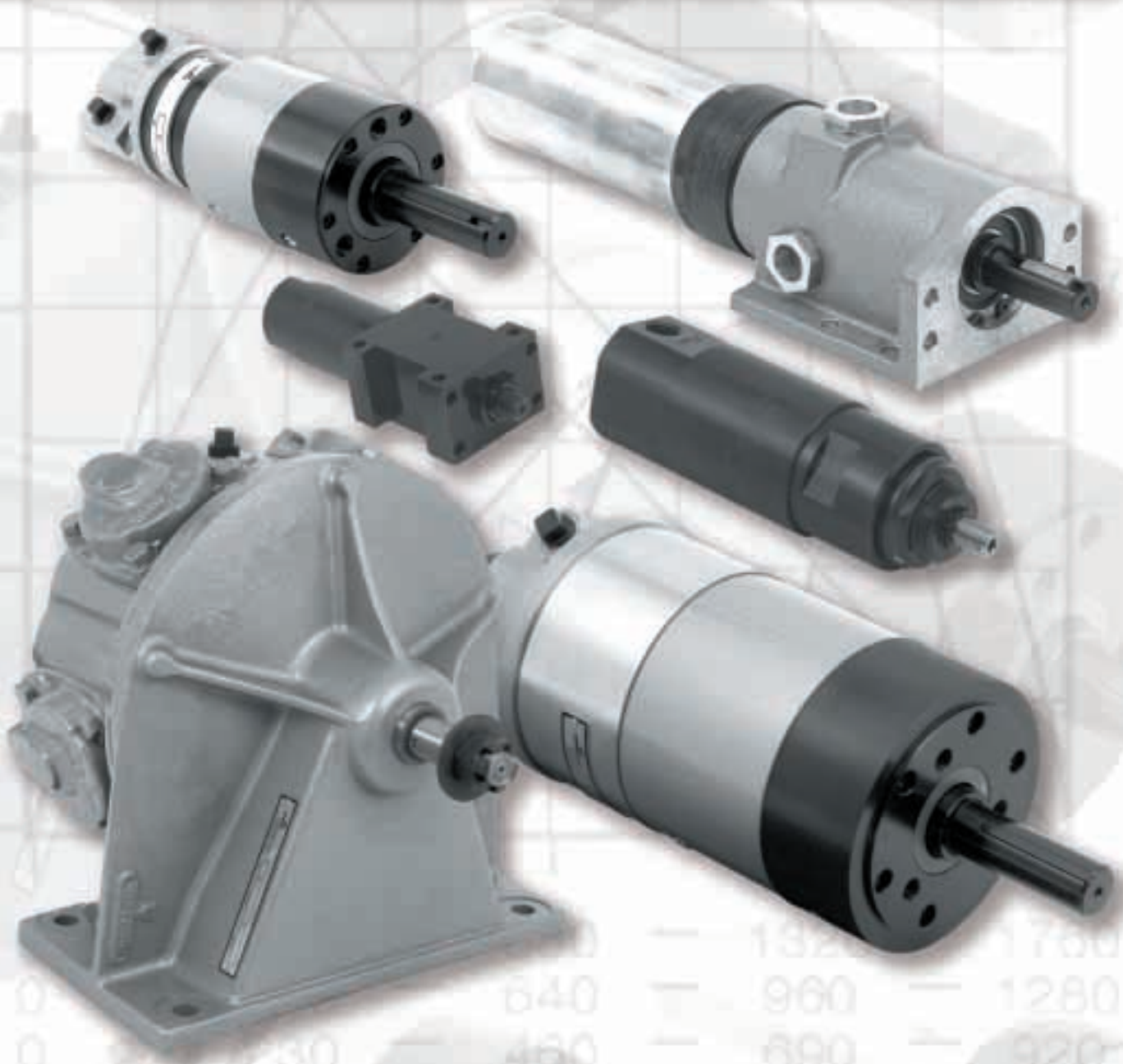


Pneumatic Power Motors

Buckeye® · Dotco® · Gardner-Denver®



 **COOPER** PowerTools

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Cooper Power Tools Division has attained ISO 9001 Quality System Certification for seven of our facilities. The driving force behind the implementation of the Quality System is the commitment "to provide our customers with the **best value delivered** by offering only products and services **that meet or exceed their expectations**".



Lexington, South Carolina



Dayton, Ohio



Hicksville, Ohio



Springfield, Ohio



Braunschweig, Germany



Westhausen, Germany



Ozoir-la-Ferrière, France

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22-5000	8	31MF-907	15	73320AA2	40	73415AA1	53
22-5001	8	31MR-911	17	73321AA0	40	73416AA9	53
22-5002	8	31MR-912	17	73322AA8	40	73417AA1	53
22-5040	6	31MR-913	17	73323AA6	40	73418AA5	55
22-5041	6	31MR-914	17	73331AA9	42	73419AA3	55
22-5042	6	31MR-915	17	73332AA7	42	73420AA0	55
22-5070	10	31MR-916	17	73333AA5	42	73421AA8	57
22-5071	10	31MR-917	17	73335AA1	42	73422AA6	57
22-5072	10	41MF-900	18	73336AA9	44	73423AA4	57
22-5270	10	41MF-901	18	73337AA7	44	74039AA8	25
22-5300	8	41MF-902	18	73338AA5	44	74040AA5	25
22-5340	6	41MF-903	18	73352AA5	48	74041AA3	24
22-5370	10	41MF-904	18	73353AA3	48	74043AA9	24
22-5400	8	41MF-905	18	73354AA1	48	74044AA7	24
22-5440	6	41MF-906	18	73355AA9	48	74045AA5	24
22-5900	8	41MF-907	18	73356AA7	48	74046AA3	25
22-5940	6	41MF-908	18	73357AA5	48	74047AA1	25
22-5970	10	41MR-911	19	73358AA3	50	74048AA9	25
22M5000	8	41MR-912	19	73359AA1	50	74049AA7	24
22M5001	8	41MR-913	19	73360AA8	50	74050AA4	25
22M5002	8	41MR-914	19	73361AA6	50	74051AA2	24
22M5040	6	41MR-915	19	73370AA7	50	74052AA0	25
22M5041	6	41MR-916	19	73371AA5	50	74053AA8	25
22M5042	6	41MR-917	19	73372AA3	50	74054AA6	24
22M5070	10	41MR-918	19	73373AA1	50	74055AA4	24
22M5071	10	61MF-911	20	73374AA9	52	74097AA6	30
22M5072	10	61MF-912	20	73375AA7	52	74098AA4	30
22M5270	10	61MF-913	20	73376AA5	52	74099AA2	30
22M5300	8	61MF-914	20	73377AA3	52	74100AA7	30
22M5340	6	61MF-915	20	73378AA1	52	74101AA5	30
22M5370	10	61MR-911	21	73379AA9	52	74102AA3	30
22M5400	8	61MR-912	21	73380AA6	52	74103AA1	32
22M5440	6	61MR-913	21	73381AA4	52	74104AA9	32
22M5940	6	61MR-914	21	73382AA2	54	74105AA7	32
Buckeye Motors		61MR-915	21	73383AA0	54	74106AA5	32
21MF-900	14	Gardner-Denver Motors		73384AA8	54	74107AA3	32
21MF-901	14	41NMR043FF10K	26	73385AA6	54	74110AA6	32
21MF-902	14	41NMR059FF10K	26	73386AA4	54	74111AA4	32
21MF-903	14	41NMR075FF10K	26	73387AA2	54	74112AA2	32
21MF-904	14	41NMR101FF10K	26	73388AA0	54	74113AA0	34
21MF-905	14	41NMR124FF10K	26	73389AA8	54	74114AA8	34
21MF-906	14	41NMR172FF10K	26	73390AA5	56	74115AA6	34
21MF-907	14	41NMR236FF10K	26	73391AA3	56	74116AA4	34
21MF-910	15	41RMR032FF10K	27	73392AA1	56	74117AA2	34
21MF-911	15	41RMR044FF10K	27	73393AA9	56	74118AA0	34
21MF-912	15	41RMR056FF10K	27	73394AA7	56	74119AA8	36
21MF-913	15	41RMR075FF10K	27	73395AA5	56	74120AA5	36
21MF-914	15	41RMR092FF10K	27	73396AA3	58	74121AA3	36
21MF-915	15	41RMR128FF10K	27	73397AA1	58	74122AA1	36
21MF-916	15	41RMR176FF10K	27	73398AA9	58	74123AA9	36
21MF-917	15	73300AA4	38	73399AA7	58	74124AA7	36
21MR-911	15	73301AA2	38	73400AA2	58	74195AA8	28
21MR-912	15	73302AA0	38	73401AA0	58	74196AA6	28
21MR-913	15	73303AA8	38	73403AA6	47	74197AA4	28
21MR-914	15	73304AA6	38	73404AA4	47	74198AA2	28
21MR-915	15	73305AA4	38	73405AA2	47	74199AA0	28
21MF-916	15	73306AA2	38	73406AA0	48	74200AA5	29
21MF-917	15	73307AA0	41	73407AA8	48	74201AA3	29
31MF-900	15	73308AA8	41	73408AA6	48	74202AA1	29
31MF-901	15	73309AA6	43	73409AA4	48	74203AA9	29
31MF-902	15	73310AA3	43	73410AA1	51	74204AA7	29
31MF-903	15	73311AA1	43	73411AA9	51		
31MF-904	15	73317AA9	40	73412AA7	51		
31MF-905	15	73318AA7	40	73413AA5	51		

Warranty

Cooper warrants products and parts sold by it, insofar as they are of its own manufacture, against defects of material and workmanship, under normal use and service in accordance with its written instructions, recommendations, and ratings for installation, operation, maintenance, and service of products, for a period of **ONE YEAR FROM THE DATE OF INITIAL USE, BUT IN NO EVENT SHALL THE WARRANTY EXCEED 24 MONTHS FROM DATE OF DELIVERY TO DISTRIBUTOR.** Proof of Purchase with shipment date must be furnished by the user to validate the warranty. This warranty applies only to products manufactured by Cooper and specifically excludes products manufactured by others. Products not manufactured by Cooper are warranted only to the extent and in the manner warranted to Cooper by the manufacturer

Lubrication Products

Cooper Power Tools' products are classified as non-hazardous manufactured items, defined in the OSHA 1910.1200 Hazard Communication Standard as "Articles". These products, under conditions of normal use, do not release or cause exposure to a hazardous chemical.

Under normal conditions of use, lubrication products sold separately for or used within these tools should not cause an exposure hazard. Refer to the Material Safety Data Sheet (M.S.D.S.) for Safety and Disposal Information. M.S.D.S. sheets are available upon request from Cooper Power Tools.

Cooper is also aware of, and complies with, the

and then only to the extent Cooper is able to enforce such warranty. Cooper's warranty with respect to products manufactured by it is limited to the repair or replacement, as Cooper may elect, of any defective part regarding which the Distributor has given 5 days written notice from the discovery of such defect. Installation and transportation costs are not included. Cooper shall have the option of requiring the return to it of the defective material, transportation prepaid, for inspection. No allowance will be made for repairs without Cooper's approval. **COOPER MAKES NO OTHER WARRANTY OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, AND HEREBY DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

provisions of section 611 amendments to the Clean Air Act of 1990. No ozone depleting chemicals have been used in the manufacture of our products.

If you resell or distribute these products, you have the responsibility for ensuring that the Material Safety Data Sheets are provided to the purchaser.

Proper lubrication is essential to the economical operation of pneumatic and electric tools. Cooper Power Tools perform better and their life is extended by using the recommended lubricants. All lubricants that are listed in the accessory section of this catalog have undergone extensive testing and are recommended for use with Cooper Power Tools products.

Choose the right Air Motor to fit your application

Cooper Power Tools' air motors are engineered for great flexibility, convenience, and reliability. Dotco, Buckeye, and Gardner-Denver air motors cover a wide range of uses where compressed air is advantageous: powering air driven machinery, raising foundry copes and drags, rotating a turntable, mixing paint, powering cranes, steering fishing boats, valve actuation, or power source for mechanical hands.

Rotary Vane Air Motors

Cooper Power Tools offers two types of rotary vane air motors, the large Gardner-Denver MR series (1.0 to 7.5 hp) and small to medium sizes (.14 to 2.3 hp) in the Dotco, Buckeye, and Gardner-Denver product lines. All motors feature durable construction with precision heavy-duty bearings throughout, and multiple blade rotors for smooth power. There is a wide range of speeds and torques as well as a choice of foot, face, or flange mounting. These motors require only air line lubrication for long, trouble-free service. Mount the lubricator as close to the motor as possible. These motors perform satisfactorily in high temperature areas up to 200°F (93° C).

Axial Piston

These small, lightweight Gardner-Denver motors are ideal for installation in close quarters. The rugged construction and precision manufacturing of these motors allows long life with minimum maintenance. Generous size spindle bearings permit overhung weight on spindle with no external support.

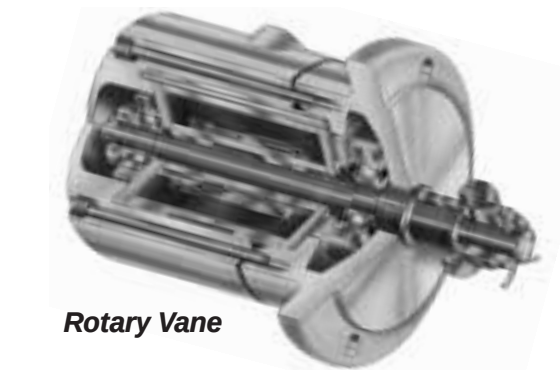
High torque is an inherent characteristic of piston type air motors, making them especially desirable for applications involving heavy starting loads. The overlap of power impulses in axial piston air motors provides even torque and full power in either direction of rotation. These motors should be operated under load and horizontally. Axial piston motors are ideal for start stop operations. It is not recommended that they be operated at speeds greater than 75% of free speed. Their enclosed type construction allows operation in corrosive or dusty atmospheres. These motors perform satisfactorily in high temperature areas up to 200° (93° C). Grease fittings are provided for lubrication. It is recommended that air lines be equipped with filters and lubricators. Mount the lubricator as close to the motor as possible.

Radial Piston

Heavy-duty construction make these motors suitable for continuous operation. The counterbalanced crankshaft is supported by anti-friction bearings. A slinger distributes oil to all moving parts of the motor. Oil level and drain plugs are easily accessible.

High torque is an inherent characteristic of piston type air motors, making them especially desirable for applications involving heavy starting loads. The overlap of power impulses in radial piston air motors provides even torque and full power in either direction of rotation. At least two pistons are always on a power stroke. These motors should be operated under load and in a horizontal position. It is not recommended that they be operated at speeds greater than 75% of free speed.

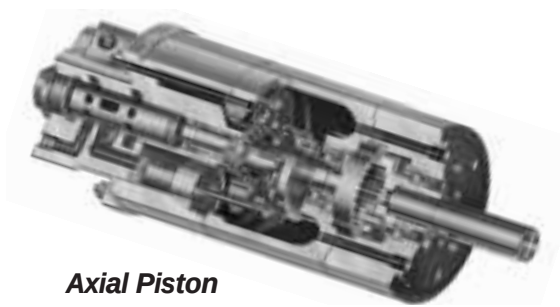
These motors perform satisfactorily in high temperature areas up to 200° (93° C). It is recommended that air lines be equipped with lubricators. Mount the lubricator as close to the motor as possible.



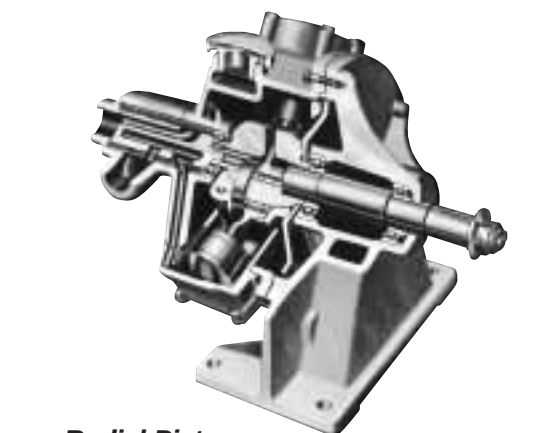
Rotary Vane



Rotary Vane



Axial Piston



Radial Piston

Air Motor Selection

To assist in the selection of an air motor, we need any two of the following three items of information:

- 1. Horsepower required.
- 2. Speed (RPM) required against load.
- 3. Work load expressed in foot pounds or inch pounds of dynamic torque (moving torque load).

As air motors are dependent upon input air pressure for performance, these factors must also be considered:

- 1. Air pressure (psig or bars) at motor location.
- 2. Pipe size of air supply system to assure adequate volume (cfm or m³/min) so as to minimize line loss (air pressure drop during motor operation).
- 3. Plant air system pressure may vary during the day due to use by other equipment; therefore, base the selection of the air motor on the lowest psig or bars that can be expected. Then, by using a pressure regulator in the line at the motor, a uniform air supply is assured.

In applications of intermittent short service, Cooper Power Tools' air motors can be operated over the complete range indicated for each without harm or significant wear. In applications involving sustained continuous operation for long periods, however, some guidelines are suggested. **Do not operate piston and MR motors at more than 75% of free speed.** Consult the factory for applications requiring continuous operation of rotary vane motors at maximum HP or for any applications requiring vertical operation of these motors. Review service manuals carefully.

For two known and one unknown, the following formulas can be used:

$$\text{Ft. lbs. Torque} = \frac{1000 \times \text{HP}}{0.19 \times \text{RPM}}$$
$$\text{Horsepower (HP)} = \frac{0.19 \times \text{Torque (ft. lbs.)} \times \text{RPM}}{1000}$$
$$\text{Speed (RPM)} = \frac{1000 \times \text{HP}}{0.19 \times \text{Torque (ft. lbs.)}}$$

When working with Newton meters (Nm), substitute .0258 in place of 0.19 in the formula.

Use the performance charts provided for each motor size and type for obtaining this same data procedure:

- 1. Select operating pressure.
- 2. Select torque required from the left hand scale.
- 3. Extend that point position across chart until it intersects with torque performance curve of the selected pressure.
- 4. Draw a vertical line from the above mentioned intersection to the corresponding motor scale at the bottom of the chart to determine the operating speed at the required torque and psig pressure.
- 4. Extend the vertical line until it intersects the horsepower curve of selected operating pressure and read horsepower from the motor scale on the right side of the chart.

Torque and horsepower curves may be interpreted for approximate performance at other psi pressure.

DOTCO®
22 Series

- Maximum Motor Power
0.9 hp
0.67 kW
- Torque Range
0.8 – 41.2 ft. lbs.
1.08 – 55.83 Nm
- Non-Reversible
- Rear Exhaust

Spindle Rotation

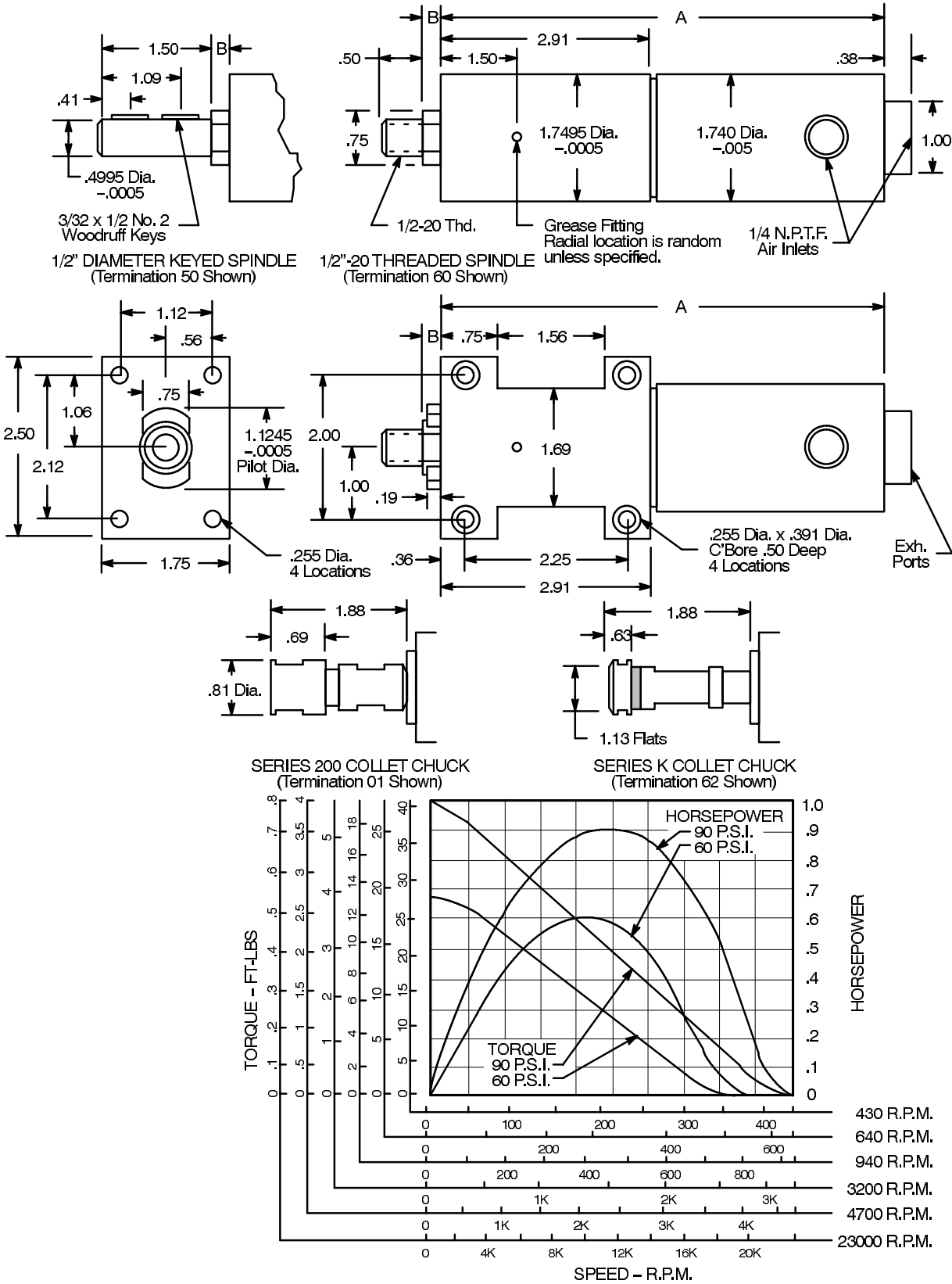
All models are right-hand rotation. To order left-hand rotation models (*not reversible*) substitute “D” for the first “-” in the model number for round housing motors and “V” for the “M” in the model number for motors with flange and base mounting.
IMPORTANT: Threaded spindles have right-hand threads; therefore use keyed shaft models only (-50) for left-hand rotation.



Model Number	RPM		Stall Torque		Weight		Gear Ratio	Length (page 7)	
	at Max. hp	Free Speed	ft lbs.	Nm	lbs.	kg		Overall (A) in.	Pilot (B) in.
Round Housing – 1/2" Diameter Keyed Spindle									
22-5040-50	215	430	41.2	55.83	4.1	1.86	50.4:1	7.94	.25
• 22-5041-50	320	640	28.4	38.48	4.1	1.86	34.8:1	7.94	.25
22-5042-50	470	940	19.6	26.56	4.1	1.86	24:1	7.94	.25
22-5340-50	1600	3200	5.8	7.86	3.1	1.41	7.1:1	6.19	.25
22-5440-50	2350	4700	4.0	5.42	3.1	1.41	4.9:1	6.19	.25
• 22-5940-50	11500	23000	0.8	1.08	2.5	1.13	—	4.38	.63
Flange and Base Mounting – 1/2" Diameter Keyed Spindle									
• 22M5040-50	215	430	41.2	55.83	5.0	2.27	50.4:1	7.94	.25
• 22M5041-50	320	640	28.4	38.48	5.0	2.27	34.8:1	7.94	.25
22M5042-50	470	940	19.6	26.56	5.0	2.27	24:1	7.94	.25
22M5340-50	1600	3200	5.8	7.86	4.0	1.81	7.1:1	6.19	.25
22M5440-50	2350	4700	4.0	5.42	4.0	1.81	4.9:1	6.19	.25
22M5940-50	11500	23000	.8	1.08	3.4	1.54	—	4.38	.63

•Available On Quotation Basis Only
GENERAL:
Air Inlet: 1/4" NPT – Side and rear
Air consumption: 29 cfm (.82 m³/min)
All tools performance rated @ 90psi (620 kPa) air pressure.
•OPTIONAL TERMINATIONS:
Replace -50 in model number with the desired termination when ordering.
-38 0"-1/4" Capacity Drill Chuck (5000 RPM or less)
-51 1/16"-3/8" Capacity Drill Chuck (5000 RPM or less)
-53 5/64"-1/2" Capacity Drill Chuck (5000 RPM or less)
-60 1/2"-20 Threaded Spindle
-01 Series 200 Collet Chuck (for milling and routing)
-62 Series "K" Collet Chuck (for milling and routing)

STANDARD EQUIPMENT:
Hex socket screw provided for closure of unused inlet. Flush fitting for lubrication of gears. Wrench for threaded spindle and collet chuck models. 1/4" collet included with series 200 & "K" collet chuck.
OPTIONAL EQUIPMENT:
Exhaust mufflers, remote-exhaust hoses, air intake hoses, spindle adapters and filter-lubricator-regulators available at extra cost.
Any series 200 and "K" collet may be substituted at no additional cost.



