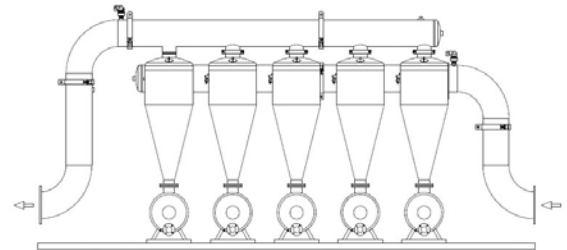


# HYDROCYCLONE SAND SEPARATORS

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



**HYDROCYCLONE WITH SEDIMENTATION TANK**



## APPLICATIONS

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

## 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", 6" sizes
- Protective Coating: Polyester Applied Electrostatically and Oven Cured on a Zinc-Phosphate Layer

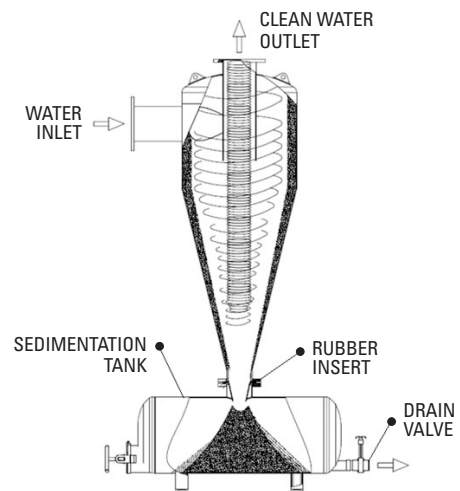
## PRODUCT ADVANTAGES

- 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.



## HYDROCYCLONE SAND SEPARATORS

### HEADLOSS (FLOW VS. PRESSURE)

MODEL NUMBER	Q-Cv	GPM or Hf			
		HEADLOSS @ 1 PSI	3 PSI	7 PSI	8 PSI
74HC3	6.4	11	17	18	
74HC4	8.7	15	23	24.5	
74HC6	16.7	28.5	44.5	47	
74HC8	27.7	48	74	78	
74HC8HGR3	50.8	88	135	144	
74HC8HGR3H	88.9	154	236	252	
74HC12FL4	114.3	198	305	324	
74HC16FL4	152.4	264	405	432	
74HC20FL6	236.1	409	625	669	
74HC24FL6	368.3	638	975	1,043	
74HC30FL6	571.6	995	1,510	1,620	

Recommended headloss for optimum particle separation

Recommended range is 2.8 to 7.2 psi

Maximum recommended headloss for 74HC4 and 74HC8 is 8 psi

### 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

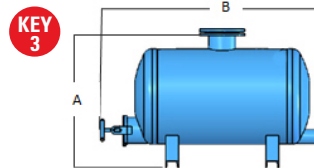
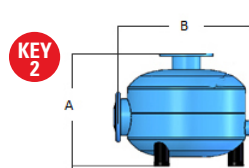
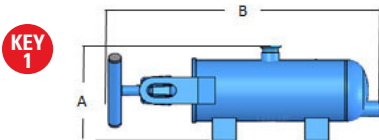
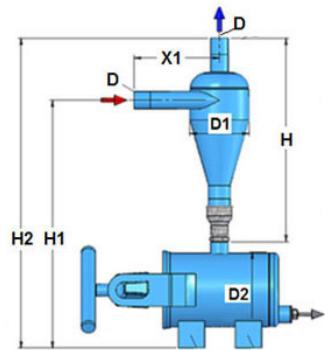
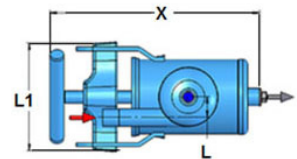
### MESH/MICRON

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	¾"	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	1½"	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



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