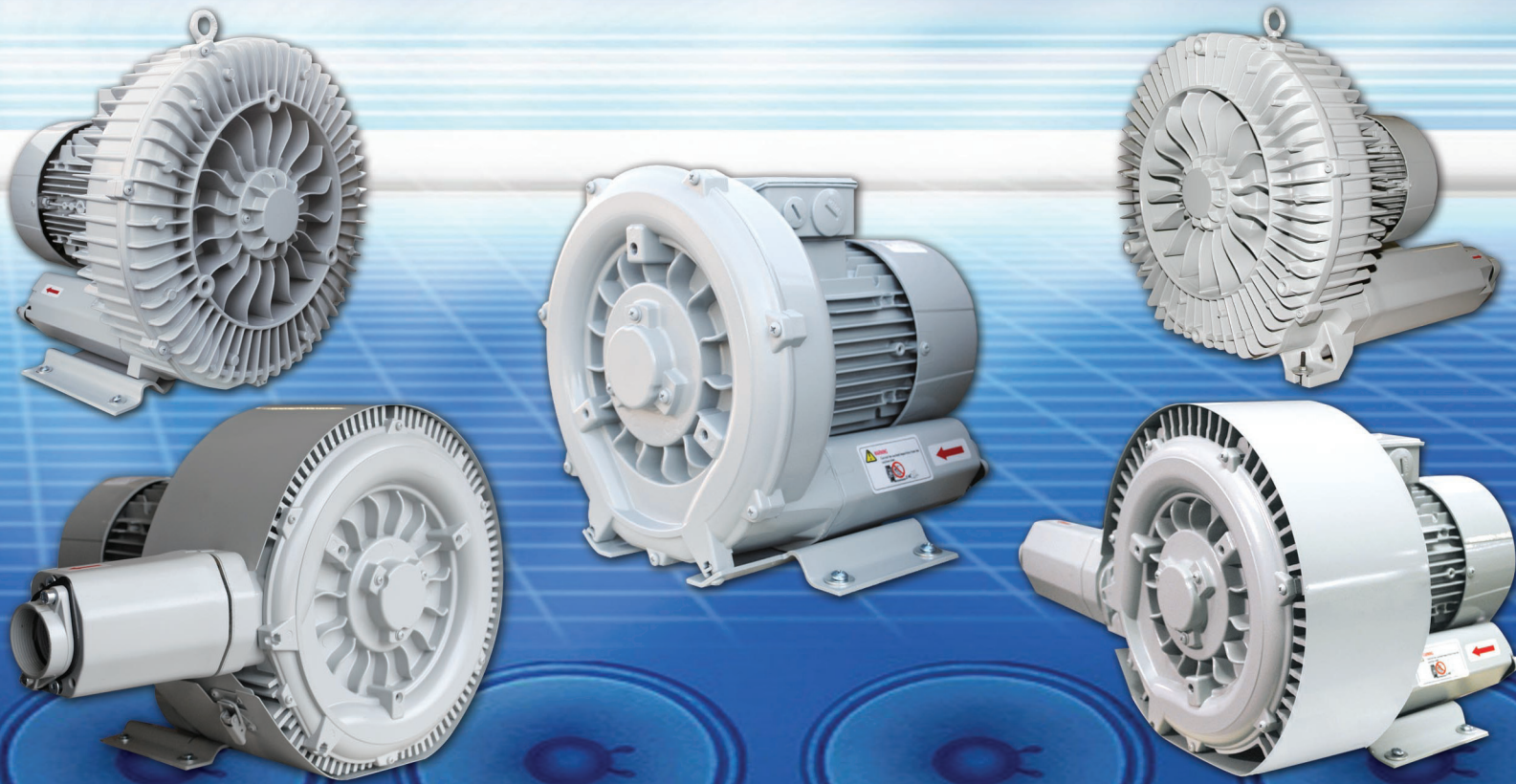


Republic **Regenerative Blowers**

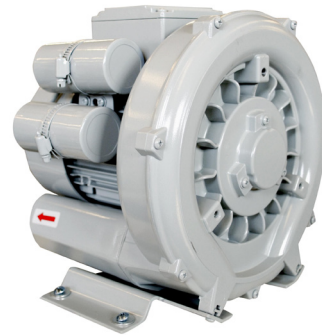


R E P U B L I C
Blower Systems®

Republic Regenerative Blowers



Single Stage



Double Stage

Republic Regenerative Blowers are available in either single (one impeller) or double (two impeller) stage configurations. The impeller is directly connected to the motor shaft, providing powerful force without undue friction. The bearings are outside the compression chamber, ensuring maximum operational reliability under high differential pressure. This low-maintenance, oil-free design provides continuous, dependable service to our customers.

▲ **Belt-driven bare shaft blowers are available**

▲ **Explosion-proof motors are available**
(Class 1/ Division 1 / Groups D, E & F)

Functional Performance

Air Flow:

From 33 cfm up to 777 cfm

Pressure Capacity:

From 47" H₂O up to 417" H₂O

Vacuum Capacity:

From 39" H₂O up to 293" H₂O

Operating Principle

Air or gas is pulled into a side channel (1) through the air inlet (2) and is accelerated by an impeller (3) rotating inside the impeller chamber (4). The resulting pressurized air or gas is discharged through the exhaust outlet (5). This type of operation is also known as a "ring" blower design.

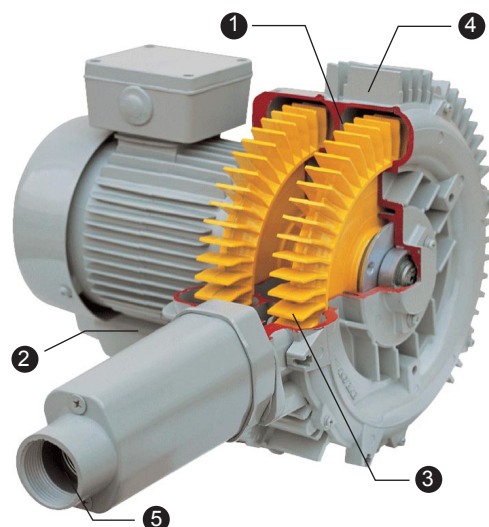
- ① Side Channel
- ② Air Inlet
- ③ Impeller
- ④ Impeller Chamber
- ⑤ Exhaust Outlet

Design Advantages

- ▲ Continuous, low-maintenance operation
- ▲ Low noise (62–88dB)
- ▲ Saves space and electricity
- ▲ Trouble-free installation (mounts in any axial direction)
- ▲ Easy replacement of parts

Applications

- ▲ Pneumatic Conveying Systems
- ▲ Parts Handling with Vacuum Systems
- ▲ Packaging
- ▲ Waste Water Treatment
- ▲ Bottling
- ▲ Thermal Forming
- ▲ Textile Manufacturing
- ▲ Paper Manufacturing
- ▲ Fish Pond Aeration
- ▲ Powder Transportation (Compression)
- ▲ Printing



Many Options Available

- ▲ “Direct Coupled” Packages
- ▲ Explosion Proof Motors Available
- ▲ Wash Down Motors Available
- ▲ All Models Available
- ▲ Specialty Motors Available
- ▲ Enclosures Available



