

### General information

CFHA MODEL	
PURPOSE	<ul> <li>The Cartridge Filter Housings – CFHA models* with inner Halar coating offer reliable high-quality filtration for nanotech manufacturing and fulfill the specific needs of Ultrapure water applications such as Semiconductor and UPW polishing.</li> <li>All wetted surfaces of the Cartridge Filter Housings – CFHA models are fluoropolymer lined to ensure Ultrapure water never comes in contact with exposed metal.</li> <li>Ovivo Cartridge Filter Housings – CFHA models are available in different diameters and can support 5 to 28 filter cartridges. The feed water goes in the housing and evenly pass through the filter cartridges (outside-in filtration). Particles are captured on the filter cartridges surface and the filtrate is collected at the housing outlet.</li> </ul>
INSTALLATION	<ul> <li>The Cartridge Filter Housings – CFHA models are often skid mounted and shall be installed either indoor or outdoor on level ground.</li> <li>The installation and operation of the Cartridge Filter Housings – CFHA models must follow specific requirements.</li> <li>Ovivo's filter housings are compatible with almost every filter media (cartridges) available on the market.</li> <li>See operation manual or contact Ovivo for further information.</li> </ul>
OPERATION	<ul> <li>There is no specific maintenance on the Cartridge Filter Housings – CFHA models. The vessel shall be periodically submitted to structural examination.</li> <li>A modification of the pressure test of the vessel is not permitted.</li> <li>Filter cartridges must be cleaned according to supplier information and/or following Ovivo recommendations.</li> </ul>

<sup>\*</sup>CFHA models refer to CFEHA (Cartridge Filter Housing according to European Standard with inside Halar coating) and CFAHA (Cartridge Filter Housing according to ASME with inside Halar coating).



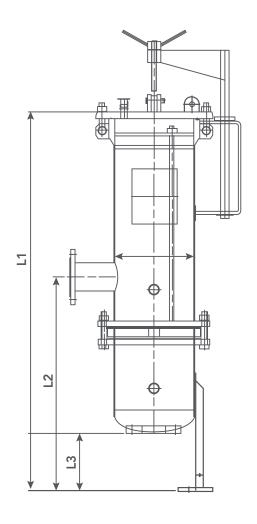
## Materials

CFHA MODELS								
HOUSING	Stainless Steel 316L (1.4404) Halar® ECTFE							
BAFFLE PLATE	Stainless Steel 316L (1.4404) Halar® ECTFE							
CARTRIDGE HOLDING PLATE	PVDF							
SUPPORT RODS, NUTS	PVDF							
CARTRIDGE HOLD DOWN PLA	PVDF							

## Characteristics

CFHA MODELS		5–30	5–40	8–30	8–40	12–30	12-40	18–30	18–40	22-30	22-40	28-30	28-40	
HOUSING DIAMETER	mm	220		270		325		410		460		510		
	inch	8.7		10.6		12.8		16.1		18.1		20.1		
CONNECTION*	mm inch	8	0	80 3		100 4		100 4	150 6	150 6		150 6		
TOTAL HEIGHT L1	mm	1'537	1'787	1'548	1'798	1'869	2'119	1'928	2'178	2'059	2'309	2'086	2'336	
	inch	60.5	70.4	60.9	70.8	73.6	83.4	75.9	85.7	81.1	90.9	82.1	92.0	
FLANGE POSITION L2	mm inch	9° 36			953 37.5		944 37.2		1'051 41.4		1'231 48.5		1'256 49.4	
FLANGE POSITION L3	mm	320		320		350		350		440		440		
	inch	12.6		12.6		13.8		13.8		17.3		17.3		

<sup>\*</sup>The size of the connection is a variable depending on the flow rate.

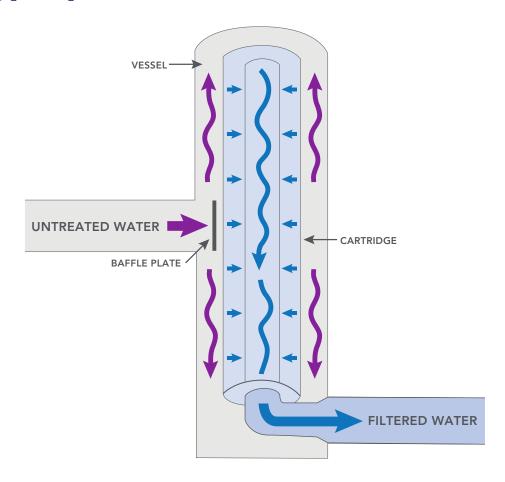


# Operating parameters

CFHA MODELS		5–30	5–40	8–30	8–40	12–30	12–40	18–30	18–40	22–30	22–40	28–30	28-40
MEDIUM						Wa	nter						
DESIGN PRESSURE	bar psi						-1 -14.5	10 145					
MAX. ALLOWABLE WORKING PRESSURE	bar psi						-1 -14.5	. 10 145					
DESIGN TEMPERATURE	°C °F	120 248											
ALLOWABLE WORKING TEMPERATURE	°C °F		0 100 32 212										
NUMBER OF CARTRIDGES		5 8		12		18		22		28			
NUMBER OF 10" CARTRIDGE ELEMENTS		15	20	24	32	36	48	54	72	66	88	84	112
LENGTH OF CARTRIDGES*	mm inch	750 30	1'000 40	750 30	1'000 40	750 30	1'000 40	750 30	1'000 40	750 30	1'000 40	750 30	1'000 40
MAX. FLOW	m³/h gpm	23 101	30 132	36 159	48 211	54 238	72 317	81 357	108 476	99 436	132 581	126 555	168 740

<sup>\*</sup>Cartridge Filter Housings for smaller cartridges, such as 10" or 20" are also available on special request.

# Operating principle



## Quality

#### PRESSURE EQUIPMENT DIRECTIVE (PED)

• Designed, developed and manufactured in accordance with the Pressure Equipment Directive - 2014/68/EU, Article 4, paragraph 3 (Sound Engineering Practice).

#### ASME VIII. DIV.1 (AS ALTERNATIVE TO PED)

- The Cartridge Filter Housings CFHA models are designed and manufactured in accordance with ASME VIII. DIV. 1.
- An ASME U-stamp on the pressure vessel is available in option.

### OTHERS (ON REQUEST)

• The Cartridge Filter Housings – CFHA models are designed and manufactured to be compliant with Semiconductors and Ultrapure water requirements.

### Other information

DISPOSAL	<ul> <li>Disposal must be in accordance with the appropriate local regulations.</li> <li>See additional information in the operation manual.</li> </ul>
SAFETY ADVICE	<ul> <li>Pressure hazards:         The Cartridge Filter Housings – CFHA models are operated under pressure.         Risk of liquid jets during maintenance work.     </li> <li>Unauthorized modification of the Cartridge Filter Housings – CFHA models will void warranty. We recommend using only original spare parts for system maintenance.</li> </ul>
MANUFACTURER	RAMIVO Manufacturing Hungary Kft. Szabadság utca. 91 7090 Tamási Hungary
GLOBAL KNOWLEDGE CENTRE	Ovivo Switzerland AG Benkenstrasse 262 4108 Witterswil Switzerland

