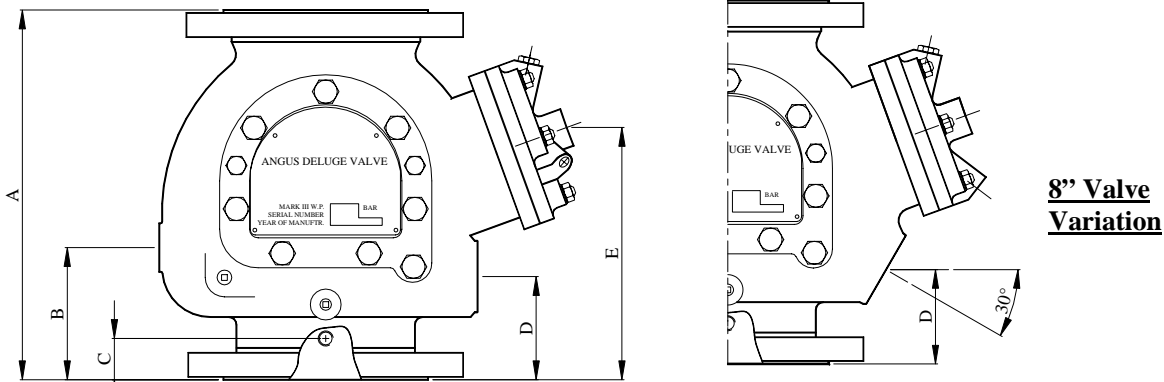
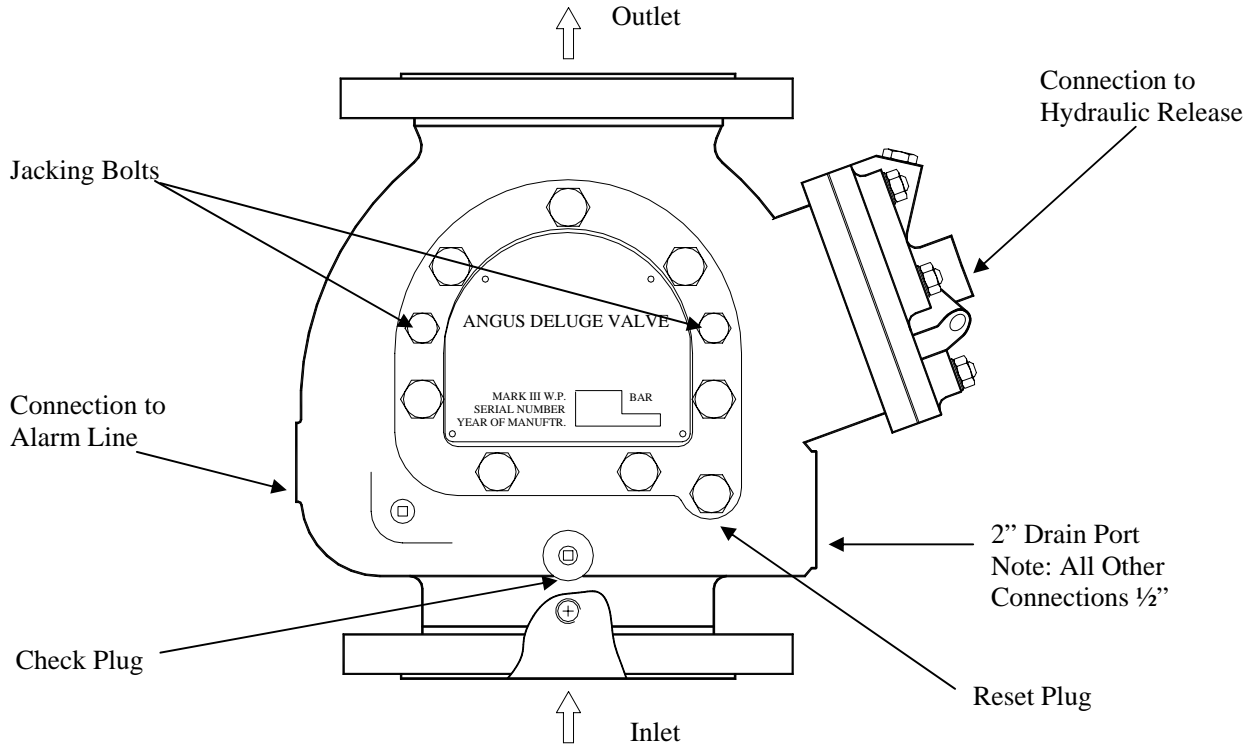


GW DELUGE VALVE

MK III CAST IRON – HYDRAULIC TRIM

GENERAL DESCRIPTION.



