

# hibon®

## *Silent flow plus*



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**Ingersoll Rand**  
Industrial Technologies



# SF-plus « air » pressure and vacuum systems



## Silent Flow Plus Range :

The Silent Flow Plus range is made up of a group of rotary piston blowers designed to circulate air or neutral gas in a non-hazardous environment. This range comprises of a wide choice of high and medium pressure versions. It incorporates recent requirements of EPD (European Pressure Directive) and CE safety issues.

- For high-pressure applications, Silent Flow Plus blower packages are equipped with SN Series three-lobe blowers featuring internal Pulsation Dampers.
- For medium-pressure applications Silent Flow Plus blower packages are equipped

## Benefits

- Extended range gives optimum blower package selection capability for any duty
  - Flow Rates: 100 m<sup>3</sup>/h (60 cfm) up to 9000 m<sup>3</sup>/h (5300 cfm)
  - Differential pressure up to 1000 mbar (15 psig)
  - Vacuum up to 500 mbar absolute (15" Hg)
- High and Medium-pressure ranges to meet your needs.
- Package is totally CE compliant and silencers are EPD compliant.
- Reduced noise levels due to the efficient noise enclosure and a specially designed ventilation baffling system.
- Enclosure capable of operation at high ambient temperatures; hot- air extraction by means of high capacity, electrically operated ventilation fan.
- Hinged doors as standard (sizes 1 to 3).
- The belt tension is adjusted automatically by the motor weight.
- "Plug and Play" design, factory assembled package.
- Easy access to package, easy maintenance.
- Each package is design built to ensure smallest foot print.

## Applications

- Water treatment
- Pneumatic conveying
- Combustion Air
- Centralised Cleaning
- Fluidisation
- Homogenisation
- Gas Compression



## Package components

### ■ Acoustic enclosure

The enclosure is built to withstand harsh weather conditions and ensure a long life. Forced ventilation is by a motorized fan unit. The acoustic material lining the walls is flame-retardant.

### ■ Installation

All blower packages are supplied fully assembled on a palletisable base provided with an earth connection. The silencer base is connected to the palletisable base by a braided earth strap. The standard "Pressure" version packages have a pressure gauge connected to the discharge and an inlet filter restriction indicator.

### ■ Transmission

Silent Flow Plus packages are fitted with a Belt Pulley transmission. Our belt tensioning system allows automatic adjustment of the motor position. That mechanism permits the installation of motors of various designs and masses (iron and light alloy enclosures, NEMA standards, etc). Following the first start-up, you will save maintenance time on the delicate Belt/ Pulley adjustment.

### ■ The suction filter-silencer

Combines sound attenuation and filtering functions. Filtration protects blowers against premature wear and tear. The silencer dampens pulsations and the pollution of your sound environment.

### ■ Silencer base

Rests on anti-vibration mounts to reduce dynamic forces, it supports the blower motor assembly, and inlet filter silencer. The design is totally reactive to ensure a broad spectrum sound attenuation without risk of infill migration to the downstream process.

### ■ Discharge Assembly

Comprising of a pipe fitted with a factory-calibrated safety valve, isolated pressure gauge, non-return valve and a flexible connector.

### ■ The blowers

- For high-pressure applications, Silent Flow Plus HP packages are fitted with SN Series Three lobe blowers featuring Internal Pulsation Dampers.
- For medium-pressure applications, Silent Flow Plus MP packages are fitted with S2H Series.

### ■ Starting valve (optional)

This device prevents overcharging your power network when starting the motor. It is often necessary for star/delta starting.

### ■ Non-return valve

Made of aluminium and santoprene, this valve is totally corrosion-proof. The full bore minimizes pressure losses.

