

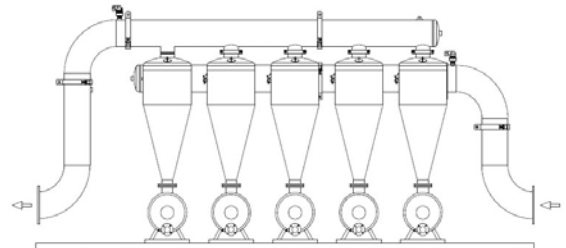
HYDROCYCLONE SAND SEPARATORS

SEPARATE SAND AND SOLID MATTER FROM WATER WITH 90% OR BETTER EFFICIENCY

FOR GOLD MINES



HYDROCYCLONE WITH SEDIMENTATION TANK



APPLICATIONS

- For separation of sand and other solid matter from water
- Protection of valves and water systems from damage/abrasion caused by sand and other solid matter
- Pre-filtering of water with high loads of sand before gravel, disc and screen filters
- Reclamation projects

SPECIFICATIONS

- Maximum Recommended Working Pressure: 120 psi
- Recommended Headloss for Effective Operation: 3 - 7 psi
- Water Inlet and Outlet: Horizontal and Vertical
- Hydrocyclone End Connections: Thread, Flange and Groove
- Sedimentation Tank Connections: Thread - 3", 4", 6" and 8" sizes
Groove - 8" size
Flange - 12", 16", 20", 24" and 30" sizes
- Rubber Insert not included on 3", 4" and 6" sizes
- Protective Coating: Polyester Applied Electrostatically and Oven Cured on a Zinc-Phosphate Layer

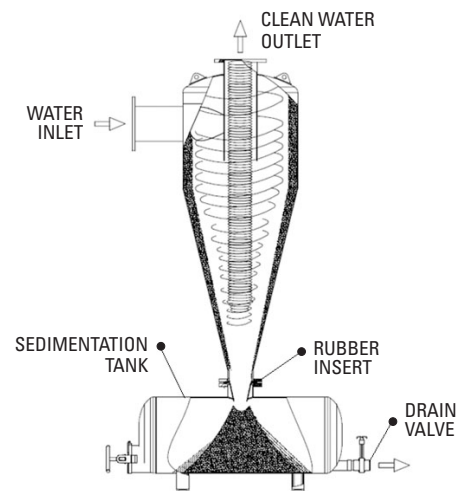
FEATURES & BENEFITS

- Conical shape accelerates the velocity of the water increasing centrifugal forces and maximizing separation.
- Easy to operate and maintain with no moving parts or screens.
- No headloss build-up or clogging during separation.
- Specially designed rubber cone/insert protects the neck from erosion and increases separation.
- Large holding capacity of sedimentation tank reduces flushing frequency.
- Maximum anti-corrosion protection with durable and long-lasting coating materials.

DESCRIPTION OF OPERATION

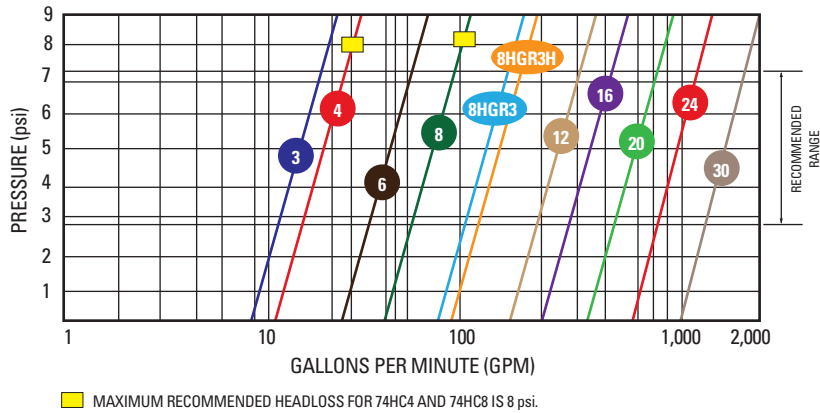
Based on the centrifuge principle, the particles are spun against the outside wall of the Hydrocyclone and gravitate towards the bottom into the underflow chamber (sedimentation tank) while clean liquid moves upward to the center of the spiral, towards the top outlet. The velocity at which the water flows through the Hydrocyclone determines the efficiency at which the particles are separated from the water.

- Normal working conditions are achieved when headloss on the Hydrocyclone is not less than 3 psi. A headloss of less than 3 psi will reduce the separation efficiency and a headloss of more than 8 psi might induce increased erosion.
- The flow during operation of the system needs to be fairly constant to ensure effectiveness of separator.



HYDROCLONE SAND SEPARATORS

HEADLOSS (Flow vs. Pressure)



READING THE HEADLOSS CHART:

Find your system flow rate and 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. If material to be removed is extremely fine, use a higher headloss and/or multiple hydrocyclone units of a smaller size. A smaller hydrocyclone can remove finer particles than one with a larger diameter.