For details of the hydraulic chamber piping refer to page 4

General Description

The GW Mark III Deluge Valve is a straight through, bottom entry top exit, firewater latched, deluge valve specifically designed and approved for automatic fire protection systems. It's unique design of actuator uses the fire main pressure to keep the valve closed – no external services are required. Once pressure in the water chamber is released the valve rapidly opens to produce a virtually uninterrupted water passage with good water flow/pressure drop characteristics.

VALVE SIZE	100 mm	150 mm	200 mm
A	335	390	500
B	140	146	172
C	45	48	56
D	111	118	111
E	242	259	295
WEIGHT (approx.)	47 kg	73 kg	148 kg

The right is reserved to vary or modify any specifications without prior notice.

GW SPRINKLER A/S

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Data sheet also available at www.gwspinkler.com

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Data Sheet: Mark 3 Deluge Valve General Description

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GW DELUGE VALVE

MK III CAST IRON – HYDRAULIC TRIM

GENERAL DESCRIPTION.



Method of operation

Water under pressure from below the valve is fed via a non return valve and a restricted orifice (built into the chamber casting) into the hydraulic chamber. This applies pressure on the diaphragm which via the piston forces the latch to hold the clapper in the closed position.

The water pressure in the chamber is normally released through the centre tapping by one of three methods:

1. Opening a manual release valve
2. Operation of an electrical solenoid valve
3. Fracture of a hydraulic detector line

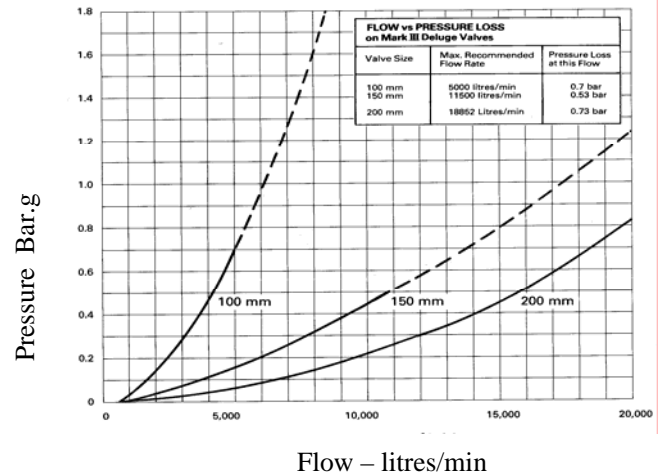
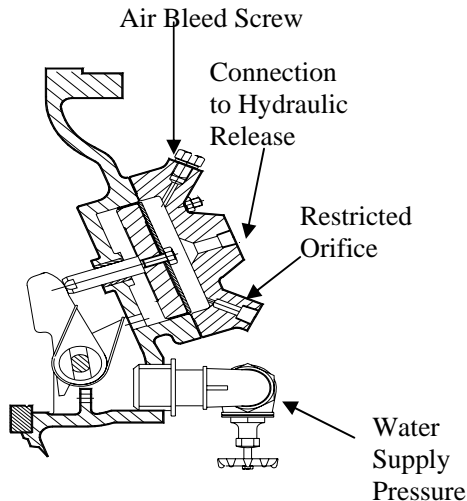
Because water can escape from the diaphragm chamber faster than it can be replaced (via the restricted inlet orifice) the pressure on the diaphragm is reduced until it no longer holds the latch in position, the clack is released and water flows to the pipework system and if required water can be diverted to sound a mechanical or electrical alarm.

Once the valve has been released the clack is lifted by the water flow and the latch normally moves forward on a spring to stop the clack falling back and closing. This is recommended as the Standard setting.

