

RYCO



Hydraulic Filters



Reservoir Accessories



RIF-10 INLINE SPIN-ON FILTERS 1.1/4" PORTS



PAGES 356-357

PORTS:
1.1/4" BSPP
MAX. PRESSURE:
10 bar/150 psi
FILTRATION:
10 & 25 MIC ABS
10 & 25 MIC NOM
FLOW RATES:
to 170 LPM

RIF-12 INLINE SPIN-ON FILTERS 1.1/2" PORTS



PAGES 358-359

PORTS:
1.1/2" BSPP & SAE
CODE 61
MAX. PRESSURE:
10 bar/150 psi
FILTRATION:
10 & 25 MIC ABS
10 & 25 MIC NOM
FLOW RATES:
to 290 LPM

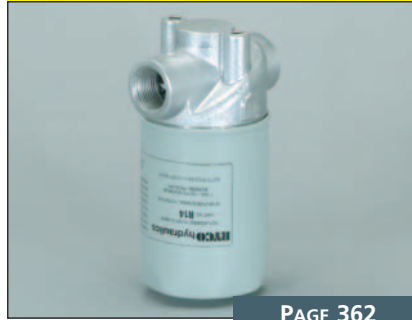
RIF-06 INLINE SPIN-ON FILTERS 3/4" PORTS



PAGES 360-361

PORTS:
3/4" BSPP
MAX. PRESSURE:
10 bar/150 psi
FILTRATION:
10 & 20 MIC ABS
10 & 25 MIC NOM
FLOW RATES:
to 70 LPM

RIF14-1 INLINE SPIN-ON FILTER 1" PORTS



PAGE 362

PORTS:
1" BSPT
MAX. PRESSURE:
7 bar/100 psi
FILTRATION:
32 MICRON
FLOW RATES:
to 60 LPM

RIF-FA INLINE SPIN-ON FILTERS 3/8" PORTS



PAGE 363

PORTS:
3/8" BSPT
MAX. PRESSURE:
7 bar/100 psi
FILTRATION:
15, 20, 32 MICRON
FLOW RATES:
to 18 LPM

RHF HEAVY DUTY INLINE FILTERS



PAGES 364-365

PORTS:
1/2" to 1.1/2" BSPP
MAX. PRESSURE:
20 bar/290 psi
FILTRATION:
10, 25 & 149 MIC
FLOW RATES:
to 150 LPM

RTI AND RFI TANK TOP FILTERS



PAGES 366-367

PORTS:
1/2" to 1.1/4" BSPP
MAX. PRESSURE:
10 bar/150 psi
FILTRATION:
10 & 25 MICRON
FLOW RATES:
to 110 LPM

RCF COMBINATION FILTERS



PAGES 368-369

PORTS:
1/2" to 1.1/2" BSPP
2.1/2" SAE CD 61
MAX. PRESSURE:
20 bar/290 psi
FILTRATION:
10, 25 & 149 MIC
FLOW RATES:
to 540 LPM

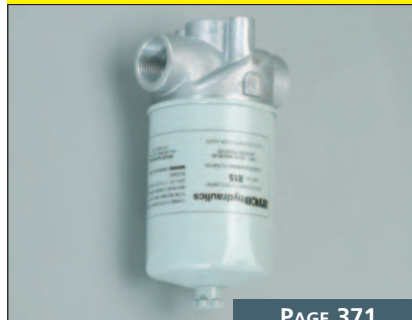
RG & REI CLOGGING INDICATORS



PAGE 370

RETURN LINE AND
SUCTION LINE
GAUGES AND
ELECTRICAL
INDICATORS

RIF15 INLINE SPIN-ON WATER TRAP FILTER



PAGE 371

PORTS:
1" BSPT
MAX. PRESSURE:
7 bar/100 psi
FILTRATION:
15 MICRON
FLOW RATES:
to 60 LPM

RLG & RLGT LEVEL AND TEMPERATURE GAUGES



LENGTHS:
76 mm, 127 mm &
254 mm
(3", 5" & 10")

PAGE 372

RSCN SUCTION STRAINERS



PORTS:
1/4" to 3" BSPP
FILTRATION:
149 MICRON
FLOW RATES:
12 to 600 LPM

PAGE 373

RD DIFFUSERS



PORTS:
3/4" to 2" BSPP
FLOW RATES:
100 to 480 LPM

PAGE 374

R60 AND R300 AIR BREATHER FILTERS



PORTS:
1/4" to 2.1/2" BSP,
3/4" UNO
FILTRATION:
10, 27, 40, 149 MIC
DISPLACEMENT:
90 to 4000 LPM

PAGE 375

RFSB FILLER CAP/STRAINER/AIR BREATHERS



TWO SIZES.
BAYONET CAP,
METAL STRAINER
BASKET
FILTRATION:
10 & 40 MICRON
DISPLACEMENT:
90 to 720 LPM

PAGE 376

R381 PUSH-ON BREATHER/R365 FILLER STRAINER



R381:
PUSH-ON
BREATHER CAP
R365:
2" BSP CAP,
METAL STRAINER
BASKET

PAGE 377

FILTERS TECHNICAL SECTION

PAGE

NEED FOR FILTRATION, HOW FILTERS WORK	378
WHAT IS A MICRON?, PRESSURE DROP, BYPASS VALVES	379
SELECTION OF FILTER SIZE, NOMINAL FLOW RATES	380
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IMPORTANT NOTE ON DASH SIZES:

Dash Sizes for Ports of Hydraulic Filters and Reservoir Accessories are in **EIGHTHS of an inch** (not SIXTEENTHS);

-06 = 6/8 = 3/4 inch

except that **R362, R356** and **R358** Series Air Breathers are sized in **SIXTEENTHS of an inch**.

Reference is made to "Filter Series" in several manners in this manual.

For example, an **RIF-RP1210** Filter assembly is a:

RYCO Inline Filter with Spin-On Canister (**RIF**), 1,0 bar Bypass for Return Lines (**R**),
two parallel Canisters and BSPP Ports (**P**), 1.1/2" Ports (**12**), and 10 Micron filtration (**10**).

It could be referred to/included in the following "Filter Series" groups:

- | | |
|---------------------------------|---|
| as an " RIF " Filter | includes all RYCO Inline Filters with Spin-On Canisters, all types & sizes |
| as an " RIF-12 " Filter | includes all RYCO Inline Filters, Spin-On Canisters, 1.1/2" Ports (SAE or BSPP) |
| as an " RIF-R " Filter | includes all RYCO Inline Filters, Spin-On Canisters, Return Line |
| as an " RIF-RP " Filter | includes all RYCO Inline Filters, Return Line, two parallel Spin-On Canisters & BSPP Ports |
| as an " RIF-R12 " Filter | includes all RYCO Inline Filters with Spin-On canisters, Return Line,
1.1/2" SAE Code 61 or BSPP Ports |

There are two series (**RIF-E** and **RIF-EA**) and two sizes (**3/4"** and **1.1/4"**) of Spin-On Canisters shown on pages 356 to 359. (The size **3/4"** and **1.1/4"** refers to the Port size of the Filter Head).

These yellow Spin-On Canisters, and the Filter Heads they are used with, are sized and threaded the same as other internationally available Canisters and Heads:

Canisters from Europe ("European standard") mostly have BSPP Threads.

Canisters from USA ("American standard") mostly have UNF Threads.

RYCO have Spin-On Filter Canisters and Filter Heads using both the BSPP "European" and the UNF "American" system.

3/4" SPIN-ON FILTERS

PAGES 360 – 361

For 3/4" Canisters and Heads, Post and Canister Threads are either BSPP 3/4"-14 TPI or UNF 1"-12 TPI. The Thread Diameters are almost the same, but the pitch of the threads is different.

The Top Plates and Gaskets of the Canisters look similar.

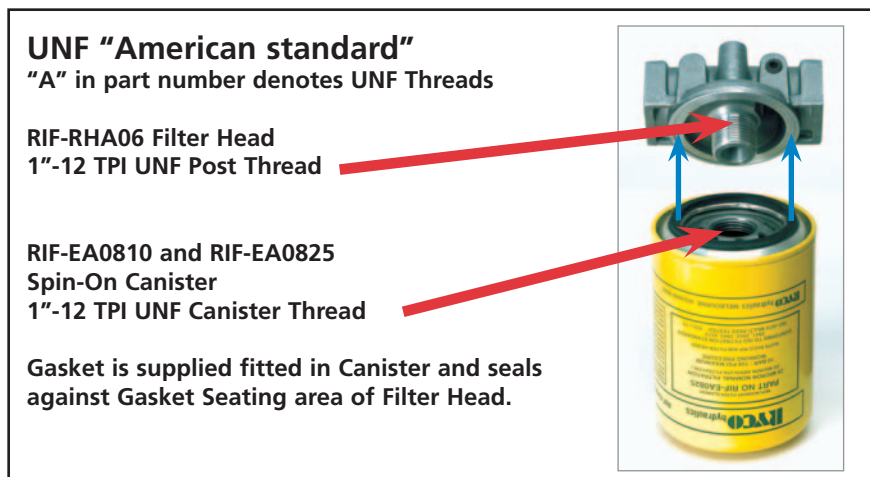
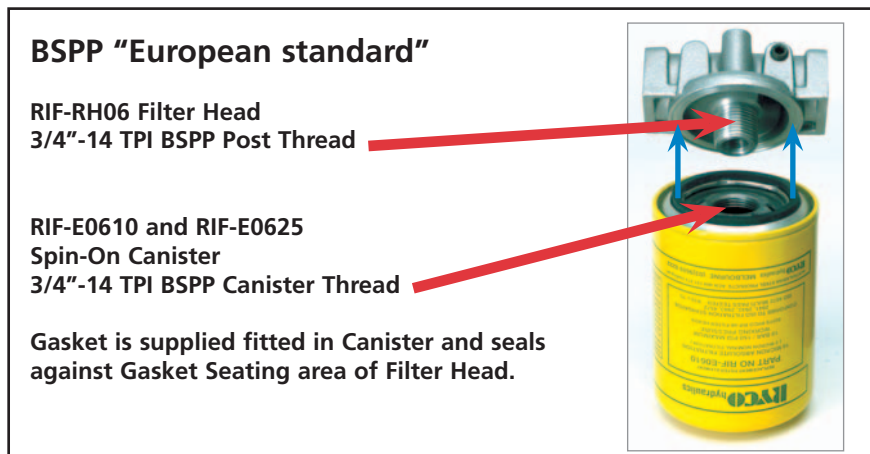
In both BSPP and UNF canisters, the Gasket is supplied fitted in a groove in the Canister.

It is essential to use a BSPP Canister with a BSPP Filter Post, and a UNF Canister with a UNF Filter Post.

RYCO have 3/4" Spin-On Filter Series using both the BSPP "European" and the UNF "American" system:

RIF-E0610 and RIF-E0625 Spin-On Canisters have BSPP Threads

RIF-EA0810 and RIF-EA0825 Spin-On Canisters have UNF Threads.



NOTE: The last two digits of Part Number of RIF-E06 and RIF-E10 Series Canisters are the **ABSOLUTE** filtration rating. The last two digits of Part Number of RIF-EA08 and RIF-EA12 Series Canister are the **NOMINAL** filtration rating. See pages 378 to 381 for more information on **ABSOLUTE** and **NOMINAL** filtration ratings.

1. **ABSOLUTE** means at least 98.7% of particles of the micron size and above are removed.

2. **NOMINAL** means approximately 50% of particles of the micron size and above are removed.

NOTE: Part Numbers for Filter Heads on pages 354 and 355 are for Return Line Filter Heads.

For Suction Line Filter Heads, replace "R" after dash with "S", eg RIF-SH06.

For Blocked Bypass Filter Heads, replace "R" after dash with "B", eg RIF-BHA06.