IMPORTANT:
A 3/8" I.D. air inlet hose may be used for runs up to 10'. For longer runs, use 1/2" I.D. hoses. When remote-exhaust hose is used, the portion of air inlet hose inserted into the exhaust hose should not exceed 3/8" I.D. (approx. .650" O.D.). Planetary gears should be greased after every 250 hours with gear grease # 45-0983, or equivalent. For Filters, Regulators and Lubricators refer to

page 68. If air line connector is used, install at end of hose away from the tool.
CONCENTRICITY:
On motors with round housings, concentricity of spindle to O.D. of housing is .003 TIR.

DOTCO®

22 Series

Maximum Motor Power
0.9 hp
0.67 kW

Torque Range
0.8 – 41.2 ft. lbs.
1.08 – 55.83 Nm

Non-Reversible

Side Exhaust

Spindle Rotation

All models are right-hand rotation. To order left-hand rotation models (*not reversible*) substitute “D” for the first “-” in the model number for round housing motors and “V” for the “M” in the model number for motors with flange and base mounting.

IMPORTANT: Threaded spindles have right-hand threads; therefore use keyed shaft models only (-50) for left-hand rotation.



Model Number	RPM		Stall Torque		Weight		Gear Ratio	Length (page 9)	
	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg		Overall (A) in.	Pilot (B) in.

Round Housing – 1/2" Diameter Keyed Spindle

22-5000-50	215	430	41.2	55.83	4.2	1.91	50.4:1	7.94	.25
• 22-5001-50	320	640	28.4	38.48	4.2	1.91	34.8:1	7.94	.25
22-5002-50	470	940	19.6	26.56	4.2	1.91	24:1	7.94	.25
• 22-5300-50	1600	3200	5.8	7.86	3.2	1.45	7.1:1	6.19	.25
• 22-5400-50	2350	4700	4.0	5.42	3.2	1.45	4.9:1	6.19	.25
• 22-5900-50	11500	23000	0.8	1.08	2.6	1.18	—	4.38	.63

Flange and Base Mounting – 1/2" Diameter Keyed Spindle

22M5000-50	215	430	41.2	55.83	5.1	2.31	50.4:1	7.94	.25
22M5001-50	320	640	28.4	38.48	5.1	2.31	34.8:1	7.94	.25
22M5002-50	470	940	19.6	26.56	5.1	2.31	24:1	7.94	.25
• 22M5300-50	1600	3200	5.8	7.86	4.1	1.86	7.1:1	6.19	.25
• 22M5400-50	2350	4700	4.0	5.42	4.1	1.86	4.9:1	6.19	.25

•Available On Quotation Basis Only

GENERAL:

Air Inlet: 1/4" NPT – Side and rear
Air consumption: 29 cfm (.82 m³/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

OPTIONAL TERMINATIONS:

Replace -50 in model number with the desired termination when ordering.

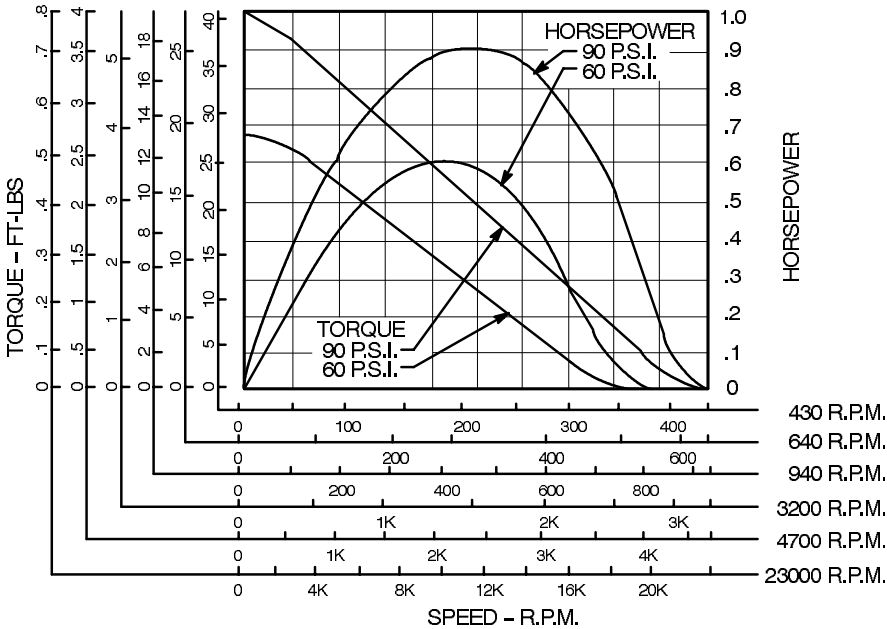
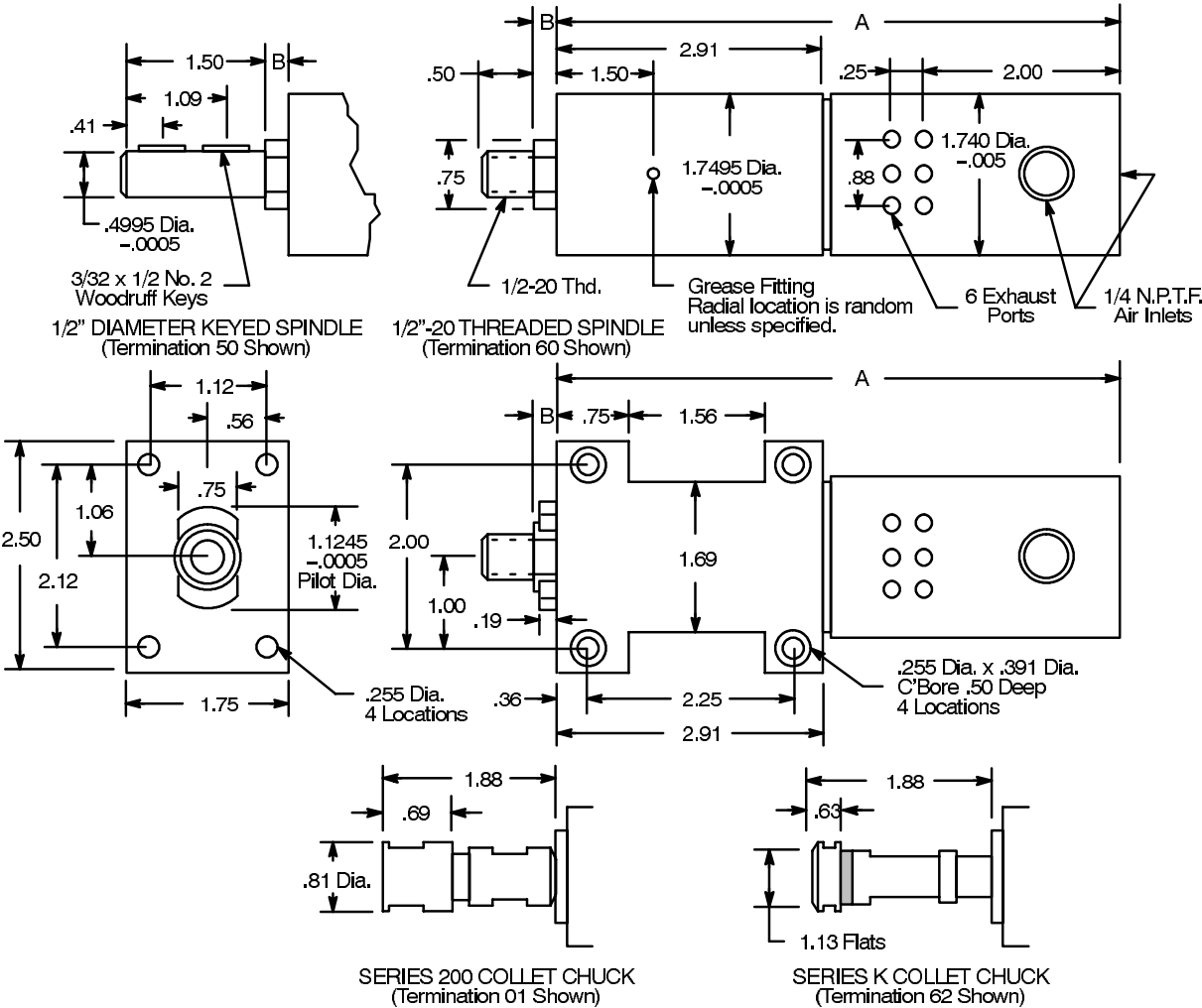
- 38 0"-1/4" Capacity Drill Chuck (5000 RPM or less)
- 51 1/16"-3/8" Capacity Drill Chuck (5000 RPM or less)
- 53 5/64"-1/2" Capacity Drill Chuck (5000 RPM or less)
- 60 1/2"-20 Threaded Spindle
- 01 Series 200 Collet Chuck (for milling and routing)
- 62 Series "K" Collet Chuck (for milling and routing)

STANDARD EQUIPMENT:

Hex socket screw provided for closure of unused inlet. Flush fitting for lubrication of gears. Wrench for threaded spindle and collet chuck models. 1/4" collet included with series 200 & "K" collet chuck.

OPTIONAL EQUIPMENT:

Exhaust mufflers, remote-exhaust hoses, air intake hoses, spindle adapters and filter-lubricator-regulators available at extra cost.
Any series 200 and "K" collet may be substituted at no additional cost.



IMPORTANT:

A 3/8" I.D. air inlet hose may be used for runs up to 10'. For longer runs, use 1/2" I.D. hoses. Planetary gears should be greased after every 250 hours with gear grease # 45-0983, or equivalent. For Filters, Regulators and Lubricators refer to page

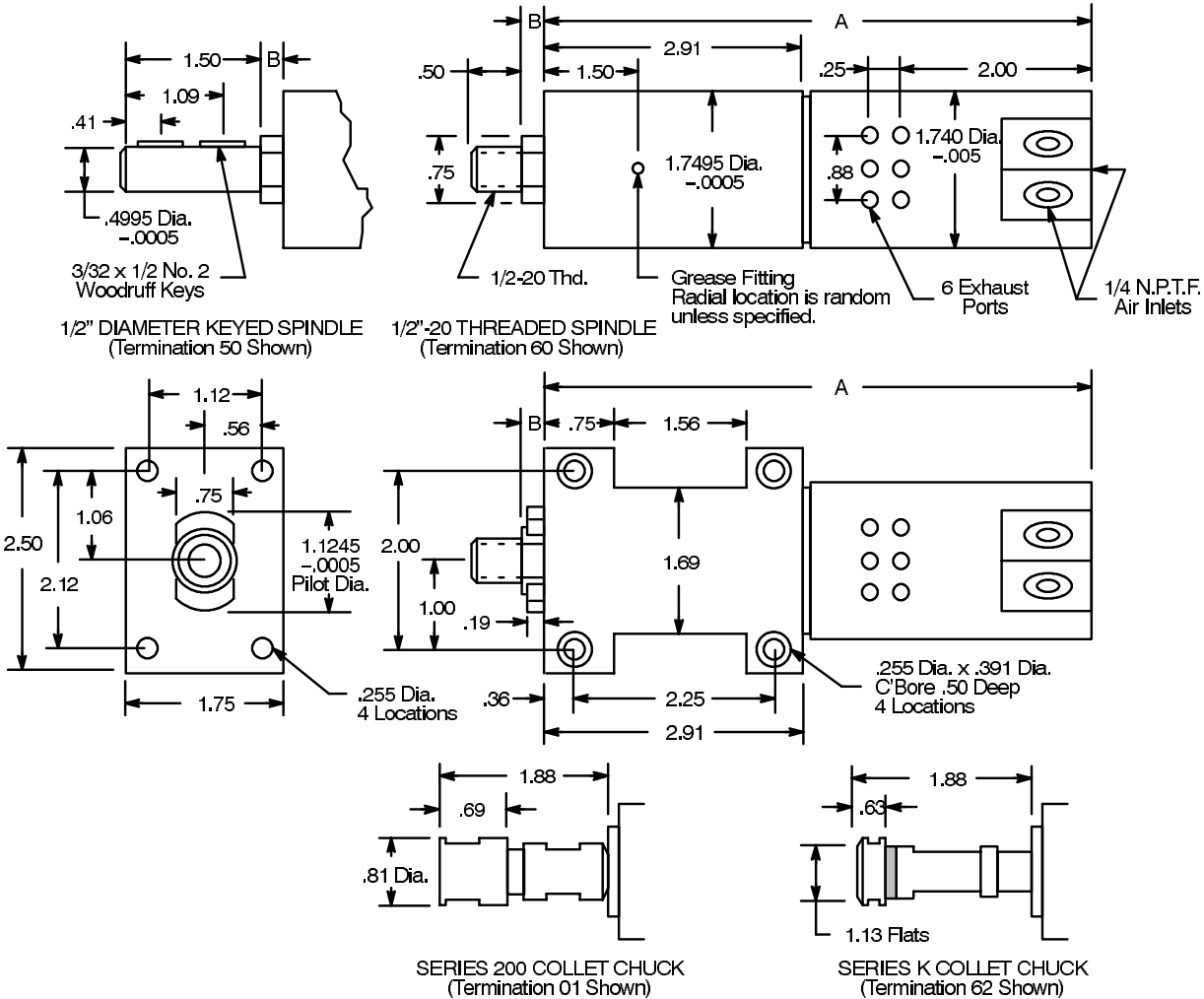
60. If air line connector is used, install at end of hose away from the tool.

CONCENTRICITY:

On motors with round housings, concentricity of spindle to O.D. of housing is .003 TIR.

DOTCO®
22 Series

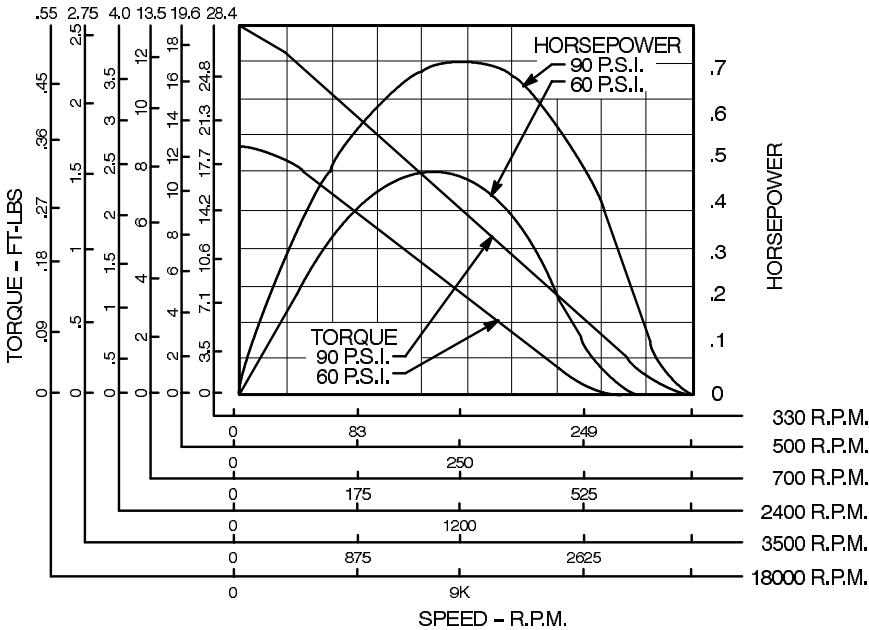
- Maximum Motor Power
0.7 hp
0.52 kW
- Torque Range
0.6 – 28.4 ft. lbs.
0.81 – 38.48 Nm
- Reversible
- Side Exhaust



Model Number	RPM		Stall Torque		Weight		Gear Ratio	Length (page 11)	
	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg		Overall (A) in.	Pilot (B) in.
Round Housing – 1/2" Diameter Keyed Spindle									
22-5070-50	165	330	28.4	38.48	2.75	1.25	50.4:1	7.88	.25
• 22-5071-50	250	500	19.6	26.56	2.75	1.25	34.8:1	7.88	.25
• 22-5072-50	350	700	13.5	18.29	2.75	1.25	24:1	7.88	.25
• 22-5270-50	1200	2400	4.0	5.42	2.06	0.93	7.1:1	6.16	.25
• 22-5370-50	1750	3500	2.8	3.79	2.06	0.93	4.9:1	6.16	.25
• 22-5970-50	9000	18000	0.6	0.81	2.00	0.91	—	4.38	.63
Flange and Base Mounting – 1/2" Diameter Keyed Spindle									
22M5070-50	165	330	28.4	38.48	3.06	1.39	50.4:1	7.88	.25
22M5071-50	250	500	19.6	26.56	3.06	1.39	34.8:1	7.88	.25
22M5072-50	350	700	13.5	18.29	3.06	1.39	24:1	7.88	.25
22M5270-50	1200	2400	4.0	5.42	2.38	1.08	7.1:1	6.16	.25
• 22M5370-50	1750	3500	2.8	3.79	2.38	1.08	4.9:1	6.16	.25

•Available On Quotation Basis Only
GENERAL:
Air Inlet: 1/4" NPT – Side and rear
Air consumption: 29 cfm (.82 m³/min)
All tools performance rated @ 90psi (620 kPa) air pressure.
•OPTIONAL TERMINATIONS:
Replace -50 in model number with the desired termination when ordering.
-38 0"-1/4" Capacity Drill Chuck (5000 RPM or less)
-51 1/16"-3/8" Capacity Drill Chuck (5000 RPM or less)
-53 5/64"-1/2" Capacity Drill Chuck (5000 RPM or less)
-60 1/2"-20 Threaded Spindle
-01 Series 200 Collet Chuck (for milling and routing)
-62 Series "K" Collet Chuck (for milling and routing)

STANDARD EQUIPMENT:
Hex socket screw provided for closure of unused inlet. Flush fitting for lubrication of gears. Wrench for threaded spindle and collet chuck models. 1/4" collet included with series 200 & "K" collet chuck.
OPTIONAL EQUIPMENT:
Exhaust mufflers, remote-exhaust hoses, air intake hoses, spindle adapters and filter-lubricator-regulators available at extra cost.
Any series 200 and "K" collet may be substituted at no additional cost.



IMPORTANT:
A 3/8" I.D. air inlet hose may be used for runs up to 10'. For longer runs, use 1/2" I.D. hoses. Planetary gears should be greased after every 250 hours with gear grease # 45-0983, or equivalent. For Filters, Regulators and Lubricators refer to page 60. If air line connector is used, install at end of hose away from the tool.

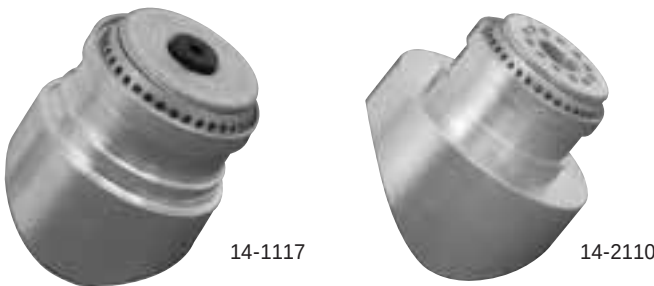
CONCENTRICITY:
On motors with round housings, concentricity of spindle to O.D. of housing is .003 TIR.
NOTE:
Spindles with 1/2-20 thread are equipped with 1/4-28 internal threaded jam screw. This will prevent sprockets or pulleys from unthreading in reverse direction.

Optional Equipment for Dotco Motors

Exhaust Muffler

With this Exhaust Muffler, the noise level is approximately 85 dBA. It is recommended that a motor always be used with this muffler, unless provision is made in the mounting structure, by the user, for an exhaust cavity to provide noise attenuation.

Use Exhaust Muffler 14-1117 on 21 Series side exhaust motors and 14-2110 on 22 series side exhaust motors.



Muffler with Remote-Exhaust Hose

Remote-exhaust Hose 45-2000 (specify length desired) can be attached to the muffler with Hose Clamp 45-2126 to provide remote exhaust and additional quieting. (4' length reduces noise level to 80 dBA)

Remote-Exhaust Hose (Rear Exhaust Models)

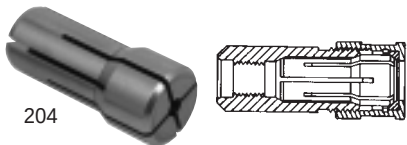
Standard Hose Lengths	
Part Number	Length (ft.)
45-2003	3
45-2004	4
45-2006	6
45-2008	8
45-2010	10
45-2012	12
45-2016	16
45-2020	20
45-2025	25



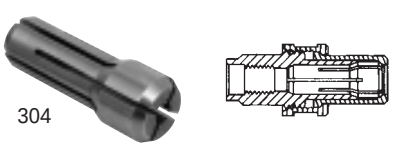
Dual Hose Adapter

Adapters for rear exhaust non-reversible models for separate inlet and exhaust hoses. Provides piped exhaust for clean of white room applications, power plants, etc.

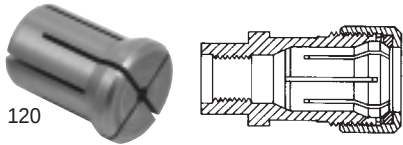
Part Number: 14-2263
Motor Series: 21 & 22
Inlet Size: 1/4" NPT
Exhaust Size: 3/8" NPT



Part Number	Size	Capacity	
		min.	max.
Termination 01 – Series 200 Collets			
204	1/8"	3/32"	1/8"
205	5/32"	1/8"	5/32"
206	3/16"	5/32"	3/16"
207	7/32"	3/16"	7/32"
208	1/4"	7/32"	1/4"
209	9/32"	1/4"	9/32"
210	5/16"	9/32"	5/16"
211	11/32"	5/16"	11/32"
212	3/8"	11/32"	3/8"
213	6mm	—	—
216	6mm	—	—



Part Number	Size	Capacity	
		min.	max.
Termination 36 – Series 300 Collets			
301	3/64"	1/64"	3/64"
302	5/64"	3/64"	5/64"
303	3/32"	1/16"	3/32"
304	1/8"	3/32"	1/8"
305	5/32"	1/8"	5/32"
306	3/16"	5/32"	3/16"
307	7/32"	3/16"	7/32"
308	1/4"	7/32"	1/4"
310	6mm	—	—
311	3mm	—	—



Part Number	Size	Capacity	
		min.	max.
Termination 62 – Series K Collets			
120	1/8"	3/32"	1/8"
121	3/16"	5/32"	3/16"
122	1/4"	7/32"	1/4"
123	5/16"	9/32"	5/16"
124	3/8"	11/32"	3/8"
125	7/16"	13/32"	7/16"
126	1/2"	15/32"	1/2"
127	9/16"	17/32"	9/16"
134	8mm	—	—
135	10mm	—	—

Accessories for Dotco Motors

Flexible air hose

No.	Hose I.D.	Length	Fittings
45-1307	3/16	7	1/4 x 1/8
45-1408	1/4	8	1/4 x 1/4
45-1508	5/16	8	1/4 x 1/4
45-1610	3/8	10	3/8 x 3/8
45-1812	1/2	12	1/2 x 1/2
45-1825	1/2	25	1/2 x 1/2



Hose Line Lubricator
45-0201 – 1/4" NPTF
45-0301 – 3/8" NPTF

Mounts in Hose Line. One ounce reservoir good for average 8-hour shift. Use in locations where it is inconvenient to use a standard air line lubricator.



Push Pull Sleeve Valve
14-2209

Air inlet 1/4" female NPT; outlet is 1/4" male NPTF; stainless steel sleeve body; oil resistant O-rings.

Air Pressure Needle Gauge
14-0612

Used for checking air pressure in the air hose close to tool, while tool is running. Furnished with metal guard and carrying case.



Push Type Grease Gun
45-0982

For gear lubrication, for small flush type fittings. Can be operated with one hand. 45-0983 GEAR GREASE for lubrication of planetary gearing.



Hose line filter
45-0211

Contains a replaceable filter cartridge. Will not remove water. To be used where it is inconvenient to use standard air line filter. Filter complete with cartridge No. 45-0211. Replacement cartridge only, No. 45-0212.

Lubricating oil
45-0918 - Qt.
45-0919 - Gal.

An excellent lubricant for pneumatic tools, non-tacky, non-gumming. Use full strength in automatic lubricators.



Gear grease
45-0992
14-1/2 oz. cartridge

Excellent grease for hi-speed gears after every 8 hours of operation.



