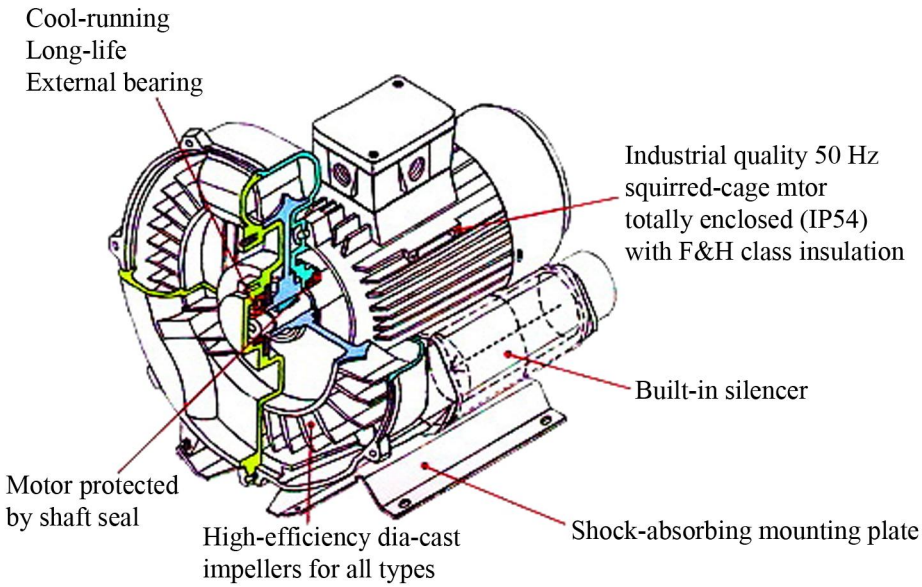
AIRFLOW

RING BLOWER



High Reliability

Airflow blowers offer a unique design resulting in a blower with one moving part - which means more-up time and lower maintenance. Long-life shielded bearing are mounted on both sides of the impeller and outside of the pumping chamber, providing

Higher pressure ratios
Cooler running bearings
Longer grease life
Simple maintenance
100% Oil-free air
No vibration and therefore complete dynamic stability

Oil Free Air

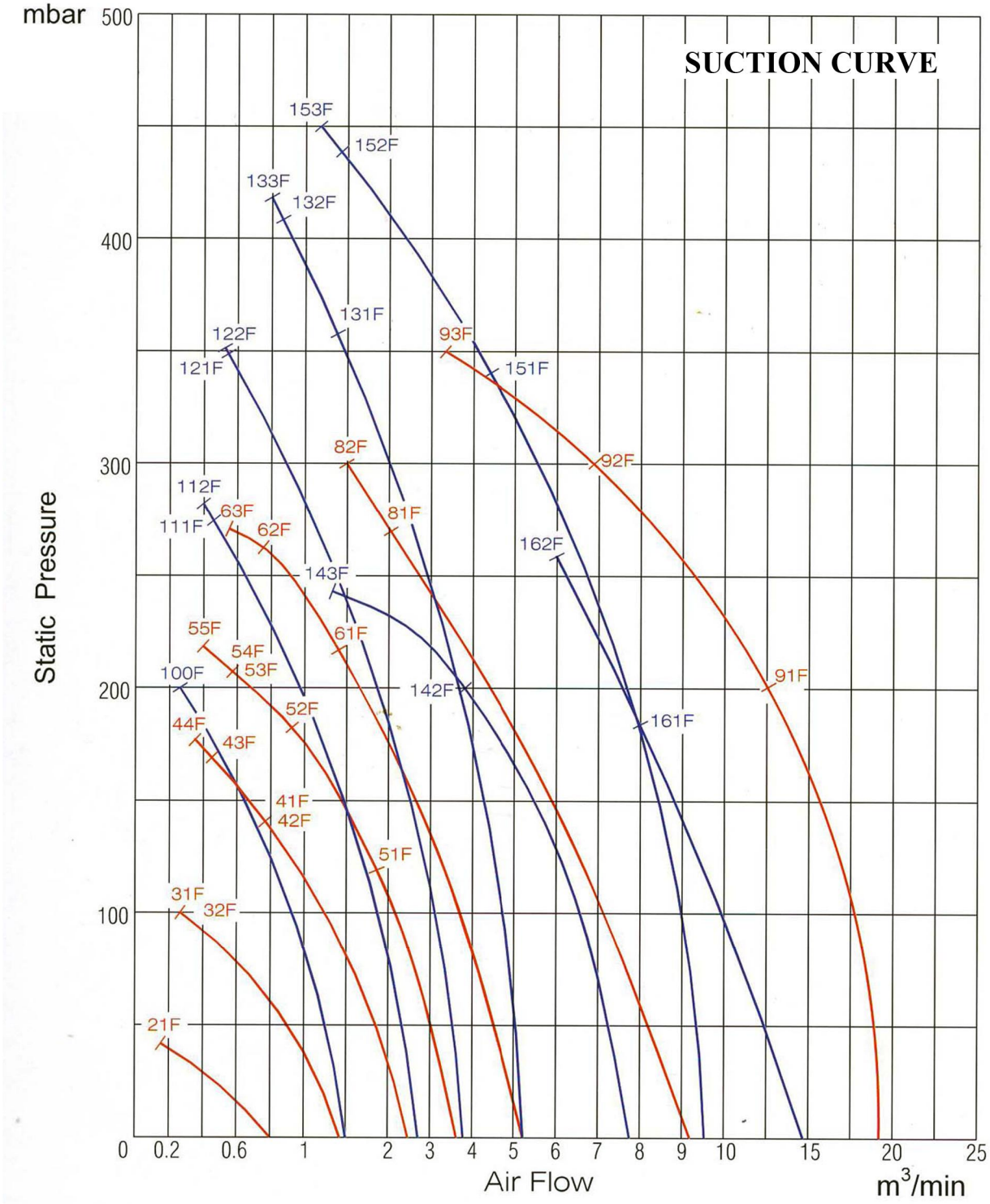
The impeller rotates with absolutely no contact between it and the housing. This means no lubrication is required for the pump, quaranteeing 100% oil-free air and operation.

