

Suction Filters WITH THE OPTIONAL RELIEF FEATURE

Design Benefits

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



SF-287-T

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.

The “-T” in the type number indicates that these models are equipped with an access valve to permit pressure drop readings. The access valve will be operational provided the Suction Filters are installed with the bypass feature inactive.

| TYPE | | CONNECTIONS Inches | FILTER AREA cm ² | DIMENSIONS - mm | | |
|--|----------------------|-----------------------|--------------------------------|-------------------|--------------|-------------------|
| WITHOUT Access Valve | WITH Access Valve | | | OVERALL LENGTH | SOCKET DEPTH | SHELL DIAMETER |
| Types with bypass relief feature (Bi-directional Flow) | | | | | | |
| SF-283F | — | 3/8 SAE Flare | 181 | 223 | — | 76 |
| — | SF-285-T | 5/8 ODF Solder | | 212 | 16 | |
| — | SF-286-T | 3/4 ODF Solder | | 223 | 18 | |
| — | SF-287-T | 7/8 ODF Solder | | 227 | 19 | |
| — | SF-289-T | 1-1/8 ODF Solder | | 242 | 23 | |
| — | SF-489-T | 1-1/8 ODF Solder | 310 | 315 | 23 | 121 |
| — | SF-4811-T | 1-3/8 ODF Solder | | 333 | 25 | |
| — | SF-4813-T | 1-5/8 ODF Solder | | 341 | 28 | |
| Types without bypass relief feature (Single Flow Direction) | | | | | | |
| SF-114 | — | 1/2 ODF Solder | 71 | 111 | 13 | 51 |
| SF-114F | — | 1/2 SAE Flare | | 133 | — | |
| SF-115 | — | 5/8 ODF Solder | | 117 | 16 | |
| SF-115F | — | 5/8 SAE Flare | | 141 | — | |
| — | SF-6417-T | 2-1/8 ODF Solder | 2503 | 278 | 31 | 121 |
| — | SF-6421-T | 2-5/8 ODF Solder | | 35 | — | |



Listed by Underwriters' Laboratories, Inc. – Guide SMGT – File No. SA-1756A & B.

Selection Recommendations

| TYPE NUMBER | | CONNECTIONS Inches | FLOW CAPACITY IN kW EVAPORATOR TEMPERATURE | | | | | | | | | | | | NOMINAL SYSTEM HORSEPOWER | | |
|-------------------------|----------------------|-----------------------|--|------|-----------|------|-------|-----------|-------|-----------|-------|-----------|-------------|-----------------------|---------------------------|-------|-------|
| WITHOUT Access Valve | WITH Access Valve | | 5°C | | -5°C | | -20°C | | -30°C | | -40°C | | REFRIGERANT | | | | |
| | | | PRESSURE DROP – bar | | | | | | | | | | | | | | |
| | | | 0.20 | 0.14 | 0.20 | 0.14 | 0.10 | 0.14 | 0.10 | 0.07 | 0.10 | 0.07 | | 0.03 | | | |
| | | | REFRIGERANT | | | | | | | | | | | | | | |
| 22 | 134a | 407C | 22 | 134a | 404A, 507 | 22 | 134a | 404A, 507 | 22 | 404A, 507 | 22 | 404A, 507 | 22, 407C | 134a, 404A, 409A, 507 | | | |
| SF-114 | — | 1/2 ODF | 8.4 | 5.3 | 8.4 | 5.3 | 3.5 | 5.3 | 3.9 | 2.1 | 3.5 | 2.5 | 2.1 | 1.1 | 1.1 | 1 | 1/2 |
| SF-114F | — | 1/2 SAE | 7.4 | 4.6 | 7.4 | 4.9 | 3.2 | 4.6 | 3.2 | 1.8 | 3.2 | 2.1 | 1.8 | 1.1 | 1.1 | 1 | 1/2 |
| SF-115 | — | 5/8 ODF | 14.4 | 9.1 | 14.4 | 9.5 | 6.0 | 9.1 | 6.3 | 3.9 | 6.0 | 4.2 | 3.9 | 2.1 | 2.1 | 2 | 1 |
| SF-115-F | — | 5/8 SAE | 13.0 | 8.1 | 13.0 | 8.4 | 5.3 | 8.1 | 5.6 | 3.2 | 5.3 | 3.5 | 3.2 | 1.8 | 1.8 | 2 | 1 |
| SF-283F | — | 3/8 SAE | 7.4 | 4.2 | 7.0 | 4.6 | 2.8 | 4.2 | 3.2 | 1.8 | 2.8 | 1.4 | 1.8 | 1.1 | 1.1 | 1 | 1/2 |
| — | SF-285-T | 5/8 ODF | 22.5 | 14.1 | 21.8 | 14.1 | 9.5 | 13.7 | 10.2 | 6.0 | 9.5 | 6.3 | 6.0 | 3.5 | 3.2 | 4 | 1-1/2 |
| — | SF-286-T | 3/4 ODF | 30.2 | 17.9 | 28.5 | 17.6 | 12.0 | 17.9 | 12.7 | 7.4 | 12.0 | 7.7 | 7.4 | 4.2 | 3.9 | 5 | 1-1/2 |
| — | SF-287-T | 7/8 ODF | 39.0 | 24.6 | 39.7 | 25.3 | 16.2 | 24.6 | 17.9 | 9.8 | 16.2 | 10.9 | 10.2 | 5.3 | 5.3 | 7-1/2 | 3 |
| — | SF-289-T | 1-1/8 ODF | 52.1 | 32.4 | 51.3 | 33.1 | 21.1 | 32.4 | 23.2 | 13.0 | 21.5 | 14.1 | 13.4 | 7.4 | 7.0 | 7-1/2 | 5 |
| — | SF-489-T | 1-1/8 ODF | 56.3 | 34.8 | 55.2 | 35.2 | 22.9 | 34.5 | 24.6 | 13.7 | 22.9 | 15.1 | 14.4 | 7.7 | 7.4 | 10 | 5 |
| — | SF-4811-T | 1-3/8 ODF | 64.7 | 39.4 | 63.3 | 40.1 | 25.7 | 39.4 | 27.8 | 15.5 | 26.0 | 16.9 | 16.2 | 8.8 | 8.4 | 12 | 5 |
| — | SF-4813-T | 1-5/8 ODF | 76.0 | 46.8 | 74.9 | 47.5 | 30.6 | 46.8 | 33.1 | 18.3 | 30.6 | 19.7 | 19.0 | 10.2 | 9.8 | 15 | 7 |
| — | SF-6417-T | 2-1/8 ODF | 320 | 179 | 313 | 200 | 109 | 185 | 125 | 57.7 | 112 | 71.4 | 62.6 | 32.7 | 27.8 | 55 | 20 |
| — | SF-6421-T | 2-5/8 ODF | 419 | 221 | 383 | 247 | 136 | 227 | 155 | 72.5 | 139 | 90.0 | 78.4 | 41.5 | 35.2 | 60 | 30 |

Notes: Maximum rated pressure for SF-11, SF-28 and SF-48 is 27.5 bar. The SF-64 series is rated for 34.5 bar. All ratings are in accordance with ARI Standard 730.