



Accessories

AMETEK Technical & Industrial Products' ROTRON brand has long been a world leader in regenerative blower technologies, bringing regenerative advantages to a new level, providing quiet, maintenance-free, oil-free operation.

Our accessories for regenerative blowers include:

- Filtration Accessories
- Measurement Accessories
- Noise Reduction Accessories
- Valves and Gauges
- VFD Drives
- Air Knives

Blower Model Reference Key	
A = SPIRAL	E = DR/EN/CP 656, 6, 633, S7
B = DR/EN/CP 068, 083, 101, 202	F = DR/EN/CP 757, 808, 858, S9, P9 (Inlet Only)
C = DR/EN/CP 303, 312, 313, 353	G = DR/EN/CP 833, S13, P13 (Inlet Only)
D = DR/EN/CP 404, 454, 513, 505, 555, 523	H = DR/EN/CP 909, 979, 1233, 14, S15, P15 (Inlet Only)

Blower Connection Key
NPT – American National Standard Taper Pipe Thread (Male)
NPSC – American National Standard Straight Pipe Thread for Coupling (Female)
SO – Slip On (Smooth – No Threads)



ROTRON®

Accessories

Filtration - Inlet Filter (Single Connection)

ROTRON®

Inlet Filters protect the blower and the air distribution system from dust, and other airborne particles and contaminants. Normally used in pressure systems.

SPECIFICATIONS:

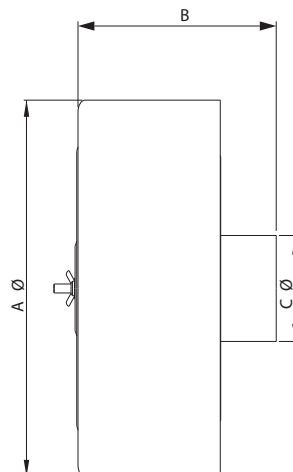
HOUSING – Steel

MEDIA – Polyester

EFFICIENCY – 97-98% (8 to 10 micron particle size)

FILTER ELEMENT – Replaceable (see I ter elements)

NOTE: “Z” MEDIA (1 to 3 micron particle size) available



Specification	Units	Part/Model Number								
		477411	516466	515122	515123	515124	515125	515145	515151	516511
Filter Element	-	A	B	C, D	E	E	F	G	H	H
Ref Blower Model	-	271078	515132	515132	515133	515134	515134	515134	515135	516515
Outlet Connection	-	2.00 SO	1.00 NPT	1.50 NPT	2.00 NPT	2.00 NPT	2.50 NPT	3.00 NPT	4.00 NPT	6.00 NPT
Dimension A	Inches	4.56	6.00	6.00	7.75	10.00	10.00	10.00	10.00	16.00
	mm	115.8	152.4	152.4	196.9	254	254	254	254	406.4
Dimension B	Inches	6.12	6.50	6.50	7.25	12.25	12.50	13.00	14.00	15.00
	mm	155.4	165.1	165.1	184.2	311.2	317.5	330.2	355.6	381
Dimension C	Inches	2.00	1.00	1.5	2.00	2.00	2.50	3.00	4.00	6.00
	mm	50.8	25.4	38.1	50.8	50.8	63.5	76.2	101.6	152.4
Z Media Filter PN	-		517865	517866	517867	517868	517869	517870	517871	517872

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Accessories

Filtration - Inline Filter (Dual Connection)

ROTRON®

Inline Filters protect the blower from harmful dust and other particles that may be drawn into the blower through the air distribution system. Normally used in vacuum systems.

SPECIFICATIONS:

HOUSING – Steel

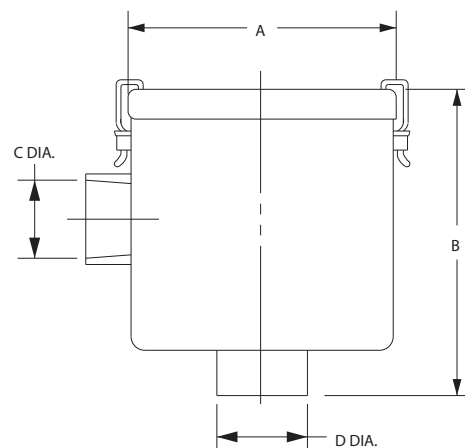
MEDIA – Polyester

EFFICIENCY – 97-98% (8 to 10 micron particle size)

FILTER ELEMENT – Replaceable (see filter elements)

NOTE: "Z" MEDIA (1 to 3 micron particle size) available

Inline filter PN 271200 is a straight through design
Inlet is directly opposite of outlet



* Feature 1/4" threaded tap for gauge connection on inlet and outlet

Part/Model Number

Specification	Units	271200	516461	515254	515255	515256	516463*	516465*	517611*
Filter Element	-	271078	516434	516434	516435	516435	515135	515135	516515
Ref Blower Model	-	A	B	C, D	E	F	G	H	H
Inlet Connection	-	1.75 SO	1.00 NPSC-F	1.50 NPSC-F	2.00 NPSC-F	2.50 NPSC-F	3.00 NPT-M	4.00 NPT-M	6.00 NPT-M
Outlet Connection	-	2.00 SO	1.00 NPSC-F	1.50 NPSC-F	2.00 NPSC-F	2.50 NPSC-F	3.00 NPT-M	4.00 NPT-M	6.00 NPT-M
Dimension A	Inches	5.25	7.25	7.00	8.00	8.00	14.00	14.00	18.00
	mm	133.4	184.2	177.8	203.2	203.2	355.6	355.6	457.2
Dimension B	Inches	8.31	6.50	6.50	10.25	10.25	26.50	27.00	28.00
	mm	211.1	165.1	165.1	260.4	260.4	673.1	685.8	711.2
Dimension C	Inches	2.00	1.00	1.50	2.00	2.50	3.00	4.00	6.00
	mm	50.8	25.4	38.1	50.8	63.5	76.2	101.6	152.4
Dimension D	Inches	1.75	1.00	1.50	2.00	2.50	3.00	4.00	6.00
	mm	44.5	25.4	38.1	50.8	63.5	76.2	101.6	152.4
Z Media Filter PN	-		517886	517887	517888	517889	517890	517891	517892

Blower Model Reference Key

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Accessories

Filtration - Filter Silencers (Single Connection)

ROTRON®

Filter/ Silencers reduce noise levels while ensuring clean air is provided to the blower and the air distribution system. Normally used in pressure applications.

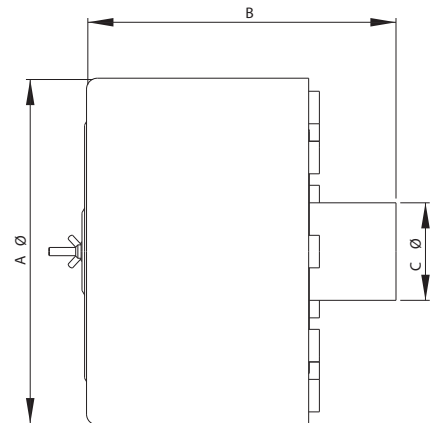
SPECIFICATIONS:

HOUSING – Steel

MEDIA – Polyester

EFFICIENCY – 97-98% (8 to 10 micron particle size)

FILTER ELEMENT – Replaceable (see lter elements)



Specification	Units	Part/Model Number							
		516487	516489	516491	516493	516495	516497	516499	516513
Filter Element	-	B	C, D	E	E	F	G	H	H
Ref Blower Model	-	515132	515132	515133	515134	515134	515134	515135	516515
Outlet Connection	-	1.00 NPT	1.50 NPT	2.00 NPT	2.00 NPT	2.50 NPT	3.00 NPT	4.00 NPT	6.00 NPT
Dimension A	Inches	6.00	6.00	10.00	10.00	10.00	10.00	16.00	16.00
	mm	152.4	152.4	254	254	254	254	406.4	406.4
Dimension B	Inches	6.50	6.50	7.25	12.25	12.50	12.50	14.00	15.00
	mm	165.1	165.1	184.2	311.2	317.5	317.5	355.6	381
Z Media Filter PN	-	1.00	1.50	2.00	2.00	2.50	3.00	4.00	6.00
Dimension C	Inches	517878	517879	517880	517881	517882	517883	517884	517885
	mm	13154101.2	13154126.6	13154152	13154177.4	13154202.8	13154228.2	13154253.6	13154279

Blower Model Reference Key

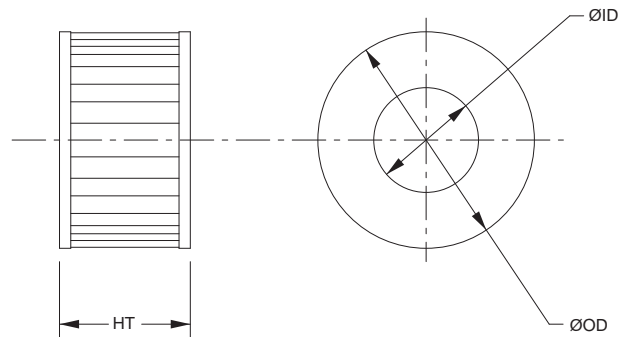
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All ROTRON Air Filters and Filter/ Silencers have replaceable filter elements. The filter media is polyester designed for high efficiency over a wide spectrum of industrial applications. See filter element cross reference table. Filter elements supplied with foam pre-filter.