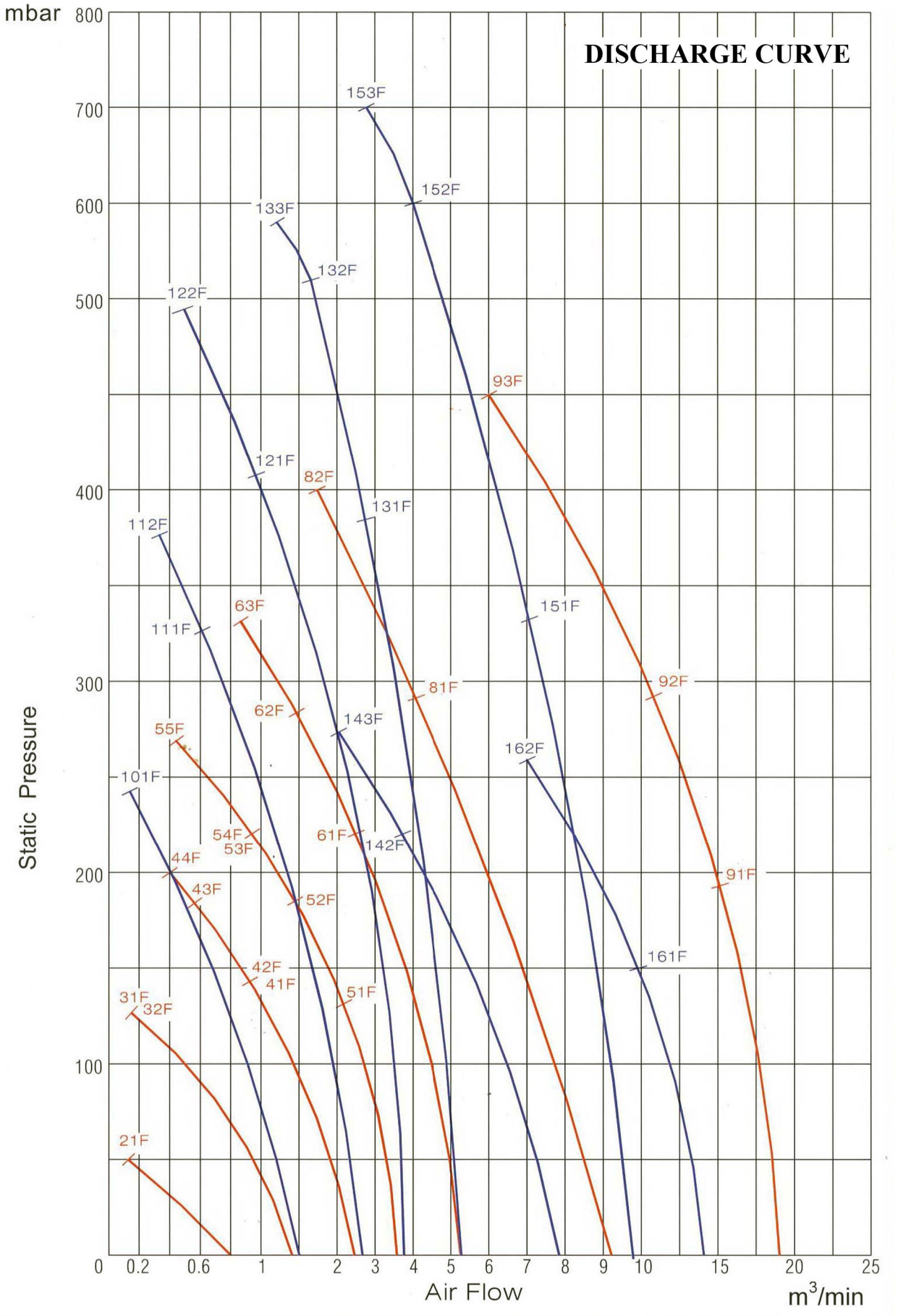
High Quality

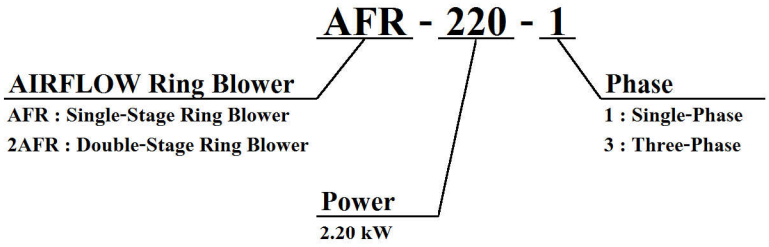
Airflow products, Small features like TEFC DIN EN 60034/IEC 34-1 Class F IP54 insulated motors with a 1.15 SF are standard for the three phase tolerances +/- 10% for fixed voltage and single phase +/- 5%. Maintenance-free seal between the blower chamber and the motor demonstrates the overall quality of the full line of Vacuum blower from Aitflow.

Application

Airflow Side Channel Blower is a complete unit, ready for installation as either a vacuum of compressor. They are designed for handling air of non-explosive gasses of gas-air mixtures in ambient temperatures to 40 degrees C where an oil-free air pressure of vacuum source is required.


SUCTION CURVE
mbar
Static Pressure
500
400
300
200
100
0
0.2
0.6
1
2
3
4
5
6
7
8
9
10
15
20
25
Air Flow
m3/min
153F
152F
133F
132F
131F
122F
121F
93F
151F
82F
92F
112F
111F
63F
62F
81F
162F
143F
55F
54F
53F
61F
100F
142F
91F
52F
161F
44F
43F
41F
42F
51F
31F
32F
21F


DISCHARGE CURVE
mbar
800
700
600
500
400
300
200
100
0
Static Pressure
153F
152F
133F
132F
122F
93F
121F
82F
131F
112F
151F
63F
111F
92F
81F
62F
143F
55F
162F
101F
54F
53F
61F
142F
44F
91F
43F
52F
161F
42F
41F
51F
31F
32F
21F
0.2
0.6
1
2
3
4
5
6
7
8
9
10
15
20
25
Air Flow
m3/min