Quick Disconnect Fittings				
Type of Fitting	Thd	Nominal Size		
		1/4	3/8	1/2
Male Pipe Threads				
Coupler	1/8	45-0710	—	—
Coupler	1/4	45-0711	45-0713	—
Coupler	3/8	45-0712	—	—
Coupler	1/2	—	—	45-0717
Female Pipe Threads				
Coupler	3/8	45-0732	45-0734	45-0736
Male Pipe Threads				
Nipple	1/8	45-0720	—	—
Nipple	1/4	—	45-0724	—
Nipple	3/8	45-0722	45-0725	45-0726
Nipple	1/2	—	—	45-0727
Female Pipe Threads				
Nipple	1/4	—	45-0744	—
Nipple	3/8	45-0742	45-0745	45-0746
Nipple	1/2	—	—	45-0747
With Hose Barbs				
Nipple	1/4	45-0748	—	—
Nipple	1/2	—	—	45-0753



BUCKEYE®

21MF-900/910 Series

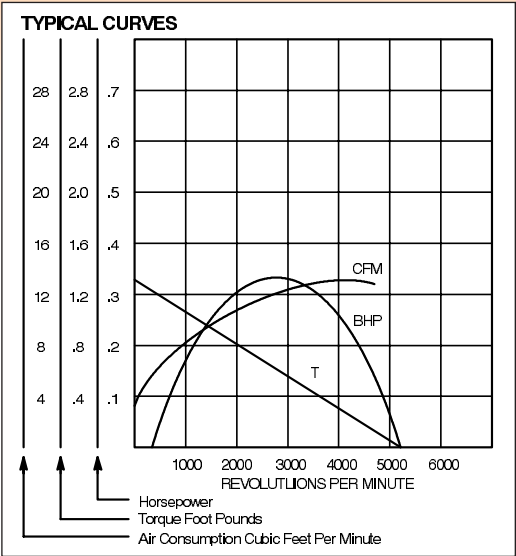
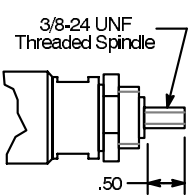
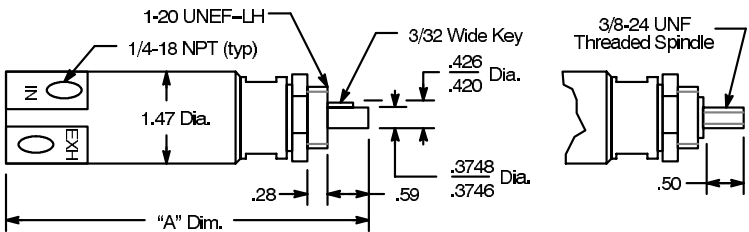
- Maximum Motor Power
0.3 hp
0.22 kW
- Torque Range
0.24 – 11.3 ft. lbs.
0.3 – 15.3 Nm
- Non-Reversible
- Side Exhaust
- Threaded or Keyed Spindle



21MF-900

Speed Code	"A" Dim.
Code 0, 1, 2 & 3	5.69
Code 4	6.06
Code 5, 6 & 7	6.75

Speed code refers to last digit in model number.



Model Number		RPM		Stall Torque		Weight		Gear Ratio
3/8" Threaded	3/8" Keyed	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg	
Spindle – RH Rotation								
21MF-900	21MF-910	12000	24000	.24	.3	1.7	.771	—
21MF-901	21MF-911	2375	4750	1.30	1.8	1.7	.771	5.0:1
21MF-902	21MF-912	1750	3500	1.70	2.3	1.7	.771	6.8:1
21MF-903	21MF-913	1400	2800	2.10	2.8	1.7	.771	8.6:1
• 21MF-904	21MF-914	1050	2100	2.80	3.8	1.8	.816	11.4:1
• 21MF-905	21MF-915	450	900	6.90	9.4	2.0	.907	26.6:1
21MF-906	21MF-916	325	650	9.30	12.6	2.0	.907	36.9:1
21MF-907	21MF-917	250	500	11.30	15.3	2.0	.907	48.0:1

•Available On Quotation Basis Only
GENERAL:
Air Inlet: 1/4" NPT
Air consumption: 12 cfm (.34 m³/min)
Offset (Side-to-Center) – 47/64"

Archives full speed within a half revolution
All tools performance rated @ 90psi (620 kPa) air pressure.
STANDARD EQUIPMENT:
1015869 Muffler

BUCKEYE®

21MR-910 Series

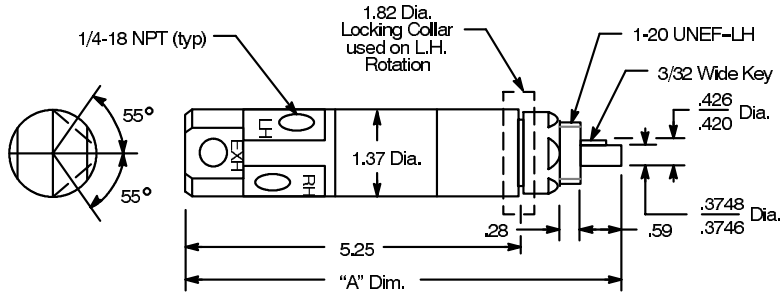
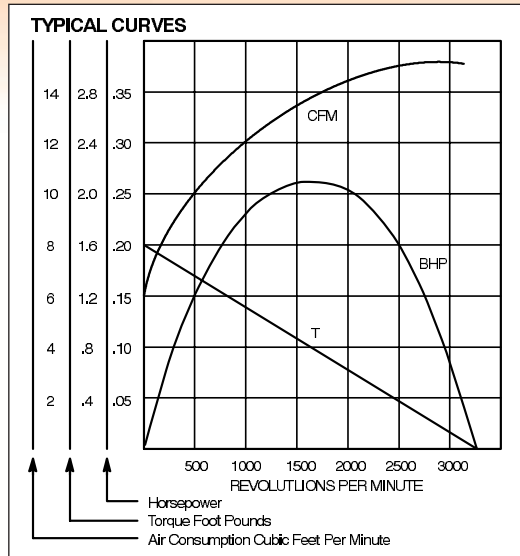
- Maximum Motor Power
0.25 hp
0.19 kW
- Torque Range
1.2 – 10.0 ft. lbs.
1.6 – 13.6 Nm
- Reversible
- Side Exhaust
- Keyed Spindle



21MR-911

Speed Code	"A" Dim.
Code 1, 2 & 3	6.50
Code 4	6.75
Code 5, 6 & 7	7.56

Speed code refers to last digit in model number.



Model Number	RPM		Stall Torque		Weight		Gear Ratio
	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg	
3/8" Keyed Spindle							
• 21MR-911	2000	4000	1.20	1.6	1.9	.862	5.0:1
21MR-912	1500	3000	1.60	2.2	1.9	.862	6.8:1
21MR-913	1225	2450	1.90	2.6	1.9	.862	8.6:1
• 21MR-914	900	1800	2.50	3.4	2.0	.907	11.4:1
• 21MR-915	375	750	6.20	8.4	2.2	.998	26.6:1
• 21MR-916	275	550	8.30	11.3	2.2	.998	36.9:1
21MR-917	200	400	10.00	13.6	2.2	.998	48.0:1

•Available On Quotation Basis Only
GENERAL:
Air Inlet: 1/4" NPT
Air consumption: 14 cfm (.40 m³/min)
Offset (side-to-center) – 15/16"

Can be reversed instantaneously and continuously.
All tools performance rated @ 90psi (620 kPa) air pressure.
STANDARD EQUIPMENT:
1015748 Muffler

BUCKEYE®

31MF-900/910 Series

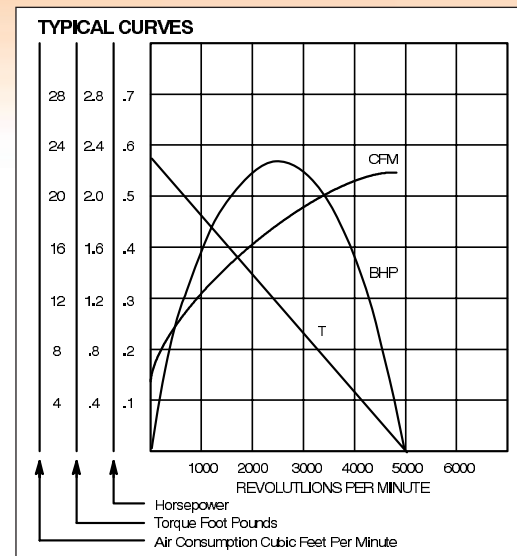
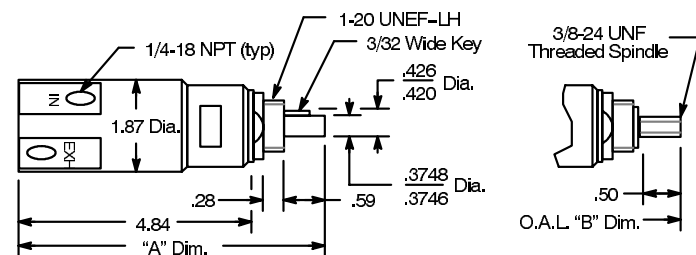
- **Maximum Motor Power**
0.5 hp
0.37 kW
- **Torque Range**
0.5 – 23.6 ft. lbs.
0.68 – 32 Nm
- **Non-Reversible**
- **Side Exhaust**
- **Threaded or Keyed Spindle**



31MF-900

Speed Code	"A" Dim.	"B" Dim.
Code 0, 1, 2 & 3	6.18	6.06
Code 4	6.87	6.75
Code 5, 6 & 7	7.56	7.44

Speed code refers to last digit in model number.



Model Number		RPM		Stall Torque		Weight		Gear Ratio
3/8" Threaded	3/8" Keyed	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg	
Spindle – RH Rotation								
31MF-900	31MF-910	10000	20000	0.5	0.68	2.7	1.225	—
31MF-901	31MF-911	2500	5000	2.2	3.00	2.7	1.225	4.0:1
31MF-902	31MF-912	1500	3000	3.5	4.70	2.7	1.225	6.44:1
31MF-903	31MF-913	925	1850	5.9	8.00	2.7	1.225	10.8:1
31MF-904	31MF-914	700	1400	7.1	9.60	2.8	1.270	14.28:1
31MF-905	31MF-915	550	1100	8.8	11.90	3.1	1.406	16.0:1
31MF-906	31MF-916	375	750	14.1	19.10	3.1	1.406	25.73:1
31MF-907	31MF-917	225	450	23.6	32.00	3.1	1.406	43.06:1

Spindle – RH Rotation

GENERAL:
Air Inlet: 1/4" NPT
Air consumption: 18 cfm (.51 m³/min)
Offset (Side-to-Center) – 15/16"

Archives full speed within a half revolution
All tools performance rated @ 90psi (620 kPa) air pressure.
STANDARD EQUIPMENT:
1015869 Muffler

BUCKEYE®

31MR-910 Series

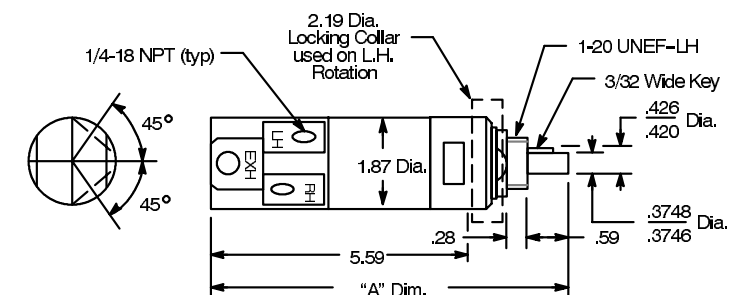
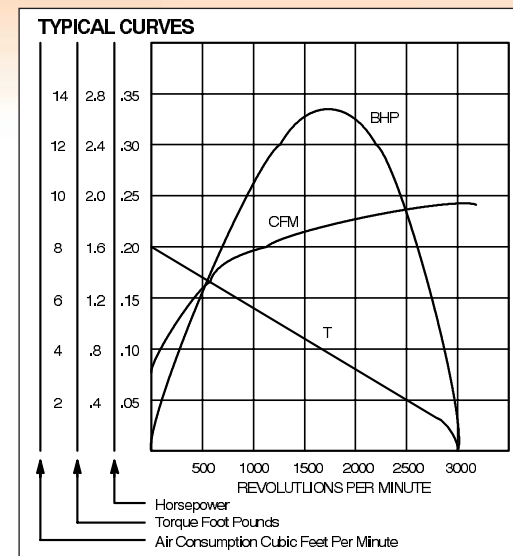
- **Maximum Motor Power**
0.3 hp
0.22kW
- **Torque Range**
2 – 21.6 ft. lbs.
2.7 – 29.3 Nm
- **Reversible**
- **Side Exhaust**
- **Keyed Spindle**



31MR-911

Speed Code	"A" Dim.
Code 1, 2 & 3	6.93
Code 4	7.62
Code 5, 6 & 7	8.31

Speed code refers to last digit in model number.



Model Number	RPM		Stall Torque		Weight		Gear Ratio
	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg	
3/8" Keyed Spindle							
31MR-911	1750	3500	2.0	2.7	3.5	1.588	4.0:1
• 31MR-912	1075	2150	3.2	4.3	3.5	1.588	6.44:1
• 31MR-913	650	1300	5.4	7.3	3.5	1.588	10.8:1
31MR-914	500	1000	6.5	8.8	3.6	1.633	14.28:1
• 31MR-915	425	850	8.0	10.8	3.8	1.723	16.0:1
31MR-916	250	500	12.8	17.4	3.8	1.723	25.73:1
31MR-917	150	300	21.6	29.3	3.8	1.723	43.06:1

3/8" Keyed Spindle

•Available On Quotation Basis Only
GENERAL:
Air Inlet: 1/4" NPT
Air consumption: 21 cfm (.59 m³/min)
Offset (side-to-center) – 1-1/8"

Can be reversed instantaneously and continuously.
All tools performance rated @ 90psi (620 kPa) air pressure.
STANDARD EQUIPMENT:
1015869 Muffler

BUCKEYE®

41MF-900/910 Series

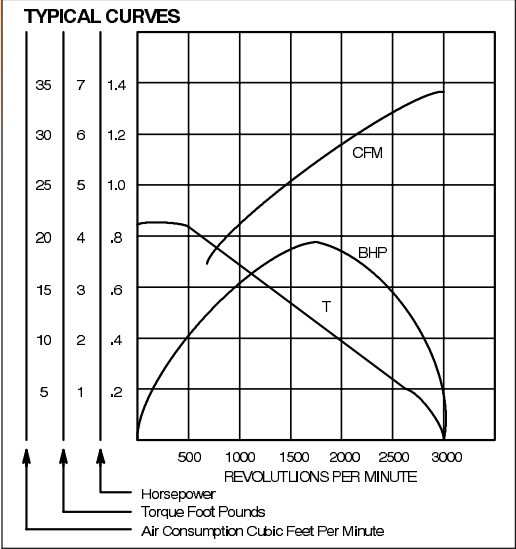
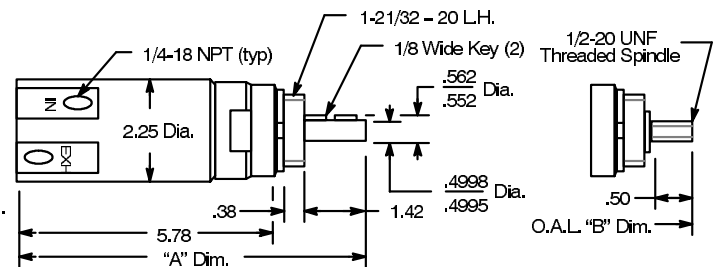
- Maximum Motor Power
0.75 hp
0.56 kW
- Torque Range
0.7 – 37.8 ft. lbs.
0.95 – 51.3 Nm
- Non-Reversible
- Side Exhaust
- Threaded or Keyed spindle



41MF-900

Speed Code	"A" Dim.	"B" Dim.
Code 0, 1, 2 & 3	7.73	6.98
Code 4	8.23	7.48
Code 5, 6, 7 & 8	9.23	8.48

Speed code refers to last digit in model number.



Model Number		RPM		Stall Torque		Weight		Gear Ratio
1/2" Threaded	1/2" Keyed	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg	
Spindle – RH Rotation								
• 41MF-900	41MF-910	9000	18000	0.7	0.95	4.9	2.222	—
41MF-901	41MF-911	2250	4500	2.8	3.80	4.9	2.222	4.0:1
41MF-902	41MF-912	1500	3000	4.2	5.70	4.9	2.222	6.0:1
• 41MF-903	41MF-913	1000	2000	6.3	8.50	4.9	2.222	9.0:1
• 41MF-904	41MF-914	750	1500	8.7	11.80	4.9	2.222	12.37:1
41MF-905	41MF-915	500	1000	11.2	15.20	5.4	2.450	16.0:1
• 41MF-906	41MF-916	363	725	16.8	22.80	5.4	2.450	24.7:1
41MF-907	41MF-917	250	500	25.2	34.20	5.4	2.450	36.0:1
41MF-908	41MF-918	165	330	37.8	51.30	5.4	2.450	54.5:1

•Available On Quotation Basis Only
GENERAL:
Air Inlet: 1/4" NPT
Air consumption: 27 cfm (.76 m3/min)
Offset (side-to-center) – 1-7/32"

Archives full speed within a half revolution
All tools performance rated @ 90psi (620 kPa) air pressure.
STANDARD EQUIPMENT:
1015869 Muffler

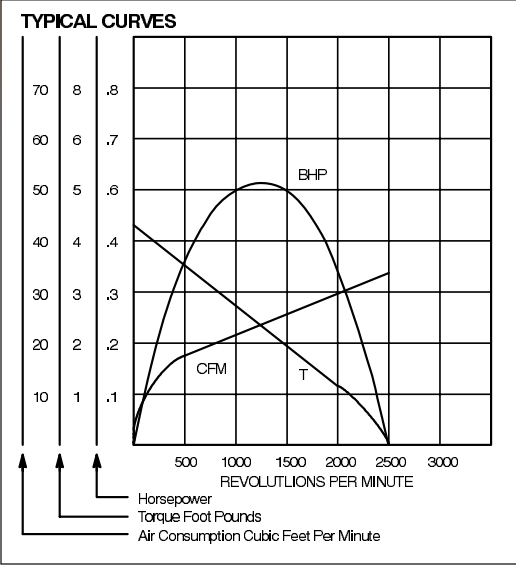
BUCKEYE®

41MR-910 Series

- Maximum Motor Power
0.6 hp
0.45 kW
- Torque Range
2.9 – 39.6 ft. lbs.
3.9 – 53.7 Nm
- Reversible
- Side Exhaust
- Keyed Spindle

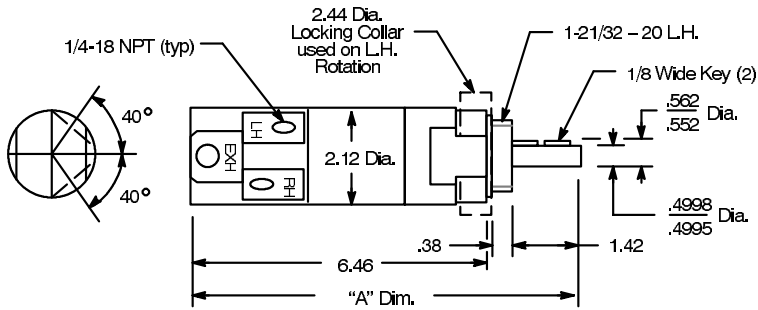


41MR-911



Speed Code	"A" Dim.
Code 1, 2 & 3	8.42
Code 4	8.92
Code 5, 6 & 7	9.92

Speed code refers to last digit in model number.



Model Number	RPM		Stall Torque		Weight		Gear Ratio
	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg	
41MR-911	1875	3750	2.9	3.9	4.9	2.222	4.0:1
41MR-912	1250	2500	4.4	6.0	4.9	2.222	6.0:1
• 41MR-913	825	1650	6.6	8.9	4.9	2.222	9.0:1
41MR-914	600	1200	9.1	12.3	4.9	2.222	12.37:1
41MR-915	450	900	11.7	15.9	5.4	2.450	16.0:1
41MR-916	313	625	17.6	23.9	5.4	2.450	24.7:1
41MR-917	200	400	26.4	35.8	5.4	2.450	36.0:1
41MR-918	138	275	39.6	53.7	5.4	2.450	54.5:1

•Available On Quotation Basis Only
GENERAL:
Air Inlet: 1/4" NPT
Air consumption: 25 cfm (.71 m3/min)
Offset (Side-to-Center) – 1-7/32"

Can be reversed instantaneously and continuously.
All tools performance rated @ 90psi (620 kPa) air pressure
STANDARD EQUIPMENT:
1024078 Muffler

BUCKEYE®

61MF-910 Series

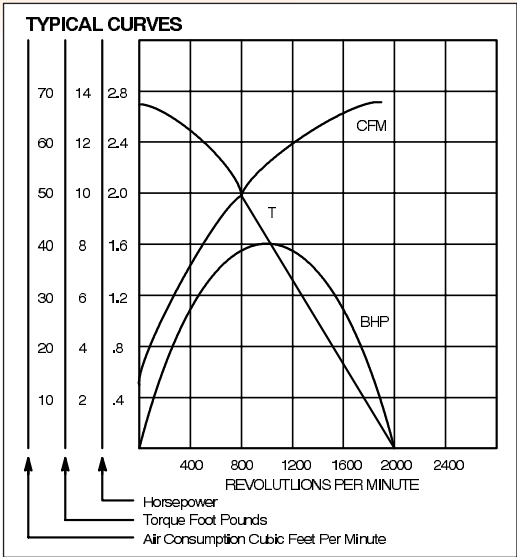
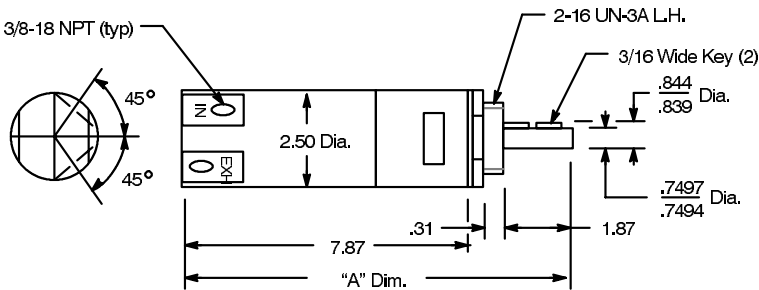
- Maximum Motor Power
1.5 hp
1.12 kW
- Torque Range
6.9 – 110 ft. lbs.
9.4 – 149.2 Nm
- Non-Reversible
- Side Exhaust
- Keyed Spindle



61MF-911

Speed Code	"A" Dim.
Code 1 & 2	10.41
Code 3, 4 & 5	12.28

Speed code refers to last digit in model number.



Model Number	RPM		Stall Torque		Weight		Gear Ratio
	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg	
61MF-911	1875	3700	6.9	9.4	8.0	3.629	4.0:1
61MF-912	925	1850	13.6	18.4	8.0	3.629	8.14:1
61MF-913	438	875	28.5	38.6	10.0	4.536	16.0:1
61MF-914	225	450	56.0	75.9	10.0	4.536	32.57:1
61MF-915	113	225	110.0	149.2	10.0	4.536	66.3:1

GENERAL
Air Inlet: 3/8" NPT
Air consumption: 55 cfm (1.56 m3/min)
Offset (side-to-center) – 1-1/4"

Archives full speed within a half revolution
All tools performance rated @ 90psi (620 kPa) air pressure.
STANDARD EQUIPMENT:
1015870 Muffler

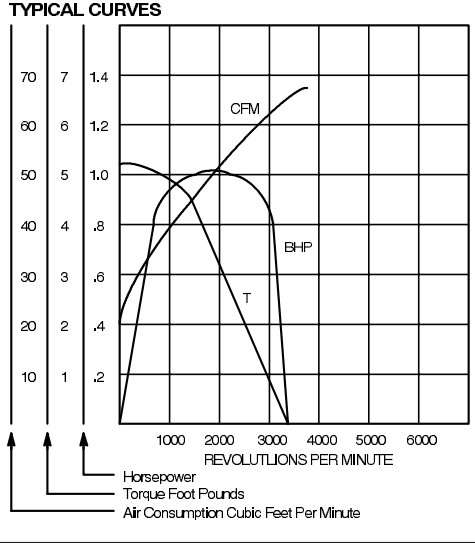
BUCKEYE®

61MR-910 Series

- Maximum Motor Power
1.0 hp
0.75 kW
- Torque Range
5.2 – 83 ft. lbs.
7.1 – 112.5 Nm
- Reversible
- Side Exhaust
- Keyed Spindle

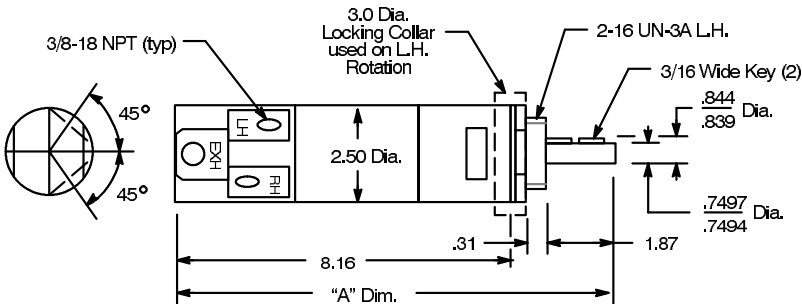


61MR-911



Speed Code	"A" Dim.
Code 1 & 2	10.70
Code 3, 4 & 5	12.59

Speed code refers to last digit in model number.



