

# Spin-on elements

## Type 82.

**HE51481**

Edition: 2025-06



56796\_d

### Features

- ▶ Filter media made of glass fiber material and filter paper
- ▶ Max. oil cleanliness up to ISO 17/14/10 (ISO 4406)
- ▶ Large filter area in small installation area
- ▶ With bypass valve upon request

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## Ordering code

### Spin-on elements

#### Type 82.

01	02	03	04	05	06
<b>82.</b>			<b>- S00</b>	<b>-</b>	

#### Spin-on element

01	Design	<b>82.</b>
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#### Size

02	According to <b>Hengst Standard</b>	Size	Connection thread	
		45	1"-12UNF	<b>45</b>
		50	1"-12UNF	<b>50</b>
		60	1"-12UNF	<b>60</b>
		80	1"-12UNF	<b>80</b>
		80D	1 3/8"-12UNF	<b>80D</b>

#### Filter material

03	Fiber optic material, disposable (not cleanable) $\beta_{10} \geq 200$ Filter paper, disposable (not cleanable) $\beta_{10} \geq 2$	<b>H10V7</b> <b>P10</b>
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#### Pressure differential

04	Max. pressure differential of the spin-on element of 5 bar [72 psi]	<b>S00</b>
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#### Bypass valve

05	<b>Without</b> bypass valve	<b>0</b>
	With bypass valve	<b>5</b>

#### Seal

06	NBR seal	<b>M</b>
	FKM seal	<b>V</b>

## Delivery program

Material No. Hengst	Type code	Material No. Rexroth
1055640B	82.45-2X/P10-S00-0-M	
1055907B	82.60-2X/H10V7-S00-0-M	
1055908B	82.60-2X/P10-S00-0-M	
1057827B	82.80-2X/H10V7-S00-5-M	
1055910B	82.80-2X/H10V7-S00-0-M	
1055901B	82.50-2X/H10V7-S00-5-V	
1055904B	82.50-2X/H10V7-S00-5-V	
1055911B	82.80D-2X/H10V7-S00-0-V	

## Assignment of spin-on elements to filter series

Spin-on element (type)	Series	Application	Data sheet no. <sup>1)</sup>
82.	50 SL	Spin-on filter	HE51476

<sup>1)</sup> For further information, please refer to the respective data sheet

## Function, cross-section

### 82. Spin-on elements

Essentially, the spin-on element consists of a filter bowl (1), a filter element (2), a seal (3), a threaded mounting plate (4) incl. connection thread.

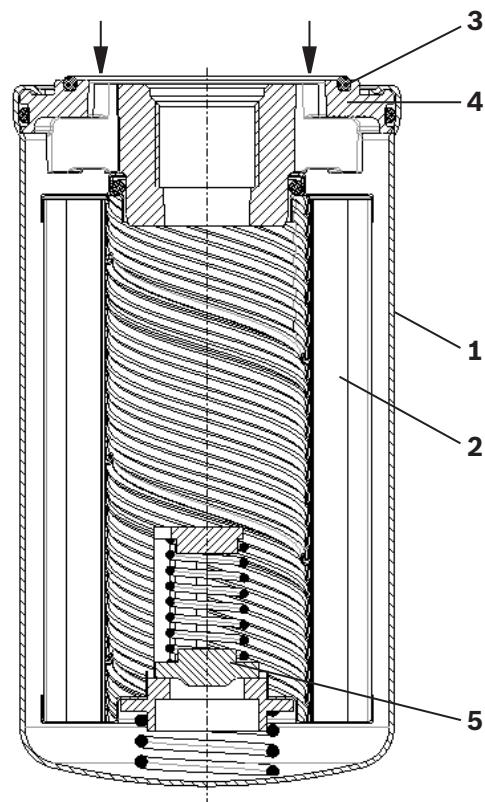
A bypass valve (5) is available as an option.

The maximum operating pressure is 35 bar [507 psi].

Filtration takes place in the filter element.

The essential filter characteristics, such as retention capacity, dirt-holding capacity, and pressure drop, are determined by the filter media used.

