

Sanitary UF/MF PHT Series

Synder Filtration's PHT Series Ultrafilter Elements offer exceptional physical and chemical durability, in the same wide range of MWCO's as our standard UF elements.

PHT SERIES BENEFITS

- Conforms to 3-A, FDA, and USDA sanitary standards
- Hot Sanitation eliminates chlorine during CIP
- High resistance to pH and temperature
- High resistance to fouling
- Customizable dimensions for unique housings



MEMBRANE TYPES

MODEL	MWCO	MATERIAL
XT	1,000	PES
VT	3,000	PES
MT	5,000	PES
ST	10,000	PES
SM	20,000	PES
MK	30,000	PES
MQ	50,000	PES
LY	100,000	PES
LX	300,000	PES
BN	50,000	PVDF
BY	100,000	PVDF
BX	250,000	PVDF
A6	500,000	PVDF
FR	800,000	PVDF
V0.1	0.1 µm	PVDF
V0.2	0.2 µm	PVDF

PHT SANITARY ELEMENT OPERATING SPECS

Pressure	PSI	Bar
Max. Inlet Pressure	120	8.3
Min. Outlet Pressure	10	0.7
Max. Differential Pressure per Element	18	1.2
Max. Permeate Backpressure	5	0.3

NOTE: Soft start on boost pumps required to minimize pressure/flow shocks to elements.

Temperature	Fahrenheit	Celsius
Max. Operating	140°	60°
Max. CIP Temperature	185°	85°

pH Parameters	pH
pH Range during Operation	2.0 - 10.0
pH Range during CIP	1.8 - 12.5

Dairy Product Total Solids Limits	Spacer			
Products	31	46	65	80
Sweet Whey Max. T.S. %	15	25	28	30
Acid Whey Max. T.S. %	15	24	26	28
Skim Milk Max. T.S. %	14	24	26	28
Whole Milk Max. T.S. %	15	30	33	35

NOTE: Trials should be made to determine temperature and viscosity effects.

Avoid using chlorine, peroxide, or any other type of oxidizer.

ELEMENT DIMENSIONS

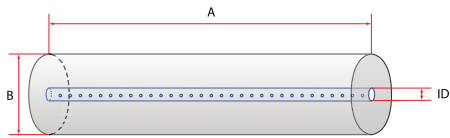
Element	Model No.	Diameter (B) in	Length (A) in	P.W.T. ID
1.8"	1812F	1.8	12	0.625
	2519	2.5	19.25	0.625
2.5"	2540F	2.5	40	0.625
	2540M	2.5	38	0.75*
3.8"	3838	3.8	38	0.83
	3838.75	3.8	38.75	0.83
4.3"	3850	3.8	50	0.83
	4333	4.3	33	0.83
	4335	4.3	35	0.83
	4335.5	4.3	35.5	0.83
	4336	4.3	36	0.83
5.8"	4338	4.3	38	0.83
	5838	5.8	38	1.138
6.3"	6338	6.3	38	1.138
	6324	6.3	24	1.138
6.4"	6438	6.4	38	1.138
	6424	6.4	24	1.138
7.8"	7838	7.8	38	1.138
	7824	7.8	24	1.138
8"	8038	8.0	38	1.138
	8040	8.0	40	1.138
	8238	8.2	38	1.138
	8240	8.2	40	1.138
	8338	8.3	38	1.138
10"	10338	10.3	38	1.138

*1" permeate tube extensions (0.75" OD)

