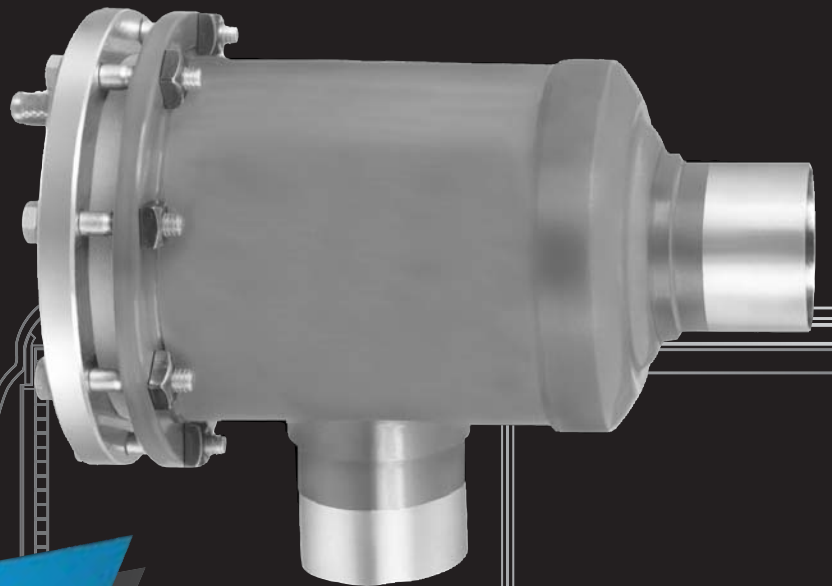




Suction Filters



Suction Filter — SEALED TYPE

With the Optional Relief Feature



Offers the following benefits:

- **Protects the compressor from dirt**
- **A relief device opens if the filter plugs**
- **Suitable for use with all brazing alloys**
- **Full flow design for low pressure drop**
- **Maximum corrosion resistance**
- **Complete line of sizes**

Sporlan offers an exclusive concept in Suction Filter design — a filter with an optional relief feature. When flow is in **one direction**, the bypass relief feature is active. If the pressure drop across the element becomes excessive, the bypass relief will open slightly to maintain sufficient gas flow and assure proper cooling of the hermetic motor.

When the Suction Filter is installed with flow in the **opposite direction**, the bypass relief feature is inactive and will never open, regardless of the increase in pressure drop.

Compressor manufacturers have found that system contaminants such as metal chips, foreign particles, oxides, etc. can cause motor burnouts. This material is carried through the suction line and becomes imbedded in the motor windings. The natural flexing of these windings during start up

causes these particles to scrape the motor insulation resulting in motor burnout.

The solution to this major problem is adequate filtration just ahead of the compressor. The filter will remove solid contaminants in the piping following installation. The filtering media used in the Sporlan Suction Filter has sufficient area and depth to provide excellent filtration, and still keeps the pressure drop to a minimum.

The "-T" in the type number indicates that these models are equipped with an **access valve** to permit pressure drop readings. Checking pressure drop with the access valve can only be performed when the suction filter is installed with the bypass feature inactive.