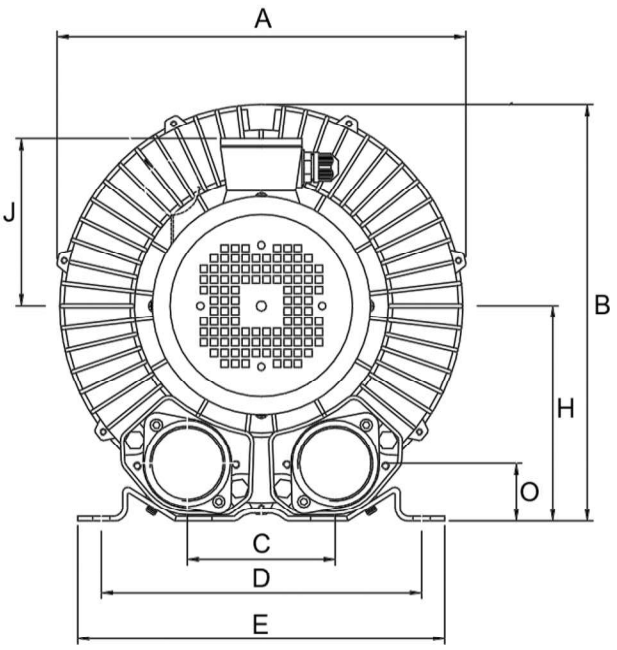


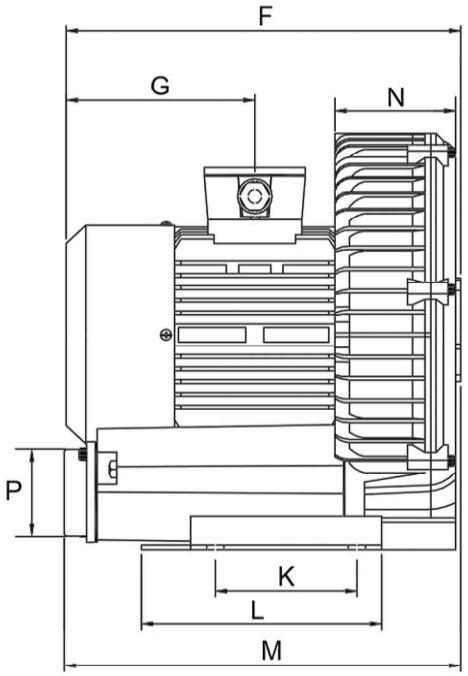
AIRFLOW RING BLOWER PERFORMANCE 50 HZ

Model	Curve	Power	Discharge		Suction		Phase	Freq.	Voltage	Inlet Outlet	Net Weight	Noise* Level
		(HP)	Maximum Pressure (mbar)	Maximum Airflow (m^3/min)	Maximum Vacuum (mbar)	Maximum Airflow (m^3/min)		(Hz)	(V)	(in)	(kg)	(dB)
AFR-020-1	21F	0.25	+70	0.8	-70	0.8	1	50	110-120/220-240	1"	6.5	53.0
AFR-040-1	31F	0.5	+130	1.4	-110	1.4	1	50	110-120/220-240	1"1/4	11.5	58.0
AFR-075-1	41F	1	+140	2.4	-140	2.4	1	50	110-120/220-240	1"1/2	15.0	63.0
AFR-150-1	53F	2	+220	3.6	-210	3.6	1	50	220-240	2"	23.0	70.0
AFR-220-1	61F	3	+230	5.2	-230	5.2	1	50	220-240	2"	33.5	72.0
AFR-340-1	62F	5	+280	5.2	-260	5.2	1	50	220-240	2"	36.5	72.0
AFR-020-3	21F	0.25	+70	0.8	-70	0.8	3	50	208-255/360-440	1"	6.5	53.0
AFR-040-3	31F	0.5	+130	1.4	-110	1.4	3	50	208-255/360-440	1"1/4	11.0	58.0
AFR-075-3	41F	1	+140	2.4	-140	2.4	3	50	208-255/360-440	1"1/2	14.5	63.0
AFR-175-3	53F	2	+220	3.6	-210	3.6	3	50	208-255/360-440	2"	23.0	70.0
AFR-220-3	61F	3	+230	5.2	-230	5.2	3	50	208-255/360-440	2"	32.0	72.0
AFR-340-3	62F	5	+280	5.2	-260	5.2	3	50	208-255/360-440	2"	35.0	72.0
AFR-550-3	81F	7.5	+300	9.2	-270	9.2	3	50	220-240/380-415	2"1/2	78.0	74.0
AFR-750-3	82F	10	+400	9.2	-300	9.2	3	50	220-240/380-415	2"1/2	82.0	74.0
