

Overview of Elements

Wire Mesh Element

- Corrosion protection due to stainless steel filter material and tin-plated or nickel-plated steel parts
- Cleanable
- Filtration ratings: 25µm, 50µm, 74µm, 100µm, 149µm, and 200µm nominal

Metal Fiber Element

- Safeguards high filtration efficiency even at extreme dynamic loads
- High contamination retention capacity due to deep filtering which results in a longer service life
- Low flow resistance
- Corrosion protection due to stainless steel filter material and tin-plated steel parts
- High differential pressure tolerance
- Economical due to cleanability
- High temperature range
- Filtration ratings: 3µm, 5µm, 10µm, and 20µm nominal / or absolute ratings - Consult Factory

Disposable Polyester (paper) Element

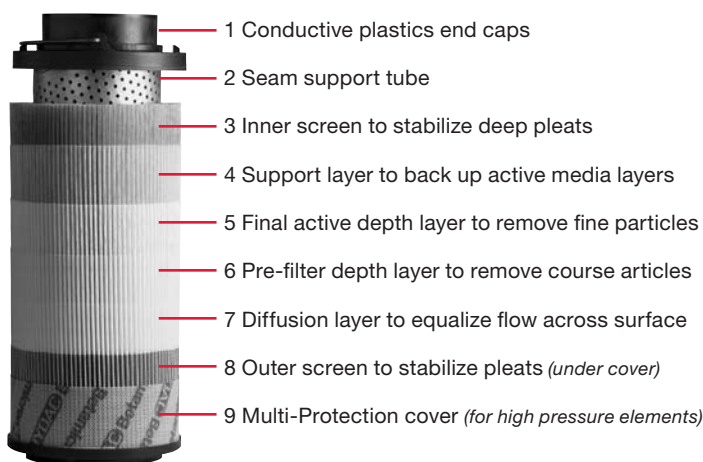
- Higher contamination retention capacity than cellulose due to deep filtration
- Low flow resistance
- Media supported on both sides with wire mesh
- Good fluid compatibility due to media being free of bonding agent
- Filtration ratings: 10µm, and 20µm nominal
- Non cellulose media (*polyester*)- plastic coating eliminates swelling

Mobilemicron Element

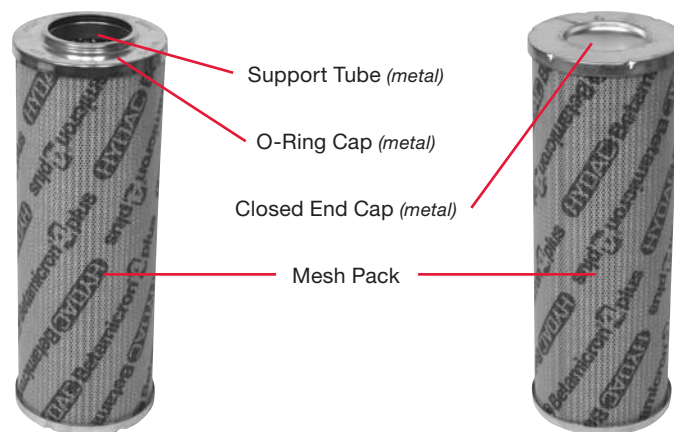
- Extremely low ΔP across elements when utilized with high viscosity fluids or cold start conditions
- Melt blown fiberglass media construction
- Good dirt holding capacity
- High filtration efficiencies $\beta_{x(c)} \geq 200$
- Good beta stability
- Filtration Ratings: 10µm and 15µm absolute

Element Construction

Betamicon®

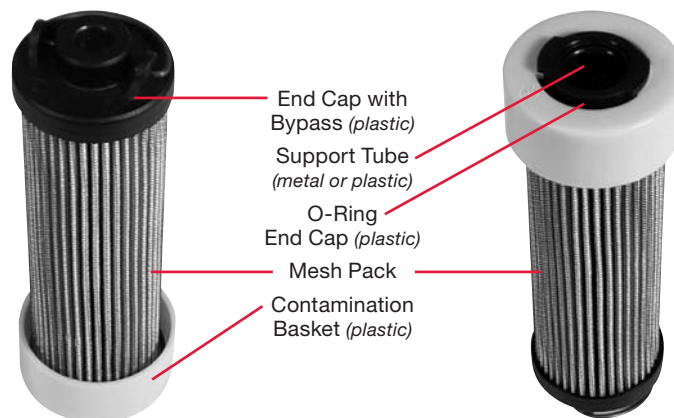


Betamicon® Pressure



Betamicon® Return Element

Return filters include Bypass in the endcap - insures proper bypass operation at all times.