1.1/4" SPIN-ON FILTERS

PAGES 356 – 359

Similarly to 3/4" Spin-On Filters, for 1.1/4" Spin-On Filters:

Canisters from Europe ("European standard") mostly have BSPP Threads.

Canisters from USA ("American standard") mostly have UNF Threads.

RYCO have 1.1/4" Spin-On Filter Series using both the BSPP "European" and the UNF "American" system:

RIF-E1010 and RIF-E1025 Spin-On Canisters have BSPP Threads.

RIF-EA1210 and RIF-EA1225 Spin-On Canisters have UNF Threads.

The Top Plate of BSPP Canisters are shaped so the thread is close to the top of the Canister.

The Top Plate of UNF Canisters are "dished", with the thread below the top of the Canister.

This difference allows the use of a Dual Post Thread on the Filter Head.

BSPP 1.1/4"-11 TPI Canister threads onto the top part of a Dual Post Thread.

UNF 1.1/2"-16 TPI Canister threads onto the bottom part of a Dual Post Thread.

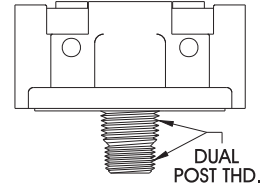
RYCO RIF-RH10, RIF-SH10 and RIF-BH10 1.1/4" Filter Heads, on pages 356 and 357, have dual BSPP and UNF Post Threads, to allow the use of both types of Canisters.

RYCO RIF-12 1.1/2" Filter Heads on pages 358 and 359, using two 1.1/4" Canisters, also have Dual Post Threads.

The Gasket also seals differently in the two systems, BSPP and UNF, and there are two Gasket seating areas in a Dual Post Head.

The BSPP Canister Gasket is supplied fitted in a groove in the Canister.

The UNF Canister Gasket is supplied loose, to be fitted into the groove in the Filter Head.



BSPP "European standard"

RIF-RH10 Filter Head
1.1/4"-11 TPI BSPP
post Thread

**RIF-E1010 and
RIF-E1025 Spin-On
Canister**
1.1/4"-11 TPI BSPP
Canister Thread

Gasket is supplied fitted
in Canister and seals
against inner Gasket
Seating area of Filter Head.

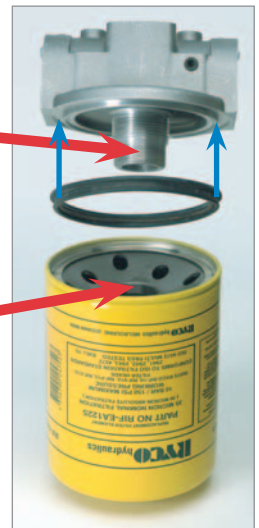


UNF "American standard" "A" in part number denotes UNF Threads

RIF-RH10 Filter Head
1.1/2"-16 TPI UNF
Post Thread

**RIF-EA1210 and
RIF-EA1225 Spin-On
Canister**
1.1/2"-16 TPI UNF
Canister Thread

Gasket is supplied loose
and seals against outer
Gasket Seating
area of Filter Head.



Additionally, there are different types of Gaskets used by various manufacturers of UNF Threaded Filter Heads.

Two Gaskets are supplied with **RYCO RIF-EA1210** and **RIF-EA1225** UNF Threaded Spin-On Canisters (only one is to be used).

RIF-EA12GW wide L-Section Gasket for use with **RYCO** Filter Heads and other heads with similar (wide) groove.

RIF-EA12GM square-section Gasket with green stripe for use with Filter Heads with narrow groove.

Photo shows a Filter Head with single UNF Post Thread and single Gasket Seating area only.

WARNING: The Gasket must be a tight fit in the groove of the Head. Use of incorrect Gasket prevents sealing, and may cause damage. Refer to pages 357, 388 and 389; and RYCO Hydraulics Technical Department for further information.



RECOMMENDED FOR:

RYCO RIF-10 Series Filters are designed for installation in return lines or suction lines of both stationary and mobile hydraulic equipment. Working pressures up to 10 bar (150 psi), and high flow rates enable these Filters to be utilised in a wide range of applications.

FEATURES OF RYCO SPIN-ON CANISTERS & HEADS:

- Disposable Spin-On Canisters.
- Changing of filter elements is quick and simple.
- High efficiency.
- Multi layer filtration media.
- Available in two different Absolute filtration ratings, and two different Nominal filtration ratings.
- High working pressures.
- Specially moulded Gaskets.
- Rolled seam on Canisters.
- High collapse resistance inner core.
- High quality cast Aluminium Head.
- Tapped mounting holes.
- Easy to install.
- BSPP threaded Ports.
- Inlet and Outlet Ports are clearly identified.
- Flow direction arrow.
- **RYCO RIF-RH10, RIF-SH10** and **RIF-BH10** Filter Heads are Dual Threaded on the Filter Post giving worldwide compatibility of Spin-On Canisters. **RYCO RIF-RH10, RIF-SH10** and **RIF-BH10** Filter Heads can be used with both **RIF-E10** and **RIF-EA12** Series Spin-On Canisters. See page 385 for more information.
- Bypass Valve in the Aluminium Head allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.
- Two different Bypass Valve cracking pressures are available to suit Return Lines or Suction Lines, plus Blocked Bypass for special applications.
- Clogging Indicators available, see page 370.
- Tapped and Plugged Ports for Clogging Indicator. Both Positions on Inlet Port are tapped and plugged for Return Line filters. Both Positions on Outlet Port are tapped and plugged for Suction Line filters. All four Positions are tapped and plugged for Blocked Bypass filters.

TECHNICAL DATA

- **Filter Head:** Cast Aluminium.
- **Spin-On Canister Housing:** Powder coated steel casing. Pressed steel top plate.
- **Gasket:** Nitrile (Buna N) oil resistant rubber.
- **Filtration Media:** Cellulose with reinforced synthetic fibres, folic impregnated resin; extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.
- **Filtration Ratings:**
 - RIF-E1010:** 10 Micron Absolute (3 Mic Nom). $\beta_{10} \geq 75$, $\beta_3 \geq 2$.
 - RIF-E1025:** 25 Micron Absolute (10 Mic Nom). $\beta_{25} \geq 75$, $\beta_{10} \geq 2$.
 - RIF-EA1210:** 10 Micron Nominal (27 Mic Abs). $\beta_{27} \geq 75$, $\beta_{10} \geq 2$.
 - RIF-EA1225:** 25 Micron Nominal (36 Mic Abs). $\beta_{36} \geq 75$, $\beta_{25} \geq 2$.
- **Maximum Working Pressure/Vacuum:**
 - 10 bar/150 psi in Return Line applications.
 - 635 mmHg/25 inHg in Suction Line applications.
 - 5,5 bar/80 psi for Return Line applications with Blocked Bypass Valve.
- **Operating Temperature:** 80°C (176°F) maximum continuous working temperature.
- **Fluid Compatibility:** Mineral/petroleum based hydraulic oils.
- **Bypass Valve Position:** In Filter Head.
- **Bypass Valve Differential Cracking Pressure:**
 - RIF-R** Series for Return Lines 1,0 bar/14.5 psi.
 - RIF-S** Series for Suction Lines 0,2 bar/2.9 psi.
 - RIF-B** Series Blocked Bypass for special applications.
- **Clogging Indicators:** **RGR** Gauge for return lines. Colour coded Green & Red sectors for quick visual inspection. **RGS** Gauge calibrated with negative pressures (for suction lines) and positive pressures (for return lines). **RGS02** Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines. **REIR** and **REIS** Electrical Indicators. See page 370 for more information on Clogging Indicators.
- **Nominal Flow Rates:** As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) for **RIF-R** and 0,03 bar (0.5 psi) for **RIF-S** with 30 centistoke viscosity oil (see page 380 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 382 for "Pressure Drop Flow Graphs", pages 384 and 385 for "Warnings and Filter Selection Guidelines" and pages 386 and 387 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

MOUNTING OPTIONS

RYCO RIF-10 Series Filter Heads can be mounted to equipment by means of two tapped mounting holes in head.

Filter Heads can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.

Allow 35 mm (1.35") clearance below Spin-On Canister to allow Canister to be changed.

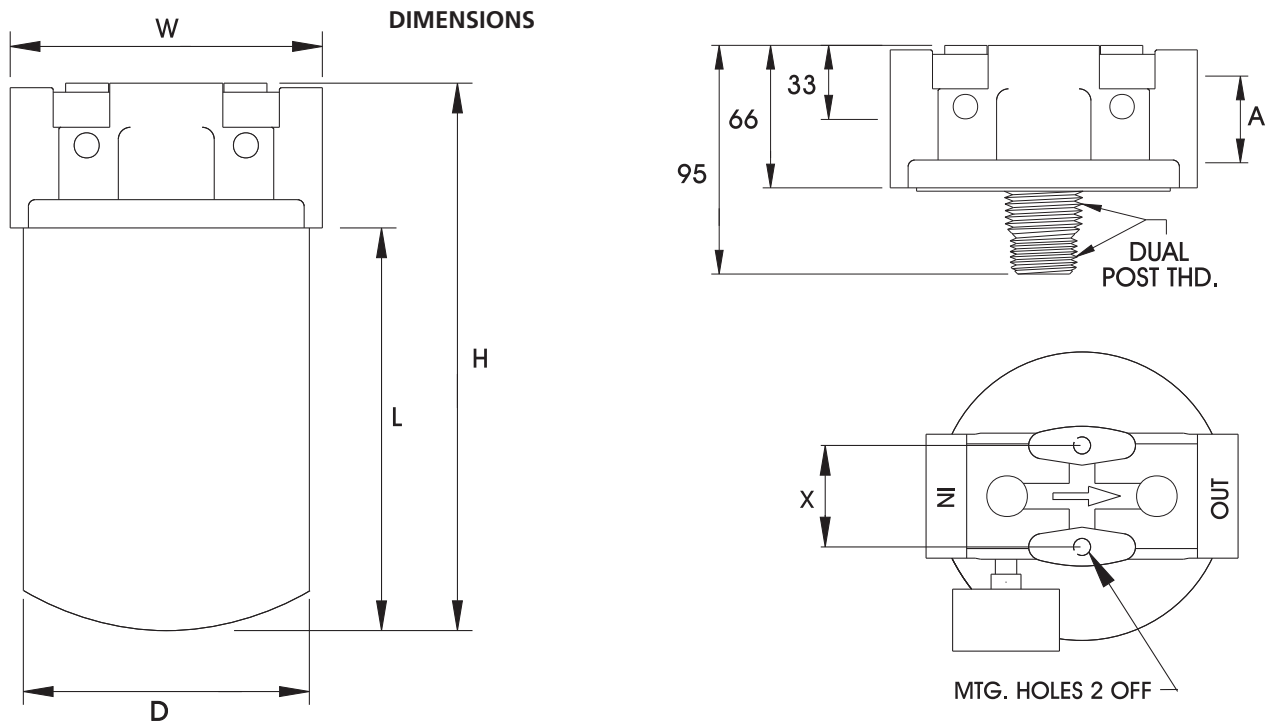
Instructions for changing Canister are branded on the Canister, and are also shown on page 390.