Enclosures



Coupling Connected
Blowers



Single Stage Regenerative Blowers

Model	Phase	Motor (HP)	Current (A)@110V	Current (A)@220V	Sound Level (dB)	Rated Pressure (in. H ₂ O)		Rated Vacuum (in. H ₂ O)		Air flow (cfm)		Weight (lbs.)
						60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	
HRB-101	1	0.67	6.6	3.2	64	47	39	40	39	49	42	23
HRB-201	1	1.12	10.9	5.4	66	47	47	44	47	102	81	31
HRB-301	1	2.01	21.3	11.8	75	71	71	63	63	141	113	50
HRB-401	1	3.00	30	15	75	110	87	79	71	141	113	78
HRB-501	1	3.00	31	15.5	76	83	83	79	79	212	177	82
4RB210-A75	1	0.84	@ 220-240V 7.1		62	128	116	108	92	33	28	40
4RB310-A71	1	1.50	@ 220-240V 9.0		62	156	140	112	140	47	39	40
4RB410-A41	1	1.74	@220-240V 10.3		62	156	152	140	120	62	51	51
Model	Phase	Motor (HP)	Current (A)@220V	Current (A)@440V	Sound Level (dB)	Rated Pressure (in. H ₂ O)		Rated Vacuum (in. H ₂ O)		Air flow (cfm)		Weight (lbs.)
						60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	
HRB-100	3	0.67	2.6	1.5	64	64	52	60	48	49	46	22
HRB-200	3	1.12	3.8	2.1	66	51	55	47	55	91	81	30
HRB-300	3	2.80	7.5	4.4	75	79	79	67	71	141	113	49
HRB-400	3	3.42	9.5	5.7	75	118	106	102	87	141	113	55
HRB-500	3	3.41	10.5	4.0	76	83	87	87	90	212	177	68
HRB-600	3	4.62	14.3	7.7	78	118	110	110	102	212	177	77
HRB-700	3	6.17	15.3	8.6	78	134	130	130	126	212	177	85
HRB-750	3	6.50	19.5	10.3	78	80	65	80	67	353	297	120
HRB-800	3	8.50	22.9	14.2	78	110	118	122	106	353	297	143
HRB-900	3	11.50	32.2	16.7	78	177	157	138	118	353	297	150
HRB-1000	3	15.00	40.0	20.0	78	248	173	158	138	353	297	366
HRB-1100	3	15.00	48.9	26.8	82	67	83	71	79	706	600	434
HRB-1200	3	20.00	59.7	32.2	82	106	118	114	122	706	600	476
HRB-1300	3	30.00	71.4	39.8	82	169	177	150	142	706	600	505
4RB210-H16	3	0.84	3.0	1.7	62	128	116	108	92	33	28	36
4RB310-H16	3	0.63	3.0	1.7	62	100	100	104	100	47	39	36
4RB310-H26	3	1.25	4.0	2.3	62	144	140	136	112	47	39	36
4RB410-H16	3	1.74	5.4	3.1	62	148	152	136	120	62	51	51
4RB510-H16	3	2.34	7.6	4.4	68	128	144	136	124	85	71	58
4RB510-H26	3	3.42	11.4	6.6	68	192	188	144	124	85	71	64
4RB610-H16	3	3.41	11.4	6.6	71	126	144	144	136	115	97	71
4RB610-H26	3	5.09	14.2	8.2	71	213	192	152	136	115	97	78

The electric motors used in these blowers are AC motor equipped with self-cooling fans and rated as “F” class with IP54 protection.
The above specifications may be changed without notice for improved product performance.