AFR-900-3	91F	15	+200	18.9	-200	18.9	3	50	220-240/380-415	4"	100.0	76.0
AFR-1300-3	92F	20	+300	18.9	-300	18.9	3	50	220-240/380-415	4"	112.0	76.0
AFR-2000-3	93F	30	+450	18.9	-350	18.9	3	50	220-240/380-415	4"	159.0	76.0

AIRFLOW RING BLOWER PERFORMANCE 50 HZ

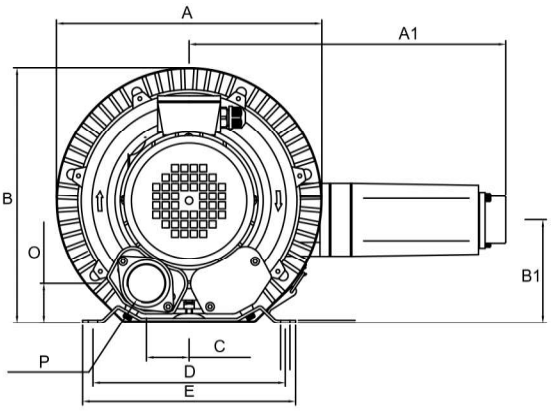
Model	Curve	Power	Discharge		Suction		Phase	Freq.	Voltage	Inlet Outlet	Net Weight	Noise* Level
		(HP)	Maximum Pressure (mbar)	Maximum Airflow (m^3/min)	Maximum Vacuum (mbar)	Maximum Airflow (m^3/min)		(Hz)	(V)	(in)	(kg)	(dB)
2AFR-075-3	101F	1	+240	1.5	-200	1.5	3	50	208-255/360-440	1"1/4	17.0	60.0
2AFR-175-3	111F	2	+320	2.6	-275	2.6	3	50	208-255/360-440	1"1/2	25.0	66.0
2AFR-220-3	112F	3	+375	2.6	-280	2.6	3	50	208-255/360-440	1"1/2	28.0	66.0
2AFR-340-3	121F	5	+410	3.7	-345	3.7	3	50	208-255/360-440	2"	43.0	74.0
2AFR-400-3	121F	5	+460	3.7	-355	3.7	3	50	208-255/360-440	2"	45.0	74.0
	131F	5	+380	5.2	-360	5.2	3	50	220-240/380-415	2"	55.0	75.0
2AFR-550-3	132F	7.5	+515	5.2	-410	5.2	3	50	220-240/380-415	2"	72.0	75.0
2AFR-750-3	133F	10	+580	5.2	-420	5.2	3	50	220-240/380-415	2"	81.0	75.0
	151F	10	+320	9.6	-320	9.6	3	50	220-240/380-415	2"1/2	112.0	76.0
2AFR-1100-3	152F	15	+600	9.6	-430	9.6	3	50	220-240/380-415	2"1/2	142.0	76.0
2AFR-1600-3	153F	20	+700	9.6	-450	9.6	3	50	220-240/380-415	2"1/2	160.0	76.0

