

## Return-Line Filters ■ Type RTF-40



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**Product Description**

STAUFF RTF-40 Return-Line Filters are designed as tank top filters with a maximum operating pressure of 6,9 bar / 100 PSI. The filter bowl is designed to return the oil beneath the surface thus preventing entrainment of air.

**Technical Data**
**Construction**

- Tank Top flange mounting

**Materials**

- Filter head: Aluminium
- Filter bowl: Bowl length 1: Polyamide  
Bowl length 2: Steel
- Sealings: NBR (Buna-N®)  
Other sealing materials on request

**Port Connections**

- BSP
- NPT
- SAE O-ring thread
- SAE flange

**Flow Rating**

- Up to 378 l/min / 100 US GPM

**Operating Pressure**

- Max. 6,9 bar / 100 PSI

**Temperature Range**

- -25 °C ...+95 °C / -13 °F ... +203 °F

**Filter Elements**

- RTE-47 with integrated bypass valve, single stack length
- RTE-48 bypass valve integrated in the filter head, equivalent to the HF-4 elements, single and double stack lengths
- RTE-49 bypass valve integrated in the filter head, single and double stack lengths
- Specifications see page 114

**Media Compatibility**

- Mineral oils, other fluids on request

**Options and Accessories**
**Valve**

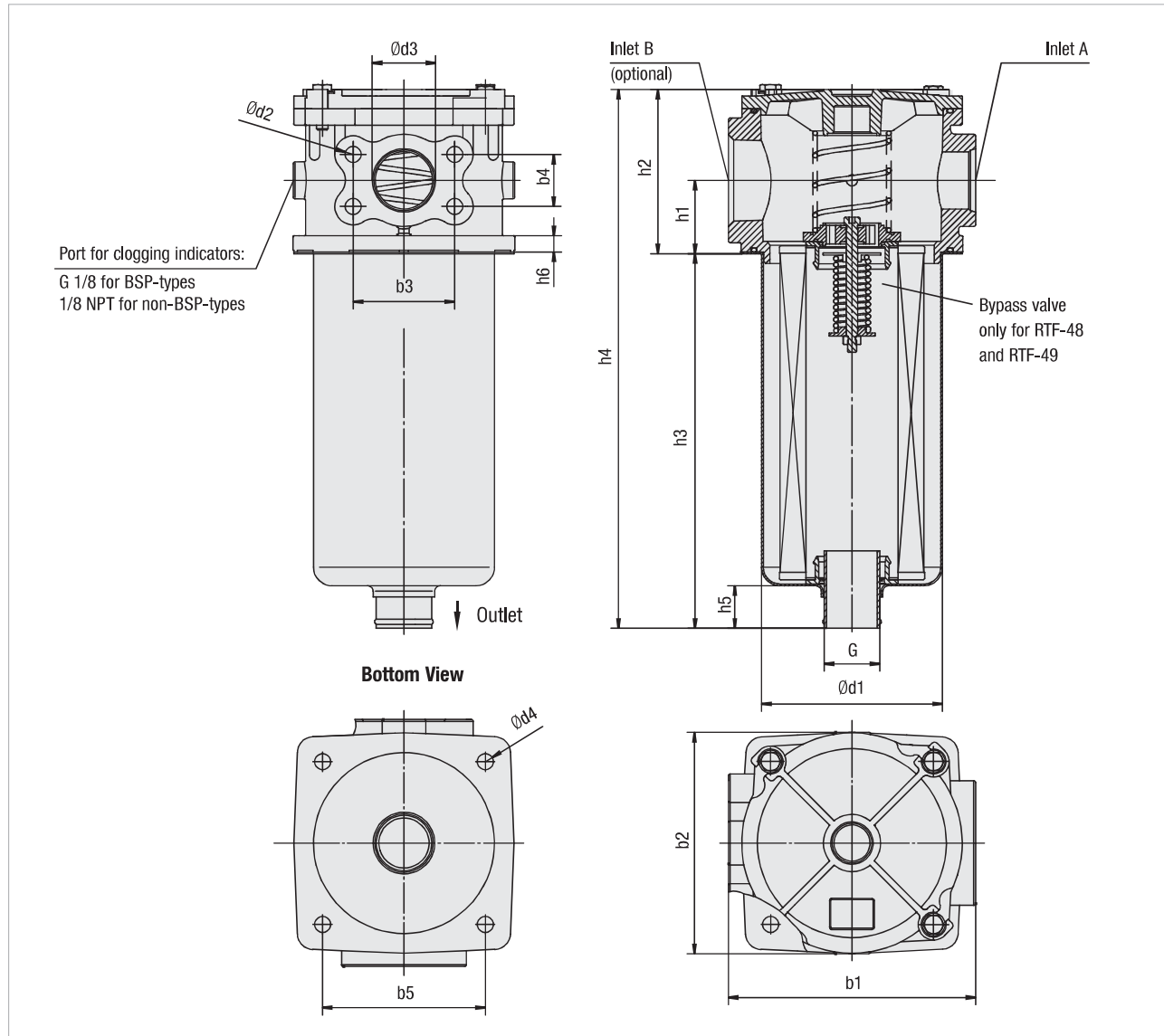
- Bypass valve: Opening pressures 1 bar / 14.5 PSI ±10 % or 1,7 bar / 25 PSI ±10 %  
RTF-47: Bypass integrated in the filter element  
RTF-48/49: Bypass integrated in the filter head