Betamicron® Absolute Elements

- BN4HC - Low Collapse (290 psid)
- BH4HC - High Collapse (3045 psid)
- Fiberglass
- Depth Filtration
- 3, 5, 10, & 20 micron
- Disposable
- Absolute Filtration Rating $\beta_{x(c)} \geq 1000$
- Structurally Designed for Dynamic Flow Conditions



Betamicron / Aquamicron Combination Elements

- BN/AM - code designation
- Collapse Rating - 145 psid
- Undissolved (free) Water Removal ONLY!
- 3 & 10 micron
- Absolute Filtration Rating $\beta_{x(c)} > 100$
- Disposable



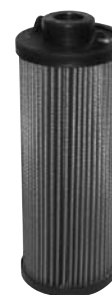
Mobilemicron Elements

- Low Clean Element ΔP Per Flow Rate for Cold Start
- Absolute Filtration Rating $\beta_{x(c)} \geq 200$
- Good Beta Stability
- Good Dirt Holding Capacity
- Collapse Rating - 145 psid
- Disposable
- Depth Filtration



Polyester (paper) Nominal Elements

- P/HC - code designation
- Polyester
- Collapse Rating - 250 psid
- 10 & 20 micron, Nominal
- Disposable
- Surface Filtration



ECOMICRON® Element

- ECO/N - code designation
- All Plastic Construction
- Collapse Rating - 145 psid
- 3, 5, 10, & 20 micron
- Absolute Filtration Rating $\beta_{x(c)} \geq 1000$
- Disposable
- Depth Filtration



Wire Screen Ecominal Elements

- W/HC - code designation
- Collapse Rating - 250 psid
- Wire Mesh
- 25, 74, & 149 micron, Nominal
- Cleanable
- Surface Filtration



Aquamicron® Elements

- AM - code designation
- Collapse Rating - 145 psid
- Undissolved (free) Water Removal ONLY!
- 40 micron
- $\beta_{40(c)} \geq 100$
- Disposable



Metal Fiber Nominal Elements

- V - code designation
- Collapse Rating - 3000 psid
- Stainless Steel Media
- 5, 10, & 20 micron, Nominal
- Cleanable
- Depth Filtration
- Absolute Rated Available on Request
- 1, 3, 5, 10, & 20 Micron Absolute for Process Applications



Element K Factors

"D" Pressure Elements



Size	...D...BN4HC (Betamicon® Low Collapse)				
	3 µm	5 µm	10 µm	20 µm	Wgt. (lbs.)
0030	3.504	2.374	1.251	0.618	0.176
0035	1.294	1.041	0.811	0.510	N/A*
0055	0.751	0.603	0.444	0.263	N/A*
0060	1.582	1.116	0.723	0.433	0.243
0075	0.510	0.411	0.290	0.170	N/A*
0095	0.411	0.329	0.225	0.132	N/A*
0110	0.819	0.585	0.361	0.205	0.397
0140	0.701	0.450	0.261	0.157	0.485
0160	0.718	0.480	0.252	0.193	0.595
0240	0.450	0.333	0.196	0.128	0.881
0280	0.220	0.171	0.092	0.071	1.631
0330	0.294	0.215	0.163	0.095	1.389
0500	0.181	0.132	0.081	0.058	2.183
0660	0.136	0.099	0.061	0.044	2.712
0990	0.090	0.066	0.040	0.029	3.285
1320	0.068	0.048	0.030	0.021	9.700
1500	0.069	0.058	0.032	0.018	N/A*