PART NUMBERS AND SPECIFICATIONS – BSPP CANISTER THREADS, LAST 2 DIGITS ARE THE ABSOLUTE RATING

COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM	ABSOLUTE FILTRATION	NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER	HEAD ONLY		
SERIES	PART NO	INCH	LPM		MICRON	MICRON	PART NO	PART NO	
Return Filter	RIF-R1010	1.1/4	100	10 bar	150 psi	10	3	RIF-E1010	RIF-RH10
1,0 bar Bypass	RIF-R1025	1.1/4	135	10 bar	150 psi	25	10	RIF-E1025	RIF-RH10
Suction Filter	RIF-S1010	1.1/4	8	635 mmHg	25 inHg	10	3	RIF-E1010	RIF-SH10
0,2 bar Bypass	RIF-S1025	1.1/4	16	635 mmHg	25 inHg	25	10	RIF-E1025	RIF-SH10
Blocked	RIF-B1010	1.1/4				10	3	RIF-E1010	RIF-BH10
Bypass Filter	RIF-B1025	1.1/4				25	10	RIF-E1025	RIF-BH10

PART NUMBERS AND SPECIFICATIONS – UNF CANISTER THREADS, LAST 2 DIGITS ARE THE NOMINAL RATING

COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM	ABSOLUTE FILTRATION	NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER	HEAD ONLY		
SERIES	PART NO	INCH	LPM		MICRON	MICRON	PART NO	PART NO	
Return Filter	RIF-RA1210	1.1/4	135	10 bar	150 psi	27	10	RIF-EA1210	RIF-RH10
1,0 bar Bypass	RIF-RA1225	1.1/4	170	10 bar	150 psi	36	25	RIF-EA1225	RIF-RH10
Suction Filter	RIF-SA1210	1.1/4	16	635 mmHg	25 inHg	27	10	RIF-EA1210	RIF-SH10
0,2 bar Bypass	RIF-SA1225	1.1/4	20	635 mmHg	25 inHg	36	25	RIF-EA1225	RIF-SH10
Blocked	RIF-BA1210	1.1/4				27	10	RIF-EA1210	RIF-BH10
Bypass Filter	RIF-BA1225	1.1/4				36	25	RIF-EA1225	RIF-BH10



CANISTER DIAMETER	OVERALL HEIGHT	CANISTER HEIGHT	WIDTH ACROSS PORTS	PORT THREAD BSPP	MOUNTING HOLE CENTRES	MOUNTING HOLE THREADS	WEIGHT HEAD	WEIGHT CANISTER	WEIGHT TOTAL
D mm	H mm	L mm	W mm	A inch	X mm	M8 X 1,25	kg	kg	kg
127	246	178	140	1.1/4	48	M8 X 1,25	0,96	1,08	2,04

CROSS REFERENCE INFORMATION

The Posts on **RYCO RIF-RH10, RIF-SH10 and RIF-BH10** Series Heads are Dual Threaded to allow the use of both common types of Spin-On Canisters.

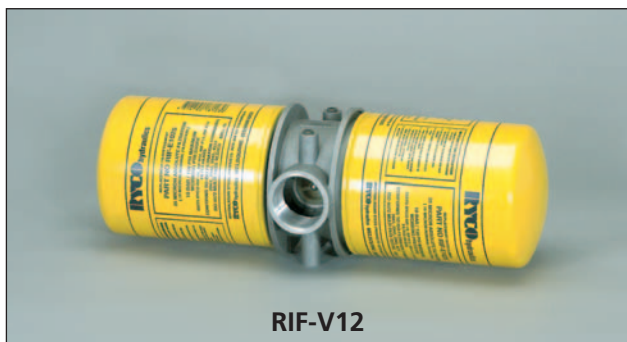
RYCO RIF-E1010 and RIF-E1025 and "European standard" Canisters have Top Plate with 1.1/4"-11 TPI BSPP thread to screw onto the upper part of the Dual Post Thread.

RYCO RIF-EA1210 and RIF-EA1225 and "American standard" Canisters have a dished Top Plate with 1.1/2"-16 TPI UNF thread to screw onto the lower part of the Dual Post Thread.

RYCO RIF-E1010 and RIF-E1025 Canisters, threaded 1.1/4"-11 TPI BSPP, can be used on standard BSPP or Dual Threaded Post Filter Heads.

RYCO RIF-EA1210 and RIF-EA1225 Canisters, threaded 1.1/2"-16 TPI UNF, can be used on standard UNF or Dual Threaded Post Filter Heads.

For Cross Reference information, please see pages 354 and 355, and pages 388 and 389.



RIF-V12



RIF-P12

RIF-C12

RECOMMENDED FOR:

RYCO RIF-12 Series Filters are designed for installation in return lines or suction lines of both stationary and mobile hydraulic equipment. Working pressures up to 10 bar (150 psi), and high flow rates enable these Filters to be utilised in a wide range of applications.

FEATURES OF RYCO SPIN-ON CANISTERS & HEADS:

- **RIF-V12** series with BSPP Ports.
- **RIF-P12** series with BSPP Ports.
- **RIF-C12** series with SAE Code 61 Ports (with UNC Bolt Holes).
- Disposable Spin-On Canisters.
- Changing of filter elements is quick and simple.
- High efficiency.
- Multi layer filtration media.
- Available in two different Absolute filtration ratings, and two different Nominal filtration ratings.
- High working pressures.
- Specially moulded Gaskets.
- Rolled seam on Canisters.
- High collapse resistance inner core.
- High quality cast Aluminium Head.
- Tapped mounting holes.
- Easy to install.
- **RYCO RIF-12** Filter Heads are Dual Threaded on the Filter Post giving world wide compatibility of Spin-On Canisters.
- **RIF-12** Filter Heads can be used with both **RIF-E10** and **RIF-EA12** Series Spin-On Canisters. See page 355 for more information.
- For Cross Reference information, see information on bottom of page 357; the same Spin-On Canisters are used. See also pages 354 and 355, and 388 and 389.
- Bypass Valve in the Aluminium Head allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.
- Two different Bypass Valve cracking pressures are available to suit Return Line or Suction Lines, plus Blocked Bypass for special applications.
- Clogging Indicators available, see page 370.
- Tapped and Plugged Ports for Clogging Indicator.
- For **RIF-V12** Series, there are two Positions, one each for Return Line and Suction Line applications. Both are tapped and plugged.
- For **RIF-P12** and **RIF-C12** Series, both Return Line Positions on Inlet side for Return Line filters are tapped and plugged.
- Both Suction Line Positions on Outlet side for Suction Line filters are tapped and plugged.

TECHNICAL DATA

- **Filter Head:** Cast Aluminium.
- **Spin-On Canister Housing:** Powder coated steel casing. Pressed steel top plate.
- **Gasket:** Nitrile (Buna N) oil resistant rubber.
- **Filtration Media:** Cellulose with reinforced synthetic fibres, folic impregnated resin; extensively pleated to maximise surface area available to trap contaminants and maximise dirt holding capacity.
- **Filtration Ratings:**
 - **RIF-E1010:** 10 Micron Absolute (3 Mic Nom). $\beta_{10} \geq 75$, $\beta_3 \geq 2$.
 - **RIF-E1025:** 25 Micron Absolute (10 Mic Nom). $\beta_{25} \geq 75$, $\beta_{10} \geq 2$.
 - **RIF-EA1210:** 10 Micron Nominal (27 Mic Abs). $\beta_{27} \geq 75$, $\beta_{10} \geq 2$.
 - **RIF-EA1225:** 25 Micron Nominal (36 Mic Abs). $\beta_{36} \geq 75$, $\beta_{25} \geq 2$.
- **Maximum Working Pressure/Vacuum:**
 - 10 bar/150 psi in Return Line applications.
 - 635 mmHg/25 inHg in Suction Line applications.
 - 5,5 bar/80 psi for Return Line applications with Blocked Bypass Valve.
- **Operating Temperature:** 80°C (176°F) maximum continuous working temperature.
- **Fluid Compatibility:** Mineral/petroleum based hydraulic oils.
- **Bypass Valve Position:** In Filter Head.
- **Bypass Valve Differential Cracking Pressure:**
 - **RIF-R** Series for return lines 1,0 bar/14.5 psi.
 - **RIF-S** Series for suction lines 0,2 bar/2.9 psi.
 - **RIF-B** Series Blocked Bypass for special applications.
- **Clogging Indicators:** **RGR** Gauge for Return Lines. Colour coded Green & Red sectors for quick visual inspection.
 - **RGS** Gauge calibrated with negative pressures (for Suction Lines) and positive pressures (for Return Lines).
 - **RGS02** Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines.
 - **REIR** and **REIS** Electrical Indicators.

See page 370 for more information on Clogging Indicators.
- **Nominal Flow Rates:** As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) for **RIF-R** and 0,03 bar (0.5 psi) for **RIF-S** with 30 centistoke viscosity oil (see page 380 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 382 for "Pressure Drop Flow Graphs", pages 384 and 385 for "Warnings and Filter Selection Guidelines", and pages 386 and 387 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

MOUNTING OPTIONS

RYCO RIF-12 Series Filter Heads can be mounted to equipment by means of two or four tapped mounting holes in head.

Filter Heads can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.

Allow 35 mm (1.35") clearance below Spin-On Canister to allow Canister to be changed.

Instructions for changing Canister are branded on the Canister, and are also shown on page 390.

PART NUMBERS AND SPECIFICATIONS – BSPP CANISTER THREADS, LAST 2 DIGITS ARE THE ABSOLUTE RATING

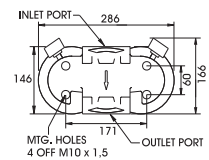
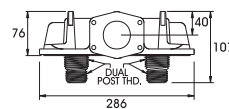
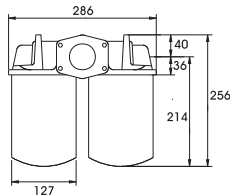
COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM	ABSOLUTE FILTRATION	NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER	HEAD ONLY		
SERIES	PART NO	INCH	LPM	MICRON	MICRON	PART NO	PART NO		
Return Filter 1,0 bar Bypass	RIF-RV1210	1.1/2 BSPP	160	10 bar	150 psi	10	3	RIF-E1010	RIF-RVH12
	RIF-RV1225	1.1/2 BSPP	225	10 bar	150 psi	25	10	RIF-E1025	RIF-RVH12
	RIF-RP1210	1.1/2 BSPP	160	10 bar	150 psi	10	3	RIF-E1010	RIF-RPH12
	RIF-RP1225	1.1/2 BSPP	225	10 bar	150 psi	25	10	RIF-E1025	RIF-RPH12
	RIF-RC1210	1.1/2 CD 61	160	10 bar	150 psi	10	3	RIF-E1010	RIF-RCH12
	RIF-RC1225	1.1/2 CD 61	225	10 bar	150 psi	25	10	RIF-E1025	RIF-RCH12
Suction Filter 0,2 bar Bypass	RIF-SV1210	1.1/2 BSPP	15	635 mmHg	25 inHg	10	3	RIF-E1010	RIF-SVH12
	RIF-SV1225	1.1/2 BSPP	27	635 mmHg	25 inHg	25	10	RIF-E1025	RIF-SVH12
	RIF-SP1210	1.1/2 BSPP	15	635 mmHg	25 inHg	10	3	RIF-E1010	RIF-SPH12
	RIF-SP1225	1.1/2 BSPP	27	635 mmHg	25 inHg	25	10	RIF-E1025	RIF-SPH12
	RIF-SC1210	1.1/2 CD 61	15	635 mmHg	25 inHg	10	3	RIF-E1010	RIF-SCH12
	RIF-SC1225	1.1/2 CD 61	27	635 mmHg	25 inHg	25	10	RIF-E1025	RIF-SCH12
Blocked Bypass Filter	RIF-BV1210	1.1/2 BSPP				10	3	RIF-E1010	RIF-BVH12
	RIF-BV1225	1.1/2 BSPP				25	10	RIF-E1025	RIF-BVH12
	RIF-BP1210	1.1/2 BSPP				10	3	RIF-E1010	RIF-BPH12
	RIF-BP1225	1.1/2 BSPP				25	10	RIF-E1025	RIF-BPH12
	RIF-BC1210	1.1/2 CD 61				10	3	RIF-E1010	RIF-BCH12
	RIF-BC1225	1.1/2 CD 61				25	10	RIF-E1025	RIF-BCH12

