FLOMATIC® VALVES

Ductile Iron Check Valves

Submersible Pump Applications

- Model 80DI
- Model 80DICL
- Model 80DIX
- Model 80MDI/MDIX

80 Years Since 1933

FLOMATIC® VALVES

High Quality Valves Built to Last…

nqa ISO 14001 Registered | ANAB ACCREDITED | nqa ISO 9001 Registered

Flomatic Valves

High Quality Valves Built to Last...

Model 80DICL/80MDICL

Same configuration as our popular series 80DI, the 80MDICL incorporates CertainTeed's new patented groove lock type pipe connections called Certa-Lok™ Fusion epoxy coated inside and out including poppet assembly. This valve is corrosion resistant and Unleaded. High strength ductile iron body with stainless steel spring and NITRILE (Buna-N) seal.

Temp Max: 180°F (80C) Pressure Max: 400 PSI

Note: A Reduced port valve.

- For male threading add "M" to part number.
- BSP & BSPP threads optional.

Certa-Lok™ is a registered trademark with the Certain Teed Corporation.

80DICL

Size	Part No.	WGT.
3"	7938CL	5.0
4"	7939CL	8.0
5"	4088CL	14.0
6"	4089CL	35.0

80MDICL

Size	Part No.	WGT.
3"	7938MCL	5.0
4"	7939MCL	8.0
5"	4088MCL	14.0
6"	4089MCL	35.0

Model 80DIX

An economical high strength valve assembly. Features a ductile iron body and a double-guided ductile iron poppet, NITRILE (Buna-N) seal, stainless steel spring and fasteners. Requires a low flow well. (See flow chart)

Temp Max: 180°F (80C) Pressure Max: 400 PSI

- Designed for vertical and horizontal installations.
- To order model 80DIX with break-off plug, replace "DIX" with "XPL" in part number.
- BSP & BSPP threads optional.

80DIX

Size	Part No.	WGT.
3"	7938DIX	10.0
6"	4089DIX	48.0
8"	4090DIX	90.0
10"	4091DIX	148.0
12"	4092DIX	340.0

Model 80MDI

Model 80MDI is a high strength ductile iron check valve similar to 80DI but features a male threaded inlet and female threaded outlet. Ideal for submersible pumps.

Temp Max: 180°F (80C) Pressure Max: 400 PSI

Note: A Reduced port valve.

- To order model 80MDI with break-off plug, add "PLG" to part number.
- BSP & BSPP threads optional.

Consult factory for flow chart.

80MDI

Size	Part No.	WGT.
2"M x 2"F	4084VFD	4.0
3"M x 3"F	4083	8.0
4"M x 4"F	4077	14.0
5"M x 5"F	4075	48.0
6"M x 5"F	4087	48.0
6"M x 6"F	4081VFD	40.0

Model 80DI TURBO

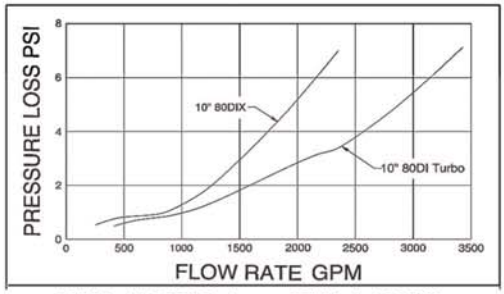
Model 80DI TURBO valves are patented high efficiency ductile iron check valves with female x female connection. Features a high strength ductile iron body and poppet, stainless steel spring, screws and shaft with Buna-N "O-Rings". Patented dual poppet design reduces headloss up to 60%.

Temp Max: 180°F (80C) Pressure Max: 400 PSI

Note: For vertical use only.

80DI TURBO

Size	Part No.	WGT.
6"	4089T	46.0
10"	4091T	155.0



10" Model 80DI Turbo vs. 10" Model 80DIX Head Loss Comparison Chart

From America's #1 Ductile Iron Valve Manufacturer...

Operation

Strong Enough to Support Large Pumps

The 80DI series ductile iron check valve is an industry proven heavy duty in-line poppet style valve designed to prevent flow reversal. When pumping from a well, water is allowed to flow through the valve and then closes automatically when the pump is shut off to prevent backflow.

General Applications

Flomatic's ductile iron series 80DI valves are one of the most popular valves in the water well industry today. They are specifically designed for use with submersible pumps or other applications where it is necessary for the check valve to be installed in the well casing. The 80DI series valves will provide excellent service in any application where a conventional check valve is recommended and is vertically mounted. For general installations, request bulletin #810.

Model 80DI

Temp Max: 180°F (80C) Pressure Max: 400 PSI New Pressure Rating 600 PSI 4"-8"

High strength ductile iron body with threaded female x female connection. Features a NITRILE (Buna-N) seal, stainless steel spring and fasteners and a ductile iron poppet (1" through 1-1/2" sizes Acetal poppet). Full flow design.