### ■ Oil change

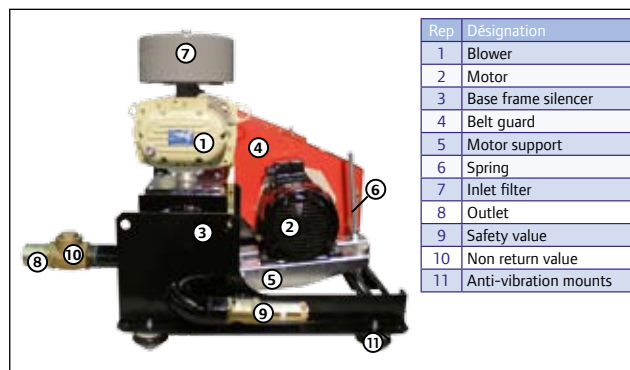
The high-pressure range blowers come with an oil change system consisting of two check valves with internal pistons and safety caps (one per housing).

### ■ Options (Standard)

- Temperature gauge at discharge
- Temperature switch at discharge
- Thermostat inside the enclosure
- Pressure switch at discharge

### ■ Options (Non-standard)

- Discharge pressure switch
- Vacuum switch
- Filter differential switch
- Anti Condensation heaters
- Motor PTC Thermistors




## Performance

For high-pressure applications, Silent Flow Plus HP packages are fitted with three lobe blowers featuring Internal Pulsation Dampers. There are 12 units in the SN Series tri-lobe range covering flow rates up to 8 000 m<sup>3</sup>/h (4700 cfm) at a differential pressure of 1000 mbar (15 psig) max or a vacuum of 500 mbar (15" Hg) max.


For medium-pressure applications, Silent Flow Plus MP packages are fitted with bi-lobe blowers. There are 4 units covering flow rates up to 900 m<sup>3</sup>/h (530 cfm) at a differential pressure of 700 mbar (10 psig) max or a vacuum of 500 mbar (15" Hg) max.

## High Pressure range

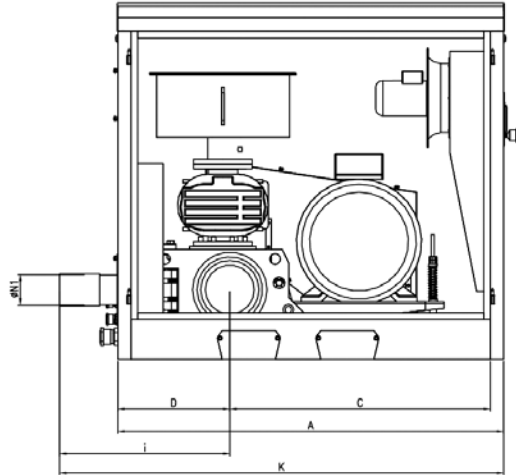
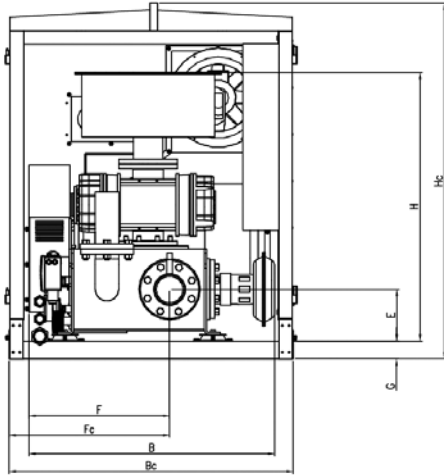
Size	00	0		1		2		3		4		5		
 Silentflow PLUS	SF PLUS H 00/1	SF PLUS H 0/2	SF PLUS H 0/3	SF PLUS H 1/4	SF PLUS H 1/6	SF PLUS H 2/6	SF PLUS H 2/11	SF PLUS H 2/17	SF PLUS H 3/22	SF PLUS H 3/25	SF PLUS H 3/42	SF PLUS H 4/55	SF PLUS H 4/70	SF PLUS H 5/90
	Max Flow m <sup>3</sup> /h (cfm) at 800 mbar eff / at 11.5 psig	300 180	460 270	650 380	830 500	1000 6000	1250 730	2300 1400	2500 1500	4050* 2400	3700 2200	4200 2500	6000 3600	6400 3800
Pressure max. in mbar / in psig	1000 14,5	1000 14,5	1100 16	1000 14,5	1100 16	1100 16	1000 14,5	1000 14,5	800 11,5	1100 16	930 13,5	1000 14,5	900 13	900 13
	Blowers	SN 801	SN 802	SN 803	SN 804	SN 806	SN 806	SN 811	SN 817	SN 822	SN 825	SN 842	SN 855	SN 870

