

MESURFLO 2300

2 - 3



2-1

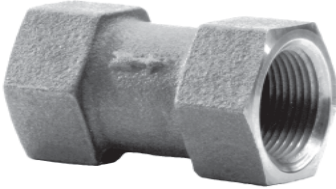
## HAYS FLUID CONTROLS

114 Eason Road / P.O. Box 580 Dallas, NC 28034-0580  
PHONE: (704) 922-9565 • TOLL FREE 1-800-354-4297 • FAX (704) 922-9595

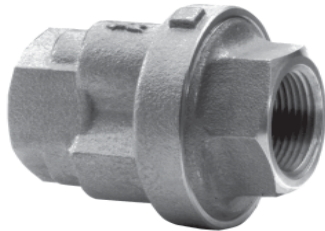


## Series 2305 & Series 2307

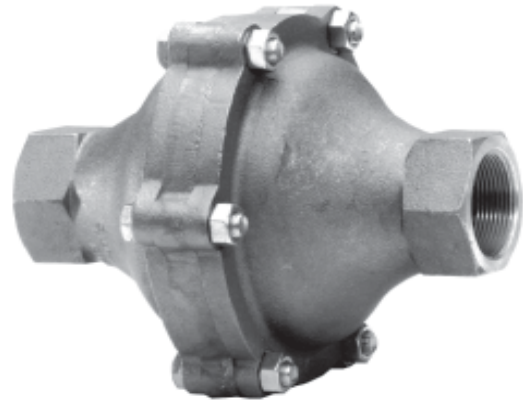
- Constant flow regardless of pressure fluctuation
- Quiet operation
- Pressure Differential Range 15 - 150 psid
- Temperature Range 32° to 160° F
- Accuracy  $\pm 10\%$
- Suitable for Most Coolants
- Consult factory for differential pressures lower than 15 psid



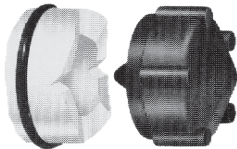
Series 2305 - 1/4" 3/8", 1/2", 3/4" IPS



Series 2307 - 3/4", 1" IPS



Series 2307 - 1 1/4", 1 1/2" IPS



Flow Control Assembly

## SPECIAL FEATURES

Unique Hays design

Patented Flow Control Assembly provides a constant flow rate on a consistent basis.

Flexing diaphragm is self-cleaning

Maintains clear orifice by flexing action of patented diaphragm assembly which significantly reduces clogging.

Long-life means real savings

Mesurflo Controls will operate efficiently for many years which means little or no down time and loss of productivity.

Diaphragm area is proportioned to pressure

Each Mesurflo is designed specifically to deliver the prescribed flow rate.

Mesurflo can be used for large flow rates.

Mesurflo controls are placed parallel in a single housing providing the specified flow rate even on large flow rates.



**TYPICAL APPLICATIONS**

- Irrigation and Crop Dusting
- Swimming Pool Filters
- Industrial Equipment Cooling Systems
- Electronic Power Tube Cooling Systems
- Welding Equipment Cooling Systems
- Pump, Compressor, & Vacuum Equipment Cooling Systems
- Industrial Time Fill & Meter Equipment
- Tankless Heater & Heat Transfer Systems
- Water Stream & Water Spray Control
- Film Process & Rinse Systems
- Industrial & Medical Stills
- Water Conservation Applications
- Water Table Drawdown
- Water Source Heat Pumps
- Pump & Dump Systems

**TO ORDER MESURFLO**

Specify: catalog number and pipe size

2-4

CATALOG NUMBERS				
GPM	1/4" I.P.S.	3/8" I.P.S.	1/2" I.P.S.	3/4" I.P.S.
2/10	2305-0011			
1/4	2305-1011			
3/10	2305-0031	2305-0031		
4/10	2305-0041	2305-0041		
1/2	2305-1021	2305-1021	2305-1021	
6/10	2305-0061	2305-0061	2305-1061	
3/4	2305-1031	2305-1031	2305-1031	
1	2305-1041	2305-1041	2305-1041	2305-1041
1 1/4	2305-1051	2305-1051	2305-1051	2305-1051
1 1/2	2305-1061	2305-1061	2305-1061	2305-1061
1 3/4	2305-1071	2305-1071	2305-1071	2305-1071
2	2305-1081	2305-1081	2305-1081	2305-1081
2 1/2			2305-1091	2305-1091
3			2305-1101	2305-1101
3 1/2			2305-1111	2305-1111
4			2305-1121	2305-1121
4 1/2				2305-1131
5				2305-1141
6				2305-1151
7				2305-1161
8				2305-1171
9				2305-1181
10				2305-1191

CATALOG NUMBERS						
GPM	3/4" I.P.S.	1" I.P.S.	GPM	1-1/4" I.P.S.	GPM	1-1/2" I.P.S.
8	2307-1171	2307-1171	18	2307-1271	50	2307-1451
9	2307-1811	2307-1181	19	2307-1281	55	2307-1461
10	2307-1191	2307-1191	20	2307-1291	60	2307-1471
11	2307-1201	2307-1201	21	2307-1301	65	2307-1481
12	2307-1211	2307-1211	22	2307-1311	70	2307-1491
13	2307-1221	2307-1221	24	2307-1321	75	2307-1501
14	2307-1231	2307-1231	26	2307-1331	80	2307-1511
15	2307-1241	2307-1241	28	2307-1341	85	2307-1521
16	2307-1251	2307-1251	30	2307-1351	90	2307-1531
17	2307-1261	2307-1261	32	2307-1361	95	2307-1541
18	2307-1271	2307-1271	34	2307-1371	100	2307-1551
19		2307-1281	36	2307-1381		
20		2307-1291	38	2307-1391		
21		2307-1301	40	2307-1401		
22		2307-1311	42	2307-1411		
			44	2307-1421		
			46	2307-1431		
			48	2307-1441		

Example: 3/8 Mesurflo with 6/10 GPM  
Order: 2305-0061 3/8"

NOTE: Consult factory for fluids other than water.

