

# 500 Series D

**Mueller** SYSTEMS

## Magnetic Drive Positive Displacement Disc Meters Sizes 1-1/2" and 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 D Water Meters comply with ANSI/AWWA Standard C700. Meters which are manufactured with the Nylon coated ductile iron maincase option meet the requirements of NSF Standard 61, Annex G. The meters provide a no lead solution. Each meter is tested to ensure compliance.

**CONSTRUCTION:** Hersey Series 500 D Water Meters consist of three basic parts: maincase; measuring chamber; and permanently sealed register. The maincase and topcase are made of Nylon coated ductile iron. 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.

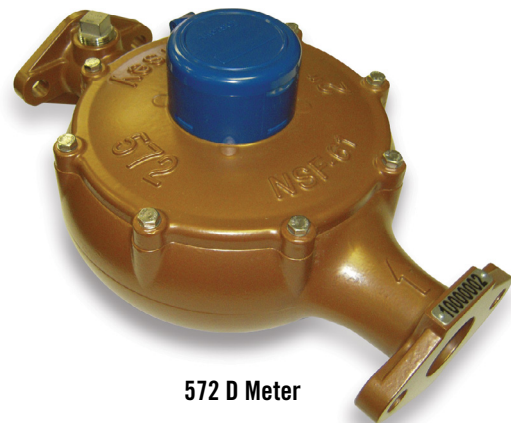
**REGISTER:** The permanently sealed register has a unique seal and heat-treated glass to eliminate dirt, moisture infiltration and lens fogging. An integral tamper-proof locking feature is provided to resist tampering with the register. The totalizing register has a straight-reading odometer type display, 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 D Water Meters are designed and manufactured to provide long service life with virtually no maintenance required.

**CONNECTIONS:** Available with integral two-bolt oval flanges.



572 D Meter

500 Series D

### Materials and Specifications

MODEL NUMBER	562 D and 572 D
SIZES	1-1/2" and 2"
STANDARDS	Manufactured and tested to meet or exceed all applicable parts of ANSI/AWWA C700 Standard. Nylon coated ductile iron options meet requirements of NSF Standard 61, Annex G.
SERVICE	Cold water measurement with flow in only one direction
OPERATING FLOW RANGE	See Chart on following pages
ACCURACY	See Chart on following pages
PRESSURE LOSS	See Chart on following pages
MAXIMUM WORKING PRESSURE	150 PSI
TEMPERATURE RANGE	33°F to 100°F water temperature
MEASURING ELEMENT	Nutating Disc
DISC NUTATIONS (per Gallon)	562 D: 6.47, 572 D: 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
MATERIALS	Maincase – Nylon coated ductile iron; Measuring Chamber – Thermoplastic; Magnets – ceramic; Strainer – Thermoplastic; Casing bolts – stainless steel ANSI B18; Register box and lid – thermoplastic.
OPTIONS	Meter case – Nylon coated ductile iron Register box and lid – bronze UNSC85700; AMR/AMI Reading Systems.

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## 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

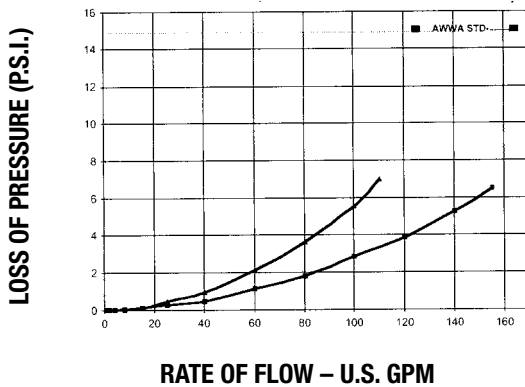
\*Registration equal to one full revolution of the sweep hand.

