

SERIES M002 MULTI-VANE AIR MOTORS

Round Keyed Shaft • Square Shaft (Optional) • Threaded Shaft (Optional)
 .11 to .25 hp • Flange Mounted

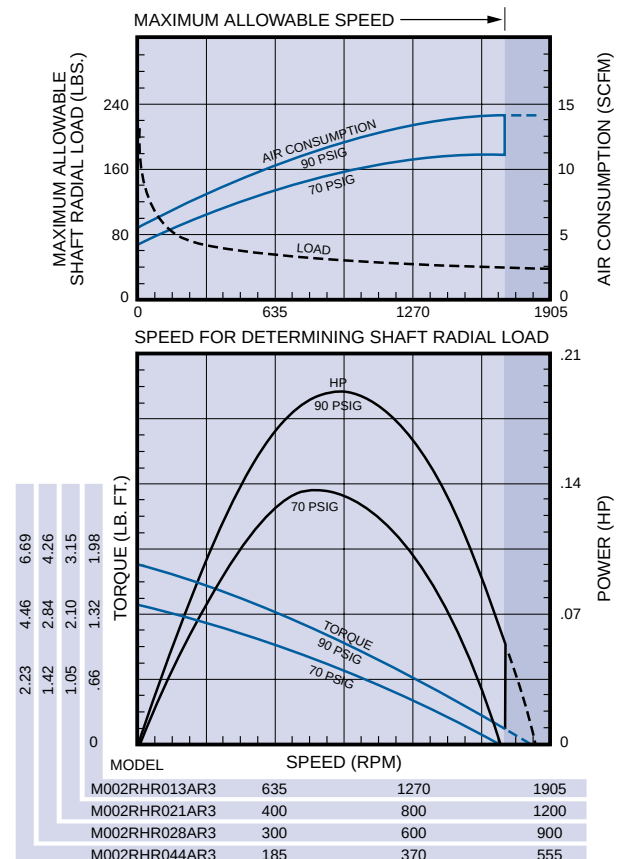
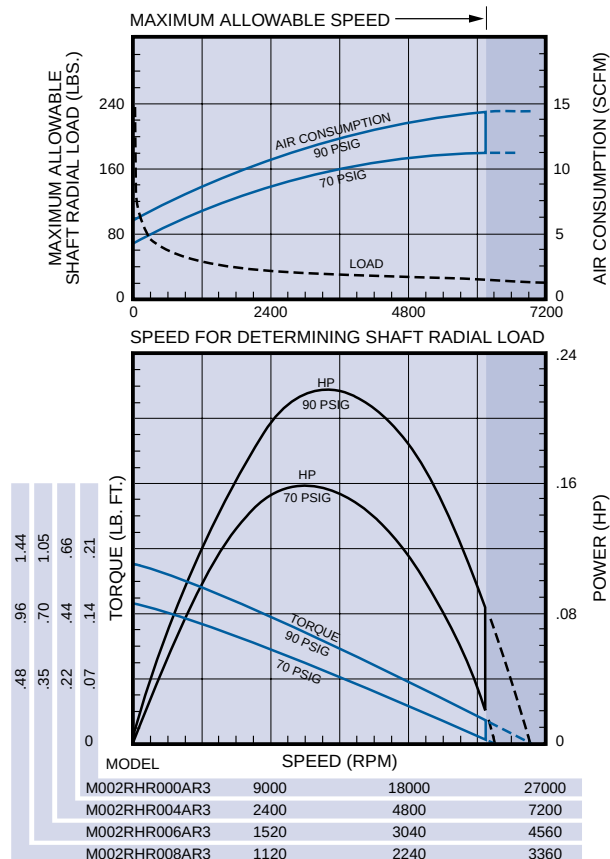
SPECIFICATIONS

Model	Max. Power		Speed at Max. Power	Free Speed▲	Starting Torque		Stall Torque		Air Consumption at Max. Power		Weight	
	hp	kw	rpm	rpm	lb.-ft.	Nm	lb.-ft.	Nm	scfm	m³/m	lb.	kg
Non-Reversible Direction of rotation is counterclockwise when facing the shaft.												
M002RHR000AR3	0.25	0.19	12,250	26,000	0.15	0.20	0.20	0.27	12.0	0.34	1	0.46
M002RHR004AR3	0.22	0.16	3250	6920	0.45	0.61	0.61	0.83	11.9	0.34	1	0.46
M002RHR006AR3	0.22	0.16	2060	4385	0.72	0.98	0.96	1.30	11.9	0.34	1½	0.49
M002RHR008AR3	0.22	0.16	1520	3240	0.98	1.33	1.31	1.78	11.9	0.34	1	0.46
M002RHR013AR3	0.19	0.14	880	1840	1.36	2.50	1.82	2.47	11.8	0.33	1½	0.50
M002RHR021AR3	0.19	0.14	555	1165	2.16	2.93	2.88	3.90	11.8	0.33	1½	0.50
M002RHR028AR3	0.19	0.14	410	860	2.92	3.96	3.90	5.29	11.8	0.33	1½	0.50
M002RHR044AR3	0.19	0.14	262	545	4.61	6.25	6.15	8.34	11.8	0.33	1½	0.50
M002RHR101AR3	0.16	0.12	112	228	*8.32	*11.2	*11.1	*15.0	11.7	0.33	1½ ₁₆	0.54
M002RHR159AR3	0.16	0.12	71	145	*13.1	*17.7	*17.5	*23.7	11.7	0.33	1½ ₁₆	0.54
Reversible												
M002RVR000AR3	0.20	0.15	11,500	23,000	0.13	0.18	0.18	0.24	9.8	0.28	1	0.46
M002RVR004AR3	0.17	0.13	3045	6090	0.40	0.54	0.54	0.73	9.7	0.27	1	0.46
M002RVR006AR3	0.17	0.13	1930	3860	0.64	0.87	0.86	1.17	9.7	0.27	1½	0.49
M002RVR008AR3	0.17	0.13	1425	2850	0.87	1.18	1.16	1.57	9.7	0.27	1	0.46
M002RVR013AR3	0.14	0.10	820	1645	1.17	1.58	1.56	2.11	9.6	0.27	1½	0.50
M002RVR021AR3	0.14	0.10	520	1045	1.85	2.51	2.47	3.35	9.6	0.27	1½	0.50
M002RVR028AR3	0.14	0.10	385	770	2.50	3.39	3.34	4.53	9.6	0.27	1½	0.50
M002RVR044AR3	0.14	0.10	240	485	3.96	5.37	5.28	7.16	9.6	0.27	1½	0.50
M002RVR101AR3	0.11	0.08	104	209	*6.78	*9.19	*9.05	*12.2	9.5	0.27	1½ ₁₆	0.54
M002RVR159AR3	0.11	0.08	66	132	*10.7	*14.5	*14.2	*19.3	9.5	0.27	1½ ₁₆	0.54

