



EFFECTIVE LIQUID FILTRATION SOLUTIONS



CLOSELY PACKED HYDRO CYCLONES

Designed to handle removal of settable solids in cooling systems, irrigation and industrial process as either pre-filter or primary filter.

Incorporates a highly efficient closely packed set of 16 or 70 hydro cyclones as pre-filter to reliably remove solids down to 5 microns. Higher flow rates with high efficiency now possible.

Pre-filtration extends time between servicing as much as 5 times for standard bag, cartridge or media filter.

No media, bags or cartridges to clean.

Offers high removal efficiency from 3 to 15 psi (6.9 to 103 KPA) pressure differential.



Closely Packed Hydro Cyclone – CPH-16

SIXTEEN ONE-INCH HYDRO CYCLONES IN ONE VESSEL OFFERING 94% REMOVAL OF 15 MICRON SOLIDS & ABOVE AT 2.6 SPECIFIC GRAVITY.

FLOW RANGE:
13.2 TO 132 GPM
50 TO 500 LPM



Closely Packed Hydro Cyclone – CPH-70

SEVENTY ONE INCH HYDRO CYCLONES IN ONE VESSEL OFFERING 94% REMOVAL OF 15 MICRON SOLIDS & ABOVE AT 2.6 SPECIFIC GRAVITY.

FLOW RANGE:
105 TO 423 GPM
397 TO 1601 LPM

Principal of Operation

The water flows in from the bottom and is directed upward and distributed to the 16 one- inch hydro cyclones, the solids are removed, and directed upwards through the outlet to provide clean water to the system.



- ❖ The separator removes solids at specific gravity of 2.6 down to below 5 micron with performance noted for single pass in graph below.
- ❖ Using this separator as a pre-filter typically reduces solids loading on media and barrier filters by as much as five times improving their performance and dramatically extending time for servicing or backflushing.
- ❖ Purge is typically 15 seconds saving significant amounts of water.
- ❖ Excellent as primary filter especially for cooling water systems.

