

HYDAC

INTERNATIONAL

**HYDAC Quality
for Pall Housings:
ECOmicon[®] 2-fit.**



HYDAC

Your Reliable Partner for Complete Fluid Management.

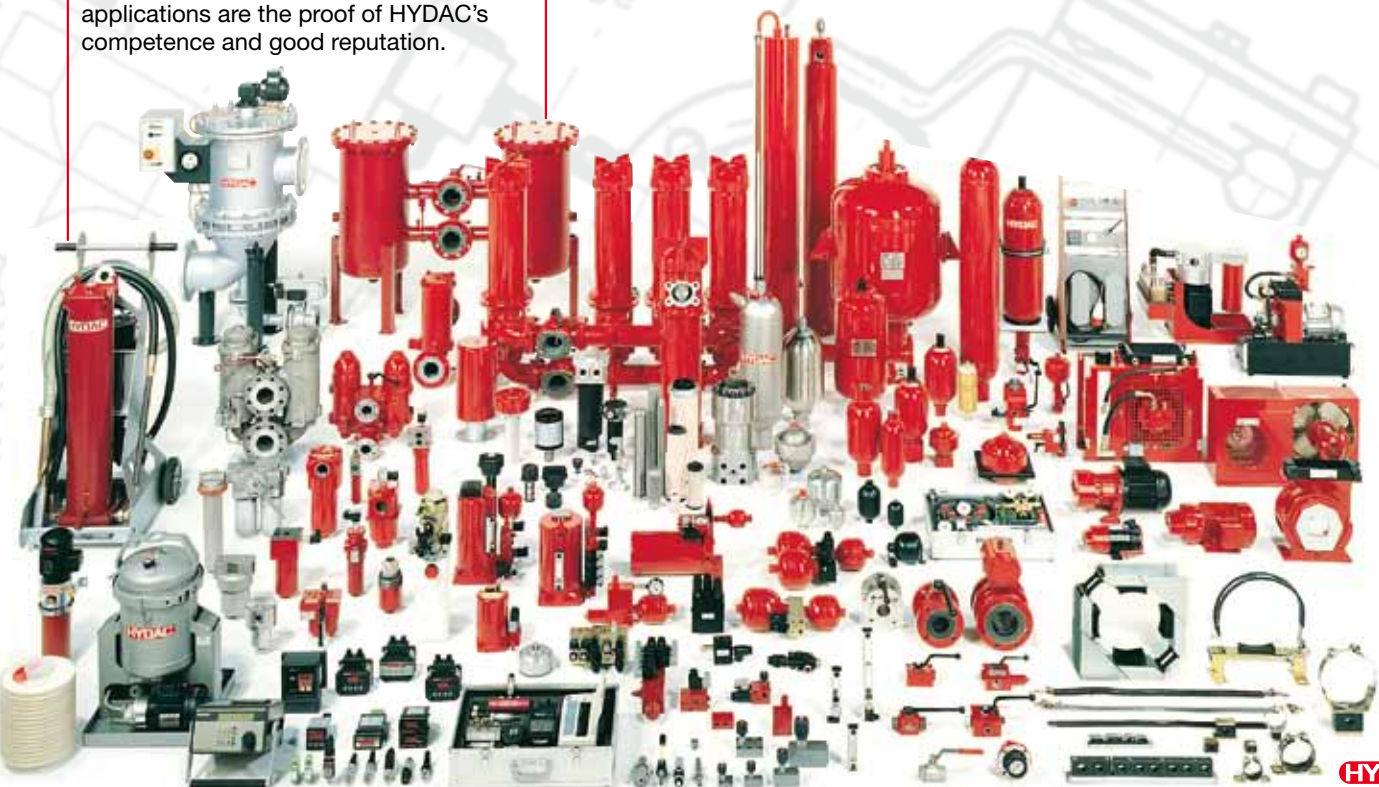


■ **HYDAC** – Your reliable partner for all questions relating to fluid management. For over 40 years HYDAC has set itself the task of extending machine service lives and protecting components. The main objective is to increase the availability of hydraulic and lubrication systems and to reduce downtimes.

In addition to the professionally equipped laboratory at company headquarters, other HYDAC industrial premises and over 10 laboratory vehicles worldwide, HYDAC offers a wide variety of monitoring devices and a comprehensive service concept.

■ **HYDAC** – Experienced specialists utilizing a broad product range and a comprehensive service concept and making a significant contribution to increased system security and efficiency.

■ **HYDAC** – Experts for complete solutions. Numerous customers and applications are the proof of HYDAC's competence and good reputation.



