ODŠTĚPNÝ ZÁVOD
HYDRO-TECH
HENNLICH s.r.o.

EVOQUA
WATER TECHNOLOGIES

VAF™ FILTRATION SYSTEMS
HYDROCYCLONE SEPARATOR

GENERAL INFORMATON

Evoqua's VAF™ brand Hydrocyclone Separators are effective in removing suspended particles from any flow stream of water where the specific gravity (density) of the particle(s) is heavier than the fluid it is in. The more significant the difference in gravity between the water and the particle, the greater the efficiency of the removal process. Depending on the specific gravity of the particle and the viscosity of the flow stream, very small and denser particles can be removed. Particulate removal can be enhanced if multiple passes of the stream can be achieved.

Consider a separator's use where any source of water contains contaminants with a weight of 2.6 specific gravity or higher, such as well water to remove sand. Separators are also excellent for use as a pre-removal device for filters with river or ditch water that contain high levels of sand or other large organic debris.

Applications would include, but not be limited to, wells, industrial processess, water reycling and reuse, river and ditch water intake systems, food processing nozzle systems and irrigation water.

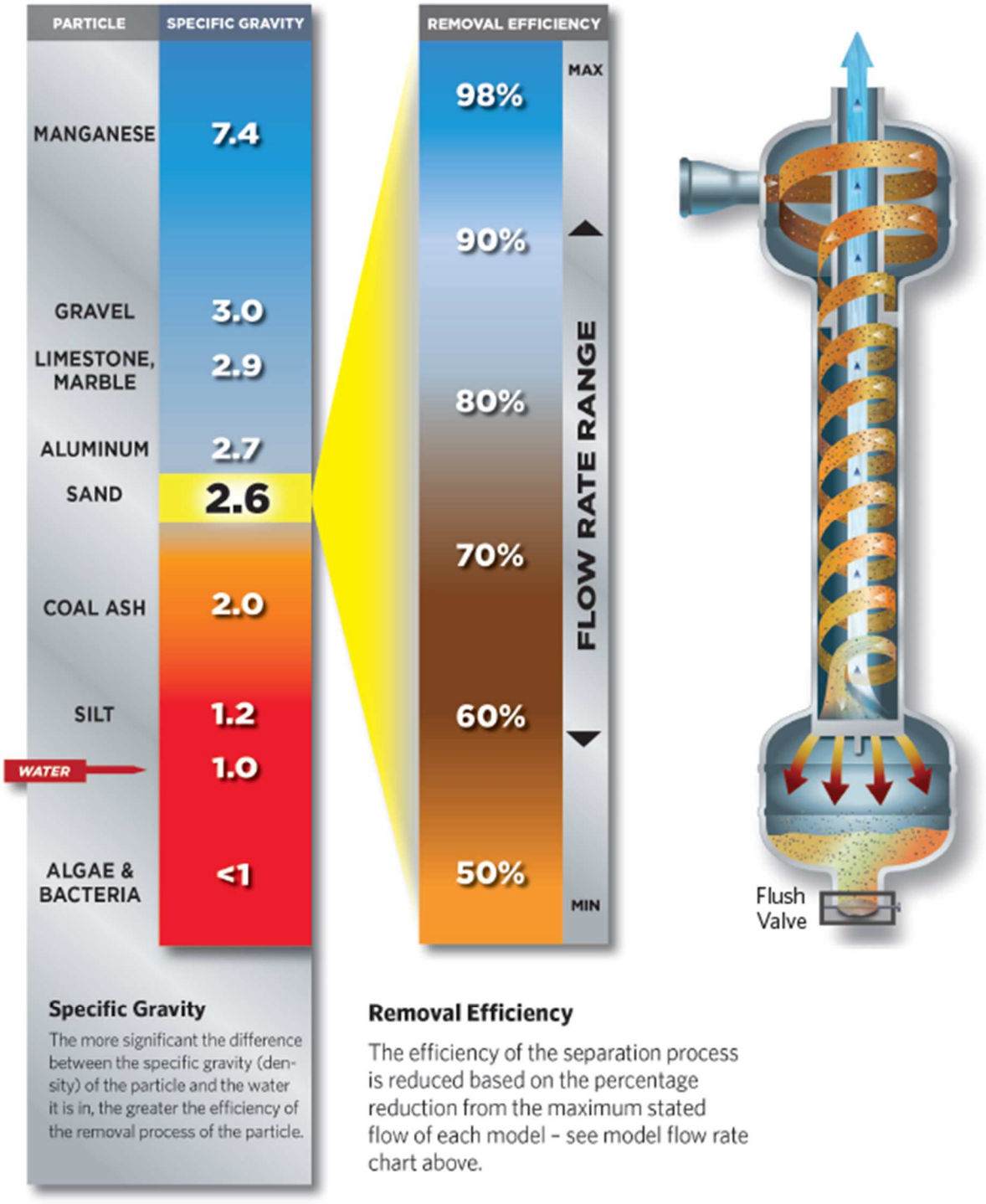
HOW IT WORKS

Liquids and solids enter the unit and begin travelling in a circular flow. This centrifugal action forces heavier particles downward in a spiral motion to the separation chamber. The particles collect in this separation chamber and are purged from the system on a time interval. The processed water is drawn from the separator's vortex and up through the outlet.

