

HYDAC

INTERNATIONAL

**Energy efficient
filtration.
Our contribution
to sustainability.**





Optimicon® Innovative Filter Element Technology for Sustainable Filtration

HYDAC Optimicon® has a wealth of innovations and optimised features.

HYDAC Optimicon® at a glance:

- Unique HELIOS pleat geometry
- Innovative, integrated drainage layer*
- New, upstream drainage layer*
- Efficient filter materials
- Expansion of the range of filtration ratings
- Optimised filter element wrap

Optimicon® will save you up to 30 % in differential pressure. This not only protects your pocket, but also the environment.



*) Designed for specific applications





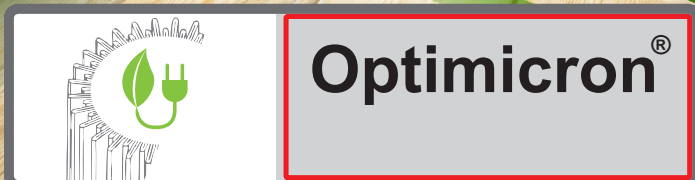
Optimicon® Innovative Filter Element Technology for Sustainable Filtration

Resources are increasingly scarce, energy prices are rising and the environment is suffering. Energy efficiency is the key to counteracting this trend and to saving both costs and valuable resources.

HYDAC 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 reduces CO₂ emissions.

Our contribution to sustainability!



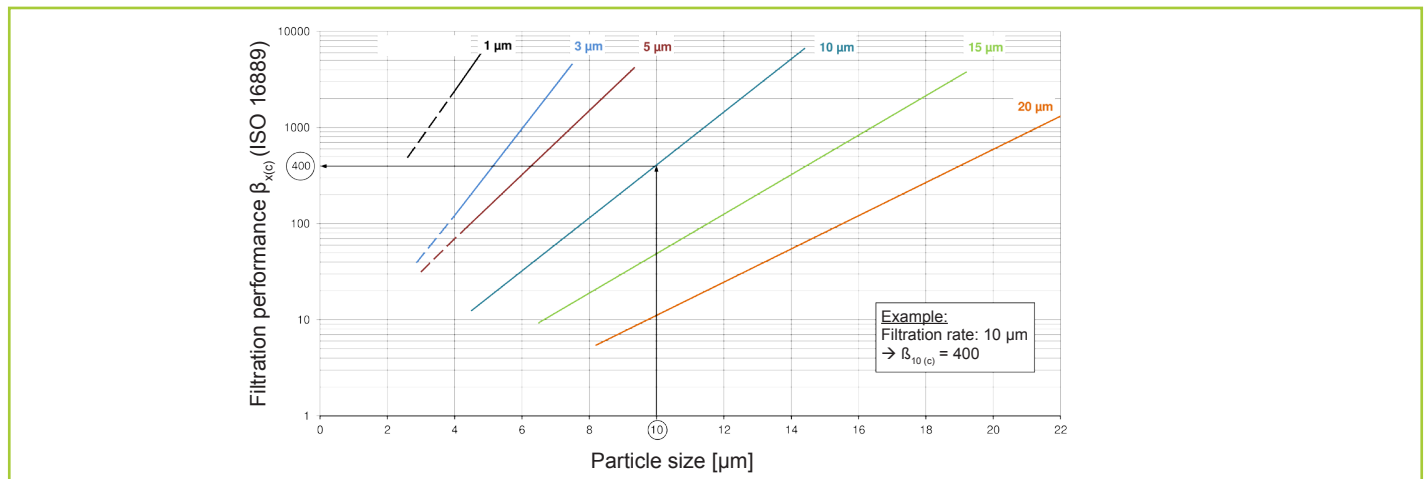


Optimicron® shows the way

Performance data

Energy and cost savings over the entire service life with superior performance at the same time.