HYDAC

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HYDAC ECOMICRON[®] 2-fit

The Easy Way to Switch to HYDAC. Installation Instructions.



Step 1:

Remove the cover by twisting the butterfly handle anti-clockwise until the cover comes off the housing.



Step 2:

Pull the coreless element up out of the housing. This may require shaking it back and forth, as the filter mesh pack may be stuck to the support tube.



Step 3:

Remove the spring washer that is holding the support tube down.



Step 4:

Use the HYDAC removal tool* to lift the support body out of the housing. Dispose of it in accordance with local environmental regulations.



Step 5:

Lubricate the O-ring on the bottom of the new ECOMICRON[®] 2-fit and insert the new element into the housing.



Step 6:

Stretch the O-ring over the shaft of the internal section. Lubricate the new O-ring.



Step 7:

Insert the bypass valve** into the cover by turning the bypass valve until the three segments engage in the corresponding slots.



Step 8:

Replace the cover on the filter housing and make sure that the bypass valve is correctly positioned in the upper part of the element. Tighten the butterfly handles on the cover by turning clockwise. Tighten to the torque specified in the manufacturer's instructions.

* Removal tool:

Part no.: 1271833
Order code:
"CONVERSION TOOL 1.14.16+39"
ECOMICRON[®] 2-fit
(also on loan)

** Bypass valve:

Part no.: 1271331
Order code:
"Bypass valve 1.14 /-B3.5"

1 Product advantage 1



Low disposal costs. Low transport costs.

- ECOmicron® 2-fit elements are metal-free.
- This results in a weight reduction of over 50% compared to conventional element technology. In addition, the plastic elements are compressible. Therefore, both the volume and weight are significantly reduced.
- You profit from significant cost savings in disposal and transport.

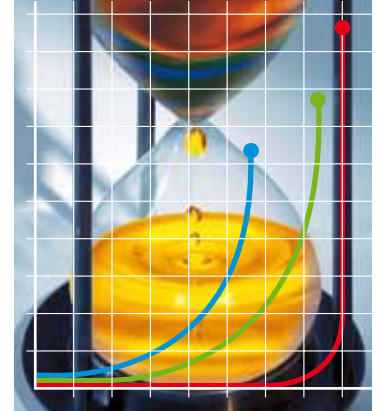
2 Product advantage 2



Enhanced bypass design.

- The bypass valve of the ECOmicron® 2-fit element is located in the top of the element and not on the bottom of the filter housing.
- On Pall filters where the bypass valve is located on the bottom of the filter and thus in the filter sump, it is possible for contamination to reach the clean side when the valve opens.
- On the HYDAC filter, the bypass valve is located on top of the element. There is therefore no danger of contamination reaching the clean side when the bypass valve opens. The cleanliness class required for your system is guaranteed.
- The HYDAC bypass valve can of course be reused for subsequent element changes.

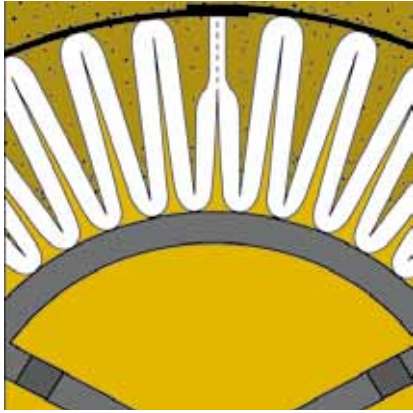
3 Product advantage 3



Highly reliable, excellent filter performance data.

- ECOmicron® 2-fit elements have extremely high beta values which are stable throughout the operating process, even when the element differential pressure rises due to increasing contamination. ($\beta_{x(c)}$ = filtration efficiency)
- This guarantees reliable protection of sensitive components.
- In addition, the high contamination retention capacity ensures a long service life.

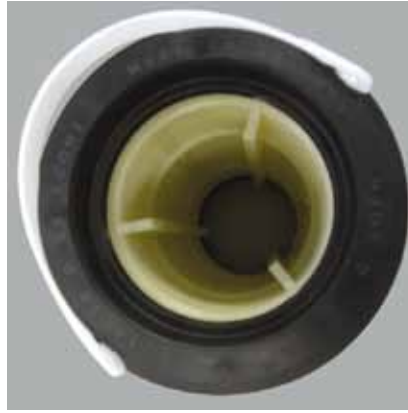
4 Product advantage 4



Proven system protection, even at high temperatures.

