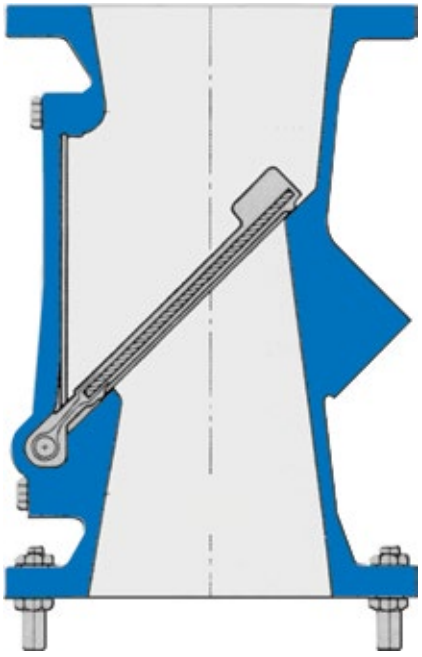
DeZURIK
APCO | HILTON

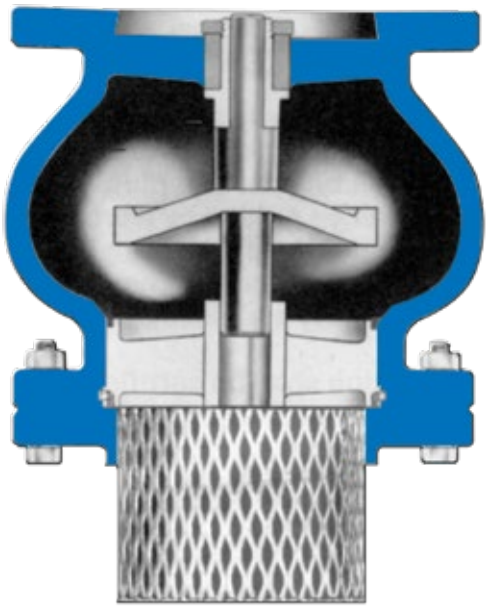
BULLETIN 1400
JUNE 2020

APCO FFF & FRF FULL FLOW FOOT VALVES



FULL FLOW RUBBER FLAPPER FOOT VALVES (FRF)

Body Style 100F for sewage



FULL FLOW FOOT VALVES (FFF)

Body Style 1400 for water

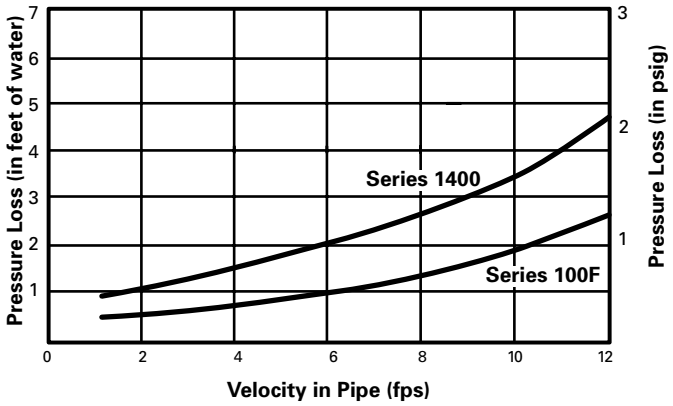
Full Flow Foot Valves

The Foot Valve is a form of a check valve, installed at the bottom of the suction line and inside the wet well. The Foot Valve is an inexpensive way to prime a single centrifugal pump.

Fetures Include:

- 10% greater flow area than pipe size ensures minimal head loss
- 100% hydrostatically tested at twice the flange working pressure
- Drop tight resilient seal compression molded
- All parts easily replaced in the field
- Highest quality materials of construction
- Precision machined to insure top performance
- Heavy duty
- Galvanized strainer bolts

Typical Friction Loss Chart



How it Works

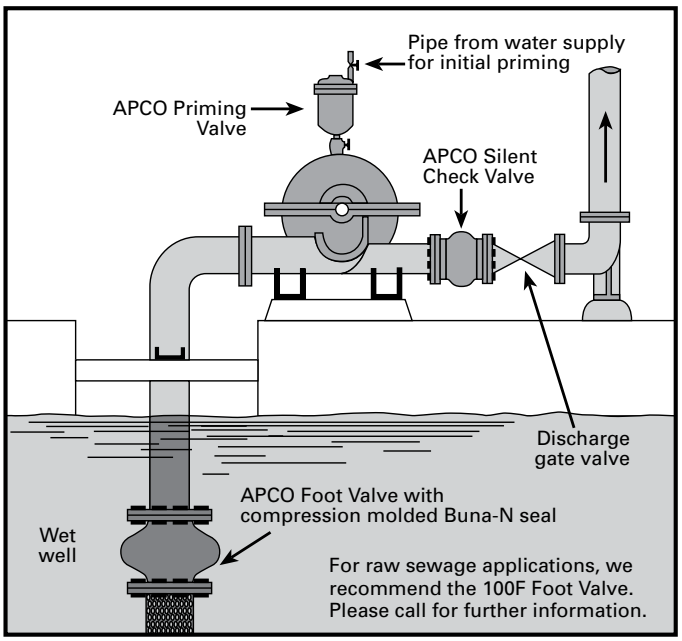
The Foot Valve is installed in the vertical position with the direction of flow upwards. In this position, the Foot Valve is normally closed. Prior to initial start up of the centrifugal pump, it is recommended to manually fill the suction line with water. This eliminates the risk of damage to the centrifugal pump from running dry.