Standard Replacement Filter Element Cross Reference Table					
Filter	Element	Filter	Element	Filter	Element
271200	271078	515158	515134	516489	515132
477411	271078	515254	516434	516491	515133
515122	515132	515255	516435	516493	515134
515123	515133	515256	516435	516495	515134
515124	515134	516461	516434	516497	515134
515125	515134	516463	515135	516499	515135
515145	515134	516465	515135	516511	516515
515151	515135	516466	515132	516513	516515
515157	515133	516487	515132	517611	516515



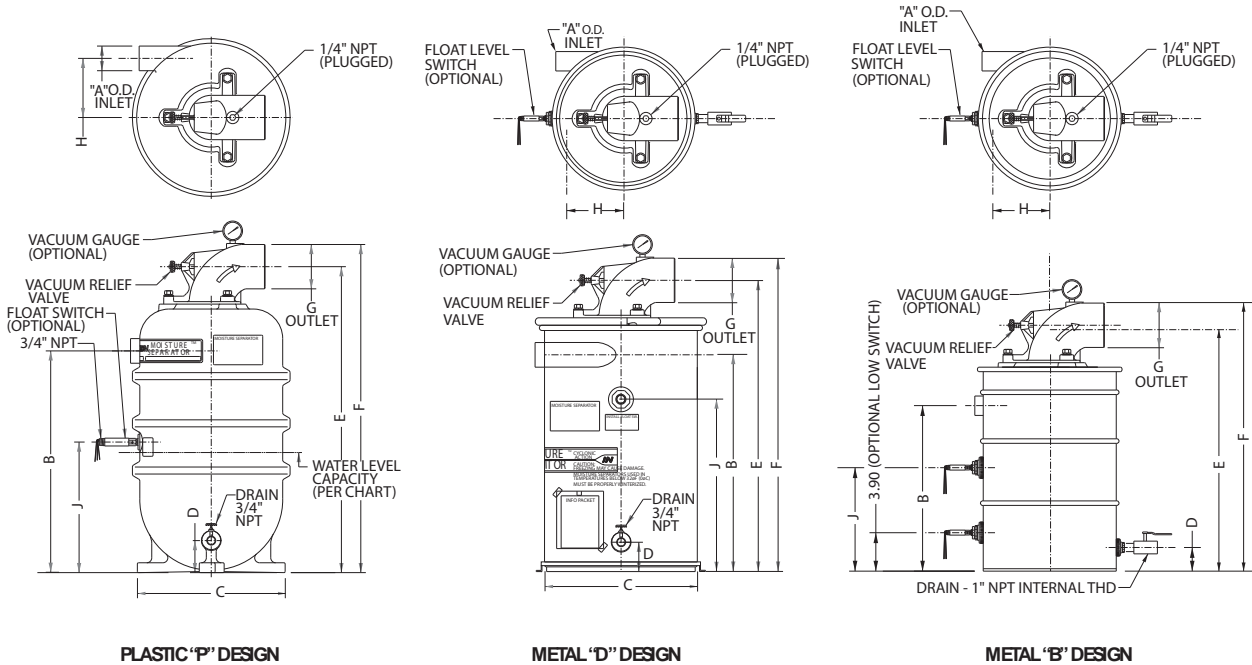
For DR Blower Models

Specification	Units	Part/Model Number						
		515132	515133	515134	515135	516434	516435	516515
Z Media Filter PN	-	517873	517874	517875	517876	517893	517894	517877
Dimension ID	Inches	3.00	3.63	3.5	4.75	2.56	3.50	8.00
	mm	76.2	92.2	88.9	120.7	65	88.9	203.2
Dimension OD	Inches	4.38	5.88	5.88	7.88	5.00	5.88	11.75
	mm	111.3	149.4	149.4	200.2	127	149.4	298.5
Area	Sq/Ft	4.75	4.75	9.50	9.63	4.75	8.75	9.63
	Sq/M	0	0	1	1	0	1	1
Dimension HT	Inches	1.5	2.3	4.5	8.3	2.0	4.5	19.0
	mm	38.1	58.4	114.3	210.8	50.8	114.3	482.6

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By separating and containing entrained liquids, ROTRONSM moisture separator helps protect our regenerative blowers and the end treatment system from corrosion and mineralization damage. Recommended for all soil vacuum extraction applications.

SPECIFICATIONS:
 SEPARATION METHOD – High Efficiency Cyclonic
 RELIEF VALVE MATERIAL – Brass & Stainless Steel
 FLOAT MATERIAL – Copper
 FLOAT SWITCH – SPDT, Explosion-proof
 NEMA 7&9, 5 Amp max.



Models without float switch available. Metal MS200/300DS models are not the standard stocked, but are available.

Specification	Units	Part/Model Number							
		MS200PS	MS300PS	MS200DS	MS300DS	MS350BS	MS500BS	MS600BS	MS1000BS
		038519	038520	080086	080087	038357	080660	080659	038914
Dimension A	Inches	2.38	2.88	2.00	2.50	3.25	3.25	4.00	6.00
	mm	60.5	73.2	50.8	63.5	82.6	82.6	101.6	152.4
CFM Max.	CFM	200	300	200	300	350	500	600	1000
	m3/hr	340	510	340	510	595	850	1020	1700
Dimension B	Inches	22.46	22.46	22.12	22.12	28.00	28.00	27.00	31.00
	mm	570.5	570.5	561.8	561.8	711.2	711.2	685.8	787.4
Dimension C	Inches	16.00	16.00	16.75	16.75	23.00	23.00	23.00	27.00
	mm	406.4	406.4	425.5	425.5	584.2	584.2	584.2	685.8
Dimension D	Inches	3.25	3.25	2.75	2.75	4.00	4.00	4.00	4.00
	mm	82.6	82.6	69.9	69.9	101.6	101.6	101.6	101.6
Dimension E	Inches	31.05	31.05	27.92	27.92	37.25	37.37	37.37	47.32
	mm	788.7	788.7	709.2	709.2	946.2	949.2	949.2	1201.9
Dimension F	Inches	33.30	33.30	30.17	30.17	39.50	54.50	54.50	51.70
	mm	845.8	845.8	766.3	766.3	1003.3	1384.3	1384.3	1313.2
Dimension H	Inches	6	6.00	6.56	6.81	9.75	9.75	9.25	10.00
	mm	152.4	152.4	166.6	173	247.7	247.7	235	254
Dimension G	Inches	4.50 OD	4.50 D	4.50 D	4.50 OD	4.50 OD	6.63 ID	6.63 ID	8.62 OD
	mm	114.3	114.3	114.3	114.3	114.3	168.4	168.4	218.9
Dimension J	Inches	13.25	13.25	12.62	12.62	17.50	17.50	17.50	19.88
	mm	336.6	336.6	320.5	320.5	444.5	444.5	444.5	505
Drain Internal Thd	-	3/4	3/4	3/4	3/4	1	1	1	1
Shipping Weight	Lbs	42	42	42	42	82	95	96	150
	Kg	19.1	19.1	19.1	19.1	37.2	43.1	43.5	68

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2.0 Moisture Separator™ Specifications

2.1 Duty

The moisture separator shall be designed for use in a soil vapor extraction system capable of continuous operation with a pressure drop of less than six inches of water at the rated flow of _____ SCFM. The separator shall be capable of operation under various inlet conditions ranging from a fine mist to slugs of water with high efficiency.

2.2 Principle of Operation

The moisture separator shall incorporate cyclonic separation to remove entrained water. The separator must protect against an overflow by fail safe mechanical means. An electrical switch or contact(s) alone is not an acceptable means of protection against overflow, but is a good backup.

2.3 Construction

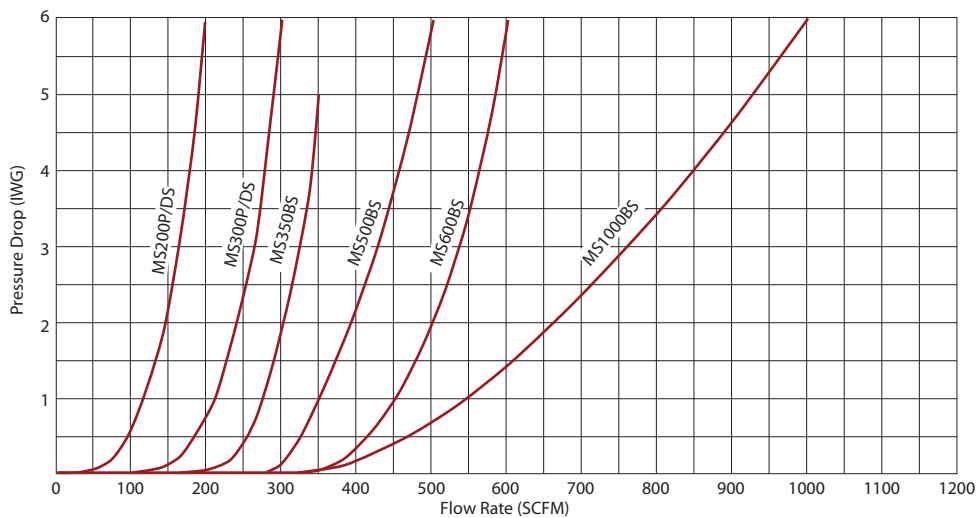
The body of the moisture separator shall be constructed of heavy wall plastic or heavy gauge cold rolled steel. The steel interior and exterior shall be epoxy (powder) coated to resist abrasion, corrosion, and chipping that might expose the surface. The inlet shall be tangentially located and welded to the body. The outlet port shall be constructed of PVC or cast aluminum alloy, flanged and sealed to the center of the top of the separator. The separator shall incorporate a non-sparking copper float ball and an adjustable relief valve to protect against overflow and overheating the blower.

For DR/EN/CP Blower Model	Selector Moisture Separator Model	Liquid-holding Capacity (gallons)	Inlet (OD)	Outlet	Max Vacuum Allow (IHG)
404 454 505 513 523 555 633 833	MS200PS	7	2.38	4.5 OD	12
	MS200DS	10	2.0		22
656 6 757	MS300PS MS300DS	7 10	2.88 2.5		
808	MS350BS	40	3.25	6.63 ID	22
858 1233	MS500BS				
909	MS600BS				
979 14	MS1000BS	65	6.0	8.62 OD	

2.4 Capacity and Dimension

The moisture separator must have a liquid capacity of _____ gallons. The inlet shall be _____ inch OD slip-on type. The outlet shall be _____ inch OD slip-on type.