SUCTION FILTER – SPECIFICATIONS

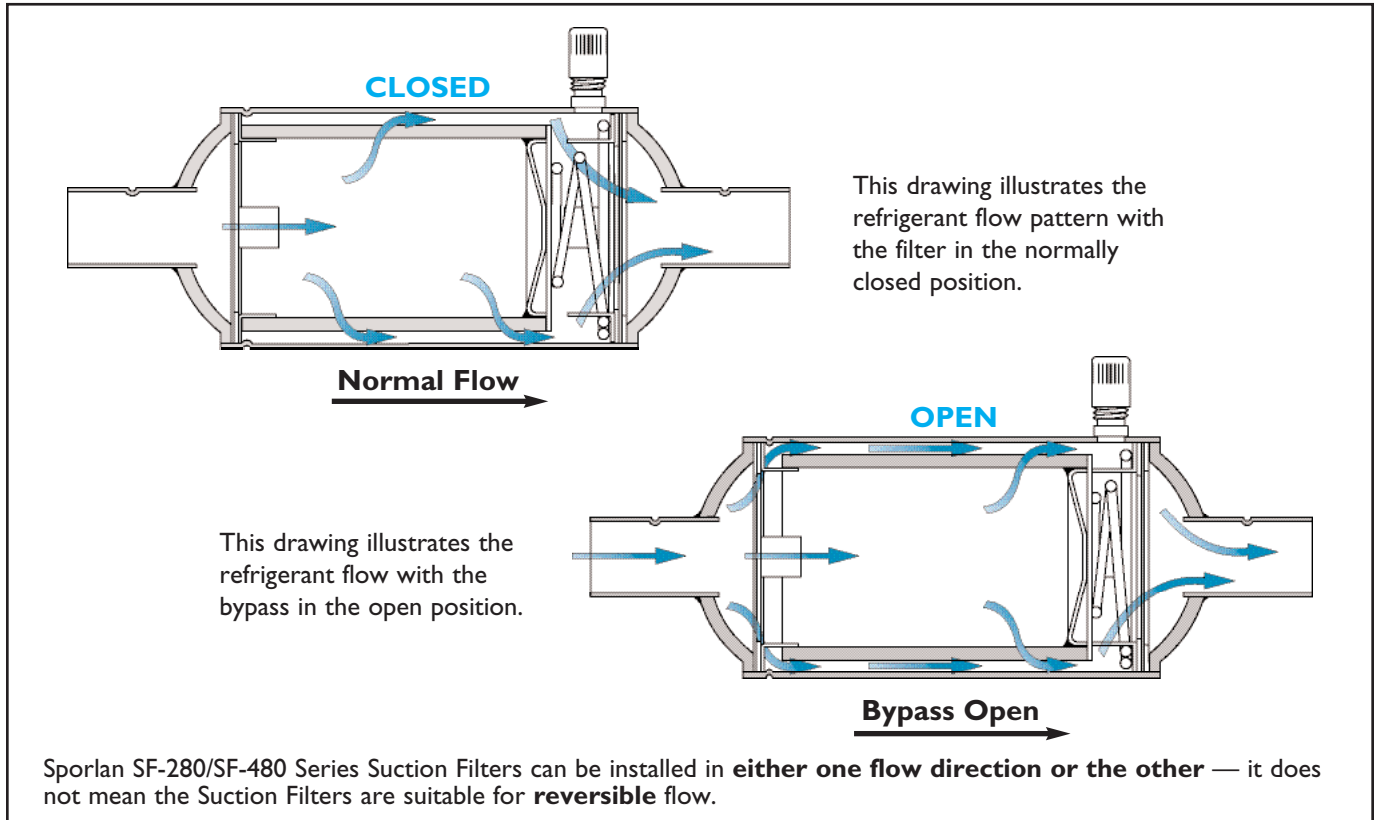
TYPE NUMBER		CONNECTIONS Inches	FILTER AREA Square Inches	DIMENSIONS Inches			SHIPPING WEIGHT Lbs.
WITHOUT Access Valve	WITH Access Valve			OVERALL LENGTH	SOCKET DEPTH	SHELL DIAMETER	
Types WITH the Optional Relief Feature							
SF-283-F	–	3/8 SAE	28	8.78	–	3.00	2-1/4
–	SF-285-T	5/8 ODF		8.34	0.62		
–	SF-286-T	3/4 ODF		8.79	0.69		
–	SF-287-T	7/8 ODF		8.93	0.75		
–	SF-289-T	1-1/8 ODF		9.51	0.91		
–	SF-489-T	1-1/8 ODF	48	12.42	0.91	3	
–	SF-4811-T	1-3/8 ODF		13.10	0.97		
–	SF-4813-T	1-5/8 ODF		13.44	1.09		
Types WITHOUT the Optional Relief Feature							
SF-114	–	1/2 ODF	11	4.36	0.50	2.00	3/4
SF-114F	–	1/2 SAE		5.25	–		
SF-115	–	5/8 ODF		4.60	0.62		
SF-115F	–	5/8 SAE		5.56	–		
–	SF-6417-T	2-1/8 ODF	388	10.94	1.24	4.75	7-1/2
–	SF-6421-T	2-5/8 ODF		10.94	1.38		

UL and ULc Listed - Guide - SMGT-File No. SA-1756A & B. M.R.P. for SF-11, SF-28 and SF-48 models is 400 psig. M.R.P. for SF-64 models is 500 psig.

OPERATION — WITH BYPASS RELIEF FEATURE —

A large filter element collects dirt returning with the suction gas, thereby protecting the compressor from damage by these contaminants. If the system is particularly dirty and the filter element becomes plugged, the unit is designed with a relief device which opens permitting suction gas to bypass the filter element. **Therefore, cooling of the hermetic motor is always maintained.** When the bypass opens,

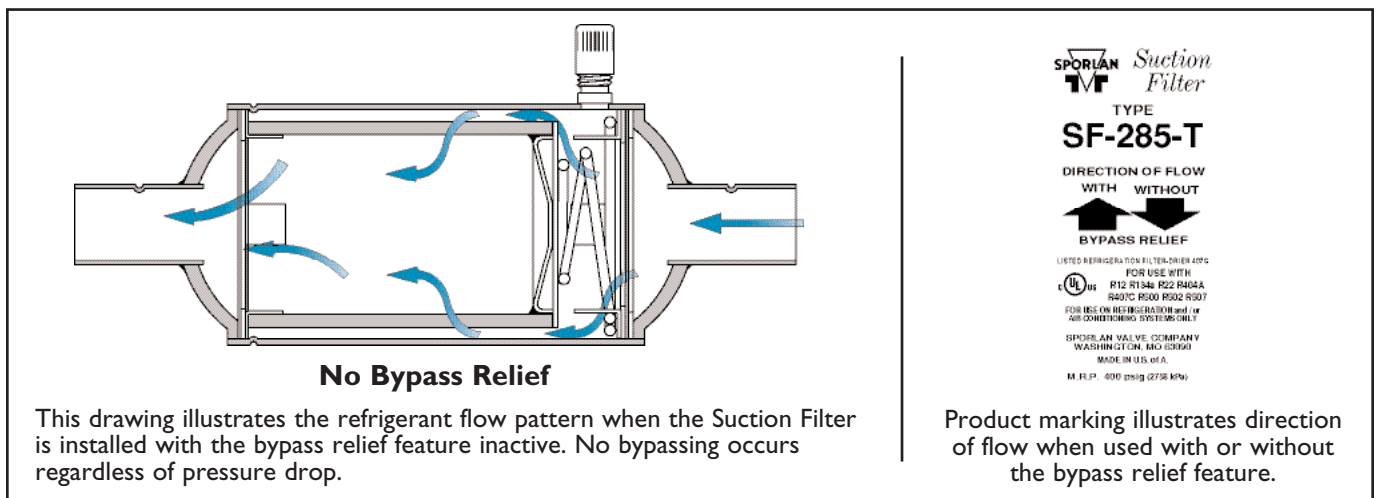
the movement is only about 0.030 of an inch. The movement creates a small opening in a shielded section at the inlet end. The dirt previously trapped is **not** released when the relief device opens. This dirt is imbedded in the fibers of the element. If additional dirt enters the Suction Filter, it will be caught in the dead pocket of the element by the change in direction of the gas flow.



