



**Enceladus Water Group**

## **INTRODUCING THE ALL FRP CARTRIDGE FILTER HOUSING FROM ENCELADUS WATER GROUP, LLC.**



**Enceladus Water Group, LLC** introduces the all FRP line of cartridge filter housings.

- Manufactured in accordance with ASME, Section 10.
- Flow rates ranging from 53 GPM to 1,470 GPM (12 m<sup>3</sup>/h to 334m<sup>3</sup>/h).
- Models available in 5, 12, 22, and 60 round configurations.
- Accommodates standard 2.5" diameter cartridge elements.



## **ECH MULTI-CARTRIDGE FILTER VESSEL SERIES**

- **BODY CONSTRUCTED OF FRP -**  
higher tensile strength and broader chemical resistance than stainless steel
- **NO WETTED STEEL PARTS -**  
longer vessel life, especially important for desalination and other high corrosion operating environments
- **EASIER HANDLING, LOWER INSTALLATION COST -**  
lighter than stainless steel, no special tools required
- **LOWER MAINTENANCE COSTS -**  
separate top/bottom closure system, faster cartridge access and change-outs
- **STANDARD DESIGN FEATURES -**  
separate dirty/clean water drain ports, top vent connection, side-in/side-out connections
- **ASME SECTION 10 -**  
designed and manufactured in accordance with (Class 1)





## Enceladus Water Group

# Specifications

MODEL NUMBER	ECH-5	ECH-12	ECH-22	ECH-60
Operating Pressure (Max.)	150 PSI/10.3 bar Standard		250PSI/17.2 bar option	
Operating Temperature (Max.)	150 F/66 C			
Cartridge Lengths	20" / 30" / 40"	20" / 30" / 40"	20" / 30" / 40"	40" / 50" / 60" / 70"
Cartridge Quantity	5	12	22	60
Cartridge Type	DOE Standard 222 and 226 Options			
Vent Port	1/2 " F NPT			
Inlet / Outlet Port	2" IPS Groove	3" IPS Groove	4" IPS Groove	6" IPS Groove

# ECH Filter Housings Sizing Chart

MODEL NUMBER	FLOW RATE	30"	40"	50"	60"	70"
ECH-5-2.5 -	<b>GPM</b>	53	70			
	<b>CMH</b>	12	16			
ECH-12-2.5 -	<b>GPM</b>	126	168			
	<b>CMH</b>	29	38			
ECH-22-2.5 -	<b>GPM</b>	231	308			
	<b>CMH</b>	53	70			
ECH-60-2.5 -	<b>GPM</b>	630	840	1050	1260	1470
	<b>CMH</b>	143	191	239	286	334



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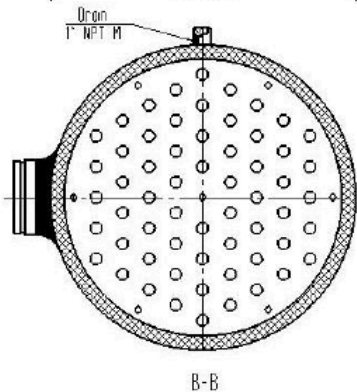
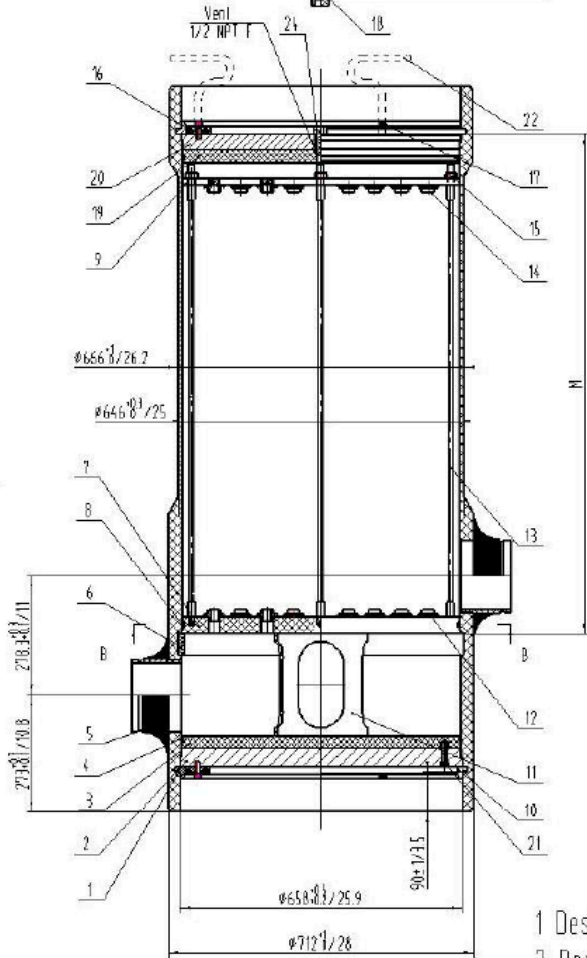
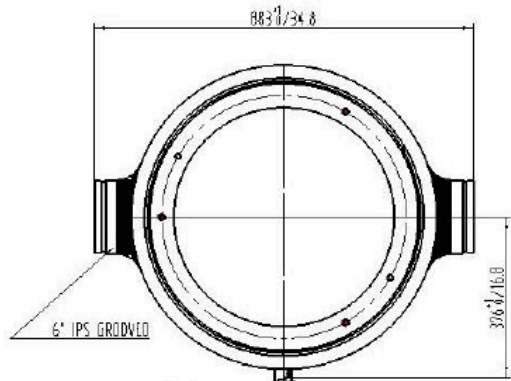
## Order Information