- The risk of leaks and fibre migration to the clean side is ruled out, since the cut ends of the filter material on the dirty side of the element are completely sealed by ultrasonic welding.
- This sealing process makes the media seam temperature-resistant up to 100°C.
- The bonding of the element caps with the element mesh pack is also resistant to high temperatures (also up to 100°C), because a special two-component adhesive is used here.

5 Product advantage 5



Stable and compact element design.

- The filter material of the HYDAC ECOmicron® 2-fit elements is not placed loosely around the supporting tube, but connected firmly to it.
- This is the reason for the extraordinary stability of the ECOmicron® 2-fit element. Compression of the element in an axial direction is prevented, and it is impossible for the filter mesh pack to be crushed against the support tube.
- The element filters reliably even under extreme conditions. Your system is always protected.

6 Product advantage 6



Save time and money when changing elements.

- Complete elements (types 8300 and 8310) can be replaced without the use of a special tool.
- It is also very easy to replace coreless elements (types 8304 and 8314). To remove the support tube, please use the tool shown above; the instructions are given on page 2 of this brochure.
- We will be happy to help and/or advise you when you replace elements.

If your system is converted to HYDAC filter elements, we can also measure and document the improvement of the cleanliness class for you. That way, you can read all the performance data of the HYDAC elements in black and white.



- If you are interested in this service, just contact us. Our address is on the reverse or at www.hydac.com

HYDAC ECOMICRON® 2-fit:

First-Class HYDAC Quality for Pall Housings.

A

Pall Standard housing

Housing

- HH 8300
- HH 8310
- HH 8340

Filter elements

- HC 8300
- HC 8310

1:1



B

Pall housing with removable support tube

Housing

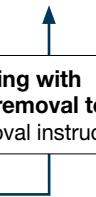
- HH 8304
- HH 8314
- HH 8370

Coreless Elements

- HC 8304
- HC 8314

Retrofitting with HYDAC removal tool (see removal instructions)

HYDAC ECOMICRON® 2-fit
Order code:
1.14.xx D ... ECON2



C

Pall housing with non-removable support tube

Housing

- HH 5000

Coreless Elements

- HC 8304
- HC 8314

1:1



HYDAC ECOcore
Order code:
1.14.xx D ... ECO/C

Please note that this element type is not covered by this brochure. We will be happy to send you further information. Please contact the HYDAC sales office near you (see www.hydac.com).

One HYDAC element for several Pall types.

In the table, please find the Pall element types that can be replaced by HYDAC's high-quality ECOMICRON® 2-fit elements. You can see that each ECOMICRON® 2-fit model fits many different Pall types. That saves money and simplifies storage (variant reduction).

HYDAC element	Pall type	HYDAC element	Pall type
1.14.16 D 01 ECON2	HC 8300 FKZ 16 H	1.14.16 D 01 ECON2 /-V	HC 8300 FKZ 16 Z
	HC 8304 FKZ 16 H		HC 8304 FKZ 16 Z
	HC 8310 FKZ 16 H		HC 8310 FKZ 16 Z
	HC 8314 FKZ 16 H		HC 8314 FKZ 16 Z
1.14.16 D 03 ECON2	HC 8300 FKP 16 H	1.14.16 D 03 ECON2 /-V	HC 8300 FKP 16 Z
	HC 8304 FKP 16 H		HC 8304 FKP 16 Z
	HC 8310 FKP 16 H		HC 8310 FKP 16 Z
	HC 8314 FKP 16 H		HC 8314 FKP 16 Z
1.14.16 D 06 ECON2	HC 8300 FKN 16 H	1.14.16 D 06 ECON2 /-V	HC 8300 FKN 16 Z
	HC 8304 FKN 16 H		HC 8304 FKN 16 Z
	HC 8310 FKN 16 H		HC 8310 FKN 16 Z
	HC 8314 FKN 16 H		HC 8314 FKN 16 Z
1.14.16 D 12 ECON2	HC 8300 FKS 16 H	1.14.16 D 12 ECON2 /-V	HC 8300 FKS 16 Z
	HC 8304 FKS 16 H		HC 8304 FKS 16 Z
	HC 8310 FKS 16 H		HC 8310 FKS 16 Z
	HC 8314 FKS 16 H		HC 8314 FKS 16 Z
1.14.16 D 25 ECON2	HC 8300 FKT 16 H	1.14.16 D 25 ECON2 /-V	HC 8300 FKT 16 Z
	HC 8304 FKT 16 H		HC 8304 FKT 16 Z
	HC 8310 FKT 16 H		HC 8310 FKT 16 Z
	HC 8314 FKT 16 H		HC 8314 FKT 16 Z