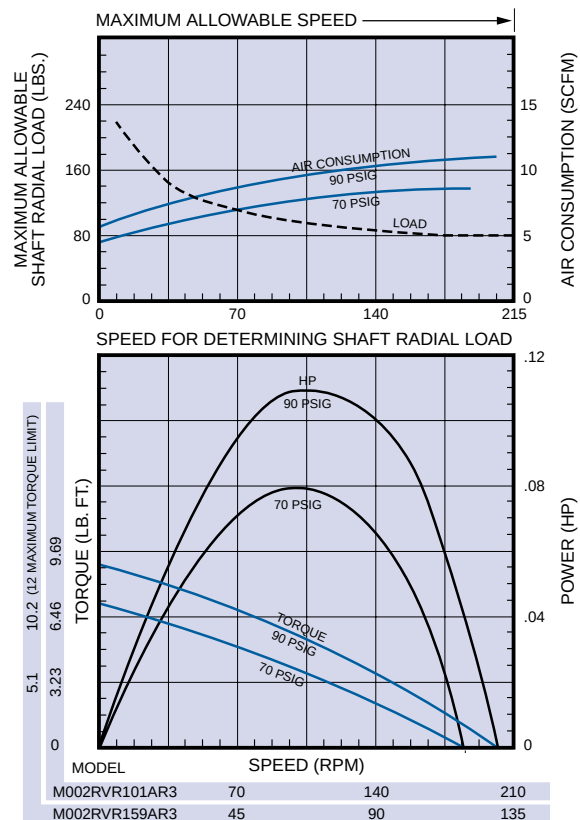
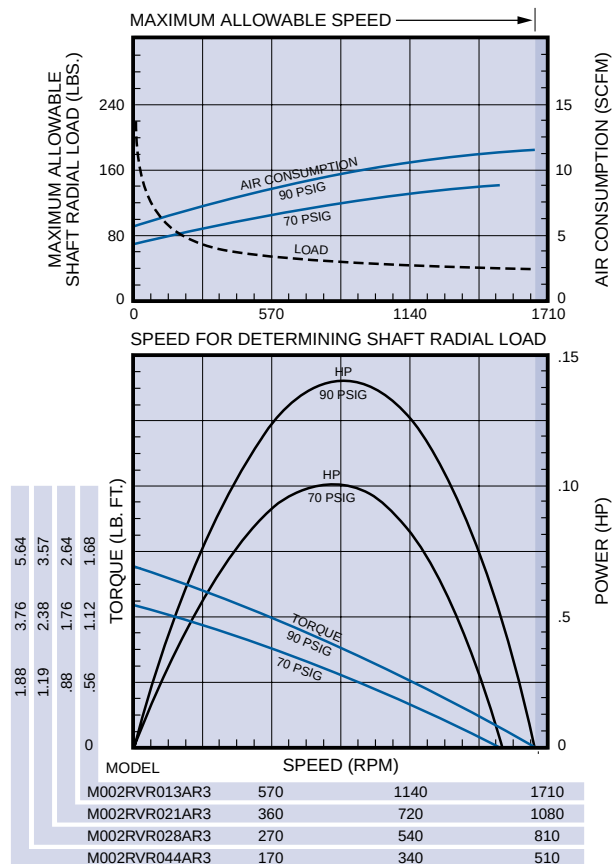
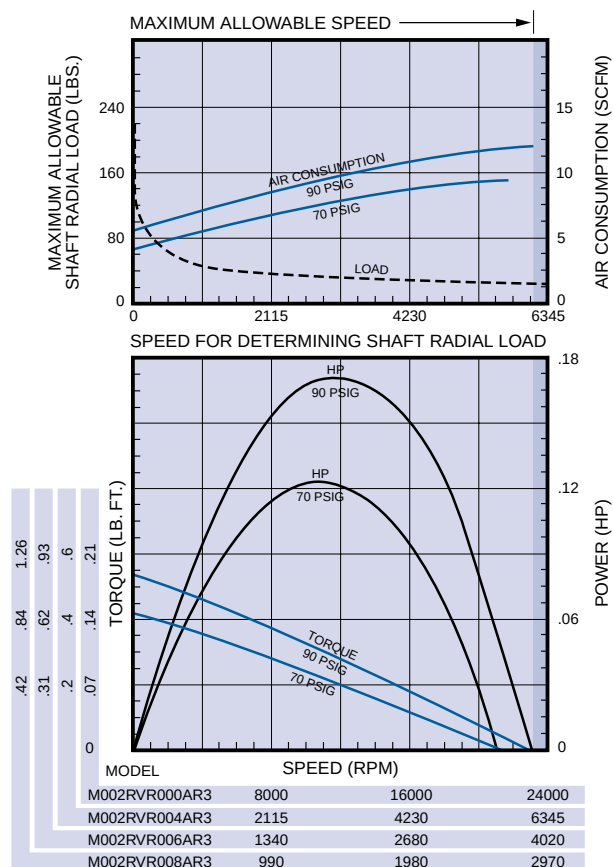
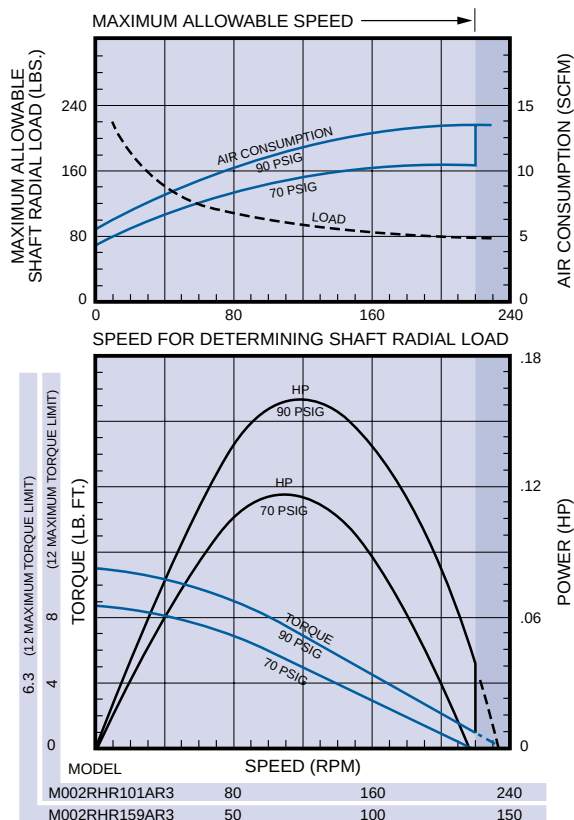
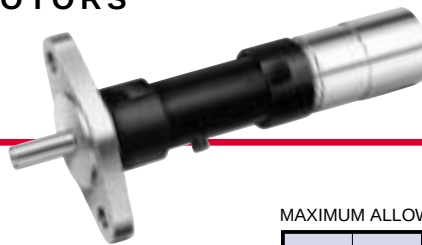
▲ ALL models must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.

* Applications with these models must be limited to 12 lb.-ft. (16.3 Nm) torque.

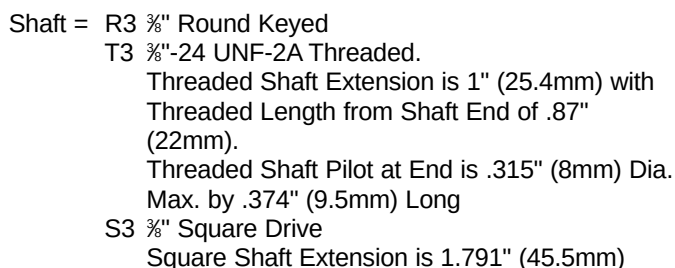
Performance figures are at 90 psig (620 kPa) air pressure.



