

HYDAC

INTERNATIONAL

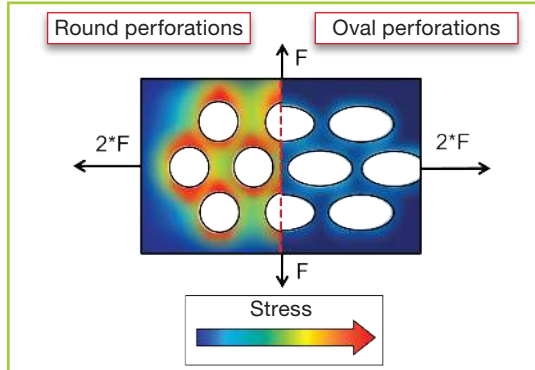
**Energy Efficient
Filtration**

Our contribution to sustainability.



With Optimicron, you can have the best of both worlds, maximum efficiency with minimal pressure loss. This is achieved through a combination of advancements:

- An innovative HELIOS pleat geometry media increases the free flow surface area while maintaining an exceptionally stable mesh pack
- An upstream drainage layer performs double duty – promotes laminar flow and at the same time provides added mesh pack stability
- A second drainage layer further promotes laminar flow, while also restricting impact loss, dead spots and vortexing
- An exclusive outer wrap not only improves performance, but also provides quality protection. It features a unique oval-hole design that improves diffusion flow. This is a one-of-a-kind oval design, so you can be assured that when your element includes this outer wrap that it is a HYDAC quality original and not an imitation.
- Expanded range of micron ratings – 1-micron and 15-micron have been added to the family (complete offering 1, 3, 5, 10, 15, 20) increasing flexibility for application optimization

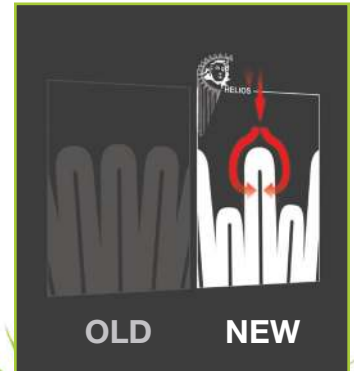
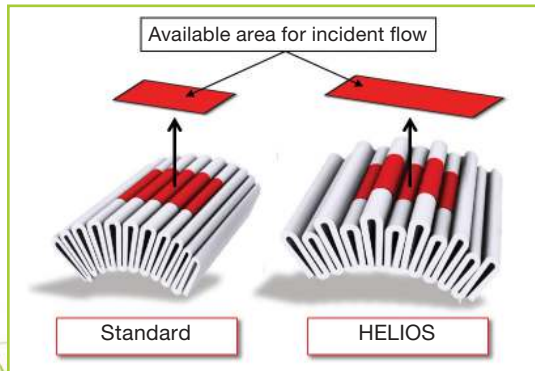


The new perforations ensure optimized flow onto the filter pleats and thus minimize pressure losses effectively.

The optimized perforations have the effect of distributing the stress evenly in the axial and radial directions and thus increase tear resistance.

Customized multicolored brand labelling provides protection from product piracy.