Sand Separator Test Sand Removal %

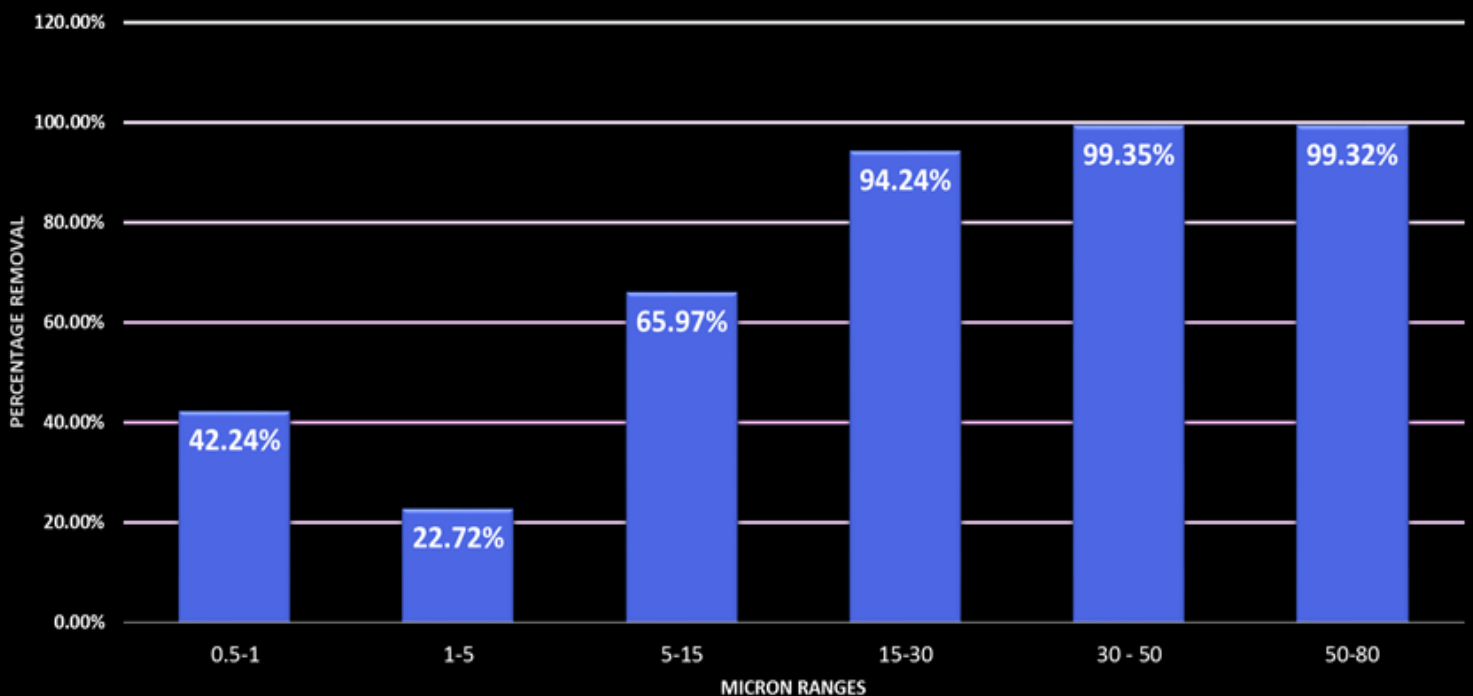