β-values for Optimicron®



Δp/Q Gradient coefficients in mbar / l/min

Optimicron® D elements

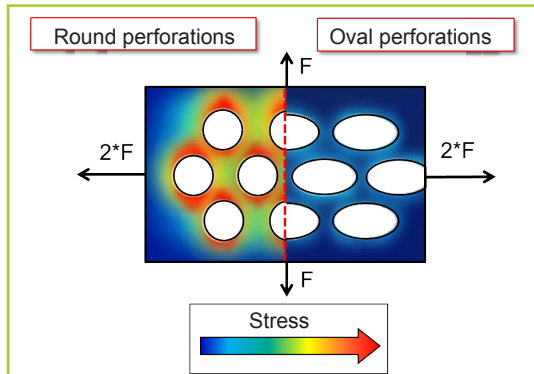
Size	Filtration rating					
	1 μm	3 μm	5 μm	10 μm	15 μm	20 μm
0030	77.8	63.9	43.3	22.8	14.0	11.3
0035	50.2	21.3	17.1	13.7	10.0	7.44
0055	26.0	12.3	9.90	7.90	5.17	3.84
0060	53.5	26.0	18.3	12.1	9.78	6.32
0075	16.7	8.40	6.75	5.40	3.33	2.48
0095	13.2	6.74	5.40	4.33	2.62	1.92
0110	25.8	13.4	9.61	6.06	4.63	2.99
0140	19.9	11.5	7.39	4.38	3.54	2.29
0160	18.5	11.0	7.70	4.10	3.71	3.18
0240	11.5	6.90	5.34	3.19	2.44	2.10
0260	8.18	4.96	3.87	2.31	1.83	1.44
0280	5.54	3.37	2.74	1.49	1.36	1.17
0300	14.6	8.90	7.13	4.88	2.80	2.61
0330	8.23	4.19	3.37	2.46	1.55	1.22
0450	7.30	4.45	3.52	2.39	1.40	1.26
0500	5.05	2.57	2.07	1.23	0.949	0.747
0650	4.46	2.69	2.20	1.47	0.855	0.81
0660	3.78	1.93	1.56	0.93	0.71	0.562
0900	3.37	2.10	1.67	1.10	0.647	0.63
0990	2.51	1.28	1.031	0.613	0.472	0.372
1320	1.85	0.966	0.759	0.451	0.348	0.274
1500	1.64	0.968	0.704	0.48	0.36	0.284

Optimicron® R elements

Size	Filtration rating					
	1 μm	3 μm	5 μm	10 μm	15 μm	20 μm
0030	89.8	68.4	43.9	26.8	16.8	14.7
0060	47.2	23.6	17.2	9.82	9.01	6.85
0075	25.6	19.4	13.4	7.31	4.80	4.40
0090	22.5	13.1	9.49	6.07	4.30	3.21
0110	22.3	13.1	8.87	5.40	4.26	3.24
0150	13.4	7.80	5.65	3.61	2.55	1.91
0160	16.0	8.00	5.68	3.22	2.69	2.32
0165	14.1	9.44	7.37	4.02	2.25	2.42
0185	10.4	7.44	5.74	2.93	1.65	1.41
0195	7.66	5.48	4.22	2.16	1.22	1.04
0210	5.66	3.28	2.55	1.53	1.00	0.88
0240	10.4	5.18	3.66	2.27	1.84	1.41
0270	3.66	2.12	1.65	0.993	0.649	0.568
0280	5.10	2.57	2.08	1.43	1.06	0.804
0330	8.09	3.72	2.73	1.48	1.28	1.02
0450	6.33	3.17	2.30	1.40	1.00	0.850
0500	5.27	2.60	1.90	1.09	0.835	0.685
0580	2.49	1.23	0.900	0.525	0.395	0.340
0600	2.35	1.23	1.10	0.613	0.416	0.340
0660	3.57	1.69	1.21	0.671	0.566	0.447
0750	2.11	1.12	0.924	0.529	0.335	0.322
0850	2.77	1.31	1.001	0.576	0.439	0.360
0950	2.39	1.03	0.793	0.476	0.379	0.311
1300	1.72	0.723	0.585	0.350	0.320	0.223
1700	1.35	0.640	0.527	0.281	0.252	0.176
2600	0.841	0.362	0.292	0.176	0.157	0.111

Optimised filter element wrap

Innovative wrap offers a high degree of tear-resistance and identifies the element as being original equipment.



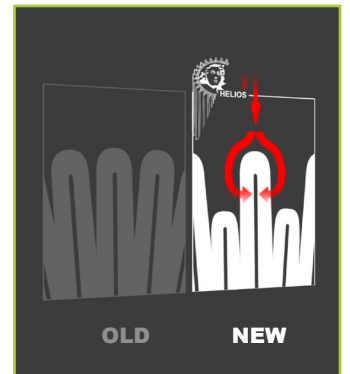
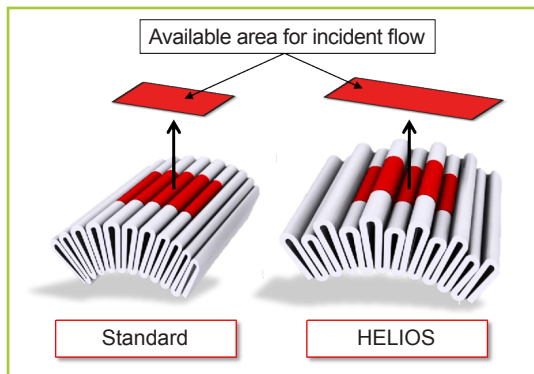
The new perforations ensure optimised flow onto the filter pleats and thus minimise pressure losses effectively.