RECOMMENDED ELEMENT CROSS FLOW RATE

Element		Feed Spacer (in mils)				
		24	31	46	65	80
1.8"	m ³ /hr	N/A	1.1	N/A	N/A	N/A
	gpm	N/A	5	N/A	N/A	N/A
2.5"	m ³ /hr	2.3	2.3	3	N/A	N/A
	gpm	10	10	13	N/A	N/A
3.8"	m ³ /hr	6	6	7	9	10
	gpm	26	26	32	38	44
4.3"	m ³ /hr	7	8	9	11	13
	gpm	32	34	42	49	59
5.8"	m ³ /hr	13.4	14.0	16.8	19.8	23.1
	gpm	59	62	74	87	102
6.3"	m ³ /hr	17	18	21	24	28
	gpm	75	78	93	106	123
8"	m ³ /hr	27	26	32	37	43
	gpm	118	113	140	164	190
10"	m ³ /hr	n/a	51	61	70	83
	gpm	n/a	224	268	307	366

The recommended cross flow rate will be subject to differential pressure limitations and specific applications.



Membrane Model	ST - 2 A - 6338PHT
Spacer Size	Model No.
24 mil	1
31 mil	2
46 mil	3
65 mil	4
80 mil	5
Outerwrap	
A = Control Bypass with Tail	
B = Control Bypass without Tail	

MEMBRANE AREA (SQ FT)

Element	Model No.	Feed Spacer (in mils)				
		24	31	46	65	80
1.8"	1812F	N/A	4	N/A	N/A	N/A
	2519	17	15	11	N/A	N/A
2.5"	2540F	37	34	23	N/A	N/A
	2540M	35	32	21	N/A	N/A
3.8"	3838	88	76	56	47	39
	3838.75	89	77	60	46	39
	3850	111	118	102	75	52
4.3"	4333	96	87	74	58	50
	4335	100	95	79	61	53
	4335.5	104	97	82	63	54
	4336	108	100	83	63	55
5.8"	4338	112	105	88	66	58
	5838	186	180	136	109	90
6.3"	6338	236	228	171	133	109
	6324	161	141	112	88	77
6.4"	6438	239	230	174	135	110
	6424	164	143	115	90	79
7.8"	7838	405	360	288	230	198
	7824	248	220	176	141	121
8"	8038	372	330	258	205	168
	8040	372	330	258	205	168
	8238	440	389	310	240	181
	8240	460	405	320	258	220
	8338	447	396	319	253	205
10"	10338	N/A	655	493	384	324

TECHNICAL NOTES

For element sizes not listed, please call or email Synder Filtration for details. We can design an element to fit your exact needs - just specify the element outer diameter (OD) or vessel/housing inner diameter (ID), element inner diameter (ID), and length. Elements are available with or without a controlled bypass tail. Additional feed spacers are also available.

Trials should be conducted to determine optimal application conditions.

Element Descriptions

Model No.	OD (in.)	L (in.)	ID* (in.)	Weight (lb)	Weight (kg)
1812F	1.8	12	0.625	1.0	0.5
2519	2.5	19.25	0.625	2	0.9
2540F	2.5	40	0.625	4	1.8
2540M	2.5	38	0.75*	4	1.8
3838	3.8	38	0.83	10	4.5
3838.75	3.8	38.75	0.83	10	4.5
3850	3.8	50	0.83	13	5.9
4333	4.3	33	0.83	11	5.0
4335	4.3	35	0.83	11	5.2
4335.5	4.3	35.5	0.83	11	5.2
4336	4.3	36	0.83	11	5.2
4338	4.3	38	0.83	12	5.4
5838	5.8	38	1.138	15	7
6338	6.3	38	1.138	16	7
6324	6.3	24	1.138	17	7.7
6438	6.4	38	1.138	29	13.2
6424	6.4	38	1.138	18	8.2
7838	7.8	38	1.138	40	18.2
7824	7.8	24	1.138	26	11.8
8038	8.0	38	1.138	38	17.2
8040	8.0	40	1.138	39	17.7
8238	8.2	38	1.138	38	17.2
8240	8.2	40	1.138	40	18
8338	8.3	38	1.138	40	18
10338	10.3	38	1.138	43	20

*1" permeate tube extensions (0.75" OD)

NOTE: Different diameters are available. Please specify your requirements when ordering. Specifications are subject to change without notice.