PART NUMBERS AND SPECIFICATIONS – UNF CANISTER THREADS, LAST 2 DIGITS ARE THE NOMINAL RATING

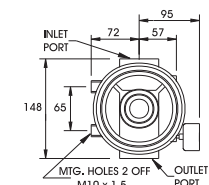
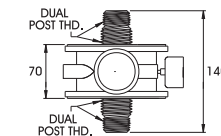
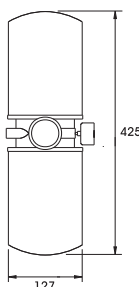
COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM	ABSOLUTE FILTRATION	NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER	HEAD ONLY		
SERIES	PART NO	INCH	LPM	MICRON	MICRON	PART NO	PART NO		
Return Filter 1,0 bar Bypass	RIF-RVA1210	1.1/2 BSPP	225	10 bar	150 psi	27	10	RIF-EA1210	RIF-RVH12
	RIF-RVA1225	1.1/2 BSPP	290	10 bar	150 psi	36	25	RIF-EA1225	RIF-RVH12
	RIF-RPA1210	1.1/2 BSPP	225	10 bar	150 psi	27	10	RIF-EA1210	RIF-RPH12
	RIF-RPA1225	1.1/2 BSPP	290	10 bar	150 psi	36	25	RIF-EA1225	RIF-RPH12
	RIF-RCA1210	1.1/2 CD 61	225	10 bar	150 psi	27	10	RIF-EA1210	RIF-RCH12
	RIF-RCA1225	1.1/2 CD 61	290	10 bar	150 psi	36	25	RIF-EA1225	RIF-RCH12
Suction Filter 0,2 bar Bypass	RIF-SVA1210	1.1/2 BSPP	27	635 mmHg	25 inHg	27	10	RIF-EA1210	RIF-SVH12
	RIF-SVA1225	1.1/2 BSPP	34	635 mmHg	25 inHg	36	25	RIF-EA1225	RIF-SVH12
	RIF-SPA1210	1.1/2 BSPP	27	635 mmHg	25 inHg	27	10	RIF-EA1210	RIF-SPH12
	RIF-SPA1225	1.1/2 BSPP	34	635 mmHg	25 inHg	36	25	RIF-EA1225	RIF-SPH12
	RIF-SCA1210	1.1/2 CD 61	27	635 mmHg	25 inHg	27	10	RIF-EA1210	RIF-SCH12
	RIF-SCA1225	1.1/2 CD 61	34	635 mmHg	25 inHg	36	25	RIF-EA1225	RIF-SCH12
Blocked Bypass Filter	RIF-BVA1210	1.1/2 BSPP				27	10	RIF-EA1210	RIF-BVH12
	RIF-BVA1225	1.1/2 BSPP				36	25	RIF-EA1225	RIF-BVH12
	RIF-BPA1210	1.1/2 BSPP				27	10	RIF-EA1210	RIF-BPH12
	RIF-BPA1225	1.1/2 BSPP				36	25	RIF-EA1225	RIF-BPH12
	RIF-BCA1210	1.1/2 CD 61				27	10	RIF-EA1210	RIF-BCH12
	RIF-BCA1225	1.1/2 CD 61				36	25	RIF-EA1225	RIF-BCH12

DIMENSIONS

RIF – P12/C12 SERIES



RIF – V12 SERIES



RYCO FILTER	WEIGHT HEAD	WEIGHT CANISTER	WEIGHT TOTAL
SERIES	kg	kg	kg
RIF-V12	1,00	1,08	3,16
RIF-P12 & RIF-C12	2,60	1,08	4,76



RECOMMENDED FOR:

RYCO RIF-06 Series Filters are designed for installation in return lines or suction lines of both stationary and mobile hydraulic equipment. Working pressures up to 10 bar (150 psi), and high flow rates enable these Filters to be utilised in a wide range of applications.

FEATURES OF RYCO SPIN-ON CANISTERS & HEADS:

- Disposable Spin-On Canisters.
- Changing of filter elements is quick and simple.
- High efficiency.
- Multi layer filtration media.
- Available in two different Absolute filtration ratings, and two different Nominal filtration ratings.
- High working pressures.
- Rolled seam on Canisters.
- High collapse resistance inner core.
- High quality cast Aluminium Head.
- **RYCO RIF-RH06, RIF-SH06 and RIF-BH06** Filter Heads have BSPP threaded post and are used with **RIF-E0610** and **RIF-E0625** Spin-On Canisters.
- **RYCO RIF-RHA06, RIF-SHA06 and RIF-BHA06** Filter Heads have UNF threaded post and are used with **RIF-EA0810** and **RIF-EA0825** Spin-On Canisters. See page 354 for more information.
- Tapped mounting holes.
- Easy to install.
- BSPP threaded Ports.
- Inlet and Outlet Ports are clearly identified.
- Flow direction arrow.
- Bypass Valve in the Aluminium Head allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.
- Two different Bypass Valve cracking pressures are available to suit return or suction lines, plus Blocked Bypass for special applications.
- Clogging Indicators available, see page 370.
- Tapped and Plugged Ports for Clogging Indicator. Both Positions on Inlet Port are tapped and plugged for Return Line filters. Both Positions on Outlet Port are tapped and plugged for Suction Line filters. All four Positions are tapped and plugged for Blocked Bypass filters.

TECHNICAL DATA

- **Filter Head:** Cast Aluminium.
- **Spin-On Canister Housing:** Powder coated steel casing. Pressed steel top plate.
- **Gasket:** Nitrile (Buna N) oil resistant rubber; rectangular section.
- **Filtration Media:** Cellulose with reinforced synthetic fibres, folic impregnated resin; extensively pleated to maximise surface area available to trap contaminants and maximise dirt holding capacity.
- **Filtration Ratings:**
 - **RIF-E0610:** 10 Micron Absolute (3 Mic Nom). $\beta_{10} \geq 75$, $\beta_3 \geq 2$.
 - **RIF-E0625:** 25 Micron Absolute (10 Mic Nom). $\beta_{20} \geq 75$, $\beta_{10} \geq 2$.
 - **RIF-EA0810:** 10 Micron Nominal (25 Mic Abs). $\beta_{25} \geq 75$, $\beta_{10} \geq 2$.
 - **RIF-EA0825:** 25 Micron Nominal (32 Mic Abs). $\beta_{32} \geq 75$, $\beta_{25} \geq 2$.
- **Maximum Working Pressure/Vacuum:**
 - 10 bar/150 psi in Return Line applications.
 - 635 mmHg/25 inHg in Suction Line applications.
 - 5,5 bar/80 psi for Return Line applications with Blocked Bypass Valve.
- **Operating Temperature:** 80°C (176°F) maximum continuous working temperature.
- **Fluid Compatibility:** Mineral/petroleum based hydraulic oils.
- **Bypass Valve Position:** In Filter Head.
- **Bypass Valve Differential Cracking Pressure:**
 - RIF-R** Series for Return Lines 1,0 bar/14.5 psi.
 - RIF-S** Series for Suction Lines 0,2 bar/2.9 psi.
 - RIF-B** Series Blocked Bypass for special applications.
- **Clogging Indicators:** **RGR** Gauge for return lines. Colour coded Green & Red sectors for quick visual inspection. **RGS** Gauge calibrated with negative pressures (for suction lines) and positive pressures (for return lines). **RGS02** Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines. **REIR** and **REIS** Electrical Indicators. See page 370 for more information on Clogging Indicators.
- **Nominal Flow Rates:** As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) for **RIF-R** and 0,03 bar (0.5 psi) for **RIF-S** with 30 centistoke viscosity oil (see page 380 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 382 for "Pressure Drop Flow Graphs", pages 384 and 385 for "Warnings and Filter Selection Guidelines", and pages 386 and 387 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

MOUNTING OPTIONS

RYCO RIF-06 Series Filter Heads can be mounted to equipment by means of two tapped mounting holes in head.

Filter Heads can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.

Allow 25 mm (1") clearance below Spin-On Canister to allow Canister to be changed.

Instructions for changing Canister are branded on the Canister, and are also shown on page 390.

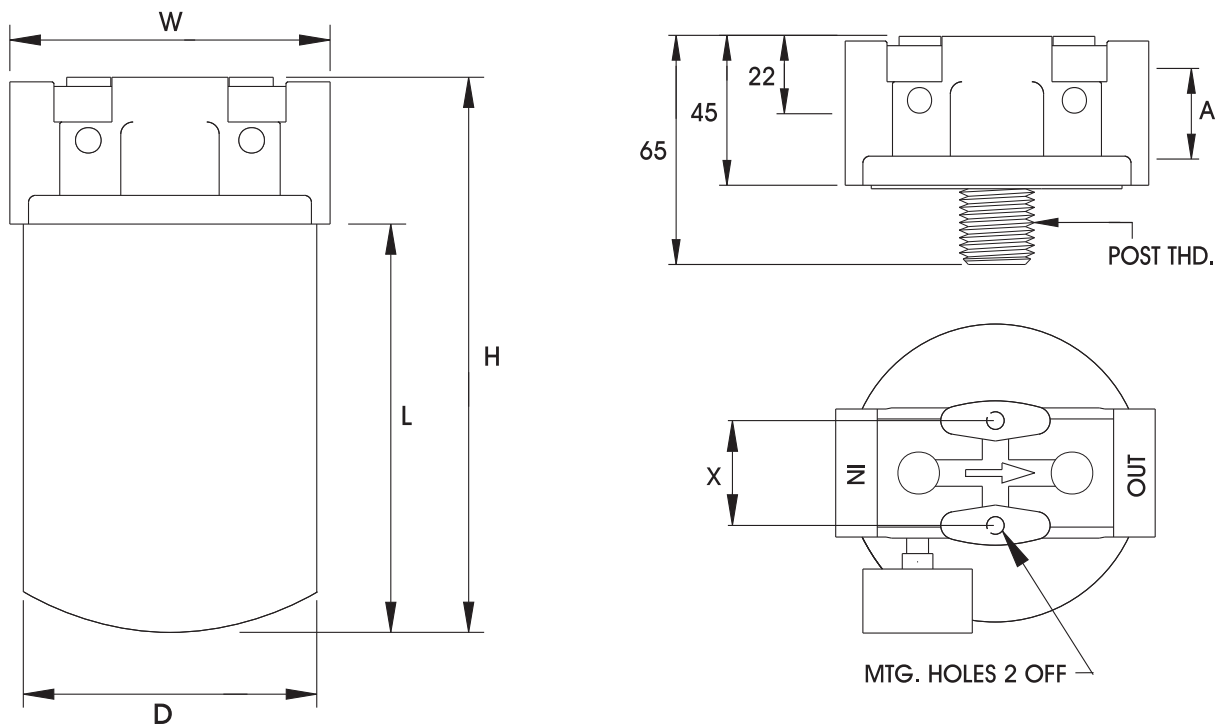
PART NUMBERS AND SPECIFICATIONS – BSPP CANISTER THREADS, LAST 2 DIGITS ARE THE ABSOLUTE RATING

COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM	ABSOLUTE FILTRATION	NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER	HEAD ONLY		
SERIES	PART NO	INCH	LPM	MICRON	MICRON	PART NO	PART NO		
Return Filter	RIF-R0610	3/4	40	10 bar	150 psi	10	3	RIF-E0610	RIF-RH06
1,0 bar Bypass	RIF-R0625	3/4	55	10 bar	150 psi	25	10	RIF-E0625	RIF-RH06
Suction Filter	RIF-S0610	3/4	4	635 mmHg	25 inHg	10	3	RIF-E0610	RIF-SH06
0,2 bar Bypass	RIF-S0625	3/4	6	635 mmHg	25 inHg	25	10	RIF-E0625	RIF-SH06
Blocked Bypass Filter	RIF-B0610	3/4				10	3	RIF-E0610	RIF-BH06
	RIF-B0625	3/4				25	10	RIF-E0625	RIF-BH06