\* at 700 mbar eff. (10 psig)

## Medium Pressure range

Size	00	0				
 Silentflow PLUS	SF PLUS M 00/0.5	SF PLUS M 00/1.5	SF PLUS M 0/1.5	SF PLUS M 0/3.5	SF PLUS M 0/5.5	SF PLUS M 0/5.5
	Flow m <sup>3</sup> /h (cfm) at 500 mbar eff. / at 7 psig	100 60	300 170	325 190	600 350	650 380
Differential Pressure max. in mbar / in psig	700 10	700 10	700 10	620 9	620 9	550 8
	Blowers	S2H22	S2H32	S2H32	S2H42	S2H52

## Overall dimensions



## With enclosure

Type	A (mm/inch)	B	Bc	E	F	Fc	G	H (max)	Hc	K
SF PLUS H/M 00	770	595	720	163	413	480	40	770	850	812
	30" 1/3	23" 3/7	28" 1/3	6" 3/7	16" 1/4	18" 8/9	1" 4/7	30" 1/3	33" 1/2	32"
SF PLUS H/M 0	1200	831	1000	180	565	650	50	1014	1210	1295
	47" 1/4	32" 5/7	39" 3/8	7"	22" 1/4	25" 3/5	2"	40"	47" 2/3	51"
SF PLUS H 1	1450	921	1066	194	528	602	67	1131	1336	1668
	57"	36" 1/4	42"	7" 2/3	20" 4/5	23" 5/7	2" 2/3	44" 1/2	52" 3/5	65" 2/3
SF PLUS H 2	1730	1128	1405	230	640	852	67	1236	1526	2062
	68" 1/9	44" 2/5	55" 1/3	9"	25" 1/5	33" 1/2	2" 2/3	48" 2/3	60"	81" 1/6
SF PLUS H 3	2100	1305	1677	275	721	961	67	1535	1815	2404
	82" 2/3	51" 3/8	66"	10" 5/6	28" 2/5	37" 5/6	2" 2/3	60" 3/7	71" 1/2	94" 2/3
SF PLUS H 4	2500	1445	1800	320	765	900	100	1900	2600	3435
	98" 3/7	56" 8/9	70" 6/7	12" 3/5	30" 1/8	35" 3/7	4"	74" 4/5	102" 1/3	135" 1/4
SF PLUS H 5	2135	1980	2260	472	525	630	180	2410	2795	3206
	84"	78"	89"	18" 4/7	20" 2/3	24" 4/5	7"	94" 7/8	110"	126" 2/9

# Service Center

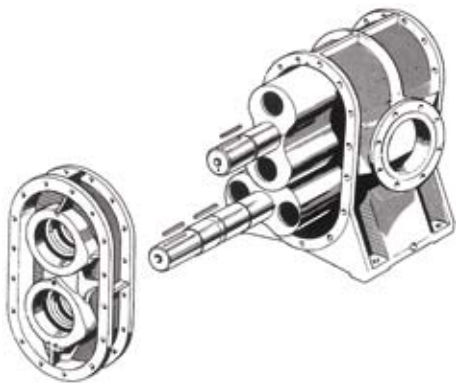
## Service Exchange - Maintenance & Service - service contract

*All repairs and service are done in conformity with the highest industrial standards and completed by a team of experienced technicians and engineers. IR embraces its responsibilities to operate in a manner that protects the environment and human health and safety in order to support the company's long-term growth and reputation as a responsible corporate citizen.*