Innovative HELIOS pleat geometry



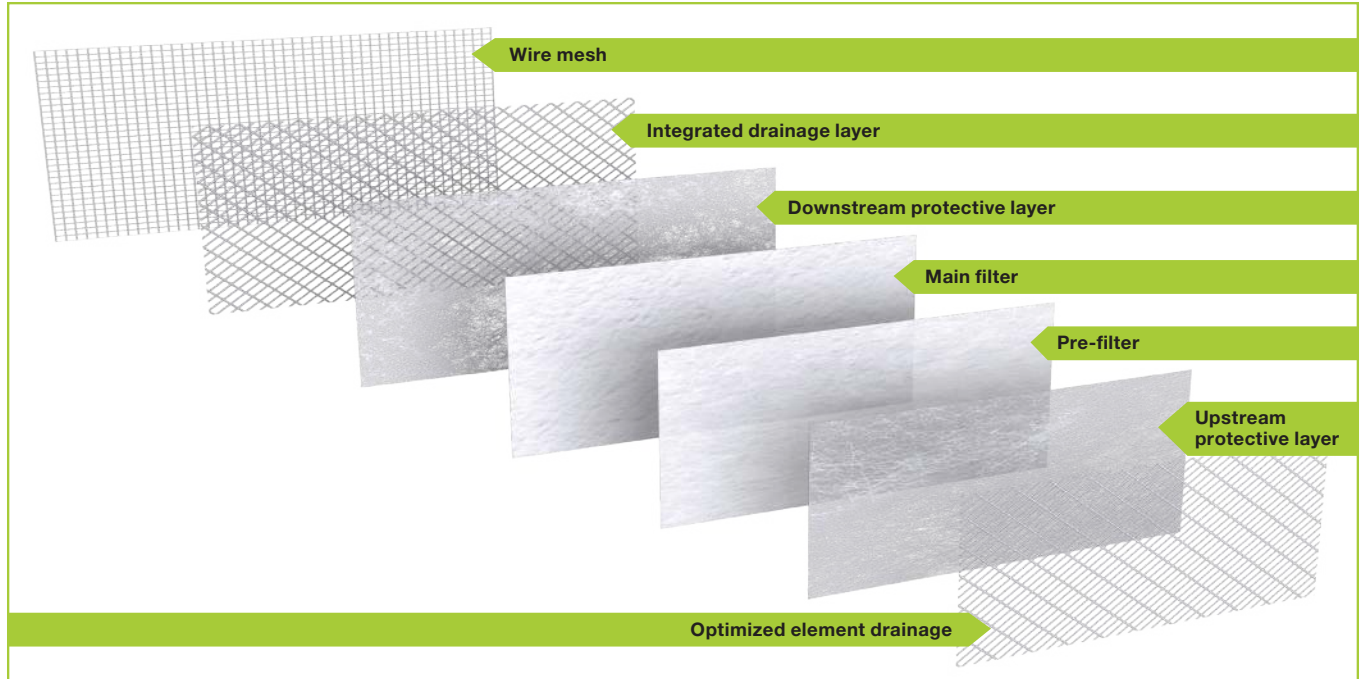
The innovative Helios pleat geometry consists of alternating high and low pleats.

The unique geometry significantly increases the area open to the flow and stabilizes the flow in the area between the pleats, reducing the differential pressure.

Under high dynamic load conditions, the Helios geometry prevents pleat compression which reduces differential pressure.

**Up to seven
filtration layers**

Free flow of fluid with very low differential pressure and high contamination retention.



Optimized element drainage:

The unique asymmetrical structure provides large flow cross-sections, effectively preventing dead-spaces, turbulence and pressure losses

Upstream protective layer:

The homogenous and robust non-woven material protects the sensitive microglass media from mechanical damage

Pre- and main filter:

The graduated structure of the filter media ensures efficient particle retention together with a high level of contamination capacity and a long element service life

Downstream protective layer:

The pressure-resistant protection and support layer offers optimum support for the pre- and main-filter media even under high differential pressure conditions

Integrated drainage layer:

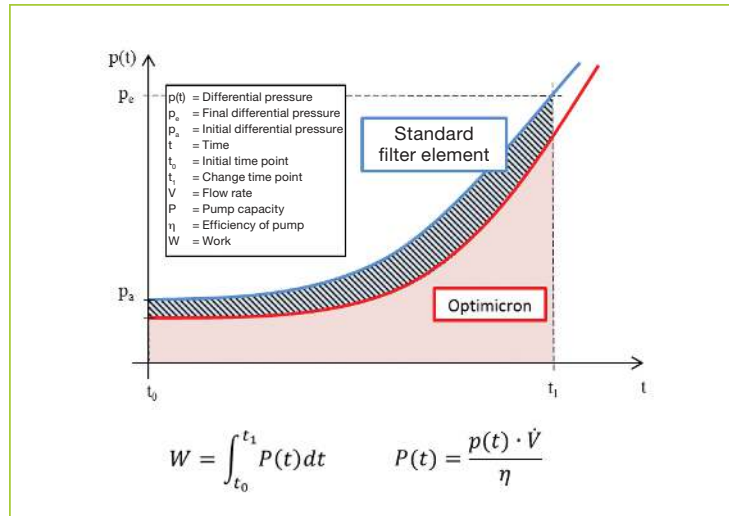
The integrated drainage layer directs the flow of fluid freely to the clean side and results in very low element differential pressures

High quality wire mesh:

The stainless steel mesh ensures high stability of the filter pleats and has excellent fluid compatibility

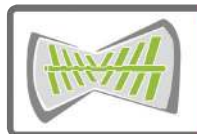
Protects the environment and your pocket

HYDAC Optimicron makes high energy savings possible over the whole service life of the filter element. This protects valuable resources and reduces the CO₂ emissions.



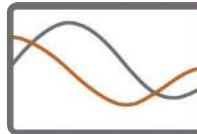
Our contribution to sustainability.

Energy efficient innovations are the main focus of our developments, so that systems operate more economically.



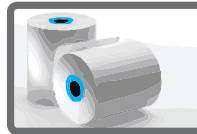
Optimicron®
Power

Optimized filter elements for applications in turbomachinery applications (includes Stat-Free® technology)



Optimicron®
Pulse

Optimized filter elements for applications with powerful pulsations (includes Stat-Free® technology)



Optimicron®
Pulp & Paper

Optimized filter elements for use in paper mills



For your application

Optimized filter elements for your application

ΔP/Q Gradient Coefficients in psi / gpm

Optimicon D Elements

Size	Filtration rating					
	1 μm	3 μm	5 μm	10 μm	15 μm	20 μm
0030 D XXX ON	4.27	3.507	2.376	1.251	0.768	0.62
0035 D XXX ON	2.755	1.169	0.938	0.752	0.549	0.408
0055 D XXX ON	1.427	0.675	0.543	0.434	0.284	0.211
0060 D XXX ON	2.936	1.427	1.004	0.664	0.537	0.347
0075 D XXX ON	0.916	0.461	0.37	0.296	0.183	0.136
0095 D XXX ON	0.724	0.37	0.296	0.238	0.144	0.105
0110 D XXX ON	1.416	0.735	0.527	0.333	0.254	0.164
0140 D XXX ON	1.092	0.631	0.406	0.24	0.194	0.126
0160 D XXX ON	1.015	0.604	0.423	0.225	0.204	0.175
0240 D XXX ON	0.631	0.379	0.293	0.175	0.134	0.115
0260 D XXX ON	0.449	0.272	0.212	0.127	0.1	0.079
0280 D XXX ON	0.304	0.185	0.15	0.082	0.075	0.064
0300 D XXX ON	0.801	0.488	0.391	0.268	0.154	0.143
0330 D XXX ON	0.452	0.23	0.185	0.135	0.085	0.067
0450 D XXX ON	0.401	0.244	0.193	0.131	0.077	0.069
0500 D XXX ON	0.277	0.141	0.114	0.068	0.052	0.041
0650 D XXX ON	0.245	0.148	0.121	0.081	0.047	0.044
0660 D XXX ON	0.207	0.106	0.086	0.051	0.039	0.031
0900 D XXX ON	0.185	0.115	0.092	0.06	0.036	0.035
0990 D XXX ON	0.138	0.07	0.057	0.033	0.026	0.02
1320 D XXX ON	0.102	0.053	0.042	0.025	0.019	0.015
1500 D XXX ON	0.09	0.053	0.038	0.026	0.02	0.015