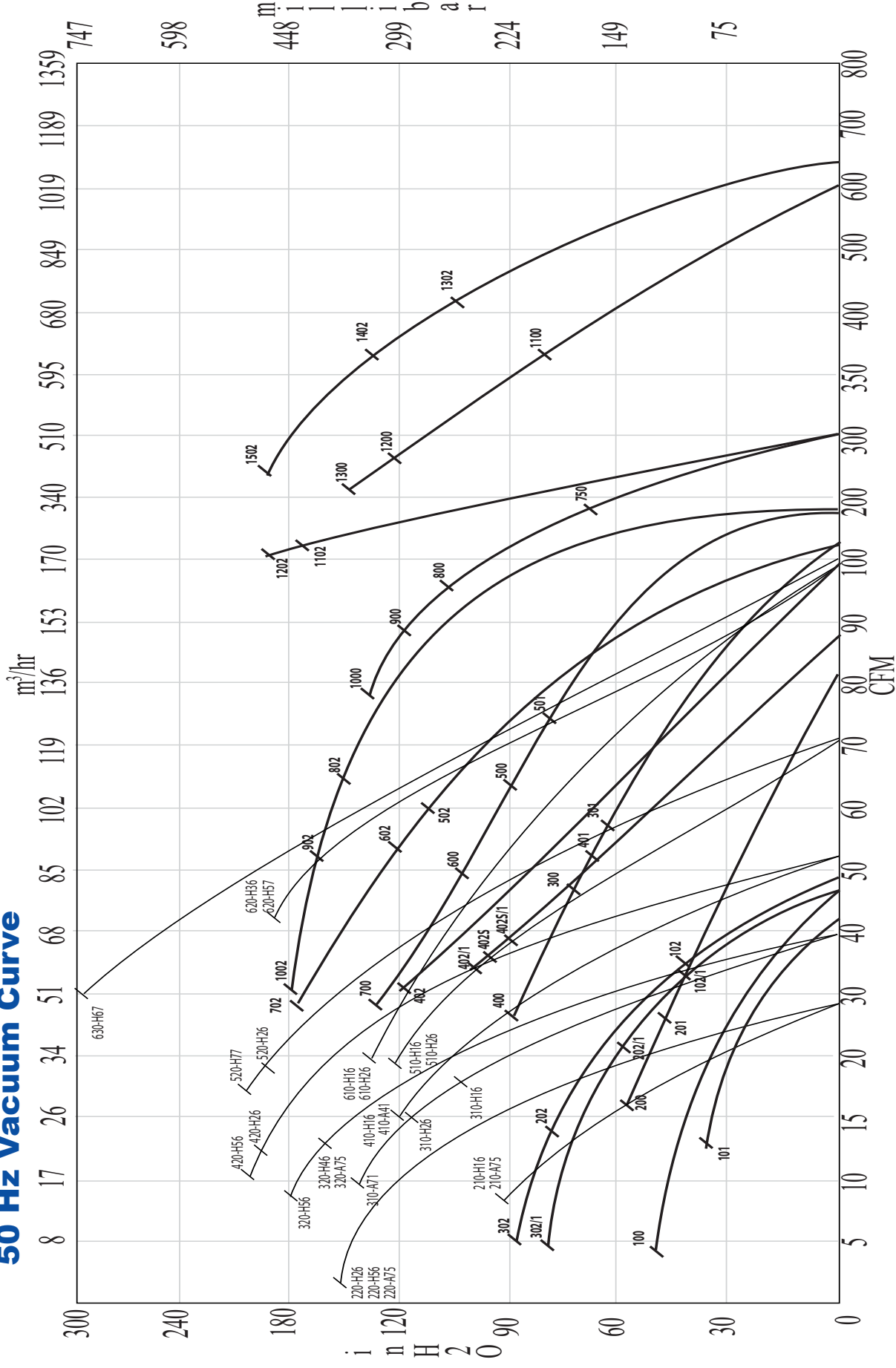
Two Stage Regenerative Blowers

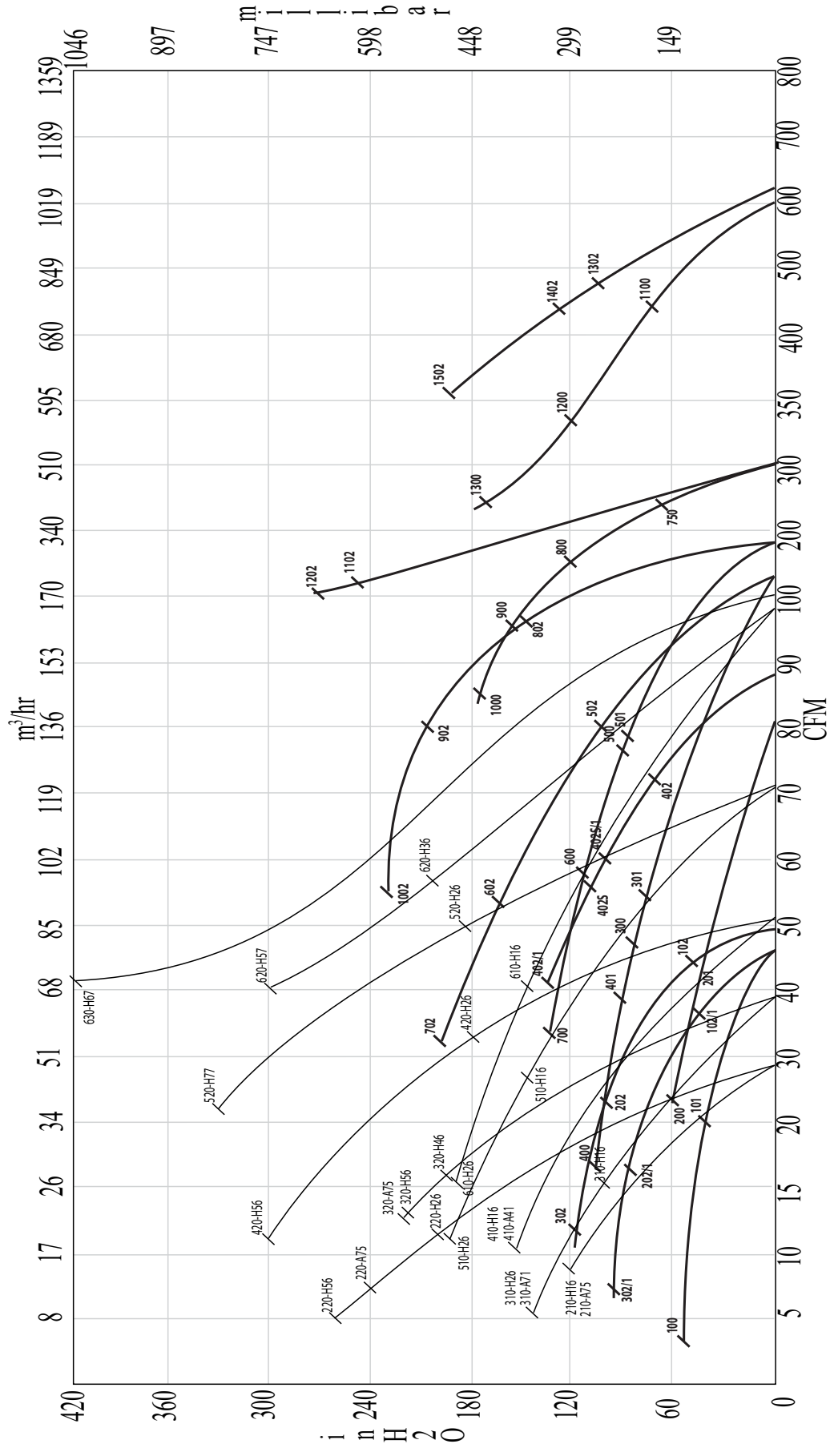
Model	Phase	Motor (HP)	Current (A)@110V	Current (A)@220V	Sound Level (dB)	Rated Pressure (in. H ₂ O)		Rated Vacuum (in. H ₂ O)		Air flow (cfm)		Weight (lbs.)
						60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	
HRB-102/1	1	0.50	9.0	4.5	68	47	47	39	39	58	46	40
HRB-202/1	1	1.20	9.3	4.3	68	83	80	67	56	58	46	37
HRB-302/1	1	1.50	14.0	7.0	68	98	94	79	79	58	46	51
HRB-402S/1	1	2.00	23.0	11.5	75	98	98	94	90	113	83	82
HRB-402/1	1	3.00	30.0	15.0	75	138	138	102	98	113	83	87
4RB220-A75	1	2.34	@200-240V 10.3		62	265	241	168	148	35	28	67
4RB320-A75	1	2.34	@200-240V 10.3		63	217	221	156	160	45	38	71
Model	Phase	Motor (HP)	Current (A)@220V	Current (A)@440V	Sound Level (dB)	Rated Pressure (in. H ₂ O)		Rated Vacuum (in. H ₂ O)		Air flow (cfm)		Weight (lbs.)
						60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	
HRB-102	3	0.67	2.4	1.2	68	59	47	39	39	58	49	34
HRB-202	3	1.12	3.7	2.2	75	101	98	101	80	58	49	33
HRB-302	3	2.00	5.9	3.1	68	118	118	87	87	58	49	43
HRB-402S	3	2.75	6.8	4.2	75	110	100	110	96	113	88	55
HRB-402	3	3.50	8.9	5.4	71	158	71	113	118	113	88	61
HRB-502	3	3.50	10.8	6.9	78	118	78	145	110	145	120	78
HRB-602	3	4.62	13.6	7.3	78	165	158	161	118	145	120	84
HRB-702	3	6.17	10.0	16.3	90	197	197	169	169	145	120	94
HRB-802	3	6.50	10.4	6.0	80	138	138	150	150	215	184	130
HRB-902	3	8.50	22.6	12.4	80	197	197	170	170	215	184	172
HRB-1002	3	11.50	29.0	14.5	80	256	228	177	177	215	184	188
HRB-1102	3	16.89	51.2	27.0	82	256	256	170	170	353	297	274
HRB-1202	3	23.20	56.0	28.0	82	307	276	181	189	353	297	501
HRB-1302	3	20.00	54.0	27.0	88	87	98	98	106	777	618	618
HRB-1402	3	25.00	65.0	32.5	88	118	126	134	138	777	618	651
HRB-1502	3	35.00	90.1	48.3	88	189	189	189	189	777	618	684
4RB220-H26	3	1.25	4.0	2.3	62	192	196	176	148	35	28	53
4RB220-H56	3	2.34	7.5	4.3	62	297	261	200	148	35	28	62
4RB320-H46	3	1.74	5.4	3.1	63	192	192	192	160	45	38	64
4RB320-H56	3	2.34	7.6	4.4	63	241	217	225	176	45	38	67
4RB420-H26	3	2.34	7.6	4.4	66	164	180	172	192	62	51	73
4RB420-H56	3	5.09	13.8	8.0	66	341	301	205	200	62	51	86
4RB520-H26	3	3.41	11.4	6.6	70	180	184	200	188	85	71	89
4RB520-H77	3	6.16	@380-480V 9.5		71	325	329	213	200	85	71	113
4RB620-H36	3	5.09	14.2	8.2	71	168	200	192	184	115	97	106
4RB620-H57	3	8.84	@ 380-480V 12.0		72	337	297	192	184	115	97	144