Model Number	RPM		Stall Torque		Weight		Gear Ratio
	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg	
• 61MR-911	1700	3400	5.2	7.1	8.5	3.856	4.0:1
61MR-912	850	1700	10.2	13.8	8.5	3.856	8.14:1
• 61MR-913	413	825	21.5	29.2	10.5	4.763	16.0:1
61MR-914	200	400	42.4	57.5	10.5	4.763	32.57:1
61MR-915	100	200	83.0	112.5	10.5	4.763	66.3:1

•Available On Quotation Basis Only
GENERAL:
Air Inlet: 3/8" NPT
Air consumption: 50 cfm (1.42 m3/min)
Offset (Side-to-Center) – 1-1/2"

Can be reversed instantaneously and continuously.
All tools performance rated @ 90psi (620 kPa) air pressure.
STANDARD EQUIPMENT:
1015869 Muffler

Each air motor is supplied with its appropriate muffler.
Choice of foot mount brackets or flange mount is provided
as no-cost option with purchase of motor...if specified.

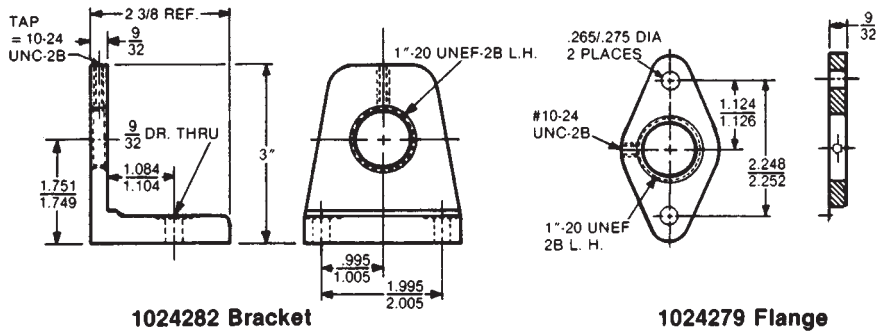
Muffler Identification

A muffler is furnished for the common exhaust outlet
on all reversible motors. If a 4-way valve is preferred
to facilitate reversing, a muffler will be needed on the
exhaust outlet of the valve. Flow restriction through the
valve and muffler must be minimized in order to maintain
maximum power output. If a valve is not used, another
muffler will be required on the inlet port not being utilized
for optional inlet flow.

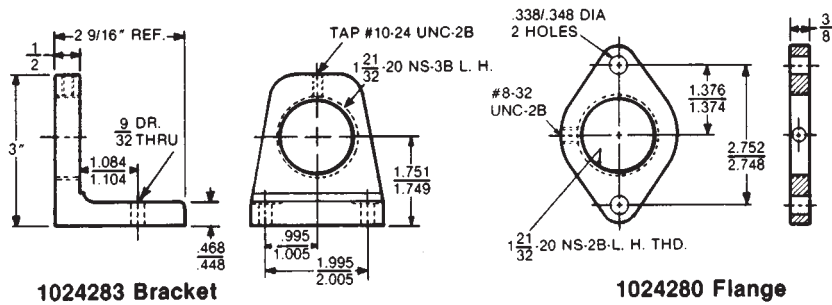


Part Number	Motor Series
Mufflers	
1015869	21MF
1015748	21MR
1015869	31MF
1015869	31MR
1015869	41MF
1024078	41MR
1015870	61MF
1015869	61MR
Foot Mounts	
1024282	21MF & 21MR
1024282	31MF & 31MR
1024283	41MF & 41MR
1024284	61MF & 61MR
Flange Mounts	
1024279	21MF & 21MR
1024279	31MF & 31MR
1024280	41MF & 41MR
1024281	61MF & 61MR

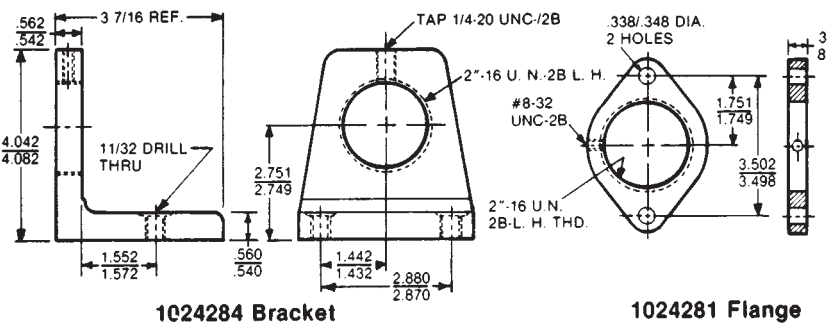
21 and 31 Series Foot Mount/Flange Mount Brackets



41 Series Foot Mount/Flange Mount Brackets



61 Series Foot Mount/Flange Mount Brackets

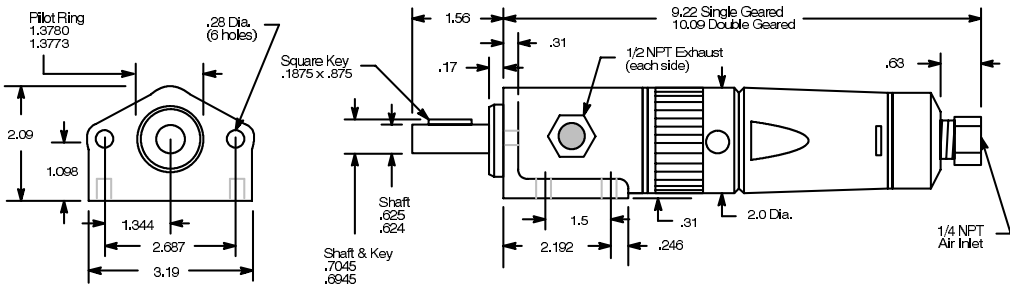
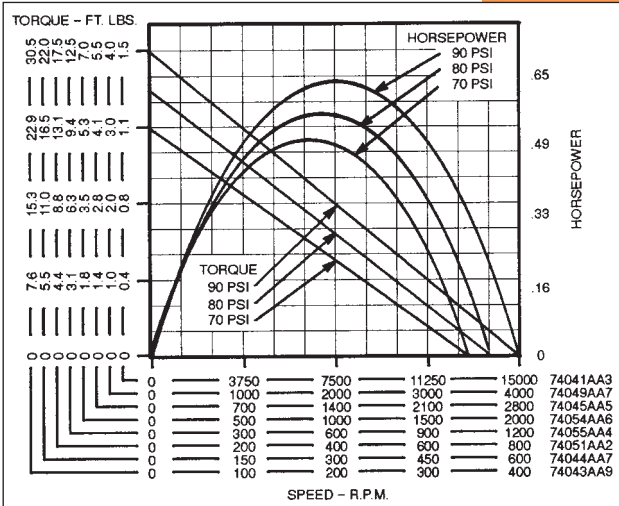


GARDNER-DENVER®
C3 Series

- Maximum Motor Power
0.65 hp
0.48 kW
- Torque Range
1.5 – 30.5 ft. lbs.
2.0 – 42 Nm
- Non-Reversible
- Side Exhaust



74041AA3



Model Number	RPM		Stall Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg		lbs.	kg
• 74041AA3	7500	15000	1.5	2.0	4.00	1.8	—	470	213
• 74049AA7	2000	4000	4.0	5.4	4.00	1.8	3.55:1	470	213
74045AA5	1400	2800	5.5	7.5	4.00	1.8	5:1	470	213
74054AA6	1000	2000	7.0	9.5	4.00	1.8	6.6:1	470	213
74055AA4	600	1200	12.5	17.0	4.50	2.0	12.56:1	470	213
74051AA2	400	800	17.5	24.0	4.50	2.0	17.74:1	470	213
74044AA7	300	600	22.0	30.0	4.50	2.0	23.47:1	470	213
74043AA9	200	400	30.5	42.0	4.50	2.0	33:1	470	213

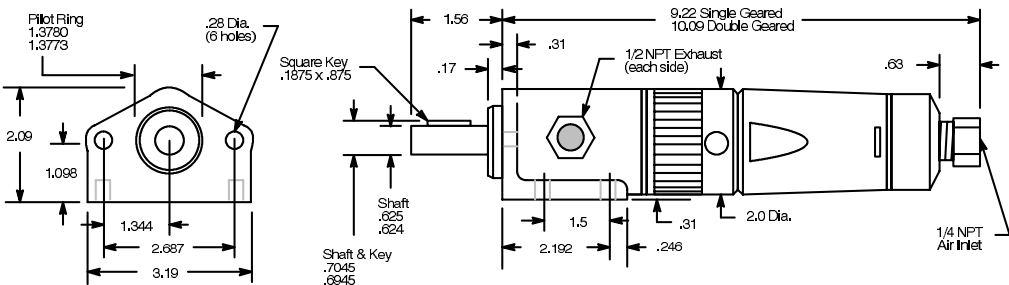
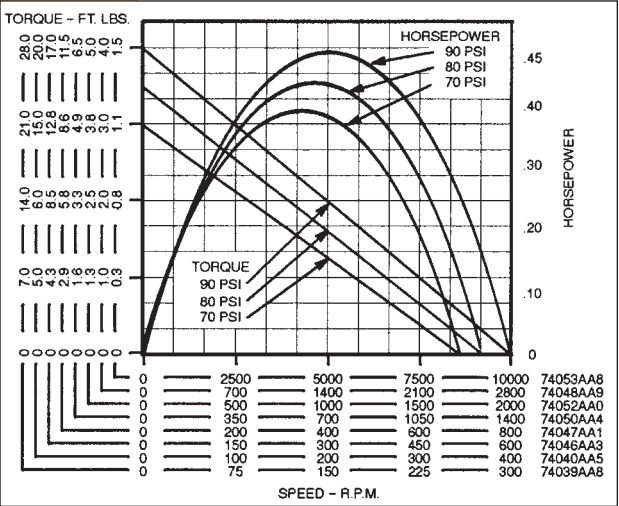
•Available On Quotation Basis Only
*All models assume overhung load located at .94" (23.81mm) from face of motor.
GENERAL
Air Inlet: 1/4" NPT
Air consumption: 28 cfm (.79 m3/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

STANDARD EQUIPMENT:
Air strainer intake fitting. Foot and flange type mount.
OPTIONAL EQUIPMENT:
Speed Regulator – Part 504938
Pilot Ring – Part 30262
Lubricating Oil – Part 533485 (1 gallon)
ADDITIONAL ACCESSORIES: Pages 60-61



74053AA8

- C3 Series
- Maximum Motor Power
0.45 hp
0.34 kW
- Torque Range
1.5 – 28 ft. lbs.
2.0 – 38 Nm
- Reversible
- Side Exhaust



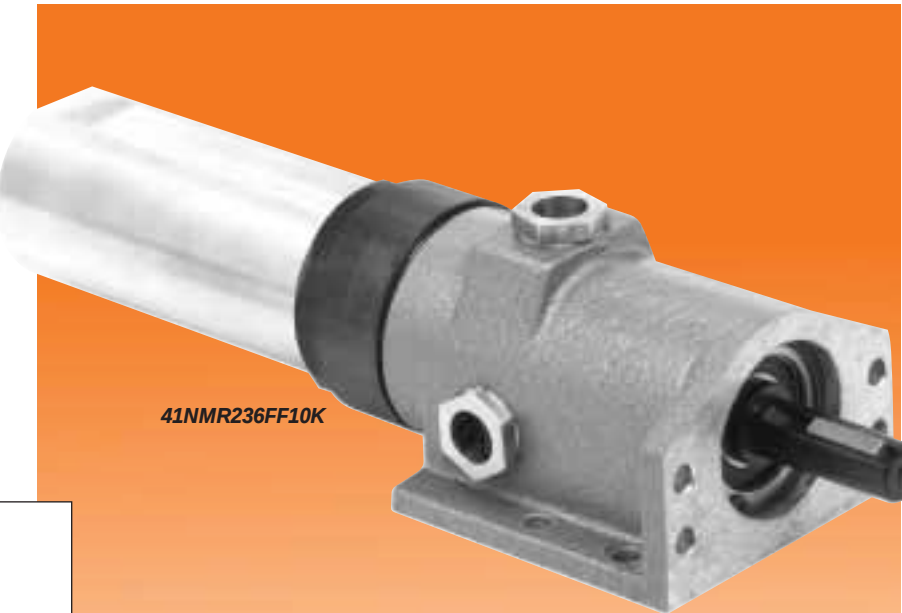
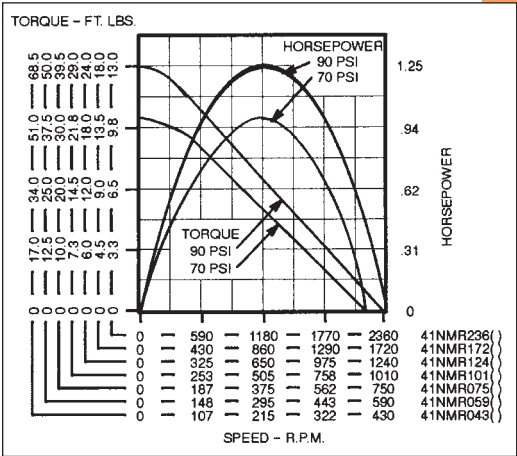
Model Number	RPM		Stall Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg		lbs.	kg
• 74053AA8	5000	10000	1.5	2.0	4.13	1.9	—	470	213
74048AA9	1400	2800	4.0	5.4	4.13	1.9	3.55:1	470	213
• 74052AA0	1000	2000	5.5	6.8	4.13	1.9	5:1	470	213
74050AA4	700	1400	6.5	8.8	4.13	1.9	6.6:1	470	213
74047AA1	400	800	11.5	15.6	4.63	2.1	12.56:1	470	213
74046AA3	300	600	17.0	23.0	4.63	2.1	17.74:1	470	213
74040AA5	200	400	20.0	27.0	4.63	2.1	23.47:1	470	213
74039AA8	150	300	28.0	38.0	4.63	2.1	33:1	470	213

•Available On Quotation Basis Only
*All models assume overhung load located at .94" (23.81mm) from face of motor.
GENERAL:
Air Inlet: 1/4" NPT
Air consumption: 28 cfm (.79 m3/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

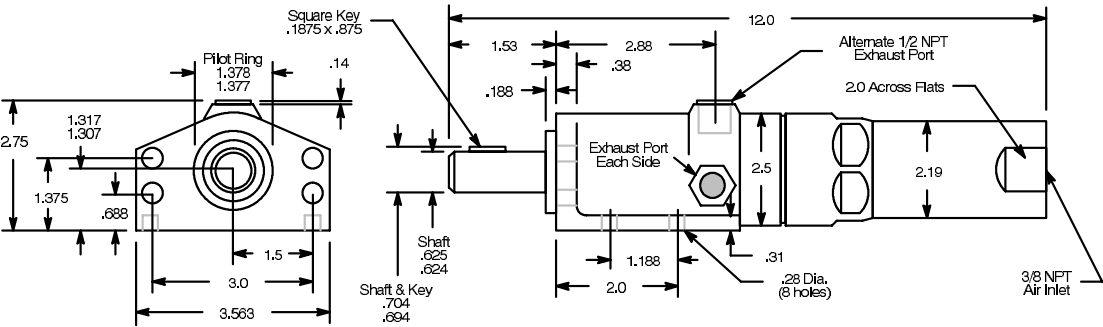
STANDARD EQUIPMENT:
Air strainer intake fitting. Foot and flange type mount.
OPTIONAL EQUIPMENT:
Speed Regulator – Part 504938
Pilot Ring – Part 30262
Lubricating Oil – Part 533485 (1 gallon)
ADDITIONAL ACCESSORIES: Pages 60-61

GARDNER-DENVER®
41 Series

- Maximum Motor Power
1.25 hp
0.93 kW
- Torque Range
13 – 68.5 ft. lbs.
17.6 – 92.8 Nm
- Non-Reversible
- Side Exhaust



41NMR236FF10K



Model Number	RPM		Stall Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg		lbs.	kg

Foot and Flange Mounting – 5/8" Diameter Keyed Spindle

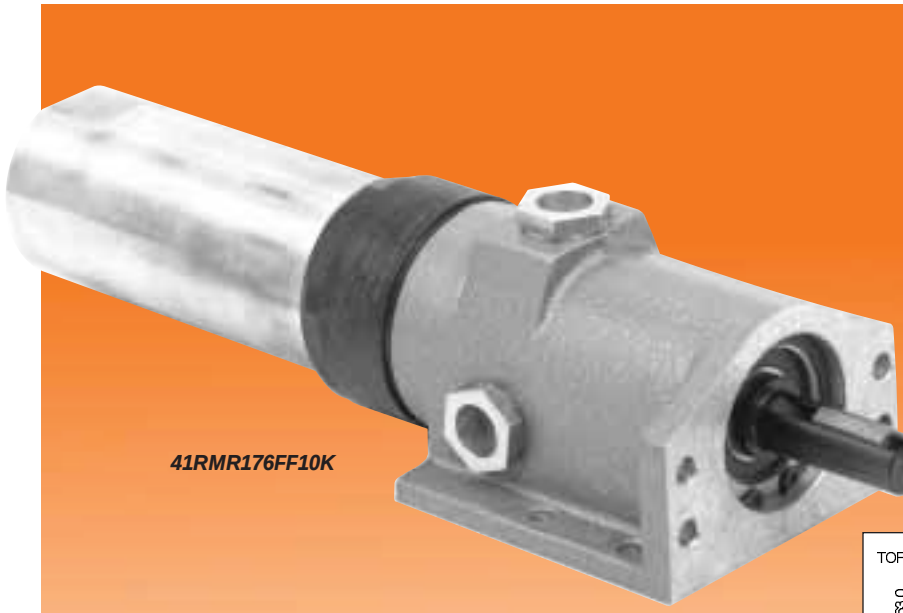
41NMR236FF10K	1180	2360	13.0	17.6	6.25	2.84	7.2:1	600	272
41NMR172FF10K	860	1720	18.0	24.4	6.25	2.84	9.86:1	600	272
41NMR124FF10K	650	1240	24.0	32.5	6.25	2.84	13.7:1	600	272
• 41NMR101FF10K	505	1010	29.0	39.3	6.50	2.95	16.8:1	600	272
41NMR075FF10K	375	750	39.5	53.6	6.50	2.95	22.6:1	600	272
• 41NMR059FF10K	295	590	50.0	67.8	6.50	2.95	28.4:1	600	272
41NMR043FF10K	215	430	68.5	92.8	6.50	2.95	39:1	600	272

*Available On Quotation Basis Only
*All models assume overhung load located at .94" (23.81mm) from face of motor.
GENERAL:
Air Inlet: 3/8" NPT
Air consumption: 40 cfm (1.13 m3/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

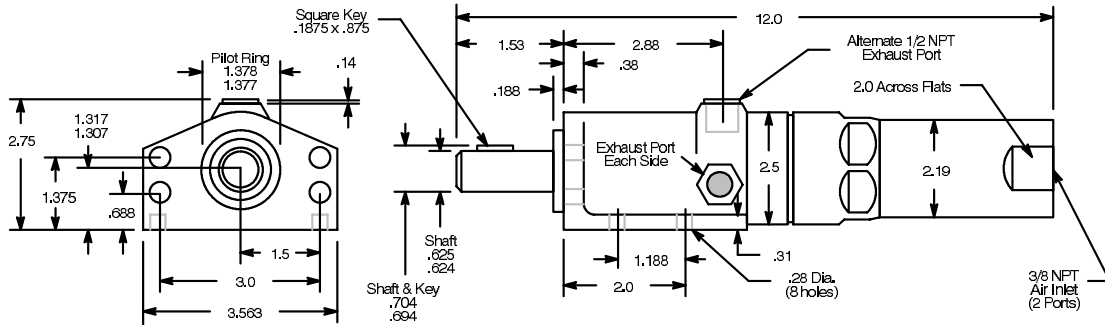
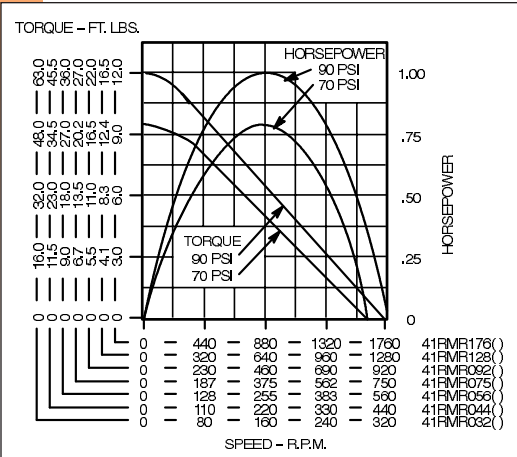
STANDARD EQUIPMENT:
Air strainer intake fitting. Foot and flange type mount.
OPTIONAL EQUIPMENT:
Pilot Ring – Part 520886
Lubricating Oil – Part 533485 (1 gallon)
ADDITIONAL ACCESSORIES: Pages 60-61

GARDNER-DENVER®
41 Series

- Maximum Motor Power
1.0 hp
0.75 kW
- Torque Range
12 – 63 ft. lbs.
16.3 – 85.4 Nm
- Reversible
- Side Exhaust



41RMR176FF10K



Model Number	RPM		Stall Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	in. lbs.	Nm	lbs.	kg		lbs.	kg

Foot and Flange Mounting – 5/8" Diameter Keyed Spindle

41RMR176FF10K	880	1760	12.0	16.3	6.25	2.84	7.2:1	600	272
41RMR128FF10K	640	1280	16.5	22.4	6.25	2.84	9.86:1	600	272
41RMR092FF10K	460	920	22.0	30.0	6.25	2.84	13.7:1	600	272
41RMR075FF10K	375	750	27.0	36.6	6.50	2.95	16.8:1	600	272
41RMR056FF10K	255	560	36.0	48.8	6.50	2.95	22.6:1	600	272
41RMR044FF10K	220	440	45.5	61.7	6.50	2.95	28.4:1	600	272
41RMR032FF10K	160	320	63.0	85.4	6.50	2.95	39:1	600	272

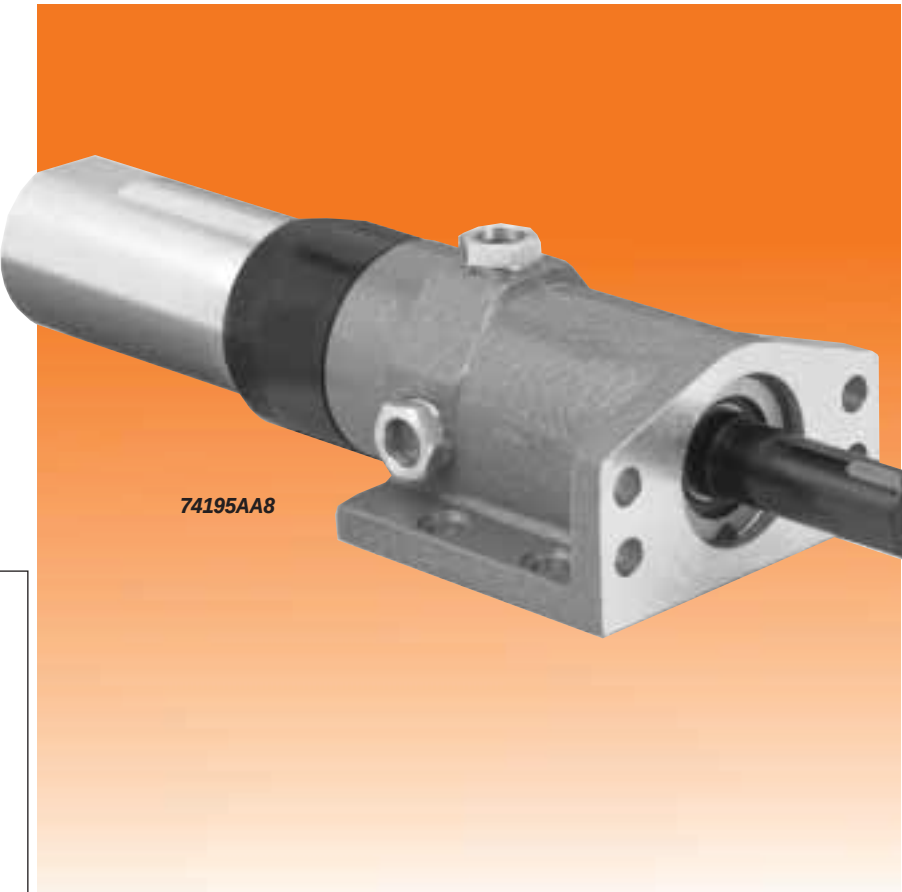
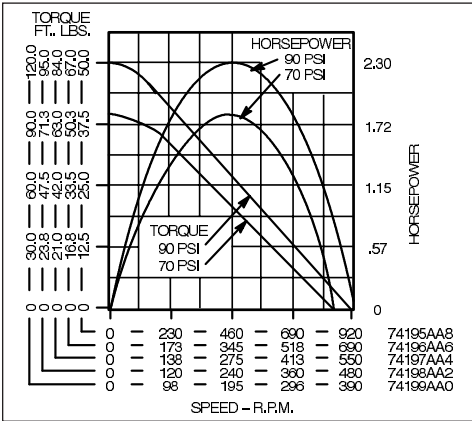
*All models assume overhung load located at 1.0" (25.40mm) from face of motor.
GENERAL:
Air Inlet: 3/8" NPT
Air consumption: 33 cfm (.93 m3/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

