

# 500 Series IIS

**Mueller** SYSTEMS

## Magnetic Drive Positive Displacement Disc Meters Sizes 1-1/2" & 2"

### Features

**APPLICATIONS:** Measurement of cold water for residential, commercial and industrial applications where water volumes are low, and low flow sensitivity is important.

**CONFORMANCE TO STANDARDS:** Hersey Series 500 IIS Water Meters comply with ANSI/AWWA Standard C700. Meters which are manufactured with EnviroBrass® II maincase option meet the requirements of NSF Standard 61. Each meter is tested to ensure compliance.

**CONSTRUCTION:** Hersey Series 500 IIS Water Meters consist of three basic parts: maincase; measuring chamber; and permanently sealed register. The maincase and topcase are made of bronze. The measuring chamber, nutating disc and strainer are made of thermoplastic, which is dimensionally stable and will not corrode. A test port in the body permits in-line testing. Register box and lid are available in plastic or bronze.

The meter is designed so that the register, measuring chamber and strainer can be replaced without removing the meter from the line.

**REGISTER:** The permanently sealed register has a unique seal and heat-treated glass to eliminate dirt, moisture infiltration and lens fogging. An integral tamper-proof locking feature is provided to resist tampering with the register. The totalizing register has a straight-reading odometer type display, a 360° test circle with center sweep hand and a low flow (leak) detector. Standard gearing is used, making registers interchangeable by size.

All Hersey Meter Models have electronic meter reading systems available for increased reading efficiency (see Meter Reading Systems.)

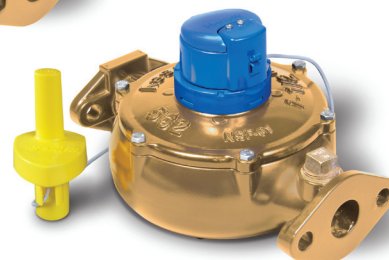
**OPERATION:** Water flows through the meter's strainer where any debris that could adversely affect meter accuracy or free operation is screened out. As the water enters, it fills a known volume of the measuring chamber on one or the other side of a movable disc that separates the chamber into two sections. As water enters it moves the disc (nutates), forcing a known volume of water out of the meter from the opposite side of the disc. The process repeats as the sections refill and empty in turn. The nutating action of the disc is coupled magnetically to the register to indicate the volume of water that passes through the meter. The large measuring chamber requires fewer nutations of the disc for each gallon measured, which helps to limit wear, reduce pressure loss and extend the life of the meter.

**MAINTENANCE:** The Hersey Series 500 IIS Water Meters are designed and manufactured to provide long service life with virtually no maintenance required.

**CONNECTIONS:** Available with integral two-bolt oval flanges, integral NPT internal threads or integral straight external threads.



562IIS



562IIS with Integral Hot Rod

500 Series IIS

### Materials and Specifications

MODEL NUMBER	562IIS and 572IIS
SIZES	1-1/2" and 2"
STANDARDS	Manufactured and tested to meet or exceed all applicable parts of ANSI/AWWA C700 Standard. EnviroBrass® II options meet requirements of NSF Standard 61.
SERVICE	Cold water measurement with flow in only one direction
OPERATING FLOW RANGE	See Chart on following page
ACCURACY	See Chart on following page
PRESSURE LOSS	See Chart on following page
MAXIMUM WORKING PRESSURE	150 PSI
TEMPERATURE RANGE	33°F to 100°F water temperature
MEASURING ELEMENT	Nutating Disc
DISC NUTATIONS (per Gallon)	562IIS: 6.47, 572IIS: 3.92
REGISTER TYPE	Straight reading, permanently sealed, magnetic drive with low flow indicator. Remote reading units optional.
METER CONNECTIONS	1-1/2" size and 2" size available with two bolt flanged ends, internal threads or external threads (NPT - ANSI B1-20.1)
MATERIALS	Maincase – bronze UNSC84400; Measuring Chamber – Thermoplastic; Magnets – ceramic; Strainer – Thermoplastic; Casing bolts – stainless steel ANSI B18; Register box and lid – thermoplastic.
OPTIONS	Meter case – EnviroBrass® II UNSC89520 Register box and lid – bronze UNSC85700; AMR Reading Systems.