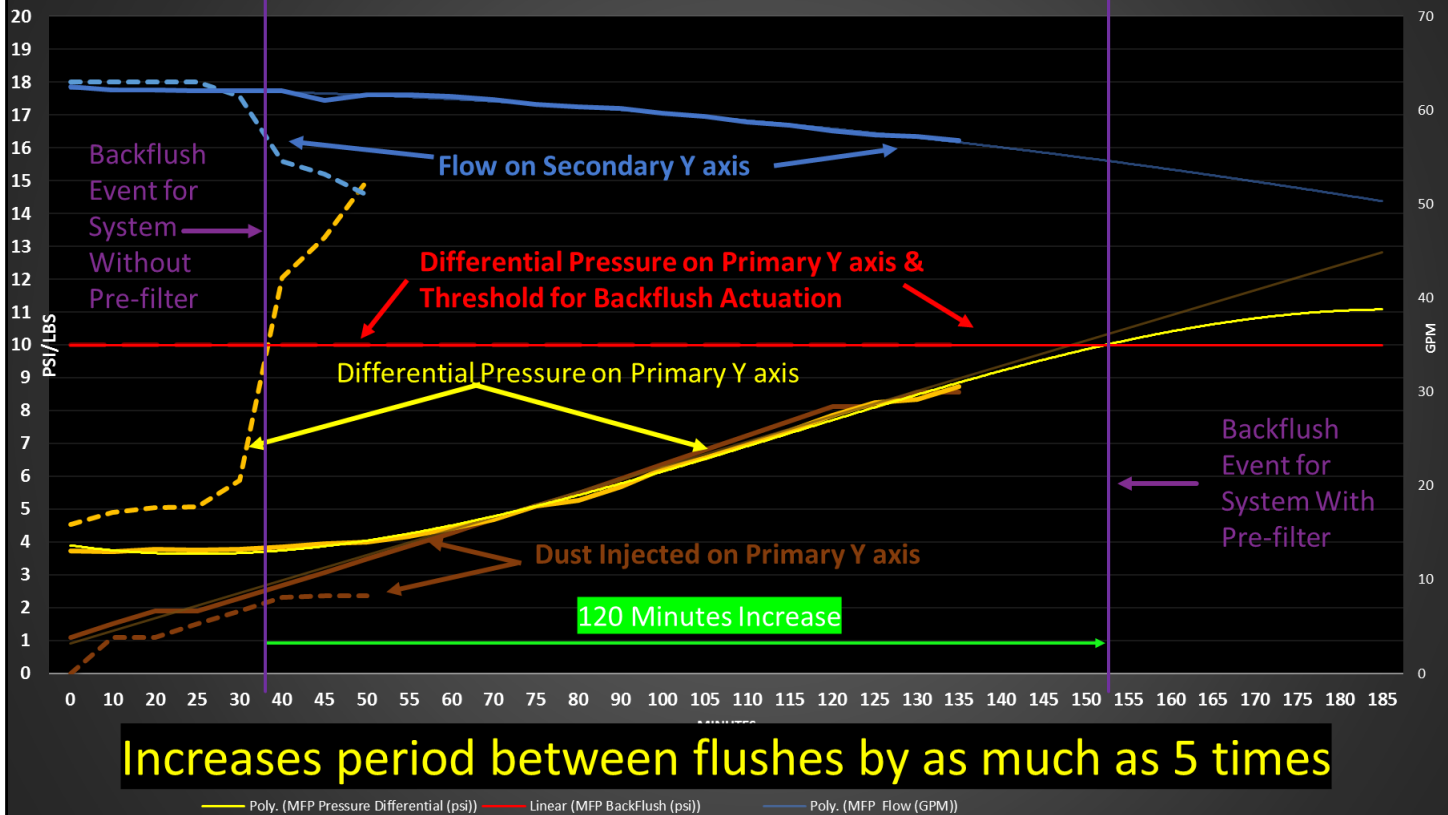