SERIES M002 MULTI-VANE AIR MOTORS



SERIES M002 DIMENSIONS



Gear Ratios (Refer to Model No.)	A	
	in.	mm
000, 004, 008	4.989	126.73
006, 013, 021, 028, 044	5.510	139.93
101, 159	6.020	152.91

Furnished with Cataloged Models	Optional at No Extra Price	Optional at Extra Price
2 Hole Flange Mounting	4 Hole Face Mounting	R1440-212-1 $\frac{3}{8}$ " Square Drive Adapter, 1" long with $\frac{3}{8}$ " -24 Female threads for use with Threaded Shaft. Required for $\frac{3}{8}$ " Adapter (2) R2J-561 set screws (1) 8U-722 Bail
$\frac{3}{8}$ " Round Keyed Shaft	$\frac{3}{8}$ "-24 Threaded Shaft	
	Side Inlet and Exhaust Housing (for Reversible Models only)	

SERIES M004 MULTI-VANE AIR MOTORS

Round Keyed Shaft • Square Shaft (Optional) • Threaded Shaft (Optional)
.31 to .50 hp • Geared Drive • Flange Mounted



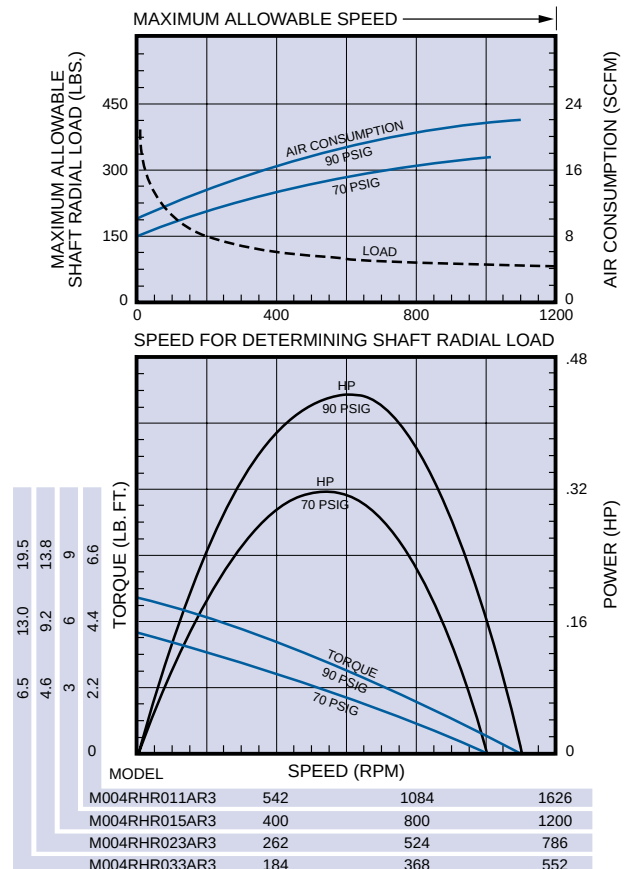
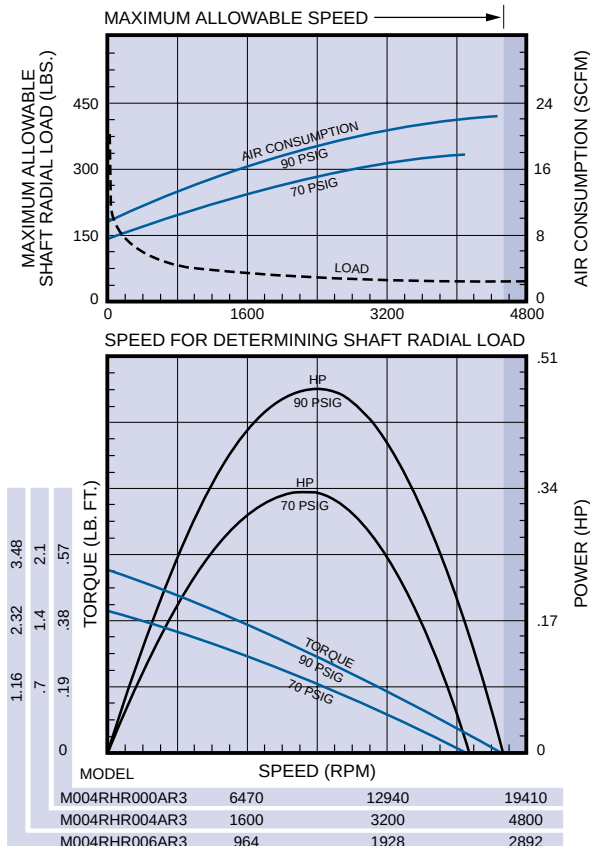
SPECIFICATIONS

Model	Max. Power		Speed at Max. Power	Free Speed▲	Starting Torque		Stall Torque		Air Consumption at Max. Power		Weight	
	hp	kw	rpm	rpm	lb.-ft.	Nm	lb.-ft.	Nm	scfm	m ³ /m	lb.	kg
Non-Reversible Direction of rotation is counterclockwise when facing the shaft.												
M004RHR000AR3	0.50	0.37	10,000	18,000	0.40	0.54	0.53	0.72	20.0	0.57	2 ¹ / ₁₆	0.95
M004RHR004AR3	0.47	0.35	2470	4450	1.46	1.98	1.94	2.63	19.5	0.55	2 ¹ / ₁₆	1.00
M004RHR006AR3	0.47	0.35	1490	2680	2.42	3.28	3.22	4.37	19.5	0.55	2 ¹ / ₁₆	1.00
M004RHR011AR3	0.44	0.33	825	1490	3.92	5.32	5.22	7.08	19.0	0.54	2 ¹ / ₁₆	1.09
M004RHR015AR3	0.44	0.33	610	1095	5.32	7.21	7.10	9.63	19.0	0.54	2 ¹ / ₁₆	1.09
M004RHR023AR3	0.44	0.33	395	715	8.10	11.0	10.8	14.6	19.0	0.54	2 ¹ / ₁₆	1.09
M004RHR033AR3	0.44	0.33	280	505	11.5	15.6	15.4	20.8	19.0	0.54	2 ¹ / ₁₆	1.09
M004RHR050AR3	0.41	0.31	175	315	*16.5	*22.4	*22.1	*30.0	18.5	0.52	2 ¹ / ₁₆	1.22
M004RHR083AR3	0.41	0.31	106	190	*27.5	*37.3	*36.7	*49.7	18.5	0.52	2 ¹ / ₁₆	1.22
M004RHR167AR3	0.41	0.31	53	95	*55.0	*74.5	*73.3	*99.4	18.5	0.52	2 ¹ / ₁₆	1.22
Reversible												
M004RVR000AR3	0.40	0.30	8000	16,000	0.32	0.43	0.42	0.57	19.0	0.54	2 ¹ / ₁₆	0.95
M004RVR004AR3	0.37	0.28	1975	3955	1.13	1.53	1.51	2.05	18.5	0.52	2 ¹ / ₁₆	1.00
M004RVR006AR3	0.37	0.28	1190	2380	1.88	2.55	2.51	3.40	18.5	0.52	2 ¹ / ₁₆	1.00
M004RVR011AR3	0.34	0.25	660	1325	3.00	4.07	4.00	5.42	18.0	0.51	2 ¹ / ₁₆	1.09
M004RVR015AR3	0.34	0.25	485	975	4.07	5.52	5.43	7.36	18.0	0.51	2 ¹ / ₁₆	1.09
M004RVR023AR3	0.34	0.25	315	635	6.23	8.45	8.30	11.2	18.0	0.51	2 ¹ / ₁₆	1.09
M004RVR033AR3	0.34	0.25	225	450	8.85	12.0	11.8	16.0	18.0	0.51	2 ¹ / ₁₆	1.09
M004RVR050AR3	0.31	0.23	140	280	*12.3	*16.7	*16.5	*22.4	17.5	0.50	2 ¹ / ₁₆	1.22
M004RVR083AR3	0.31	0.23	84	169	*20.6	*27.9	*27.5	*37.3	17.5	0.50	2 ¹ / ₁₆	1.22
M004RVR167AR3	0.31	0.23	42	85	*41.3	*56.0	*55.0	*74.5	17.5	0.50	2 ¹ / ₁₆	1.22