## Flow Characteristics

Meter Size	Typical Low Flow (95% Minimum)	Typical Operating Range (100% ± 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

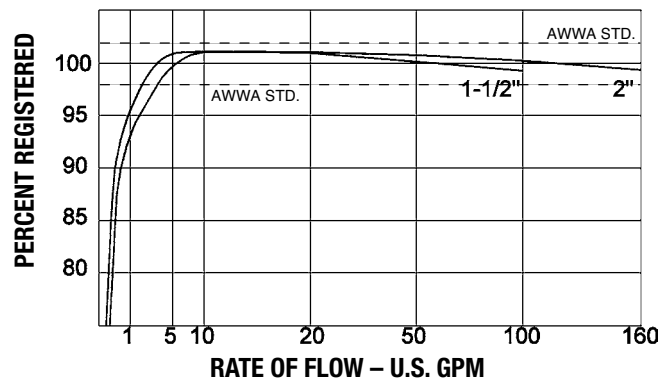
## Performance

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.

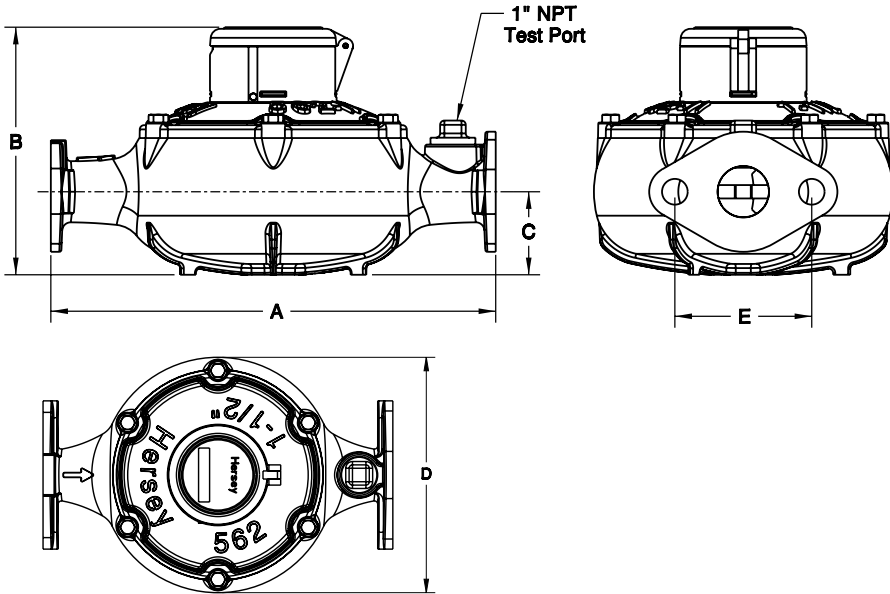
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Magnetic Drive Positive Displacement Disc Meters  
 Sizes 1-1/2" & 2"