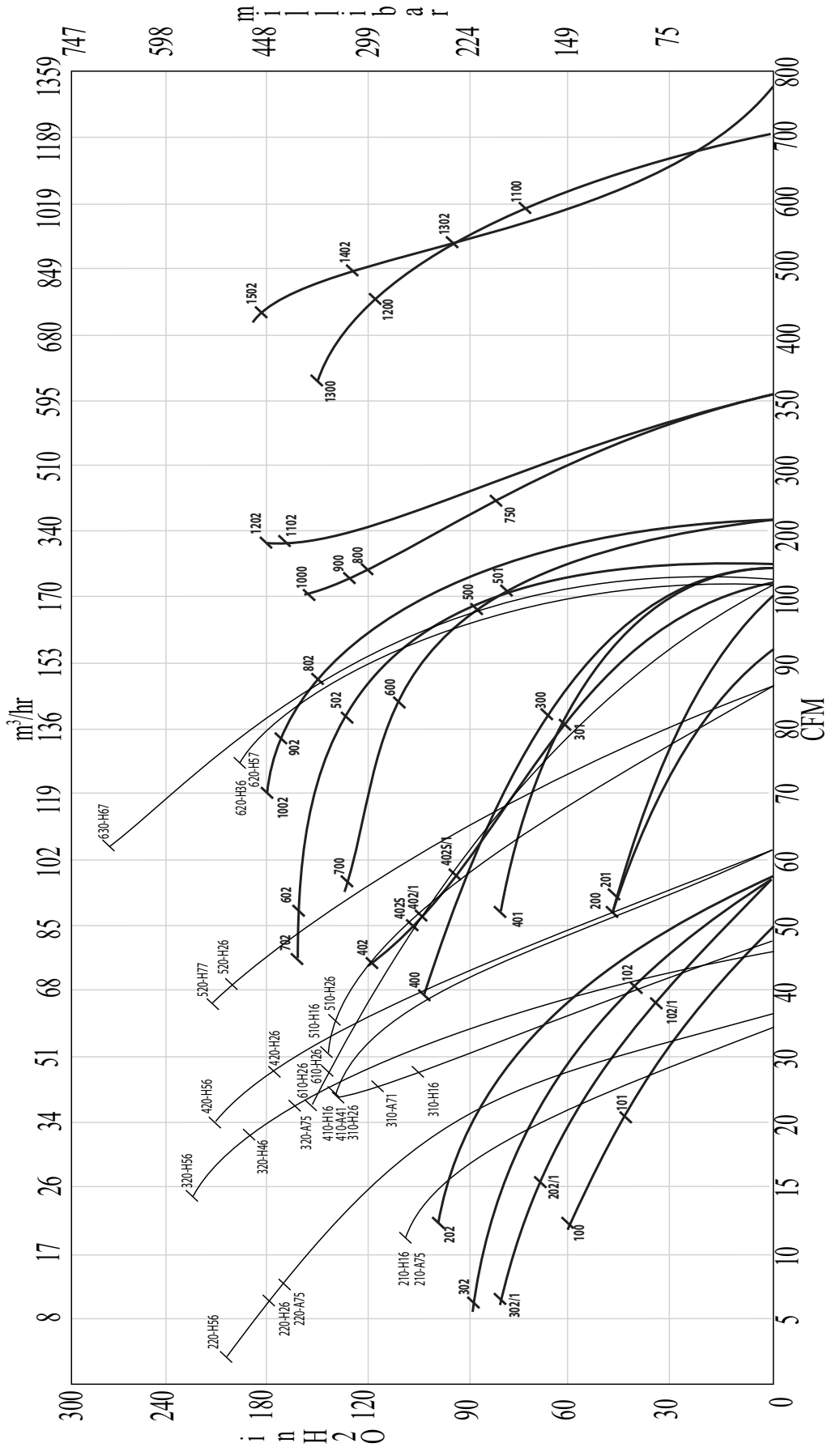
Three Stage Regenerative Blower

Model	Phase	Motor (HP)	Current (A)@380-480V	Sound Level (dB)	Rated Pressure (in. H ₂ O)		Rated Vacuum (in. H ₂ O)		Air flow (cfm)		Weight (lbs.)
					60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	
4RB630-H67	3	11.52	16.0	76	417	417	281	293	118	100	188

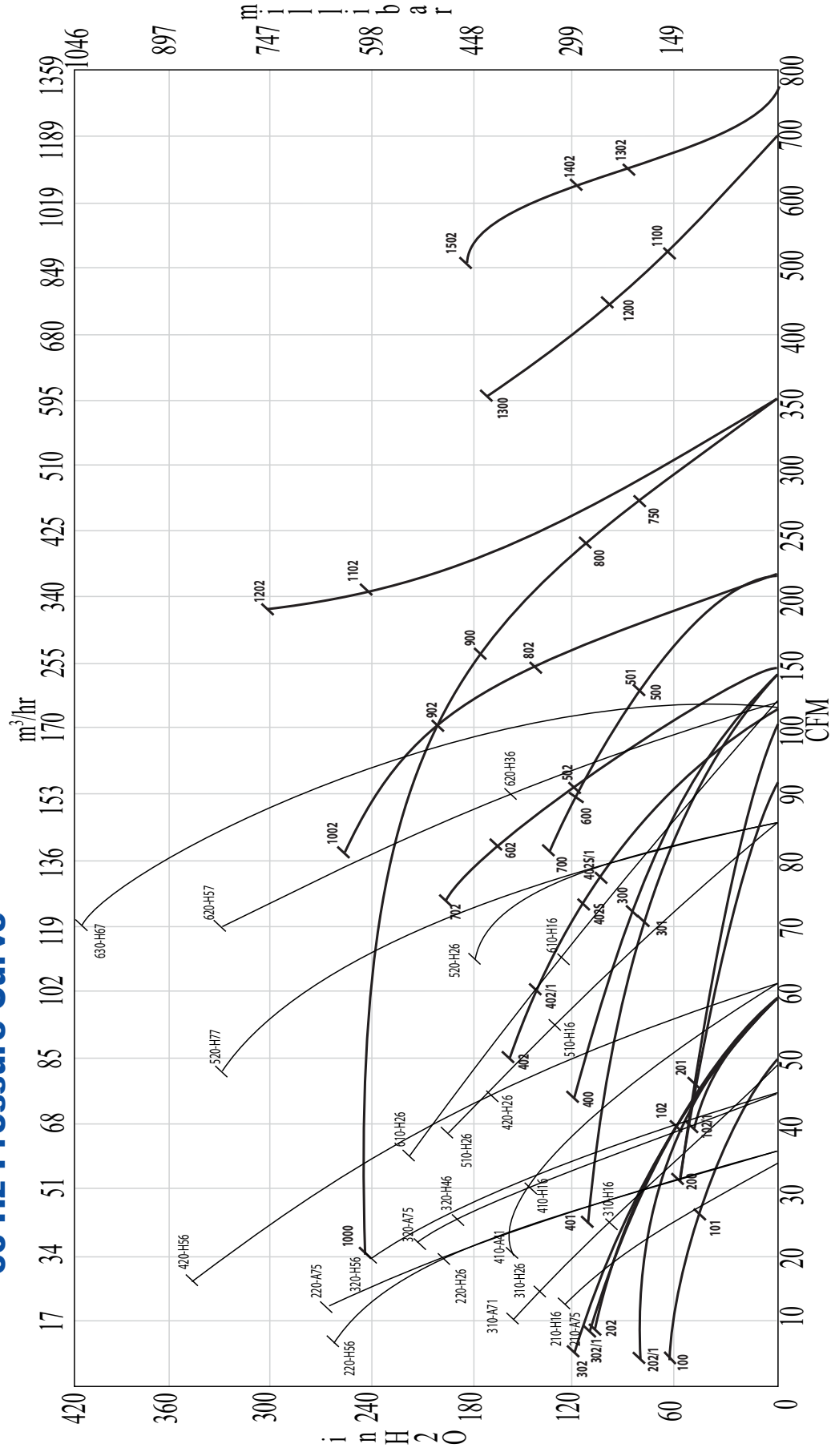
50 Hz Vacuum Curve



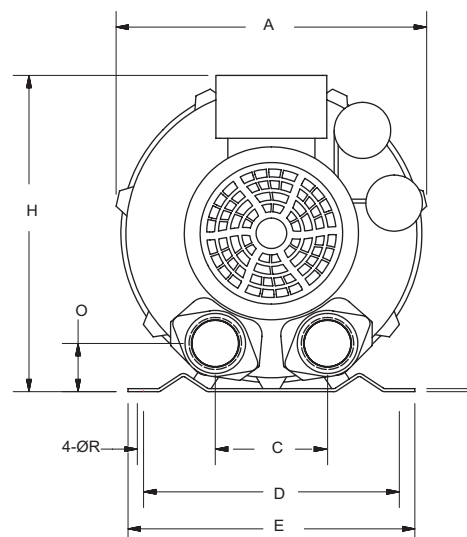
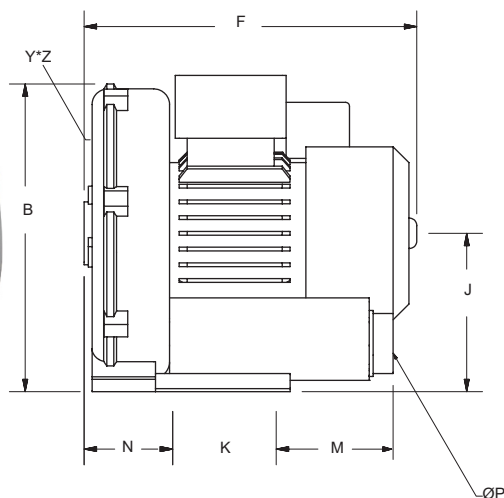




