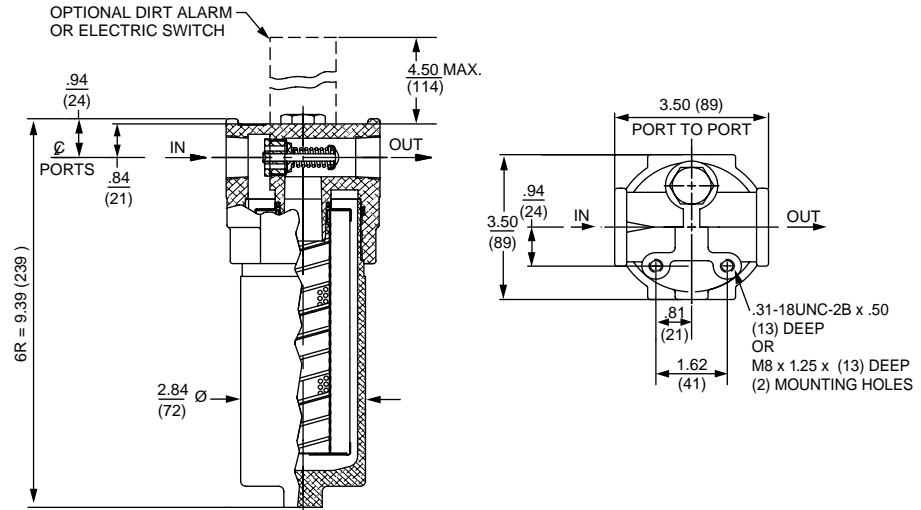


25 gpm
100 L/min
1400 psi
100 bar



Metric dimensions in ().
Model No. of filter in photograph is FTB-B-6-XXX.

Filter Housing Specifications

Flow Rating:	Up to 25 gpm (100 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	1400 psi (100 bar)
Min. Yield Pressure:	4000 psi (276 bar)
Rated Fatigue Pressure:	750 psi (52 bar) per NFPA T2.6.1-R1-1991
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 40 psi (2.8 bar) Full Flow: 55 psi (3.8 bar)
Porting Head:	Die Cast Aluminum
Element Case:	Aluminum
Weight of SRLT-6R:	3.0 lbs. (1.4 kg)
Element Change Clearance:	2.75" (70 mm)

Element Performance Information

Element	Absolute Rating Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402			Abs. Rating wrt ISO 16889 Using APC calibrated per ISO 11171		Dirt Holding Capacity gm
	$\beta_x \geq 75$	$\beta_x \geq 100$	$\beta_x \geq 200$	$\beta_{x(c)} \geq 200$	$\beta_{x(c)} \geq 1000$	
FTB-6-01	<1.0	<1.0	<1.0	<4.0	4.2	15
FTB-6-03	<1.0	<1.0	<2.0	4.7	5.8	15
FTB-6-05	2.5	3.0	4.0	6.5	7.5	12
FTB-6-10	7.4	8.2	10.0	10.0	12.7	14
FTB-6-25	18.0	20.0	22.5	19.0	24.0	25

Element Collapse Rating: 150 psid (10 bar)
Flow Direction: Outside In
Element Nominal Dimensions: 2.0" (50 mm) O.D. x 6.0" (150 mm) long

Fluid Compatibility

Type Fluid	Appropriate Media
Petroleum Based Fluids	All Paper (E) and Synthetic (Z) media Z1, Z3, Z5, Z10, Z25
High Water Content	Z10, Z25
Invert Emulsions	Z3, Z5, Z10, Z25
Water Glycols	All Z media with EPR Seals
Phosphate Esters	Z3H.5, Z5H.5, Z10H.5 and Z25H.5
Skydrol	

Note: Contact factory regarding use of E Media in High Water Content, Invert Emulsion and Water Glycol Applications.

- Smaller, compact version of FTB-B-XXX. ■ Quick and easy cartridge element changeouts.