Chart below shows that using pre-filtration along with cartridge media or barrier filters increases the time between servicing by as much as five times. Dotted **Yellow** line differential pressure for media filtration only. Solid **Yellow** line differential pressure for pre-filtration followed by media filtration.

Media Filter Without & With Prefiltration



CPH-70 CUT-AWAY

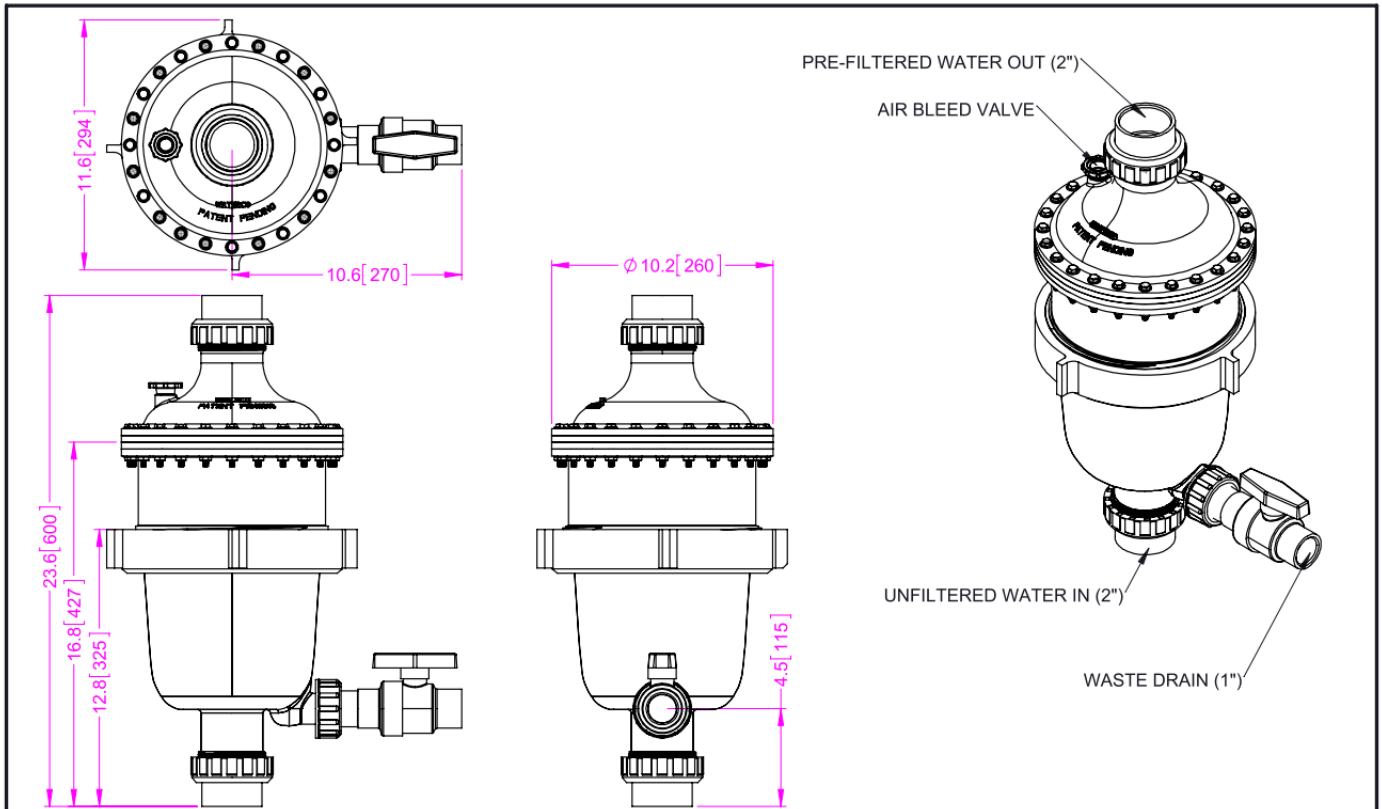
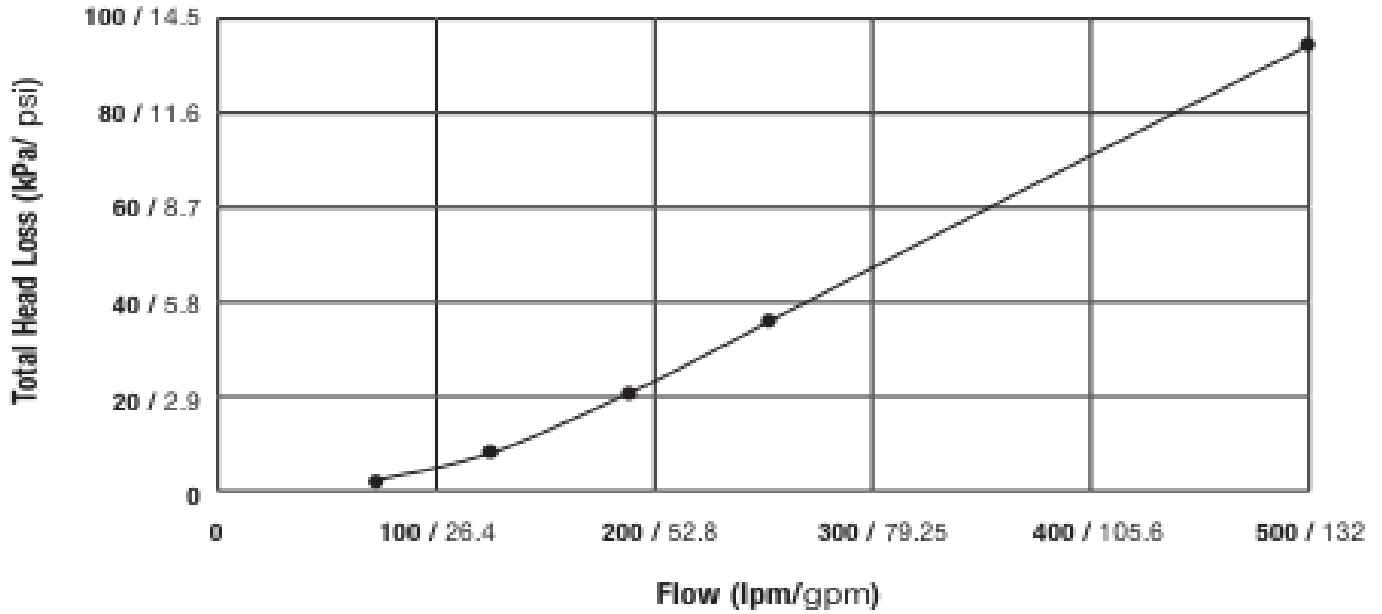
Same principal of operation as CPH-16 using 70 one inch hydro cyclones.


