

 **WARNING**

To avoid unpredictable system behavior that can cause personal injury and property damage:

- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer's specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

 **CAUTION**

Polyurethane bowls, being transparent and tough, are ideal for use with Filters and Lubricators. They are suitable for use in normal industrial environments, but should not be located in areas where they could be subjected to direct sunlight, an impact blow, nor temperatures outside of the rated range. As with most plastics, some chemicals can cause damage. Polyurethane bowls should not be exposed to chlorinated hydrocarbons, ketones, esters and certain alcohols. They should not be used in air systems where compressors are lubricated with fire-resistant fluids such as phosphate ester and di-ester types.

Metal bowls are recommended where ambient and/or media conditions are not compatible with polyurethane bowls. Metal bowls resist the action of most such solvents, but should not be used where strong acids or bases are present or in salt laden atmospheres. Consult the factory for specific recommendations where these conditions exist.

TO CLEAN POLYURETHANE BOWLS USE MILD SOAP AND WATER ONLY! DO NOT use cleansing agents such as acetone, benzene, carbon tetrachloride, gasoline, toluene, etc., which are damaging to this plastic.

Bowl guards are recommended for added protection of polyurethane bowls where chemical attack may occur.

Introduction

The F31 coalescing filter is designed to remove oil and water aerosols, and particulate matter larger than 0.01 micron. It is necessary to provide the F31 coalescing filter with pre-filtered air from a particulate / moisture separator such as the F35 filter. The F31 filter element is constructed with a precision matrix of borosilicate microfibers to maximize efficiency and particulate holding capacity. Its relatively large fiber surface area, in conjunction with a small pore size, provides maximum efficiency with minimal pressure drop. Follow these instructions when installing, operating, or servicing the product.

Application Limits

These products are intended for use with compressed air in industrial applications. For other applications, consult factory before use.

Maximum Recommended Pressure Drop:

	kPa	PSIG	bar
Coalescing Filter	70	10	0.7

With Polyurethane Bowl

	kPa	PSIG	bar
Operating Pressure Maximum	1034	150	10
Operating Temperature Range	4°C to 52°C (40°F to 125°F)		

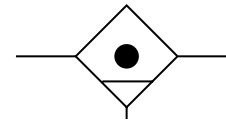
With Metal Bowl

	kPa	PSIG	bar
Operating Pressure Maximum	2068	300	21
Operating Temperature Range	4°C to 82°C (40°F to 180°F)		

With Metal Bowl with Wrap Around Sight Gauge

	kPa	PSIG	bar
Operating Pressure Maximum	1723	250	17
Operating Temperature Range	4°C to 66°C (40°F to 150°F)		