OPERATION - WITHOUT BYPASS RELIEF FEATURE —

Opposite Flow Direction — The SF-280/SF-480 models can be installed with flow in either direction, depending on the preference of the user. However, on **heat pump** applications

or commercial installations using **hot gas defrost**, it is recommended that it be installed with the **bypass inactive**. This prevents excessive cycling of the element which might damage the filtering media.



APPLICATION — The Suction Filter should be used in the suction line — not as a liquid line filter. The Catch-All Filter-Drier is designed to be used in the liquid line to protect the system from excessive moisture, dirt and acids. The most important application for the Suction Filter is on

remote systems with long lines. The filter will collect dirt that is in the evaporator or suction line at start up, and thus protect the new compressor. A field build up system requiring cutting and/or brazing of lines needs the protection of a suction filter.

However, on heat pump applications or commercial installations using hot gas defrost, it is recommended that it be installed with the bypass inactive.

HERMETIC MOTOR BURNOUT — After a hermetic motor burnout, a system should be cleaned using a Catch-All Suction Line Filter-Drier installed in the suction line directly ahead of the compressor. The Catch-All will remove acid and moisture which are formed during the burnout as well as solid contaminants.

In some instances the motor burnout is mild and only a small amount of acid is formed. This can be determined by testing the oil from the burned out compressor with the Sporlan Acid Test Kit. If the acidity of the oil is within the acceptable limits and clean, then a "mild burnout" has occurred. Under these conditions, an oversized Catch-All should be installed in the liquid line to remove any residual moisture and acid present, and a **Sporlan Suction Filter** can be used to protect the new compressor.

CORROSION RESISTANCE — The condensation and moisture conditions of the suction line make external corrosion resistance an important consideration. The Sporlan Suction Filter is protected with an epoxy coating, offering excellent corrosion resistance. Sporlan uses copper fittings for ODF solder and nickel plated steel for the SAE flare connections.

DEHYDRATION — All Sporlan Suction Filters are dehydrated immediately after assembly and then sealed to prevent any moisture pickup. The service engineer is therefore assured of a completely dry Suction Filter when installed.

INSTALLATION — The Sporlan Suction Filter may be installed with any brazing alloy including, Easy-Flo, Sil-Fos, Phos-Copper or Sta-Brite. Unlike filters with brass fittings, the Sporlan Suction Filter can be installed using Sil-Fos or Phos-Copper, without flux. The Sporlan design uses internal heat insulators which prevent any possible damage to the filter element during brazing. Naturally, it is good practice to cover the shell with a wet rag and direct the flame away from the filter shell to prevent damage to the epoxy coating.

For maximum protection, the filter should be installed as close to the compressor as practical.

The Suction Filter can be installed in either the horizontal or vertical position. If the vertical installation is used, the flow direction should be down for optimum oil return. The flow velocity through the various sections of the Suction Filter is the same as the velocity in the suction line. Therefore, the Suction Filter will not act as an oil trap, and proper oil return will be obtained.

WITHOUT BYPASS RELIEF FEATURE — The SF-110 Series and the SF-6400 Series Suction Filters are supplied without the bypass relief feature. Their specifications are listed at the bottom of the table on page 2, and their rating and selection recommendations are shown in the table below.

Except for not offering the bypass feature, the SF-110 and SF-6400 Series are identical in construction, and offer the same features as the other Suction Filters. The SF-6400 Series Suction Filters can be mounted using a standard A-685 Mounting Bracket.

