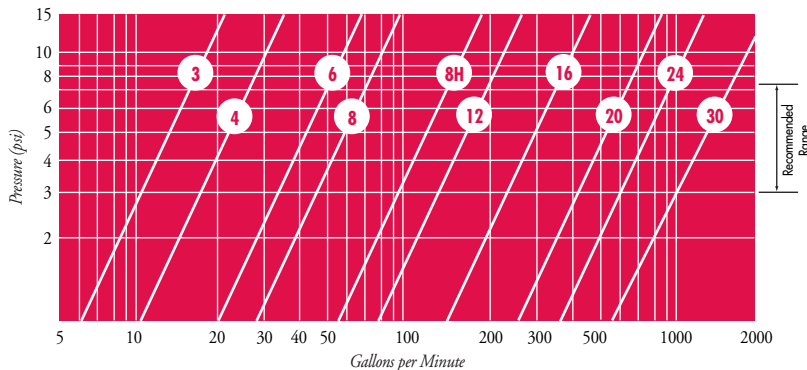




# Hydrocyclone Sand Separators

**Separates Sand and Other Solid Matter from Water with Better Than 90% Efficiency**

**HYDROCYCLONE Headloss**



**HYDROCYCLONE MICRON/MESH**

<b>Mesh</b>	120	140	180	200	270	325	600
<b>Micron</b>	130	105	90	75	53	44	25

**HOW TO USE THE CHARTS:** Find your system flow rate on the Headloss Chart. Move vertically up the chart until you intersect within the recommended range. This indicates a particular hydrocyclone size. If your flow rate does not intersect within the recommended range, two smaller units in combination are suggested. Degree of separation is dependent on the head loss across the hydrocyclone. The Micron Chart shows the relationship between pressure loss across each hydrocyclone and the particle sizes separated.

**NOTE:** If material to be removed is extremely fine, use a higher head loss and/or multiple hydrocyclone units of a smaller size. A smaller hydrocyclone can remove finer particles than a hydrocyclone with a larger diameter.

## Product Advantages

- Conical shaped separator accelerates the velocity of the water increasing the centrifugal forces and maximizing separation.
- Rubber cone/insert enhances separation without wearing the separators.
- Flushing frequency is reduced due to the large holding capacity of the collection tank.
- Removes sand and silt, alleviating dirt load for the backup filter.
- Lowers the maintenance and replacement costs of sprinklers, drippers, valves and filters.
- Adds years of performance to the life of your system.

## Installation & Operation Guidelines

- Unit must be installed vertically with sedimentation tank under the hydrocyclone.
- The sedimentation tank should be drained when it is one-third full.
- Do not let sedimentation tank get filled more than one-half it's volume - failure may cause corrosion and void the manufacturer's warranty.
- The sedimentation tank can be flushed manually or automatically with the addition of an electric valve and timer.



## Applications

- For separation of sand and other solid matter from water.
- Protects pumps, valves and irrigation systems from damage and abrasion caused by debris.
- Pre-filtering of water with high loads of sand before gravel filters and disc filters.

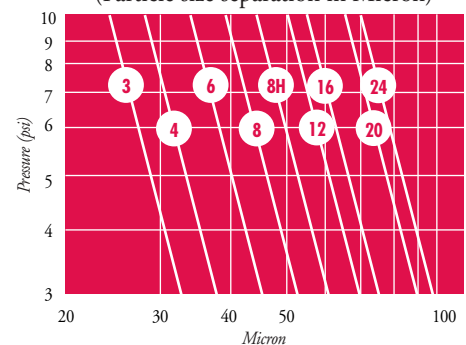
## Specifications

Maximum working pressure: 120psi

Recommended headloss for effective operation: 3 to 8 psi

100 micron polyester oven-cured protective coating with zinc phosphate under-layer

**HYDROCYCLONE**  
(Particle size separation in Micron)

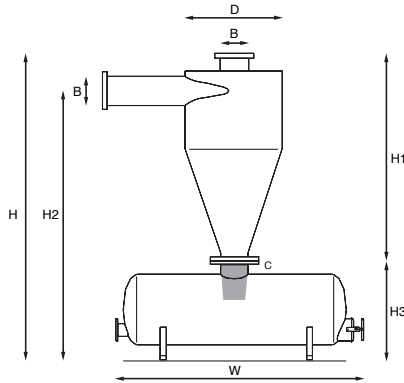


**NOTE:** The Micron Chart is based on sand with a specific gravity of 2.7 gr/cm.

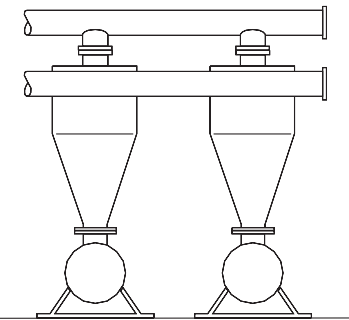
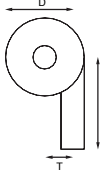


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# Hydrocyclone Sand Separators Technical Information



**NOTE:**  
8" and 8H use a rubber insert and vaulic coupling between the hydrocyclone and the sedimentation tank. The 16", 20", 24" & 30" units use a large rubber cone which also serves as a gasket. (See shaded area above.)