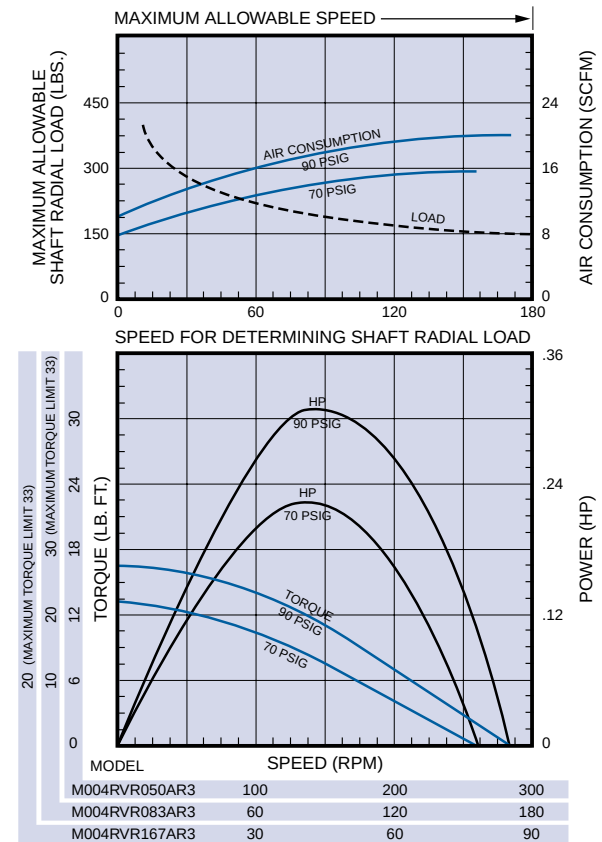
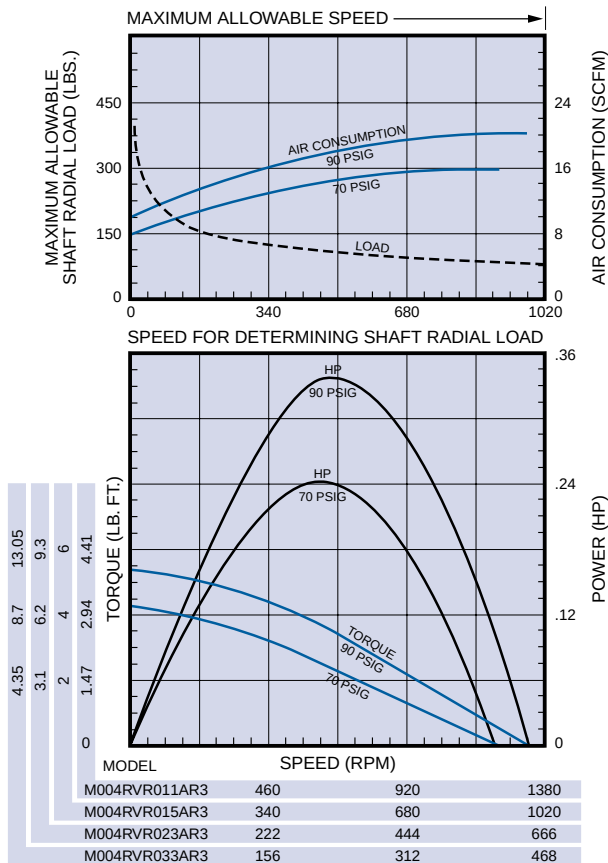
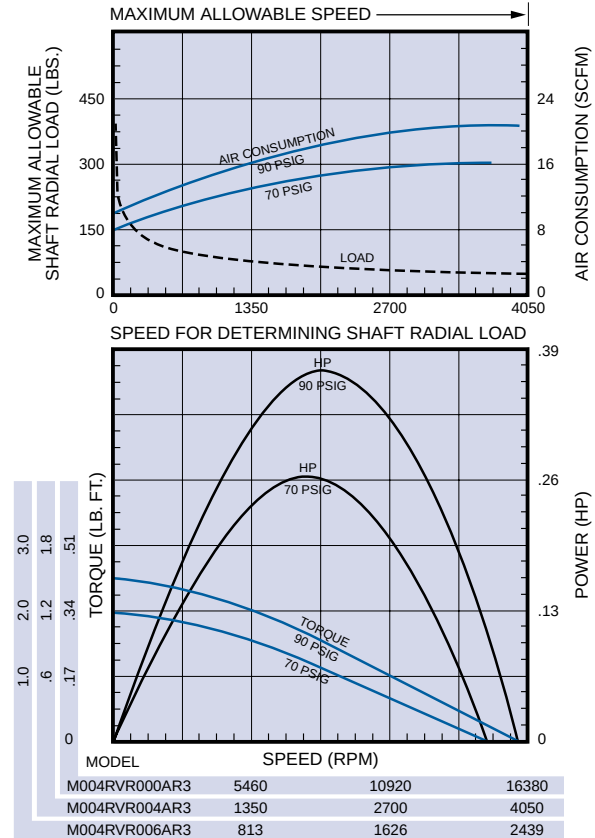
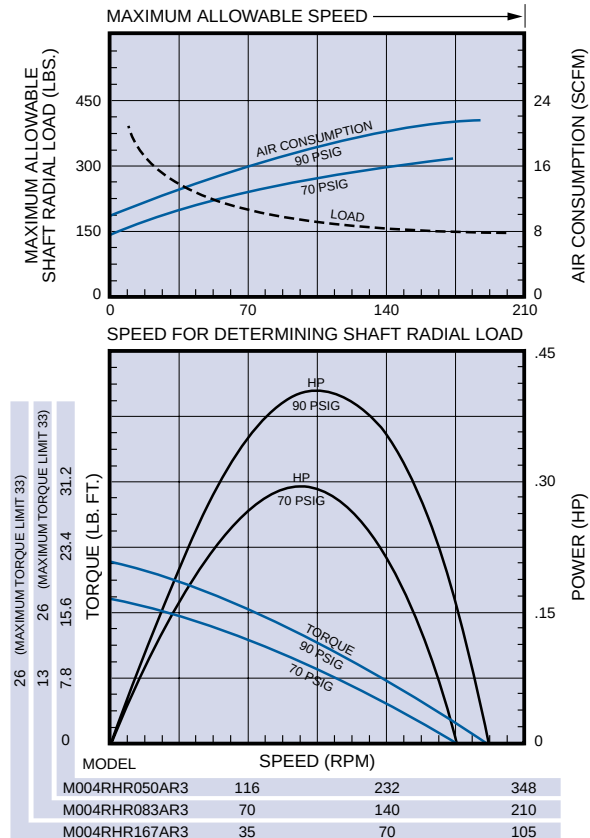
▲ ALL models must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.

* Applications with these models must be limited to 33 lb.-ft. (44.7 Nm) torque.

Performance figures are at 90 psig (620 kPa) air pressure.