However the clack latch can be spring biased to swing away from the clack to facilitate automatic valve reset. This option to be only used only with “fail safe” actuation system.

Approvals:

LPCB (For a full, and up to date list of approvals, refer to GW Fire)



Quality Control:

Every valve body is hydrostatically tested to 32 bar and subject to a complete functional test at 16 bar.

Standard Valve:

Nominal sizes: 100mm, 150mm, 200mm.

Inlet & Outlet flanged to BS4504:16/11 R.F. suitable for a maximum working pressure of 16 bar

All Threads BSP

Material of construction Cast Iron to BS1452 Grade 260 with Bronze & Cast S.G. Iron internals

Options:

Hydraulic/pneumatic actuation (see separate data sheet)

Body in alloy bronze or stainless steel

ANSI flanges

External manual re-set

Function test certificate

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GW DELUGE VALVE

MK III CAST IRON – HYDRAULIC TRIM

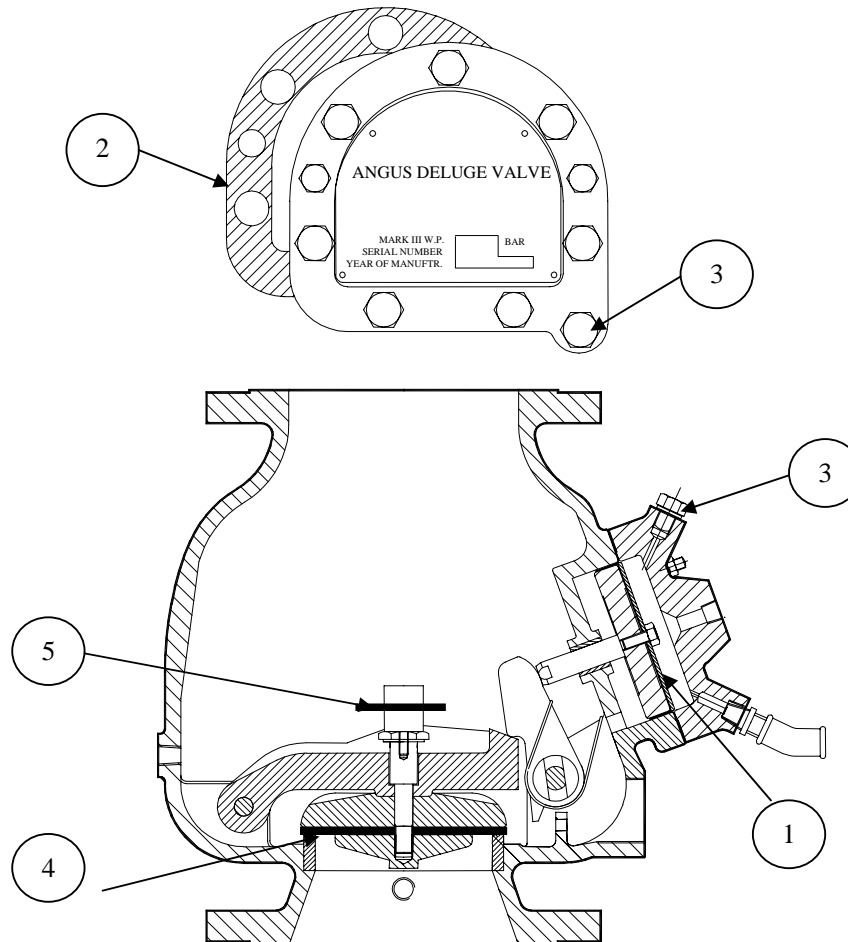
GENERAL DESCRIPTION.



SPARE PARTS FOR REGULAR MAINTENANCE

The following numbers relate to parts required for regular maintenance. Only genuine GW parts should be used.

GW Part Number	100mm Ø	150mm Ø	200mm Ø	Item
Large diaphragm (and piston assembly)	DES24554	DES24555	DES24557	1
Cover plate rubber gasket	DE07612	DE07580	DE07640	2
Washer, bleed plug (2 per valve)	DE14229	DE14229	DE14229	3
Clapper or Clack rubber seal	DE07607	DE07571	DE07628	4
Clack seat insert rubber	-	-	DE24433	5



1. The rolling diaphragm is only supplied as part of a pre-assembled piston unit to eliminate the possibility of the items being assembled incorrectly.
2. The clack seat insert rubber is only fitted to the 200 Ø valve.