STANDARD EQUIPMENT:
Air strainer intake fitting. Foot and flange type mount.
OPTIONAL EQUIPMENT:
Pilot Ring – Part 520886
Lubricating Oil – Part 533485 (1 gallon)
ADDITIONAL ACCESSORIES: Pages 60-61

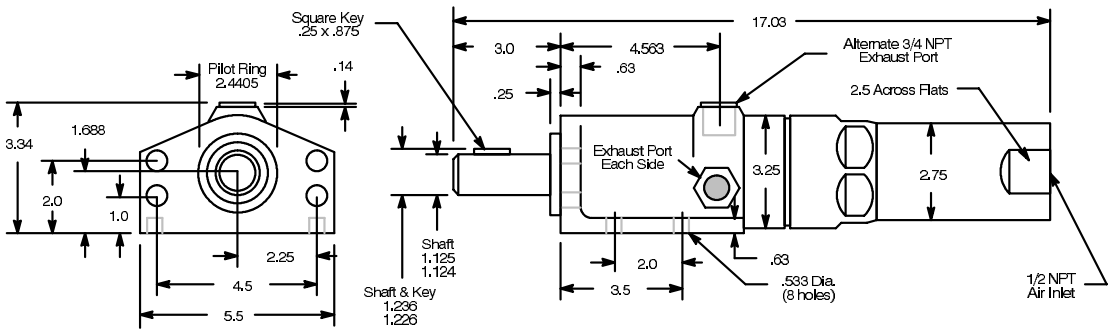
GARDNER-DENVER®

60 Series

- Maximum Motor Power
2.3 hp
1.72 kW
- Torque Range
50 – 120 ft. lbs.
68 – 163 Nm
- Non-Reversible
- Side Exhaust



74195AA8



Model Number	RPM		Stall Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg		lbs.	kg

Foot and Flange Mounting – 1-1/8" Diameter Keyed Spindle

74195AA8	460	920	50	68	15	6.8	14.2:1	1000	454
74196AA6	345	690	67	91	15	6.8	19:1	1000	454
• 74197AA4	275	550	84	114	15	6.8	23.7:1	1000	454
74198AA2	240	480	95	129	15	6.8	27:1	1000	454
74199AA0	195	390	120	163	15	6.8	33.7:1	1000	454

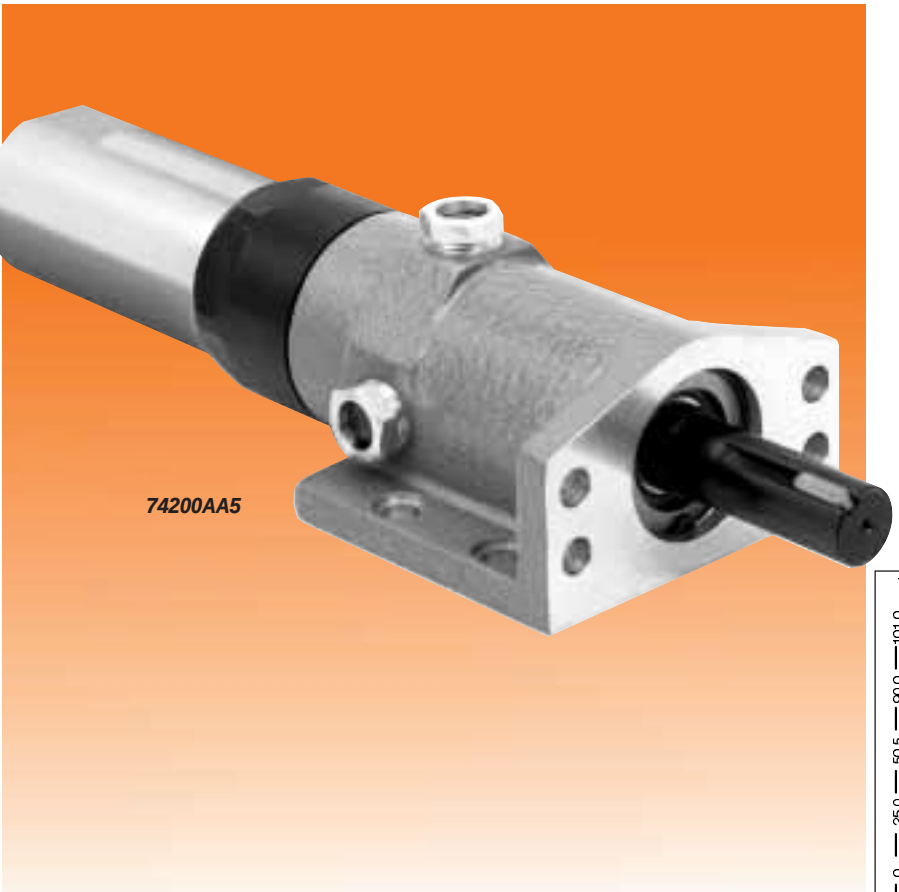
•Available On Quotation Basis Only
*All models assume overhung load located at 2.0" (50.80mm) from face of motor.
GENERAL:
Air Inlet: 1/2" NPTF
Air consumption: 70 cfm (1.98 m3/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

STANDARD EQUIPMENT:
Air strainer intake fitting. Foot and flange type mount.
OPTIONAL EQUIPMENT:
Lubricating Oil – Part 533485 (1 gallon)
ADDITIONAL ACCESSORIES: Pages 60-61

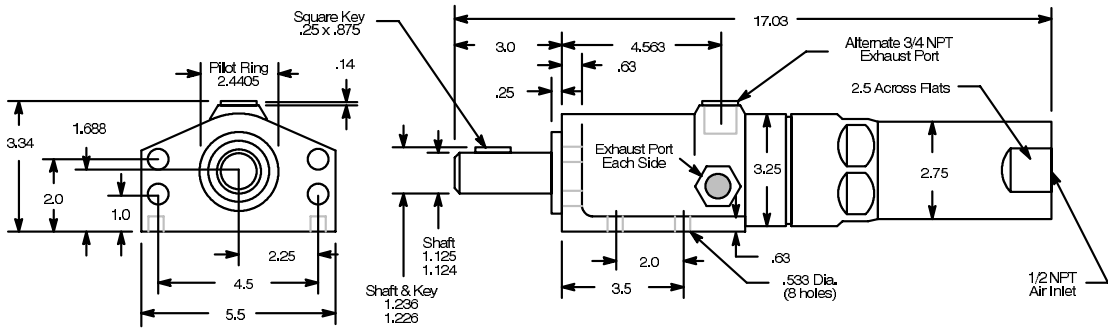
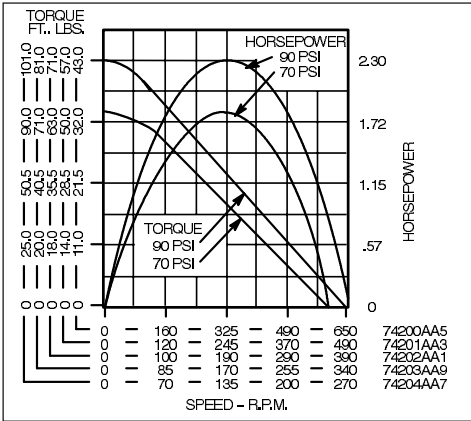
GARDNER-DENVER®

60 Series

- Maximum Motor Power
1.9 hp
1.42 kW
- Torque Range
43 – 101 ft. lbs.
58 – 137 Nm
- Reversible
- Side Exhaust



74200AA5



Model Number	RPM		Stall Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	lbs.	kg		lbs.	kg

Foot and Flange Mounting – 1 1/8" Diameter Keyed Spindle

74200AA5	325	650	43	58	15	6.8	14.2:1	1000	454
74201AA3	245	490	57	77	15	6.8	19:1	1000	454
74202AA1	195	390	71	96	15	6.8	23.7:1	1000	454
74203AA9	170	340	81	110	15	6.8	27:1	1000	454
74204AA7	135	270	101	137	15	6.8	33.7:1	1000	454

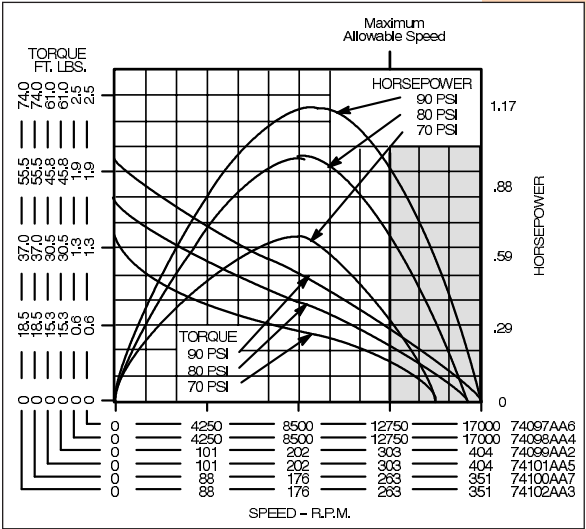
*All models assume overhung load located at 2.0" (50.80mm) from face of motor.
GENERAL:
Air Inlet: 1/2" NPTF
Air consumption: 70 cfm (1.98 m3/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

STANDARD EQUIPMENT:
Air strainer intake fitting. Foot and flange type mount.
OPTIONAL EQUIPMENT:
Lubricating Oil – Part 533485 (1 gallon)
ADDITIONAL ACCESSORIES: Pages 60-61

GARDNER-DENVER®

MR10 Series

- Maximum Motor Power
1.0 hp
0.75 kW
- Torque Range
2.5 – 74 ft. lbs.
3.4 – 100 Nm
- Reversible
- Side Exhaust



Model Number	RPM		Stall Torque		Starting Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg		lbs.	kg
Foot Mounting – 5/8" (Non-geared) or 7/8" (Geared) Diameter Keyed Spindle											
74097AA6	8500	17000	2.5	3.4	1.8	2.4	7	3.2	—	680	308
74099AA2	210	400	61.0	83.0	35.0	47.0	23	10.4	29.7:1	1055	478
74100AA7	183	350	74.0	100.0	46.0	62.0	23	10.4	34.2:1	1055	478
Flange Mounting – 5/8" (Non-geared) or 7/8" (Geared) Diameter Keyed Spindle											
74098AA4	8500	17000	2.5	3.4	1.8	2.4	7	3.2	—	680	308
74101AA5	210	400	61.0	83.0	35.0	47.0	23	10.4	29.7:1	1055	478
74102AA3	183	350	74.0	100.0	46.0	62.0	23	10.4	34.2:1	1055	478

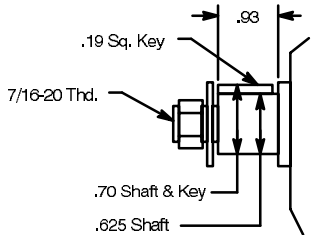
*Non-geared models assume overhung load located at 0.5" (12.70mm) from face of motor.
Geared models assume overhung load located at 0.75" (19.05mm) from face of motor.
GENERAL:
Air Inlet: 3/8" NPTF
Air consumption: 54 cfm (1.53 m3/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

STANDARD EQUIPMENT:
Air strainer intake fitting. Foot and flange type mount.
OPTIONAL EQUIPMENT:
Exhaust Muffler – Part A27137
Lubricating Oil – Part 533485 (1 gallon)
Gear Oil – Part 535090 (1 gallon)
ADDITIONAL ACCESSORIES: Pages 60-61

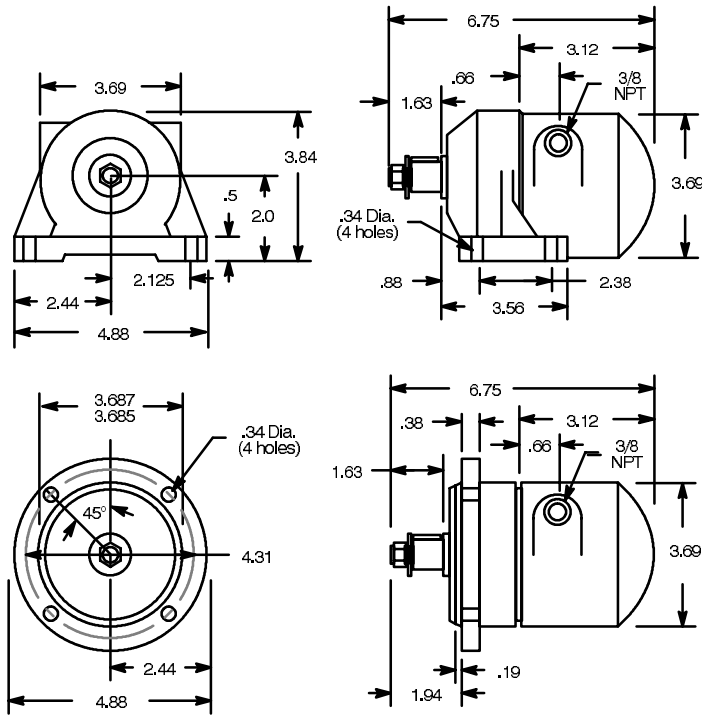
MR10 Series Dimensional Data

Non-Geared

74097AA6
FOOT MOUNTED

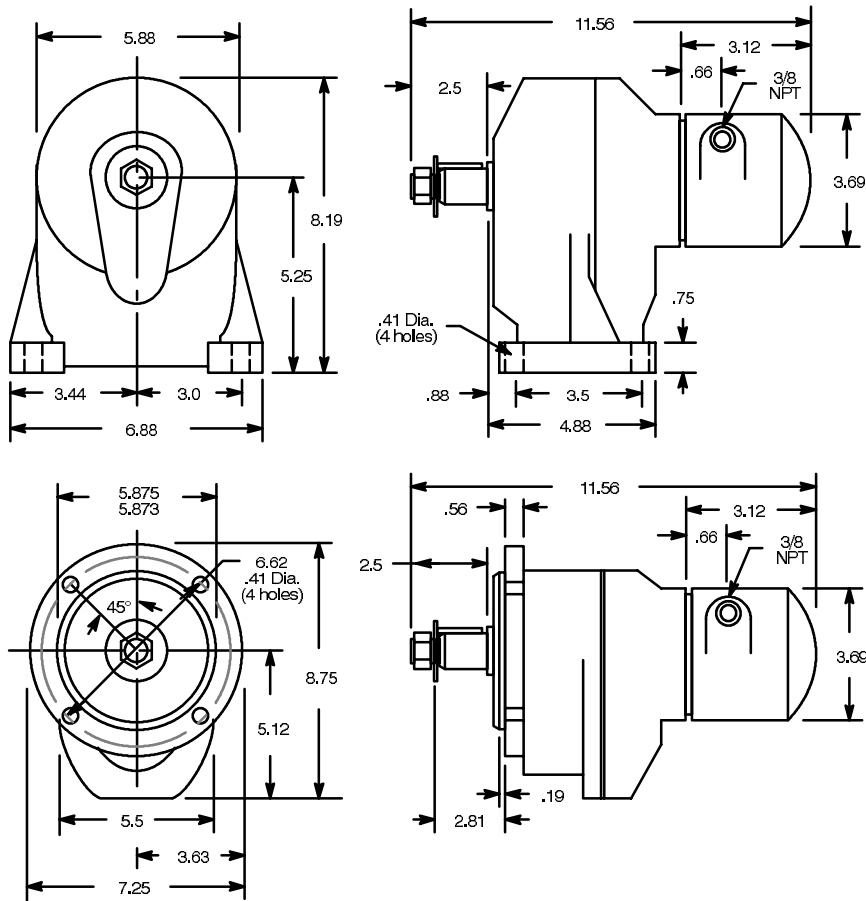
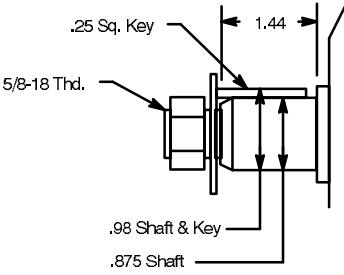


74098AA4
FLANGE MOUNTED



Geared

74099AA2
74100AA7
FOOT MOUNTED

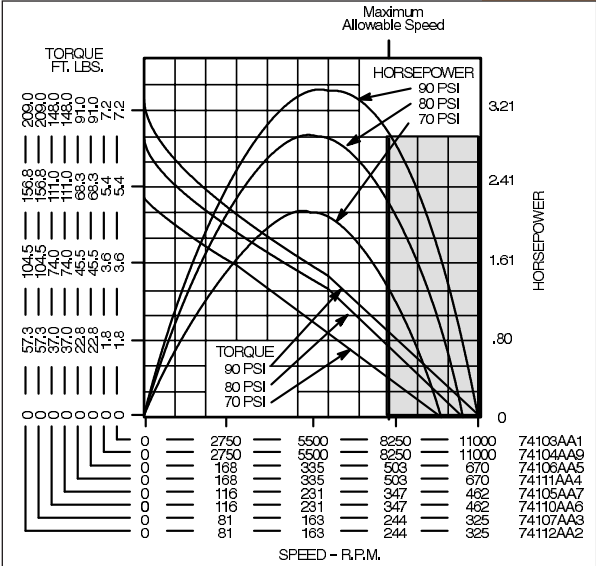
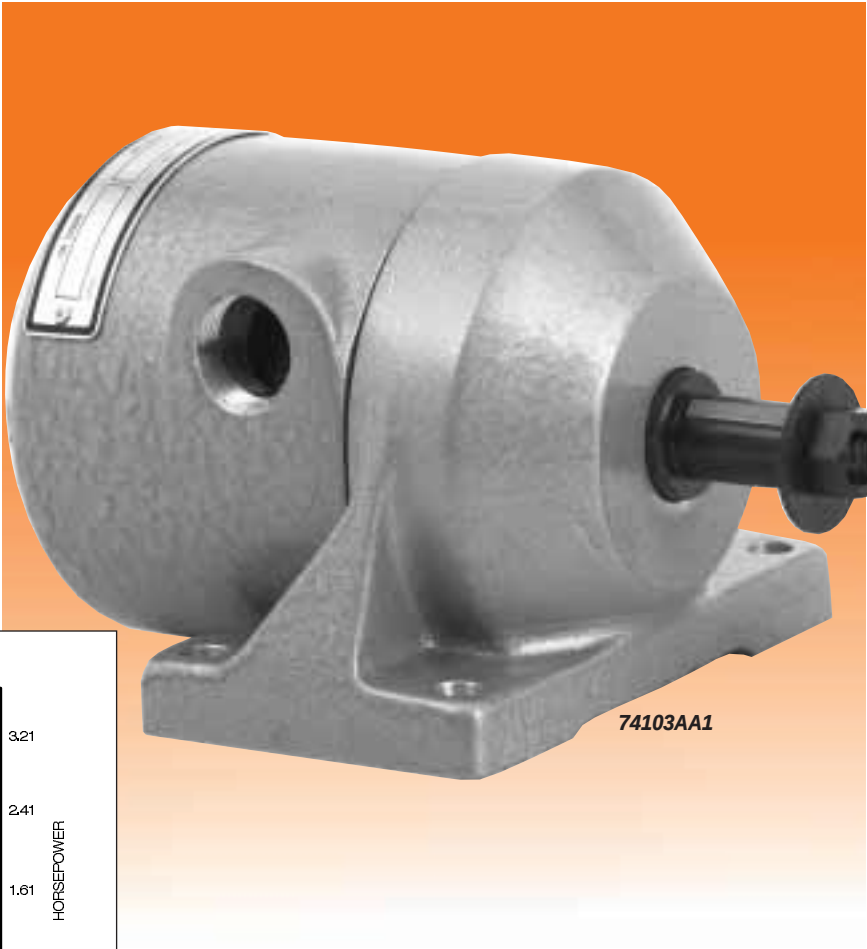


74101AA5
74102AA3
FLANGE MOUNTED

GARDNER-DENVER®

MR30 Series

- Maximum Motor Power
3.0 hp
2.24 kW
- Torque Range
7.2 – 209 ft. lbs.
10 – 283 Nm
- Reversible
- Side Exhaust



Model Number	RPM		Stall Torque		Starting Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg		lbs.	kg
Foot Mounting – 3/4" (Non-geared) or 1-1/8" (Geared) Diameter Keyed Spindle											
74103AA1	6000	11000	7.2	10	4.6	6	12.5	5.7	—	1220	553
74106AA5	366	670	91.0	123	45.0	61	33.0	15.0	16.4:1	1550	703
74105AA7	252	460	148.0	201	87.0	118	33.0	15.0	23.8:1	1550	703
74107AA3	177	325	209.0	283	122.0	165	33.0	15.0	23.8:1	1550	703
Flange Mounting – 3/4" (Non-geared) or 1-1/8" (Geared) Diameter Keyed Spindle											
74104AA9	6000	11000	7.2	10	4.6	6	12.5	5.7	—	1220	553
74111AA4	366	670	91.0	123	45.0	61	33.0	15.0	16.4:1	1550	703
74110AA6	252	460	148.0	201	87.0	118	33.0	15.0	23.8:1	1550	703
74112AA2	177	325	209.0	283	122.0	165	33.0	15.0	23.8:1	1550	703

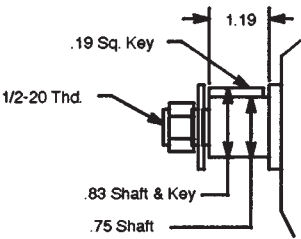
*Non-geared models assume overhung load located at 0.625" (15.88mm) from face of motor.
Geared models assume overhung load located at 0.875" (22.023mm) from face of motor.
GENERAL:
Air Inlet: 3/4" NPTF
Air consumption: 124 cfm (3.51 m3/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

STANDARD EQUIPMENT:
Foot and flange type mount.
OPTIONAL EQUIPMENT:
Exhaust Muffler – Part 524301
Lubricating Oil – Part 533485 (1 gallon)
Gear Oil – Part 535090 (1 gallon)
ADDITIONAL ACCESSORIES: Pages 60-61