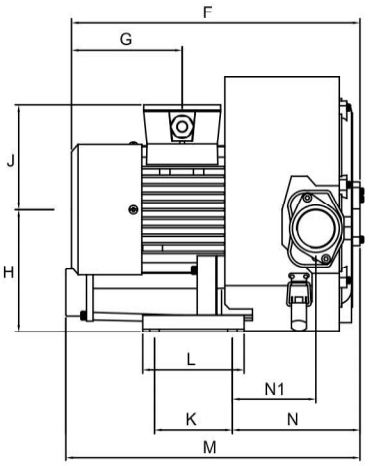


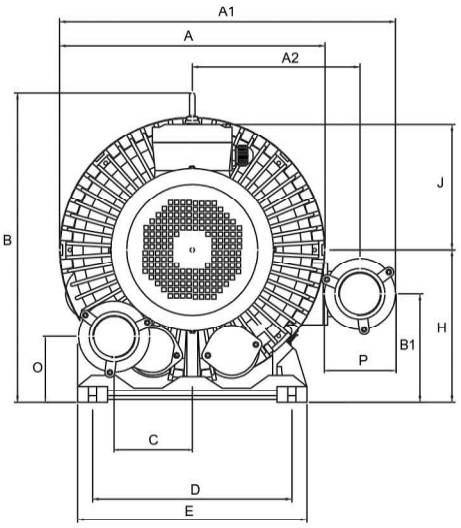


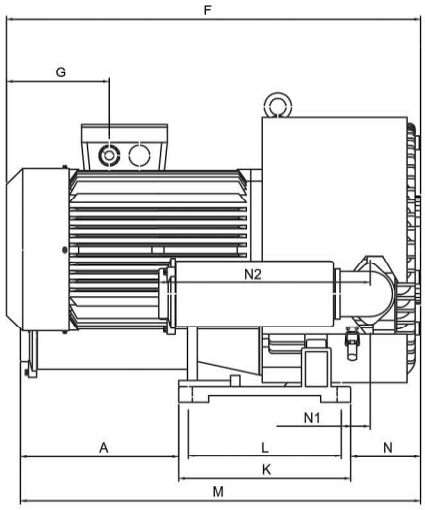
AIRFLOW RING BLOWER DIMENSIONS

Model	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P
AFR-020-1	208.5	213.5	71.0	165.0	186.0	209.5	72.0	108.0	142.0	-	100.0	205.0	54.0	38.0	1"
AFR-040-1	248.0	249.0	91.0	205.0	227.0	239.0	118.0	130.0	112.0	83.0	108.0	245.0	63.0	42.0	1"1/4
AFR-075-1	285.0	301.0	115.0	225.0	257.0	279.0	106.0	153.0	124.0	90.0	130.0	264.0	76.0	45.0	1"1/2
AFR-150-1	332.0	338.5	120.0	260.0	298.0	320.0	153.0	175.0	135.5	115.0	195.0	321.5	98.0	47.0	2"
AFR-220-1	383.0	416.5	125.0	290.0	332.0	370.0	154.0	195.0	160.0	140.0	180.0	362.0	120.0	50.0	2"
AFR-340-1	383.0	416.5	125.0	290.0	332.0	370.0	154.0	195.0	160.0	140.0	180.0	362.0	120.0	50.0	2"
AFR-020-3	208.5	213.5	71.0	165.0	186.0	209.5	72.0	108.0	142.0	-	100.0	205.0	54.0	38.0	1"
AFR-040-3	248.0	249.0	91.0	205.0	227.0	239.0	118.0	130.0	112.0	83.0	108.0	245.0	63.0	42.0	1"1/4
AFR-075-3	285.0	301.0	115.0	225.0	257.0	279.0	106.0	153.0	124.0	90.0	130.0	264.0	76.0	45.0	1"1/2
AFR-175-3	332.0	338.5	120.0	260.0	298.0	320.0	153.0	175.0	135.5	115.0	195.0	321.5	98.0	47.0	2"
AFR-220-3	383.0	416.5	125.0	290.0	332.0	370.0	154.0	195.0	160.0	140.0	180.0	362.0	120.0	50.0	2"
AFR-340-3	383.0	416.5	125.0	290.0	332.0	370.0	154.0	195.0	160.0	140.0	180.0	362.0	120.0	50.0	2"
AFR-550-3	464.0	567.0	145.0	365.0	420.0	462.0	160.0	280.0	188.0	280.0	315.0	490.0	140.0	96.0	2"1/2
AFR-750-3	464.0	567.0	145.0	365.0	420.0	462.0	160.0	280.0	188.0	280.0	315.0	490.0	140.0	96.0	2"1/2
AFR-900-3	560.0	629.0	210.0	360.0	415.0	621.5	178.5	306.0	230.0	600.0	638.5	710.0	213.0	95.0	4"
AFR-1300-3	560.0	629.0	210.0	360.0	415.0	621.5	178.5	306.0	230.0	600.0	638.5	710.0	213.0	96.0	4"
AFR-2000-3	560.0	629.0	210.0	360.0	415.0	621.5	178.5	306.0	230.0	600.0	638.5	710.0	213.0	97.0	4"