Size	...D...BH4HC (Betamicon® High Collapse)				
	3 µm	5 µm	10 µm	20 µm	Wgt. (lbs.)
0030	5.000	2.780	1.989	1.042	0.287
0035	-	-	-	-	-
0055	-	-	-	-	-
0060	3.210	1.785	0.993	0.669	0.507
0110	1.394	0.819	0.488	0.307	0.816
0140	1.088	0.622	0.445	0.233	0.992
0160	0.919	0.569	0.322	0.240	0.992
0240	0.578	0.374	0.214	0.158	1.764
0280	0.313	0.184	0.097	0.090	2.932
0330	0.422	0.244	0.154	0.108	2.645
0500	0.232	0.143	0.083	0.065	3.814
0660	0.179	0.106	0.055	0.049	4.740
0990	0.119	0.072	0.043	0.033	N/A*
1320	0.089	0.054	0.031	0.024	9.700
1500	0.958	0.675	0.410	0.215	N/A*



Size	...D...V Elements				
	3 µm	5 µm	10 µm	20 µm	Wgt. (lbs.)
0030	1.011	0.740	0.411	0.200	0.331
0060	0.877	0.511	0.296	0.183	0.485
0110	0.452	0.304	0.182	0.118	0.793
0140	0.320	0.261	0.172	0.126	1.080
0160	0.251	0.177	0.123	0.079	1.146
0240	0.169	0.137	0.093	0.062	1.653
0280	0.126	0.093	0.064	0.041	3.064
0330	0.121	0.097	0.065	0.043	2.579
0500	0.081	0.065	0.044	0.028	3.858
0660	0.063	0.050	0.034	0.021	4.564
0990	0.043	0.034	0.023	0.015	N/A*
1320	0.032	0.026	0.018	0.012	N/A*



Size	...D...W/HC Elements 25, 50, 74, 100, 149, 200 µm	
	Wgt. (lbs.)	
0030	0.185	N/A*
0060	0.092	2.624
0110	0.050	0.661
0140	0.040	0.838
0160	0.035	1.102
0240	0.023	1.455
0280	0.020	2.425
0330	0.020	2.138
0500	0.011	N/A*
0660	0.008	3.748
0990	0.006	7.496
1320	0.004	9.700

* Not Available at the time of publication. Please contact HYDAC for latest information.

All Element K Factors in psi / gpm.

"DN" Pressure Elements



Size	...DN...BN/HC				Wgt. (lbs.)
	3 µm	5 µm	10 µm	25 µm	
0040	1.315	0.899	0.475	0.365	2.161
0063	0.819	0.541	0.330	0.256	0.331
0100	0.651	0.363	0.219	0.174	0.507
0160	0.439	0.306	0.202	0.143	N/A*
0250	0.275	0.178	0.111	0.091	1.411
0400	0.178	0.110	0.073	0.055	2.161

Size	...DN...BH/HC				Wgt. (lbs.)
	3 µm	5 µm	10 µm	25 µm	
0040	2.211	1.361	0.904	0.594	2.161
0063	1.590	1.359	0.895	0.452	0.838
0100	1.050	0.644	0.422	0.285	2.161
0160	0.439	0.274	0.219	0.143	N/A*
0250	0.292	0.183	0.151	0.107	0.705
0400	0.256	0.162	0.146	0.092	2.161

Pressure Elements for the Automotive Industry

Size	5.03.XXDBN				Wgt. (lbs.)
	3 µm	5 µm	10 µm	20 µm	
09	0.1680	0.1405	0.0788	0.0443	1.67
18	0.0800	0.0669	0.0375	0.0211	3.03
27	0.0517	0.0432	0.0242	0.0136	4.50

Size	5.03.XXDBH				Wgt. (lbs.)
	3 µm	5 µm	10 µm	20 µm	
09	0.2068	0.1457	0.0886	0.0465	10.450
18	0.0967	0.0681	0.0414	0.0217	19.026
27	0.0630	0.0444	0.0270	0.0142	27.139

Size	5.03.XXD W/HC		Wgt. (lbs.)
	25, 50, 74, 100, 149, 200 µm		
09	0.0073		1.71
18	0.0035		3.29
27	0.0023		N/A*