**Clogging Indicators**

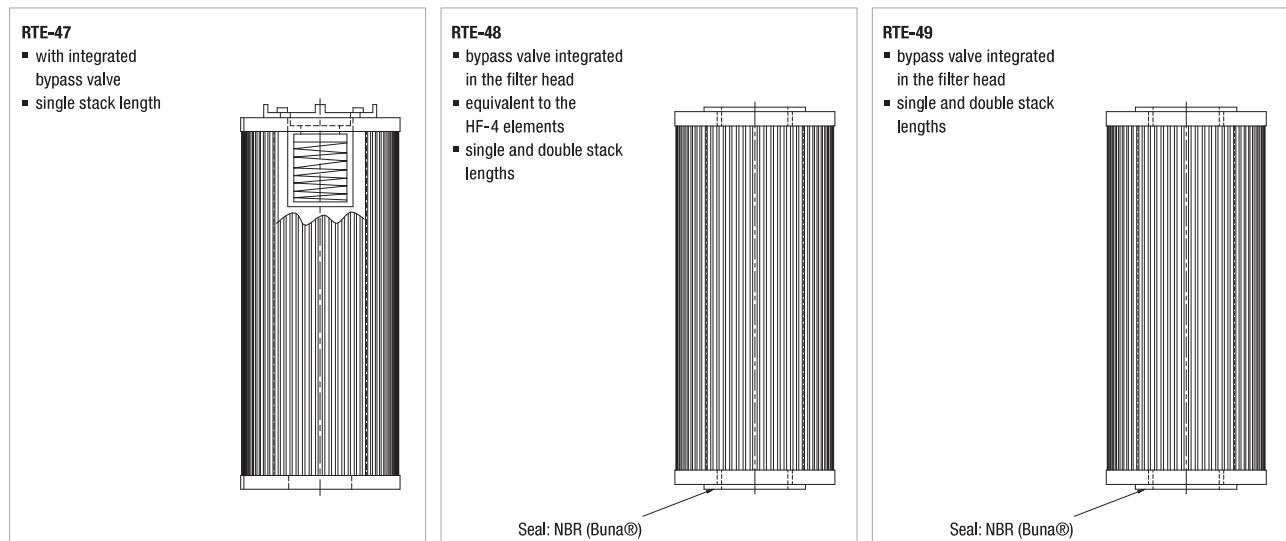
- For clogging indicator types please see page 125



