

Hydrocyclone Sand Separator

The hydrocyclone separator is a simple device; it is easy to operate and maintain and has no moving parts or screens. The hydrocyclone separates sand and other solid matter with very little head loss and 90% or better efficiency. There is no head loss build up and no clogging by the solids being separated.

Its versatility in system configurations and its economy in installation are some of its great advantages.

The hydrocyclones use a tangential injection flow process, enhancing the centrifugal forces and moving solid particles outwards. The dispersed particles move downwards in a spiral path into an underflow chamber while clean liquid moves upwards to the center of the spiral, towards the top outlet.

The specifically designed rubber insert (registered patent) protects the cone against erosion and increases separation efficiency.

The underflow chamber is drained automatically without interfering with the proper functioning of the hydrocyclone.

**Available in the following inlet sizes:
3/4 in, 1 in, 1.5 in, 2 in, 3 in, 4 in, 6 in and 8 in**

**Available with three end connections:
Thread (M), Flange (F), Victaulic (V)**

PWP Products



Filters



Housings



Storage Tanks



Filtration Systems



Nozzles



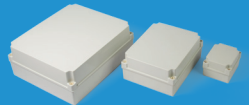
Fittings & Ball Valves



Media Filters



Pumps



Enclosures



Accessories

Pro Water Parts Hydrocyclone Sand Separator



HYDROCYCLONE

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QUALITY
—components—
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Technical Data

- Recommended head loss for effective operation: 0.2 - 0.5 bar (3 - 8 PSI)
- Maximum recommended working pressure: 8 bar (120 PSI)
- Maximum Pressure: 10 bar (150 PSI)
- Horizontal water inlet/top vertical outlet
- Separation efficiency: as a rule the separation improves as a hydrocyclone diameter decreases and head loss increases
- Miniature hydrocyclones may be used for easy sampling of liquids, determining filter operation and efficiency, and for testing the feasibility of hydrocyclone operation for the problem at hand
- Each filter is designed and manufactured in order to achieve the highest standard of quality and finish

Inserts

- To improve efficiency, each hydrocyclone is equipped with inserts at the bottom end of the cone

Protective Coating

- 120 micron extra-durable polyester, applied electrostatically and oven-cured on a zinc-phosphate layer for maximal anti-corrosion protection

Pressure Relief Valve

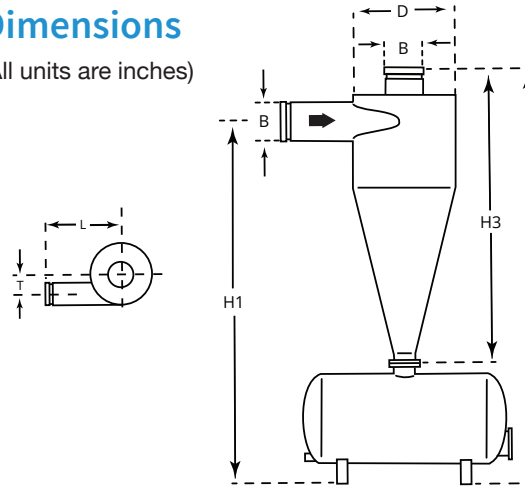
- A pressure relief valve must be inserted before the filtering installation if pressure is not controlled effectively

End Connections

- Thread (M)
- Flange (F)
- Victaulic (V)

Dimensions

(All units are inches)



B	D	H	H1	H3	L	T
3/4 in	3	16	12.6	11.2	4.7	1.2
1 in	4	18	15	13.6	5.5	1.6
1.5 in	6	28	22.8	18.9	9.5	2.4
2 in	8	29	22.6	20.9	11.6	3.2
3 in	8	33	26	24.6	11.8	2.6
4 in x 3 in	12	52	44.5	28.5	19.7	4.1
4 in	16	68	58.3	38.2	23.6	5.7
6 in	20	75	63.4	45.3	23.6	6.7
6 in	24	85	73.2	55.3	23.6	8.7
8 in	30	111	93	75.8	27.6	10.4

Recommended Flow Rates

Inlet / Outlet Diameters	Recommended Flow Rate	Standard Underflow Chamber
3/4 in	8.8 to 15	0.5
1 in	15 to 33	0.5
1.5 in	33 to 53	1.3
2 in	48 to 75	2.6
3 in	79 to 150	2.6
4 in x 3 in	154 to 229	16
4 in	229 to 361	32
6 in	431 to 704	58
6 in	616 to 1012	58
8 in	1012 to 1584	85

Head Loss/Flow Rate

Model	3 PSI	4.5 PSI	6 PSI	7.5 PSI	9 PSI	10.5 PSI
in	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)
3/4 in	9.4	11.5	13.3	14.9	16.3	17.6
1 in	15.4	18.9	21.8	24.4	26.7	28.9
1.5 in	34.0	41.7	48.2	53.8	59.0	63.7
2 in	45.3	55.4	64.0	71.6	78.4	84.7
3 in	94.5	115.8	133.7	149.5	163.7	176.9
4 in x 3 in	136.2	166.8	192.6	215.3	235.9	254.8
4 in	224.3	274.7	317.2	354.7	388.5	419.7
6 in	430.6	527.4	680.9	680.9	745.9	805.6
6 in	620.9	760.4	981.7	981.7	1075.4	1161.6
8 in	971.3	1189.6	1535.8	1535.8	1682.4	1817.0