2.5 Pressure Drop



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FEATURES

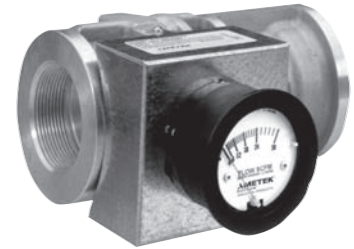
- Direct reading in SCFM
- Low pressure drop (2-4" typical) across the flow meter
- Non-clogging, low impedance air stream
- Light weight aluminum
- No moving parts
- Large easy-to-read dial
- Accurate within 2% at standard conditions
- Good repeatability
- Available in 2", 3" and 4" sizes
- Factory configured for quick installation
- .048" Allen key supplied for gauge adjustment

OPTIONS

- Corrosion-resistant version with Chem-Tough™ or in stainless steel
- FDA-approved Food Tough™ surface conversion

BENEFITS

- **OPTIMIZE SYSTEM EFFICIENCY**
Measuring the correct air flow can assist you in re-tuning to your system's optimal efficiency.
- **BALANCE MULTI-PIPING SYSTEMS**
When evacuating CFM from more than one pipe, different run lengths or end system impedance can cause one pipe to handle more CFM than the other. With an accurate CFM reading, piping can be balanced by bleeding air in/out or by creating an extra impedance.
- **DETECT CHANNELING OR PLUGGING**
For systems in which channeling or plugging can occur, a change in the CFM measured can help indicate the unseen changes in your system.

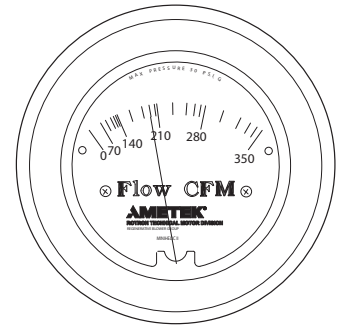
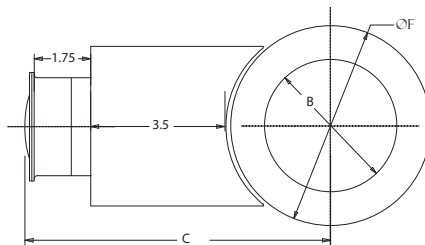
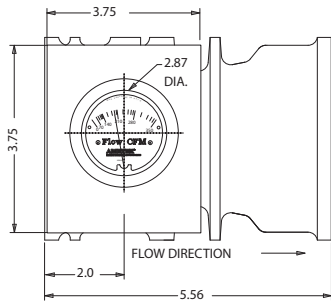


		Part/Model Number					
		FM20C030Q	FM20C045Q	FM20C065Q	FM20C125Q	FM20C175Q	FM20C225Q
Specification	Units	550599	550600	550601	550602	550603	550604
Flow Rate	CFM	2	2	2	2	2	2
	m3/hr	3.4	3.4	3.4	3.4	3.4	3.4
Threads B	-	6-30	9-45	13-65	25-125	35-175	45-225
Dimension C	Inches	7.18	7.18	7.18	7.18	7.18	7.18
	mm	182.4	182.4	182.4	182.4	182.4	182.4
Dimension D	Inches	7.0	7.0	7.0	5.8	5.8	5.8
	mm	177.8	177.8	177.8	147.3	147.3	147.3
Dimension E	Inches	2.0	2.0	2.0	2.0	2.0	2.0
	mm	50.8	50.8	50.8	50.8	50.8	50.8
Dimension F	Inches	3.75	3.75	3.75	3.75	3.75	3.75
	mm	95.3	95.3	95.3	95.3	95.3	95.3

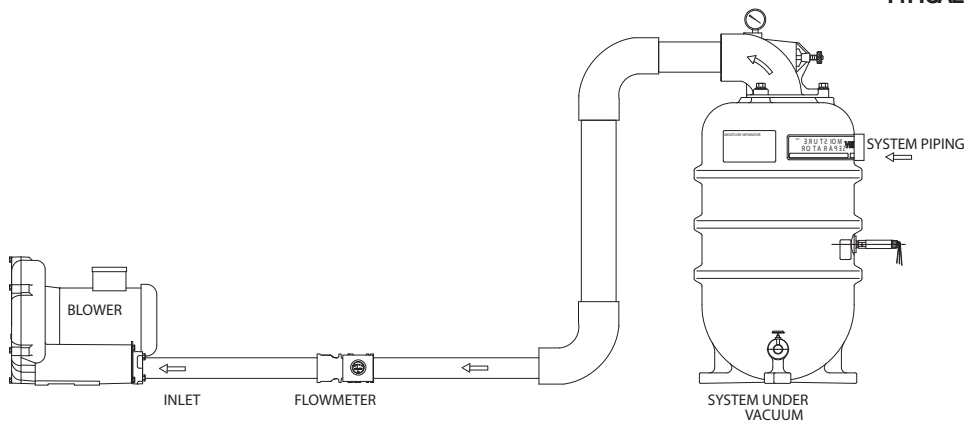
		Part/Model Number					
		FM30C250Q	FM30C350Q	FM30C475Q	FM40C450Q	FM40C600Q	FM40C850Q
Specification	Units	550605	550606	550607	550608	550609	550610
Flow Rate	CFM	2	2	2	2	2	2
	m3/hr	3.4	3.4	3.4	3.4	3.4	3.4
Threads B	-	50-250	70-350	95-475	90-450	120-600	170-850
Dimension C	Inches	7.18	7.18	7.18	7.18	7.18	7.18
	mm	182.4	182.4	182.4	182.4	182.4	182.4
Dimension D	Inches	7.0	7.0	7.0	5.8	5.8	5.8
	mm	177.8	177.8	177.8	147.3	147.3	147.3
Dimension E	Inches	2.0	2.0	2.0	2.0	2.0	2.0
	mm	50.8	50.8	50.8	50.8	50.8	50.8
Dimension F	Inches	3.75	3.75	3.75	3.75	3.75	3.75
	mm	95.3	95.3	95.3	95.3	95.3	95.3

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TYPICAL FLOW METER ARRANGEMENT



TYPICAL GAUGE FACE



HIGH TEMPERATURE/PRESSURE CORRECTION

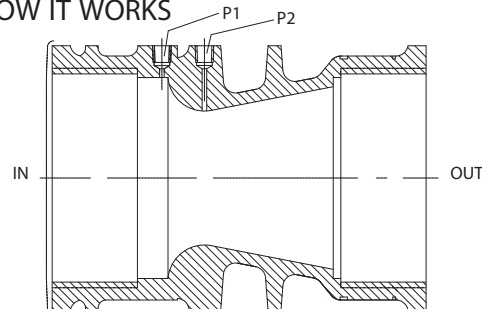
$$SCFM_2 = \frac{SCFM_1}{\sqrt{\left(\frac{14.7}{P_{f2}}\right) \times \left(\frac{530}{T_{f2} + 460}\right)}}$$

P_{f2} = Absolute Pressure in PSIA

T_{f2} = Temperature in °F

- Use on inlet to limit need to correct for high pressure or elevated outlet temperature
- Standard model limits = 140°F and 30 PSIG

HOW IT WORKS



ROTRON'S flow meter is a venturi style design. After air enters the inlet, the pressure is measured in the P1 tap. The second tap, P2, measures the pressure at the throat. The differential between P1 and P2 registers across a special calibrated CFM gauge to provide accurate readings. The throat is then expanded back to the original size to keep pressure loss to under 2-4 IWG.

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Accessories

Measurement - Digital Flowmeter

ROTRON®

Remote air flow rate monitoring and system automation control can now be achieved through the use of 4-20 mA output signals. Our 4-20 mA analog outputs are proportional to system flow rates and can be used with PLC controlled operations to monitor system performance. Those same outputs provide digital displays for direct readings in SCFM when paired with our LCD Digital Readout option. Combined with our Variable Frequency Drives, you can now achieve a completely automated system capable of adjusting blower performance to meet changing system demands. Maintaining your system at peak performance gives your company the competitive edge needed in today's marketplace.