### Meter Registration

Meter Size	Initial Dial*	Capacity	Initial Dial*	Capacity
1-1/2"	100 Gallons	100 Million	10 Cubic Feet	10 Million
2"	100 Gallons	100 Million	10 Cubic Feet	10 Million

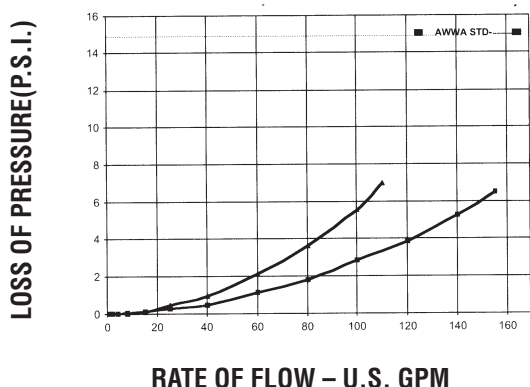
\*Registration equal to one full revolution of the sweep hand.

### Flow Characteristics

Meter Size	Typical Low Flow (95% Minimum)	Typical Operating Range (100% $\pm$ 1.5%)	Maximum Continuous Operation
1-1/2"	1-1/2 GPM	5 to 100 GPM	50
2"	2 GPM	8 to 160 GPM	80

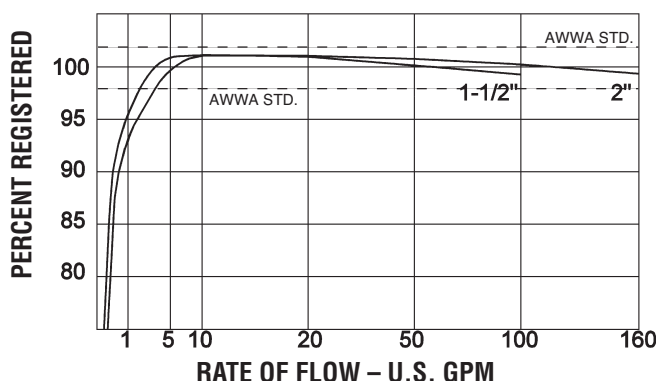
### Performance

HEAD LOSS – 1-1/2" AND 2" (Figure 1)



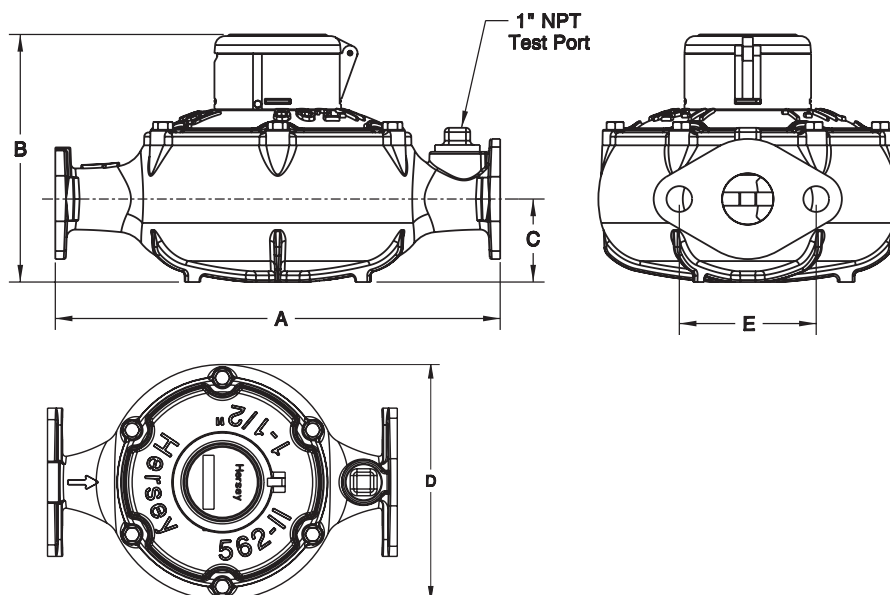
### Performance

ACCURACY – 1-1/2" AND 2" (Figure 2)



NOTE: Performance curves are typical only and NOT a guarantee of performance.