**TECHNICAL DATA for 2300 series only**

How the Mesurflo Controls the Flow

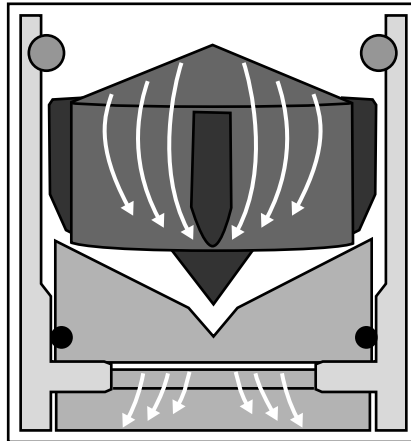


Figure 1 PSID-0  
Diaphragm-original shape

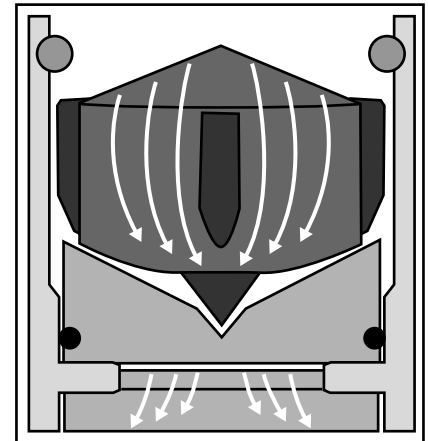


Figure 2 PSID-15  
Diaphragm-starting to flex  
into contoured orifice plate

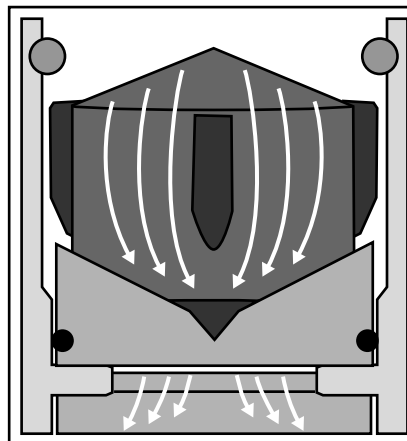
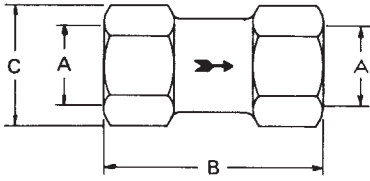


Figure 3 PSID-80  
Diaphragm-is fully flexed into  
the orifice plate.

For a pressure differential range of 15 to 150 psi, the rubber diaphragm will flex into the contoured orifice plate to increase flow restriction as the pressure drop increases. Both the rubber diaphragm and the contoured orifice plate are rigidly controlled to provide a constant flow rate over the pressure differential range. This “flexing” of the rubber diaphragm against the fixed orifice plate makes the Mesurflo difficult to clog and will not damage due to cavitation. The “flexing” action actually chews up debris preventing clogging. Outside of the pressure drop window, the controller performs similar to a fixed orifice.

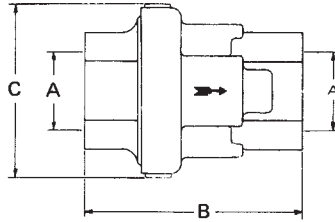
Note to piping system designers:

The HAYS Mesurflo is a constant flow rate device. Since it is a variable orifice that changes to govern the flow, it can not be described with a Cv or a pressure drop at a given flow for piping system design purposes. Conversely, the designer may assume a constant flow rate over the pressure differential range of 15 to 150 psid as one uses constant pressure in system design.



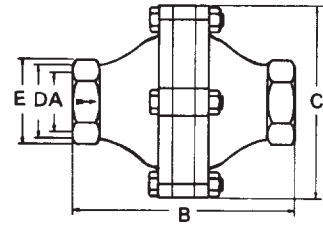
**2305**

1/4", 3/8", 1/2", 3/4"



**2307**

3/4", 1"



**2307**

1 1/4", 1 1/2"

### DIMENSIONS

	2305				2307		2307	
A. Pipe Size	1/4"	3/8"	1/2"	3/4"	3/4"	1"	1 1/4"	1 1/2"
B. Overall Length	2"	1 3/4"	2 7/32"	2 9/16"	3 19/32"	3 19/32"	6 3/16"	8 7/8"
C. Diameter Across Corners	1 1/16"	1 1/16"	1 1/4"	1 17/32"	2 7/8"	2 7/8"	2 5/16"	2 3/4"
D. Hex Flats							2"	2 3/8"
E. Diameter							5 1/4"	7 3/8"

### FLOW CAPACITY CHART