DIFFERENTIAL PRESSURE TRANSMITTER

- 4-20 mA signal output control signals provide flow rate monitoring capabilities from remote locations
- NEMA 1R – raintight enclosure protects the integrated DC power supply and rugged differential pressure transducer
- Suitable for remote mounting up to 10' from flow meter
- Weight: 3 oz.
- Signal output: 4-20 mA, DC¹
- Hi/Lo pressure fittings feature snap lock action to insure trouble-free connections²
- System includes standard flow meter for on-site readings and troubleshooting
- Operating temperature: 0°F to 150°F
- Drawing available

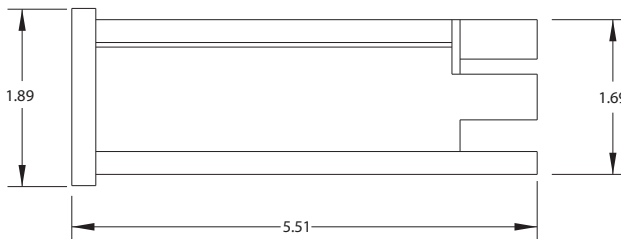
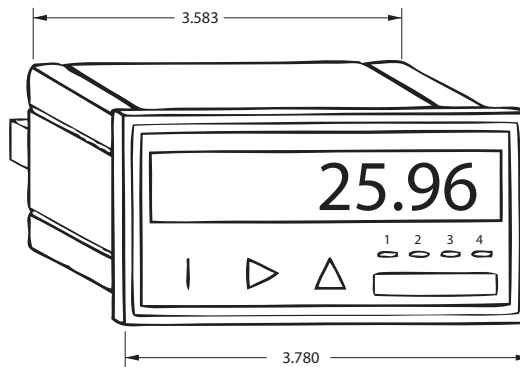
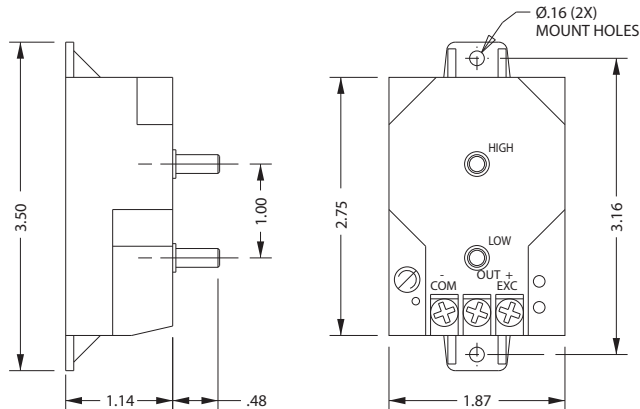
LCD DIGITAL READOUT OPTION

- Factory configured to display direct readings in SCFM to a remote location up to 50' from signal output¹
- NEMA 4, IP65 enclosure ready for panel mount installation power supply and rugged differential pressure transducer
- Suitable for remote mounting up to 10' from flow meter installation
- Power input: 120 VAC, 50/60 Hz AC, Field configurable to 240V AC
- Display: 5 digit, 7 segment, .5" high LED w/3.3 Hz update rate
- Operating temperature: 10°C to 40°C
- Weight: 1 lb., 14 oz.
- Drawing available

Note 1: 4-20mA output control wiring to be customer supplied. Shielded, 2 conductor cables, 22AWG is recommended for runs up to 100'. For longer runs contact factory.

Note 2: Use 5/16" OD stiff wall tubing -- connect "Lo" on flowmeter to "Lo" on 4-20 mA enclosure, "Hi" on flowmeter to "Hi" on 4-20 mA enclosure. Tubing must be equal in length (maximum length is 10 feet).

4-20 mA



FM20S030Q	FM20S045Q	FM20S065Q	FM20S125Q	FM20S175Q	FM20S225Q	FM30S250Q	FM30S350Q	FM30S475Q	FM40S450Q	FM40S600Q	FM40S850Q
550838	550839	550840	880841	880842	550843	550844	550845	550846	550847	550848	550849

LCD DISPLAY

FM20L030Q	FM20L045Q	FM20L065Q	FM20L125Q	FM20L175Q	FM20L225Q	FM30L250Q	FM30L350Q	FM30L475Q	FM40L450Q	FM40L600Q	FM40L850Q
550860	550861	550862	550863	550864	550865	550866	550867	550868	550869	550870	550871

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Frameless sound attenuating enclosures are a proven way to reduce regenerative blower mechanical noise when additional mufflers are just not enough. Additional enclosure options are available.

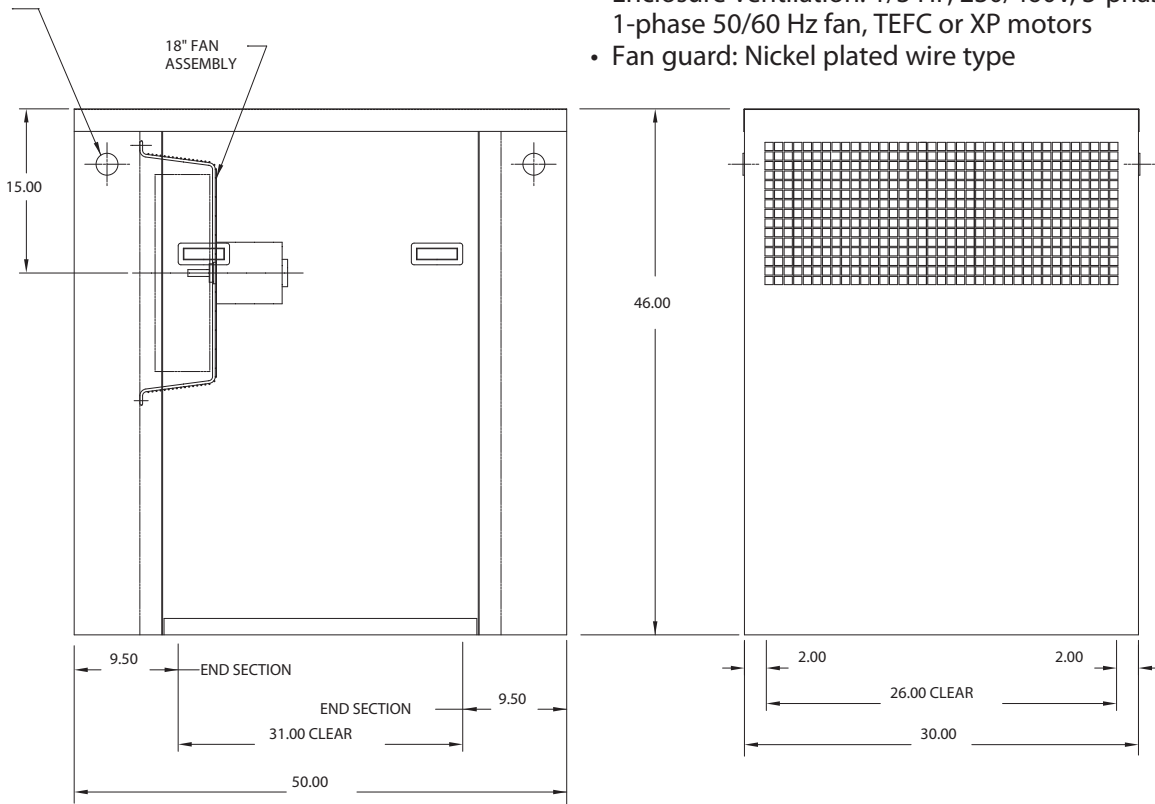
FEATURES:

- Excellent noise reduction (~10 dBa)
- Resistance to elements and aesthetic appearance
- Compact size for ease of installation
- Easy access for routine maintenance (removable roof and sidewalls)

SPECIFICATIONS:

- Roof, floor and walls: Galvanized 16 ga. carbon steel sheet metal
- Louvers and/or hood: Riveted aluminum
- Hardware: Chrome plated aluminum handles with stainless steel fasteners
- Latches: Over center galvanized with adjustable tension and padlock eye
- Sound attenuating material: 2" Rigid polyester foam with mylar facing (rated UL-94)
- Exterior finish: Polyurethane enamel
- Enclosure ventilation: 1/3 HP, 230/460V, 3-phase or 1-phase 50/60 Hz fan, TEFC or XP motors
- Fan guard: Nickel plated wire type

LIFTING HOLE
(PLUGGED)
TWO (2) PER SIDE
(TOTAL 4)



Part No. 552352 shown

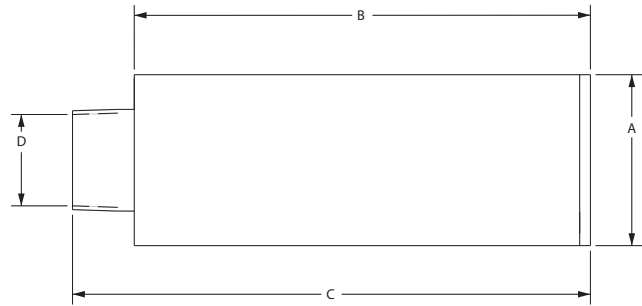
Specification	Units	Part/Model Number	
		SAE30W72F	SAE36W72F
		552352	552353
Width	Inches	30	36
	mm	762	914.4
Blower Size	-	656, 707, 757, 808, 858, 909, 979, P9, S9	14, P13, S13, P15, S15
Height	Inches	46	52
	mm	1168.4	1320.8
Length	Inches	50	60
	mm	1270	1524

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Mufflers lower blower noise in areas where reduced sound levels are required.

SPECIFICATIONS:

HOUSING – Steel
 MEDIA – Acoustical Material



Specification	Units	Part/Model Number						
		523627	516838	523626	523625	523624	523623	523622
Ref Blower Model	-	B	B	C	D	E	E	E
Inlet Connection	-	1.0 NPT Male	1.0 SO Slip on	1.25 NPT Male	1.50 NPT Male	2.00 NPT Male	2.00 NPSC Female	2.00 NPT Male
Dimension A	Inches mm	4.00 101.6	1.90 48.3	4.00 101.6	4.00 101.6	4.00 101.6	4.00 101.6	4.00 101.6
Dimension B	Inches mm	10.93 277.6	5.16 131.1	10.93 277.6	10.93 277.6	10.93 277.6	10.93 277.6	15.75 400.1
Dimension C	Inches mm	13.98 355.1	6.23 158.2	14.07 357.4	14.57 370.1	12.16 308.9	12.43 315.7	16.95 430.5
Dimension D	Inches mm	1.00 25.4	1.00 25.4	1.25 31.8	1.50 38.1	2.00 50.8	2.00 50.8	2.00 50.8

Blower Model Reference Key	
A = SPIRAL	E = DR/EN/CP 656, 6, 633, S7
B = DR/EN/CP 068, 083, 101, 202	F = DR/EN/CP 757, 808, 858, S9, P9 (Inlet Only)
C = DR/EN/CP 303, 312, 313, 353	G = DR/EN/CP 833, S13, P13 (Inlet Only)
D = DR/EN/CP 404, 454, 513, 505, 555, 523	H = DR/EN/CP 909, 979, 1233, 14, S15, P15 (Inlet Only)

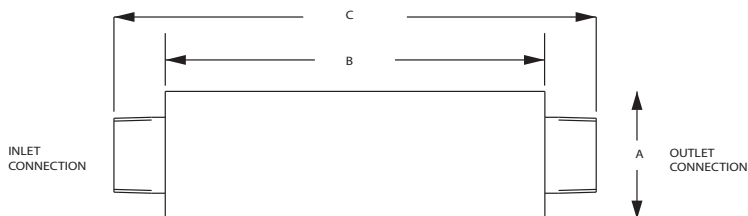
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Inline Mufflers are utilized for noise reduction in applications where piping systems are connected directly to both ends of the muffler. Muffler may be used on inlet or outlet of blower.