ECH-	-	-	-	-	-	-	-	-
	↑	↑	↑	↑	↑	↑	↑	↑
ENCELADUS CARTRIDGE HOUSING	NUMBER OF ELEMENTS	CARTRIDGE DIAMETER	CARTRIDGE LENGTH	CARTRIDGE TYPE	INLET/OUTLET SIZE	IN/OUT TYPE	O-RING MATERIAL	DESIGN PRESSURE
ECH-5	5	2.5"	20"	DOE	2"			
ECH-12	12	2.75"	30"	222	3"			
ECH-22	22		40"	226	4"	V= IPS Grove	E = EPDM	150 PSI/ 10 Bar
ECH-60	60		40"		6"			
			50"		6"		V=Viton	250 PSI/ 17 Bar
			60"		6"			
			70"		6"			

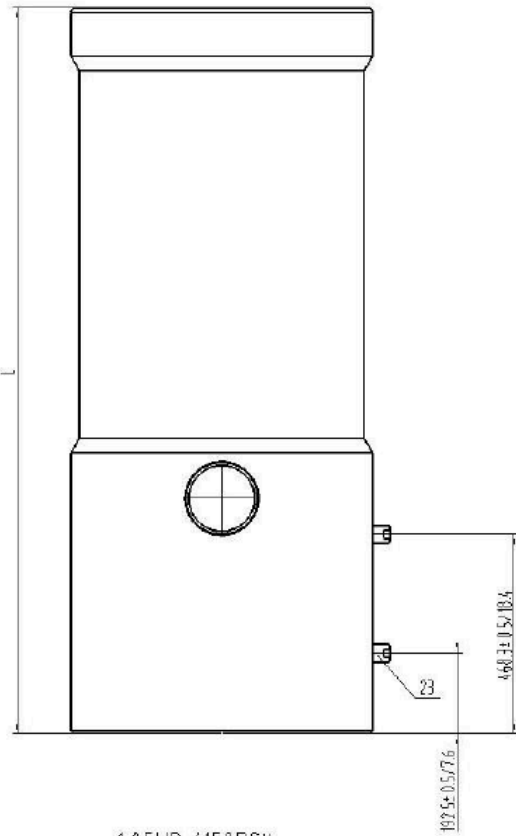
ECH CARTRIDGE MODELS CURRENTLY								
ECH-5-2.5-20-DOE-2VE-150								
ECH-5-2.5-30-DOE-2VE-150								
ECH-5-2.5-40-DOE-2VE-150								
ECH-12-2.5-20-DOE-3VE-150								
ECH-12-2.5-30-DOE-3VE-150								
ECH-12-2.5-40-DOE-3VE-150								
ECH-22-2.5-20-DOE-4VE-150								
ECH-22-2.5-30-DOE-4VE-150								
ECH-22-2.5-40-DOE-4VE-150								
ECH-60-2.5-30-DOE-6VE-150								
ECH-60-2.5-40-DOE-6VE-150								
ECH-60-2.5-50-DOE-6VE-150								
ECH-60-2.5-60-DOE-6VE-150								
ECH-60-2.5-40-DOE-6VE-150								



# Enceladus Water Group



REF.	DESCRIPTION	QTY.	MATERIAL	REF.	DESCRIPTION	QTY.	MATERIAL
1	SHELL	1	FRP	13	GUIDE ROD	7	CPVC&FRP
2	BEARING PLATE I	1	6061 T651	14	CARTRIDGE GUIDE II	60	NR
3	SEALING PLATE I	1	PVC	15	NUT M16	7	ABS
4	O-RING 615x7	2	EPDM	16	SECURING RING	2	FRP
5	6" SIDE PORT	2	FRP	17	SCREW M10x25	6	304SST
6	RETAINING RING	1	FRP	18	DRAIN	2	ABS
7	SEPERATOR PLATE	1	PVC	19	SEALING PLATE II	1	PVC
8	O-RING 615x7	1	EPDM	20	BEARING PLATE II	1	6061 T651
9	COMPRESSION PLATE	1	FRP	21	SCREW M10x40	6	304SST
10	LOCK RING KIT	6	316L	22	HANDLE	3	304SST
11	BEARING RING	1	FRP	23	DRAIN CAP	2	ABS
12	CARTRIDGE GUIDE I	60	NR	24	VENT PLUG	1	ABS



- 1 Design pressure 1.05MPa(150PSI)
- 2 Design temperature 66° (150°F)
- 3 Min allowable temperature -10° (14°F)

Length of Film Element	40"	50"	60"	70"
L(mm/in)	1702/67	1956/77	2210/87	2464/97
M(mm/in)	1188/46.8	1442/56.8	1696/66.8	1950/76.8
Weight(kg)	281	293	305	317

Design	QD	<b>Enceladus Water Group</b>	
Review	AJB	Title <b>FRP Cartridge Housing-60 Round</b>	
Approve	KPG	Dwg. No. <b>ECH-60-2.5-XX-6VE</b>	Rev. <b>D</b>

PATENT PENDING