Same high solids removal performance as the CPH-16 with 3 times the flow rate.

Even higher flow rates possible with parallel installation of multiple CPH-70's.

Performance & Technical Info – CPH-16

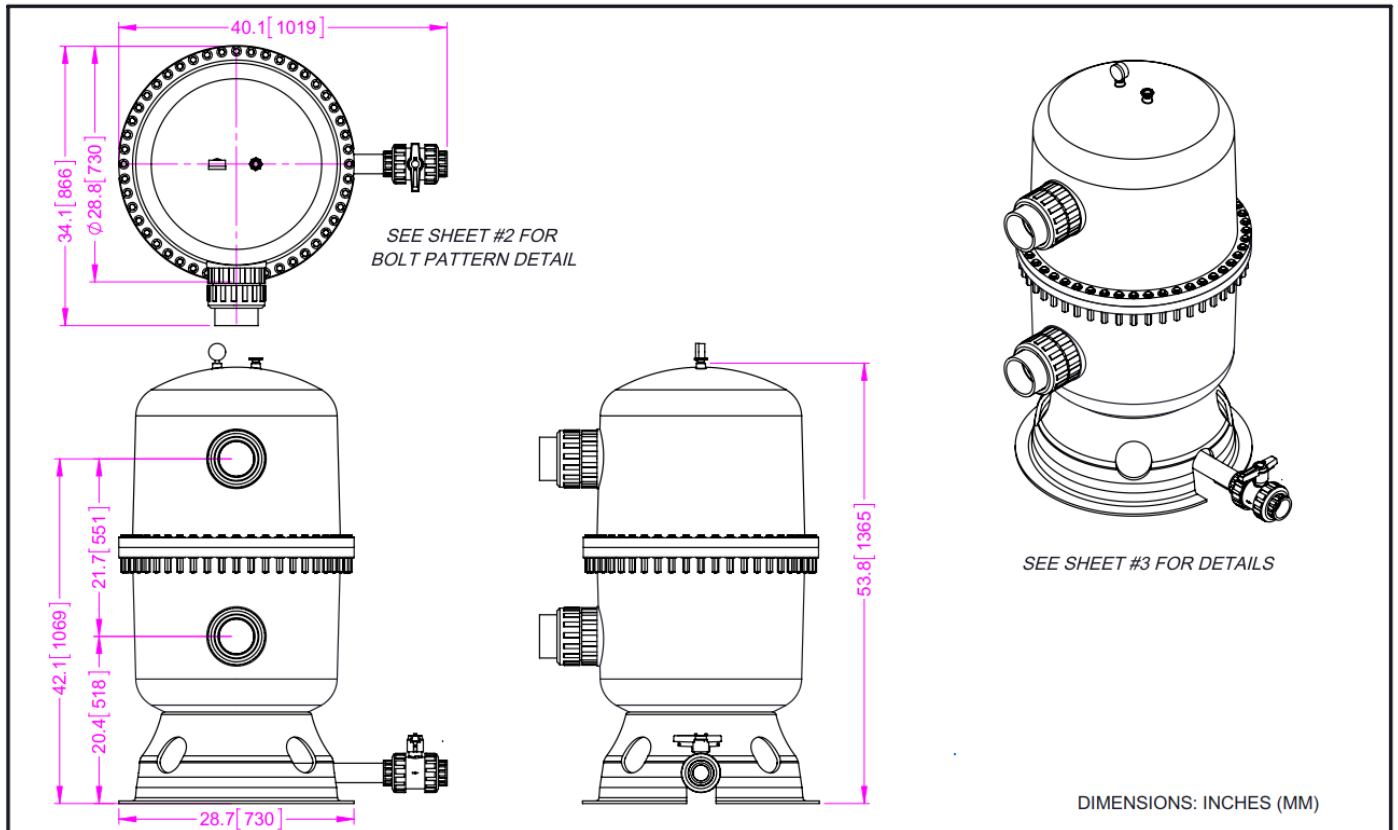
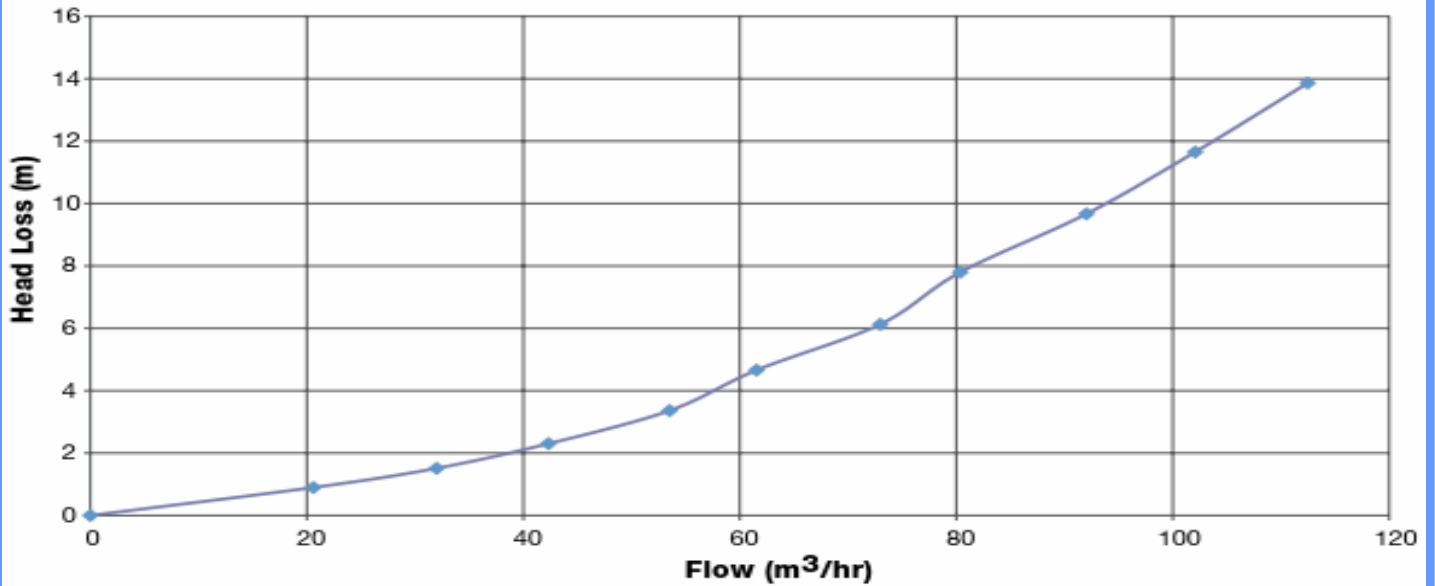
CPH-16 Flow vs Head Loss