SPECIFICATIONS:

HOUSING – Steel

MEDIA – Acoustical Material



Specification	Units	Part/Model Number									
		550888	522948	529900	551377	515185	511569	515210	551565	516264	516265
Ref Blower Model	-	D	E	E	E	F	G	G	G	H	H
Inlet Connection	-	1.5 NPT-M	2.0 NPT-M	2.0 NPSC-F	2.0 NPT-M	2.5 NPT-M	3.0 NPT-M	4.0 NPT-M	4.0 NPT-M	4.0 NPT-M	6.0 NPT-M
Outlet Connection	-	2.0 NPT-F	2.0 NPSC-F	2.0 NPSC-F	2.0 NPT-M	2.5 NPT-F	3.0 NPT-F	4.0 NPT-F	4.0 NPT-M	4.0 NPT-F	6.0 NPT-F
Dimension A	Inches	4.00	4.00	4.38	4.00	6.12	7.00	10.00	10.00	8.00	12.00
	mm	101.6	101.6	111.3	101.6	155.4	177.8	254	254	203.2	304.8
Dimension B	Inches	7.75	15.75	15.75	15.75	15.00	18.00	24.00	24.00	22.00	30.00
	mm	196.9	400.1	400.1	400.1	381	457.2	609.6	609.6	558.8	762
Dimension C	Inches	15.5	18.45	18.45	18.15	19.00	22.25	30.00	30.00	27.75	36.75
	mm	393.7	468.6	468.6	461	482.6	565.2	762	762	704.9	933.5

Blower Model Reference Key	
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C = DR/EN/CP 303, 312, 313, 353	G = DR/EN/CP 833, S13, P13 (Inlet Only)
D = DR/EN/CP 404, 454, 513, 505, 555, 523	H = DR/EN/CP 909, 979, 1233, 14, S15, P15 (Inlet Only)

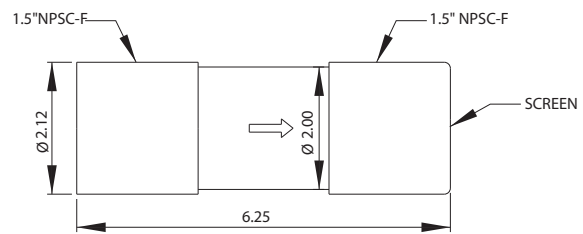
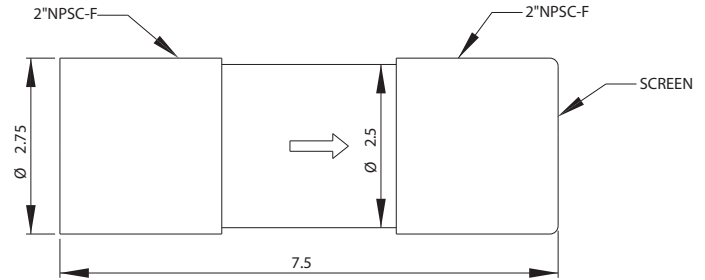
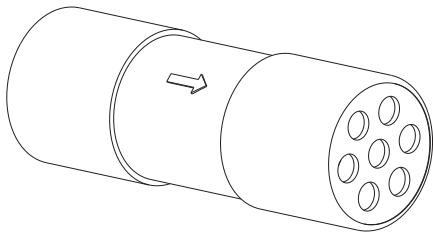
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These Relief Valves offer an alternative to our diaphragm regulated designs for applications where pressure/vacuum level control is less critical. Installed properly, they protect your system from excessive pressures/vacuums and keep your blower from overheating.

Mechanical

- Suitable for both pressure and vacuum systems
- Inlet screen can be installed on either end as required

NOTE: Relief valves are not factory preset.

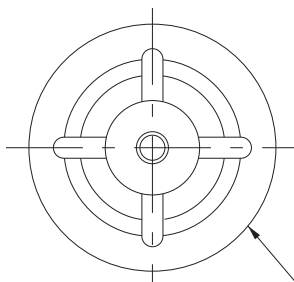


Note: Blower models DR858, P9, and S9 require two 551027 relief valves.

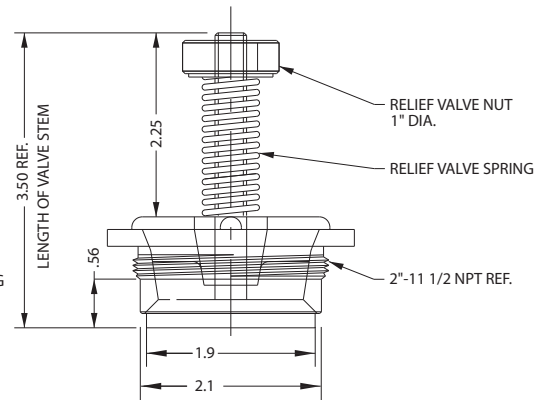
Mechanical Vacuum Only

- Suitable for vacuum relief only
- Specifically designed for protecting system piping and vessels from damage caused by excessive vacuums

NOTE: Relief valves are not factory preset.



RELIEF VALVE HOUSING
3" DIAMETER



Specification	Units	Part/ Model Number		
		551026	551027	523230
Ref Blower Model	-	B, C, D	D, E, F	A, B, C, D, E, F
Range	in. H2O mbar	20-180 49.8-448.4	41.5-263 103.4-655.1	35-90 87.2-224.2
Connection	-	1 1/2	2	2
Description	-	Mechanical	Mechanical	Mechanical Vacuum Only

Blower Model Reference Key	
A = SPIRAL	E = DR/EN/CP 656, 6, 633, S7
B = DR/EN/CP 068, 083, 101, 202	F = DR/EN/CP 757, 808, 858, S9, P9 (Inlet Only)
C = DR/EN/CP 303, 312, 313, 353	G = DR/EN/CP 833, S13, P13 (Inlet Only)
D = DR/EN/CP 404, 454, 513, 505, 555, 523	H = DR/EN/CP 909, 979, 1233, 14, S15, P15 (Inlet Only)

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The PRD Valve is installed to prevent excessive system pressure or vacuum that could result from line restrictions. Valves should be installed at the blower outlet (downstream) in pressure systems and at blower inlet (upstream) in vacuum systems. These valves are suitable for air, natural gas, propane, and other non-corrosive service.

Note: PRD valves are not factory preset, but are easily adjustable.

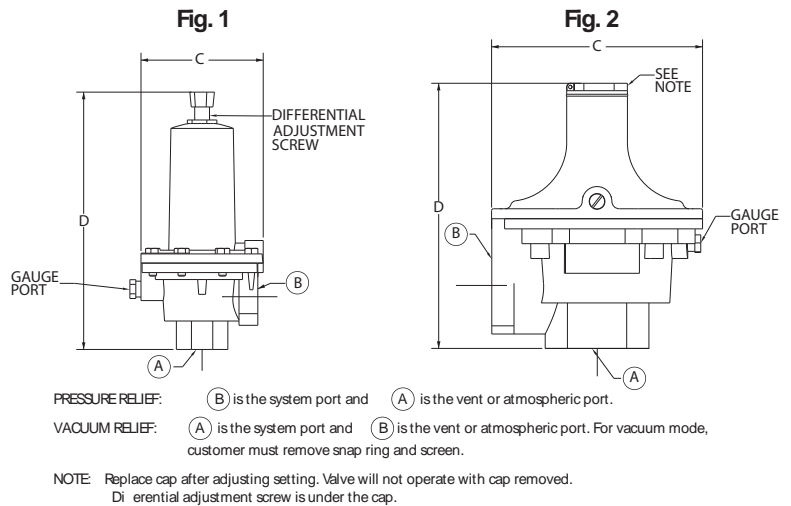
SPECIFICATIONS:

VALVE BODY – Aluminum (1"), Cast Iron (2")

VALVE SPRING – Steel

DIAPHRAGM – Nitrile

NOTE: Blower Model P13 requires two 515093 relief valves.



Specification	Units	Part/Model Number								
		515092	529612	529857	529858	551130	515093	529859	550246	550247
Range	in. H2O mbar	27-125 67.3-311.4	110-415 274-1033.8	277-554 690-1380	7-18 17.4-44.8	14-62 34.9-154.4	48-194 119.6-483.3	110-277 274-690	97-197 241.6-490.7	97-194 241.6-483.3
Description	-	Fig. 1	Fig. 1	Fig. 1	Fig. 2	Fig. 2	Fig. 2	Fig. 2	Fig. 2	Not Shown
Ref Blower Model	-	B, C, D, C	B, C, D, E	B, C, D, E	F, G	F, G	F, G	F, G	F, G	H
Inlet Connection	-	1	1	1	2	2	2	2	2	2.5
Outlet Connection	-	1	1	1	2	2	2	2	2	2.5
Dimension A	Inches mm	1.00 25.4	1.00 25.4	1.00 25.4	2.00 50.8	2.00 50.8	2.00 50.8	2.00 50.8	2.00 50.8	2.50 63.5
Dimension B	Inches mm	1.00 25.4	1.00 25.4	1.00 25.4	2.00 50.8	2.00 50.8	2.00 50.8	2.00 50.8	2.00 50.8	2.50 63.5
Dimension C	Inches mm	4.12 104.6	4.12 104.6	4.12 104.6	7.12 180.8	7.12 180.8	7.12 180.8	7.12 180.8	7.12 180.8	6.19 157.2
Dimension D	Inches mm	8.70 221	8.70 221	8.70 221	9.00 228.6	9.00 228.6	9.00 228.6	9.00 228.6	9.00 228.6	7.65 194.3

Blower Model Reference Key	
A = SPIRAL	E = DR/EN/CP 656, 6, 633, S7
B = DR/EN/CP 068, 083, 101, 202	F = DR/EN/CP 757, 808, 858, S9, P9 (Inlet Only)
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ROTRON has a variety of gauges for pressure, vacuum and temperature measurements in various ranges. These gauges are reliable and rugged.

