLUG	1	1	1	1	STEEL PLATED
21	8843	-	-	-	-	ALLEN BOLT	-	-	-	6	STAINLESS STEEL

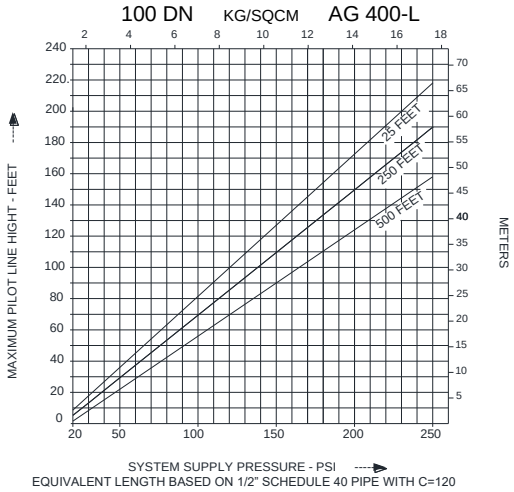
NA - PART REPLACEMENT NOT AVAILABLE
* Stainless Steel is standard supply Bronze is optional supply.
** Ductile Iron is standard supply Bronze/Stainless Steel is optional supply.

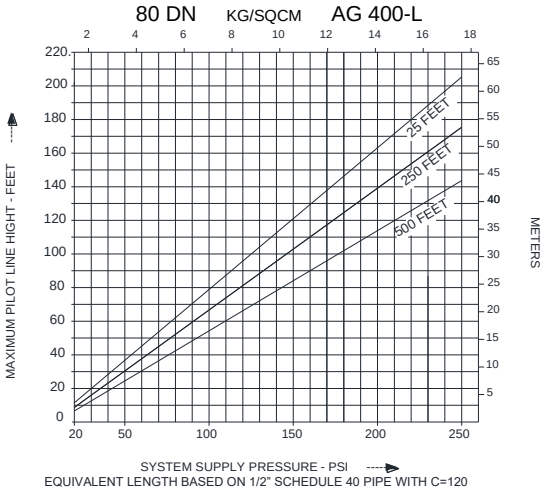
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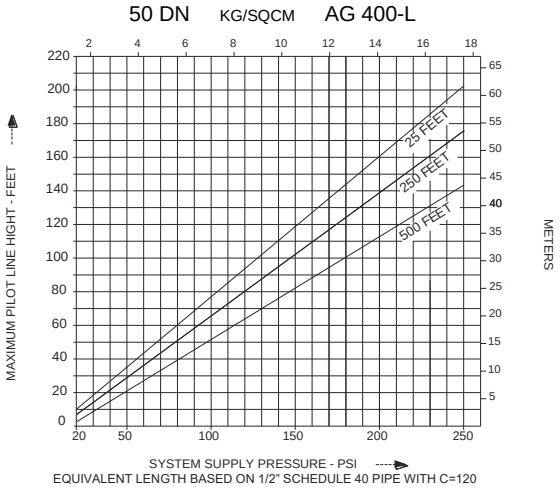
SPRINKLER HEIGHT LIMITATION