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

Customised multicoloured brand labelling provides protection from product piracy.

Innovative HELIOS pleat geometry

The special form of the pleats is like the crown of HELIOS, god of the sun.



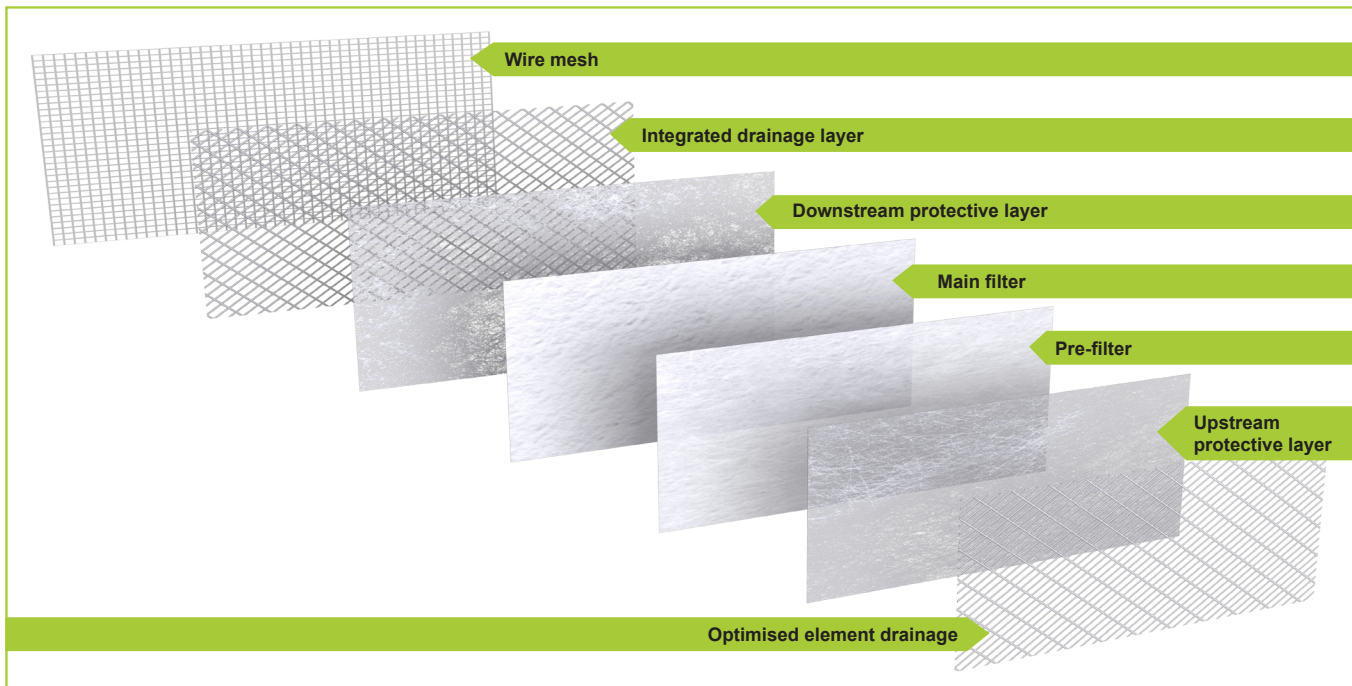
The innovative HELIOS pleat geometry consists of alternating high and low pleats.

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

Particularly under high dynamic load conditions, the special geometry prevents the pleats becoming compressed and this reduces the differential pressure.

**Up to seven
filtration layers**

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



Optimised 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.