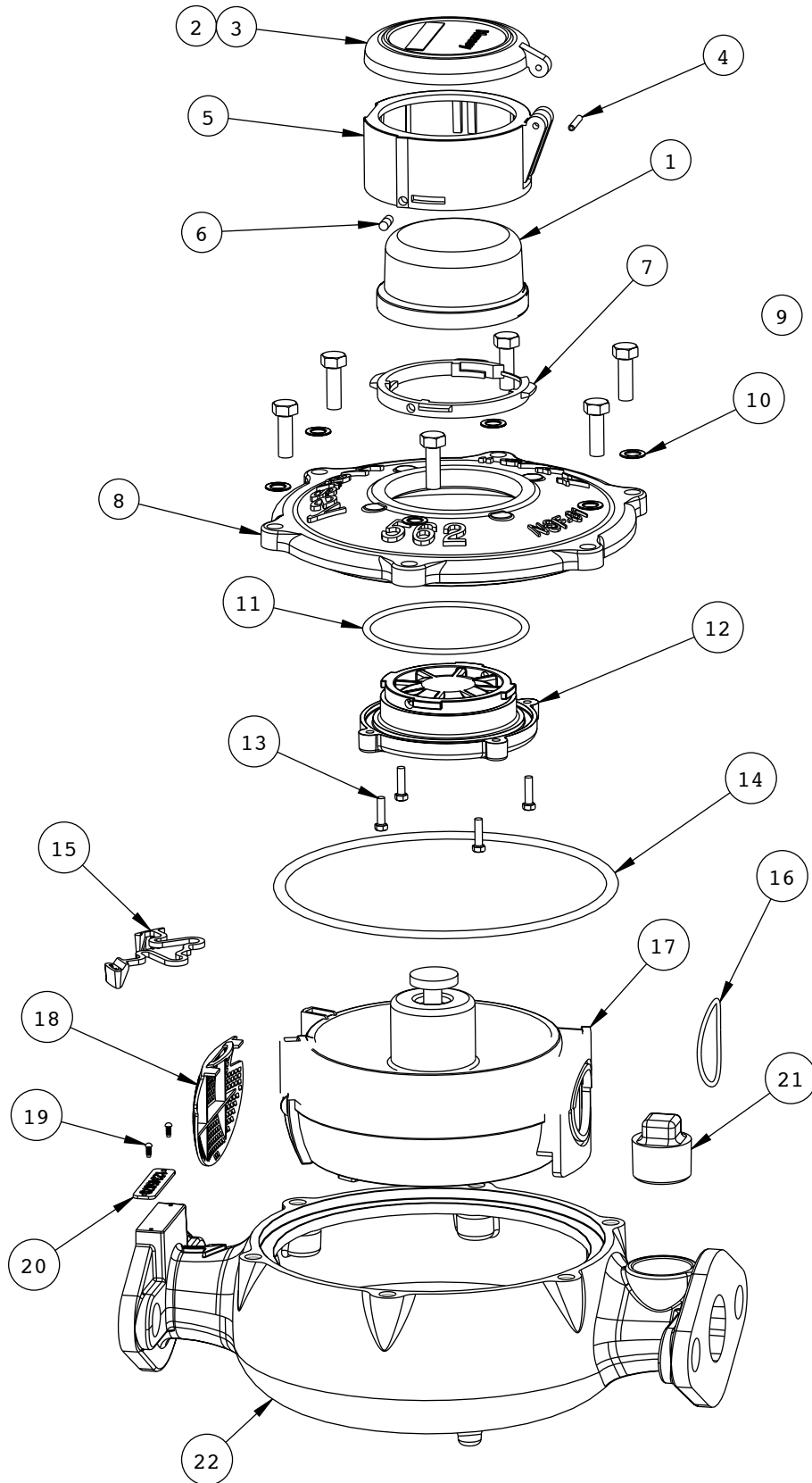
500 Series D

## Dimensions and Weights



Meter Size	1-1/2"	2"
Ends	Flanged	
Model	562 D	572 D
Dimension		
A	13"	17"
B	7.250"	8.125"
C	2.437"	3.00"
D	8.750"	10.437"
E	4.00"	4.50"
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" and 2"

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Ref. No.	Description	562 D 1-1/2" Model	572 D 2" Model
1	Visual Register	US Gallons (Glass/Brass) D357715	D358115
		CF (Glass/Brass) D357725	D358125
	Translator Register	US Gallons (Plastic/Brass) D35791xxx	D35831xxx
		CF (Plastic/Brass) D35792xxx	D35832xxx
	Specify Electronic Reading Value 4, 5, or 6 Wheel		
2	Complete Visual Register Housing Assembly (Plastic) Includes parts 3-7 (Bronze)	B7856	B7856
		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 Locking Pin	(Blue Colored Plastic) A12658	A12658
		(Bronze Colored Plastic) A126581	A126581
7	Register Housing Insert (Plastic)	C5770	C5770
8	Top Case (Nylon Coated Ductile Iron)	D3642C	D3646C
9	Case Bolts (SST)	90026 (Qty 6)	90010 (Qty 8)
10	Washers (SST)	90018 (Qty 6)	90018 (Qty 8)
11	Register Hub O-Ring (Rubber)	98313	98313
12	Register Hub (Plastic)	C6631	C6631
13	Socket Head Cap Screws (SST)	98157 (Qty 4)	98157 (Qty 4)
14	O-Ring Case Seal (Rubber)	98314	98315
15	Chamber Retainer (Plastic)	C5466	C5466
16	O-Ring Chamber Seal (Rubber)	A130204	A130205
17	Complete Chamber Assembly Includes parts 14, 15, 16	D3575	D3576
18	Strainer (Plastic)	C6576	C6577
19	Type U Drive Screw (Plated)	98158 (Qty 2)	98158 (Qty 2)
20	Serial Number ID Plate	A13070	A13070
21	Test Plug (SST)	59013	59013
22	Bottom Case (Nylon Coated Ductile Iron)	D3644C	D3648C

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