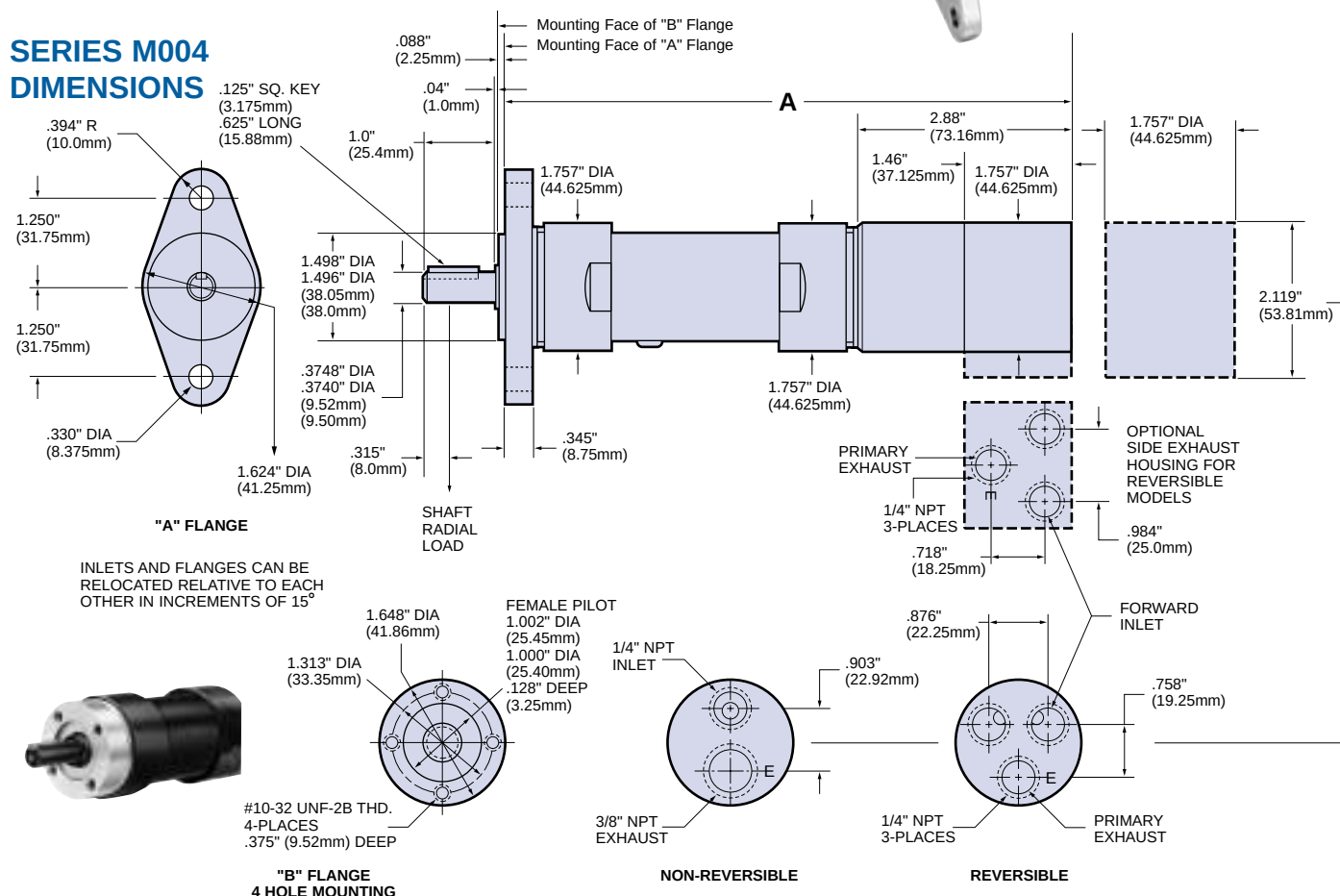
SERIES M004 MULTI-VANE AIR MOTORS



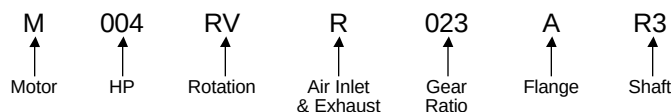
SERIES M004 MULTI-VANE AIR MOTORS



SERIES M004 DIMENSIONS



SERIES M004 MODEL NUMBER SYMBOLIZATION



HP = Approximate horsepower range (.31 to .50)

Rotation = RV Reversible
 RH Non-Reversible, Right Hand from Rear of Motor (CCW facing shaft)
 LH Non-Reversible, Left Hand from Rear of Motor (CW facing shaft)

Air Inlet & Exhaust = R Rear, S Side (Side Inlet and Exhaust available on Reversible Models only)

Gear Ratio = 023 is 1 to 23, 033 is 1 to 33, etc.

Flange = A 2 Hole Flange, B 4 Hole Face Mounting

Shaft = R3 $\frac{3}{8}$ " Round Keyed
 T3 $\frac{3}{8}$ "-24 UNF-2A Threaded
 Threaded Shaft Extension is .512" (13mm)
 Full Thread Length is .424" (10.75mm)
 S3 $\frac{3}{8}$ " Square Drive
 Square Shaft Extension is 1.791" (45.5mm)

DIMENSIONS

Gear Ratios (Refer to Model No.)	A	
	in.	mm
000, 004, 006	6.248	158.69
011, 015, 023, 033	6.984	177.38
050, 083, 167	7.745	196.73

EQUIPMENT OPTIONS

Furnished with Cataloged Models	Optional at No Extra Price	Optional at Extra Price
2 Hole Flange Mounting	4 Hole Face Mounting	R1440-212-1 $\frac{3}{8}$ " Square Drive Adapter, 1" long with $\frac{3}{8}$ " -24 Female threads for use with Threaded Shaft.
$\frac{3}{8}$ " Round Keyed Shaft	$\frac{3}{8}$ "-24 Threaded Shaft	Required for $\frac{3}{8}$ " Adapter (2) R2J-561 set screws
	Side Inlet and Exhaust Housing (for Reversible Models only)	

Note: On all Series M002, M004, and M007 Air Motors, performance is the same for both directions of rotation. On Non-Reversible models, direction of rotation may be easily changed without the need of additional parts by inverting cylinder. See Assembly Instruction form number listed in price sheet.

SERIES M007 MULTI-VANE AIR MOTORS

Round Keyed Shaft • Square Shaft (Optional) • .61 to .85 hp • Geared Drive
Flange or Face Mounted