PART NUMBERS AND SPECIFICATIONS – UNF CANISTER THREADS, LAST 2 DIGITS ARE THE NOMINAL RATING

COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM	ABSOLUTE FILTRATION	NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER	HEAD ONLY		
SERIES	PART NO	INCH	LPM	MICRON	MICRON	PART NO	PART NO		
Return Filter	RIF-RA0610	3/4	55	10 bar	150 psi	25	10	RIF-EA0810	RIF-RHA06
1,0 bar Bypass	RIF-RA0625	3/4	70	10 bar	150 psi	32	25	RIF-EA0825	RIF-RHA06
Suction Filter	RIF-SA0610	3/4	6	635 mmHg	25 inHg	25	10	RIF-EA0810	RIF-SHA06
0,2 bar Bypass	RIF-SA0625	3/4	9	635 mmHg	25 inHg	32	25	RIF-EA8625	RIF-SHA06
Blocked Bypass Filter	RIF-BA0610	3/4				25	10	RIF-EA0810	RIF-BHA06
	RIF-BA0625	3/4				32	25	RIF-EA0825	RIF-BHA06

DIMENSIONS



CANISTER DIAMETER	OVERALL HEIGHT	CANISTER HEIGHT	WIDTH ACROSS PORTS	PORT THREAD BSPP	MOUNTING HOLE CENTRES	MOUNTING HOLE THREADS	WEIGHT HEAD	WEIGHT CANISTER	WEIGHT TOTAL
D mm	H mm	L mm	W mm	A inch	X mm		kg	kg	kg
93	182	135	103	3/4	38	M6 x 1	0,36	0,48	0,84

CROSS REFERENCE INFORMATION

The Posts on **RYCO RIF-RH06, RIF-SH06 and RIF-BH06** Filter Heads have 3/4"-14 TPI BSPP thread.

RYCO RIF-E0610 and RIF-E0625 and "European standard" Canisters have 3/4"-14 TPI BSPP thread.

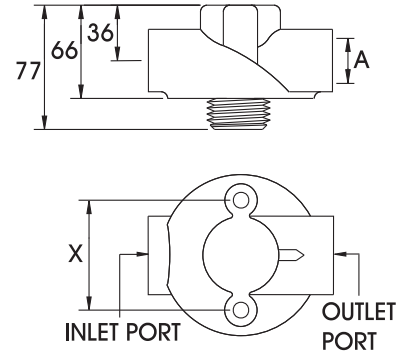
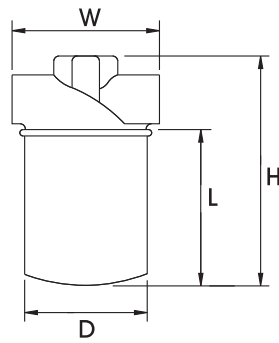
The Posts on **RYCO RIF-RHA06, RIF-SHA06 and RIF-BHA06** Filter Heads have 1"-12 TPI UNF thread.

RYCO RIF-EA0810 and RIF-EA0825 and "American standard" Canisters have 1"-12 TPI UNF thread.

RYCO RIF-E0610 and RIF-E0625 Canisters can be used on standard BSPP threaded post Filter Heads.

RYCO RIF-EA0810 and RIF-EA0825 Canisters can be used on standard UNF threaded post Filter Heads.

For Cross Reference information, please see page 354, and pages 388 and 389.



RECOMMENDED FOR:

RYCO RIF14-1 Filters are designed for installation in mineral and petroleum based hydraulic oil return lines, to maximum working temperature 80°C (176°F) and maximum working pressure 7 bar/100 psi.

FEATURES:

- Disposable Spin-On Canisters.
- Changing of filter element is quick and simple.
- Cast Aluminium Head with tapped mounting holes.
- Easy to install.
- 1 inch BSPT threaded Ports.
- Inlet and Outlet Ports are clearly identified by flow direction arrow.
- Bypass Valve in the Aluminium Head allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.

TECHNICAL DATA

- **Filter Head:** Cast Aluminium.
- **Spin-On Canister Housing:** Painted steel casing. Pressed steel top plate.
- **Gasket:** Nitrile (Buna N) oil resistant rubber.

TECHNICAL DATA (CONTINUED)

- **Filtration Media:** Cellulose with synthetic fibres added, phenolic resin impregnated, and silicone treated for water resistance; extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.
- **Filtration Rating:** 32 Micron Nominal.
- **Maximum Working Pressure:** 7 bar (100 psi). Not suitable for Suction Line applications.
- **Operating Temperature:** 80°C (176°F) maximum continuous working temperature.
- **Fluid Compatibility:** Mineral/petroleum based hydraulic oils.
- **Bypass Valve Position:** In Filter Head.
- **Bypass Valve Differential Cracking Pressure:** 0,7 bar (10 psi)
- **Nominal Flow Rates:** As shown, cause a clean element pressure drop of 0,3 bar (4.4 psi) with 30 centistoke viscosity oil (see page 380 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 383 for "Pressure Drop Flow Graphs", pages 384 and 385 for "Warnings and Filter Selection Guidelines", and pages 386 and 387 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

PART NUMBERS AND SPECIFICATIONS

COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE		NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER
PART NO	INCH	LPM	bar	psi	MICRON	PART NO
RIF14-1	1	60	7	100	32	R14

DIMENSIONS

CANISTER DIAMETER	OVERALL HEIGHT	CANISTER HEIGHT	WIDTH ACROSS PORTS	PORT THREAD BSPT	MOUNTING HOLE CENTRES	MOUNTING HOLE THREADS	WEIGHT HEAD	WEIGHT CANISTER	WEIGHT TOTAL
D mm	H mm	L mm	W mm	A inch	X mm		kg	kg	kg
94	205	140	116	1	63,3	3/8 - 16	0,49	0,48	0,97

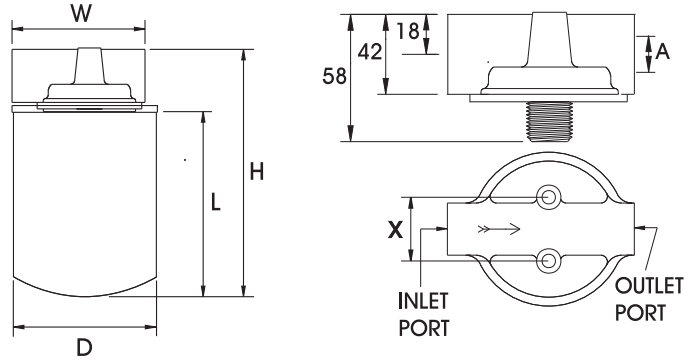
MOUNTING OPTIONS

RYCO RIF14-1 Series Filter Heads can be mounted to equipment by means of two tapped mounting holes in head.

Filter Heads can be mounted directly between rigid pipes provided, that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.

Allow 15 mm (0.6") clearance below Spin-On Canister to allow Canister to be changed.

Instructions for changing Canister are shown on page 390.



RECOMMENDED FOR:

RYCO RIF-FA9 and RIF-FA10 Filters are designed for installation in mineral and petroleum based hydraulic oil return lines.

RYCO RIF-FA8 and RIF-FA39 Filters are designed for petrol and diesel fuel filtration. Not suitable for aviation applications.

FEATURES:

- Disposable Spin-On Canisters.
- Changing of filter elements is quick and simple.
- Cast Aluminium Head with tapped mounting holes.
- Easy to install.
- 3/8" BSPT threaded Ports.
- Inlet and Outlet Ports are clearly identified by a flow direction arrow.
- Filter Head dimensions are the same for all **RIF-FA** Series.
- Bypass Valve built into the Canister of **RIF-FA9** and **RIF-FA10** allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.
- **RIF-FA8** and **RIF-FA39** have no Bypass Valve. Spin-On Canisters must be replaced at regular intervals, before clogging occurs.

Allow 20 mm (3/4") clearance below Spin-On Canister to allow Canister to be changed. Instructions for changing Canister are shown on page 390.

TECHNICAL DATA

- **Filter Head:** Cast Aluminium.
- **Spin-On Canister Housing:** Painted steel casing. **Z39** Canister is also zinc passivated inside and out for extra corrosion resistance. Pressed steel top plate.
- **Gasket:** Nitrile (Buna N) oil resistant rubber.
- **Filtration Media:** Cellulose, phenolic resin impregnated and silicone treated for water resistance, extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.
- **Maximum Working Pressure:** See table below. Not suitable for Suction Line applications.
- **Operating Temperature:** 80°C (176°F) maximum continuous working temperature.
- **Bypass Valve Differential Cracking Pressure & Location:** **RIF-FA9** and **RIF-FA10:** 1,0 bar (14.5 psi) in Canister. **RIF-FA8** and **RIF-FA39:** no Bypass Valve.
- **Nominal Flow Rates:** As shown below cause a clean element pressure drop as follows:
with 30 centistoke viscosity oil; 0,5 bar (7.3 psi) for **RIF-FA9** and **RIF-FA10** (see page 380 for more detail). The actual flow rate will vary if the oil is of a different viscosity.
with petrol and diesel fuel; 0,3 bar (4.4 psi) for **RIF-FA8** and **RIF-FA39**. See also page 383, pages 384 and 385, and pages 386 and 387 for more information.

PART NUMBERS AND SPECIFICATIONS

COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE		NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER
PART NO	INCH	LPM	bar	psi	MICRON	PART NO
RIF-FA10	3/8	13	7	100	32	Z89A
RIF-FA9	3/8	13	7	100	32	Z9
RIF-FA8	3/8	18	5,5	80	20	Z8
RIF-FA39	3/8	18	5,5	80	15	Z39

DIMENSIONS

COMPLETE FILTER	CANISTER DIAMETER	OVERALL HEIGHT	CANISTER HEIGHT	WIDTH ACROSS PORTS	PORT THREAD BSPT	MOUNTING HOLE CENTRES	MOUNTING HOLE THREADS	WEIGHT HEAD	WEIGHT CANISTER	WEIGHT TOTAL
PART NO	D mm	H mm	L mm	W mm	A inch	X mm	BSW	kg	kg	kg
RIF-FA10	100	145	103	88	3/8	38,1	5/16 - 18	0,33	0,41	0,74
RIF-FA9	93	185	143	88	3/8	38,1	5/16 - 18	0,33	0,46	0,79
RIF-FA8	93	185	143	88	3/8	38,1	5/16 - 18	0,33	0,48	0,81
RIF-FA39	93	142	100	88	3/8	38,1	5/16 - 18	0,33	0,39	0,72



RECOMMENDED FOR HEAVY DUTY:

RYCO RHF Series Heavy Duty Inline Filters are designed for installation in return lines or suction lines of both stationary and mobile hydraulic equipment.

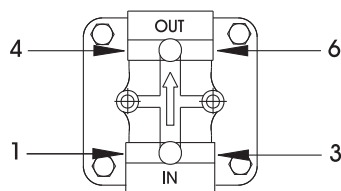
Heavy duty design, maximum working pressures up to 20 bar (290 psi) and high flow rates enable these Filters to be used in a wide range of applications. They may also be used for low pressure delivery applications.

There are three sizes: **RHF-05**, **RHF-10** and **RHF-20**; with **RHF-10** and **RHF-20** models each available with two different Port sizes.

In addition to standard Filter Elements, 149 Micron Stainless Steel Mesh Filter Elements are available. They are especially suitable for Suction Line use, as they are easier to service than an in-tank Suction Strainer.