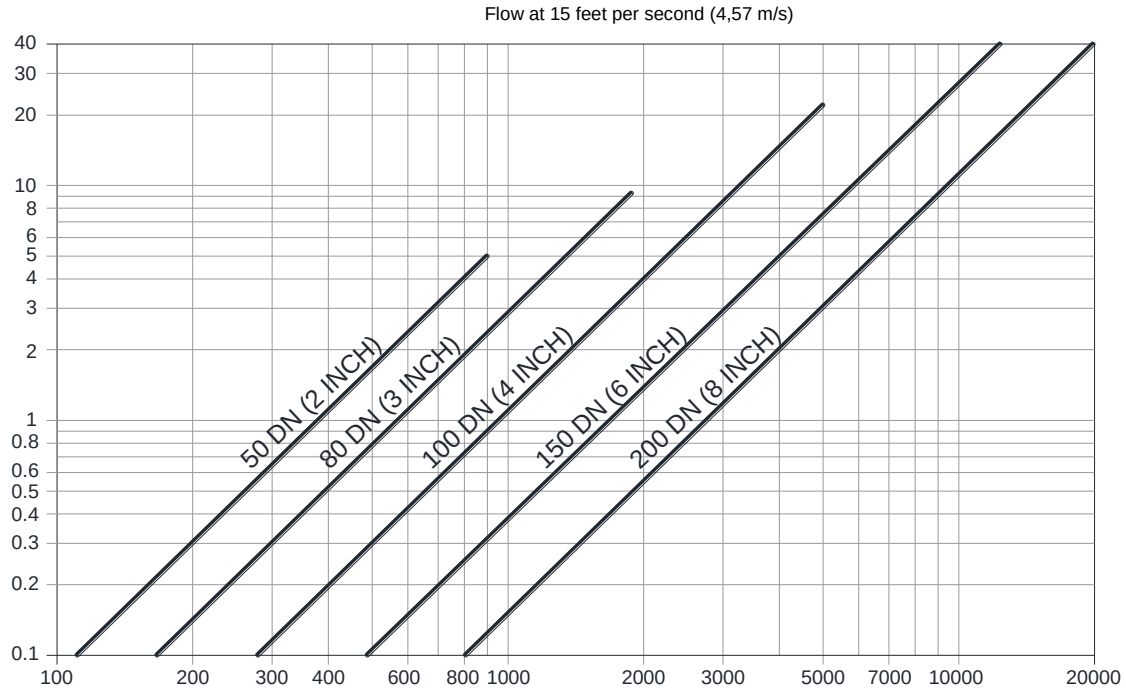






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FRICTION LOSS MODEL AG 400-L



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

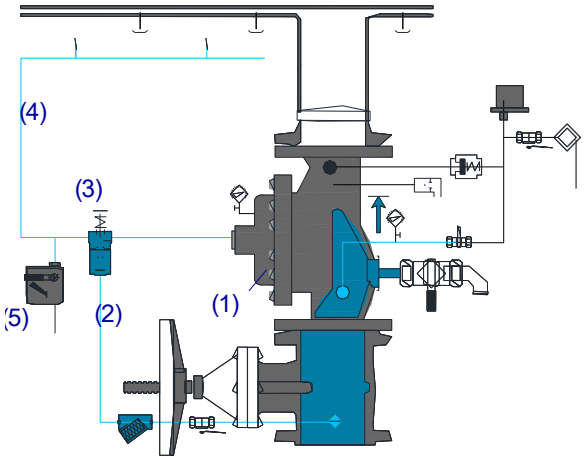
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OPERATION

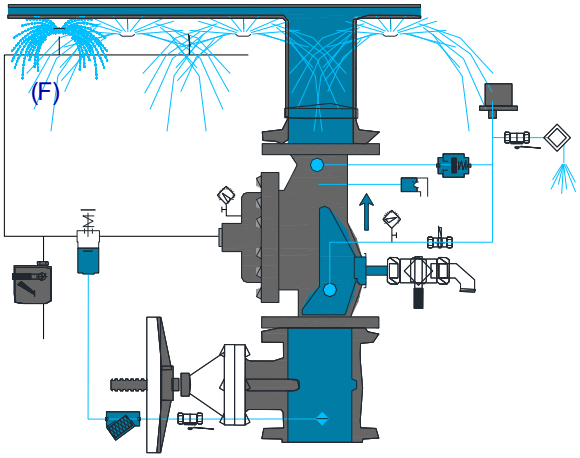
The Model AG 400-L from AG Fire Sprinkler is suitable for systems that include wet pilot lines with closed fusible plugs (thermal releases), and piping systems with a wide variety of open nozzles. The typical wet pilot line is installed in a covered area and connected to the valve trim.

In the SET position, the line-pressure supplied to the main valve's control chamber **(1)** via the priming line **(2)** and through an Manual Reset **(3)**, is trapped by the Manual Reset **(3)** internal check valve, by the closed wet pilot line **(4)**, and by a closed Manual Emergency Release **(5)**. 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, water is released from the control chamber through the opened thermal release **(F)** of the wet pilot line, or the Manual Emergency Release. The Manual Reset **(3)** prevents line-pressure from entering the control chamber, allowing the main valve to latch open and water to flow into the system piping and to the alarm device.



Valve Closed (Set position)



Valve Opened (operating condition)

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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	PDAG400L050H0	PDAG400L050H1	PDAG400L050H2	PDAG400L050H3	PDAG400L050H4
3” DN80	PDAG400L080H0	PDAG400L080H1	PDAG400L080H2	PDAG400L080H3	PDAG400L080H4
4” DN100	PDAG400L100H0	PDAG400L100H1	PDAG400L100H2	PDAG400L100H3	PDAG400L100H4
6” DN150	PDAG400L150H0	PDAG400L150H1	PDAG400L150H2	PDAG400L150H3	PDAG400L150H4
8” DN200	PDAG400L200H0	PDAG400L200H1	PDAG400L200H2	PDAG400L200H3	PDAG400L200H4

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	TRDL050080H0	TRDL050080H0P	TRDL050080H3	TRDL050080H3P	TRDL050080H4	TRDL050080H4P
3” DN80	TRDL050080H0	TRDL050080H0P	TRDL050080H3	TRDL050080H3P	TRDL050080H4	TRDL050080H4P
4” DN100	TRDL100200H0	TRDL100200H0P	TRDL100200H3	TRDL100200H3P	TRDL100200H4	TRDL100200H4P
6” DN150	TRDL100200H0	TRDL100200H0P	TRDL100200H3	TRDL100200H3P	TRDL100200H4	TRDL100200H4P
8” DN200	TRDL100200H0	TRDL100200H0P	TRDL100200H3	TRDL100200H3P	TRDL100200H4	TRDL100200H4P

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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