### SERVICE EXCHANGE

#### Guarantee your production capability

- Fast dispatch of the exchange machine
- Large range of machines ready to ship
- Performance certified as identical to your original machine
- 12-month warranty
- Price includes the return of your blower



### ON-SITE TECHNICAL SUPPORT

#### Bring our expertise to you

- Installation, commissioning, service, and maintenance on-site
- Diagnostic and breakdown service
- Qualified technical service with the full support of our technical department

### MAINTENANCE & SERVICE

#### To your original specifications

- More than 100 years of technical and industrial experience
- Cleaning system keeping the component integrity
- Spare parts with supplier warranty (over 20 000 parts in stock)
- Available for standard service
- Guarantee on the quoted lead-time
- Similar test as a new machine
- Technical survey in link with our technical department
- Expertise and application recommendation available on demand



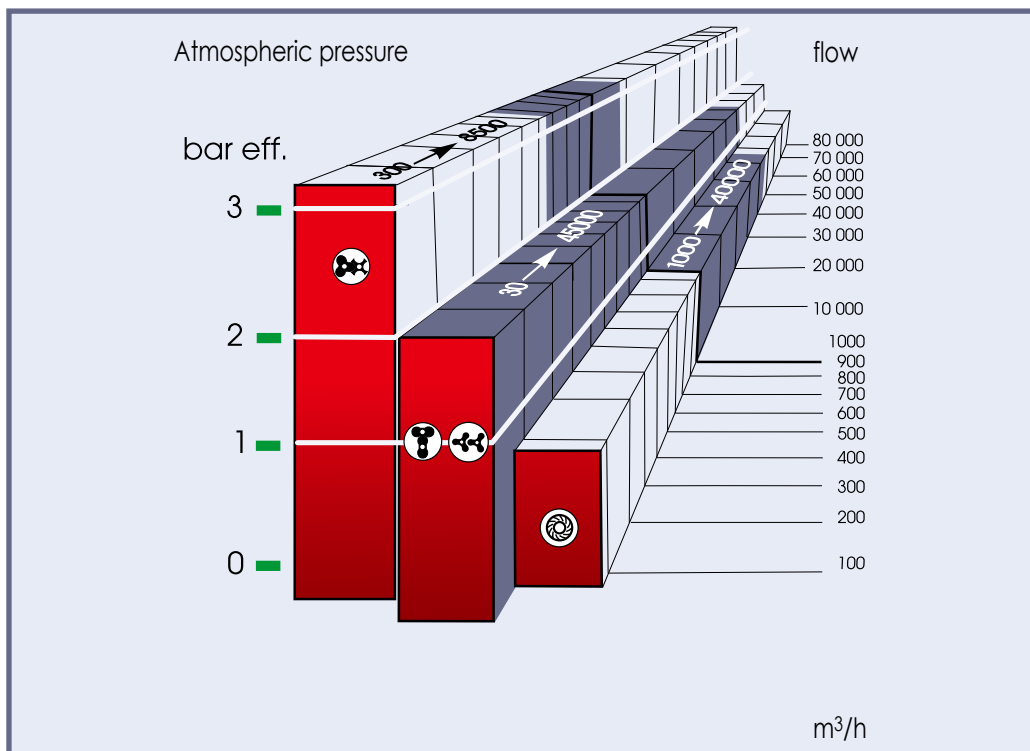
### SERVICE CONTRACTS

#### Maximize uptime

- Keep costs under control
- Personal contract possibilities
- Scheduled maintenance
- Priority service in an outage
- Reduce downtime



## Other Solutions



	<b>Standard positive displacement blowers (bi-lobe and tri-lobe)</b>	
	<b>Multistage Centrifugal Blowers</b>	
	<b>Oil Free Screw Compressors</b>	



Ingersoll Rand Industrial Technologies provides products, services and solutions to enhance the efficiency and productivity of our commercial, industrial and process customers. Our innovative products include air compressors, air systems components, tools, pumps, material and fluid handling systems and microturbines.

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