SPECIFICATIONS:

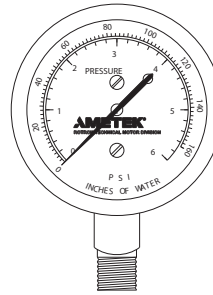
Pressure/ Vacuum

CASE – Drawn Steel Finished
in Black Enamel
DIAPHRAGM – Bronze
LENS – Clear Plastic
ACCURACY – 2%
WEIGHT – 1/2 lb.
CONNECTION – 1/4" NPT
FACE – 2 1/2" dia.

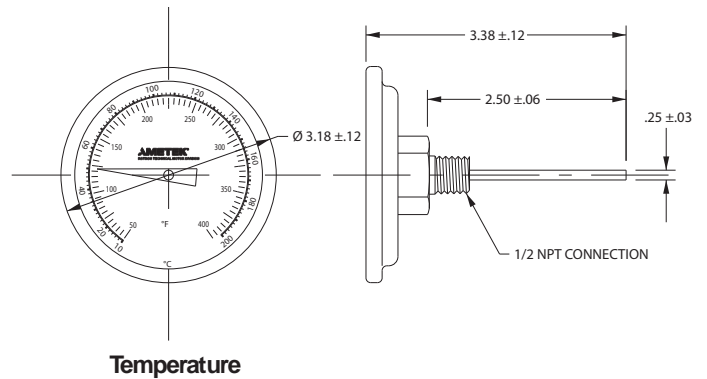
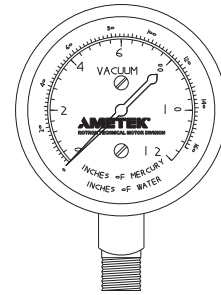
Temperature

CASE – Steel
LENS – Glass
ACCURACY – 1%
WEIGHT – 1/4 lb.
CONNECTION – 1/2" NPT
FACE – 3" Dial

Pressure



Vacuum



Temperature

Specification	Units	Part/Model Number						
		551376	271949	550407	529428	271950	550408	551368
Range	-	Pressure	Pressure	Pressure	Vacuum	Vacuum	Vacuum	Temperature
Description	-	0-60 IWG	0-160 IWG	0-280 IWG	0-60 IWG	0-160 IWG	0-280 IWG	0-200 Deg C

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A Variable Frequency Drive (VFD) is an adjustable speed AC motor control designed to speed the blower RPM up or down. Our VFDs are designed to minimize losses and deliver increased efficiency, low maintenance, and the long life expected from the ROTRON product line.

FEATURES

- Adjustable flow rates to maximize your system efficiency by controlling motor RPMs
- Accepts 3Ø or 1Ø inputs to drive 3Ø motor blower assemblies
- Accepts 4-20 mA, 0-5 VDC or 0-10 VDC inputs for system automation control and integration
- Provides dynamic braking capabilities
- Replaces motor starter function
- Digital readout in either Hz or RPMs
- Keypad enclosure (NEMA 4X - Indoor) can be mounted up to 100' from controller with cable assembly (optional)

SYSTEM REQUIREMENTS

- In cases where the distance between the controller and motor exceed 50', the use of a line reactor on load side is needed.
- XP motors must be UL listed for use with a Variable Frequency Drive.



VARIABLE FREQUENCY DRIVE SELECTION

There are some common guidelines in sizing a VFD for use on a AMETEK ROTRON blowers such as the allowable speed (Table 1) for a given motor type. To determine the required RPM to achieve a desired flow and pressure from a specific blower, turn to the Blower Performance at Variable Speeds in section E of this catalog. The required RPM must fall within the allowable rate of the motor being used.

TABLE 1

Motor	Allowable Turndown	Allowable Speedup
Standard	3600 RPM to 1800 RPM	—
Hi Efficiency	3600 RPM to 900 RPM	—
Inverter Motor	3600 RPM to 360 RPM*	3600 RPM to 7200 RPM

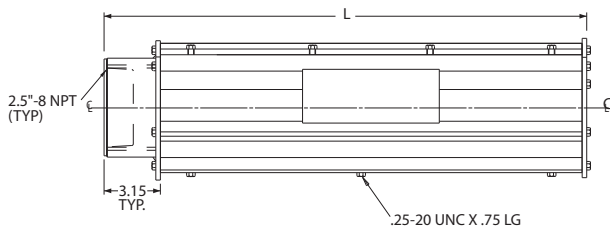
* Turndown of 10:1 is not typically done with regenerative blower designs.

For all applications above 3600 RPM, contact your Field Sales Engineer for proper horsepower sizing.

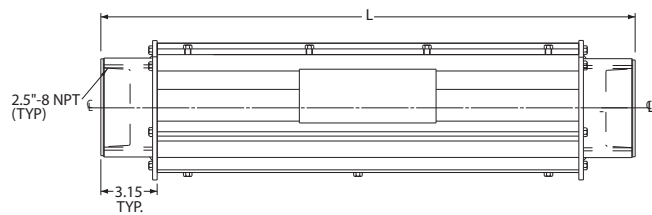
Part Number	Model Number	Specification
		Description
IV101AE58	551529	115/1, Up to 0.5 HP, DR068-DR303
IV102AE58	551530	230/1, Up to 0.5 HP, DR068-DR303
IV101AL58	551531	115/1, 0.75 to 1.0 HP, DR353-DR404
IV102AL58	551532	230/1 or 3, 0.75 to 1.0 HP, DR353-DR404
IV103AL72	551533	460/3, 0.75 to 1.0 HP, DR353-DR404
IV102AS58	551534	230/1 or 3, 1.5 to 2.0 HP, DR454-DR505
IV103AS72	551535	460/3, 1.5 to 2 HP DR454-DR505
IV102K58	551536	230/1 or 3, 2.5 to 3 HP, DR505-DR555
IV103K72	551537	460/3, 2.5 to 3.0 HP, DR505-DR555
IV102D58	551538	230/1 or 3, 3.5 to 5 HP, DR555-DR808D
IV103D72	551539	460/3, 3.5 to 5 HP DR555 to DR808D
IV152AY58	551540	230/3, 5.5 to 7.5 HP, DR808-DR858
IV152AY72	551541	460/3 5.5 to 7.5, DR808 – DR858
IV152BB58	551542	230/3, 8 to 10 HP, DR858-DR909
IV153BB72	551543	460/3, 8 to 10 HP, DR858-DR909
IV152BC58	551544	230/3, 10.5 to 15 HP, DR909
IV153BC72	551545	460/3, 10.5 to 15 HP, DR909
IV152BH58	551546	230/3, 15.5 to 20 HP, DR9, DR14BH
IV153BH72	551547	460/3, 15.5 to 20 HP, DR9, DR14BH
IV152BP58	551548	230/3, 20.5 to 30 HP, DR13, DR14
IV153BP72	551549	460/3, 20.5 to 30 HP, DR13, DR14
IV152BQ58	551550	230/3, 30.5 to 40 HP, DR15
IV153BQ72	551551	460/3, 30.5 to 40 HP, DR15
IV153ED72	551552	460/3, 50.5 to 60 HP, DR15

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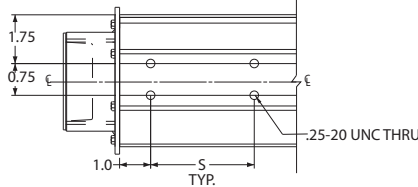
SINGLE-ENDED SIDE VIEW*



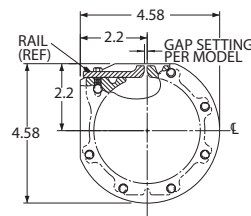
DOUBLE-ENDED SIDE VIEW**



* Air knives 30" and smaller
MOUNTING VIEW



CAPPED END VIEW



Specification	Units	Part/Model Number									
		AK06S060	AK12S060	AK18S060	AK24S060	AK30S060	AK36S060	AK42S060	AK48S060	AK54S060	AK60S060
		523489	523490	522949	523491	522950	523492	523493	523494	523495	523496
Length (L)	Inches	9.30	15.30	21.30	27.30	33.30	42.30	48.30	54.30	60.30	66.30
	mm	236.2	388.6	541	693.4	845.8	1074.4	1226.8	1379.2	1531.6	1684
Slot Length	Inches	6	12	18	24	30	36	42	48	54	60
	mm	152.4	304.8	457.2	609.6	762	914.4	1066.8	1219.2	1371.6	1524
Dimension S	Inches	4.00	10.00	16.00	22.00	28.00	17.00	20.00	23.00	26.00	29.00
	mm	101.6	254	406.4	558.8	711.2	431.8	508	584.2	660.4	736.6