80DI

Size	Part No.	WGT.
1"	4031DI	.2
1-1/4"	4032DI	.7
1-1/2"	4033DI	1.3
2"	7937	5.0
2-1/2"	7936	7.0
3"	7938	10.0
4"	7939	19.0
5"	4088	48.0
6"	4089	63.0
8"	4090	92.0

Benefits

- **Low Headloss**
- **Minimizes Water Hammer**
- **Lead-In Thread for Easy Installation**
- **Prevents Pump Reversal**
- **BSP & BSPP Threading Optional**
- **8 Round Threads Optional**

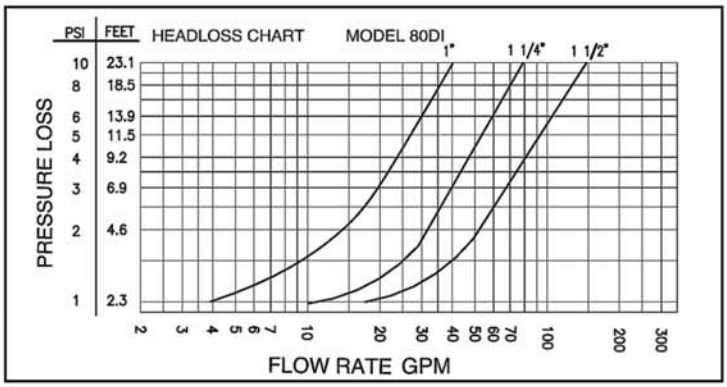
Materials

Body	Ductile Iron - ASTM-A536-84 (1"– 2" cast steel)
Optional Break-Off Plug	Stainless Steel
Disc*	Ductile Iron - ASTM-A536-84
Rubber Disc	Buna-N Rubber
Follower*	Ductile Iron - ASTM-A536-84
Poppet Assembly Bolt/Nut	18-8 Stainless Steel
Spring	18-8 Stainless Steel
Finish	Fusion Bonded NSF® Approved Powder

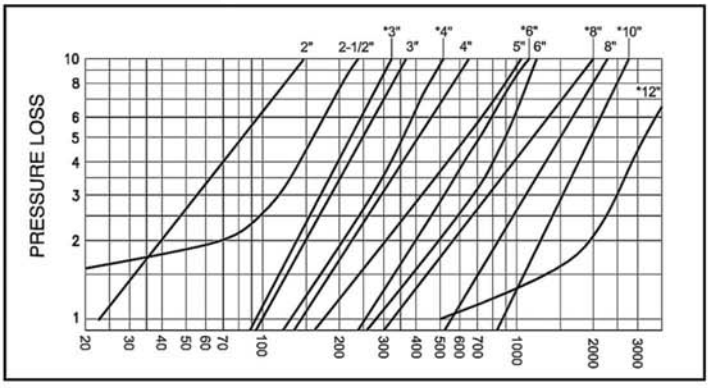
*1" through 1-1/2" Acetal material

Valve Body Strength

When a check valve is installed vertically in a riser pipe, the weight of the pipe, water column and pump below is hanging on the valve body. In deeper settings, the tensile stress on a valve placed near the surface can be high. The table on the right indicates the recommended maximum weights that each valve size will support.



1" through 1-1/2"



2" through 10" Headloss Chart

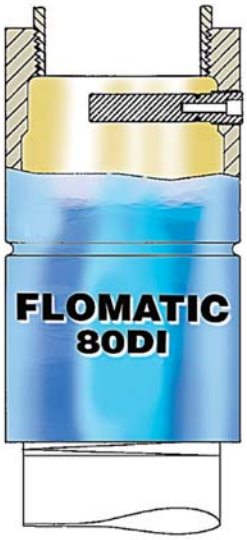
*80 DIX

Break-Off Plug for Model 80DI Series Check Valves

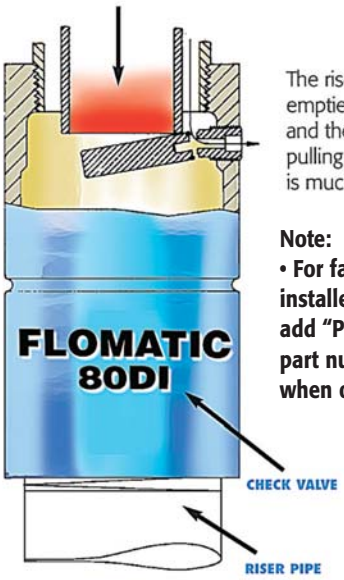
Drains riser pipe when pulling pump. Stainless steel construction NITRILE (Buna-N) seal. Threaded 3/8" to assemble into valve.

Break-Off Plug

When a submersible pump is pulled, a weight is dropped into the riser pipe breaking off the plug, leaving a small drain hole.



BEFORE



AFTER

The riser pipe empties quickly and the job of pulling the pump is much easier.

Note:
• For factory installed plug, add "PLG" to part number when ordering

Size		Part #	A		Min pipe size to drop		Length of pipe	
inch	mm		inch	mm	inch	mm	feet	meters
3	75	76098-6	3	75	1-1/2	40	10	3
4	100	76098-7	4	100	2	50	10	3
5	125	76098	5	125	2/1/2	65	10	3
6	150	76098	5	125	3	80	4	1.2
8	200	76098	5	125	4	100	4	1.2
10 &12	250	76098-11	8-1/2	206	5	125	4	1.2

Recommended Valve Installation

Ductile Iron Valves must be installed according to Flomatic's installation instructions to prevent damage to the valve and pump. For detailed installation of check valves see Bulletin #810. A check valve should never be installed more than 25 feet above the lowest expected pumping water level in the well. Valves installed more than 25 feet above the water level will create a vacuum in the riser pipe. When the pump starts, this causes an "upthrust" problem in the pump motor and will subject the valve to extremely high opening pressures which will lead to premature failure.

In deep settings, below 400 feet, valves should be spaced at maximum 200 foot intervals to keep opening and closing pressures within reasonable limits.

Also Available from Flomatic Valves

80DI-VFD

Stainless Steel Check Valves

Swing Check Valves

FLOMATIC® VALVES

Flomatic Corporatioin
15 Pruyn's Island Drive
Glens Falls, NY 12801-4421

Telephone: 1-(800)-833-2040
Fax: 1-(800)-314-3155
www.flomatic.com

Direct Telephone: 1-(518)-761-9797
Direct Fax: 1-(518)-761-9798

Flomatic Corporation
High Quality Valves Built to Last...