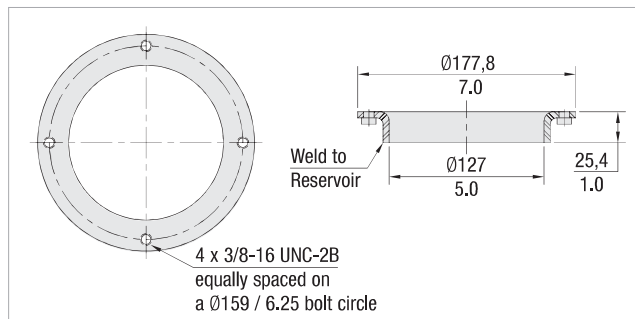
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## Filter Elements ■ Types RTE-47 / RTE-48 / RTE-49



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**RTF-40 Series Weld Ring WR-40**

The WR-40 weld ring is welded directly to the hydraulic reservoir, eliminating the need for drilling and tapping mounting holes in the reservoir.

Material: Carbon Steel

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Thread Connection Combinations	Filter Size RTF			
	4...S1		4...S2	
	Inlet A	Inlet B	Inlet A	Inlet B
BSP	1-1/4 and 1-1/2 SAE Flange	None	1-1/4 and 1-1/2 SAE Flange	None
BSP	1-1/4 and 1-1/2 SAE Flange	1-1/4	1-1/4 and 1-1/2 SAE Flange	1-1/4
NPT	1-1/4 and 1-1/2 SAE Flange	None	1-1/4 and 1-1/2 SAE Flange	None
NPT	1-1/4 and 1-1/2 SAE Flange	1-1/4	1-1/4 and 1-1/2 SAE Flange	1-1/4
NPT	1-1/2	None	1-1/2	None
NPT	1-1/2	1-1/4	1-1/2	1-1/4
NPT	1-1/2	1-1/2	1-1/2	1-1/2
SAE	1-5/8-12	None	1-5/8-12	None
SAE	1-5/8-12	1-5/8-12	1-5/8-12	1-5/8-12
SAE	1-5/8-12	1-7/8-12	1-5/8-12	1-7/8-12
SAE	1-5/8-12	2-1/2-12	1-5/8-12	2-1/2-12
SAE	1-7/8-12	1-7/8-12	1-7/8-12	1-7/8-12
Combination SAE & NPT	1-5/8-12	2	1-5/8-12	2

Dimensions (mm/in)	Filter Size RTF	
	4...S1	4...S2
h1	50 1.97	50 1.97
h2	112 4.41	112 4.41
h3	263 10.35	475 18.70
h4	385 15.16	587 23.11
h5	21 .83	38 1.50
h6	11 .43	11 .43
b1	170 6.70	170 6.70
b2	152 5.98	152 5.98
b3	69.9 2.75	69.9 2.75
b4	35.6 1.40	35.6 1.40
b5	112 4.41	112 4.41
d1	122 4.80	126 4.96
d2	M12 or 1/2-13 UN	M12 or 1/2-13 UN
d3	38,1 1.50	38,1 1.50
d4	11 .43	11 .43
G	G1-1/2 or 1-1/2 NPT	G1-1/2 or 1-1/2 NPT

Dimensions in mm / in



## Return-Line Filter Housings / Complete Filters ■ Type RTF-40



## ① Type

Return-Line Filter **RTF**

## ② Group

Flow	Size
190 l/min / 50 US GPM	<b>47</b>
190 l/min / 50 US GPM	<b>48</b>
190 l/min / 50 US GPM	<b>49</b>

Note: Exact flow will depend on the selected filter element.

For technical data please see pages 123 / 124.

For element length 2 (only RTF-48 / RTF-49) please double relating flow values.