Flow occurs from the outside to the inside.



## Technical data preferred program

(for applications outside these parameters, please consult us!)

General		Size	45	50	60	80	80D
Weight	kg [lbs]	1,78 [3.92]	2,18 [4.81]	2,48 [5.47]	2,78 [6.13]	2,65 [2.84]	
Material	▶ Threaded mounting plate	Aluminium					
	▶ Filter element base/cover	Galvanized steel					
	▶ Support tube	Galvanized steel					
	▶ Filter bowl	Galvanized steel					
	▶ Seals	NBR or FKM					
	▶ Bypass	Polyamide / steel / NBR					

## Hydraulics

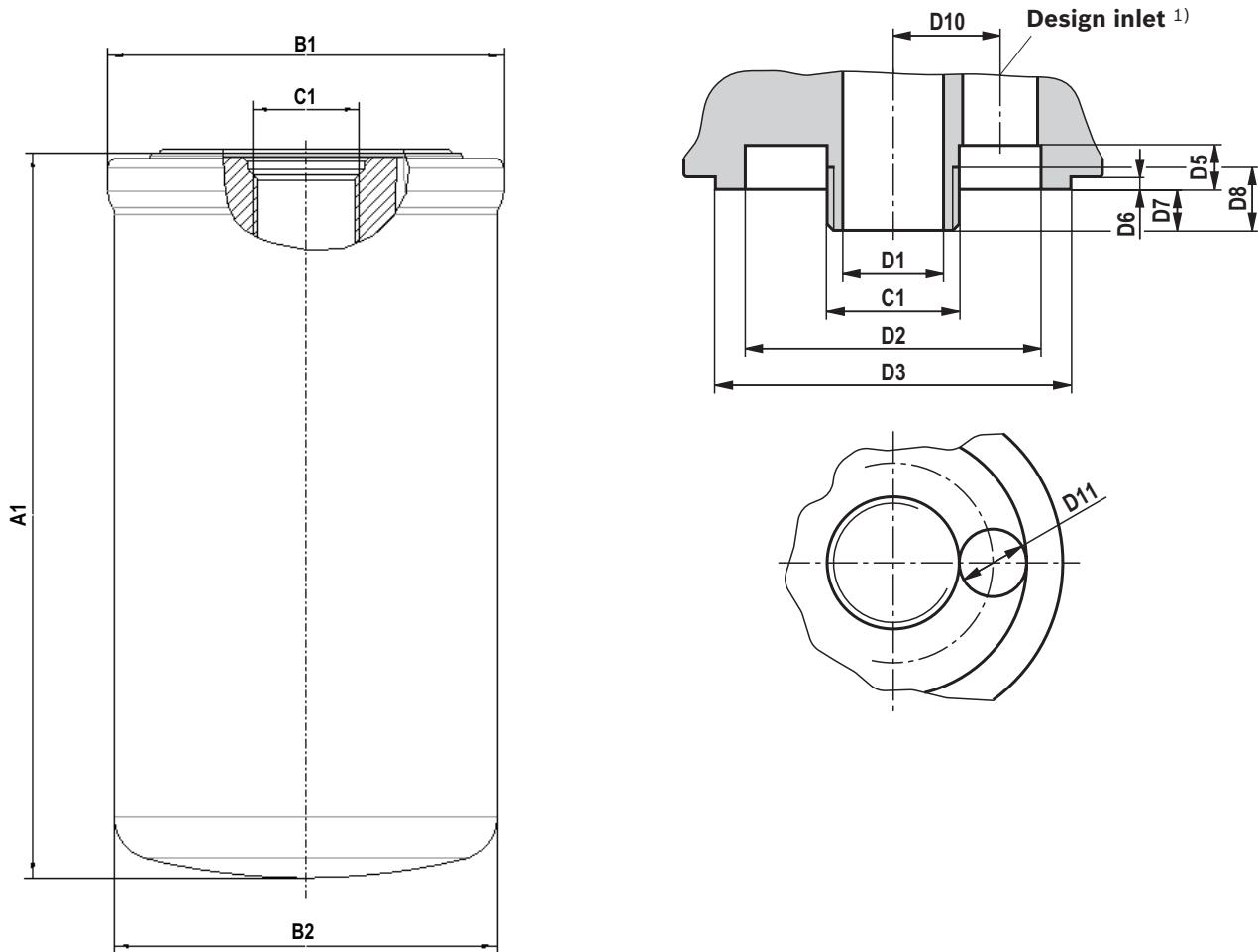
Max. operating pressure	bar [psi]	35 [174]
Hydraulic fluid temperature range	°C [°F]	-10 ... +100 [+14 ... +212]
 <b>Note to cold start:</b>		-40 ... -10 [-40 ... +14] A reduction of pressure as well as flow rate, each a min. of 50% must be taken into account during a cold startup. A bypass valve is essential.
Minimum conductivity of the medium according to ASTM D 2624 pS/m at 20 °C.	pS/m	300
Filtration direction		From the outside to the inside
Fatigue strength according to ISO 10771	Load cycles	44,500 at rated operating pressure