ANSI Symbols




**Coalescing
w/ Manual Drain**

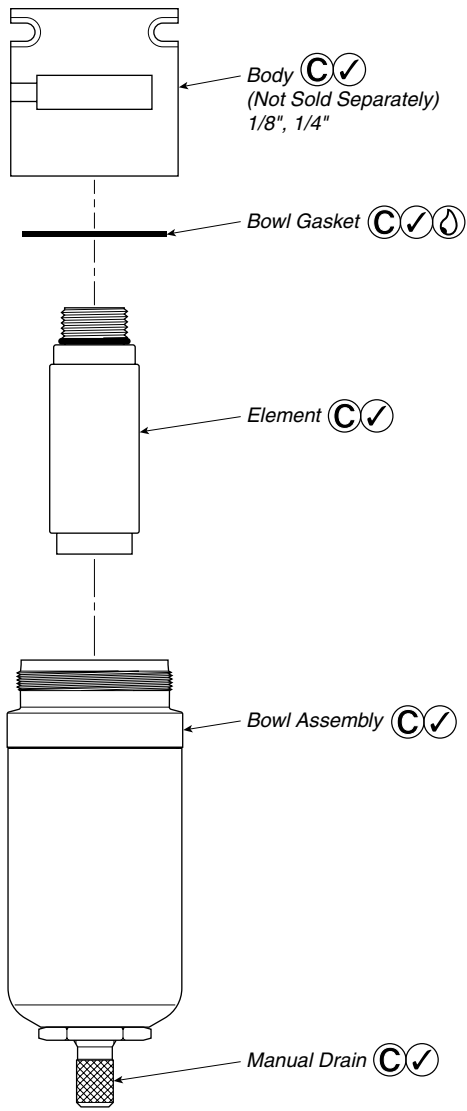
Installation

All FRL components are individually tapped (NPT or BSPP) to allow direct mounting to piping. Also, each component comes equipped with the necessary screws and O-rings to enable connection to other components of the same series without the need for pipe nipples or special adaptors. Before installing, blow out pipe line to remove scale and other foreign matter. This unit has DRYSEAL pipe threads; use pipe compound or tape sparingly to male threads only. Install units in pipe line so that flow is in direction indicated by arrows on top of body. Install as near as possible to equipment being serviced.

Maintenance

To maintain maximum filtering efficiency, and to avoid excessive pressure drop, the filter bowl and element must be kept clean. Turn drain valve clockwise, from bottom, to drain any bowl accumulation before it reaches level of lower baffle. To aid in the draining of the bowl, an internal piston drain (PN RK504SY) may be installed to automatically drain bowl accumulation (when air flow cycles). A visible coating of dirt or condensate on filter element, or an excessive pressure drop, indicates cleaning is necessary.

 **CAUTION: FILTER BOWL MUST BE CLEANED WITH HOUSEHOLD SOAP ONLY!**

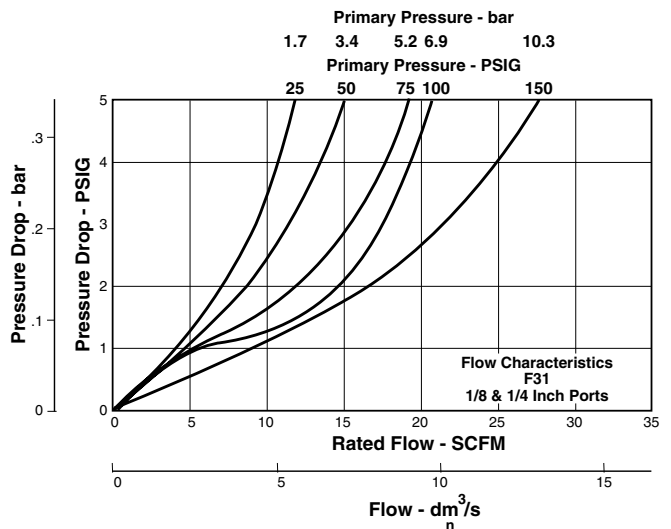


Service Kits / Parts Available

Description	F31, 1/8" & 1/4"
Bowl Gasket	GSK-504Z101
Filter Element Kits Activated Carbon Coalescing	EKF31A EKF31H
Bowl Assembly "A" - Polyurethane Bowl, 150 PSI Maximum Pressure "D" - Zinc Bowl, 300 PSI Max. Pressure "W" - Zinc Bowl w/Wraparound Sight Gauge, 250 PSI Maximum Pressure	BKF35A BKF35D BKF35W
Manual Drain	SA600Y7-1

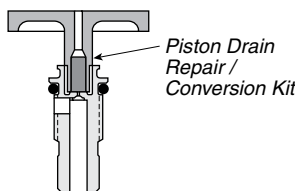
Accessories

Description	Part Number	Bowl Type
Piston Drain	RK504SY	A, D, W
Wall Mount Bracket	SAR35Y57	—



- Ⓜ Lightly grease with provided lubricant.
- ✓ Inspect for nicks, scratches, and surface imperfections. If present, reduced service life is probable and future replacement should be planned.
- Ⓢ Clean with lint-free cloth.

Piston Drain



⚠ WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from The Company, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by The Company and its subsidiaries at any time without notice.

EXTRA COPIES OF THESE INSTRUCTIONS ARE AVAILABLE FOR INCLUSION IN EQUIPMENT / MAINTENANCE MANUALS THAT UTILIZE THESE PRODUCTS. CONTACT YOUR LOCAL REPRESENTATIVE.