### Dimensions and Weights



Meter Size	1-1/2"	2"
Ends	Flanged, Female & Male	
Model	562	572
Dimension		
A	13"	17"
B	7.250"	8.125"
C	2.437"	3.00"
D	8.750"	10.437"
E	4.00"	4.50"
W	9-1/4"	10-1/2"
Net weight	18	28

NOTE: Meter couplings are optional and must be ordered separately. Weights are in pounds and are approximate.

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## Magnetic Drive Positive Displacement Disc Meters Sizes 1-1/2" & 2" Parts

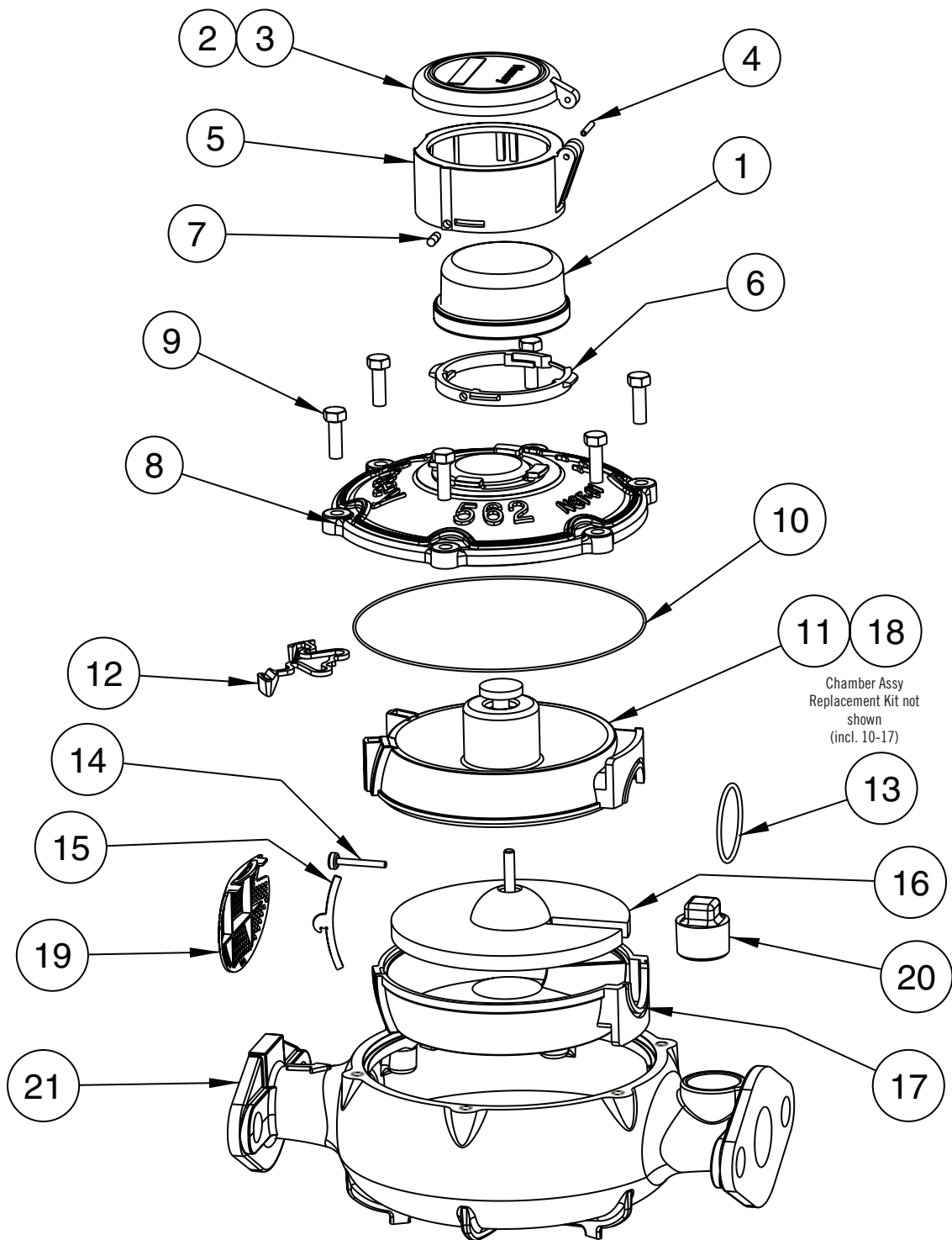
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Ref No.	Description	Material	562 1-1/2" Model	572 2" Model
1	Visual Register US Gallons CF	Glass/Brass	D357715	D358115
		Glass/Brass	D357725	D358125
	Translator Register* US Gallons CF	Plastic/Brass	D35791xxx	D35831xxx
		Plastic/Brass	D35792xxx	D35832xxx
	Specify Electronic Reading Value 4, 5, or 6 Wheel			
2	Complete Register Housing Assembly Includes parts 3-7	Plastic	B7856	B7856
		Bronze	B7857	B7857
3	Register Cover	Plastic	C5768	C5768
		Bronze	C5774	C5774
4	Spirol Pin	Plastic cover: SST	AS41122	AS41122
		Bronze Cover: SST	AS41123	AS41123
5	Register Housing Base	Plastic	C5769	C5769
		Bronze	C5772	C5772
6	Register Housing Insert	Plastic	C5770	C5770
7	Register Locking Pin	Blue Colored Plastic	A12658	A12658
		Brass Colored Plastic	A126581	A126581
8**	Top Case 2 Bolt Flange	Standard Bronze	D3546	D3550
	Top Case 2 Bolt Flange	EnviroBrass® II	D3546SI	D3550SI
	Top Case Female	Standard Bronze	C6587	C6601