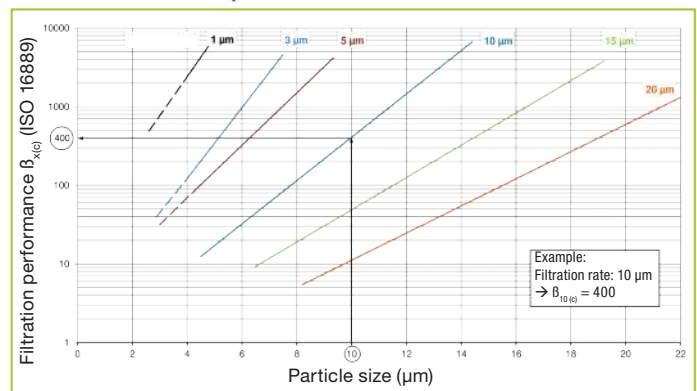
Optimicon R Elements

Size	Filtration rating					
	1 μm	3 μm	5 μm	10 μm	15 μm	20 μm
0030 R XXX ON	4.928	3.754	2.409	1.471	0.922	0.807
0060 R XXX ON	2.59	1.295	0.944	0.539	0.494	0.376
0075 R XXX ON	1.405	1.065	0.735	0.401	0.263	0.241
0090 R XXX ON	1.235	0.719	0.521	0.333	0.236	0.176
0110 R XXX ON	1.224	0.719	0.487	0.296	0.234	0.178
0150 R XXX ON	0.735	0.428	0.31	0.198	0.14	0.105
0160 R XXX ON	0.878	0.439	0.312	0.177	0.148	0.182
0165 R XXX ON	0.774	0.518	0.404	0.221	0.123	0.133
0185 R XXX ON	0.571	0.408	0.315	0.161	0.091	0.077
0195 R XXX ON	0.42	0.301	0.232	0.119	0.067	0.057
0210 R XXX ON	0.311	0.18	0.14	0.084	0.055	0.048
0240 R XXX ON	0.571	0.284	0.201	0.125	0.101	0.077
0270 R XXX ON	0.201	0.116	0.091	0.054	0.036	0.031
0280 R XXX ON	0.28	0.141	0.114	0.078	0.058	0.044
0330 R XXX ON	0.444	0.204	0.15	0.081	0.07	0.056
0450 R XXX ON	0.347	0.174	0.126	0.077	0.055	0.047
0500 R XXX ON	0.289	0.143	0.104	0.06	0.046	0.038
0580 R XXX ON	0.137	0.068	0.049	0.029	0.022	0.019
0600 R XXX ON	0.129	0.068	0.06	0.033	0.023	0.019
0660 R XXX ON	0.196	0.093	0.066	0.037	0.031	0.025
0750 R XXX ON	0.116	0.061	0.05	0.029	0.019	0.018
0850 R XXX ON	0.152	0.072	0.055	0.032	0.024	0.02
0950 R XXX ON	0.131	0.057	0.043	0.026	0.021	0.017
1300 R XXX ON	0.094	0.04	0.032	0.019	0.018	0.012
1700 R XXX ON	0.074	0.035	0.029	0.015	0.014	0.01
2600 R XXX ON	0.046	0.02	0.016	0.01	0.009	0.006

ADVANTAGES:

- Up to 30% lower ΔP: Benefit - Up to 30% cost and emission savings:
- Increased element service life: Benefit - lower maintenance and element replacement costs
- More efficient filtration: Benefit - ensures long system life and cost-savings
- Additional filter ratings, combined with improved design: Benefit - Increased application flexibility
- Quality Protection: Ensures best protection during the whole life of the equipment.

β - values for Optimicon



Optimicon® shows the way!

These innovative filter elements can make substantial savings on energy and costs for machine and system operators. The savings apply over the entire service life and the elements offer superior performance at the same time. The high energy efficiency of the new filter elements therefore reduce CO₂ emissions.

Our contribution to sustainability!



Optimicon®



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