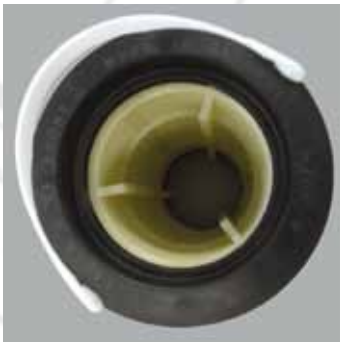
HYDAC element	Pall type	HYDAC element	Pall type
1.14.39 D 01 ECON2	HC 8300 FKZ 39 H	1.14.39 D 01 ECON2 /-V	HC 8300 FKZ 39 Z
	HC 8304 FKZ 39 H		HC 8304 FKZ 39 Z
	HC 8310 FKZ 39 H		HC 8310 FKZ 39 Z
	HC 8314 FKZ 39 H		HC 8314 FKZ 39 Z
1.14.39 D 03 ECON2	HC 8300 FKP 39 H	1.14.39 D 03 ECON2 /-V	HC 8300 FKP 39 Z
	HC 8304 FKP 39 H		HC 8304 FKP 39 Z
	HC 8310 FKP 39 H		HC 8310 FKP 39 Z
	HC 8314 FKP 39 H		HC 8314 FKP 39 Z
1.14.39 D 06 ECON2	HC 8300 FKN 39 H	1.14.39 D 06 ECON2 /-V	HC 8300 FKN 39 Z
	HC 8304 FKN 39 H		HC 8304 FKN 39 Z
	HC 8310 FKN 39 H		HC 8310 FKN 39 Z
	HC 8314 FKN 39 H		HC 8314 FKN 39 Z
1.14.39 D 12 ECON2	HC 8300 FKS 39 H	1.14.39 D 12 ECON2 /-V	HC 8300 FKS 39 Z
	HC 8304 FKS 39 H		HC 8304 FKS 39 Z
	HC 8310 FKS 39 H		HC 8310 FKS 39 Z
	HC 8314 FKS 39 H		HC 8314 FKS 39 Z
1.14.39 D 25 ECON2	HC 8300 FKT 39 H	1.14.39 D 25 ECON2 /-V	HC 8300 FKT 39 Z
	HC 8304 FKT 39 H		HC 8304 FKT 39 Z
	HC 8310 FKT 39 H		HC 8310 FKT 39 Z
	HC 8314 FKT 39 H		HC 8314 FKT 39 Z

HYDAC ECOMICRON[®] 2-fit

The Environmentally Friendly Element with Excellent Performance.



ECOMICRON[®] 2-fit element



Integrated plastic support tube



Improved bypass valve

HYDAC ECOMICRON[®] 2-fit elements provide an advantageous replacement for synthetic Pall Coreless elements.

They are environmentally friendly and particularly strong thanks to the integrated plastic support tube.

When you use HYDAC ECOMICRON[®] 2-fit elements, you will benefit from:

- Low disposal and transport costs because of the reduced-weight design
- High operating reliability and long service lives because of the reliable bypass function in the upper part of the filter, the robust element construction and the good element performance data (see product features)
- Savings of time and money due to easy element change

Product features:

- 100% plastic construction
- Filtration ratings: 1, 3, 6, 12, 25 μm (to ISO 16889)
- Absolute filtration rate: $\beta_{x(c)} \geq 200$
- Element pressure stability: 10 bar
- Bypass valve options:
 - 1.5 \pm 0.5 bar cracking pressure
 - 3.5 \pm 0.5 bar cracking pressure
 - Other bypass cracking pressures on request
 - KB = No bypass
- High contamination retention capacity
- Ultrasonically welded longitudinal seam, temperature-resistant up to +100°C (for higher temperatures, please contact HYDAC.)
- High fatigue strength to ISO 3724/76
- Compatible with most hydraulic and lubricating oils. (If you use synthetic fluids, please contact HYDAC.)



Accumulators E 30.000



Filter Technology E 70.000



Process Technology E 77.000



Filter Systems E 79.000



Compact Hydraulics E 53.000



Accessories E 61.000



Electronics E 180.000



Cooling Systems DEF 5.700

Global Presence. Local Expertise. www.hydac.com



- HYDAC Headquarters
- HYDAC Companies
- HYDAC Distributors and Service Partners

HYDAC INTERNATIONAL

HYDAC Filtrertechnik GMBH

Industriegebiet
66280 Sulzbach/Saar
Germany

Tel: +49 6897 509-01

Fax: +49 6897 509-300

Fax: +49 6897 509-577

Internet: www.hydac.com

E-Mail: filter@hydac.com

Technical Department

Sales Department