Once the suction line is filled the Foot Valve takes over and opens while the centrifugal pump is running and closes when the pump stops running to maintain a flooded suction and primed pump.

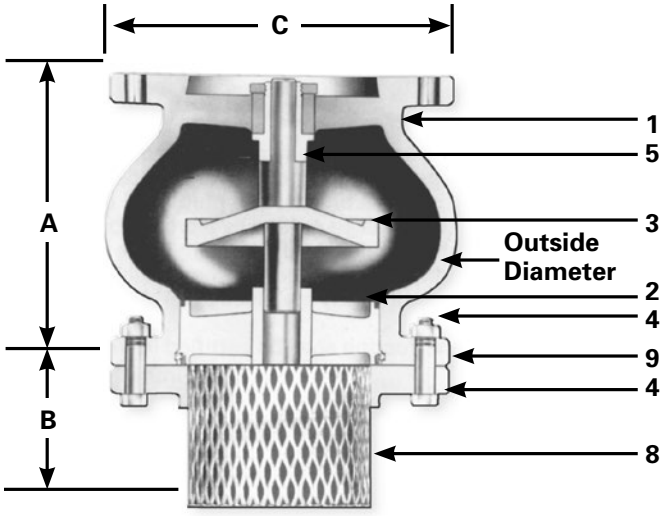
Selection Care

Since the Foot Valve is continually submerged in the wet well and not readily accessible for inspection or repair, it is important to select a Foot Valve of high quality long wearing construction. The APCO Foot Valve is such a valve. It has a heavy cast iron body, rugged bronze internals and most importantly drop tight resilient seating to guarantee no loss of suction. The resilient seal is compression molded (not glued or chemically bonded) onto the seat for long life.

Typical Foot Valve Installation



Specifications



1	Body	Cast Iron
2	Seat	Bronze W/Buna-N Seal
3	Plug	Bronze
4	Bolts & Nuts	Steel
5	Bushing	Bronze
8	Strainer	Stainless
9	Gasket	Lexide

125# Class						
Size	**Model**	**A**	**B**	**C**	**O.D.**	**Weight**
3" / 80	1403	6" / 152	4.875" / 124	7.5" / 191	5.625" / 143	38 / 17
4" / 100	1404	7.25" / 184	4.875" / 124	9" / 229	7.375" / 187	51 / 23
5" / 125	1405	8.5" / 216	5" / 127	10" / 254	9.25" / 235	72 / 33
6" / 150	1406	9" / 229	5" / 127	11" / 279	10" / 254	95 / 43
8" / 200	1408	10.125" / 257	5.125" / 130	13.5" / 343	13.125" / 333	146 / 66
10" / 250	1410	12" / 305	5.125" / 130	16" / 406	16.75" / 425	218 / 99
12" / 300	1412	14.375" / 365	5" / 127	19" / 483	20.125" / 511	335 / 152
14" / 350	1414	15.75" / 400	5.375" / 137	21" / 533	22.375" / 568	450 / 204
16" / 400	1416	17.625" / 448	5.375" / 137	23.5" / 597	25.375" / 645	570 / 259
18" / 450	1418	18.75" / 476	5" / 127	25" / 635	27.75" / 705	700 / 318
20" / 500	1420	20.625" / 524	5.5" / 140	27.5" / 699	31.125" / 791	845 / 383
24" / 600	1424	24" / 610	7" / 178	32" / 813	37" / 940	1595 / 723
30" / 750	1430	29.25" / 743	7" / 178	38.75" / 984	45.25" / 1149	2020 / 916
36" / 900	1436	45" / 1143	8" / 203	40" / 1016	53.25" / 1353	4185 / 1898

Inch lbs
Millimeter kg

Specifications

The Foot Valve shall have a heavily constructed cast iron globe style body with integral flanges. The flow area through the body shall be 10% greater than the equivalent pipe size.

The plug and seat shall be bronze. The plug shall be center guided from both ends to ensure shut-off. The downstream side of the plug stem shall be guided by a bronze bushing inside the hub of the body spokes. The upstream side of the plug stem shall be guided by the bore in the center hub of the bronze seat. The seat shall have a resilient Buna-N seal compression molded, not glued or chemically bonded, for positive water tight shut-off at low head pressures. The strainer cap shall be heavy stainless steel expanded metal with a steel flange. The strainer cap shall be bolted to the Foot Valve body.

All the materials of construction shall be certified in writing to conform to ASTM specifications as follows:

Body	Cast Iron	ASTM A126 GR.B
	Ductile Iron	ASTM A536 GR65-45-12
Plug & seat	Bronze*	ASTM B584
Seat seal	Buna-N	
Strainer	Stainless Steel	T302
Bolts	Steel	ASTM A307 GR.B
Exterior paint	Universal Metal Primer	FDA approved for potable water contact

Note: for APCO Series 100F see Bulletin 100 for dimensions and materials.

*** Bronze components meet current lead free requirements.**

Sales and Service

For information about our worldwide locations, approvals, certifications and local representative:

Web Site: www.dezurik.com E-Mail: info@dezurik.com

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