FILTER DATA (FOR EACH FILTER)		GENERAL NOTES:		DATE: ___/___/2018		DATE: ___/___/2018	
MAX WORKING PRESSURE:	102 PSI	1. MEDIA NOT REQUIRED WITH FILTER.	2. MOUNTED ON SKID OR CONCRETE BY THIRD PARTY	CUSTOMER:	ENG: JS	 EFFECTIVE LIQUID FILTRATION SOLUTIONS CPH-16 Closely Packed Hydro Cyclone High Removal Efficiency	
MIN FLOW RATE:	13 GPM	3. PLEASE REFER TO QUOTE FOR LIST OF ITEMS SUPPLIED.- PICTURE CONCEPT ONLY	4. FILTER MADE FROM HIGH STRENGTH FIBERGLASS AND RESINS.	DATE: ___/___/2018	DATE: ___/___/2018		
MAX FLOW RATE:	132 GPM	5. ALL INTERNAL FILTER COMPONENTS CONSTRUCTED OF SCHEDULE 80 PVC.		PROD. MGR.: PG	DRN BY: RWS, Jr.	SHEET: 1 OF 1 REV: 0	
ESTIMATED MEDIA AMOUNTS				SCALE: 1:6		DATE: 3/6/2018 CUSTOMER:	
SAND:	LBS.						
GRAVEL:	LBS.						
WEIGHTS (APPROXIMATE)							
FILTER SHIPPING WEIGHT:	25 LBS.						
FILTER OPERATING WEIGHT:	LBS.						