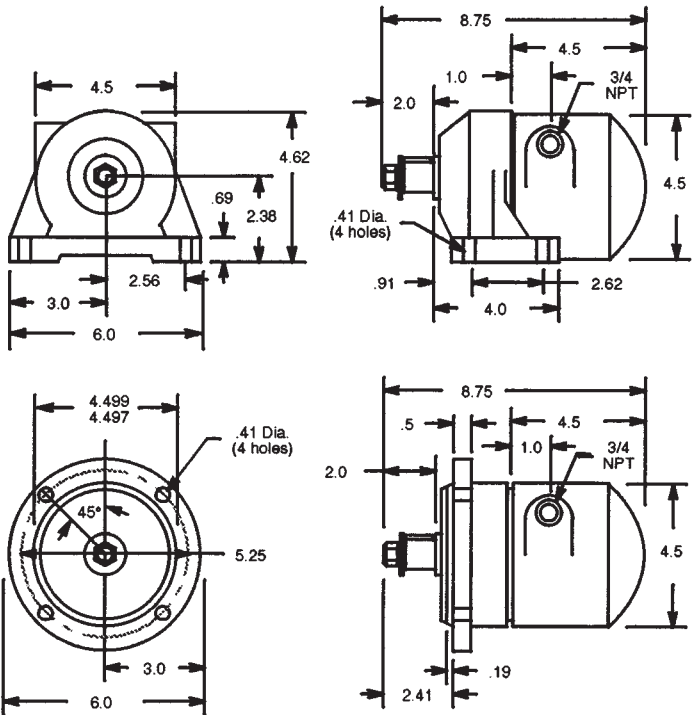
MR30 Series Dimensional Data

Non-Geared

74103AA1
FOOT MOUNTED

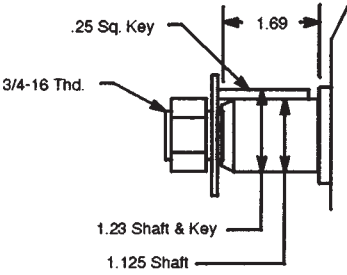


74104AA9
FLANGE MOUNTED

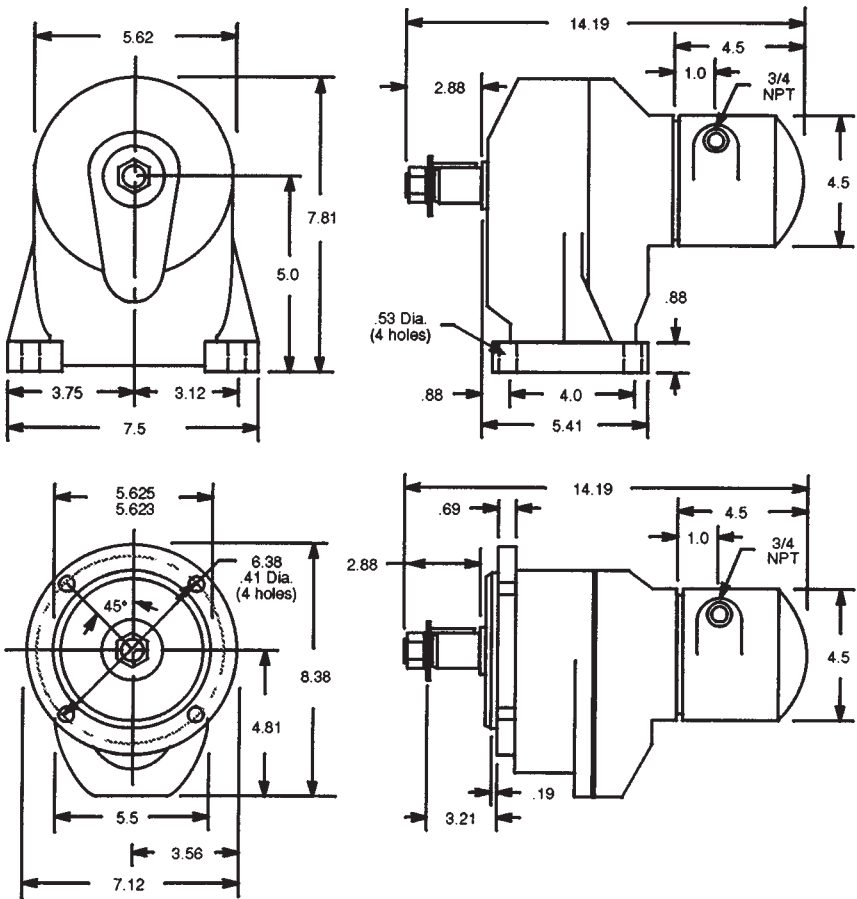


Geared

74106AA5
74105AA7
74107AA3
FOOT MOUNTED



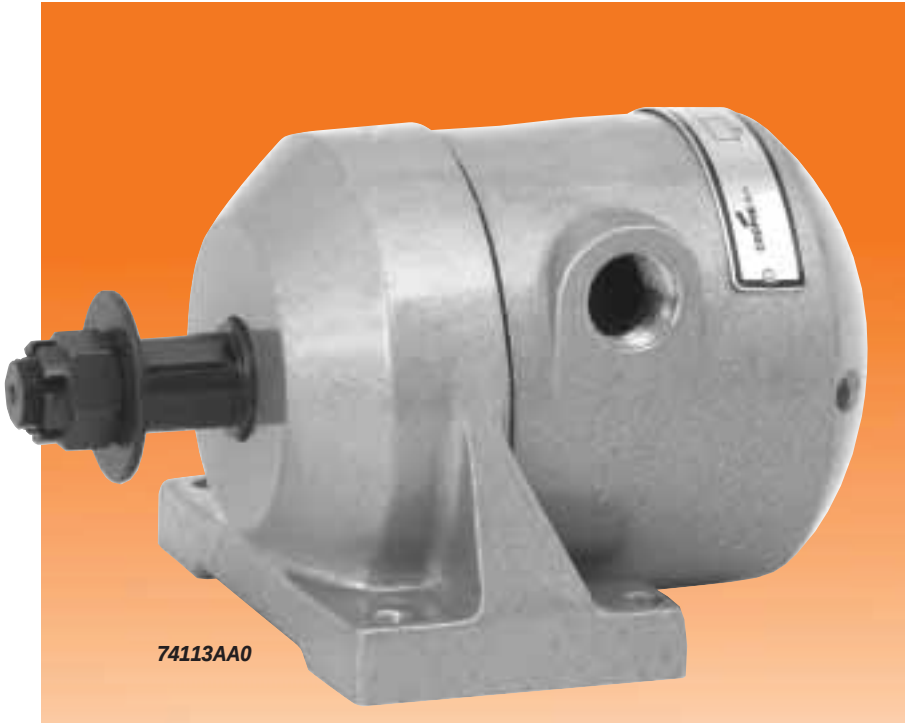
74111AA4
74110AA6
74112AA2
FLANGE MOUNTED



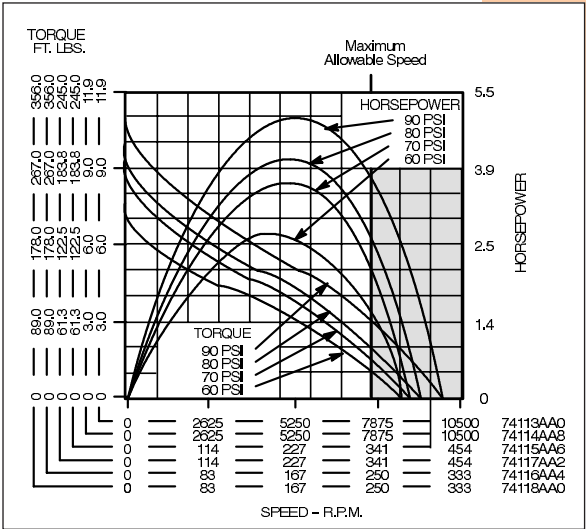
GARDNER-DENVER®

MR50 Series

- Maximum Motor Power
5.5 hp
4.10 kW
- Torque Range
11.9 – 356 ft. lbs.
16 – 483 Nm
- Reversible
- Side Exhaust



74113AA0



Model Number	RPM		Stall Torque		Starting Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg		lbs.	kg
Foot Mounting – 1" (Non-geared) or 1-1/8" (Geared) Diameter Keyed Spindle											
• 74113AA0	5700	10500	11.9	16	8.7	12	18.5	8.4	—	1510	685
74115AA6	247	450	245.0	332	173.0	235	46.0	21.0	23.1:1	2110	957
74116AA4	181	330	356.0	483	260.0	353	46.0	21.0	31.58:1	2110	957
Flange Mounting – 1" (Non-geared) or 1-1/8" (Geared) Diameter Keyed Spindle											
74114AA8	5700	10500	11.9	16	8.7	12	18.5	8.4	—	1510	685
74117AA2	247	450	245.0	332	173.0	235	46.0	21.0	23.1:1	2110	957
74118AA0	181	330	356.0	483	260.0	353	46.0	21.0	31.58:1	2110	957

•Available On Quotation Basis Only
*Non-geared models assume overhung load located at 0.625" (15.88mm) from face of motor.
Geared models assume overhung load located at 0.875" (22.23mm) from face of motor.

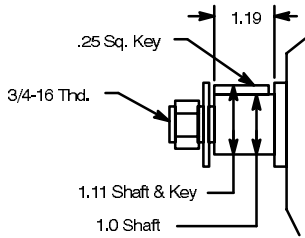
GENERAL:
Air Inlet: 3/4" NPTF
Air consumption: 172 cfm (4.87 m3/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

STANDARD EQUIPMENT:
Foot and flange type mount.
OPTIONAL EQUIPMENT:
Exhaust Muffler – Part 524301
Lubricating Oil – Part 533485 (1 gallon)
Gear Oil – Part 535090 (1 gallon)
ADDITIONAL ACCESSORIES: Pages 60-61

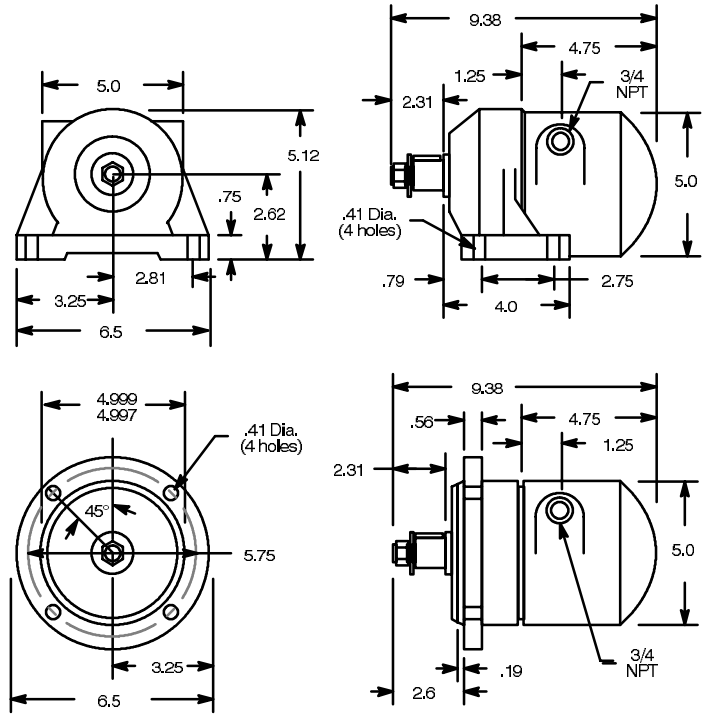
MR50 Series Dimensional Data

Non-Geared

74113AA0
FOOT MOUNTED

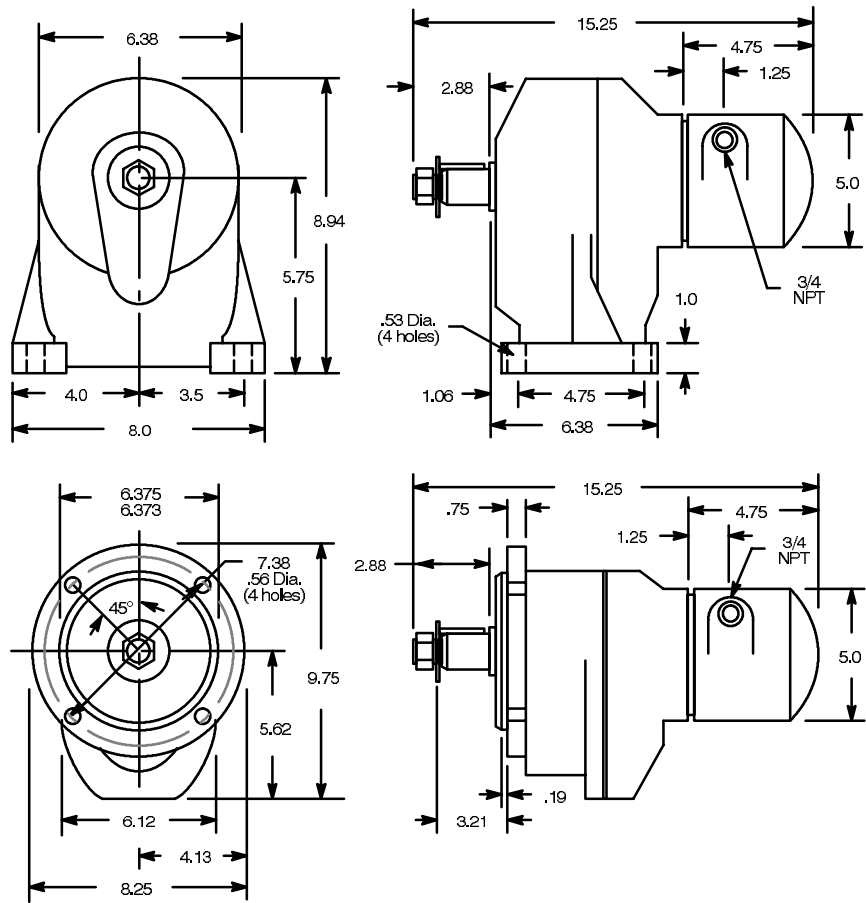
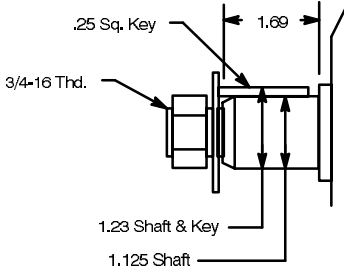


74114AA8
FLANGE MOUNTED



Geared

74115AA6
74116AA4
FOOT MOUNTED

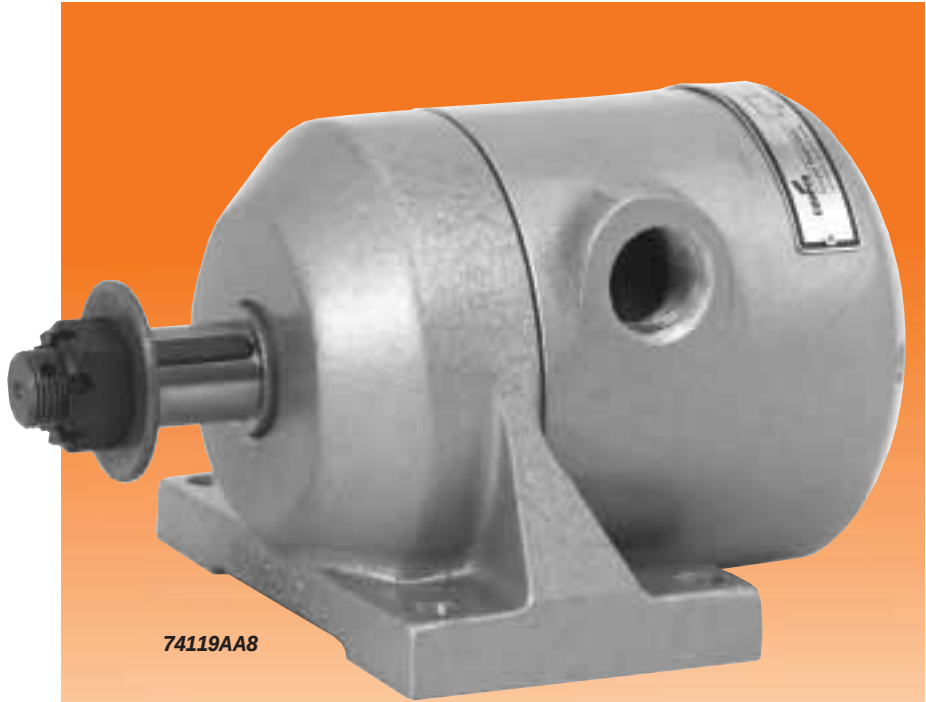


74117AA2
74118AA0
FLANGE MOUNTED

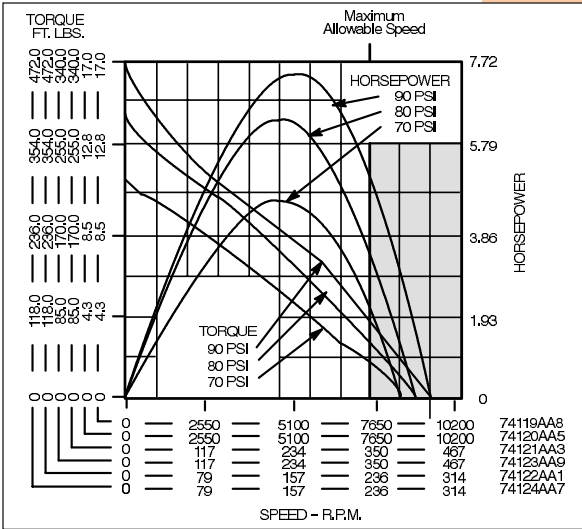
GARDNER-DENVER®

MR70 Series

- Maximum Motor Power
7.5 hp
5.59 kW
- Torque Range
17 – 472 ft. lbs.
23 – 640 Nm
- Reversible
- Side Exhaust



74119AA8



Model Number	RPM		Stall Torque		Starting Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg		lbs.	kg
Foot Mounting – 1-1/8" (Non-geared) or 1-1/4" (Geared) Diameter Keyed Spindle											
• 74119AA8	5500	10200	17	23	12	16	27.5	12.5	—	2080	943
74121AA3	257	465	340	461	227	308	65.0	29.0	21.8:1	2560	1161
74122AA1	169	310	472	640	336	456	65.0	29.0	32.5:1	2560	1161
Flange Mounting – 1-1/8" (Non-geared) or 1-1/4" (Geared) Diameter Keyed Spindle											
74120AA5	5500	10200	17	23	12	16	27.5	12.5	—	2080	943
74123AA9	257	465	340	461	227	308	65.0	29.0	21.8:1	2560	1161
74124AA7	169	310	472	640	336	456	65.0	29.0	32.5:1	2560	1161

•Available On Quotation Basis Only
*Non-geared models assume overhung load located at 0.75" (19.05mm) from face of motor.
Geared models assume overhung load located at 1" (25.40mm) from face of motor.

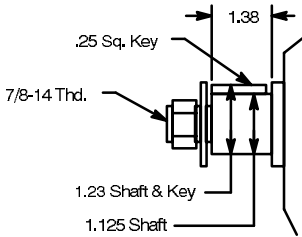
GENERAL:
Air Inlet: 1" NPTF
Air consumption: 212 cfm (6.00 m3/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

STANDARD EQUIPMENT:
Foot and flange type mount.
OPTIONAL EQUIPMENT:
Exhaust Muffler – Part 524302
Lubricating Oil – Part 533485 (1 gallon)
Gear Oil – Part 535090 (1 gallon)
ADDITIONAL ACCESSORIES: Pages 60-61

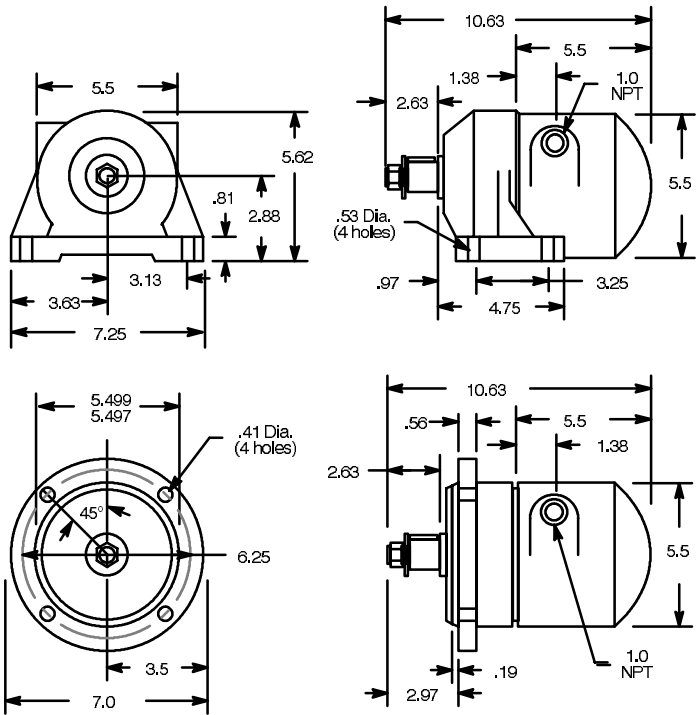
MR70 Series Dimensional Data

Non-Geared

74119AA8
FOOT MOUNTED

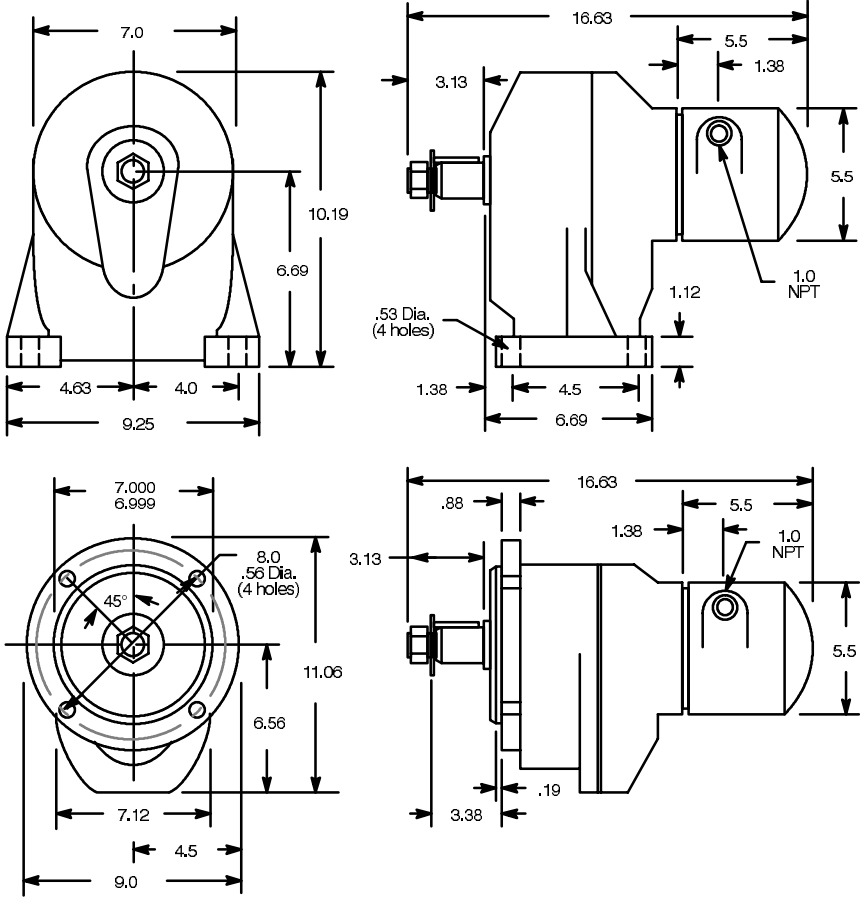
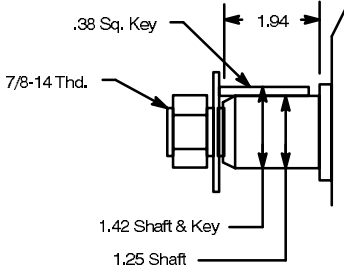


74120AA5
FLANGE MOUNTED



Geared

74121AA3
74122AA1
FOOT MOUNTED

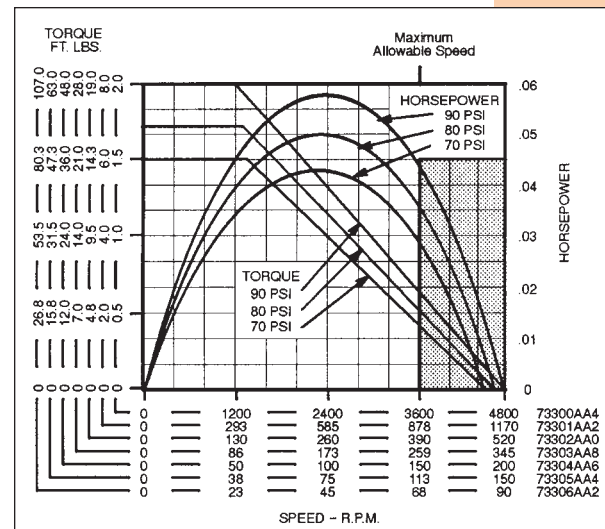
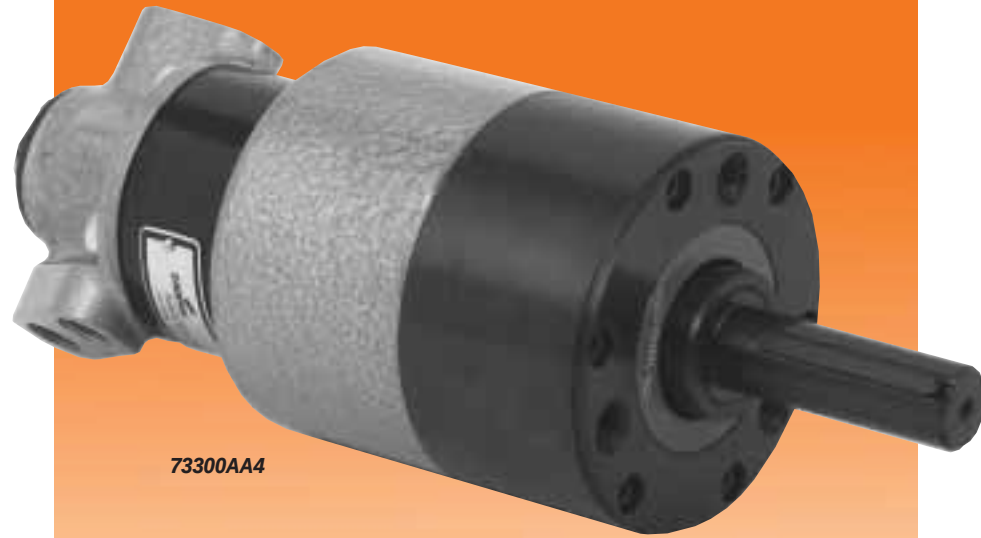


74123AA9
74124AA7
FLANGE MOUNTED

GARDNER-DENVER®

A2 Series

- **Maximum Motor Power**
0.6 hp
0.45 kW
- **Torque Range**
2 – 107 ft. lbs.
2.7 – 145 Nm
- **Reversible**
- **Rear Exhaust**



Model Number	RPM**		Stall Torque		Starting Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg		lbs.	kg
Face Mounting – 7/8" Diameter Keyed Spindle											
73300AA4	2360	4800	2	2.7	1.5	2	14	6.35	—	800	363
73301AA2	575	1170	8	11.0	6.0	8	14	6.35	4.1:1	800	363
73302AA0	255	520	19	26.0	13.0	18	14	6.35	9.25:1	800	363
73303AA8	169	345	28	38.0	21.0	28	22	9.98	13.9:1	800	363
73304AA6	99	200	48	65.0	36.0	49	22	9.98	23.8:1	800	363
73305AA4	75	150	63	85.0	47.0	64	22	9.98	31.4:1	800	363
73306AA2	44	90	107	145.0	80.0	108	22	9.98	53.6:1	800	363

* All models assume overhung load located at 1.75" (44.45mm) from face of motor.
 ** These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.