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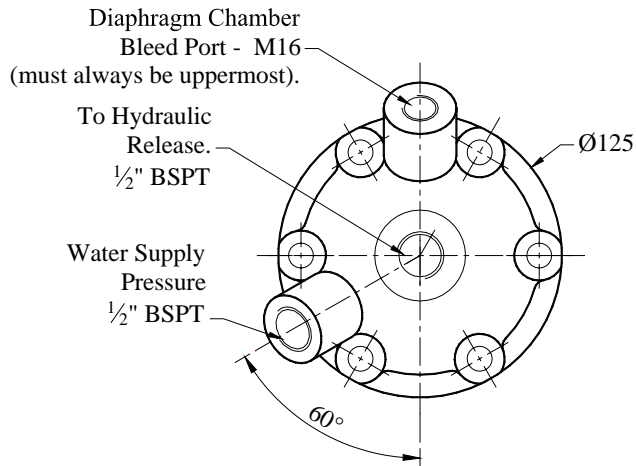
Data Sheet: Mark 3 Deluge Valve General Description

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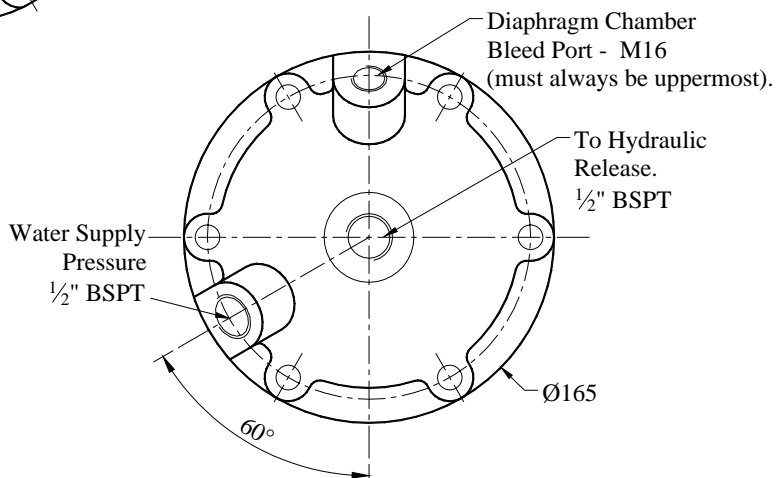
GW DELUGE VALVE

MK III CAST IRON – HYDRAULIC TRIM

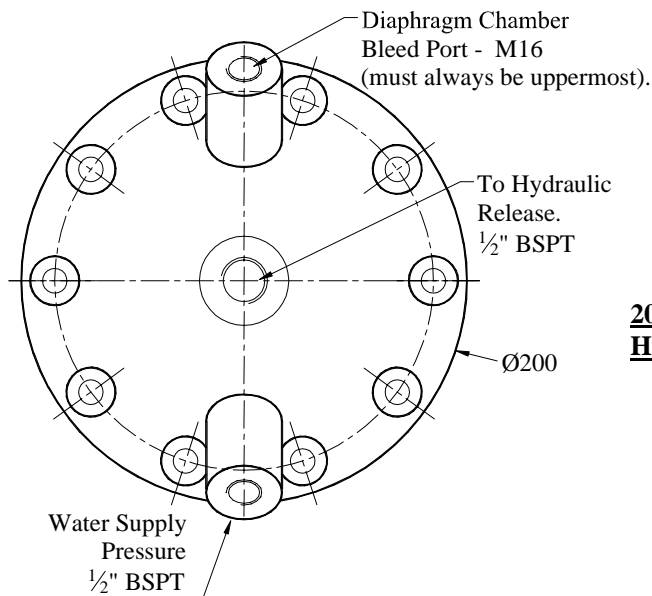
GENERAL DESCRIPTION.



**100mm
Hydraulic**



**150mm
Hydraulic**



**200mm
Hydraulic**

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