## Operating temperature range, depending on the material combination

Material	Code letter	Operating temperature range °C [°F]
<b>Seal</b>		
NBR	M	-40 ... +100 [-40 ... +212]
FKM	V	-20 ... +100 [-4 ... +212]

## Compatibility with permitted hydraulic fluids

Hydraulic fluid	Classification	Standards
Mineral oil	HLP	DIN 51524
Gear oil	CLP	DIN 51517

**Dimensions:**(dimensions in mm [*in*])

Type	KG	A1	dB1	DB2	C1	dD1	dD2	dD3	D5	D6	D7	D8	D10	dD11
<b>82.45</b>	1 [0.04]	140 [5.51]	94 [3.7]	91 [3.58]	1"-12UNF	16 [0.63]	59 [2.32]	75 [2.95]	6,5 [0.26]	5 [0.2]	16 [0.63]	18 [0.71]	40 [1.57]	12 [0.47]
<b>82.50</b>	1,1 [0.04]	172 [6.77]	94 [3.7]	91 [3.58]	1"-12UNF	16 [0.63]	59 [2.32]	75 [2.95]	6,5 [0.26]	5 [0.2]	16 [0.63]	18 [0.71]	40 [1.57]	12 [0.47]
<b>82.60</b>	1,2 [0.05]	212 [8.35]	94 [3.7]	91 [3.58]	1"-12UNF	16 [0.63]	59 [2.32]	75 [2.95]	6,5 [0.26]	5 [0.2]	16 [0.63]	18 [0.71]	40 [1.57]	12 [0.47]
<b>82.80</b>	1,4 [0.06]	237 [9.33]	94 [3.7]	91 [3.58]	1"-12UNF	16 [0.63]	59 [2.32]	75 [2.95]	6,5 [0.26]	5 [0.2]	16 [0.63]	18 [0.71]	40 [1.57]	12 [0.47]
<b>82.80D</b>	1,4 [0.06]	237 [9.33]	94 [3.7]	91 [3.58]	1 3/8"-12UNF	16 [0.63]	59 [2.32]	75 [2.95]	6,5 [0.26]	5 [0.2]	16 [0.63]	18 [0.71]	40 [1.57]	12 [0.47]

<sup>1)</sup> For block constructions, attention must be paid to the flow cross-section. We recommend a flow velocity of < 3 m/s at the inlet.

## Assembly, commissioning, maintenance

### When should the spin-on element be replaced or cleaned?

If the maintenance indicator displays a signal, the replacement cartridge must be replaced.

If the filter does not have a maintenance indicator, we recommend exchanging the spin-on element at least every 6 months or a maximum of 1000 hours operation, as spin-on elements have no fatigue limit rating.

### Exchanging the spin-on element

- ▶ Switch off the system and discharge the filter on the pressure side.

Detailed instructions with regard to the exchange of spin-on elements can be found on the data sheet of the relevant filter series.