## ③ Filter Material

Material	Max. $\Delta p$ *collapse	Micron ratings available	Code
Without filter element	-	-	<b>0</b>
Inorg. glass fibre	10 bar / 145 PSI	3, 5, 10, 25	<b>G</b>
Filter paper	10 bar / 145 PSI	10, 25	<b>D</b>

\*Note: Collapse/burst resistance as per ISO 2941

Other materials on request

## ④ Micron Rating

3 $\mu$ m	<b>03</b>
5 $\mu$ m	<b>05</b>
10 $\mu$ m	<b>10</b>
25 $\mu$ m	<b>25</b>

Note: Other micron ratings on request

## ⑤ Sealing Material

NBR (Buna®) **B**

Note: Other sealing materials on request

## ⑥ Connection Style

Connection Style	Group		Code
	Port A	Port B	
BSP	1-1/4 and 1-1/2 SAE Flange	None	<b>G20+C324M/0</b>
	1-1/4 and 1-1/2 SAE Flange	1-1/4	<b>G20+C324M/G20</b>
NPT	1-1/4 and 1-1/2 SAE Flange	None	<b>N20+C324M/0</b>
	1-1/4 and 1-1/2 SAE Flange	1-1/4	<b>N20+C324M/N20</b>
NPT	1-1/2	None	<b>N24/0</b>
	1-1/2	1-1/4	<b>N24/N20</b>
SAE	1-5/8-12	None	<b>U20/0</b>
	1-5/8-12	1-5/8-12	<b>U20/U20</b>
SAE	1-5/8-12	1-7/8-12	<b>U20/U24</b>
	1-5/8-12	2-1/2-12	<b>U20/U40</b>
SAE	1-7/8-12	1-7/8-12	<b>U24/U24</b>
	1-7/8-12	2	<b>U20/N32</b>
Combination NPT & SAE	1-5/8-12	2	

## ⑦ Valve

No bypass	<b>0</b>
1 bar / 15 PSI	<b>B1.0</b>
1,7 bar / 24,6 PSI	<b>B1.7</b>

## ⑧ Length

Bowl Length 1 (1 element)	<b>S1</b>
Bowl Length 2 (2 elements)	<b>S2</b>

Note: RTF-47 size available in S1 bowl length only.

## ⑨ Clogging Indicator

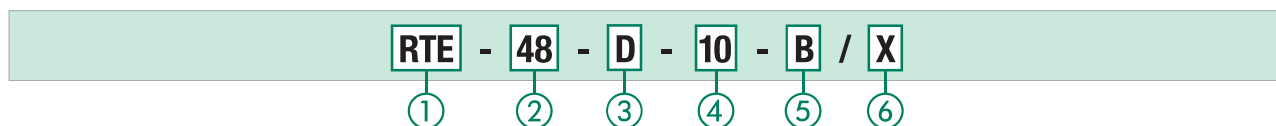
No clogging indicator	<b>0</b>
Visual clogging indicator	<b>V</b>
Electrical clogging indicator	<b>E</b>

Note: See page 125 for more details on indicator ports and options.

## ⑩ Design Code

Only for information	<b>X</b>
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## Filter Elements ■ Type RTE



## ① Type

Filter Element Series **RTE**

## ② Group

According to filter housing

## ③ Filter Material

Material	Max. $\Delta p$ *collapse	Micron ratings available	Code
Inorg. glass fibre	10 bar / 145 PSI	3, 5, 10, 25	<b>G</b>
Filter paper	10 bar / 145 PSI	10, 25	<b>D</b>

\*Note: Collapse/burst resistance as per ISO 2941

Other materials on request

## ④ Micron Rating

3 $\mu$ m	<b>03</b>
5 $\mu$ m	<b>05</b>
10 $\mu$ m	<b>10</b>
25 $\mu$ m	<b>25</b>

Note: Other micron ratings on request

## ⑤ Sealing Material

NBR (Buna®) **B**

Note: Other sealing materials on request

## ⑥ Design Code

Only for information	<b>X</b>
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