

Keraflo
OUR WORLD IS WATER



LPS 2083 : Issue 01
Cert/LPCB ref. 1642



FB Type Fire Sprinkler Tank Valves

Delayed action mechanical float valves certified to LPS 2083, suitable for tanks with or without raised valve chambers.

FB Type Fire Sprinkler Tank Valves from Keraflo Ltd have been successfully tested at BRE and are now fully certified to LPS 2083.

Three models are available - 1", 2" (single head) and 3" (twin head) - suitably fitted with ruggedised materials to comply with the exacting Standard, yet delivering the same trusted and reliable performance in-use that is the hallmark of Keraflo delayed-action mechanical float valves.

FIRE
SPRINKLER
TANK
VALVES



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These new Fire Sprinkler Tank Valves are the first products available on the market to comply with the LPCB's Loss Prevention Standard LPS 2083. "The Requirements and Test Procedures for the LPCB Approval of Automatic Water Level Control Valves for use in Above Ground Suction Tanks for Sprinkler Systems" - published by BRE Global Ltd.

Standards compliance to LPS 2083 is specified in section 3.5.3 of LPS 1276: Issue 2.0 "Requirements for the LPCB certification and listing of above ground suction tanks for sprinkler systems", as opposite:

LPS® 1276 3.5.3 Ball or Float Valve
A ball or float valve for maintaining the required level of water in the tank shall be installed. The valve shall be LPCB listed to LPS 2083 "The Requirements and Test Procedures for the LPCB Approval of Automatic Water Level Control Valves for use in Above Ground Suction Tanks for Sprinkler Systems"

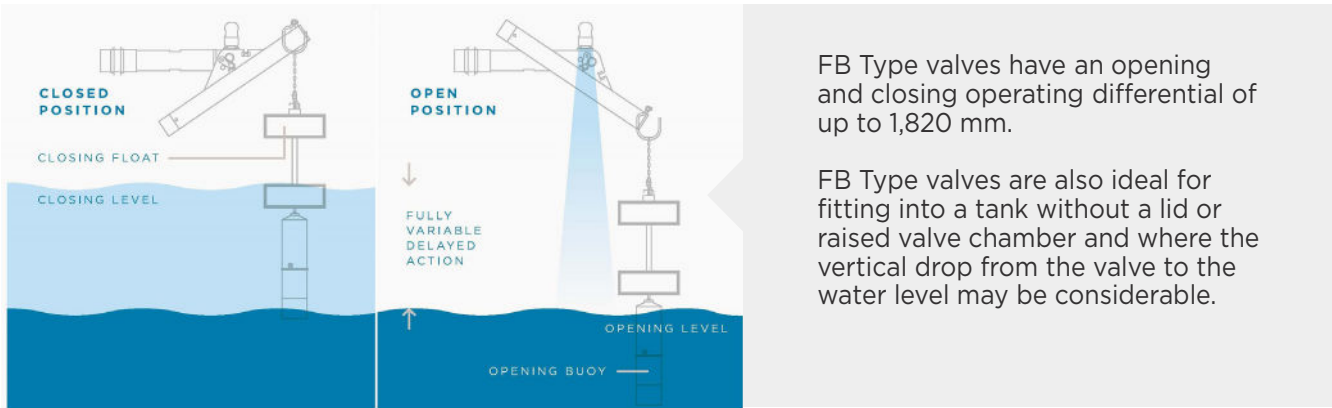
Key Benefits

- Standards Compliance**
Fully tested at BRE and certified to LPS 2083.
- Installation Flexibility**
Suitable for installation directly into a tank or raised valve chamber with a virtually unlimited range of opening and closing levels – ideal for larger tanks.
- Easy Adjustment**
Supplied with an adjustable chain allowing the closing level to be set below any combination of weir slot, overflow and/or warning device.
- Maximised Tank Capacity**
Full-bore flow with fast refill and easy adjustment of variables.
- Positive Float-Activated Action**
The delayed action of the float-activated valves delivers a positive fill to actively churn the water in the tank.
- Backsiphonage Protection**
'Up and Over discharge' to BS1212 Part 2 – helps to facilitate air gap compliance to the Water Regulations.
- Robust Design**
The heart of the valve incorporates pressure compensated rotating ceramic discs which are aligned in the open position, with a non-wearing ceramic disc seal housed in a DZR brass body for extended durability.
- Proven Float Design**
Made from polyethylene closed cell foam which is CFC-free, air retardant and chemically and biologically inert.
- Quiet Operation**
Quieter in operation than conventional valves, due to the elimination of water hammer, valve bounce, 'hiss' and dribble.
- Reduced Tank Wall Stress**
The valve's lightweight design reduces stress on the tank wall fixing point, with no need for additional supporting structures.