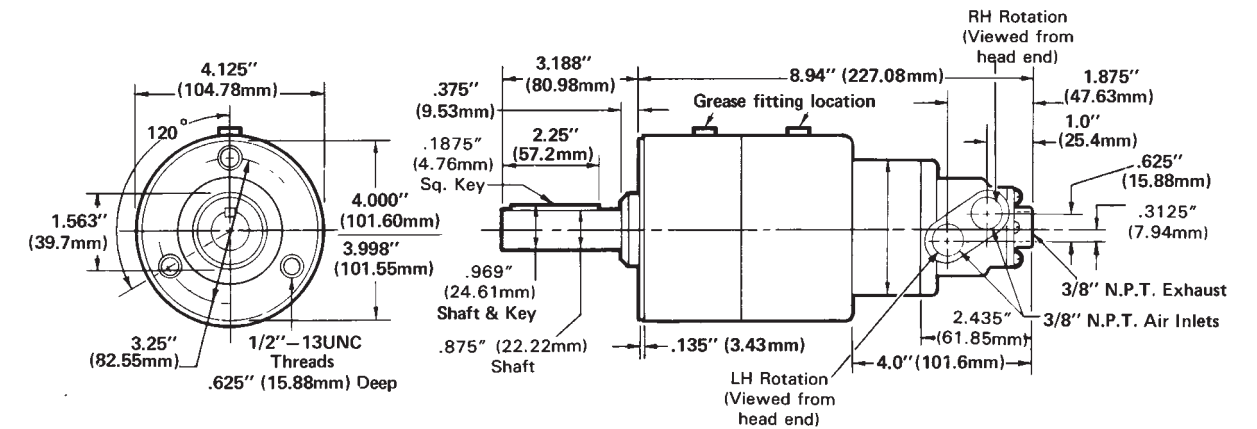
GENERAL:
Air Inlet: 1" NPTF
Air consumption: 212 cfm (6.00 m3/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

STANDARD EQUIPMENT:
Foot and flange type mount.

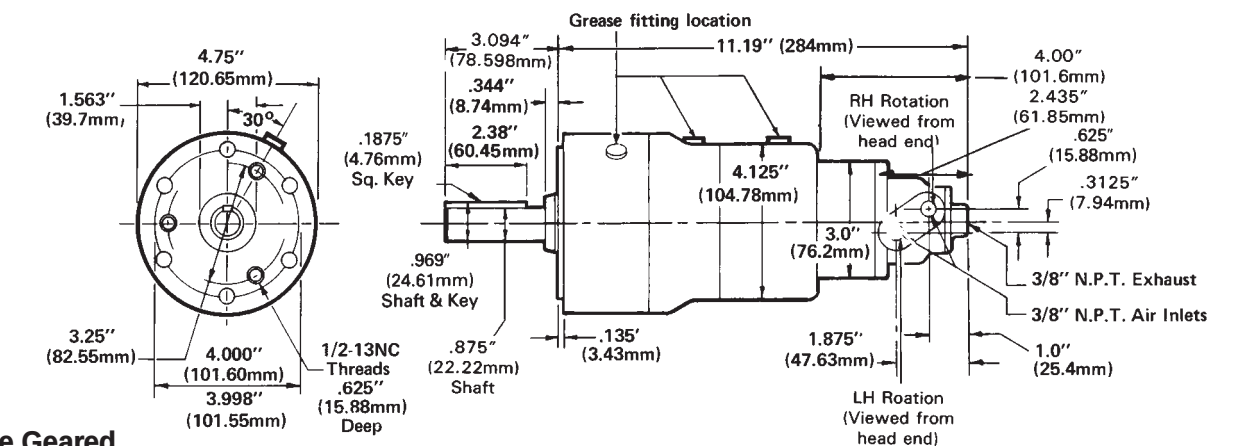
OPTIONAL EQUIPMENT:
Exhaust Muffler – Part 524302
Lubricating Oil – Part 533485 (1 gallon)
Gear Oil – Part 535090 (1 gallon)

ADDITIONAL ACCESSORIES: Pages 60-61

A2 Series Dimensional Data



- Single Geared**
 73300AA4
 73301AA2
 73302AA0

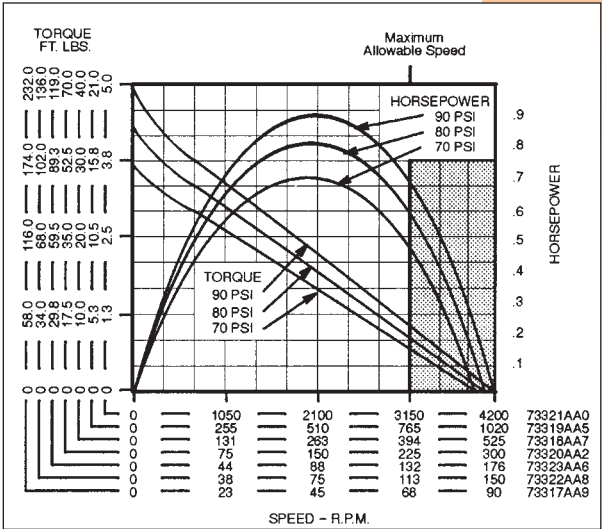


- Double Geared**
 73303AA8
 73304AA6
 73305AA4
 73306AA2

GARDNER-DENVER®

B4 Series

- Maximum Motor Power
0.9 hp
0.67 kW
- Torque Range
4 – 232 ft. lbs.
6.8 – 315 Nm
- Reversible
- Rear Exhaust



Model Number	RPM**		Stall Torque		Starting Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg		lbs.	kg
Face Mounting – 7/8" Diameter Keyed Spindle											
73321AA0	2150	4200	5	6.8	3.7	5	14.5	6.57	—	800	363
73319AA5	525	1020	21	28.0	15.0	20	14.5	6.57	4.1:1	800	363
73318AA7	270	525	40	54.0	30.0	41	14.5	6.57	8:1	800	363
73320AA2	154	300	70	95.0	52.0	71	22.5	10.21	13.9:1	800	363
73323AA6	90	175	119	161.0	88.0	119	22.5	10.21	23.8:1	800	363
73322AA8	79	150	136	184.0	101.0	137	22.5	10.21	27.2:1	800	363
73317AA9	46	90	232	315.0	172.0	233	22.5	10.21	46.4:1	800	363

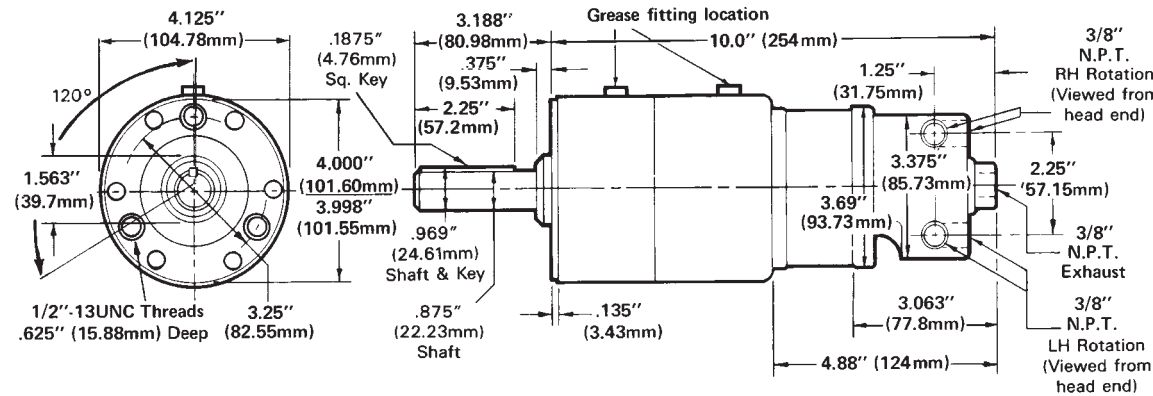
* All models assume overhung load located at 1.75" (44.45mm) from face of motor.
** These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.
GENERAL:
Air Inlet: 3/8" NPTF
Air consumption: 40 cfm (1.13 m3/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

OPTIONAL EQUIPMENT:
Exhaust Muffler – Part 813485
Pendent Control Kits – See page 47
Lubricating Oil – Part 533485 (1 gallon)
Motor and Gear Lube – Part A123771 (1 pound)
ADDITIONAL ACCESSORIES: Pages 60-61

B4 Series Dimensional Data

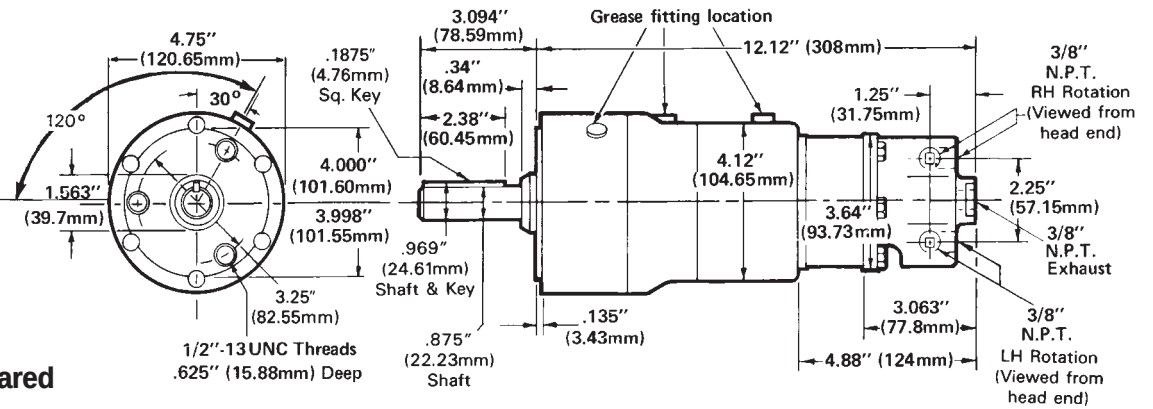
Single Geared

73321AA0
73319AA5
73318AA7



Double Geared

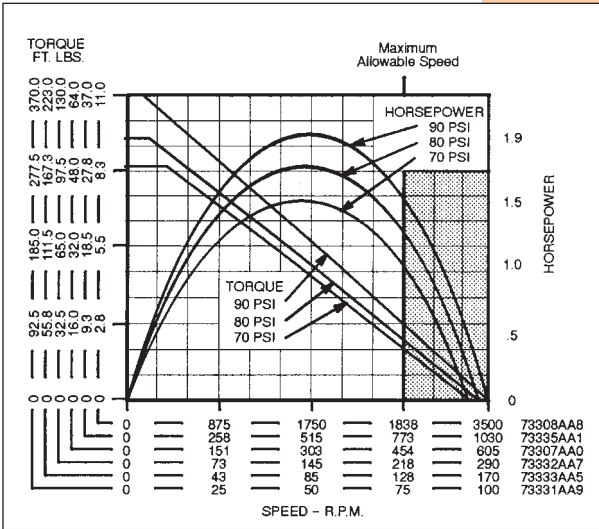
73317AA9
73320AA2
73322AA8
73323AA6



GARDNER-DENVER®

A6 Series

- Maximum Motor Power
1.9 hp
1.42 kW
- Torque Range
11 – 370 ft. lbs.
15 – 502 Nm
- Reversible
- Rear Exhaust

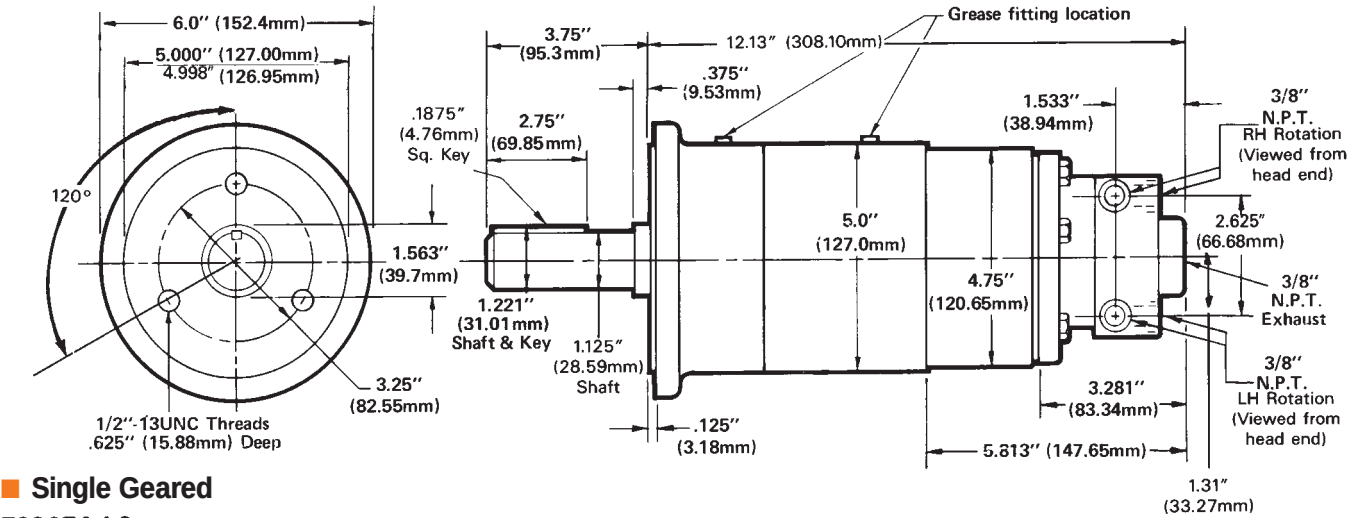


Model Number	RPM**		Stall Torque		Starting Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg		lbs.	kg
73308AA8	1820	3500	1	15	8	11	27	12.2	—	1000	454
73335AA1	535	1030	37	50	27	37	27	12.2	3.4:1	1000	454
73307AA0	315	605	64	87	48	65	27	12.2	5.8:1	1000	454
73332AA7	152	290	130	176	96	130	43	19.5	11.9:1	1000	454
73333AA5	89	170	223	302	163	221	43	19.5	20.3:1	1000	454
73331AA9	54	100	370	502	269	365	43	19.5	33.6:1	1000	454

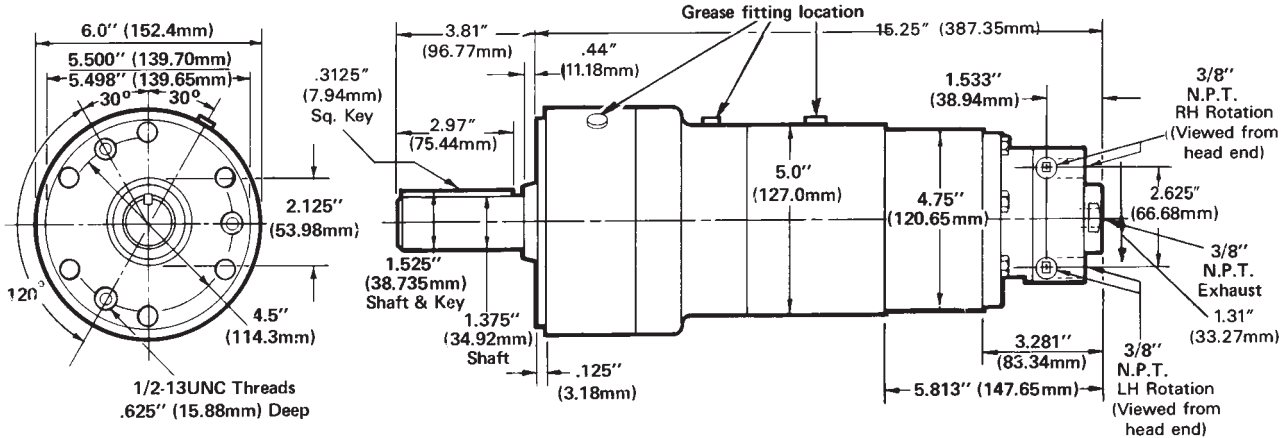
* All models assume overhung load located at 2.25" (57.15mm) from face of motor.
** These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.
GENERAL:
Air Inlet: 3/8" NPTF
Air consumption: 62 cfm (1.76 m3/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

OPTIONAL EQUIPMENT:
Exhaust Muffler – Part 813485
Pendent Control Kits – See page 47
Lubricating Oil – Part 533485 (1 gallon)
Motor and Gear Lube – Part A123771 (1 pound)
ADDITIONAL ACCESSORIES: Pages 60-61

A6 Series Dimensional Data



- Single Geared
73307AA0
73308AA8
73335AA1

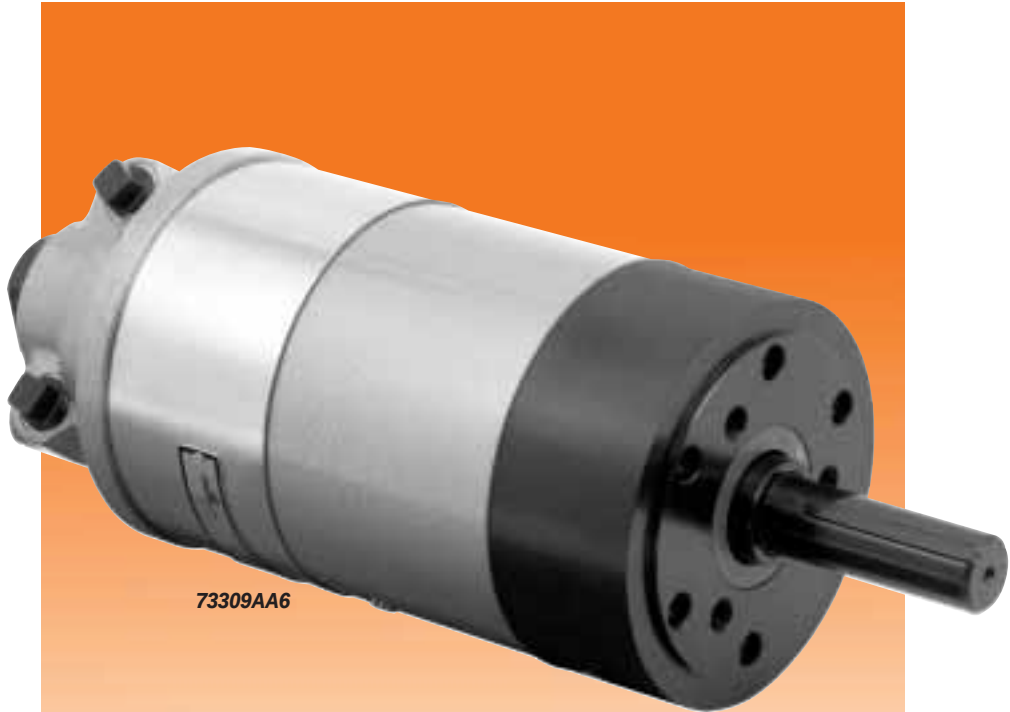


- Double Geared
73331AA9
73332AA7
73333AA5

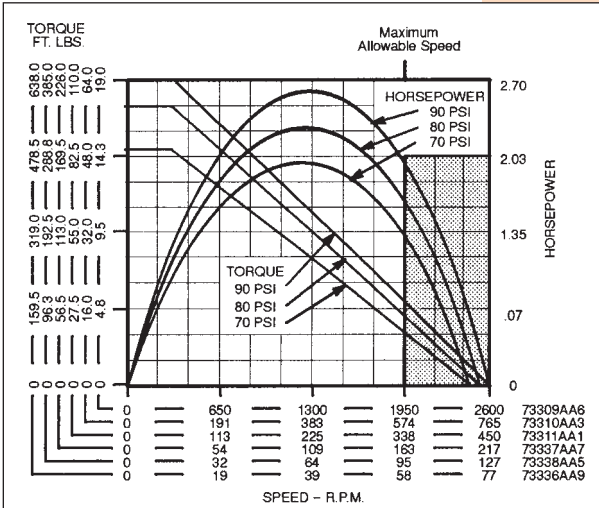
GARDNER-DENVER®

A8 Series

- Maximum Motor Power
2.7 hp
2.01 kW
- Torque Range
19 – 638 ft. lbs.
26 – 865 Nm
- Reversible
- Rear Exhaust



73309AA6

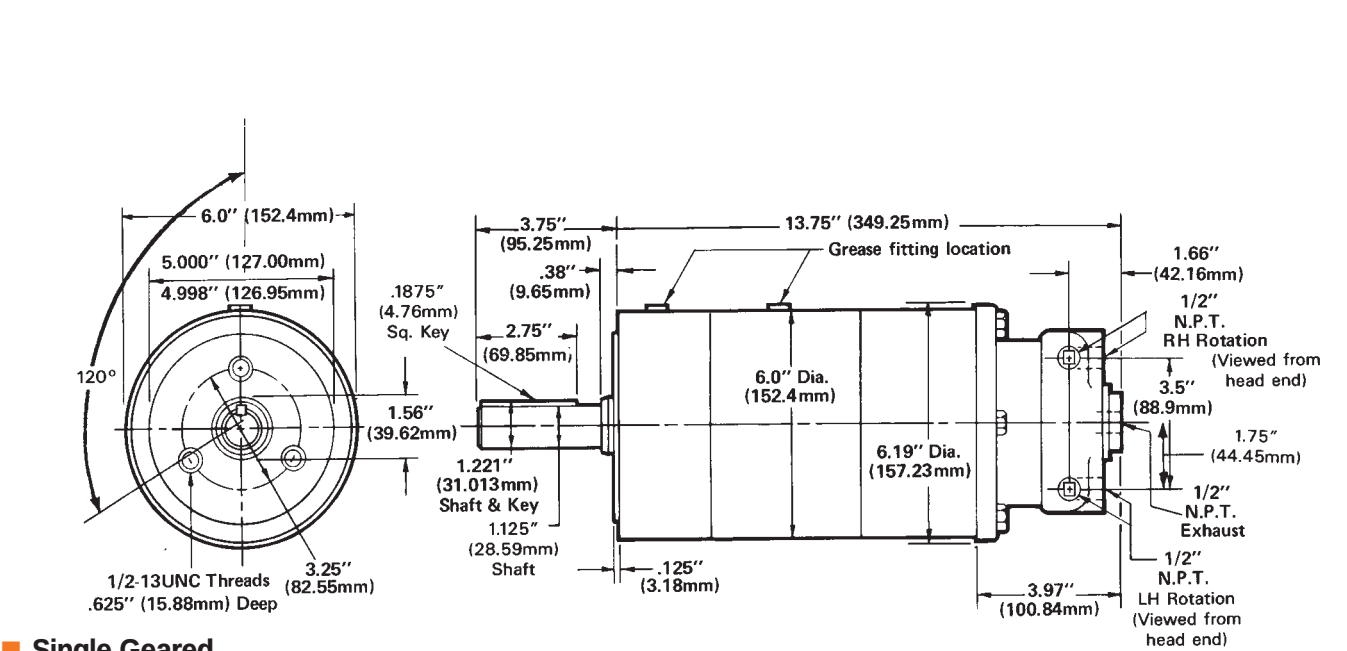


Model Number	RPM**		Stall Torque		Starting Torque		Weight		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg		lbs.	kg
Face Mounting – 1 1/8" Diameter Keyed Spindle											
73309AA6	1300	2600	19	26	14	19	38	17.2	—	1000	454
73310AA3	375	765	64	87	48	65	38	17.2	3.4:1	1000	454
73311AA1	225	450	110	149	82	111	38	17.2	5.8:1	1000	454
73337AA7	109	215	226	306	167	226	51	23.1	11.9:1	1000	454
73338AA5	64	125	385	522	285	386	51	23.1	20.3:1	1000	454
73336AA9	38	75	638	865	471	639	51	23.1	33.6:1	1000	454

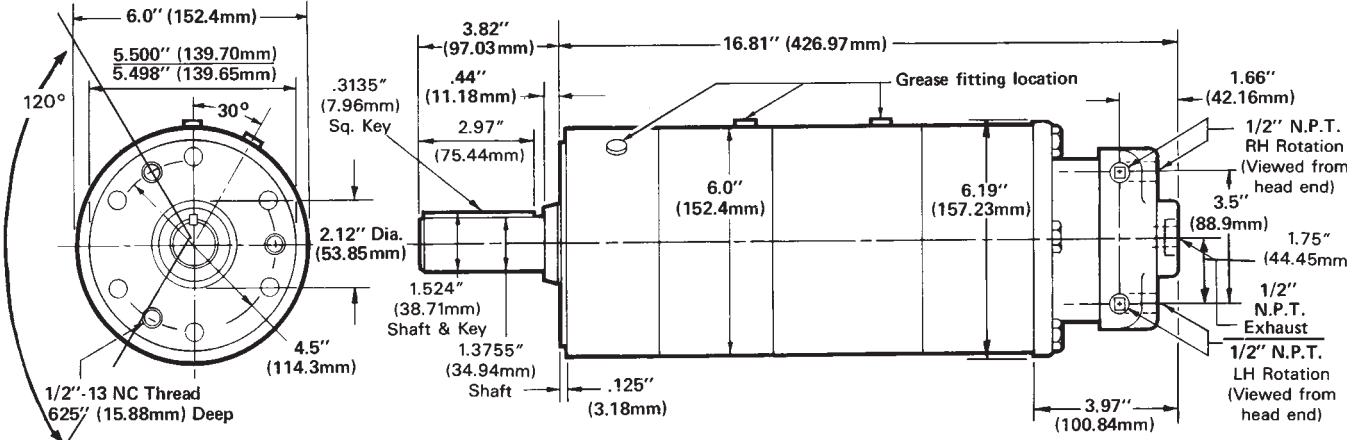
* All models assume overhung load located at 2.25" (57.15mm) from face of motor.
** These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.
GENERAL:
Air Inlet: 1/2" NPTF
Air consumption: 83 cfm (3.18 m3/min)
All tools performance rated @ 90psi (620 kPa) air pressure.