Features

Pressure	Element		Element selections are predicated on the use of 150 SUS (32 cSt) petroleum based fluid and a 40 psi (2.8 bar) bypass valve.						
	Series	Part No.							
To 1400 psi (100 bar)	Z Media	FTB-6-01							
		FTB-6-03							
		FTB-6-05							
		FTB-6-10							
		FTB-6-25							
Flow	gpm	0	5	10	15	20	25		
	(L/min)	0	25	50	75	100			

Element Selection

Based on Flow Rate

Shown above are the elements most commonly used in this housing.

$$\Delta P_{\text{filter}} = \Delta P_{\text{housing}} + \Delta P_{\text{element}}$$

Exercise:
Determine ΔP at 15 gpm (57 L/min) for SRLT6R3P12D5 using 200 SUS (44 cSt) fluid.

Solution:

$$\Delta P_{\text{housing}} = 5.0 \text{ psi } [.37 \text{ bar}]$$

$$\Delta P_{\text{element}} = 15 \times .45 \times (200 \div 150) = 9 \text{ psi}$$

or

$$= [57 \times (.45 \div 54.9) \times (44 \div 32) = .64 \text{ bar}]$$

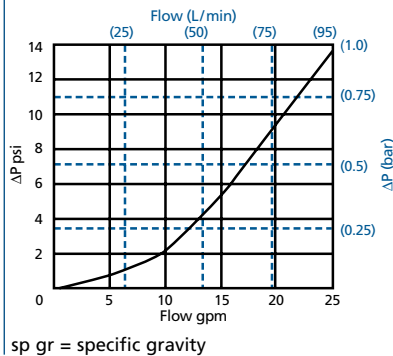
$$\Delta P_{\text{total}} = 5.0 + 9.0 = 14.0 \text{ psi}$$

or

$$= [.37 + .64 = 1.01 \text{ bar}]$$

$\Delta P_{\text{housing}}$

SRLT $\Delta P_{\text{housing}}$ for fluids with sp gr = 0.86:



sp gr = specific gravity

$\Delta P_{\text{element}}$

$$\Delta P_{\text{element}} = \text{flow} \times \text{element } \Delta P \text{ factor} \times \text{viscosity factor}$$

El. ΔP factors @ 150 SUS (32 cSt):

FTB-6-01	1.11
FTB-6-03	.55
FTB-6-05	.50
FTB-6-10	.46
FTB-6-25	.25

If working in units of bars & L/min, divide above factor by 54.9.

Viscosity factor:
Divide viscosity by 150 SUS (32 cSt).

Pressure Drop Information

Based on Flow Rate and Viscosity

Sizing of elements should be based on element flow information provided in the Element Selection chart above.

Filter Series	Element Part No.		Seal Material	Porting	Dirt Alarm® (See Appendix A for complete list of options)
	Length	Media			
FTB	6"	FTB-6-01 FTB-6-03 FTB-6-05 FTB-6-10 FTB-6-25 6RW	(Omit) = Buna N H = EPR* V = Viton*	B12 = ISO 228 G-3/4 (3/4-14 BSPP) (B12 porting supplied with metric mounting holes)	D5 = Cartridge

Filter Model Number Selection

Same Day Shipment Model

*Aluminum parts are anodized.
**Only available with Buna N seals.

Other Available Options

SAME DAY SHIPMENT MODEL AVAILABLE!

Medium Pressure Filter

FTB-B-xx



Features and Benefits

- Durable, compact design
- Quick and easy cartridge element changeouts
- Available in 9"
- Lightweight at 8 pounds
- 1" BSP Ports
- Various Dirt Alarm® options
- Same day shipment model available