FEATURES:

- All Aluminium Cast Construction.
- One Piece castings for Filter Head and Bowl.
- Tapped mounting holes.
- Easy to install.
- BSPP threaded Ports.
- Inlet and Outlet Ports are clearly identified.
- Sealing of Filter Head and Bowl is by O Ring located in groove in Bowl.
- Bypass Valve in the Aluminium Head.
- Two different Bypass Valve cracking pressures are available to suit Return Lines or Suction Lines, plus Blocked Bypass for special applications.
- Drain Plug on **RHF-10** and **RHF-20** sizes allows Filter to be drained prior to changing Filter Element.
- Clogging Indicators available, see page 370.
- Tapped and Plugged Port for Clogging Indicator. Position 3 on Inlet Port is tapped (for Return Line Filters). If required, Positions 1, 4 or 6 can also be tapped.



TECHNICAL DATA

- **Filter Head and Bowl:** Cast Aluminium.
- **Gasket:** Nitrile (Buna N) oil resistant rubber O Ring between Filter Head and Bowl.
- **Filtration Ratings:** 10 Micron Nominal; 25 Micron Nominal; and 149 Micron Absolute.
- **Filtration Media:** 10 and 25 Micron Nominal are Cellulose, phenolic resin impregnated; 149 Micron is Stainless Steel Mesh. All are extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.
- **Maximum Working Pressure/Vacuum:**
20 bar/290 psi in Return Line applications.
635 mmHg/25 inHg Maximum Vacuum in Suction Line applications. Recommended use for suction lines is Stainless Steel Mesh Filter Element, Cellulose not recommended.
5.5 bar/80 psi for Return Line applications with Blocked Bypass Valve.
- **Operating Temperature:**
80°C (176°F) maximum continuous working temperature.
- **Fluid Compatibility:** Mineral/petroleum based hydraulic oils.
- **Bypass Valve Position:** In Filter Head.
- **Bypass Valve Differential Cracking Pressure:**
RIF-R Series for return lines 1,0 bar/14.5 psi.
RIF-S Series for suction lines 0,2 bar/2.9 psi.
RIF-B Series Blocked Bypass for special applications.
- **Clogging Indicators:** **RGR** Gauge for Return Lines. Colour coded Green & Red sectors for quick visual inspection.
RGS Gauge calibrated with negative pressures (for Suction Lines) and positive pressures (for Return Lines).
RGS02 Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines.
REIR and **REIS** Electrical Indicators.
See page 370 for more information on Clogging Indicators.
- **Nominal Flow Rates:** As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) or **RHF-R** and 0,03 bar (0.5 psi) for **RHF-S** with 30 centistoke viscosity oil (see page 380 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 383 for "Pressure Drop Flow Graphs", pages 384 and 385 for "Warnings and Filter Selection Guidelines", and pages 386 and 387 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

MOUNTING OPTIONS

RYCO RHF Series Filters can be mounted to equipment by means of two tapped mounting holes in head.

Filters can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Head casting.

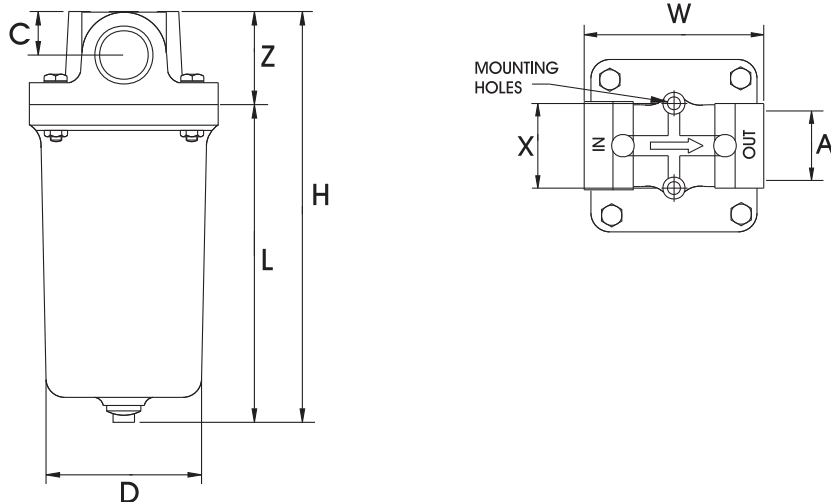
Allow length L of Bowl clearance below Bowl to allow Filter Elements to be changed.

Instructions for changing filter elements are shown on page 390.

PART NUMBERS AND SPECIFICATIONS

COMPLETE FILTER		PORT BSSP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM		NOMINAL FILTRATION	REPLACEMENT FILTER ELEMENT
SERIES	PART NO	INCH	LPM			MICRON	PART NO
Return Filter 1,0 bar Bypass	RHF-R050410	1/2	20	20 bar	290 psi	10	RHF-E0510
	RHF-R050425	1/2	25	20 bar	290 psi	25	RHF-E0525
	RHF-R100610	3/4	35	20 bar	290 psi	10	RHF-E1010
	RHF-R100625	3/4	55	20 bar	290 psi	25	RHF-E1025
	RHF-R100810	1	35	20 bar	290 psi	10	RHF-E1010
	RHF-R100825	1	55	20 bar	290 psi	25	RHF-E1025
	RHF-R201010	1.1/4	95	20 bar	290 psi	10	RHF-E2010
	RHF-R201025	1.1/4	150	20 bar	290 psi	25	RHF-E2025
	RHF-R201210	1.1/2	95	20 bar	290 psi	10	RHF-E2010
	RHF-R201225	1.1/2	150	20 bar	290 psi	25	RHF-E2025
Suction Filter 0,2 bar Bypass	RHF-S0504149	1/2	5	635 mmHg	25 inHg	149	RHF-E05149
	RHF-S1006149	3/4	15	635 mmHg	25 inHg	149	RHF-E10149
	RHF-S1008149	1	15	635 mmHg	25 inHg	149	RHF-E10149
	RHF-S2010149	1.1/4	40	635 mmHg	25 inHg	149	RHF-E20149
	RHF-S2012149	1.1/2	40	635 mmHg	25 inHg	149	RHF-E20149
Blocked Bypass Filter	RHF-B0504XX	1/2	REPLACE XX IN PART NUMBER WITH 10, 25 OR 149 MICRON AS REQUIRED.			XX	RHF-E05XX
	RHF-B1006XX	3/4				XX	RHF-E10XX
	RHF-B1008XX	1				XX	RHF-E10XX
	RHF-B2010XX	1.1/4				XX	RHF-E20XX
	RHF-B2012XX	1.1/2				XX	RHF-E20XX

DIMENSIONS



CASTING SIZE	BOWL DIAMETER	OVERALL HEIGHT	BOWL HEIGHT	WIDTH ACROSS PORTS	PORT THREAD BSSP	PORT CENTRE TO TOP	HEAD TOP TO GASKET	MOUNTING HOLE CENTRES	MOUNTING HOLE THREADS	WEIGHT FILTER ELEMENT	WEIGHT TOTAL
	D mm	H mm	L mm	W mm	A inch	C mm	Z mm	X mm		kg	kg
RHF-05	66	149	105	88	1/2	21	44	38	M8 x 1,25	0,12	0,9
RHF-10	88	185	135	114	3/4 or 1	23	50	44	M8 x 1,25	0,15	1,5
RHF-20	119	305	240	142	1.1/4 or 1.1/2	31	65	57	M10 x 1,5	0,37	3,5



RECOMMENDED FOR:

RYCO RTI and **RFI** Series Tank Top Filters are designed for Return Line installation on the top of hydraulic oil reservoirs on earth moving, construction, agricultural and industrial equipment. They are compact and easy to mount, and only a small part of the Filter projects above the top of the reservoir. The Filter Element is replaceable by removing the Top Cover Plate.

RTI Tank Immersed Series has Inlet Port above the top of the tank.
RFI Fully Immersed Series has Inlet Port below the top of the tank.

FEATURES:

- All Aluminium Cast Construction.
- One-Piece casting for Main Body Housing.
- Cast Top Cover Plate.
- Maximum Working Pressure 10 bar (150 psi) all sizes.
- Inlet Port (BSPP) is at side of Filter.
- NOTE: **RTI-R10** has two Inlet ports.
Both can be used, otherwise one must be plugged - plug not supplied.
- Outlet Port (BSPP) is at bottom of Filter.
- Easy installation of **RYCO RD** Series Diffuser onto Outlet Port, see page 374.
- Outlet Port can be extended below the level of the oil, to reduce foaming and aeration.
- O Ring seals Top Cover Plate to Main Body Housing.
- Bypass Valve built into the Filter Element.
- Flow of oil bypasses the Filter Element if the Filter becomes blocked with contaminant.
- Permanent magnet bonded to bottom of Top Cover Plate to catch coarse ferrous particles.
- Gauge Port tapped into Top Cover Plate.
- Clogging Indicators available, see page 370.
- Supplied with Gasket to seal Filter to Tank.
- **RTI** Series have O Ring located in groove in mounting flange, to seal filter housing to reservoir.
- **RFI** Series have Cork Gasket, to seal filter housing to reservoir.

TECHNICAL DATA

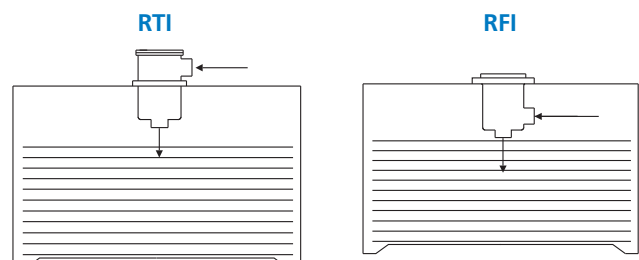
- **Main Body Housing and Top Cover Plate:**
Cast Aluminium.
- **Gaskets:**
 1. Nitrile (Buna N) oil resistant rubber O Ring between Main Body Housing and Top Cover Plate.
 2. **RTI** Series: O Ring supplied for seal between Main Body Housing and Tank.
RFI Series: Cork Gasket supplied for seal between Main Body Housing and Tank.
- **Filtration Media:** Cellulose, phenolic resin impregnated; extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.
- **Filtration Ratings:**
10 Micron Nominal, and 25 Micron Nominal.
- **Maximum Working Pressure:**
10 bar/150 psi in Return Line applications.
Not suitable for Suction Line applications.
- **Operating Temperature:** 80°C (176°F) maximum continuous working temperature.
- **Fluid Compatibility:**
Mineral/petroleum based hydraulic oils.
- **Bypass Valve Position:** In Filter Cartridge.
- **Bypass Valve Differential Cracking Pressure:**
1,0 bar/14.5 psi.
- **Clogging Indicators:** **RGR** Gauge for Return lines. Colour coded Green & Red sectors for quick visual inspection.
REI Electrical Indicators.
See page 370 for more information on Clogging Indicators.
- **Nominal Flow Rates:** As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) with 30 centistoke viscosity oil (see page 380 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 383 for "Pressure Drop Flow Graphs", pages 384 and 385 for "Warnings and Filter Selection Guidelines", and pages 385 and 386 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

MOUNTING OPTIONS

RYCO RTI and **RFI** Series Filters are mounted in the top of the reservoir. A circular hole is cut in the reservoir. Mounting bolt holes are drilled (and tapped if required) and the Filter Housing is bolted in place.

The Filters can be mounted inline between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Housing casting, and the housing is supported.

Instructions for changing Filter Element are shown on page 390.