Air Knives

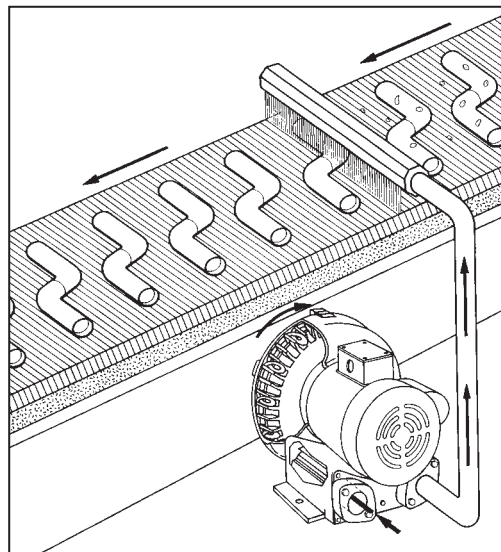
An Oil-free Blowing and Drying System
Custom-fit for Your Application

FEATURES:

- Lightweight aluminum plenum and rail, steel end cap, and cast-iron NPT flanges
- Engineered, extruded design to achieve 95% efficiency
- Adjustable slot (pre-set at 0.060") to control velocity from 5000-35000 fpm
- Custom cut lengths to fit system restraints
- Oil-free and lower cost alternative to compressed air for blow-off, solution blow-back, and drying applications

OPTIONS:

- Chemical resistant designs utilizing Chem-Tough™ chemically resistant surface conversion, stainless steel hardware, and nickel plated end caps and flanges
- Food processing grade designs utilizing Food-Tough™ sanitary treatment surface conversion, stainless steel hardware, and nickel plated end caps and flanges
- Deionizers for sterile environments available
- Mirror image single-ended models for above and below conveyor operation

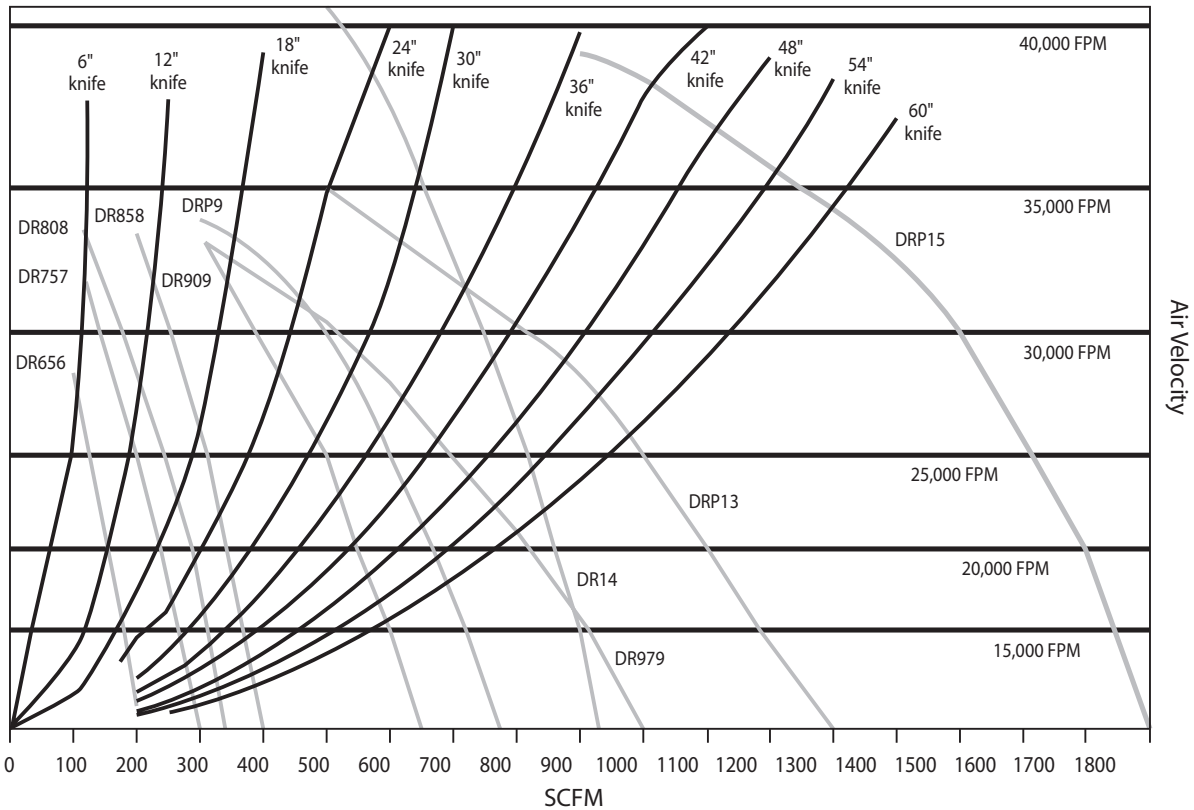


The ROTRON air knife is located at a strategic point in your assembly line conveyor belt area. Air flows from the blower into the air knife, where a sheet of air is directed out through a proprietary linear nozzle design onto assembly line parts. The opening can be altered to adjust the air-flow rate, thus varying blow-off velocity to meet your application requirements.

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Precision Cleaning Air Knife and Blower Selection Chart



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These unique solenoid actuated diverter valves automatically change air piping from pressure to suction; greatly enhancing blower versatility and productivity. This valve is effective in blower applications that require frequent switching of air from pressure to suction and vice-versa. They are cost effective as applications normally requiring two blowers and/or intricate piping systems may be accomplished with one blower.

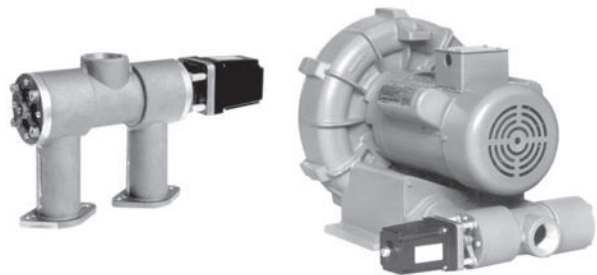
Diverter valves may be purchased as blower/valve assemblies, or as separate stand-alone valve assemblies for use in other switched air applications.

SPECIFICATIONS:

- Aluminum body and spool assembly
- 303 stainless steel shaft
- 115 V-60 Hz solenoid valve
- Over 1,000,000 cycle life expectancy

OPTIONS

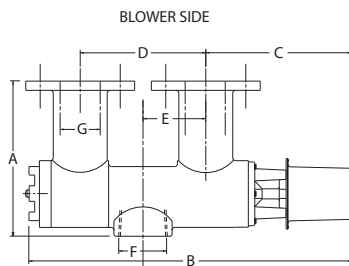
- Corrosion resistant surface treatments
- International voltage and frequency (Hz)
- Application specific designs



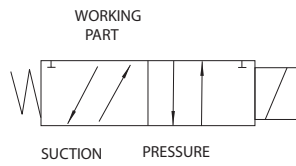
DR 505 BLOWER WITH DIVERTER VALVE

The principle behind ROTRON'S diverter valve system is a simple one: Some applications such as vacuum part pick-up, air tables, and pneumatic tube systems require both vacuum and pressure in their equipment's operation, but not simultaneously. They eliminate the need for two separate blowers, and elaborate valving system, or cycling/reversing a spinning blower impeller. ROTRON'S diverter valve changes the air passageways. By utilizing the side vent ports for incoming or outgoing air, the equipment/piping side of the valve changes from vacuum to pressure and back again by a signal sent to the solenoid coil.

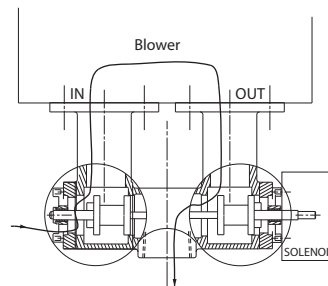
Specification	Units	Part/Model Number		
		515554	037435	037482
Description	-	DR404, DR454, DR505	DR6, DR808, DR858	DR6, DR808, DR858
Ref Blower Model	-	Small	Large	Large
Piping Flange	-	Threads	Threads	Threads
Blower Flange	-	Face	Threads	Face
Dimension A	Inches	7.65	9.25	9.25
	mm	194.3	235	235
Dimension B	Inches	14.22	23.39	23.39
	mm	361.2	594.1	594.1
Dimension C	Inches	7.14	10.93	10.93
	mm	181.4	277.6	277.6
Dimension D	Inches	2.50	3.55	3.55
	mm	63.5	90.2	90.2
Dimension E	Inches	5.00	7.10	7.10
	mm	127	180.3	180.3
Dimension F	Inches	1.50	2.50	2.50
	mm	38.1	63.5	63.5
Dimension G	Inches	1.50	2.50	2.50
	mm	38.1	63.5	63.5



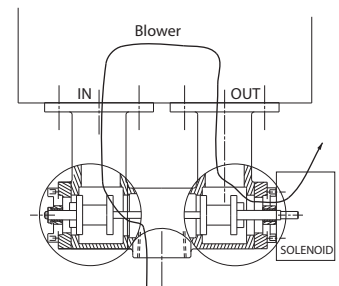
EQUIPMENT/PIPING SIDE
Consult factory for proper selection and application.



ISO VALVE DRAWING



"PRESSURE" AIR PATH
DE-ENERGIZED POSITION



"SUCTION" AIR PATH
ENERGIZED POSITION

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ROTRON RELEASED BLOWERS WITH DIVERTER VALVE MOUNTED

Model *	Part No.	Mounted Components Diverter Valve	Manifold
DR353BR58MV	080757	515554	517077
DR404AL72MV	037749		
DR404AL58MV	037715		
DR454R72V	037605		529397
DR454R58V	037122		517459
DR505AS72MV	037709		
DR505AS58MV	037554		
DR808AY72WV	080084	037482	550667
DR858BB72WV	080085		



DIVERTER VALVE MANIFOLD

• Models listed below include diverter valve and manifold.

