SOUTHWESTERN CONTROLS PROVIDING FLUID POWER SOLUTIONS
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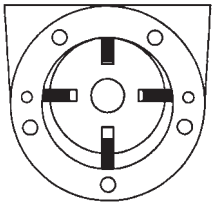
GAST AIR MOTOR/GEARMOTOR INTRODUCTION

Features

- Variable Speed
- Non-Electrical Sparking
- Cool Running
- Compact and Portable
- Operate in All Positions
- Mounting Flexibility
- Will Not Burn Out

Typical Applications

- Mixing Equipment
- Conveyor Drives
- Pump Drives
- Food Packaging
- Pharmaceutical Packaging
- Hoists and Winches
- Hose Reels
- Fiberglass Choppers
- Tension Devices
- Turntables



Compressed air into an air motor forces the sliding vanes out of the eccentric-mounted rotor. An extended shaft on the rotor spins to perform the work.

How to select an air motor. Air motors differ in many ways from other power sources. These unique operating characteristics must be considered when selecting an air motor for a particular job. It is easy to change horsepower and speed of an air motor by throttling the air inlet. Therefore, the best rule of thumb for selecting an air motor is to choose one that will provide the horsepower and torque needed using only two-thirds [2/3] of the line pressure available. The full air line pressure will then be available for overloads and starting.

Output power and speed: The output power of an air motor is relative to speed and to air pressure.

Torque vs Speed:

1. An air motor slows down when load increases. . . . At the same time its torque increases to a point where it matches the load. It will continue to provide increased torque all the way to the stalled condition, and it can maintain the stalled condition without any harm to the motor.
2. As the load is reduced, an air motor will increase speed and the torque will decrease to match the reduced load.
3. When the load on an air motor is either increased or decreased, speed can be controlled by increasing or decreasing air pressure.
4. Starting torque of an air motor is lower than running torque. While this provides smooth, no-shock starting, it is necessary to have additional air line pressure for starting under heavy loads.

Air consumption vs speed: Air consumption increases as speed and air pressure is increased.

Known industry wide for their rugged construction and reliability. Gast Air Motors, non-lubricated air motors and air powered gear motors are used in a variety of applications.

Lubricated air motors come in seven basic models ranging from 1/3 to 9.5 HP motor speeds are variable from 300 to 10,000 RPM. Choose from hub, foot, face and NEMA C-flange mountings; clockwise, counter-clockwise or reversible rotations; four and eight vane models are available.

Oilless air motors are available in three models, hub, foot and NEMA C-flange mountings, .18 to .82 HP, clockwise and counter-clockwise rotations, all units are four vane models.

Gearmotors are available in right-angle and in-line models offering a maximum torque range of 73 to 5,200 lb. In. and gear ratios from 10:1 to 60:1 single reduction gear reducers.

AIR MOTORS								
		Operating Data					Maximum Torque	
Model	Gear Ratio	Line Pres.	Max. Speed rpm	Output Power hp	Torque lb. in.	Max. Air Consumption cfm	Max. Speed rpm	lb. in.
1AM (A)			10,000	0.45	2.75	20.5	650	5.6
1UP (B)			6,000	0.45	5.25	27	500	6.00
2AM (A)			3,000	0.93	19.50	30	350	26.10
4AM (A)			3,000	1.70	36.00	78	300	56.00
6AM (A)			3,000	4.00	84.00	128	300	115.00
8AM (A)			2,500	5.25	132.00	175	300	185.00
16AM (A)			2,000	9.50	290.00	275	300	372.00
•NL22 (B)			4,000	.18	2.80	18.5	1000	4.30
•NL32 (B)			2,000	.42	13.50	30	300	21
•NL42 (B)			2,000	.82	25.50	41	500	44
GEARMOTORS								
1AM-NRV	15:1	A	350	0.34	62	21.0	30	72
1UP-NRV	15:1	C	400	0.32	49	21.0	30	71
4AM-RV	10:1	B	300	1.26	274	57.5	30	425
4AM-RV	15:1	B	200	1.25	400	60.0	20	640
4AM-70C	20:1	A	150	1.17	487	71.0	15	740
4AM-70C	40:1	A	75	0.95	800	71.0	7	1255
4AM-70C	60:1	A	50	0.82	1040	71.0	5	1640
6AM-22A	10:1	A	300	3.40	720	130.0	30	950
6AM-22A	20:1	A	150	2.65	1100	130.0	15	1550
6AM-22A	40:1	A	75	2.10	1725	135.0	8	2500
8AM-32A	20:1	A	125	3.70	1850	177.0	15	2550
16AM-13	20:1	A	100	6.50	4175	275.0	15	5175

• = Oiless
A–100 psig and 7,0 bar line pressure for imperial and metric data, respectively.
B–80 psig and 5,5 bar line pressure for imperial and metric data, respectively.
C–60 psig and 4,1 bar line pressure for imperial and metric data, respectively.

AIR MOTORS

AIR POWERED GEAR MOTORS