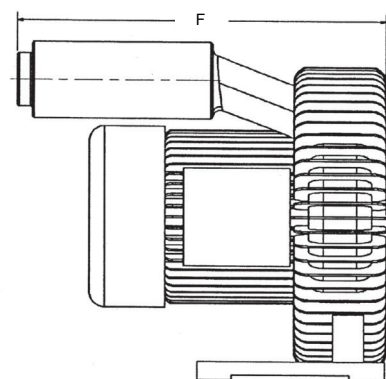
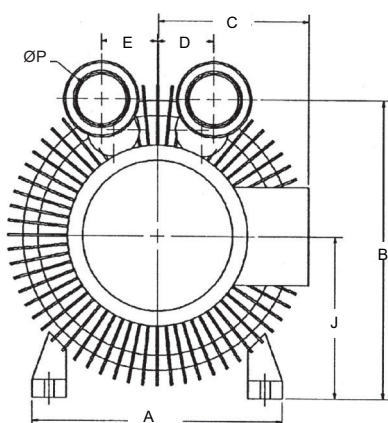
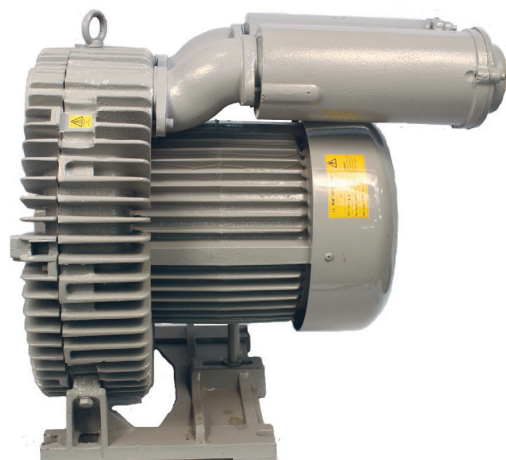
60 Hz Pressure Curve



Single Stage

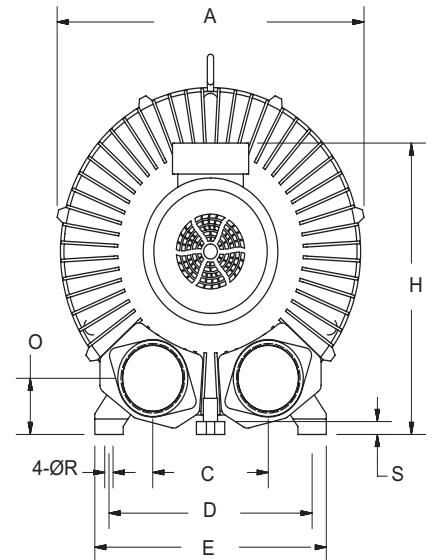
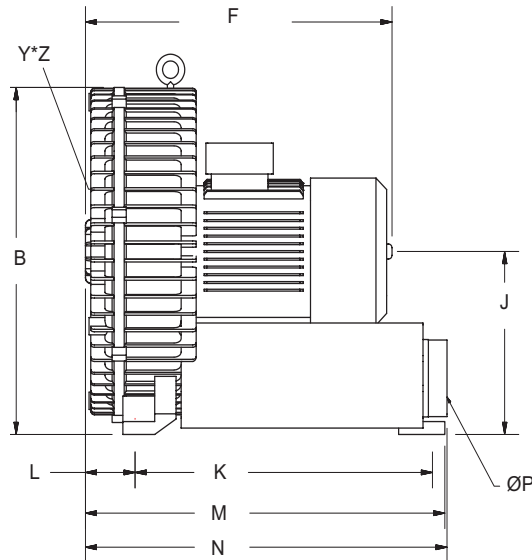


MODEL	A	B	C	D	E	F	H	J	K	M	N	O	ØP	ØR	S	X	Y*Z
HRB-101	9.80	9.79	3.54	8.07	9.06	10.50	10.06	5.04	3.27	3.68	2.80	1.54	1.25	0.39	0.10	5.51	M6
HRB-201	11.38	12.05	4.53	8.86	10.04	11.03	11.00	6.06	3.74	3.47	2.95	1.81	1.25	0.47	0.12	6.85	M6
HRB-301	13.27	13.30	4.72	10.24	11.75	12.61	12.25	6.89	4.53	4.02	3.43	1.89	2.00	0.55	0.16	7.87	M8
HRB-401	13.27	13.30	4.72	10.24	11.75	12.61	12.25	6.89	4.53	4.02	3.43	1.89	2.00	0.55	0.16	7.87	M8
HRB-501	13.19	13.46	4.72	10.24	11.62	15.12	12.32	6.89	4.53	5.16	3.35	1.89	2.00	0.59	0.16	7.87	M8
HRB-100	9.80	9.79	3.54	8.07	9.06	10.50	10.06	5.04	3.27	3.68	2.80	1.54	1.25	0.39	0.10	5.51	M6
HRB-200	11.38	12.05	4.53	8.86	10.04	11.03	11.00	6.06	3.74	3.47	2.95	1.81	1.25	0.47	0.12	6.85	M6
HRB-300	13.27	13.30	4.72	10.24	11.61	13.87	12.38	6.89	4.53	3.77	3.43	1.89	2.00	0.55	0.16	7.87	M8
HRB-400	13.27	13.30	4.72	10.24	11.61	13.87	12.38	6.89	4.53	3.77	3.43	1.89	2.00	0.55	0.16	7.87	M8
HRB-500	15.04	15.28	4.92	11.42	12.80	15.44	13.27	7.76	5.51	4.06	4.29	2.13	2.00	0.59	0.18	9.45	M8
HRB-600	15.04	15.28	4.92	11.42	12.80	16.69	13.27	7.76	5.51	4.06	4.29	2.13	2.00	0.59	0.18	9.45	M8
HRB-700	15.04	15.28	4.92	11.42	12.80	18.06	13.27	7.76	5.51	4.01	4.29	2.13	2.00	0.59	0.18	9.45	M8
HRB-750	17.77	18.15	5.98	14.02	15.51	18.75	15.38	9.45	6.69	7.62	5.19	2.56	2.50	0.59	0.24	11.26	M8
HRB-800	17.77	18.15	5.98	14.02	15.51	19.63	16.06	9.45	6.69	7.62	5.19	2.56	2.50	0.59	0.24	11.26	M8
HRB-900	17.77	18.15	5.98	14.02	15.51	19.63	16.06	9.45	6.69	7.62	5.19	2.56	2.50	0.59	0.24	11.26	M8

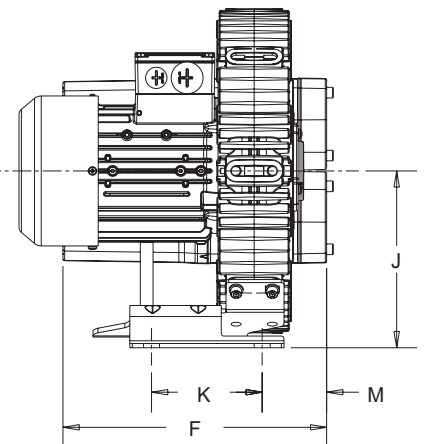
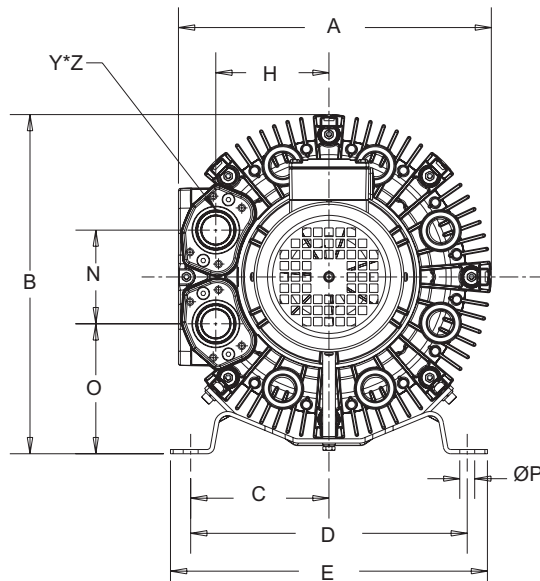
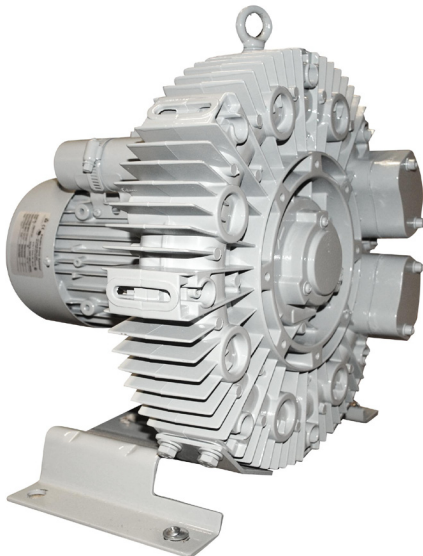