PART NUMBER AND SPECIFICATIONS

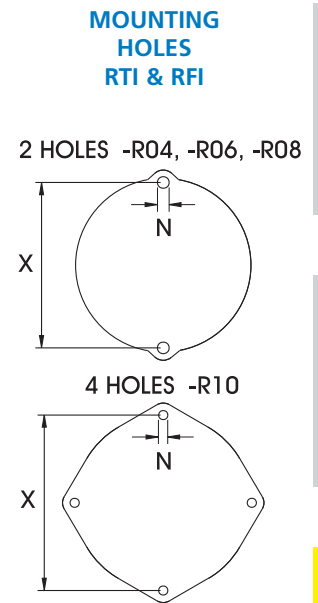
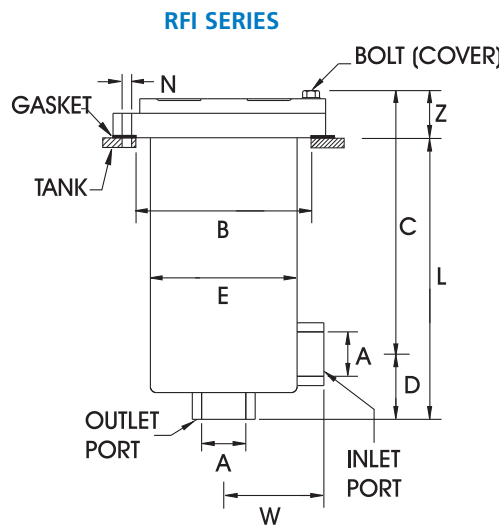
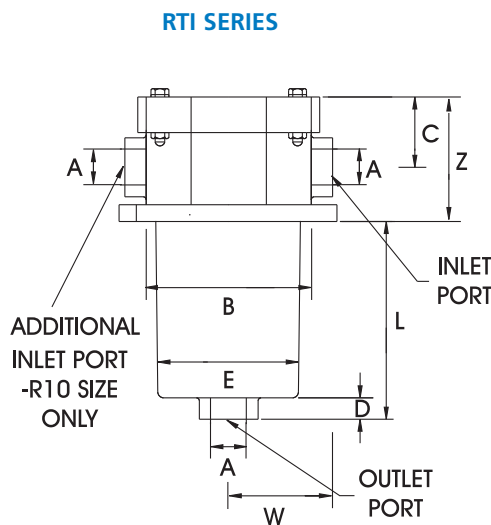
COMPLETE FILTER	PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE		NOMINAL FILTRATION	REPLACEMENT FILTER ELEMENT
PART NO	INCH	LPM	BAR	psi	MICRON	PART NO
RTI-R0410	1/2	10	10	150	10	RTI-E0410
RTI-R0425	1/2	20	10	150	25	RTI-E0425
RTI-R0610	3/4	25	10	150	10	RTI-E0610
RTI-R0625	3/4	50	10	150	25	RTI-E0625
RTI-R0810	1 INLET 3/4 OUTLET	40	10	150	10	RTI-E0810
RTI-R0825	1 INLET 3/4 OUTLET	65	10	150	25	RTI-E0825
RTI-R1010*	1.1/4*	90	10	150	10	RTI-E1010
RTI-R1025*	1.1/4*	110	10	150	25	RTI-E1025
RFI-R0410	1/2	10	10	150	10	RFI-E0410
RFI-R0425	1/2	20	10	150	25	RFI-E0425
RFI-R0610	3/4	25	10	150	10	RFI-E0610
RFI-R0625	3/4	50	10	150	25	RFI-E0625
RFI-R0810	1	40	10	150	10	RFI-E0810
RFI-R0825	1	65	10	150	25	RFI-E0825
RFI-R1010	1.1/4	90	10	150	10	RFI-E1010
RFI-R1025	1.1/4	110	10	150	25	RFI-E1025

* NOTE: **RTI-R10** has two Inlet Ports. Both can be used, otherwise one must be plugged - plug not supplied.

NOTE: **RTI-E** and **RFI-E** Filter Elements are interchangeable (except **RTI-E1010**, **RTI-E1025**, **RFI-E1010** and **RFI-E1025**).

NOTE: **RTI-R08** has 1 inch BSPP Inlet Port and 3/4 inch BSPP Outlet Port.

DIMENSIONS



RYCO FILTER SERIES	PORT THREAD BSPP	BOWL DIAMETER	INTO TANK HEIGHT	PORT HEIGHT	WIDTH PORT TO CENTRE	PORT CENTRE TO TOP	HEAD TOP TO GASKET	MOUNTING DIMENSIONS			WEIGHT FILTER ELEMENT	WEIGHT TOTAL
								APERTURE DIAMETER	HOLE CIRCLE	HOLE DIAMETER		
	A inch	E mm	L mm	D mm	W mm	C mm	Z mm	B mm	X mm	N mm	kg	kg
RTI-R04	1/2	63	78	13	51	30	55	66	90	6,6 x 2	0,10	0,72
RTI-R06	3/4	85	90	13	70	42	75	89	114	8,2 x 2	0,16	1,42
RTI-R08	1 IN 3/4 OUT	85	125	13	70	42	75	89	114	8,2 x 2	0,22	1,70
RTI-R10	1.1/4	122	232	19	89	55	99	130	175	10,5 x 4	0,57	4,20
RFI-R04	1/2	75	106	35	49	92	20	81	100	7,0 x 2	0,10	0,73
RFI-R06	3/4	94	118	50	61	92	24	110	126	9,0 x 2	0,16	1,10
RFI-R08	1	94	159	52	61	134	24	110	126	9,0 x 2	0,22	1,33
RFI-R10	1.1/4	125	246	56	83	217	28	150	175	9,0 x 4	0,57	3,55



RECOMMENDED FOR:

RYCO RCF Series Combination Filters are designed for installation in both stationary and mobile industrial hydraulic equipment, and are suited to large systems. With 20 bar (290 psi) maximum working pressure; high flow rates; optional use of either, or both Inlet Ports; mounting options of either tank top or inline; 10, 25 and 149 Micron Cartridges for Return Line or Suction Line use; **RCF** Filters combine the advantages of **RHF** Heavy Duty and **RTI** Tank Top into a single Filter Range.

FEATURES:

- All Aluminium Cast Construction.
- One-Piece casting for Main Body Housing.
- Cast Top Cover Plate.
- BSPP Ports up to 1.1/2".
- SAE Code 61 Ports for 2.1/2" size (with UNC Bolt Holes).
- Two Inlet Ports at side of Filter housing (both can be used, otherwise one must be plugged - plug not supplied).
- Outlet Port is at bottom of Filter.
- Easy installation of **RYCO RD** Series Diffuser, see page 374.
- Outlet Port can be extended below the level of the oil, to reduce foaming and aeration.
- Two different Bypass Valve cracking pressures are available to suit Return Line or Suction Lines, except **RCF-04** size only available as Return Line Filter.
- Permanent magnet bonded to bottom of Top Cover Plate to catch coarse ferrous particles.
- Gauge Port tapped into Top Cover Plate.
- Clogging Indicators available, see page 370.

TECHNICAL DATA

- **Main Body Housing and Top Cover Plate:**
Cast Aluminium.
- **Gaskets:**
 1. Nitrile (Buna N) oil resistant rubber O Ring between Main Body Housing and Top Cover Plate.
 2. Cork Gasket supplied for seal between Main Body Housing and Tank.

TECHNICAL DATA (CONTINUED)

- **Filtration Media:**
10 and 25 Micron Nominal are Cellulose, phenolic resin impregnated; 149 Micron is Stainless Steel Mesh. All are extensively pleated to maximise surface area available to trap contaminants and maximise dirt holding capacity.
- **Filtration Ratings:**
10 Micron Nominal, 25 Micron Nominal; and 149 Micron Absolute. 149 Micron not available in **RCF-SP04149** size.
- **Maximum Working Pressure/Vacuum:**
20 bar/290 psi in Return Line applications.
635 mmHg/25 inHg Maximum Vacuum in Suction Line applications. Recommended use for Suction Lines is Stainless Steel Mesh Cartridges, Cellulose is not recommended.
- **Operating Temperature:**
80°C (176°F) maximum continuous working temperature.
- **Fluid Compatibility:**
Mineral/petroleum based hydraulic oils.
- **Bypass Valve Position:** attached to Top Cover Plate; except RCF-04 size has Bypass Valve in Cartridge.
- **Bypass Valve Differential Cracking Pressure:**
RHF-R Series for Return Lines 1,0 bar/14.5 psi.
RCF-S Series for Suction Lines 0,2 bar/2.9 psi.
- **Clogging Indicators:**
RGR Gauge for Return Lines. Colour coded Green & Red sectors for quick visual inspection.
RGS Gauge, calibrated with negative pressures (for Suction Lines) and positive pressures (for Return Lines).
RGS02 Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines.
REIR and **REIS** Electrical Indicators.
See page 370 for more information on Clogging Indicators.
- **Nominal Flow Rates:** As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) for **RCF-R** and 0,03 bar (0.5 psi) for **RCF-S** with 30 centistoke viscosity oil (see page 380 for more detail). The actual flow rate will vary if the oil is of different viscosity. See also page 383 for "Pressure Drop Flow Graphs", pages 384 and 385 for "Warnings and Filter Selection Guidelines", and pages 386 and 387 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

MOUNTING OPTIONS

RYCO RCF Series Filters can be mounted in the top of the reservoir. A circular hole is cut in the reservoir. Mounting bolt holes are drilled (and tapped if preferred) and the Filter Housing is bolted in place.

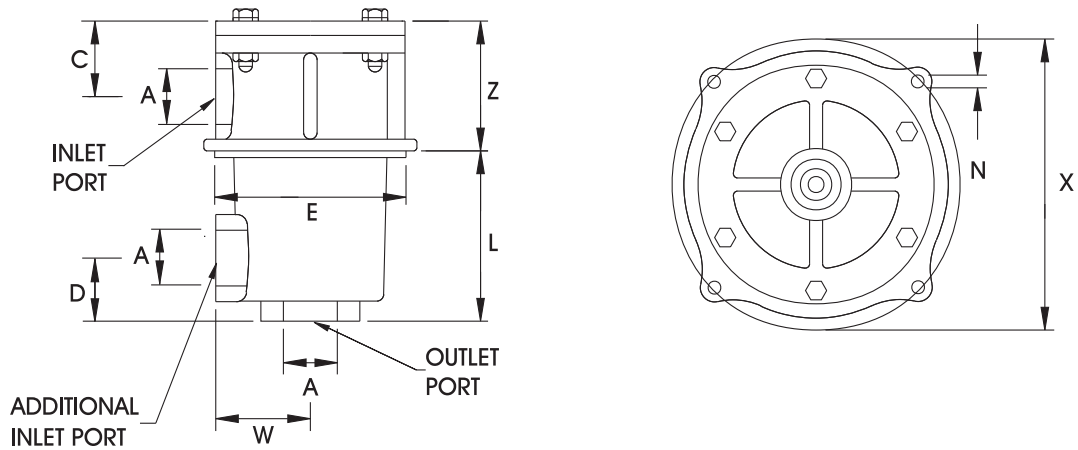
RCF Filters can be mounted inline directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter housing, and the Housing is supported.

See page 390 for instructions on changing Filter Elements.