Features/Benefits

- No Moving Parts
- Removal of 98% Solids 2.6 Specific Gravity and Higher at Maximum Flow Rate (see back side)
- Heavy Duty, Corrosion Resistant Construction for a Long Service Life
- No Electricity Required
- Capacities of 1 to 1,771 m³/hr (4 to 7,800 gpm)
- Operating pressure 1.5 to 10 bar (25 psi to 150 psi)
- Simple Installation
- Excellent Pre-removal to Reduce Load on Downstream Filtration Components
- Low Cost
- Made in the USA
- Custom Skids Available

PARTICLE REMOVAL EFFICIENCIES



Specific Gravity

The more significant the difference between the specific gravity (density) of the particle and the water it is in, the greater the efficiency of the removal process of the particle.

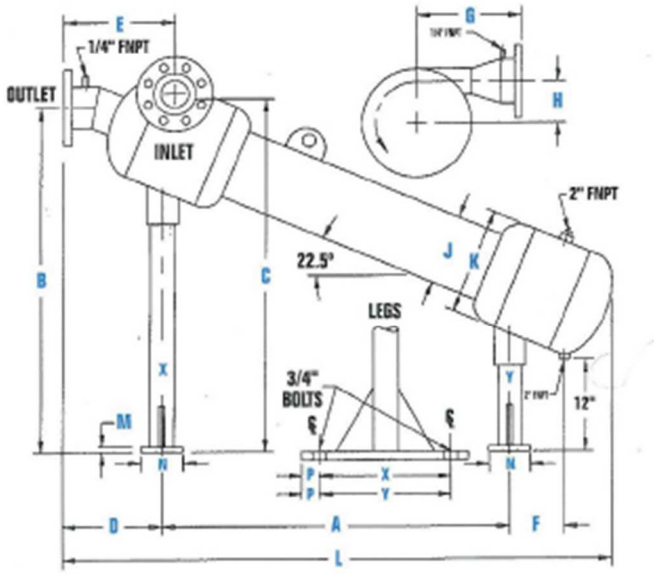
Removal Efficiency

The efficiency of the separation process is reduced based on the percentage reduction from the maximum stated flow of each model – see model flow rate chart above.

TECHNICAL INFORMATION - VERTICAL SEPARATORS

MODEL	FLOW M3/HR (GPM)	LINE SIZE CM (IN)	LENGTH CM (IN)	WEIGHT KG (LBS)	FLUSH PORT
VHS-10	1-2 (4-10)	1.3 (0.5)	54.6 (21.5)	6 (13)	1" NPT
VHS-20	2-5 (10-20)	1.9 (0.75)	54.6 (21.5)	7 (15)	1" NPT
VHS-40	4-9 (18-38)	2.5 (1.0)	77.5 (30.5)	12 (26)	1" NPT
VHS-50	6-12 (26-52)	3.2 (1.25)	77.5 (30.5)	12 (26)	1" NPT
VHS-80	9-18 (38-79)	3.8 (1.5)	77.5 (30.5)	12 (26)	1" NPT
VHS-120	14-27 (63-120)	5.1 (2.0)	96.5 (38)	20 (44)	2" NPT
VHS-180	23-41 (100-180)	6.4 (2.5)	111.8 (44)	25 (55)	2" NPT
VHS-260	28-59 (125-260)	7.6 (3.0)	121.9 (48)	34 (75)	2" NPT
VHS-340	43-78 (190-345)	10.2 (4.0)	124.5 (49)	55 (120)	2" NPT
VHS-400A	45-91 (200-400)	10.2 (4.0)	203.2 (80)	127 (280)	2" NPT
VHS-700A	83-159 (365-700)	15.2 (6.0)	269.9 (106.3)	224 (493)	2" NPT
VHS-950A	114-216 (500-950)	15.2 (6.0)	269.9 (106.3)	224 (493)	2" NPT
VHS-1600A	182-363 (800-1600)	20.3 (8.0)	289.6 (114)	328 (722)	2" NPT
VHS-2300A	295-522 (1300-2300)	25.4 (10.0)	313.7 (123.5)	382 (840)	2" NPT
VHS-3400A	460-772 (2025-3400)	30.5 (12.0)	353.1 (139)	636 (1400)	2" NPT
VHS-5000A	676-1136 (2975-5000)	35.6 (14.0)	387.4 (152.5)	907 (2000)	2" NPT
VHS-6200A	909-1408 (4000-6200)	40.6 (16.0)	406.4 (160)	1048 (2310)	2" NPT
VHS-7800A	1136-1772 (5000-7800)	45.7 (18.0)	449.6 (177)	1248 (2750)	2" NPT