SELECTION RECOMMENDATIONS

TYPE NUMBER		CONNECTIONS Inches	* FLOW CAPACITY IN TONS EVAPORATOR TEMPERATURE																NOMINAL SYSTEM HORSEPOWER			
WITHOUT Access Valve	WITH Access Valve		40°F				20°F				0°F				- 20°F						- 40°F	
			PRESSURE DROP																			
			2		3		1-1/2		2		1		1-1/2		1/2		1		1/2			
			REFRIGERANT																REFRIGERANT			
		12	134a	22	407C	12	134a	22	404A	12	134a	22	404A	12	22	404A	22	404A	22	407C	12, 134a, 404A, 502, 507	
SF-114	–	1/2 ODF	1.3	1.5	2.4	2.4	0.9	1.0	1.5	1.5	0.6	0.6	1.1	1.0	0.3	0.7	0.6	0.3	0.3	1	1/2	
SF-114F	–	1/2 SAE	1.2	1.3	2.1	2.1	0.8	0.9	1.4	1.3	0.5	0.5	0.9	0.9	0.3	0.6	0.5	0.3	0.3	1	1/2	
SF-115	–	5/8 ODF	2.3	2.6	4.1	4.1	1.6	1.7	2.7	2.6	1.0	1.1	1.8	1.7	0.5	1.2	1.1	0.6	0.6	2	1	
SF-115-F	–	5/8 SAE	2.1	2.3	3.7	3.7	1.4	1.5	2.4	2.3	0.9	0.9	1.6	1.5	0.5	1.0	0.9	0.5	0.5	2	1	
SF-283F	–	3/8 SAE	1.1	1.2	2.1	2.0	0.7	0.8	1.3	1.2	0.4	0.5	0.9	0.8	0.3	0.4	0.5	0.3	0.3	1	1/2	
–	SF-285-T	5/8 ODF	3.5	4.0	6.4	6.2	2.5	2.7	4.0	3.9	1.6	1.7	2.9	2.7	0.9	1.8	1.7	1.0	0.9	4	1-1/2	
–	SF-286-T	3/4 ODF	4.3	5.1	8.6	8.1	3.1	3.4	5.0	5.1	2.0	2.1	3.6	3.4	1.1	2.2	2.1	1.2	1.1	5	1-1/2	
–	SF-287-T	7/8 ODF	6.3	7.0	11.1	11.3	4.4	4.6	7.2	7.0	2.7	2.8	5.1	4.6	1.4	3.1	2.9	1.5	1.5	7-1/2	3	
–	SF-289-T	1-1/8 ODF	8.2	9.2	14.8	14.6	5.7	6.0	9.4	9.2	3.5	3.7	6.6	6.1	1.8	4.0	3.8	2.1	2.0	7-1/2	5	
–	SF-489-T	1-1/8 ODF	8.7	9.9	16.0	15.7	6.1	6.5	10.0	9.8	3.7	3.9	7.0	6.5	1.9	4.3	4.1	2.2	2.1	10	5	
–	SF-4811-T	1-3/8 ODF	9.9	11.2	18.4	18.0	6.8	7.3	11.4	11.2	4.2	4.4	7.9	7.4	2.2	4.8	4.6	2.5	2.4	12	5	
–	SF-4813-T	1-5/8 ODF	11.7	13.3	21.6	21.3	8.1	8.7	13.5	13.3	4.9	5.2	9.4	8.7	2.6	5.6	5.4	2.9	2.8	15	7	
–	SF-6417-T	2-1/8 ODF	46.7	50.9	91.1	88.9	28.7	31.0	56.9	52.6	15.8	16.4	35.4	31.8	7.2	20.3	17.8	9.3	7.9	55	20	
–	SF-6421-T	2-5/8 ODF	50.5	62.9	119.0	109.0	36.8	38.6	70.2	64.6	20.2	20.6	44.0	39.4	9.1	25.6	22.3	11.8	10.0	60	30	

* Refrigerant 502 flow capacity is 80% of the values shown for Refrigerant 22, when expressed in TONS. When expressed in horsepower, the proper refrigerant selection is the same as for R-12.

Use R-404A flow ratings for R-507. Use R-502 horsepower recommendations for R-402A & B and R-408A. Use R-12 horsepower recommendations for R-401A & B and R-409A. Ratings are in accordance with ARI Standard 730.

REPLACEABLE *Suction Filter*

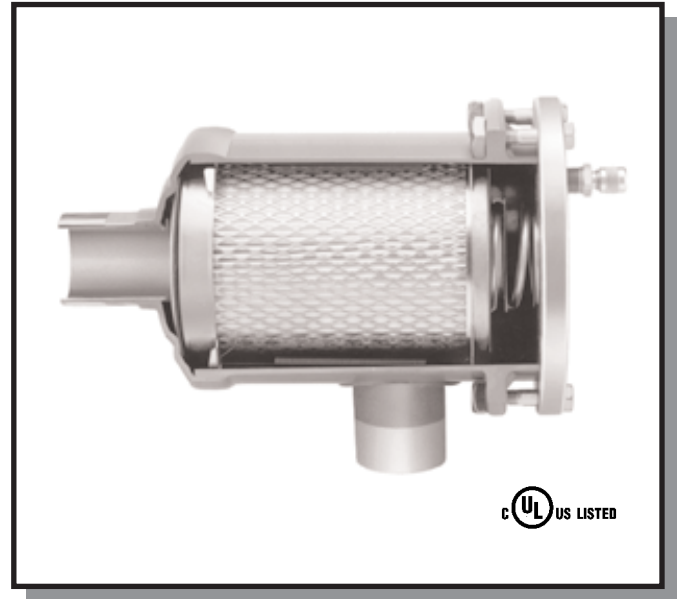
The flanged shell holds replaceable pleated filter elements, suitable for installation in the suction line of refrigeration systems. In this way solid contaminants left in the system at start up can be removed before they circulate back to the compressor and cause damage.