MESH/MICRON

MESH	120	140	180	200	270	325	600
MICRON	130	105	90	75	53	44	25

HYDROCYCLONE DIMENSIONS & WEIGHT

MODEL	D	D1	D2	X	X1	L	L1	H	H1	H2	WEIGHT
74HC3	3/4"	3"	4"	12.51"	5.12"	1.24"	6.48"	12.30"	14.96"	18.70"	17 LBS.
74HC4	1"	4"	4"	12.51"	6.30"	1.59"	6.48"	17.20"	18.11"	23.62"	21 LBS.
74HC6	1 1/2"	6"	6"	28.02"	10.24"	2.36"	9.00"	22.64"	25.77"	31.52"	37 LBS.
74HC8	2"	8"	6"	28.02"	11.81"	3.13"	9.00"	26.35"	29.72"	35.24"	48 LBS.
74HC8HGR3	3"	8"	6"	28.02"	11.81"	2.56"	10.7"	23.23"	27.76"	34.06"	80 LBS.
74HC8HGR3H	3"	8"	6"	28.02"	11.81"	2.56"	10.7"	23.23"	27.76"	34.06"	80 LBS.
74HC12FL4	3X4"	12"	20"	29.22"	18.31"	4.14"	18.78"	43.01"	53.24"	63.68"	154 LBS.
74HC16FL4	4"	16"	20"	40.69"	19.88"	5.42"	27.56"	48.58"	65.87"	76.50"	200 LBS.
74HC20FL6	6"	20"	20"	62.82"	23.62"	6.08"	27.56"	50.47"	65.59"	78.39"	496 LBS.
74HC24FL6	6"	24"	20"	62.82"	25.79"	8.69"	27.56"	62.20"	76.14"	90.31"	595 LBS.
74HC30FL6	8"	30"	20"	62.82"	27.76"	10.45"	27.56"	79.92"	91.89"	107.64"	727 LBS.

GR = Groove FL = Flange

TANK DIMENSIONS & WEIGHT

KEY	MODEL	SIZE	A *	B	CAPACITY	WEIGHT
1	74ST004	4"	6.48"	12.51"	0.4 GALLONS	12 LBS.
1	74ST025	6"	9.0"	28.02"	2.5 GALLONS	24 LBS.
1	74ST025GR3	6"	10.7"	28.02"	2.5 GALLONS	57 LBS.
2	74ST160FL4	20"	18.78"	29.22"	16 GALLONS	66 LBS.
3	74ST320FL4	20"	27.56"	40.69"	32 GALLONS	187 LBS.
3	74ST600FL6	20"	27.56"	62.82"	60 GALLONS	253 LBS.

* Height with legs

HYDROCYCLONE ORDERING INFORMATION

MODEL NUMBER	SIZE	FLOW RANGE (GPM)	TANK
74HC3	3"	11 - 17	74ST004
74HC4	4"	15 - 26	74ST004
74HC6	6"	29 - 44	74ST025
74HC8	8"	48 - 84	74ST025
74HC8HGR3	8"	88 - 154	74ST025GR3
74HC8HGR3H	8"	154 - 200	74ST025GR3
74HC12FL4	12"	198 - 321	74ST160FL4
74HC16FL4	16"	264 - 409	74ST320FL4
74HC20FL6	20"	409 - 683	74ST600FL6
74HC24FL6	24"	638 - 990	74ST600FL6
74HC30FL6	30"	1,012 - 1,629	74ST600FL6

PARTICLE SIZE SEPARATION

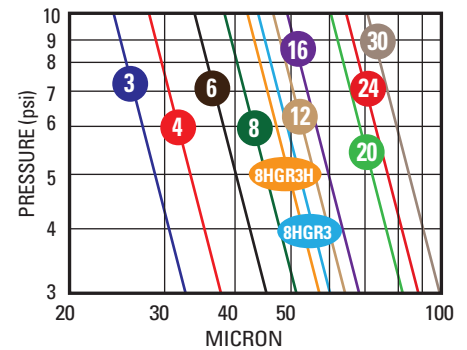
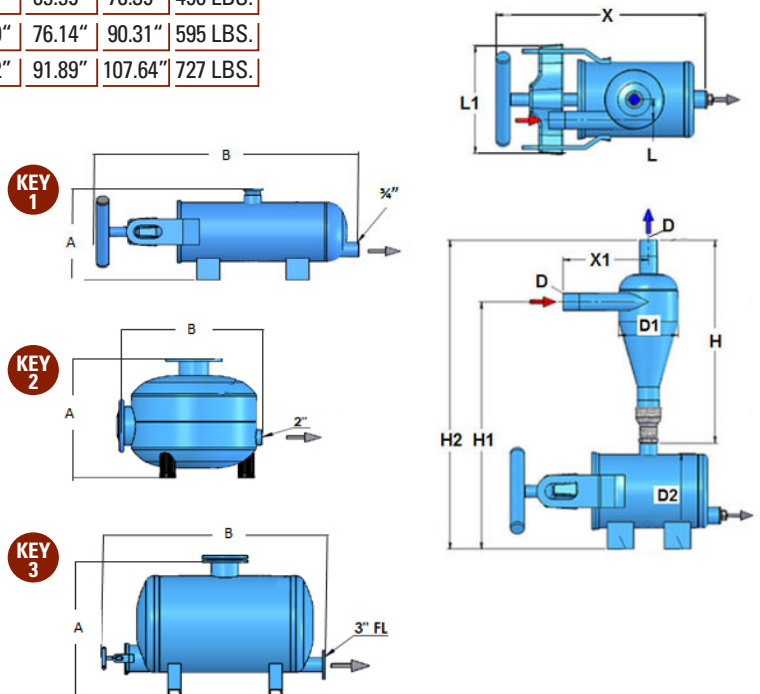


Chart based on sand with a specific gravity of 2.7 gr/cm.



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