Blower Model Reference Key

A = SPIRAL	E = DR/EN/CP 656, 6, 633, S7
B = DR/EN/CP 068, 083, 101, 202	F = DR/EN/CP 757, 808, 858, S9, P9 (Inlet Only)
C = DR/EN/CP 303, 312, 313, 353	G = DR/EN/CP 833, S13, P13 (Inlet Only)
D = DR/EN/CP 404, 454, 513, 505, 555, 523	H = DR/EN/CP 909, 979, 1233, 14, S15, P15 (Inlet Only)

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FEATURES

- 8 air velocity ratings available in single pole double throw design
- Interchangeable stainless steel actuating vanes, black enameled aluminum housing and cover, copper spring and pure silver contacts
- SPDT 5 amp 250 VAC
- Mounts on round and flat ducts with single screw
- 500,000 operations life expectancy
- Operates reliably in ambient temperatures of -35°C to +85°C.
- Weight: 4.5 oz (0.13 kg)

quickly determine which vane size has the sensitivity rating required in any particular experimental set-up.

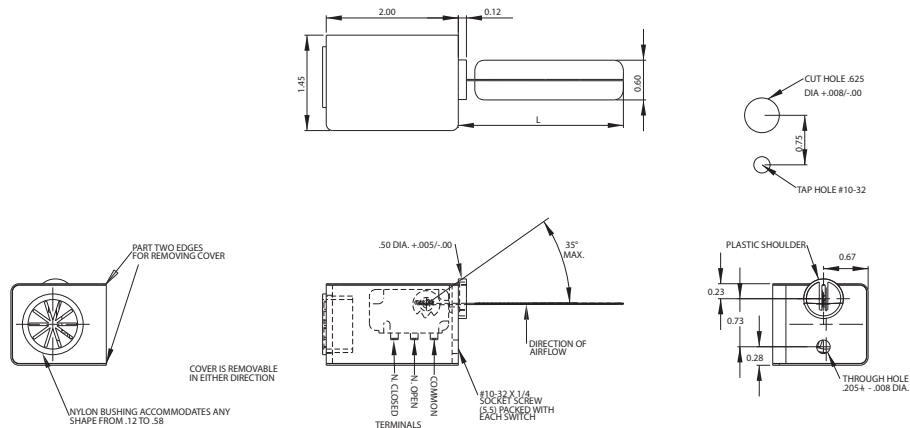
HOW IT WORKS

The ROTRON Air Flow Switch is actuated by air velocity rather than air pressure. It is designed for easy mounting on the outside of an air duct with a small lightweight stainless steel vane protruding through a hole in the duct into the airstream. A snap action switch is actuated when the velocity pressure against the vane moves it in the direction of the air flow. As the velocity of the airstream decreases for any reason the vane moves back towards its original position and the switch deactuates.

The switch can be used as an interlock for on-off purposes, or as a marginal safety device where the electrical contacts are operated at a predetermined minimum flow rate.

DETERMINATOR KIT - PART NO. 041100

In order to determine the best sensitivity rating, use the ROTRON "Determinator Kit." The kit consists of a switch together with a complete set of 8 actuating vanes. By interchanging these vanes on the switch it is possible to



Specification	Units	Part/Model Number							
		AFS2C/1003	AFS2C/1353	AFS2C/1603	AFS2C/1803	AFS2C/2003	AFS2C/2453	AFS2C/3003	AFS2C/4003
		041101	041102	041103	041104	041105	041106	041107	041108
Max Length	Inches	2.50	1.91	1.63	1.41	1.09	0.91	0.78	0.72
	mm	63.5	48.5	41.4	35.8	27.7	23.1	19.8	18.3

Actuation/Deactuation Velocities (FPM / M/S)

Model	Part No.	Arm – Horizontal Airstream – Horizontal		Arm – Vertical Vane Down Airstream – Horizontal		Arm – Horizontal Airstream – Vertical-Up		Arm – Horizontal Airstream – Vertical-Down	
		Actuate	Deactuate	Actuate	Deactuate	Actuate	Deactuate	Actuate	Deactuate
AFS 2C/1003	041101	735 (3.73)	630 (3.20)	750 (3.81)	615* (3.12)	785 (3.99)	700 (3.55)	NOT USABLE	NOT USABLE
AFS 2C/1353	041102	1025 (5.21)	970 (4.93)	1000 (5.08)	890 (4.52)	1125 (5.71)	1030 (5.23)	720* (3.66)	685* (3.48)
AFS 2C/1603	041103	1215 (6.17)	1095 (5.56)	1225 (6.22)	1130 (5.74)	1340 (6.81)	1212 (6.16)	1040 (5.28)	865* (4.39)
AFS 2C/1803	041104	1460 (7.42)	1335 (6.78)	1500 (7.62)	1375 (6.98)	1550 (7.87)	1450 (7.37)	1280 (6.50)	1115* (5.66)
AFS 2C/2003	041105	1790 (9.09)	1580 (8.02)	1760 (8.94)	1580 (8.02)	1800 (9.14)	1675 (8.51)	1595* (8.10)	1425* (7.24)
AFS 2C/2453	041106	2120 (10.77)	1867 (9.48)	2270 (11.53)	2035 (10.34)	2340 (11.89)	2120 (10.77)	2125 (10.79)	1950 (9.91)
AFS 2C/3003	041107	2690 (13.66)	2420 (12.29)	2880 (14.63)	2570 (13.05)	2925 (14.86)	2700 (13.71)	2780 (14.12)	2395 (12.17)
AFS 2C/4003	041108	3720 (18.90)	3485 (17.70)	3870 (19.66)	3520 (17.88)	4000 (20.32)	3680 (18.69)	3760 (19.10)	3565 (18.11)

NOTE: All figures are ±15% except: * denotes ±20%.

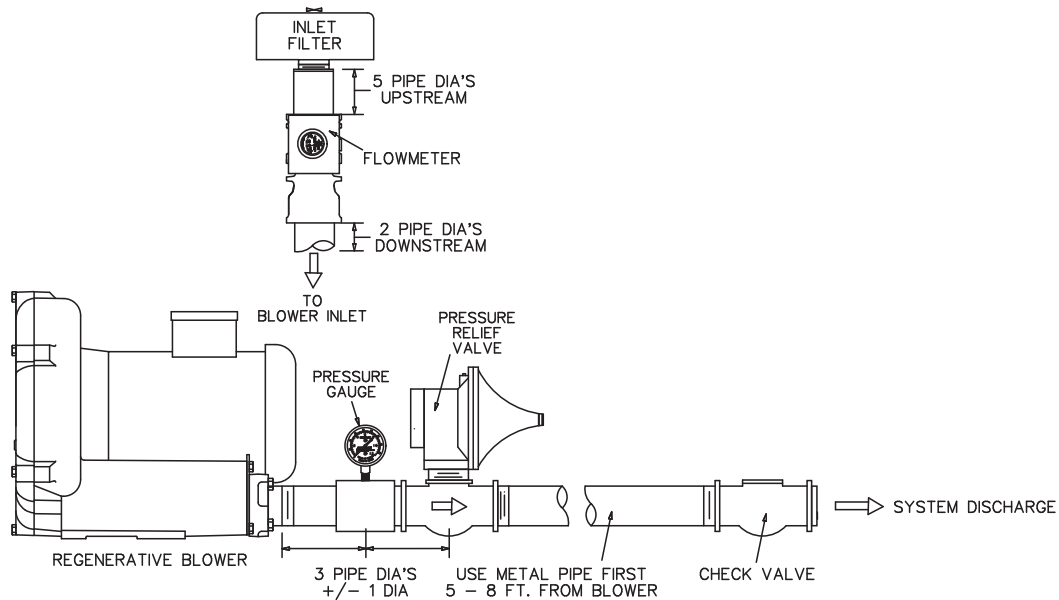
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Pressure or vacuum gauges should be located in the delivery line, oriented as shown. Assume that the gauge is approximately three pipe diameters from the blower delivery flange and that the relief valve is located at the same spacing from the gauge. 90° elbows should be located at least five pipe diameters from the blower delivery flange. Elbows, taps, tees, valves, or other restrictions to air flow should not be located between the blower delivery flange and accessories described above.

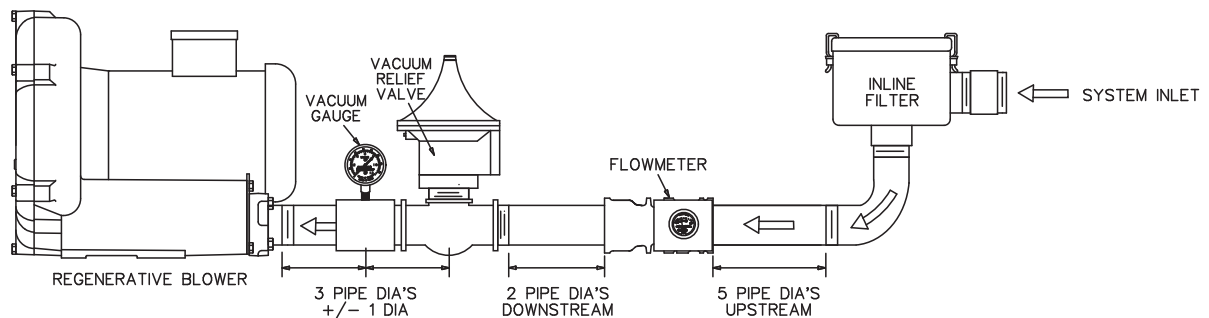
Failure to observe these precautions can result in false readings of gauges and failure of the relief mechanism to protect the blower from overload.

In order to avoid overheating or distortion of PVC pipe, the first five to eight feet from the blower delivery flange on pressure systems should be metal.

Typical Pressure System



Typical Vacuum System



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