Another tool for system clean-up, offering the following **BENEFITS**:

- Replaceable pleated filter elements
- Can be used with desiccant cores for clean-up after burnout, if certain precautions are followed
- Highly effective filtration at low cost
- Low pressure drop due to large filtering area
- Can be installed with flow in either direction, for easy installation on compact units
- Various fittings sizes available from 1-1/8" to 3-1/8" line size. Suitable for Sil-Fos brazing
- Access valve supplied for pressure drop measurements or charging

HOW IT'S USED — Sporlan Replaceable Suction Filters are installed in the suction line of refrigeration or air conditioning systems to remove contaminants that may be in the system at start up. In this way the filter will protect the compressor from copper chips, copper oxide, metal chips, and other solid contaminants, and thus extend the life of the system. A liquid line **Catch-All Filter-Drier** is still required for removing moisture, acid, and wax. The design of the Replaceable Suction Filter, with its large fittings, permits using a small size shell on a system with large line sizes, resulting in considerable economy. The angle construction, muzzle loading of elements, and access valve all aid in making a simple installation. Sporlan's reliable flow capacity ratings permit selection of the proper size with assurance that the resulting pressure drop will be within the required limitations.

CONSTRUCTION — The design of the RSF shell and internal parts assembly allow for a **large flow area**. This construction permits the Replaceable Suction Filters to maintain a low pressure drop on large tonnage systems with large line sizes.



For temporary use in clean-up after a burnout, desiccant cores can be used by adding a special 100 mesh outlet screen, as described and shown on page 8.

With the **muzzle loading** design, the filter elements are assembled with a spacer plate at either end, held in position by three springs. This assembly is then inserted into the shell as a unit. These assemblies are inserted one at a time. Therefore, the "pull space" required to change the elements is the same for the two element shell, as for the one element shell.

A **pull bar** on the spacer plate at the flange end permits easy removal of the elements. The flange design and end plate gasket are the same as those used on the replaceable core **Catch-All Filter-Driers**. The dimensional details are given in the table of specifications on page 6. The RSF-9625-T has a concave shell end which is slightly different than shown on the drawing.

The Replaceable Suction Filters are listed by Underwriters' Laboratories, Inc. for a working pressure of 500 psi. The certified listing is UL Guide Card SMGT, File No. SA1756.

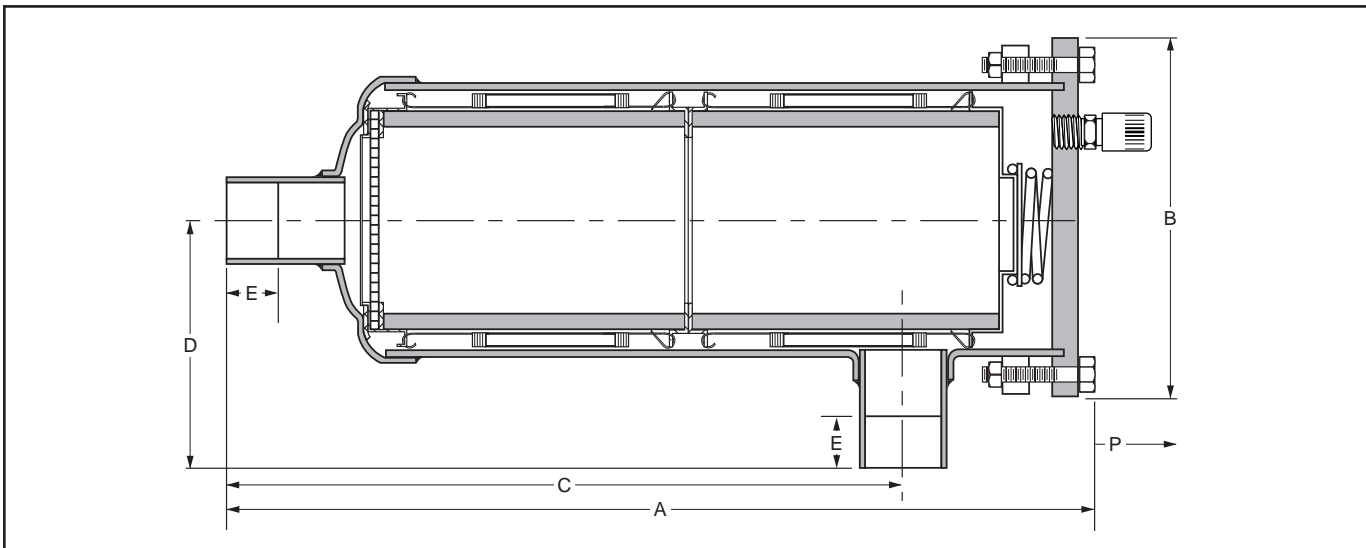
CORROSION RESISTANCE — The shells of the Replaceable Suction Filters are constructed of steel with copper fittings. The steel shell is protected from corrosion with an epoxy coating. The resulting finish will withstand over 1000 hours in a salt spray environment. This construction has given excellent service in suction line applications over a period of many years.