50 gpm
190 L/min

1000 psi
69 bar

Model No. of filter in photograph is FTB-B-xx



INDUSTRIAL



AUTOMOTIVE
MANUFACTURING



MACHINE
TOOL



STEEL
MAKING



PULP & PAPER



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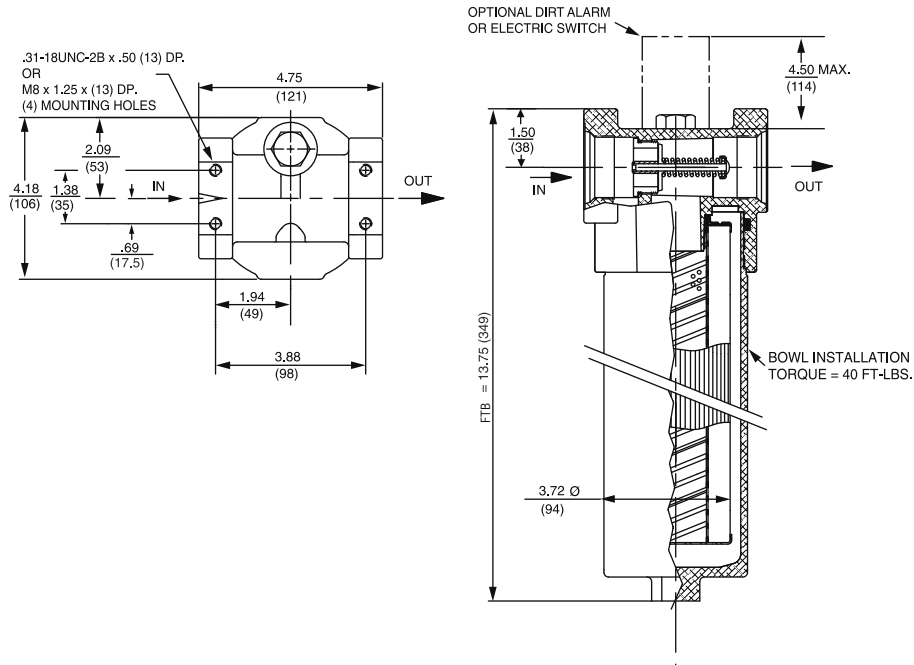


MOBILE
VEHICLES

Applications

Flow Rating:	190 L/min for 150 SUS (32 cSt) fluids for 1" porting
Max. Operating Pressure:	1000 psi (69 bar)
Min. Yield Pressure:	4200 psi (290 bar) , per NFPA T2.6.1
Rated Fatigue Pressure:	415 psi (29 bar), per NFPA T2.6.1-R1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 40 psi (2.8 bar) for all porting Full Flow: 75 psi (5.2 bar) for B16
Porting Head:	Aluminum
Element Case:	Aluminum
Weight of RLT-9V:	6.7 lbs. (3.0 kg)
Element Change Clearance:	FTB - 2.75" (70 mm)

Filter Housing Specifications



Metric dimensions in ().

Element Performance Information

Element	Filtration Ratio Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402			Filtration Ratio wrt ISO 16889 Using APC calibrated per ISO 11171	
	$\beta_x \geq 75$	$\beta_x \geq 100$	$\beta_x \geq 200$	$\beta_x(c) \geq 200$	$\beta_x(c) \geq 1000$
FTB-01	<1.0	<1.0	<1.0	<4.0	4.2
FTB-03	<1.0	<1.0	<2.0	<4.0	4.8
FTB-05	2.5	3.0	4.0	4.8	6.3
FTB-10	7.4	8.2	10.0	8.0	10.0
FTB-25	18.0	20.0	22.5	19.0	24.0

Dirt Holding Capacity

Element	DHC (gm)
FTB-01	55
FTB-03	57
FTB-05	62
FTB-10	52
FTB-25	48

Element Collapse Rating: 150 psid (10 bar)
500 psid (34.5 bar) for hydrostatic high collapse (9V5Z10 element) version

Flow Direction: Outside In

Element Nominal Dimensions: FTB: 3.0" (75 mm) O.D. x 9.5" (240 mm) long

Type Fluid	Appropriate Schroeder Media
Petroleum Based Fluids	All E media (cellulose) and Z-Media* (synthetic)
High Water Content	All Z-Media* (synthetic)
Invert Emulsions	10 and 25 μ Z-Media* (synthetic)
Water Glycols	3, 5, 10 and 25 μ Z-Media* (synthetic)
Phosphate Esters	All Z-Media* (synthetic) with H (EPR) seal designation
Skydrol®	3, 5, 10 and 25 μ Z-Media* (synthetic) with H.5 seal designation (EPR seals and stainless steel wire mesh in element, and light oil coating on housing exterior)

Fluid Compatibility

Skydrol is a registered trademark of Solutia Inc.