SPECIFICATIONS

Model	Max. Power		Speed at Max. Power	Free Speed▲	Starting Torque		Stall Torque		Air Consumption at Max. Power		Weight	
	hp	kw	rpm	rpm	lb.-ft.	Nm	lb.-ft.	Nm	scfm	m³/m	lb.	kg
Non-Reversible Direction of rotation is counterclockwise when facing the shaft.												
M007RHR000AR4	0.85	0.63	11,000	22,000	0.58	0.79	0.77	1.04	36	1.02	3½	1.4
M007RHR004AR4	0.82	0.61	2445	4890	2.39	3.24	3.19	4.33	36	1.02	3½	1.4
M007RHR006AR4	0.82	0.61	1675	3350	3.50	4.75	4.66	6.32	36	1.02	3½	1.4
M007RHR009AR4	0.82	0.61	1230	2460	4.76	6.45	6.34	8.60	36	1.02	3½	1.4
M007RHR012AR4	0.79	0.59	870	1740	6.19	8.39	8.25	11.2	36	1.02	3½	1.6
M007RHR015AR4	0.79	0.59	685	1370	7.80	10.6	10.4	14.1	36	1.02	3½	1.6
M007RHR021AR4	0.79	0.59	470	940	11.5	15.6	15.3	20.7	36	1.02	3½	1.6
M007RHR027AR4	0.79	0.59	370	740	14.5	19.7	19.3	26.2	36	1.02	3½	1.6
M007RHR037AR4	0.79	0.59	270	540	19.7	26.7	26.3	35.7	36	1.02	3½	1.6
M007RHR044AR4	0.79	0.59	232	465	23.2	31.5	30.9	41.9	36	1.02	3½	1.6
M007RHR063BR6	0.79	0.59	161	321	33.5	45.4	44.7	60.6	36	1.02	7½	3.2
M007RHR086BR6	0.79	0.59	118	236	45.7	62.0	60.9	82.6	36	1.02	7½	3.2
M007RHR119BR6	0.76	0.57	82	163	60.5	82.0	80.7	109.0	36	1.02	7½	3.4
M007RHR151BR6	0.76	0.57	65	129	76.5	104.0	102.0	138.0	36	1.02	7½	3.4
M007RHR188BR6	0.76	0.57	52	103	96.0	130.0	128.0	174.0	36	1.02	7½	3.4
M007RHR275BR6	0.76	0.57	35	70	*140.0	*190.0	*187.0	*254.0	36	1.02	7½	3.4
M007RHR374BR6	0.76	0.57	26	52	*191.0	*259.0	*254.0	*344.0	36	1.02	7½	3.4
Reversible												
M007RVR000AR4	0.70	0.52	10,000	20,000	0.47	0.64	0.63	0.85	33	0.93	3½	1.4
M007RVR004AR4	0.67	0.50	2225	4450	1.94	2.63	2.59	3.51	33	0.93	3½	1.4
M007RVR006AR4	0.67	0.50	1520	3045	2.84	3.85	3.78	5.13	33	0.93	3½	1.4
M007RVR009AR4	0.67	0.50	1120	2240	3.86	5.23	5.14	6.97	33	0.93	3½	1.4
M007RVR012AR4	0.64	0.48	790	1580	4.97	6.74	6.63	8.99	33	0.93	3½	1.6
M007RVR015AR4	0.64	0.48	625	1250	6.29	8.53	8.38	11.4	33	0.93	3½	1.6
M007RVR021AR4	0.64	0.48	425	855	9.2	12.5	12.2	16.5	33	0.93	3½	1.6
M007RVR027AR4	0.64	0.48	335	675	11.6	15.7	15.5	20.1	33	0.93	3½	1.6
M007RVR037AR4	0.64	0.48	245	495	15.8	21.4	21.1	28.6	33	0.93	3½	1.6
M007RVR044AR4	0.64	0.48	210	420	18.6	25.2	24.8	33.6	33	0.93	3½	1.6
M007RVR063BR6	0.64	0.48	146	292	26.9	36.5	35.9	48.7	33	0.93	7½	3.2
M007RVR086BR6	0.64	0.48	107	215	36.7	49.8	48.9	66.3	33	0.93	7½	3.2
M007RVR119BR6	0.61	0.46	74	148	48.1	65.3	64.1	87.0	33	0.93	7½	3.4
M007RVR151BR6	0.61	0.46	58	117	61.0	82.7	81.3	110.0	33	0.93	7½	3.4
M007RVR188BR6	0.61	0.46	47	94	76.5	104.0	102.0	138.0	33	0.93	7½	3.4
M007RVR275BR6	0.61	0.46	32	64	*111.0	*151.0	*148.0	*201.0	33	0.93	7½	3.4
M007RVR374BR6	0.61	0.46	23	47	*152.0	*206.0	*202.0	*274.0	33	0.93	7½	3.4

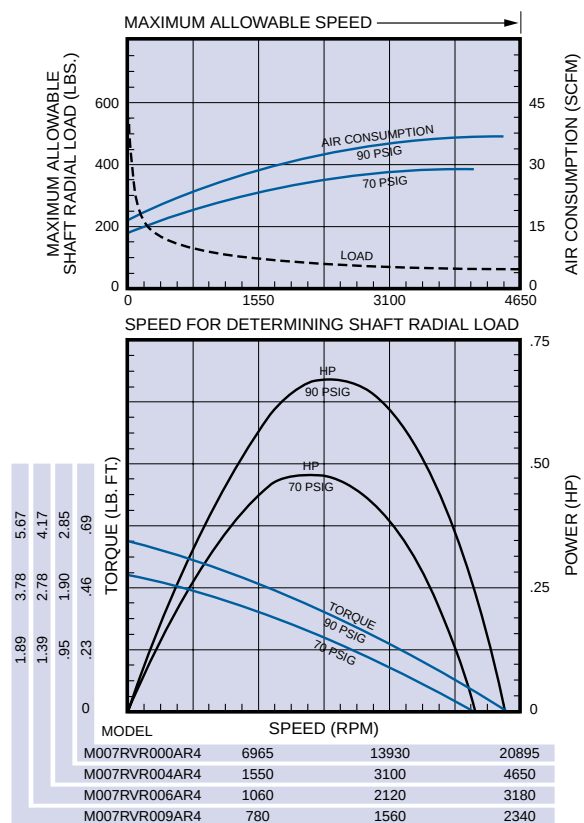
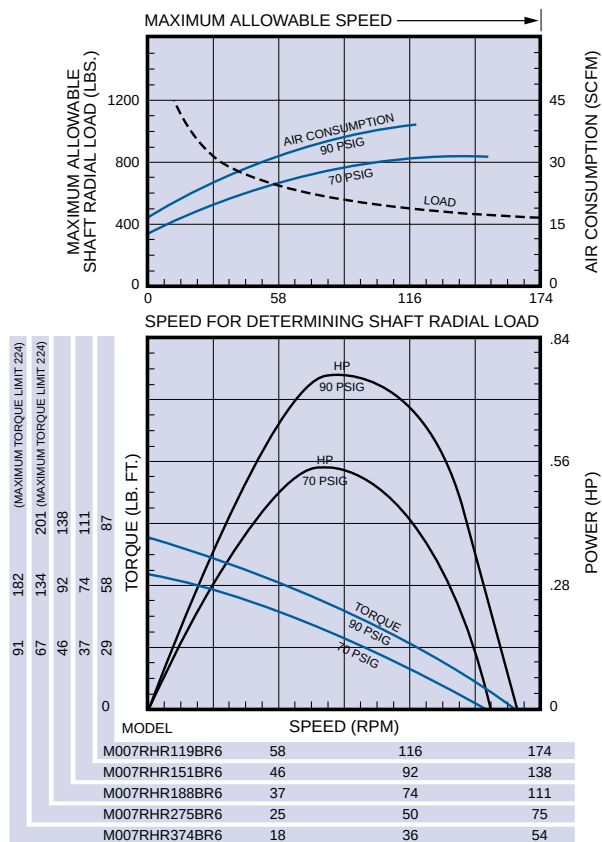
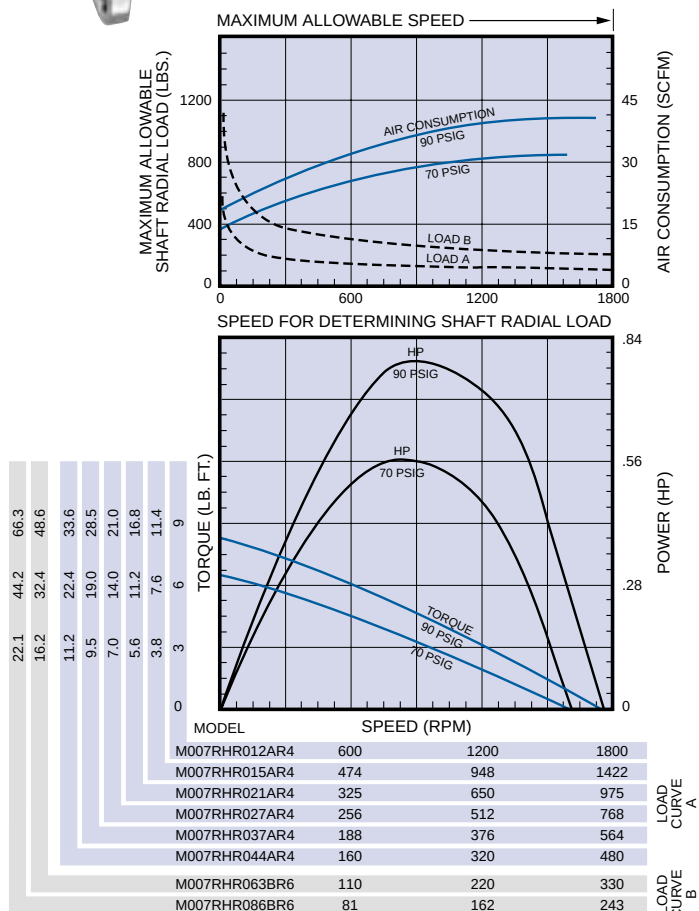
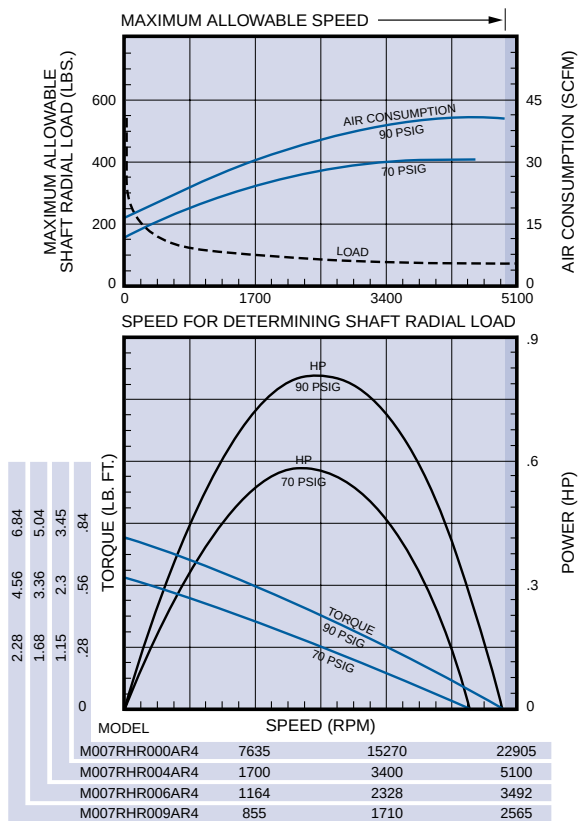
▲ ALL models must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.