PRODUCT DIMENSIONS - ANGELED SEPARATORS



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AUTO-PURGE CONTROL SPECIFICATIONS

An automatic purge controller and valve can be used on all applications. This eliminates the need for manual flushing, turning the separator into an automatic system.

SPECIFICATIONS

- 115 VAC 50/60 hz
- 3 m (10 ft) power cord with plug
- Two-piece brass ball valve
- 1" or 2" NPT connection
- Thermosplastic top cover
- Epoxy powder coated metal base
- NEMA 4 enclosure
- Ambient Temperature Range:
  - 12° C (10° F) to 49° C (120° F)
- Maximum Working Pressure:
  - Brass: 41 bar (600 psi)
  - Stainless Steel (optional): 62 bar (900 psi)

MODEL PVB-LT

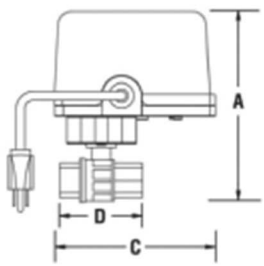
- LCD cycle status display
- Demand draining capability
- External test button
- External keypad timing adjustment
- Cycle Time: 1 min to 99 hrs 59 min
- Open Time: 1 sec to 99 min 59 sec

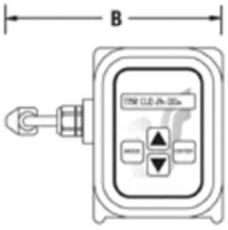
OPTIONS AND ACCESSORIES

- 12 VDC, 24 VDC, 230 VAC
- Stainless steel ball valve
- Alarm contact for remote indication of fault mode

Actuator with standardized ISO mounting pad sold separately.

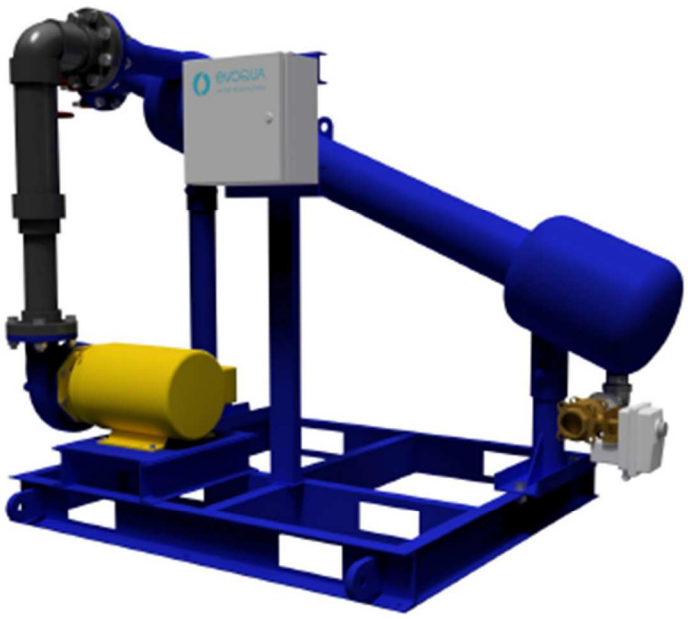
AUTO-PURGE CONTROL DIMENSIONS AND WEIGHTS





DIMENSION AND WEIGHTS (WITH STANDARD BRASS BALL VALVE)

VALVE CONNECTION SIZE		A	B	C	D	WEIGHT KG	WEIGHT LB
1" NPT	CM	21.1	17.3	16.0	10.9	5.0	11.0
	IN	8.3	6.8	6.3	4.3		
2" NPT	CM	22.6	17.3	16.8	12.2	6.0	13.0
	IN	8.9	6.8	6.6	4.8		



CTS-SERIES

- Flow Range: 200 - 3,400 gpm
- Includes upgraded epoxy coated steel railed skid, VHS separator, throttle valve anc auto purge valve.
- Options include pre-strainer and bag recovery vessel

CTS Recovery Vessel

LCS-SERIES

- Flow Range: 63 - 345 gpm
- Includes Stainless Steel skid base, VHS separator, outlet throttle valve and auto purge valve.
- Options include pre-strainer and bag recovery vessel

LCS Recovery Vessel