MODEL	A	B	C	D	E	F	J	ØP	X	Y*Z
HRB-1000	16.63	19.75	9.94	3.75	3.75	24.61	10.75	2.50	10.06	M12

Single Stage

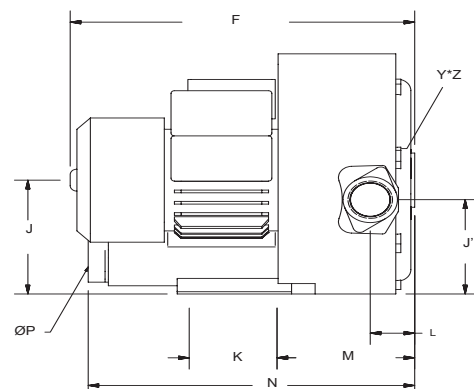
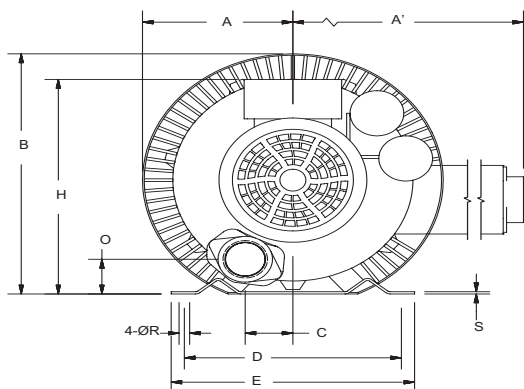
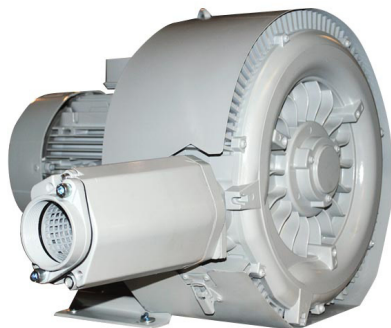


MODEL	A	B	C	D	E	F	H	J	K
HRB-1100	21.65	22.40	8.15	14.34	16.34	21.63	18.81	11.81	20.98
HRB-1200	21.65	22.40	8.15	14.34	16.34	24.43	20.38	11.81	20.98
HRB-1300	21.65	22.40	8.15	14.34	16.34	24.43	20.38	11.81	20.98
MODEL	L	M	N	O	ØP	ØR	S	X	Y*Z
HRB-1100	3.50	25.35	25.51	3.62	4.00	0.59	0.83	19.29	M12
HRB-1200	3.50	25.35	25.51	3.62	4.00	0.59	0.83	19.29	M12
HRB-1300	3.50	25.35	25.51	3.62	4.00	0.59	0.83	19.29	M12



MODEL	A	B	C	D	E	F	H	J	K	M	N	O	ØP	Y*Z
4RB210	11.58	12.55	5.12	10.24	11.73	9.67	4.19	6.54	4.09	2.39	3.47	4.81	0.55	1.25
4RB310	12.30	13.37	5.71	11.42	12.80	9.91	4.47	6.97	4.13	2.48	3.70	5.12	0.55	1.25
4RB410	13.62	14.84	6.20	12.40	13.78	10.05	4.90	7.75	5.10	2.54	4.06	5.72	0.55	1.25
4RB510	14.43	15.56	6.46	12.91	14.29	10.26	5.40	8.10	5.98	6.95	4.48	5.86	0.55	1.25
4RB610	16.43	17.92	7.32	14.63	15.98	10.49	6.01	9.27	5.98	2.62	4.98	6.78	0.55	1.25

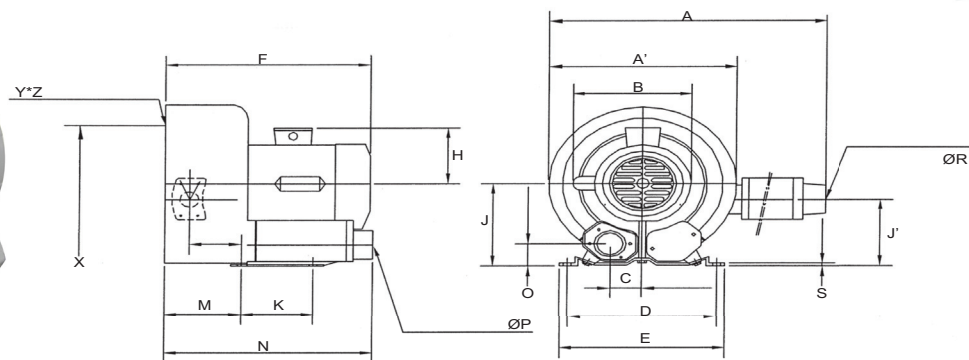
Double Stage



MODEL	A	A'	B	C	D	E	F	H	J	J'
HRB-202/1	5.59	13.19	10.63	1.77	8.07	9.06	12.81	9.50	5.04	4.17
HRB-202	5.59	13.19	10.63	1.77	8.07	9.06	12.81	9.50	5.04	4.17
HRB-302	5.65	13.38	11.03	1.91	8.08	9.06	14.44	10.25	5.38	4.20
HRB-402	6.33	13.51	12.40	2.28	8.86	10.04	16.31	11.13	6.06	6.02
HRB-402S	6.33	13.51	12.40	2.28	8.86	10.04	16.31	11.13	6.06	6.02
HRB-502	7.32	16.93	14.21	2.36	10.24	11.75	17.38	12.25	6.89	5.67
HRB-602	7.32	16.93	14.21	2.36	10.24	11.75	18.75	12.50	6.89	5.67
HRB-702	7.32	16.93	14.21	2.36	10.24	11.75	20.25	12.50	6.89	5.67
HRB-802	8.39	17.52	16.14	2.48	11.42	12.80	21.08	13.75	7.76	6.38
HRB-902	8.39	17.52	16.14	6.04	11.42	12.80	23.00	14.50	7.76	6.38
HRB-1002	8.37	17.77	15.52	2.42	11.42	12.80	22.83	15.40	7.76	6.58
HRB-1102	9.83	22.86	19.29	6.57	14.02	15.51	27.32	17.88	9.27	7.83
HRB-1202	9.83	22.86	19.29	6.57	14.02	15.51	27.32	17.88	9.27	7.83
HRB-1502	11.88	32.50	24.58	4.07	14.34	16.34	32.75	20.38	10.95	8.81