#### Application notes:

- ▶ Under dynamic stress, the housing of the replacement spin-on element deforms.
- ▶ Spin-on elements have no fatigue limit rating.

#### WARNING!

- ▶ Filters are containers under pressure. Before opening the filter housing, check whether the system pressure in the filter has been decreased to ambient pressure.

Only then may the filter housing be opened for maintenance.

#### Note:

- ▶ From a cold start the preset maintenance indicator signal may be exceeded due to the high viscosity. If the maintenance indicator is disregarded, the increasing pressure differential may damage the filter element (collapse).

- ▶ Warranty becomes void if the delivered item is changed by the ordering party or third parties or improperly mounted, installed, maintained, repaired, used or exposed to environmental condition that do not comply with the installation conditions.

## Directives and standardization

### Product validation

Hengst spin-on elements are tested and quality-monitored according to different ISO test standards:

Filtration performance test (multipass test)	ISO 16889:2022-01
$\Delta p$ (pressure loss) characteristic curves	ISO 3968:2017-07
Compatibility with hydraulic fluid	ISO 2943:1998-11
Collapse pressure test	ISO 2941:2009-04
Fluid Technology; Hydraulic Filter – Part 2; Assessment Criteria and Requirements	DIN 24550-2:2006-09

The development, manufacture and assembly of Hengst industrial filters and Hengst spin-on elements is carried out within the framework of a certified quality management system in accordance with ISO 9001:2015.

### Use in potentially explosive atmospheres according to directive 2014/34/EU (ATEX):

The spin-on elements are not equipment or components in the sense of directive 2014/34/EU and are not provided with the CE marking.

It has been proven with the ignition risk analysis that these spin-on elements do not have own ignition sources according to DIN EN ISO 80079-36.

The spin-on elements can be used for the following potentially explosive atmospheres:

	Zone suitability	
Gas	1	2
Dust	21	22

#### **WARNING!**

- ▶ For use of the spin-on elements in potentially explosive areas, ATEX suitability of the complete filter assembly is an imperative requirement.
- ▶ Conductivity of the medium: at least 300 pS/m
- ▶ During spin-on elements exchange, the packaging material is to be removed from the replacement element outside the potentially explosive atmosphere.
- ▶ Maintenance to be conducted only by specialists, as per the instruction by the machine end-user according to DIRECTIVE 1999/92/EC appendix II, section 1.1

## Intended use

The spin-on elements serve as components as per the EC Machinery Directive 2006/42/EC in hydraulic machinery for the separation of dirt particles.

The spin-on elements are to be used under the following boundary conditions and limits:

- ▶ Only in hydraulic systems with fluids of group 2, according to Pressure Equipment Directive 2014/68/EU
- ▶ Only according to the application and environmental conditions in the chapter "Technical data"
- ▶ Only in compliance with the specified performance limits in the section "Technical data"; extended operational durability/load cycles on request
- ▶ Only with hydraulic fluids and the intended seals according to the section "Compatibility with hydraulic fluids"
- ▶ Use in potentially explosive atmospheres according to the chapter "Guidelines and standards"
- ▶ Compliance with application and environmental conditions according to the technical data
- ▶ Compliance with the specified performance limits
- ▶ The spin-on elements are intended exclusively for professional use and not for private use.

## Improper use

Any use deviating from the intended use is deemed as improper and thus not permissible.

Improper use of the spin-on elements includes:

- ▶ Incorrect storage
- ▶ Incorrect transport
- ▶ Lack of cleanliness during storage and assembly
- ▶ Incorrect installation
- ▶ Use of inappropriate/non-permissible hydraulic fluids
- ▶ Exceedance of the specified maximum pressures and load cycles
- ▶ Operation outside the approved temperature range
- ▶ Installation and operation in impermissible device group and category

Hengst Filtration GmbH does not assume any liability for damage caused by improper use. The user assumes all risks involved with improper use.

## Environmental safety and recycling

- ▶ The used spin-on element should be disposed of in accordance with the respective country-specific legal regulations of environmental protection.