How it works

When water is taken from the tank and the water level falls, the Keraflo FB Type valve does not immediately open (at a dribble) as would happen with a equilibrium valve. There is, instead, a delay; the valve does not open until the water level has fallen to the user-selected level.

When this opening water level is reached the FB Type Valve moves from a 'fully closed' position into a 'fully open' position, allowing water to flow into the tank at a maximum flow rate. When the water level has returned to its original full level, the valve immediately closes from the 'fully open' position, preventing any of the 'dribbling' associated with equilibrium valves.



FB Type valves have an opening and closing operating differential of up to 1,820 mm.

FB Type valves are also ideal for fitting into a tank without a lid or raised valve chamber and where the vertical drop from the valve to the water level may be considerable.

FLOW RATE FOR NOMINAL VALVE SIZE AT STATED FLOW PRESSURE

VALVE MODEL	FB25		FB50SF		FB80		KEY
Size (inches) Size (mm)	1" 25mm	v28	2" 50mm	v54	3" 80mm	v76.1	V Velocity of water flowing in corresponding copper pipe (mm) at stated flow rate
BAR	l/s	m/s	l/s	m/s	l/s	m/s	SF Standard flow
0.5	0.18	0.33	0.67	0.32	1.34	0.31	Velocity < 2m/s
0.10	0.25	0.47	0.95	0.45	1.90	0.45	
0.25	0.40	0.74	1.50	0.72	3.00	0.70	
0.50	0.56	1.04	2.12	1.02	4.25	1.00	
1.00	0.79	1.47	3.00	1.44	6.00	1.41	
1.50	0.97	1.60	3.68	1.76	7.35	1.72	Velocity > 2m/s < 3m/s
2.00	1.12	2.08	4.25	2.03	8.49	1.99	
3.00	1.38	2.55	5.20	2.49	10.40	2.44	
4.00	1.59	2.95	6.00	2.87	12.01	2.82	Velocity > 3m/s
5.00	1.78	3.29	6.71	3.21	13.43	3.15	
Kv m³/hr	2.86		10.81		21.62		

CONVERSION FACTORS Litres per second to cubic metres per hour x 3.6 • Litres per second to cubic metres per minute x 0.06
Litres per second to gallons per hour x 791.9 • Litres per second to gallons per minute x 13.2

PRESSURE Bar to pounds per square inch x 14.5 • Bar to Pascal x 100,000 • Bar to metres x 10.2

Technical Specification

Keraflo FB Type equilibrium float valve with DZR brass body, having variable delayed action, BRE tested and certified to LPS 2083. The up and over discharge conforms in principle to BS.1212 Part 2. The valve features a non-wearing maintenance-free ceramic disc seal for water pressure up to 5 bar. For fire sprinkler cold water cisterns with or without raised chamber.

PRODUCT CODES

Fire Sprinkler Tank Valves	Size	Product Code
FB Type delayed action mechanical float valve certified to LPS 2083, Single Head	1" (25mm)	FB25
FB Type delayed action mechanical float valve certified to LPS 2083, Single Head, Standard Flow	2" (50mm)	FB50SF
FB Type delayed action mechanical float valve certified to LPS 2083, Twin Head	3" (80mm)	FB80

Quality & Warranty Information

Keraflo products are manufactured under Quality Management Systems certified to ISO.9001:2015.

FB Type Fire Sprinkler Tank Valves have a 1 Year Warranty from date of manufacture as standard, which can be extended to a 10 Year Warranty from date of installation at no extra cost, subject to registration and installation and maintenance as describes in KB Installation Guide.



See FB Installation guide for details



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