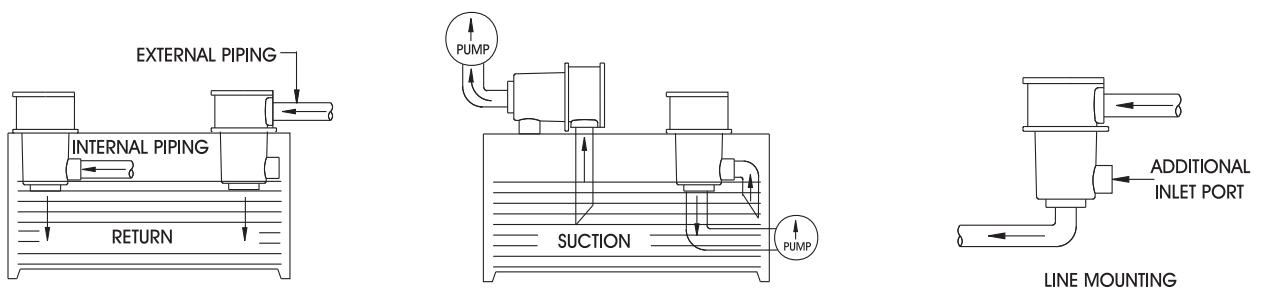
PART NUMBERS AND SPECIFICATIONS

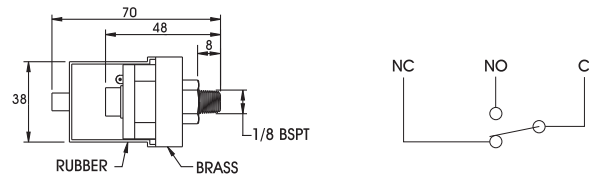
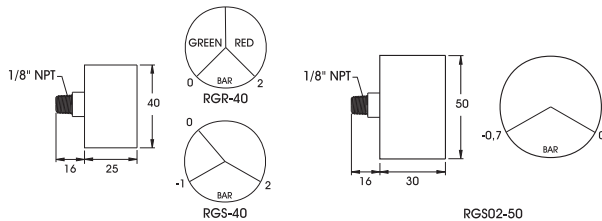
COMPLETE FILTER		PORT BSPP	NOMINAL FLOW	MAXIMUM WORKING PRESSURE/VACUUM	NOMINAL FILTRATION	REPLACEMENT FILTER ELEMENT	
SERIES	PART NO	INCH	LPM		MICRON	PART NO	
Return Filter 1,0 bar Bypass	RCF-RP0410	1/2 BSPP	10	20 bar	290 psi	10	RCF-E0410
	RCF-RP0425	1/2 BSPP	20	20 bar	290 psi	25	RCF-E0425
	RCF-RP0610	3/4 BSPP	25	20 bar	290 psi	10	RCF-E0610
	RCF-RP0625	3/4 BSPP	45	20 bar	290 psi	25	RCF-E0625
	RCF-RP0810	1 BSPP	45	20 bar	290 psi	10	RCF-E0810
	RCF-RP0825	1 BSPP	80	20 bar	290 psi	25	RCF-E0825
	RCF-RP1210	1.1/2 BSPP	100	20 bar	290 psi	10	RCF-E1210
	RCF-RP1225	1.1/2 BSPP	120	20 bar	290 psi	25	RCF-E1225
	RCF-RC2010	2.1/2 CD61	400	20 bar	290 psi	10	RCF-E2010
RCF-RC2025	2.1/2 CD61	540	20 bar	290 psi	25	RCF-E2025	
Suction Filter 0,2 bar Bypass	RCF-SP06149	3/4 BSPP	15	635 mmHg	25 inHg	149	RCF-E06149
	RCF-SP08149	1 BSPP	30	635 mmHg	25 inHg	149	RCF-E08149
	RCF-SP12149	1.1/2 BSPP	60	635 mmHg	25 inHg	149	RCF-E12149
	RCF-SP20149	2.1/2 CD61	100	635 mmHg	25 inHg	149	RCF-E20149

DIMENSIONS



RYCO FILTER SERIES	PORT	INTO TANK HEIGHT	PORT HEIGHT	WIDTH PORT TO CENTRE	PORT CENTRE TO TOP	HEAD TOP TO GASKET	MOUNTING DIMENSIONS				WEIGHT ELEMENT	WEIGHT TOTAL
							FLANGE DIAMETER	APERTURE DIAMETER	HOLE CIRCLE	HOLE DIAMETER		
RCF-04	1/2 BSPP	73	26	51	34	53	82	84	95	6,6 x 4 OFF	0,10	0,82
RCF-06	3/4 BSPP	99	26	57	44	78	121	123	138	6,6 x 4 OFF	0,16	2,06
RCF-08	1 BSPP	143	52	73	65	105	135	137	152	6,6 x 4 OFF	0,22	3,60
RCF-12	1.1/2 BSPP	212	73	88	72	126	161	163	180	8,2 x 4 OFF	0,49	6,40
RCF-20	2.1/2 CD61	222	87	120	93	168	234	237	275	10,2 x 4 OFF	0,92	14,40





RECOMMENDED FOR:

RYCO Clogging Indicators are designed for use with **RYCO RIF-10, RIF-12, RIF-06, RHF, RTI, RFI** and **RCF** Series Filters. They indicate the flow restriction across the Filter and allow quick visual inspection of the need to change the Filter Element, before it becomes clogged and the Bypass Valve opens, to avoid the risk of Element damage or collapse.

Without a Clogging Indicator, it is not possible to visually determine if the Bypass Valve is open or closed. If the Bypass Valve is open, the flow of oil bypasses the Filter Element. The oil is not being filtered, and the hydraulic system is not being protected by the Filter.

SPECIFICATIONS: GAUGES

Part No RGR-40 Return Line Gauge

Mounted in a Gauge Port on the Inlet Port of Return Line Inline Filter Heads*, or the Top Cover Plate of **RTI/RFI** Tank Top and **RCF-R** Combination Filters, to indicate the flow restriction.

When the needle is in the GREEN zone, the flow restriction is less than 1,0 bar (14.5 psi) and the Bypass Valve is closed. All flow is filtered through the Element.

When the needle is in the RED zone, the Bypass Valve is open and the flow is not filtered.

Filter Elements require replacing before the needle enters the RED zone.

Part No RGS-40 Suction Line Gauge

Mounted in a Gauge Port on the Outlet Port of Suction Line Inline Filter Heads* and the Top Cover Plate of **RCF-S** Combination Filters, to indicate the flow restriction.

The Gauge shows negative pressure readings. When the needle indicates -0,2 bar (-5.9 inHg) or beyond, the Bypass Valve is open and the flow is not being filtered.

Filter Elements require replacing before the needle reaches -0,2 bar (-5.9 inHg).

Part No RGS02-50 - Stainless Steel, Glycerine filled, 50mm Suction Line Gauge

Mounted in a Gauge Port on the Outlet Port of Suction Line Inline Filter Heads** and the Top Cover Plate of **RCF-S** Combination Filters, to indicate the flow restriction.

The Gauge shows negative pressure readings. When the needle indicates -0,2 bar (-5.9 inHg) or beyond, the Bypass Valve is open and the flow is not being filtered.

Filter Elements require replacing before the needle reaches -0,2 bar (-5.9 inHg).

SPECIFICATIONS: ELECTRICAL INDICATORS

Part No REIR Return Line Electrical Indicator

REIR Electrical Indicators are mounted in a Gauge Port on the Inlet Port of Return Line Inline Filter Heads* and the Top Cover Plate of **RTI/RFI** Tank Top Filters and **RCF-R** Combination Filters. They are designed to operate a warning buzzer or light when the flow restriction reaches 1,0 bar (14.5 psi), or other preset value.

Part No REIS Suction Line Electrical Indicator

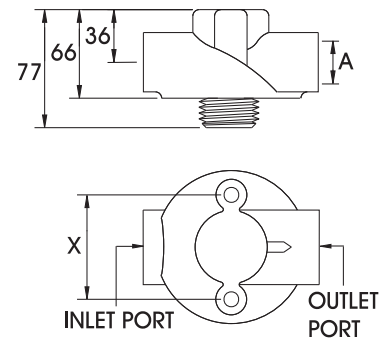
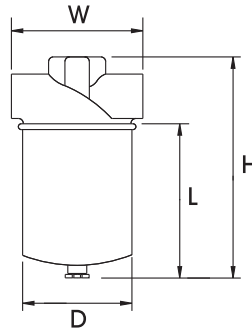
REIS Electrical Indicators are mounted in a Gauge Port on the Outlet Port of Suction Line In Line Filter Heads* and the Top Cover Plate of **RCF-S** Combination Filters. They are designed to operate a warning buzzer or light when the flow restriction reaches -0,2 bar (-5.9 inHg), or other preset value.

TECHNICAL DATA

- **Electrical Micro Switch:**
Maximum 3A-250V AC.
- **Operating Temperature:**
85°C (185°F) maximum continuous working temperature.
- **Test Pressure:**
10 bar/150 psi.
- **Maximum Working Pressure Range:**
REIR can be adjusted via screw to trigger at pressures from 0,5 to 2,0 bar (7.3 to 29 psi).
REIS can be adjusted via screw to trigger at pressures from -0,15 to -0,4 bar (-2.2 to -5.8 psi).

*NOTE: Not suitable for use with **RIF14-1, RIF-FA** Series, **RIF15**.

#NOTE: Requires the use of **S72N-0202** with **RIF-SH10** filter head.



RECOMMENDED FOR:

RYCO RIF15 Filters are designed for installation on petrol, kerosene, and diesel fuel storage tanks, with gravity feed or pressure to 7 bar (100 psi), to remove solid particles and water from the fuel. Contact RYCO Hydraulics Technical Department for suitability with Ethanol Blend Fuels.

Not suitable for aviation applications.

FEATURES:

- Disposable Spin-On Canister.
- Changing of Filter Element is quick and simple.
- Extremely fine Filter, silicone treated to resist water; removes dirt, rust, grit and water.
- Cartridge has tap at bottom to enable trapped water to be manually drained off at regular intervals.
- Cast Aluminium Head with tapped mounting holes.
- Easy to install.
- 1" BSPT threaded Ports.
- Inlet and Outlet Ports are clearly identified by a flow direction arrow.
- Bypass Valve is not fitted to RIF15 Filters.
- Flow of fluid through the Filter will slow as the Canister traps contaminants. Before the flow becomes too slow, the Canister should be drained of trapped water via the tap (turn off flow to the filter before draining). Slow flow of fuel after draining the trapped water indicates that the Canister has become blocked by contaminants and must be replaced. Spin-On Canister must be replaced at maximum intervals of twelve months, or earlier if it has become blocked.

TECHNICAL DATA

- **Filter Head:**
Cast Aluminium.
- **Spin-On Canister Housing:**
Painted steel casing. Pressed steel top plate.
- **Gasket:**
Nitrile (Buna N) rubber; resistant to petrol, kerosene and diesel fuel.
- **Filtration Media:**
Cellulose, phenolic resin impregnated, and silicone treated for water resistance; extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.
- **Filtration Rating:**
15 Micron Nominal.
- **Maximum Working Pressure:**
7 bar (100 psi). Not suitable for Suction Line applications.
- **Operating Temperature:**
80°C (176°F) maximum continuous working temperature.
- **Fluid Compatibility:**
Petrol, kerosene and diesel fuels. Contact RYCO Hydraulics Technical Department for suitability with Ethanol Blend Fuels.
- **Nominal Flow Rates:**
At ambient temperature of 20°C (68°F), petrol and kerosene have viscosity of less than 1 centistoke; and diesel fuel has viscosity of less than 4 centistokes. Due to these low viscosities, nominal flow rate is not significantly affected by temperature except at large variance to 20°C (68°F). See pages 384 and 385 for "Warnings and Filter Selection Guidelines".

PART NUMBER AND SPECIFICATIONS

COMPLETE FILTER	PORT BSPT	NOMINAL FLOW	MAXIMUM WORKING PRESSURE		NOMINAL FILTRATION	REPLACEMENT SPIN-ON CANISTER
PART NO	INCH	LPM	BAR	psi	MICRON	PART NO
RIF15	1	60	7	100	15	R15

DIMENSIONS

CANISTER DIAMETER	OVERALL HEIGHT	CANISTER HEIGHT	WIDTH ACROSS PORTS	PORT THREAD BSPT	MOUNTING HOLE CENTRES	MOUNTING HOLE THREADS	WEIGHT HEAD	WEIGHT CANISTER	WEIGHT TOTAL
D mm	H mm	l mm	W mm	A inch	X mm	BSW	kg	kg	kg
94	220	160	116	1	63,5	3/8 - 16	0,47	0,52	0,99

MOUNTING OPTIONS

RYCO RIF15 Series Filter Heads can be mounted to equipment by means of two tapped mounting holes in head.

Filter Heads can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.

Allow 15 mm clearance below Spin-On Canister to allow Canister to be changed. Instructions for changing Canister are shown on page 390.