Size	1.11.XXDBN				Wgt. (lbs.)
	3 µm	5 µm	10 µm	20 µm	
04	0.5895	0.4999	0.2664	0.1531	0.69
08	0.2886	0.2413	0.1354	0.0761	1.02
13	0.1751	0.1464	0.0821	0.0462	1.51
16	0.1322	0.1105	0.0620	0.0348	1.89

Size	1.11.XXDBH				Wgt. (lbs.)
	3 µm	5 µm	10 µm	20 µm	
04	0.9366	0.6598	0.4012	0.2104	4.365
08	0.4553	0.3208	0.1951	0.1023	6.504
13	0.2738	0.1929	0.1173	0.0615	9.546
16	0.2060	0.1452	0.0883	0.0463	11.530

Size	1.07.XXDBN				Wgt. (lbs.)
	3 µm	5 µm	10 µm	20 µm	
04	2.0461	1.7350	0.9248	0.5313	0.26
08	0.9751	0.8152	0.4574	0.2571	0.39

Size	1.07.XXDBH				Wgt. (lbs.)
	3 µm	5 µm	10 µm	20 µm	
04	2.3965	1.6883	1.0266	0.5384	0.52
08	1.1652	0.8208	0.4991	0.2618	0.82

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All Element K Factors in psi / gpm.

"R" Return Elements



Size	...R...BN4HC (Betamicon® Low Collapse)				
	3 µm	5 µm	10 µm	20 µm	Wgt.
0030	3.749	2.407	1.470	0.808	0.070
0060	1.470	1.005	0.598	0.376	0.110
0075	1.209	0.780	0.445	0.241	0.240
0110	0.817	0.517	0.329	0.178	0.190
0140	N/A*	N/A*	N/A*	N/A*	N/A*
0160	0.522	0.323	0.208	0.159	0.320
0165	0.616	0.430	0.245	0.133	0.380
0185	0.485	0.334	0.179	0.097	N/A*
0210	0.214	0.145	0.096	0.060	N/A*
0240	0.338	0.208	0.142	0.096	0.380
0270	0.138	0.094	0.062	0.039	N/A*
0280	0.168	0.118	0.090	0.055	N/A*
0330	0.232	0.150	0.093	0.066	0.760
0500	0.162	0.104	0.069	0.044	1.040
0660	0.105	0.066	0.042	0.029	1.710
0850	0.082	0.055	0.036	0.023	2.364
0950	0.064	0.043	0.030	0.020	3.450
1300	0.045	0.032	0.024	0.014	4.050
1700	0.040	0.029	0.018	0.011	4.450
1800	0.036	0.030	0.016	0.009	N/A*
2600	0.023	0.016	0.011	0.007	6.500



Size	...R...MM		
	10 µm	15 µm	Wgt.
0060	0.420	0.263	0.110
0075	0.265	0.166	0.240
0090	0.252	0.118	N/A*
0110	0.199	0.124	0.190
0150	0.114	0.071	N/A*
0160	0.149	0.097	0.320
0165	0.146	0.091	0.380
0185	0.108	0.067	N/A*
0210	0.052	0.032	N/A*
0240	0.095	0.062	0.380
0270	0.032	0.020	N/A
0330	0.078	0.049	0.760
0500	0.052	0.032	1.040
0660	0.030	0.019	1.710
0850	0.023	0.015	2.364
0950	0.023	0.014	3.450
1300	0.016	0.010	4.050
1700	0.010	0.006	4.450
2600	0.008	0.005	6.500



Size	...R...ECO/N				
	3 µm	5 µm	10 µm	20 µm	Wgt.
0090	0.515	0.343	0.464	0.317	N/A*
0110	-	-	0.464	0.317	N/A*
0150	0.467	0.319	0.277	0.189	N/A*
0160	0.553	0.378	0.329	0.225	N/A*
0165	0.674	0.369	0.321	0.220	N/A*
0170	-	-	-	0.189	N/A*
0185	-	-	0.272	0.162	N/A*
0210	0.150	0.103	0.089	0.061	N/A*
0240	-	-	0.209	-	N/A*
0280	0.166	-	-	-	N/A*
0330	0.228	0.156	0.135	-	N/A*
0660	0.200	0.068	0.059	0.041	N/A*
0850	0.078	0.053	0.046	0.032	N/A*
0950	0.068	0.047	0.041	0.028	N/A*
1300	0.049	0.034	0.029	0.020	N/A*
1700	0.038	0.026	0.023	-	N/A*
2600	0.024	0.017	0.014	0.010	N/A*