**NOTE:**  
Hook-up of multiple units of 16", 20", 24" & 30" are available upon request. (See illustration above.)

## HYDROCYCLONE SPECIFICATIONS

Part Number	Flow Range (GPM)	D	B	C	L	T	H	H1	H2
24HC3	9-15	3"	3/4" TH	1/2" TH	4 3/4"	1 1/4"	15 3/4"	11 1/2"	12 1/2"
24HC4	15-33	4"	1" TH	1/2" TH	6"	1 1/2"	18"	13 1/2"	15"
24HC6	33-53	6"	1 1/2" TH	1" TH	9 1/2"	2 1/2"	28 1/4"	19 1/2"	22 3/4"
24HC8V	48-75	8"	2" GR	3" VIC	11 3/4"	3"	32 3/4"	23"	27"
24HC8HV	80-150	8"	3" GR	3" VIC	11 3/4"	2 1/2"	36 3/4"	26 1/2"	30 1/4"
24HC12F6	150-230	12"	4" FL	6" FL	19 3/4"	4 1/4"	56 3/4"	35"	49 1/4"
24HC16F6	230-360	16"	4" FL	6" FL	23 1/2"	5 1/2"	67 3/4"	38 1/4"	58 1/4"
24HC20F8	430-700	20"	6" FL	8" FL	23 1/2"	6 1/2"	74 3/4"	45 1/4"	63 1/2"
24HC24F8	615-1000	24"	6" FL	8" FL	23 1/2"	8 1/2"	84 3/4"	55 1/4"	73 1/4"
24HC30F8	1000-1600	30"	8" FL	8" FL	27 1/2"	10 1/2"	117 1/4"	76 1/4"	99"

## SEDIMENTATION TANKS SPECIFICATIONS

Part Number	Connections	Capacity	H3	Width (W)	Weight	Hydrocyclone
24ST002L	1/2" TH	.5 gal	5 1/2"	10"	13 lbs	3", 4"
24ST005L	1" TH	1.25 gal	8"	14"	24 lbs	6"
24ST010FLV	3" VIC	2.50 gal	11"	27"	36 lbs	8" & 8H
24ST060F6	6" FL	16 gal	21 3/4"	31"	75 lbs	12"
24ST120F6	6" FL	32 gal	29 1/2"	35"	144 lbs	16"
24ST220F8	8" FL	58 gal	29 1/2"	54"	192 lbs	20", 24", 30"

\*Larger sizes available by special order only.

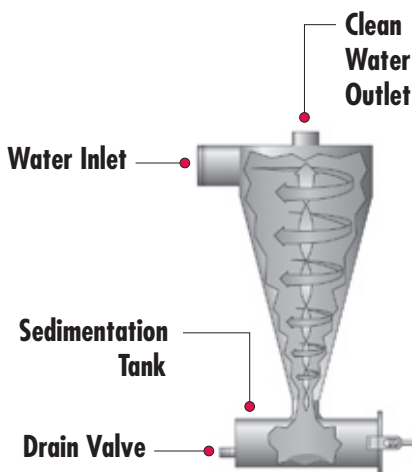
## HYDROCYCLONE WEIGHTS

Part Number	Weight
24HC3	18 lbs
24HC4	20 lbs
24HC6	40 lbs
24HC8V	44 lbs
24HC8HV	60 lbs
24HC12F6	146 lbs
24HC16F6	276 lbs
24HC20F8	379 lbs
24HC24F8	452 lbs
24HC30F8	770 lbs

## Description of Operation

Based on the centrifuge principle, the particles are spun against the outside wall of the separator and gravitate towards the bottom into the sedimentation tank.

- The velocity at which the water flows through the separator determines the efficiency at which the particles are separated from the water.
- The loss between the inlet and outlet of the separator ranges from 3 to 7 psi.
- A tester can help in determining the need for a separator: if values from 2 to 20 ppm are measured, a separator is recommended.
- The flow during operation of the system needs to be fairly constant to ensure effectiveness of separator.
- The drain valve should be made automatic with high parts per million of sand.



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