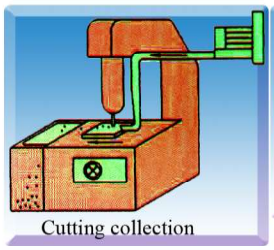
AIRFLOW RING BLOWER DIMENSIONS

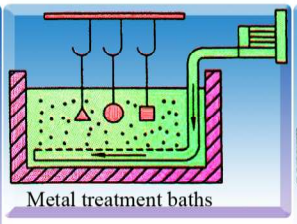
Model	A	A1	A2	B	B1	C	D	E	F	G	H	J	K	L	M	N	N1	N2	O	P
2AFR-075-3	283.0	338.0	-	272.0	110.0	46.0	205.0	227.0	308.0	118.0	130.0	112.0	83.0	108.0	314.0	136.0	89.0	-	42.0	1"1/4
2AFR-175-3	320.0	350.0	-	313.0	153.0	58.0	225.0	257.0	411.0	153.0	153.0	136.0	90.0	130.0	345.0	154.0	104.0	-	45.0	1"1/2
2AFR-220-3	320.0	350.0	-	313.0	153.0	58.0	225.0	257.0	411.0	153.0	153.0	136.0	90.0	130.0	345.0	154.0	104.0	-	45.0	1"1/2
2AFR-340-3	369.0	443.0	-	374.0	140.0	60.0	260.0	298.0	458.0	154.0	175.0	160.0	115.0	155.0	407.0	170.0	110.0	-	47.0	2"
2AFR-400-3	369.0	443.0	-	374.0	140.0	60.0	260.0	298.0	458.0	154.0	175.0	160.0	115.0	155.0	407.0	170.0	110.0	-	47.0	2"
	424.0	454.0	-	417.0	158.0	62.0	290.0	332.0	467.0	154.0	195.0	160.0	140.0	180.0	459.0	206.0	132.0	-	50.0	2"
2AFR-550-3	424.0	454.0	-	416.5	158.0	155.0	290.0	332.0	584.5	159.5	195.0	187.5	140.0	180.0	598.0	206.0	132.0	-	98.0	2"
2AFR-750-3	424.0	454.0	-	416.5	158.0	155.0	290.0	332.0	584.5	159.5	195.0	187.5	140.0	180.0	598.0	206.0	132.0	-	98.0	2"
	486.0	615.0	307.0	567.0	199.0	72.5	365.0	420.0	586.5	159.5	280.0	176.5	280.0	315.0	618.0	128.0	53.0	387.0	96.0	2"1/2
2AFR-1100-3	486.0	615.0	307.0	567.0	199.0	143.0	365.0	420.0	758.0	189.0	280.0	230.0	280.0	315.0	733.0	260.0	128.0	387.0	121.0	2"1/2
2AFR-1600-3	486.0	615.0	307.0	567.0	199.0	143.0	365.0	420.0	758.0	189.0	280.0	230.0	280.0	315.0	733.0	260.0	128.0	387.0	121.0	2"1/2

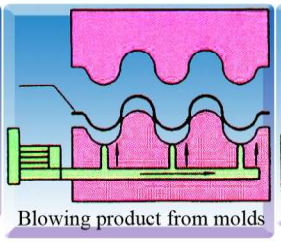
Application:

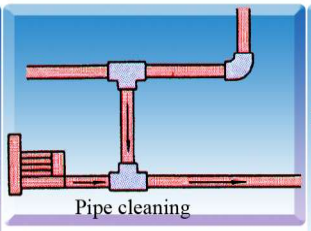
- Pneumatic conveying system
- Industrial vacuum cleaners
- Dust collectors
- Lifting and holding of parts
- Aeration of fluids trough bubbling
- Printing and paper handling
- Packaging machines
- Food processing
- Dental suction equipment
- Textile machines

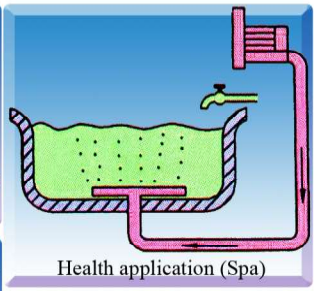
Positive Pressure

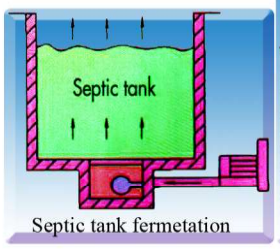

Cutting collection


Metal treatment baths

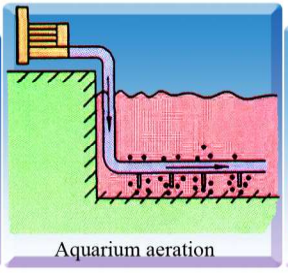

Blowing product from molds

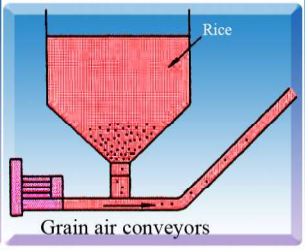

Pipe cleaning


Health application (Spa)

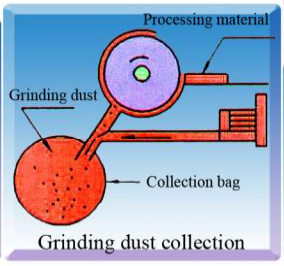


Septic tank fermetation

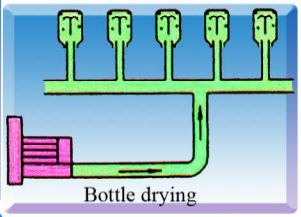

Aquarium aeration

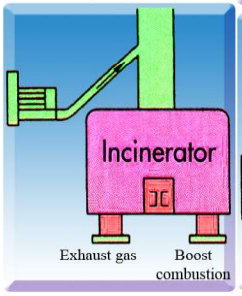


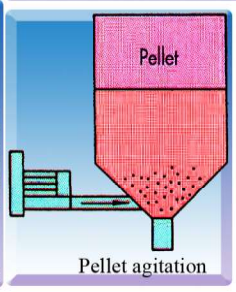
Grain air conveyors



Grinding dust collection

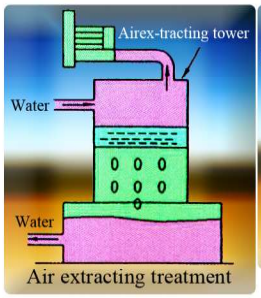

Bottle drying





Pellet agitation

Negative Pressure



Air extracting treatment

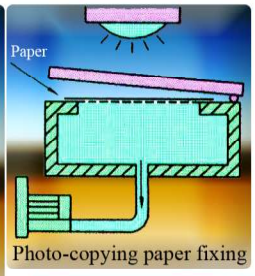
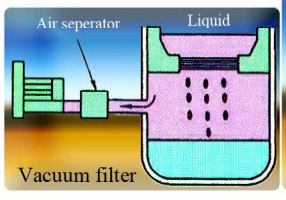
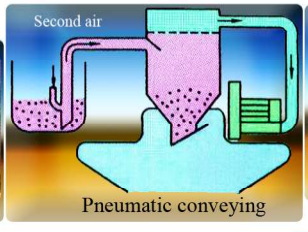