	Top Case Female	EnviroBrass® II	C6587SI	C6601SI
	Top Case Male	Standard Bronze	C6587	C6601
	Top Case Male	EnviroBrass® II	C6587SI	C6601SI
9**	Case Bolts for 2 Bolt Flange Units	SST	90026 (qty 6)	90010 (qty 8)
	Case Bolts for Female Flange Units	SST	90074 (qty 10)	90074 (qty 10)
	Case Bolts for Male Flange Units	SST	90074 (qty 10)	90074 (qty 10)
10	O-ring Case Seal	Rubber	A130206	A130207
11	Top Chamber Assembly		D3275ASSY	D3277ASSY
12	Chamber Retainer	Plastic	C5466	C5466
13	O-ring Chamber Seal	Ruber	A130204	A130205
14	Thrust Roller	SST	A12781	B8024
15	Wear Plate	SST	B8026	B8025
16	Disk Assembly	Plastic/SST	B8067	B8068
17	Bottom Chamber	Plastic	D3274	D3276
18	Chamber Assy Replacement Kit (incl. 10-17)		D3575	D3576
19	Strainer	Plastic	C6576	C6577
20	Test Plug	Standard Bronze	59008	59008
		EnviroBrass® II	59008SI	59008SI
		SST	59013	59013
21**	Bottom Case 2 Bolt Flange	Standard Bronze – test port	D35481	D35521
	Bottom Case 2 Bolt Flange	EnviroBrass® II – test port	D35481SI	D35521SI
	Bottom Case Female	Standard Bronze – test port	C65851	D3593F
	Bottom Case Female	EnviroBrass® II – test port	C65851SI	D3593FSI
	Bottom Case Male	Standard Bronze – test port	C65852	D3593M
	Bottom Case Male	EnviroBrass® II – test port	C65852SI	D3593MSI

Call Mueller Systems Customer Service for Appropriate Translator Register and AMR Device part number

\*Not shown.

\*\*Note the different top and bottom case requirements for the various flange configurations. Bolt quantities and sizes vary.