* Applications with these models must be limited to 224 lb.-ft. (304 Nm) torque.

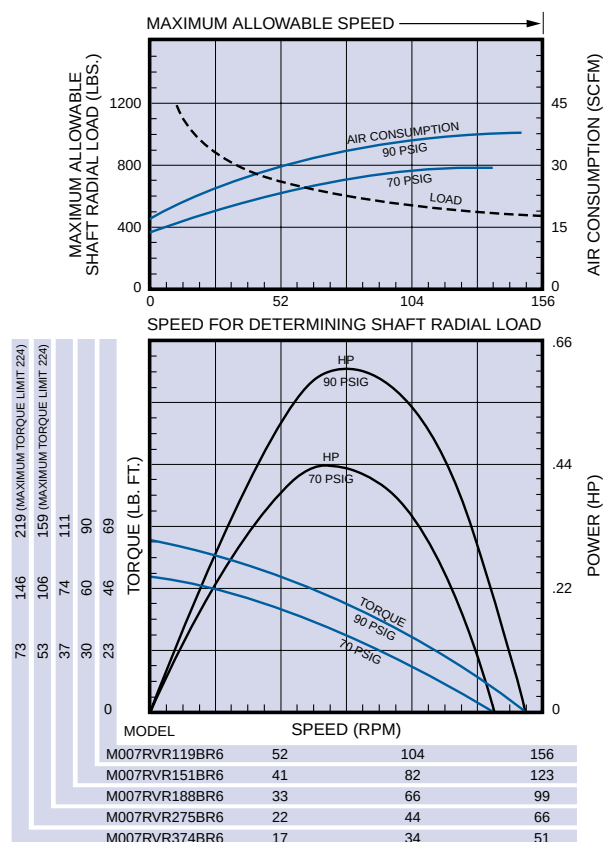
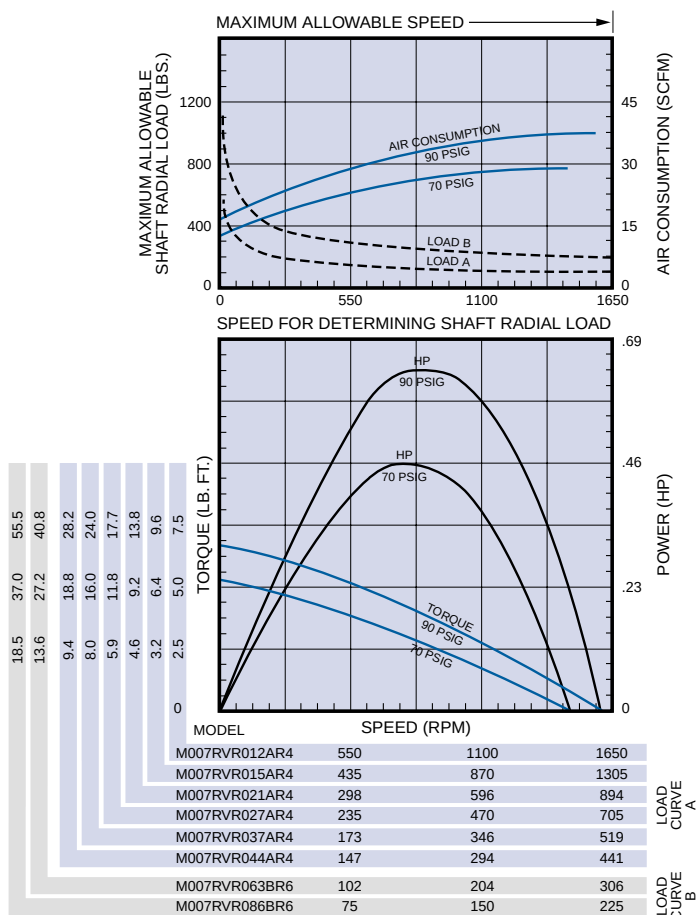
Performance figures are at 90 psig (620 kPa) air pressure.

Note: On all Series M002, M004, and M007 Air Motors, performance is the same for both directions of rotation. On Non-Reversible models, direction of rotation may be easily changed without the need of additional parts by inverting cylinder. See Assembly Instruction form number listed in price sheet.