Pressure	Series	Element Part No.	Element selections are predicated on the use of 150 SUS (32 cSt) petroleum based fluid and a 40 psi (2.8 bar) bypass valve.
To 1000 psi (69 bar)	Z-Media®	FTB-01	FTB-01
		FTB-03	FTB-03
		FTB-05	FTB-05
		FTB-10	FTB-10
		FTB-25	FTB-25
	Flow	gpm (L/min)	0 10 20 30 40 50 60 70 0 50 100 150 200 270

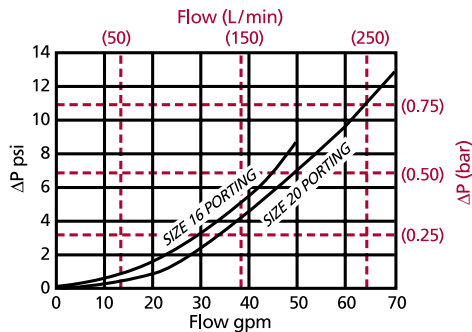
Element Selection Based on Flow Rate

Shown above are the elements most commonly used in this housing. req 20 porting

Note: Contact factory regarding use of E media in High Water Content, Invert Emulsion and Water Glycol Applications. For more information, refer to Fluid compatibility: Fire Resistant Fluids, pages 19 and 20.

ΔP_{housing}

FTB ΔP_{housing} for fluids with sp gr = 0.86:



ΔP_{element}

ΔP_{element} = flow x element ΔP factor x viscosity factor

EI. ΔP factors @ 150 SUS (32 cSt):

	FTB
FTB-01	.34
FTB-03	.21
FTB-05	.13
FTB-10	.11
FTB-25	.06

If working in units of bars & L/min, divide above factor by 54.9.

Viscosity factor: Divide viscosity by 150 SUS (32 cSt).

Pressure Drop Information Based on Flow Rate and Viscosity

sp gr = specific gravity

Sizing of elements should be based on element flow information provided in the Element Selection chart above.

Notes

$$\Delta P_{\text{filter}} = \Delta P_{\text{housing}} + \Delta P_{\text{element}}$$

Exercise:

Determine ΔP at 40 gpm (150 L/min) for FTB-B-05 using 200 SUS (44 cSt) fluid.

Solution:

$$\Delta P_{\text{housing}} = 5.5 \text{ psi } [.35 \text{ bar}]$$

$$\begin{aligned} \Delta P_{\text{element}} &= 40 \times .13 \times (200 \div 150) = 6.9 \text{ psi} \\ &\text{or} \\ &= [150 \times (.13 \div 54.9) \times (44 \div 32) = .49 \text{ bar}] \end{aligned}$$

$$\begin{aligned} \Delta P_{\text{total}} &= 5.5 + 6.9 = 12.4 \text{ psi} \\ &\text{or} \\ &= [.35 + .49 = .84 \text{ bar}] \end{aligned}$$

SAME DAY SHIPMENT MODEL AVAILABLE!

Medium Pressure Filter

FTB-B-14-XX



Features and Benefits

- Durable, compact design
- Quick and easy cartridge element changeouts
- 14" element lengths
- Lightweight at 8 pounds
- Available with NPTF inlet and outlet female test ports
- WRLT model for water service also available – refer to Section 7 of this catalog
- Various Dirt Alarm® options
- Same day shipment model available

50 gpm
190 L/min
800 psi
55 bar

Model No. of filter in photograph is RLT9VZ10P20D5.