SPECIFICATIONS
Shells supplied – LESS Elements – Order RPE-48-BD Element separately.

TYPE	CONNECTION Inches ODF Solder	NO. OF FILTER ELEMENTS	FILTER AREA Sq. In.	DIMENSION – Inches						NET WT.	SHIP WT.
				A	B	C	D	E	*P		
RSF-487-T	7/8	One RPE-48-BD element	388	9.30	6.00	6.07	3.97	0.75	7.00	10.6	12
RSF-489-T	1-1/8			9.50		6.25	4.19	0.91			
RSF-4811-T	1-3/8			9.60		6.37	4.31	0.97			
RSF-4813-T	1-5/8			9.60		6.37	4.30	1.09			
RSF-4817-T	2-1/8			9.60		5.58	4.41	1.38			
RSF-4821-T	2-5/8			9.60		5.75	5.19	1.50			
RSF-9611-T	1-3/8	Two RPE-48-BD elements	776	15.14	6.00	11.91	4.31	0.97	7.00	13.8	17
RSF-9613-T	1-5/8			15.14		11.91	4.30	1.09			
RSF-9617-T	2-1/8			15.14		11.35	4.41	1.38			
RSF-9621-T	2-5/8			15.14		11.10	5.19	1.50			
RSF-9625-T	3-1/8			15.12		10.78	4.90	1.75			

* "P" Dimension is the pull space required to change elements.

UL and ULc Listed - Guide - SMGT - File No. SA-1756A & B. Maximum rated pressure is 500 psig.

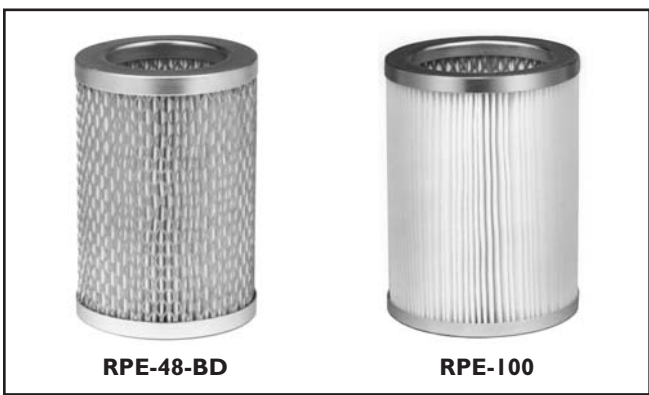


FILTER ELEMENTS — All Sporlan Replaceable Suction Filters use the Type RPE-48-BD Pleated Element. The RPE-48-BD is a direct replacement for the RFE-48-BD Felt Element. The pleated element filter offers 6 times the surface area of the previous felt element. This results in greater dirt capacity at a minimum pressure drop. The RPE-48-BD has perforated metal tubes around the inside and outside diameter of the element. As a result, the RPE-

48-BD Element can be used in either flow direction but **CAN NOT** be subject to reverse flow (flow in both directions) on the same application.

The RPE-48-BD Pleated Element can also be used with Catch-All replaceable core type filter-driers, (C-485 through C-19217-G), when these filter-driers are used in the suction line. This situation may occur when cleaning up a system after a hermetic motor burnout. Desiccant cores are first used to collect acid, moisture, and sludge from the burnout. The pleated elements (RPE-48-BD) are then installed and left in the system to obtain the lowest possible pressure drop. The RPE-48-BD can also be used in 4-3/4" replaceable filter shells supplied by other manufacturers. A large RPE-100 is also available for the larger replaceable core Catch-All shells (C-30013-G through C-40033-G) when they are used in the suction line. For more information, see Bulletin 40-10.

NOTE: The pleated suction filter elements are not suitable for use in ammonia systems.



SELECTION RECOMMENDATIONS WITH Filter Elements																										
TYPE	CONNECTION Inches ODF Solder	FLOW CAPACITY IN TONS																				NOMINAL SYSTEM HORSEPOWER				
		EVAPORATOR TEMPERATURE																								
		40°F					20°F					0°F					-20°F					-40°F				
		PRESSURE DROP – psi																								
		2	2	3	3	1.5	1.5	2	2	2	2	1	1	1.5	1.5	1.5	0.5	0.5	1	1	1	0.5	0.5	0.5		
		REFRIGERANT																				REFRIGERANT				
		12	134a	22	407C	12	134a	22	404A	502	12	134a	22	404A	502	12	134a	22	404A	502	22	404A	502	12 & 134a	22 & 407C	404A, 502 & 507
RSF-487-T	7/8	7	7	12	11	5	5	7	7	7	2	3	5	4	4	1	1	3	3	2	1	1	1	7	10	10
RSF-489-T	1-1/8	11	11	21	18	7	7	13	11	11	4	4	9	7	7	2	2	5	4	4	3	2	2	8	15	12
RSF-4811-T	1-3/8	14	16	27	26	9	10	17	16	14	6	6	11	10	9	3	3	7	6	5	3	3	3	10	20	15
RSF-4813-T	1-5/8	18	20	33	33	12	13	21	20	17	7	8	14	13	11	4	4	8	8	7	4	4	3	12	25	20
RSF-4817-T	2-1/8	24	27	44	44	16	17	28	27	23	10	10	18	17	15	5	6	11	11	9	5	5	4	20	35	25
RSF-4821-T	2-5/8	32	35	58	58	21	23	36	35	30	13	13	24	23	19	6	7	14	14	12	7	7	6	25	50	35
RSF-9611-T	1-3/8	16	18	30	29	12	13	20	18	15	8	9	14	13	11	4	5	9	8	7	5	4	4	15	25	20
RSF-9613-T	1-5/8	22	24	40	38	16	18	27	24	21	10	11	19	17	15	5	6	12	11	10	7	6	5	18	35	25
RSF-9617-T	2-1/8	26	29	48	47	17	20	30	29	25	11	12	20	18	16	5	6	12	11	10	7	6	5	20	40	30
RSF-9621-T	2-5/8	35	40	65	65	23	26	41	40	34	14	15	27	26	22	7	8	16	16	13	8	8	6	30	50	40
RSF-9625-T	3-1/8	49	55	90	89	32	35	57	55	47	19	20	37	35	30	10	12	25	22	18	11	10	9	40	80	55

