DROP
Filtration Systems
Irrigation Equipment

Product Specification Sheet: **Y & KE series**

HYDROCYCLONES

Y series

The Y series sand separators (hydrocyclones) are used for the filtration of water that is extracted from bore holes or from other sources where sand is suspended in the water. The Y series filters can provide under certain circumstances high efficiency (>90%) and continuous operation, while occupying minimal instalation space. They are used mainly for withholding large quantities of sand and other solid particles heavier than water.

Their high efficiency is the result of the transformation of water pressure to a centrifugal force, which forces all heavier than water particles to move towards the filter walls, and after the loss of speed due to friction to end up in the collection chamber.

The main parts of the Y series filters are the metal body and the collection chamber.

The filter is cleaned manually and with no interuption to the irrigation process, by means of opening the drain vane at the collection chamber.

General Characteristics

Their anti corrosive protection includes surface treatment using phosphoric acids followed by electrostatic polyesteric paint, while other available paint and material options are also available pending request.

The product is supplied with multiple couplings and flanges options availability (DIN, ASA, etc) conforminng to all required international standards.

The maximum operating pressure is 8 bars (116 psi).

They are available in other specifications, such as self cleaning version.

HEAD SYSTEMS

KE series

The head systems are complete systems that are mainly used in bore holes or from other sources where water is heavily contaminated with sand.

A head system comprises of a hydrocyclone, a fertilizer head and a screen filter (O or K series), or a disc filter. The advantage of this filtration array is that it comprises a fertilization head within the array, hence hydrofertilization can be achieved during irrigation.

Heads are available in the following sizes :

- DN 50 (2")
- DN 65 (2 1/2")
- DN 80 (3")
- DN 100 (4")

Smaller or larger fertilization systems are available following demand.

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Characteristics

Product Key	Inlet / Outlet	Coupling	Flow Rate		Maximum Pressure	
			m^3/h	gpm	bar	psi
05-06-034	3/4"	M	3-5	13.2-22	8	116
05-06-100	1"	M	5-12	22-52.8	8	116
05-06-150	1 1/2"	M	10-16	44-70.5	8	116
05-06-200	2"	M,V	15-25	66-110	8	116
05-06-250	2 1/2"	M,V	20-35	88-154.1	8	116
05-06-300	3"	M,V	30-50	132-220	8	116
05-06-400	4"	M,V	50-80	220-352.2	8	116
05-06-600	6"	F,V	100-150	440-660	8	116

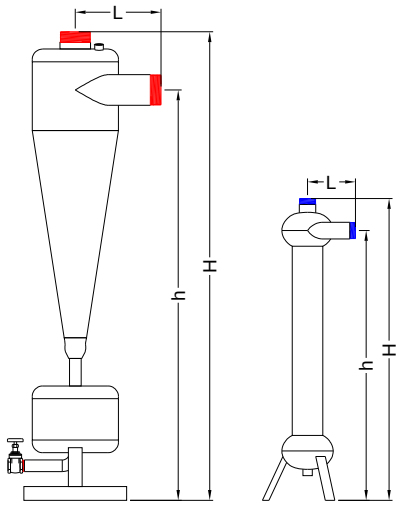
M: Male thread, F: Flange din 2576, V: Grooved thread (Victaulic)

Dimensions

Type	L		H*		h		Weight	
	mm	in.	mm	in.	mm	in.	kg	lbs.
3/4"	125	4.9	660	26.0	580	22.8	6.8	15.0
1"	130	5.1	875	34.5	790	31.1	8.7	19.2
1 1/2"	140	5.5	880	34.6	790	31.1	9.2	20.3
2"	230	9.0	1362	53.6	1208	47.5	25.0	55.1
2 1/2"	250	9.8	1362	53.6	1200	47.2	25.0	55.1
3"	250	9.8	1362	53.6	1190	46.8	26.0	57.3
4"	320	12.6	1535	60.4	1330	52.3	35.0	77.1
6"	700	27.5	2000	78.7	1650	65.0	115.0	253.5

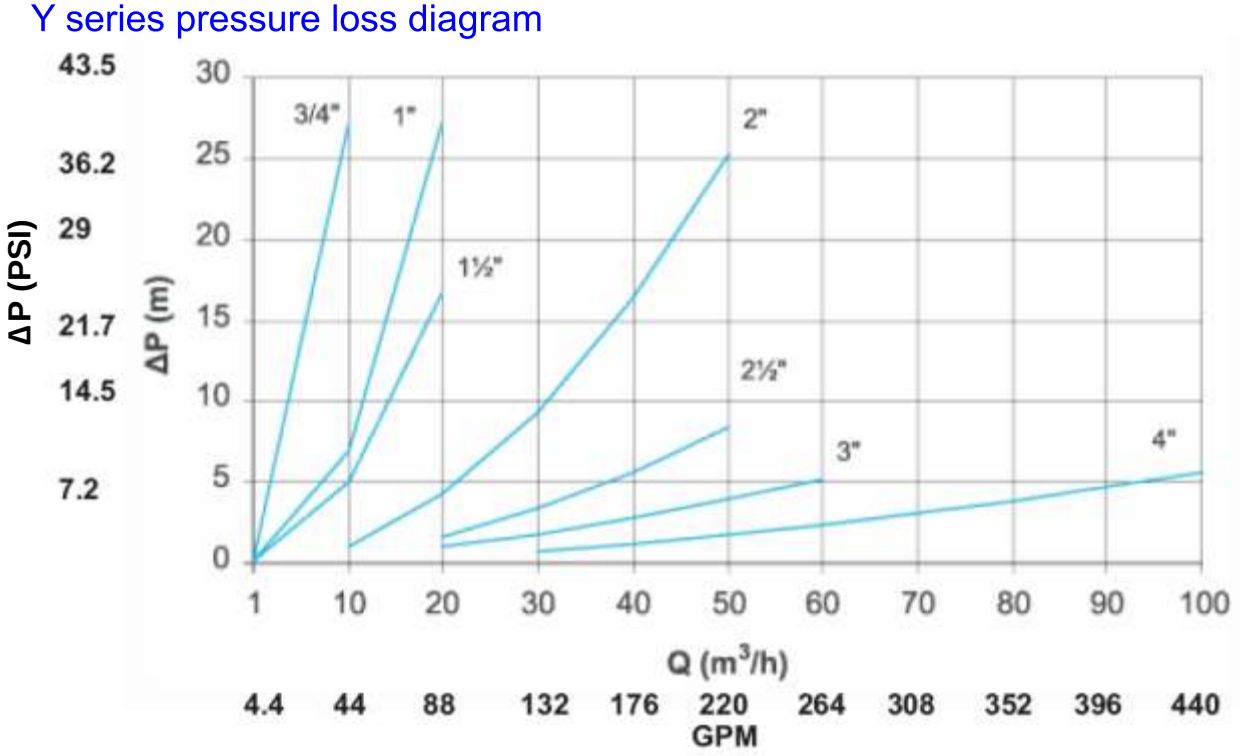
* H = Minimum recommended installation height
Note: The above weights refer to flanged version filters.

Dimension Diagram



Y2" - 6" Y3/4" - 11/2"

Y series pressure loss diagram



Note: The nominal operation of the sand separator (hydrocyclone) is affected by its design and dimensions as well as the operation variables such as water flow rate, solid particles concentration and solid particles size. Indicatively, a typical operation efficiency of a hydrocyclone filtering water with particles >10 microns and particle specific gravity > 1.8 is greater than 90% by weight for concentrations of approximately 120ppm.