INDUSTRIAL



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AGRICULTURE



MOBILE
VEHICLES

Applications

Flow Rating: Up to 50 gpm (190 L/min) for 150 SUS (32 cSt) B16 porting

Max. Operating Pressure: 800 psi (55 bar)

Min. Yield Pressure: 2400 psi (165 bar), per NFPA T2.6.1

Rated Fatigue Pressure: 415 psi (29 bar), per NFPA T2.6.1-R1-2005

Temp. Range: -20°F to 225°F (-29°C to 107°C)

Bypass Setting: Cracking: 40 psi (2.8 bar) for all porting
Full Flow: 75 psi (5.2 bar) for B16 porting

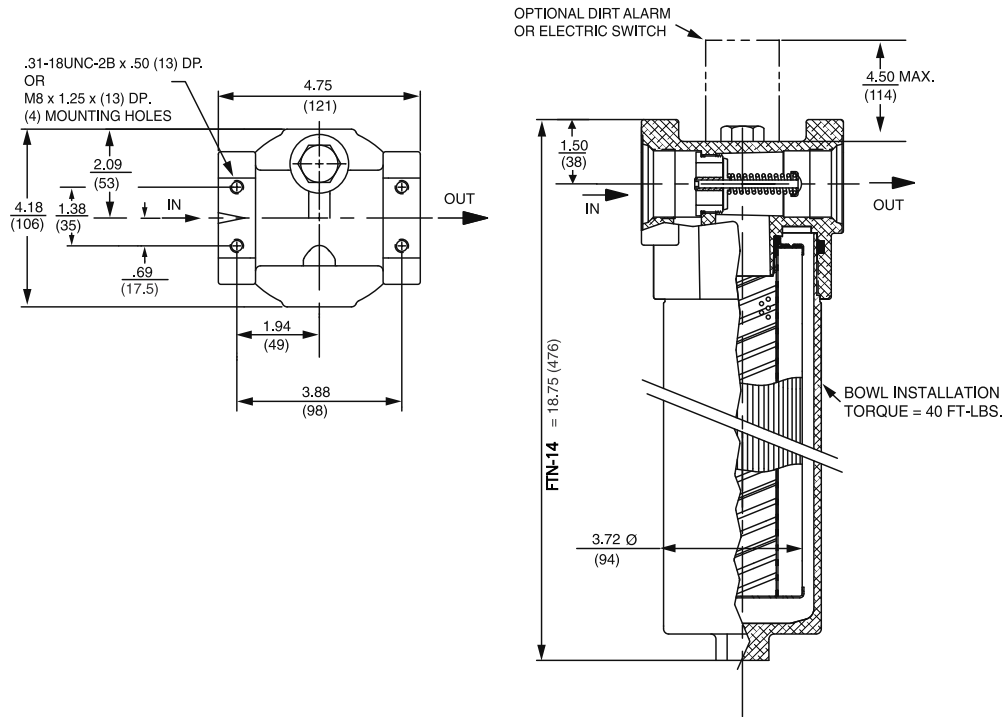
Porting Head: Aluminum

Element Case: Aluminum

Weight of FTB-14-XX: 8.0 lbs. (3.6 kg)

Element Change Clearance: FTB-14: 2.75" (70 mm)

Filter Housing Specifications



Metric dimensions in ().