Use R-404A flow ratings for R-507. Use R-502 horsepower recommendations for R-402A & B and R-408A. Use R-12 horsepower recommendations for R-401A & B and R-409A. Ratings are in accordance with ARI Standard 730. Flow capacity (tons) with cores is approximately 40% of the above values.

SELECTION — The table above gives nominal **HORSEPOWER** ratings for various Replaceable Suction Filters. When using units of **HORSEPOWER** these approximate ratings can be used for any evaporator temperature. However for a more accurate selection, the suction flow capacity in **TONS** at the proper evaporator condition should be used. These selections are for **permanent application on new systems**. See page 8 for recommendations for a **temporary application** for system clean up after burnout.

The table gives the flow capacity in tons for several refrigerants at various evaporator temperature conditions. The flow capacity ratings in **TONS** apply for units with the RPE-48-BD Element(s) in place and flowing in either flow direction.

The first two digits of the type number indicate the "48" size element is used, or that in the "96" series, two of these elements are used. The last one or two digits in the type number indicate the connection size in eighths of an inch.

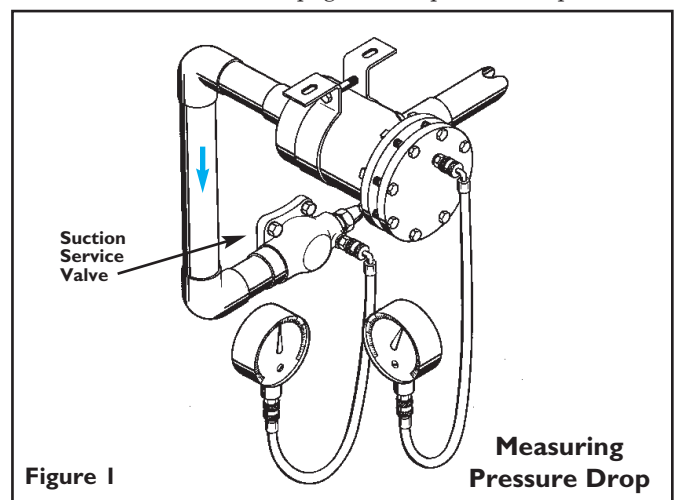
APPLICATION & INSTALLATION — Either the side fitting or the end fitting of the Replaceable Suction Filters can be used as the inlet connection. All Replaceable Suction Filters are **supplied without** filter elements. For special considerations, see the system clean-up section on page 8.

During installation, the **shell should be supported** properly so that it does not hang on the suction line. The use of Sporlan A-685 Mounting Bracket is recommended. During installation, the RPE-48-BD element(s) is/are assembled between the spacer plates. The element retainer springs are connected to the spacer plates. The spacer plates position the element(s) in the shell. The entire assembly is spring loaded against the aluminum end plate to insure a proper seal. A replacement gasket for the end plate of the shell is supplied with each RPE-48-BD along with detailed instructions. The copper fittings on the Replaceable Suction

Filters are attached to the shell with high melting brazing material. Therefore, the unit may be brazed into the line using Sta-Brite, silver solder, Sil-Fos, or other brazing materials.

An **access valve** and cap are supplied for use in the 1/4" FPT hole in the endplate of the Replaceable Suction Filter. When the side fitting is used as the inlet, then a pressure gauge can be attached to the access valve as shown in Figure 1. This permits **measuring the pressure drop** from the upstream side of the filter element to the gauge connection on the suction service valve. Excessive pressure drop caused by plugged filter elements will be noticeable, and the elements can be changed as required. The access valve can also be used for charging.