SERIES M007 MULTI-VANE AIR MOTORS



SERIES M007 MULTI-VANE AIR MOTORS



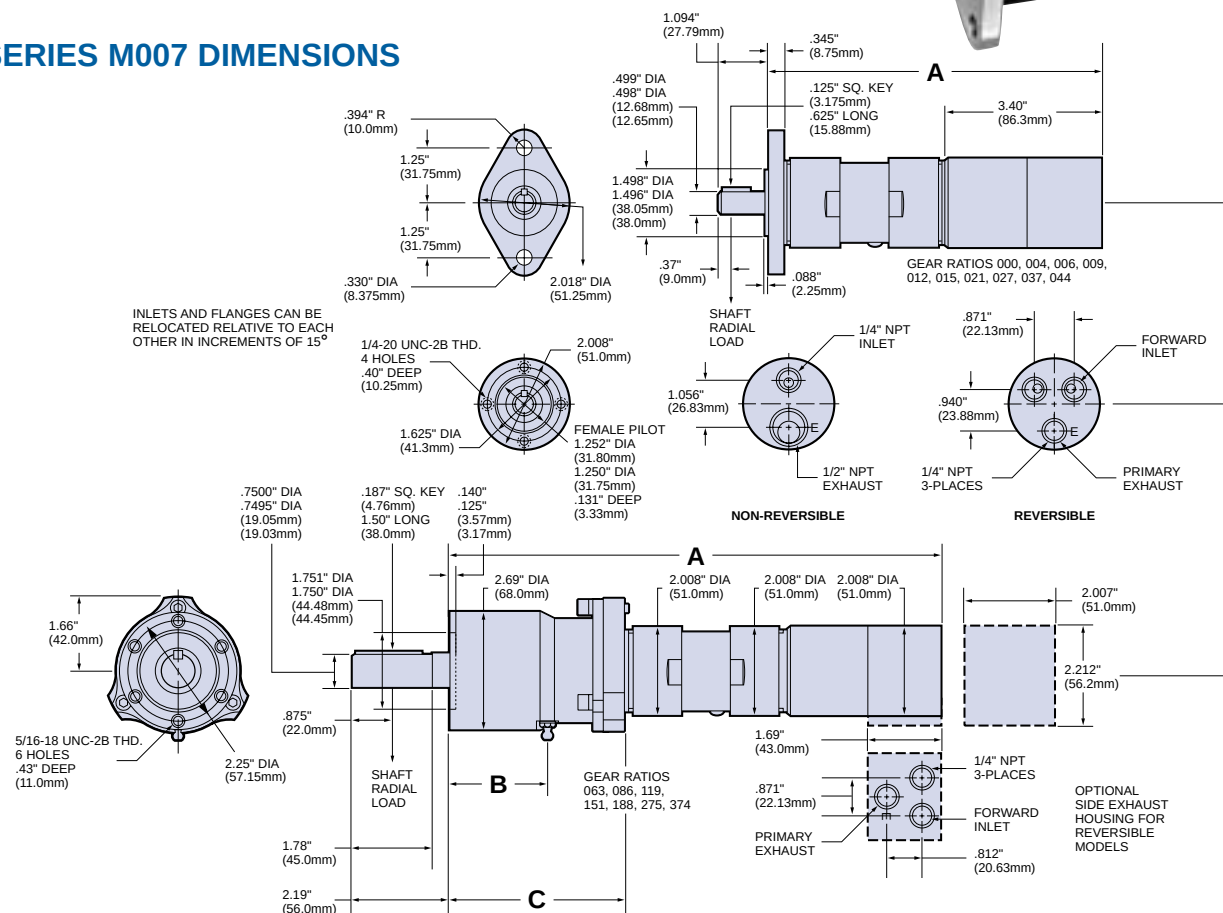
EQUIPMENT OPTIONS

Furnished with Cataloged Models	Optional at No Extra Price	Optional at Extra Price
2 Hole Flange Mounting on Gear Ratios: 000, 004, 006, 009, 012, 015, 021, 027, 037, 044	4 Hole Flange Mounting on Gear Ratios: 000, 004, 006, 009, 012, 015, 021, 027, 037, 044	½" Square Drive Shaft on Gear Ratios: 000, 004, 006, 009, 012, 015, 021, 027, 037, 044
6 Hole Face Mounting on Gear Ratios: 063, 086, 119, 151, 188, 275, 374	Side Inlet and Exhaust Housing (for Reversible Models only)	¾" Square Drive Shaft on Gear Ratios: 063, 086, 119, 151, 188, 275, 374
½" Round Keyed Shaft on Gear Ratios: 000, 004, 006, 009, 012, 015, 021, 027, 037, 044	¾"—24 or ½"—20 Threaded Shaft on Gear Ratios: 000, 004, 006, 009, 012, 015, 021, 027, 037, 044	
¾" Round Keyed Shaft on Gear Ratios: 063, 086, 119, 151, 188, 275, 374		

SERIES M007 MULTI-VANE AIR MOTORS



SERIES M007 DIMENSIONS



SERIES M007 MODEL NUMBER SYMBOLIZATION

M	007	RV	R	021	A	R4
Motor	HP	Rotation	Air Inlet & Exhaust	Gear Ratio	Flange	Shaft

HP = Approximate horsepower range (.61 to .85)

Rotation = RV Reversible

RH Non-Reversible, Right Hand from Rear of Motor (CCW facing shaft)

LH Non-Reversible, Left Hand from Rear of Motor (CW facing shaft)

Air Inlet & Exhaust = R Rear, S Side (Side Inlet and Exhaust available on Reversible Models only)

Gear Ratio = 021 is 1 to 21, 027 is 1 to 27, etc.

Flange = A 2 Hole Flange, B 4 Hole Face Mounting (on 000, 004, 006, 009, 012, 015, 021, 027, 037, 044 gear ratios), B 6 Hole Face Mounting (on 063, 086, 119, 151, 188, 275, 374 gear ratios).

Shaft = R4 ½" Round Keyed (on 000, 004, 006, 009, 012, 015, 021, 027, 037, 044 gear ratios).

R6 ¾" Round Keyed (on 063, 086, 119, 151, 188, 275, 374 gear ratios).

S4 ½" Square Drive (on 000, 004, 006, 009, 012, 015, 021, 027, 037, 044 gear ratios).

Shaft Extension 1.31" (33.27mm)

S5 ¾" Square Drive (on 063, 086, 119, 151, 188, 275, 374 gear ratios).

Shaft Extension 1.25" (31.75mm)

T3 ⅜"-24 UNF-2A Threaded (on 000, 004, 006, 009, 012, 015, 021, 027, 037, 044 gear ratios).

Shaft Extension .512" (13mm)

T4 ½" 20 UNF-2A Threaded (on 000, 004, 006, 009, 012, 015, 021, 027, 037, 044 gear ratios).

Shaft Extension .512" (13mm)

DIMENSIONS

Gear Ratios (Refer to Model No.)	A		B		C	
	in.	mm	in.	mm	in.	mm
000, 004, 006, 009	7.362	187.0				
012, 015, 021, 027, 037, 044	8.133	206.56				
063, 086	9.343	237.3	.41	10	2.3	58.4
119, 188, 275, 374, 151	10.937	277.8	2.19	56	3.9	99.0



2 HOLE
"A" FLANGE
MOUNTING



4 HOLE
"B" FACE
MOUNTING



6 HOLE
"B" FACE
MOUNTING