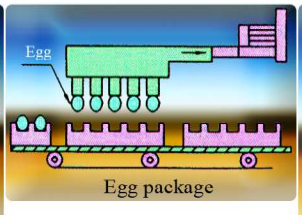
Photo-copying paper fixing



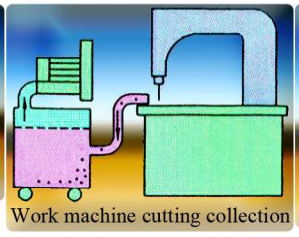
Vacuum filter

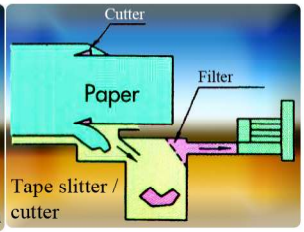


Pneumatic conveying

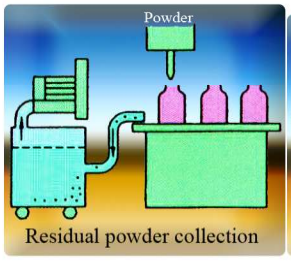


Egg package

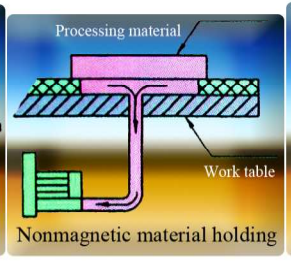

Work machine cutting collection



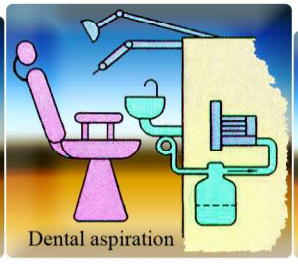
Tape slitter / cutter

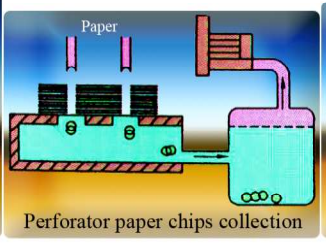


Residual powder collection

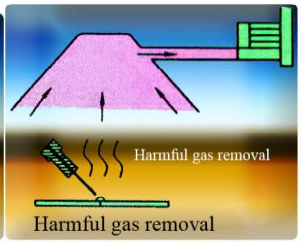


Nonmagnetic material holding


Dental aspiration



Perforator paper chips collection



Harmful gas removal

Conversion Chart

	mbar (hPa)	bar	Pa (N/m^2)	kgf/cm^2
1 mbar (hPa)	1	$1*10^{-3}$	10^2	$1.02*10^{-3}$
1 bar	103	1	$1*10^5$	1.02
1 Pa (N/m^2)	0.01	$1*10^{-5}$	1	$1.02*10^{-5}$
1 atm	$1.013*10^3$	1.013	$1.013*10^5$	1.033
1 kgf/cm^2 (at)	$9.807*10^2$	0.981	$9.807*10^4$	1
1 mmH_2O	$9.807*10^{-2}$	$9.807*10^{-5}$	9.807	10^{-4}
1 Torr (mmHg)	1.333	$1.333*10^{-3}$	$1.333*10^2$	$1.36*10^{-3}$
1 in.Hg	33.86	$3.386*10^{-2}$	$3.386*10^3$	$3.453*10^{-2}$
1 in.H_2O	2.491	$2.49*10^{-3}$	$2.491*10^2$	$2.54*10^{-3}$
1 lb/in^2 (psi)	68.95	$6.895*10^{-2}$	$6.895*10^3$	$7.03*10^{-2}$

	mmH_2O	Torr (mmHg)	in.Hg	in.H_2O	lb/in^2 (psi)
1 mbar (hPa)	10.197	0.75	$2.953*10^{-2}$	0.402	$1.45*10^{-2}$
1 bar	$1.02*10^4$	$7.5*10^2$	29.53	$4.015*10^2$	14.5
1 Pa (N/m^2)	0.102	$7.5*10^{-3}$	$2.953*10^{-4}$	$4.015*10^{-3}$	$1.45*10^{-4}$
1 atm	$1.033*10^4$	$7.6*10^2$	29.92	$4.068*10^2$	14.7
1 kgf/cm^2 (at)	10^4	$7.356*10^2$	28.96	$3.973*10^2$	14.22
1 mmH_2O	1	$7.354*10^{-2}$	$2.896*10^{-3}$	$3.394*10^{-2}$	$1.42*10^{-3}$
1 Torr (mmHg)	13.59	1	$3.937*10^{-2}$	0.535	$1.934*10^{-5}$
1 in.Hg	$3.45*10^2$	25.4	1	13.6	0.491
1 in.H_2O	25.4	1.868	$7.356*10^{-2}$	1	$3.613*10^{-2}$
1 lb/in^2 (psi)	$7.03*10^2$	51.71	2.036	27.68	1

	m^3/h	m^3/min	m^3/s	l/min	cfm (ft^3/min)	gal/min
1 m^3/h	1	$1.667*10^{-2}$	$2.778*10^{-4}$	16.67	0.588	4.403
1 m^3/min	60	1	$1.667*10^{-2}$	10^3	35.28	$2.642*10^2$
1 m^3/s	3600	60	1	$6*10^4$	$2.117*10^3$	$1.585*10^4$
1 l/min	$6*10^{-2}$	10-3	$1.667*10^{-5}$	1	$3.528*10^{-2}$	0.264
1 cfm (ft^3/min)	1.699	$2.832*10^{-2}$	$4.72*10^{-4}$	28.32	1	7.481
1 gal/min	0.227	0.378	$6.306*10^{-5}$	3.784	0.133	1

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