

Filter Bag Viscosity - Flow Rate Conversion Chart

To Use Chart

- 1 Select micron rated bag at the top of the chart.
- 2 Follow the corresponding vertical row down until it intersects the selected viscosity in centipose.
- 3 The top number in the square indicates the flow rate for a size #1 filter bag at 1 PSI pressure drop and the bottom number represents the flow rate for a size #2 (both figures are in US GPM).

Notes:

- A For greater than 1 PSI ΔP simply multiply the resultant GPM times PSI desired to obtain flow - or - divide desired flow by the resultant flow to obtain ΔP.
- B For #3 size filter bag multiply size 1 flow rate by 0.28.
- C For #4 size filter bag multiply size 1 flow rate by 0.44.
- D For bags with covers reduce results by 25%.

To calculate required # of size #2 filter bags, if you know bag micron, viscosity and desired flow rate, use the following formula:

Example: If you want to use a 10 micron, size 2, Polyester felt filter bag @ 150 gpm, 200 CPS with 3 lbs delta P:

$$\frac{\text{Desired flow (150)}}{\text{Flow rate from chart (33.84)}} \div \text{Target clean delta P (3.0)} = 1.47 \text{ bags (Round up to eliminate decimal points = 2 bags)}$$

PE,PO: Polyester/Polypropylene Felts

NMO,PEM: Nylon Monofilament and Polyester Multifilament woven mesh

Zone	Recommendation	Zone	Recommendation
White	Excellent	Blue	Poor
Yellow	Good	Purple	Not Recommended

Filter Bag flow Rate @ Desired Viscosity with 1 PSI Delta P for Size 1/Size 2 filter Bags

VISCOSITY- CPs	PE,PO 1um	PE,PO 5um	PE,PO 10um	PE,PO 25um	PE,PO 100um	PE,PO 200um	NMO,PEM 150-250um	NMO,PEM 300-600um	NMO,PEM 600-800um
20	50.00 94.00								
30	34.00 63.92	64.00 120.32							
40	27.00 50.76	48.00 90.24	70.00 131.60						
60	21.00 39.48	40.00 75.20	60.00 112.80						
80	17.00 31.96	30.00 56.40	45.00 84.60	75.00 141.00					
100	14.00 26.32	24.00 45.12	34.00 63.92	55.00 103.40	80.00 150.40				
200	6.50 12.22	13.00 24.44	18.00 33.84	30.00 56.40	42.00 78.96	55.00 103.40			
400	3.70 6.96	6.90 12.97	12.00 22.56	18.00 33.84	25.00 47.00	31.00 58.28	48.00 90.24	61.00 114.68	
500	2.80 5.26	5.10 9.59	7.50 14.10	13.00 24.44	18.00 33.84	22.00 41.36	34.00 63.92	45.00 84.60	65.00 122.20
800	2.00 3.76	3.60 6.77	5.50 10.34	9.00 16.92	13.00 24.44	17.00 31.96	25.00 47.00	34.00 63.92	48.00 90.24
1000	1.70 3.20	3.00 5.64	4.50 8.46	7.30 13.72	10.00 18.80	15.00 28.20	21.00 39.48	27.00 50.76	40.00 75.20
1500	1.30 2.44	2.30 4.32	3.20 6.02	5.30 9.96	7.00 13.16	9.50 17.86	15.00 28.20	18.00 33.84	27.00 50.76
2000	0.90 1.69	1.80 3.38	2.50 4.70	3.80 7.14	5.50 10.34	7.20 13.54	12.00 22.56	16.00 30.08	22.00 41.36
4000	0.60 1.13	1.20 2.26	1.60 3.01	2.70 5.08	3.50 6.58	4.80 9.02	7.50 14.10	10.00 18.80	15.00 28.20
6000	0.40 0.75	0.78 1.47	1.20 2.26	1.90 3.57	2.60 4.89	3.40 6.39	5.10 9.59	6.80 12.78	10.00 18.80
8000	0.30 0.56	0.57 1.07	0.83 1.56	1.40 2.63	1.80 3.38	2.50 4.70	3.70 6.96	5.00 9.40	7.30 13.72
10000	0.26 0.49	0.45 0.85	0.70 1.32	1.20 2.26	1.60 3.01	2.10 3.95	3.30 6.20	4.20 7.90	6.40 12.03

This chart contains general information and is a general guide only. Actual results may vary based on fluid being filtered, dirt load and temperature.