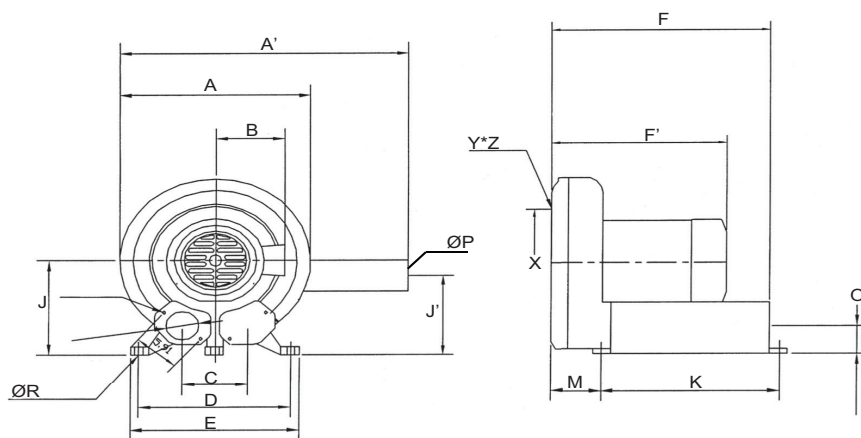
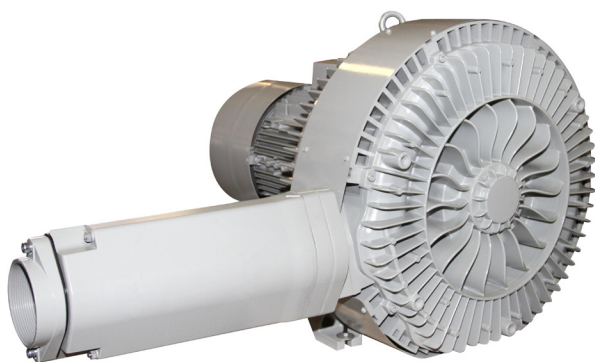
MODEL	K	L	M	N	O	ØP	ØR	S	X	Y*Z
HRB-202/1	3.27	1.65	5.12	12.14	1.54	1.25	0.39	0.10	5.51	M6
HRB-202	3.27	1.65	5.12	12.14	1.54	1.25	0.39	0.10	5.51	M6
HRB-302	3.27	1.75	5.37	12.63	1.44	1.25	0.39	0.12	6.30	M6
HRB-402	3.74	1.85	5.94	13.31	1.77	1.50	0.47	0.12	6.85	M6
HRB-402S	3.74	1.85	5.94	13.31	1.77	1.50	0.47	0.12	6.85	M6
HRB-502	4.53	2.62	6.73	15.06	1.89	2.00	0.55	0.16	7.87	M6
HRB-602	4.53	1.65	6.73	15.24	1.89	2.00	0.55	0.16	7.87	M6
HRB-702	4.53	1.65	6.73	15.24	1.89	2.00	0.55	0.16	7.87	M6
HRB-802	5.51	2.95	8.07	17.64	2.09	2.00	0.59	0.18	9.45	M6
HRB-902	5.51	2.95	8.07	23.38	3.50	2.00	0.59	0.18	9.45	M6
HRB-1002	5.51	3.19	8.27	18.07	2.01	2.00	0.59	0.18	9.45	M10
HRB-1102	6.69	3.25	9.23	30.13	4.13	2.50	0.59	0.20	11.26	M8
HRB-1202	6.69	3.25	9.23	30.13	4.13	2.50	0.59	0.20	11.26	M8
HRB-1502	20.98	4.22	9.99	31.63	3.62	4.00	0.59	1.00	19.29	M12

Double Stage



MODEL	A	A'	B	C	D	E	F	H	J	J'
HRB-102/1	19.49	11.18	7.13	1.77	8.07	9.06	12.60	4.92	5.04	4.17
HRB-302/1	19.49	11.18	7.13	1.7	8.07	9.06	14.06	4.92	5.04	4.17
HRB-402/1	20.39	12.64	9.13	2.26	8.86	10.04	17.87	5.43	6.06	6.06
HRB-402S/1	20.39	12.64	9.13	2.26	8.86	10.04	17.87	5.43	6.06	6.06
HRB-102	19.49	11.18	7.13	1.77	8.07	9.06	12.09	4.92	5.04	4.17

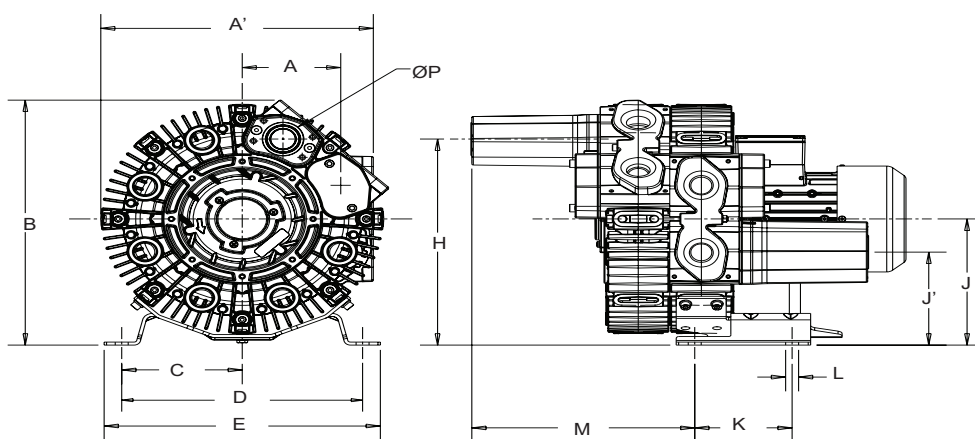
MODEL	K	M	N	O	ØP	ØR	S	X	Y*Z
HRB-102/1	3.27	5.12	12.60	1.54	1.25	1.25	0.10	5.51	M6
HRB-302/1	3.27	5.12	12.60	1.54	1.25	1.25	0.10	5.51	M6
HRB-402/1	3.74	5.71	13.66	1.81	1.50	1.50	0.10	6.85	M6
HRB-402S/1	3.74	5.71	13.66	1.81	1.50	1.50	0.10	6.85	M6
HRB-102	3.27	5.12	12.61	1.54	1.25	1.25	0.10	5.51	M6



MODEL	A	A'	B	C	D	E	F	F'	J	J'
HRB-1302	21.65	42.13	10.04	8.35	14.17	16.33	33.07	27.36	11.81	9.65
HRB-1402	21.65	42.13	10.04	8.35	14.17	16.33	33.07	29.33	11.81	9.65

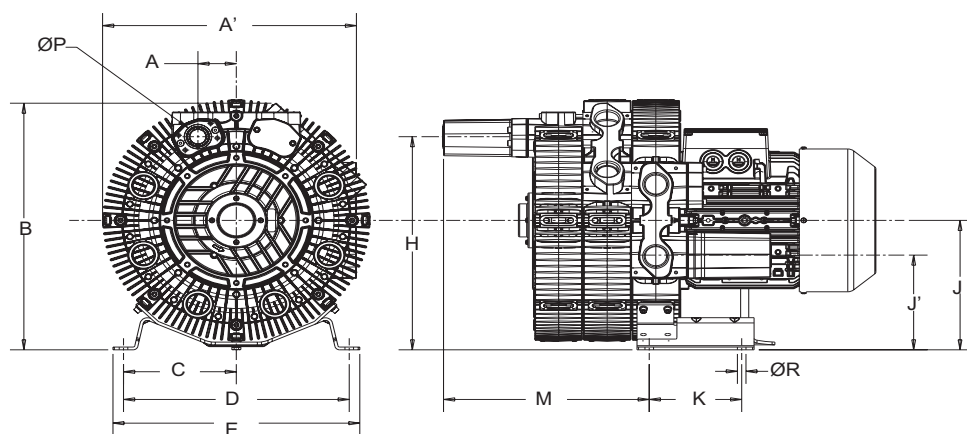
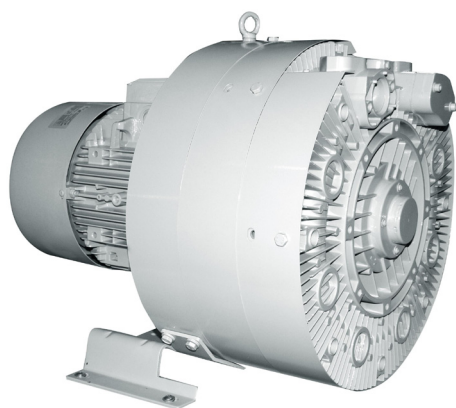
MODEL	K	M	O	ØP	ØR	X	Y*Z
HRB-1302	24.02	9.45	3.58	4.00	0.59	19.29	M12
HRB-1402	24.02	9.45	3.58	4.00	0.59	19.29	M12

Double Stage



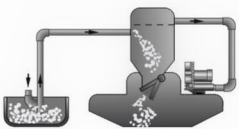
MODEL	A	A'	B	C	D	E	H	J	J'	K	L	M	ØP
4RB220	4.19	11.58	12.83	5.12	10.24	11.73	10.80	6.61	4.87	4.13	0.55	9.47	1.25
4RB320	4.47	12.30	13.54	5.71	11.42	12.80	11.44	6.97	5.12	4.13	0.55	9.55	1.25
4RB420	4.90	13.62	14.88	6.20	12.40	13.78	12.64	7.75	5.80	5.12	0.55	9.60	1.25
4RB520	5.40	14.43	15.74	6.46	12.91	13.29	13.51	8.10	5.86	5.98	0.55	10.10	1.25
4RB620	6.02	16.43	17.68	7.30	14.61	15.98	15.27	9.27	6.86	5.98	0.55	10.16	1.25