Performance & Technical Info – CPH-070

CPH-70 Flow vs Head Loss



FILTER DATA (FOR EACH FILTER)		GENERAL NOTES:		epiphene EFFECTIVE LIQUID FILTRATION SOLUTIONS	
MAX WORKING PRESSURE:	50 PSI	1. MEDIA NOT REQUIRED WITH FILTER.		CPH-070 Closely Packed Hydro Cyclone High Removal Efficiency	
MIN FLOW RATE:	105 GPM	2. MOUNTED ON SKID OR CONCRETE BY THIRD PARTY			
MAX FLOW RATE:	423 GPM	3. PLEASE REFER TO QUOTE FOR LIST OF ITEMS SUPPLIED.- PICTURE CONCEPT ONLY		DRAWING TITLE: SHEET: 1 OF 3 REV: 0	
ESTIMATED MEDIA AMOUNTS		4. FILTER MADE FROM HIGH STRENGTH FIBERGLASS AND RESINS.		SCALE: 1:16	DATE: 5/8/2018
SAND:	LBS.	5. ALL INTERNAL FILTER COMPONENTS CONSTRUCTED OF SCHEDULE 80 PVC.		CUSTOMER:	
GRAVEL:	LBS.				
WEIGHTS (APPROXIMATE)					
FILTER SHIPPING WEIGHT:	188 LBS.				
FILTER OPERATING WEIGHT:	LBS.				

Technical & CPH Performance Criteria

Specifications & Operating Parameters												
Product Description	Min Flow Rate		Max Flow Rate		Max Working Pressure		Inlet & Outlet Pipe Size		Purge Pipe Size		Overall Weight	
	lpm	gpm	lpm	gpm	kPa	psi	mm	inches	mm	inches	(kg)	(lb)
CPH-16	49	13	500	132	703	102	50	2	25	1	39	25
CPH-070	397	105	1601	423	350	50	100	4	50	2	39	188

CPH - Scope of Supply	
Part Number	Product Description
CPH-16	Epiphene Closely Packed Hydro Cyclone with 16 one inch hydro cyclones in single vessel. 102 PSI maximum recommended pressure rating and flow rate of between 13 and 132 gpm. Removal efficiency is 94% of 15 Micron and above at 2.6 specific gravity. Material of Construction is high strength fiberglass & resins. Internal piping utilizes schedule 80 PVC.
CPH-070	Epiphene Closely Packed Hydro Cyclone with 16 one inch hydro cyclones in single vessel. 102 PSI maximum recommended pressure rating and flow rate of between 13 and 132 gpm. Removal efficiency is 94% of 15 Micron and above at 2.6 specific gravity. Material of Construction is high strength fiberglass & resins. Internal piping utilizes schedule 80 PVC.

Automatic Purge

WE HIGHLY RECOMMEND AUTOMATED PURGING. PLEASE CONTACT FACTORY FOR OPTIONS INCLUDING ELECTRICALLY ACTUATED BALL VALVE, BATTERY BACKUP AND CONTROLLER.

Website: Epiphene.com Phone: +1 (559)-288-2392
 Email: info@epiphene.com Clovis, California, USA

epiphene
 EFFECTIVE LIQUID FILTRATION SOLUTIONS
 Copyright Epiphene, Inc. 11/2018