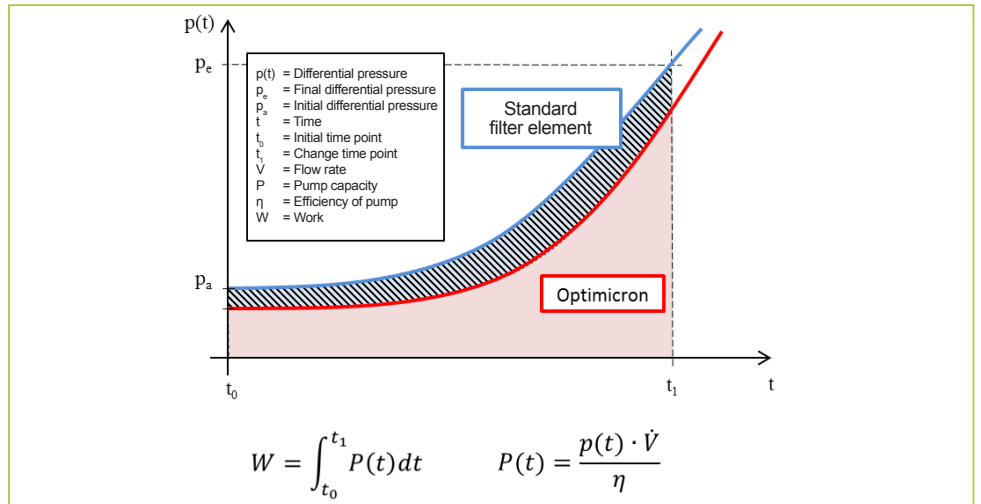
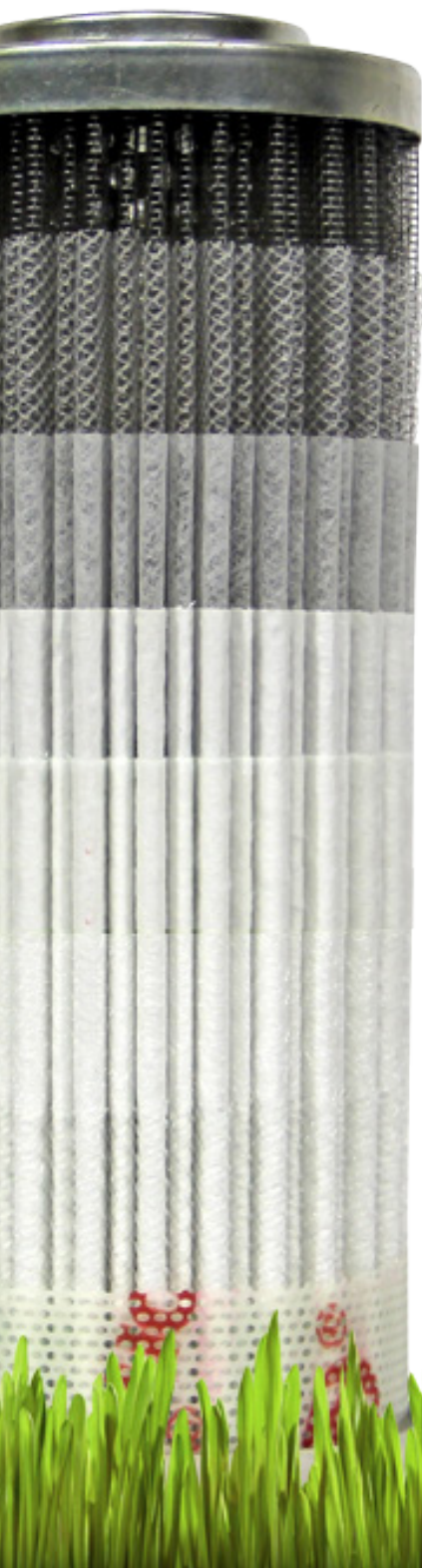
High quality wire mesh:

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




Protects the environment and your pocket

HYDAC Optimicon[®] 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.



Optimicon[®] Power




Optimised filter elements for applications in power stations and rotary presses using Stat-Free[®] technology



Optimicon[®] Pulse



Optimised filter elements for applications with powerful pulsations using Stat-Free[®] technology



Optimicon[®] Pulp & Paper



Optimised filter elements for use in paper mills



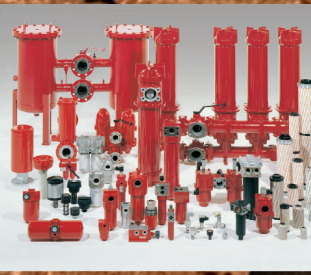
For your application



Optimised filter elements for your application.



Accumulators E 30,000



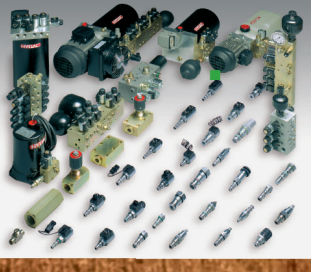
Fluid Filters E 70,000



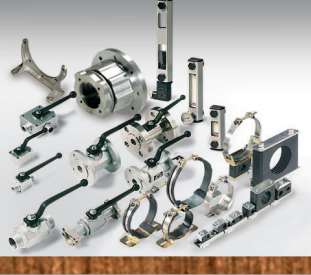
Process Technology E 77,000



Filter Systems E 79,000



Compact Hydraulics 53,000



Accessories E 61,000



Electronics E 180,000



Cooling Systems DEF 5,700

Global Presence. Local Expertise.



- HYDAC Head Office
- HYDAC Companies
- HYDAC Sales and Service Partners

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