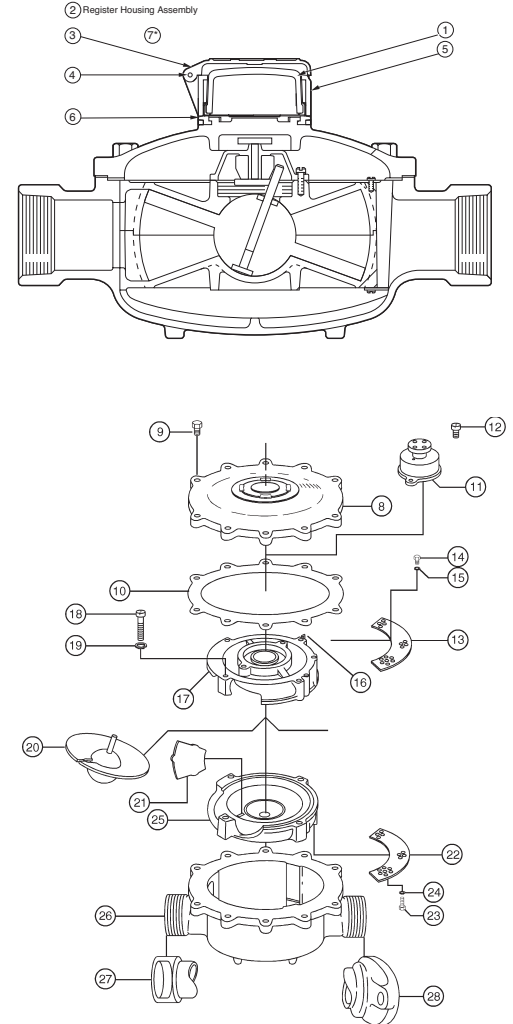


# 500 Series IIS

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Magnetic Drive Positive Displacement Disc Meters  
Models 562IIS and 572IIS from 1992-2003

Ref. No.	Description	562 1-1/2" Model	572 2" Model
1	Register USG (Glass/Brass) CF (Glass/Brass) Translator Register USG* (Plastic/Brass) Translator Register CF* (Plastic/Brass) Specify Electronic Reading Value 4, 5, or 6 Wheel	D32521 D32522 D35131xxx D35132xxx	D32531 D32532 D35071 D35072
2	Complete Register Housing Assembly (Plastic) (Bronze) Includes the following items 3-7:	B7856 B7857	B7856 B7857
3	Register Cover (Plastic) (Bronze)	C5768 C5774	C5768 C5774
4	Spirol Pin (Plastic cover: SST) (Bronze cover: SST)	AS41122 AS41123	AS41122 AS41123
5	Register Housing Base (Plastic) (Bronze)	C5769 C5772	C5769 C5772
6	Register Housing Insert (Plastic)	C5770	C5770
7*	Register Locking Pin (Blue Colored Plastic)	A12658	A12658
8	Register Locking Pin (Brass Colored Plastic)	A126581	A126581
9	Case Bolts	90073 (10)	90073 (12)
10	Case Gasket	51068P174	51068P175
11	Magnet Housing Assembly	51281G063	51281G078
12	Magnet Housing Screw	13348P176 (2)	13348P176 (2)
13	Top Strainer	51026P046	51026P047
14	Top Strainer Screw	13348P176 (2)	13348P176 (2)
15	Top Strainer Lock Washer	98155 (2)	98155 (2)
16	Chamber Pin	51115	51515
17	Top Chamber	51034P058	51034P059
18	Top Chamber Screw	13348P176 (2)	13348P176 (2)
19	Top Chamber Lock Washer	98155 (2)	98155 (2)
20	Disc Piston with Spindle	51038G186	51038G187
21	Diaphragm	51032P067	51032P068
22	Bottom Strainer	51026P046	51026P047
23	Bottom Strainer Screw	13348P176 (2)	13348P176 (2)
24	Bottom Strainer Lock Washer	98155 (2)	98155 (2)
25	Bottom Chamber	51033P058	51033P059
27	Bottom Case (Female)	51023P355	51023P357
28	Bottom Case (2 Bolt Flange)	51023P359	51023P360



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\*Call Mueller Systems Customer Service for Appropriate Translator Register and AMR Device part number

NOTE: If more than one part is required per assembly, quantity is noted after part number (in parenthesis). Models 562 and 572 (starting January 1992)

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