Triple Stage



MODEL	A	A'	B	C	D	E	F	H	J	J'	K	M	ØP	ØR
4RB630	2.49	16.43	17.69	7.30	14.61	15.98	17.69	15.29	9.29	6.79	5.98	13.31	1.25	0.55

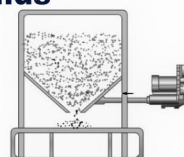
Chemical Processing Applications - Liquid or Solids



Chemicals



Pellets/Solids Transfer

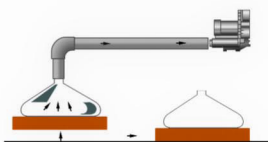


Hopper Processes



Water/Liquid Processing

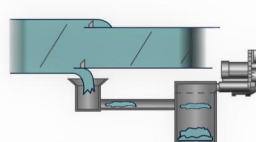
Manufacturing Applications



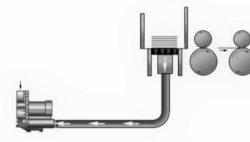
Vacuum Transfer



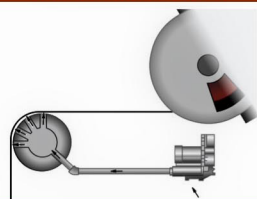
Cutting/Stamping



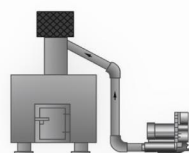
Scrap Collection



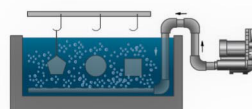
Batch Processing



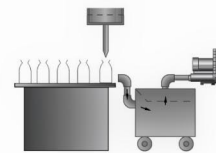
Air Bearing



Furnace Efficiency

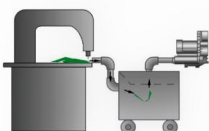


Parts Processing

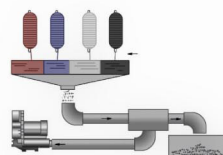


Packaging

Textiles Applications



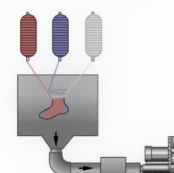
Industrial Sewing Machines



Automatic Loom Machines

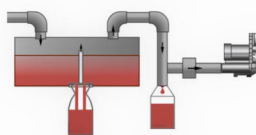


Excess Cloth Removal

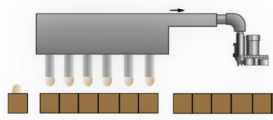


Knitting

Bottling/Food Processing



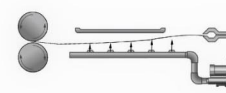
Bottling



Food Processing

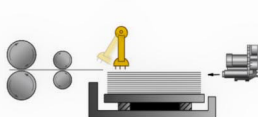


Labeling

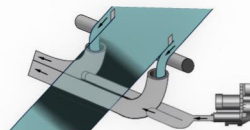


Feeding

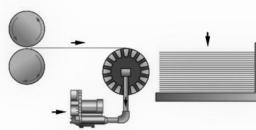
Printing Process Applications



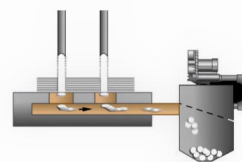
Paper Transfer



Excess Removal

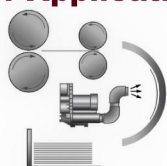


Post Processing - Sorting

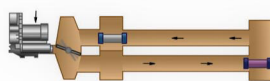


Punch Collection

Other Applications



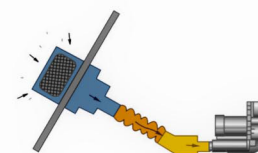
Paper Drying



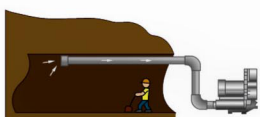
Banking



Medical and Dentistry



Laundry



Construction/Clean Rooms



Photography

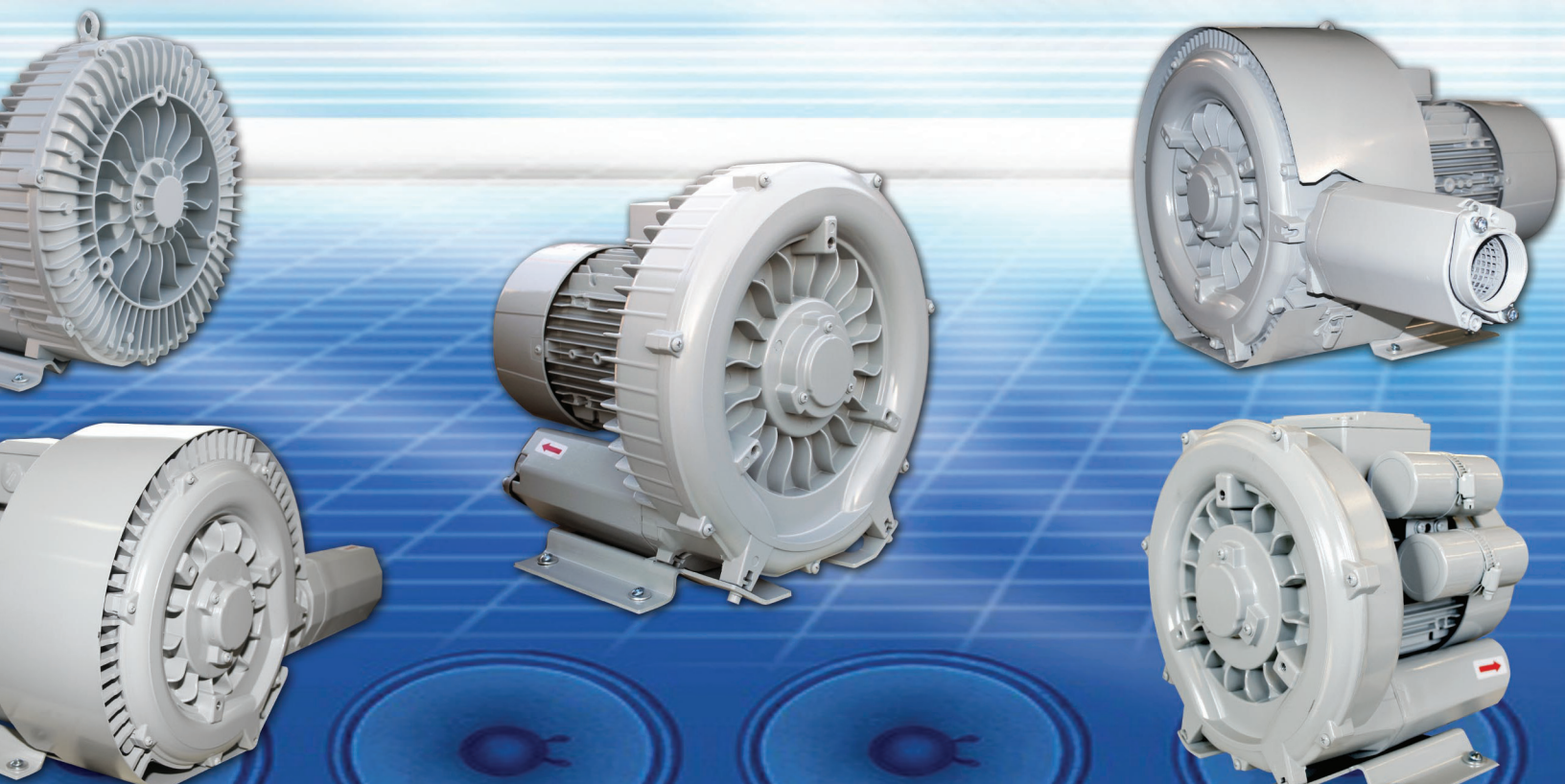


Spas and Whirlpools





R E P U B L I C
Blower Systems®



5131 Cash Road
Dallas, TX 75247
Tel (214) 631-8070
Fax (214) 631-3673

Call today

for help with your application.

Toll-free 1-800-847-0380

or visit our website

www.RepublicSales.com