APPLICATION — SYSTEM CLEAN-UP — If hermetic motor burnout occurs on a system that has a Replaceable Suction Filter (RSF) already installed – then use cores in the RSF shell for clean-up, following the maximum size recommended in the table on page 8. Proper clean-up of most



SELECTION RECOMMENDATIONS for TEMPORARY APPLICATION for CLEAN-UP AFTER BURNOUT
 Select on the basis of cores used temporarily for clean-up, followed by filter elements used permanently

TYPE	CONNECTION Inches ODF Solder	NUMBER OF CORES OR FILTER ELEMENTS	MAXIMUM SYSTEM CAPACITY IN HORSEPOWER													
			AIR CONDITIONING				COMMERCIAL				LOW TEMPERATURE					
			REFRIGERANT													
			12	134a	22	407C	12	134a	22	502	404A	12	134a	22	502	404A
RSF-487-T	7/8	1	9	13	20	17	9	10	17	14	15	6	8	14	10	11
RSF-489-T	1-1/8		10	16	20	20	11	12	18	14	16	6	10	16	10	11
RSF-4811-T	1-3/8		12	16	25	25	13	15	20	18	18	7	12	20	12	13
RSF-4813-T	1-5/8		16	20	25	25	14	16	24	19	22	9	13	21	15	17
RSF-4817-T	2-1/8		17	22	30	30	15	17	24	21	22	10	14	23	15	17
RSF-4821-T	2-5/8		19	24	30	30	16	19	27	22	24	10	15	25	15	17
RSF-9611-T	1-3/8		2	16	18	30	30	18	20	30	27	29	9	13	25	20
RSF-9613-T	1-5/8	20		24	35	35	20	23	35	30	32	11	15	30	25	25
RSF-9617-T	2-1/8	25		32	40	40	21	25	37	32	34	12	20	34	25	28
RSF-9621-T	2-5/8	29		38	50	50	25	30	40	35	37	15	24	39	28	31
RSF-9625-T	3-1/8	30		38	50	50	25	30	40	35	37	15	24	40	28	31

Use R-404A ratings for R-507. Use R-502 ratings for R-402A & B and R-408A. Use R-12 ratings for R-401A & B and R-409A.
 NOTE: The above ratings are made on the basis of the maximum recommended pressure drop (for temporary installation) shown in the table at the bottom of this page.

hermetic motor burnouts will generally require a greater amount of desiccant than is available in the RSF shell. Therefore, the core should be changed at least once. The pressure drop across the RSF should be checked during the first few hours of operation to determine if the cores need to be changed. After clean-up, replace the cores with pleated elements.

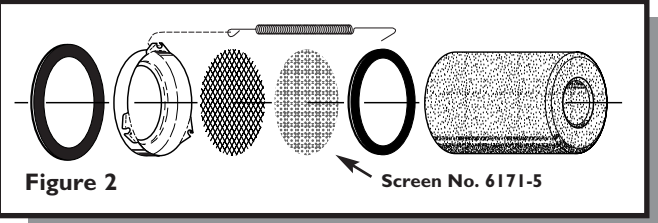
If no RSF was originally installed on the unit — select a suction line filter-drier or replaceable core Catch-All Filter Drier for installation in the suction line wherever possible. These Catch-Alls have the large amount of desiccant required to provide adequate clean-up on a system that had a hermetic motor burnout. If the replaceable core Catch-All is too large to physically fit into the space available on the unit involved, then select a Replaceable Suction Filter from the table above. Change the cores at least once, and after clean-up remove the 100 mesh screen and install a pleated element. Bulletin 40-109 gives additional selection information.

In using the Replaceable Suction Filters with cores, (i.e. Types RC-4864, RCW-48, and RC-4864-HH) the unit **must be piped with the side fitting as the inlet**. The core is installed in place of the pleated element and a special 100 mesh screen (Part No. 6171-5) must be installed. This screen is necessary as a safety filter. The screen is available through Sporlan wholesalers if replacement is necessary.

INSTALL THE SCREEN — As shown in Figure 2, the 100 mesh screen is installed between the outlet screen gasket and the 10 mesh outlet screen. This assembly is then inserted as the first core into the Replaceable Suction Filter with the screen end in first. In this way the screen is at the outlet end of the Replaceable Suction Filter and serves as a safety filter. Instructions for installing the screen are printed on the package and on a label affixed to the shell.

The screen and the core significantly increase the pressure drop through the unit. Therefore, after the clean-up is complete the core should be replaced with pleated elements **AND THE SCREEN SHOULD BE REMOVED**. Because of the increase in pressure drop, the screen should **not** be used when pleated elements are installed.

Since hermetic motors rely on refrigerant vapor for cooling, the pressure drop in the suction line must be limited to a reasonable value. The maximum recommended values are shown in the table below. Selection should be based on full compressor capacity.



MAXIMUM RECOMMENDED PRESSURE DROP – PSI for SUCTION LINE FILTERS or FILTER-DRIERS

SYSTEM	PERMANENT INSTALLATION		TEMPORARY INSTALLATION	
	22, 404A, 407C, 502 & 507	12 & 134a	22, 404A, 407C, 502 & 507	12 & 134a
Air Conditioning	3	2	8	6
Commercial	2	1-1/2	4	3
Low Temperature	1	1/2	2	1

- For information on Catch-All Filter-Driers, Suction Line Filter-Driers, and recommendations for clean-up after burnout, request Bulletin 40-10.
- Request Form 40-109 for selection recommendations on suction line filter-driers.