Element Performance Information

Element	Filtration Ratio Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402			Filtration Ratio wrt ISO 16889 Using APC calibrated per ISO 11171	
	$\beta_x \geq 75$	$\beta_x \geq 100$	$\beta_x \geq 200$	$\beta_x(c) \geq 200$	$\beta_x(c) \geq 1000$
14VZ1	<1.0	<1.0	<1.0	<4.0	4.2
FTB-14-03	<1.0	<1.0	<2.0	<4.0	4.8
14VZ5	2.5	3.0	4.0	4.8	6.3
FTB-14-10	7.4	8.2	10.0	8.0	10.0
14VZ25	18.0	20.0	22.5	19.0	24.0

Dirt Holding Capacity

Element	DHC (gm)
14VZ1	102
FTB-14-03	105
14VZ5	115
FTB-14-10	104
14VZ25	94

Element Collapse Rating: 150 psid (10 bar)

Flow Direction: Outside In

Element Nominal Dimensions: FTB-14: 3.0" (75 mm) O.D. x 14.5" (370 mm) long

Type Fluid Appropriate Schroeder Media

Petroleum Based Fluids	All E media (cellulose) and Z-Media® (synthetic)
High Water Content	All Z-Media® (synthetic)
Invert Emulsions	10 and 25 μ Z-Media® (synthetic)
Water Glycols	3, 5, 10 and 25 μ Z-Media® (synthetic)
Phosphate Esters	All Z-Media® (synthetic) with H (EPR) seal designation
Skydrol®	3, 5, 10 and 25 μ Z-Media® (synthetic) with H.5 seal designation (EPR seals and stainless steel wire mesh in element, and light oil coating on housing exterior)

Fluid Compatibility

Skydrol® is a registered trademark of Solutia Inc.

Pressure	Series	Element Part No.	Element selections are predicated on the use of 150 SUS (32 cSt) petroleum based fluid and a 40 psi (2.8 bar) bypass valve.							
To 800 psi (55 bar)	Z-Media®	14VZ1		14VZ1	Contact Factory					
		FTB-14-03			14VZ3	Contact Factory				
		14VZ5				14VZ5				
		FTB-14-10	FTB-14-10							
		14VZ25	14VZ25							
Flow		gpm	0	10	20	30	40	50	60	70
		(L/min)	0	50	100	150	200	270		

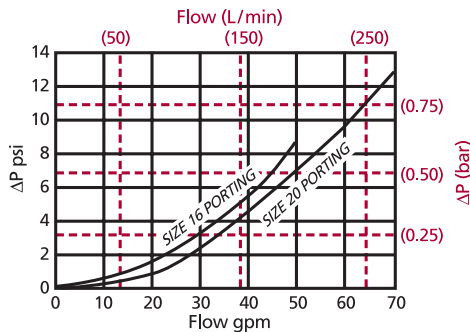
Element Selection
Based on Flow Rate

Shown above are the elements most commonly used in this housing. requires size 20 porting

Note: Contact factory regarding use of E media in High Water Content, Invert Emulsion and Water Glycol Applications. For more information, refer to Fluid compatibility: Fire Resistant Fluids, pages 19 and 20.

ΔP_{housing}

FTB ΔP_{housing} for fluids with sp gr = 0.86:



ΔP_{element}

ΔP_{element} = flow x element ΔP factor x viscosity factor

El. ΔP factors @ 150 SUS (32 cSt):

	FTB-14
14VZ1	.21
FTB-14-03	.17
14VZ5	.09
FTB-14-10	.08
14VZ25	.05

If working in units of bars & L/min, divide above factor by 54.9.

Viscosity factor: Divide viscosity by 150 SUS (32 cSt).

Pressure Drop Information

Based on Flow Rate and Viscosity

sp gr = specific gravity

Sizing of elements should be based on element flow information provided in the Element Selection chart above.

Notes

$\Delta P_{filter} = \Delta P_{housing} + \Delta P_{element}$

Exercise:

Determine ΔP at 40 gpm (150 L/min) for FTB-B-B-14 using 200 SUS (44 cSt) fluid.

Solution:

ΔP_{housing} = 5.5 psi [.35 bar]

ΔP_{element} = 40 x .13 x (200 ÷ 150) = 6.9 psi
 or
 = [150 x (.13 ÷ 54.9) x (44 ÷ 32) = .49 bar]

ΔP_{total} = 5.5 + 6.9 = 12.4 psi
 or
 = [.35 + .49 = .84 bar]