Size	...R...P/HC (Paper)	
	10, 20 µm	Wgt.
0030	0.458	N/A*
0060	0.255	0.170
0075	0.156	0.320
0110	0.128	0.280
0160	0.077	0.290
0165	0.086	0.460
0240	0.049	0.627
0330	0.037	0.900
0500	0.024	0.805
0660	0.016	1.980
0850	0.012	2.500
0950	0.010	3.710
1300	0.007	4.450
1700	0.006	N/A*
2600	0.003	8.300



Size	...R...BN/AM		
	3 µm	10 µm	Wgt.
0330	0.477	0.164	0.960
0660	0.192	0.066	1.991
0850	0.132	0.045	N/A*
1300	0.088	0.033	4.450
2600	0.052	0.019	8.100



Size	...R...W/HC (Wire Screen)	
	25, 50, 74, 100, 149, 200 µm	Wgt.
0030	0.110	0.080
0060	0.055	0.175
0075	0.043	N/A
0110	0.030	0.290
0160	0.021	0.410
0165	0.020	0.520
0240	0.015	0.610
0330	0.010	0.960
0500	0.007	0.362
0660	0.005	1.980
0850	0.004	2.535
0950	0.003	3.520
1300	0.003	4.610
1700	0.002	N/A*
2600	0.001	8.300

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All Element K Factors in psi / gpm.

"RN" Return Elements



Size	...RN...BN/HC				Wgt.
	3 µm	5 µm	10 µm	25 µm	
0040	0.777	0.420	0.265	0.146	N/A*
0063	0.530	0.292	0.183	0.101	N/A*
0100	0.369	0.219	0.132	0.069	0.320
0160	0.184	0.137	0.095	0.055	0.810
0250	0.154	0.088	0.066	0.050	0.810
0400	0.119	0.076	0.056	0.047	0.980
0630	0.113	0.066	0.050	0.038	1.920
1000	0.038	0.027	0.022	0.014	N/A*

"AM"



Size	...AM...A	
	040A	Wgt.
0330	0.216	0.740
0500	0.138	1.023
0660	0.095	1.580
0850	0.074	1.990
0950	0.067	2.900
1300	0.048	3.550
2600	0.024	6.210

"RK"



Size	...RK...MM		
	10 µm	15 µm	Wgt.
0100	0.0964	0.0544	0.310
0201	0.0398	0.0268	0.650
0251	0.0379	0.0248	0.397
0300	0.0324	0.0161	1.220
0400	0.0299	0.0195	N/A*
0800	0.0207	0.0162	N/A*

Spin-Ons



Size	...MA...BN				Wgt.
	3 µm	5 µm	10 µm	20 µm	
0040	1.3914	1.1799	0.6289	0.3613	0.73
0080	0.5216	0.4423	0.2357	0.1354	1.35
0085	-	-	-	-	N/A*
0090	0.5409	0.4586	0.2445	0.1404	1.50
0095	0.3086	0.2616	0.1395	0.0801	2.04
0160	0.2372	0.1983	0.1113	0.0625	2.56
0180	0.1231	0.1029	0.0577	0.0325	3.69

Size	...MA...P			
	3 µm	10 µm	25 µm	Wgt.
0040	7.763	2.348	1.516	0.60
0080	1.606	0.486	0.314	1.08
0085	1.161	0.351	0.227	1.42
0090	1.594	0.482	0.311	1.29
0095	0.894	0.270	0.174	1.47
0160	0.839	0.192	0.145	2.15
0180	0.443	0.134	0.087	2.68

Size	...MA...A	
	010 µm	Wgt.
0080	0.513	1.35
0085	-	N/A
0090	0.507	1.50
0095	0.284	2.00
0160	0.233	2.50
0180	0.136	3.60

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