OPTIONAL EQUIPMENT:
Exhaust Muffler – Part A19509
Pendent Control Kits – See page 47
Lubricating Oil – Part 533485 (1 gallon)
Motor and Gear Lube – Part A123771 (1 pound)
ADDITIONAL ACCESSORIES: Pages 60-61

A8 Series Dimensional Data



- Single Geared
73309AA6
73310AA3
73311AA1

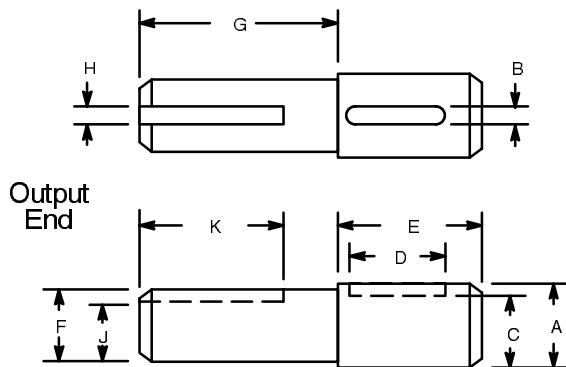


- Double Geared
73336AA9
73337AA7
73338AA5

Spindle Information for Axial Piston Motors

The axial piston air motors are equipped with standard spindles, *unless otherwise specified*. If a special spindle is required, the motor is shipped without a spindle; using the dimensions of the shank end of the spindle shown in the dimensional drawing, the customer can make a spindle to fit the requirements of the job.

If other than a standard spindle is required, specify shipment of motor *without spindle* – or provide detailed dimensional information of the spindle required.



Model Number	Std. Spindle	Dia. "A"	Key Width "B"	Key Depth "C"	Key Slot "D"	"E"	Dia. "F"	"G"	Key Width "H"	Key Depth "J"	Key Slot "K"			
Single Geared														
73300AA4	18299	<u>1.1585"</u> 1.1569"	<u>.187</u> .189	<u>1.0565"</u> 1.0515"	1.125" or 28.57mm	1.875"	<u>.8750"</u> .8744"	2.75 or 69.88mm		<u>.7715"</u> .7665"	2.25 or 57.15mm			
73301AA2							or					or		
73302AA0														
73321AA0														
73319AA5														
73318AA7	18319	<u>29.43mm</u> 29.39mm	<u>4.75mm</u> 4.80mm	<u>26.83mm</u> 26.71mm	1.500" or 38.10mm	47.62mm	<u>22.22mm</u> 22.21mm	3.375" or 85.73mm	Sq. Key	<u>19.60mm</u> 19.47mm	2.75" or 69.85mm			
73308AA8							or			or		or	or	or
73335AA1														
73307AA0														
73309AA6														
73310AA3														
73311AA1														
Double Geared														
73303AA8	29717	<u>1.0008"</u> 1.0002" or 25.42mm 25.41mm	<u>.249"</u> .251" or 6.32mm 6.38mm	<u>.859"</u> .849" or 21.82mm 21.56mm	1.125" or 28.57mm	1.875" or 47.62"	<u>.8750"</u> .8744"	2.75" or 69.85mm	Sq. Key	<u>.1875"</u> .1855" or 4.76mm 4.71mm	2.375" or 60.32mm			
73304AA6							or			or		or	or	or
73305AA4														
73306AA2														
73320AA2														
73323AA6														
73322AA8														
73317AA9	30053	<u>1.4398"</u> 1.4392" or 36.57mm 36.56mm	<u>.374"</u> .376" or 9.50mm 9.55mm	<u>1.225"</u> 1.215" or 31.12mm 30.86mm	1.500" or 38.10mm	2.000" or 50.80mm	<u>1.3755"</u> 1.3745" or 34.94mm 34.91mm	3.375" or 85.73mm	Sq. Key	<u>.771"</u> .761" or 19.58mm 19.33mm	3.125" or 79.38mm			
73332AA7							or			or		or	or	or
73333AA5														
73331AA9														
73337AA7														
73338AA5														
73337AA9														

Pendent Controls for Axial Piston Motors



Motor Size	A2	B4	A6	A8
Motor Port Size	3/8 NPT	3/8 NPT	3/8 NPT	1/2 NPT
2 Lever P.C. Kit*	506151	506152	506153	506154
5' Hose Assembly	506136	506136	—	—
15' Hose Assembly	506140	506140	—	—
4 Lever P.C. Kit*	506147	—	—	—
5' Hose Assembly	513549	513549	513549	513549
10' Hose Assembly	513550	513550	513550	513550
15' Hose Assembly	513551	513551	513551	513551

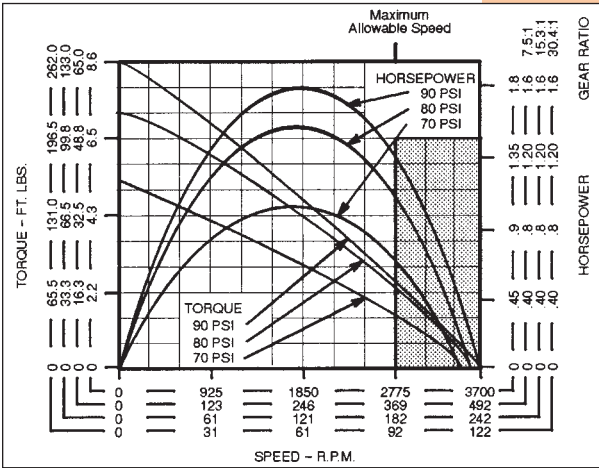
* Kits include handle assembly, (2) quick exhaust valves, and all necessary fittings.
For part numbers of individual components and positioning the quick exhaust valves, refer to the appropriate motor service manual.

ORDERING PROCEDURE:
Specify Pendent Control Kit No., Hose Assembly number and length. On 4 lever hose assemblies, cable assembly is provided as part of a standart hose assembly. Contact the factory for additional hose lengths.

GARDNER-DENVER®

MA2 Series

- Maximum Motor Power
1.5 hp
1.12 kW
- Torque Range
8.6 – 262 ft. lbs.
12 – 355 Nm

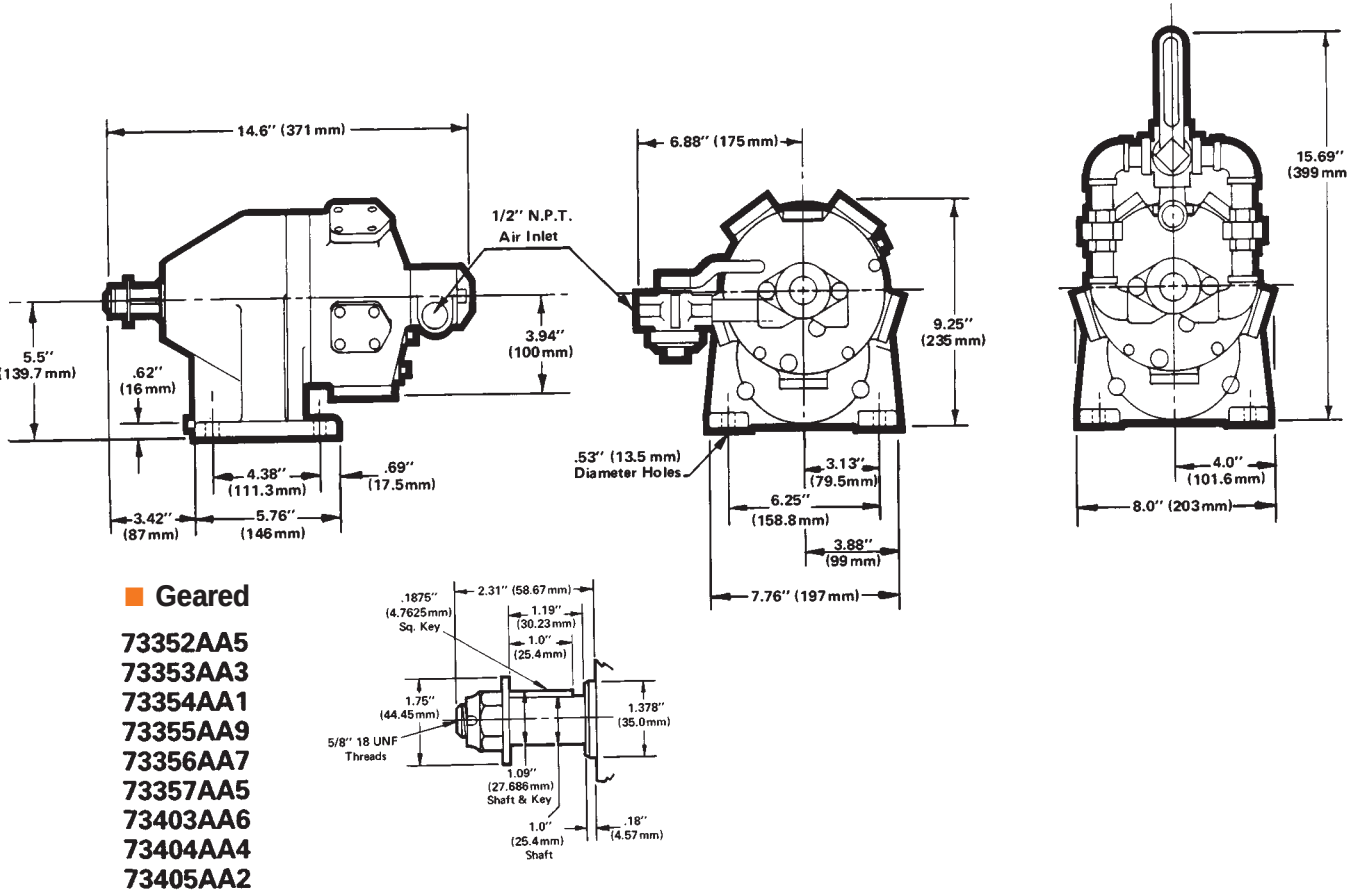


Model Number	RPM**		Stall Torque		Starting Torque		Weight		Air Consumption		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg	cfm	m³/min		lbs.	kg
with Single-Direction Valving													
73356AA7	246	490	65.0	88	30	41.0	40	18.1	65	1.84	7.5:1	1700	771
• 73354AA1	121	240	133.0	180	61	83.0	40	18.1	59	1.67	15.3:1	1700	771
73352AA5	61	120	262.0	355	122	165.0	40	18.1	62	1.76	30.4:1	1700	771
with Reversible Valving													
• 73357AA5	244	490	65.0	88	30	41.0	43	19.5	55	1.56	7.5:1	1700	771
73355AA9	119	240	133.0	180	61	83.0	43	19.5	54	1.53	15.3:1	1700	771
73353AA3	60	120	262.0	355	122	165.0	43	19.5	58	1.64	30.4:1	1700	771
without Valving													
• 73405AA2	244	490	65.0	88	430	41.0	43	19.5	55	1.56	7.5:1	1700	771
• 73404AA4	119	240	133.0	180	61	83.0	43	19.5	54	1.53	15.3:1	1700	771
73403AA6	60	120	262.0	355	122	165.0	43	19.5	58	1.64	30.4:1	1700	771

•Available On Quotation Basis Only
*All models assume overhung load located at 0.625" (15.88mm) from face of motor.
**These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.

GENERAL:
Air Inlet: 1/2" NPTF
All tools performance rated @ 90psi (620 kPa) air pressure.
OPTIONAL EQUIPMENT:
Lubricating Oil – Part 533485 (1 gallon)
Gear Oil – Part 535090 (1 gallon)
ADDITIONAL ACCESSORIES: Pages 60-61

MA2 Series Dimensional Data

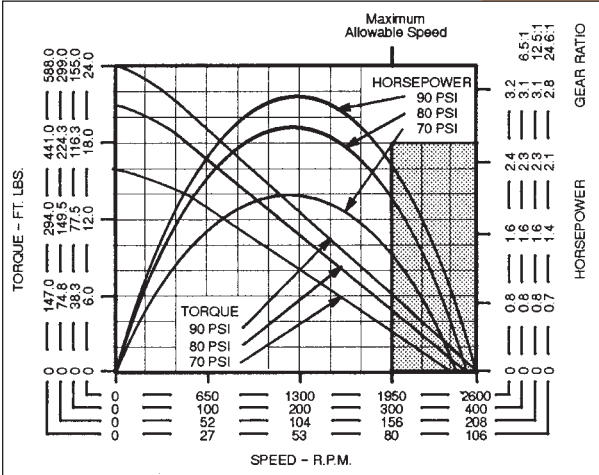


- Geared
73352AA5
73353AA3
73354AA1
73355AA9
73356AA7
73357AA5
73403AA6
73404AA4
73405AA2

GARDNER-DENVER®

MA3 Series

- Maximum Motor Power
3.0 hp
2.24 kW
- Torque Range
24 – 588 ft. lbs.
33 – 797 Nm

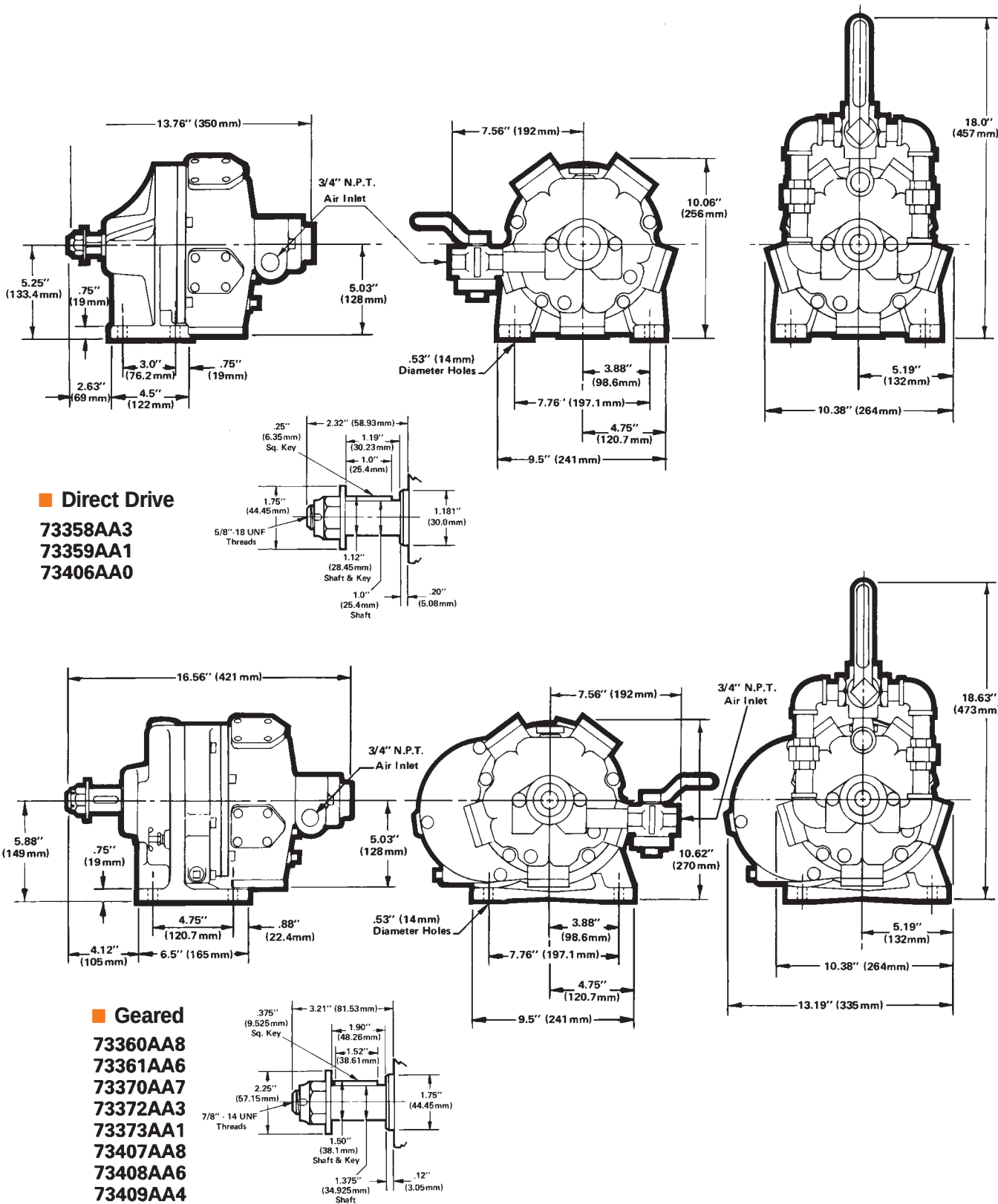


Model Number	RPM**		Stall Torque		Starting Torque		Weight		Air Consumption		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg	cfm	m³/min		lbs.	kg
with Single-Direction Valving													
73358AA3	1300	2600	24	33	13	18	49	22.2	90	2.55	—	750	340
73372AA3	200	400	155	210	84	114	65	29.5	90	2.55	6.5:1	2560	1161
73370AA7	104	200	299	405	161	218	65	29.5	88	2.49	12.5:1	2560	1161
73360AA8	53	100	588	797	317	430	65	29.5	97	2.74	24.6:1	2560	1161
with Reversible Valving													
73359AA1	1190	2600	24	33	13	18	51	23.1	80	2.27	—	750	340
73373AA1	183	400	155	210	84	114	67	30.1	87	2.46	6.5:1	2560	1161
73371AA5	95	200	299	405	161	218	67	30.1	90	2.55	12.5:1	2560	1161
73361AA6	48	100	588	797	317	430	67	30.1	95	2.69	24.6:1	2560	1161
without Valving													
73406AA0	1190	2600	24	33	13	18	51	23.1	80	2.27	—	750	340
73409AA4	183	400	155	210	84	114	67	30.1	87	2.46	6.5:1	2560	1161
73408AA6	95	200	299	405	161	218	67	30.1	90	2.55	12.5:1	2560	1161
73407AA8	48	100	588	797	317	430	67	30.1	95	2.69	24.6:1	2560	1161

* Non-geared models assume overhung load located at 0.625" (15.88mm) from face of motor.
Geared models assume overhung load located at 1" (25.40mm) from face of motor.
**These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.

GENERAL:
Air Inlet: 3/4" NPTF
All tools performance rated @ 90psi (620 kPa) air pressure.
OPTIONAL EQUIPMENT:
Lubricating Oil – Part 533485 (1 gallon)
Gear Oil – Part 535090 (1 gallon)

MA3 Series Dimensional Data



Direct Drive
73358AA3
73359AA1
73406AA0

Geared
73360AA8
73361AA6
73370AA7
73372AA3
73373AA1
73407AA8
73408AA6
73409AA4

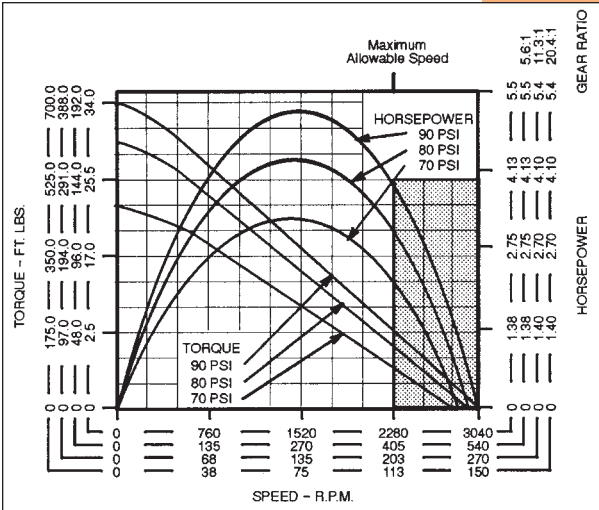
GARDNER-DENVER®

MB Series

- Maximum Motor Power
5.5 hp
4.10 kW
- Torque Range
34 – 700 ft. lbs.
46 – 949 Nm



73410AA1

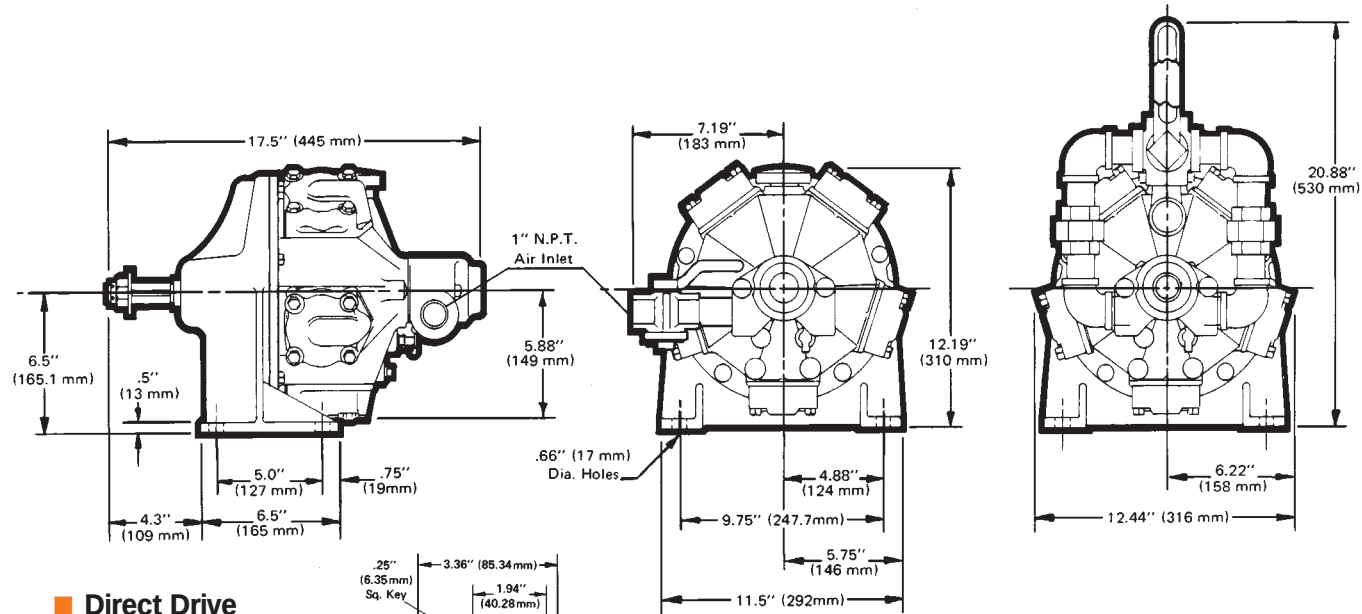


Model Number	RPM**		Stall Torque		Starting Torque		Weight		Air Consumption		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg	cfm	m³/min		lbs.	kg
with Single-Direction Valving													
73374AA9	1520	3000	34	46	15	20	100	45.4	166	4.70	—	1310	594
73380AA6	270	540	192	260	81	110	145	65.8	144	4.08	5.6:1	2200	998
• 73378AA1	135	270	388	526	164	222	145	65.8	152	4.30	11.3:1	2200	998
73376AA5	75	150	700	949	296	401	145	65.8	167	4.73	20.4:1	2200	998
with Reversible Valving													
• 73375AA7	1500	3000	34	46	15	20	103	46.7	152	4.30	—	1310	594
73381AA4	268	540	192	260	81	110	148	67.1	140	3.96	5.6:1	2200	998
73379AA9	133	270	388	526	164	222	148	67.1	148	4.19	11.3:1	2200	998
73377AA3	74	150	700	949	296	401	148	67.1	154	4.36	20.4:1	2200	998
without Valving													
73410AA1	1500	3000	34	46	15	20	103	46.7	152	4.30	—	1310	594
73413AA5	268	540	192	260	81	110	148	67.1	140	3.96	6.5:1	2200	998
73412AA7	133	270	388	526	164	222	148	67.1	148	4.19	11.3:1	2200	998
73411AA9	74	150	700	949	296	401	148	67.1	154	4.36	20.4:1	2200	998

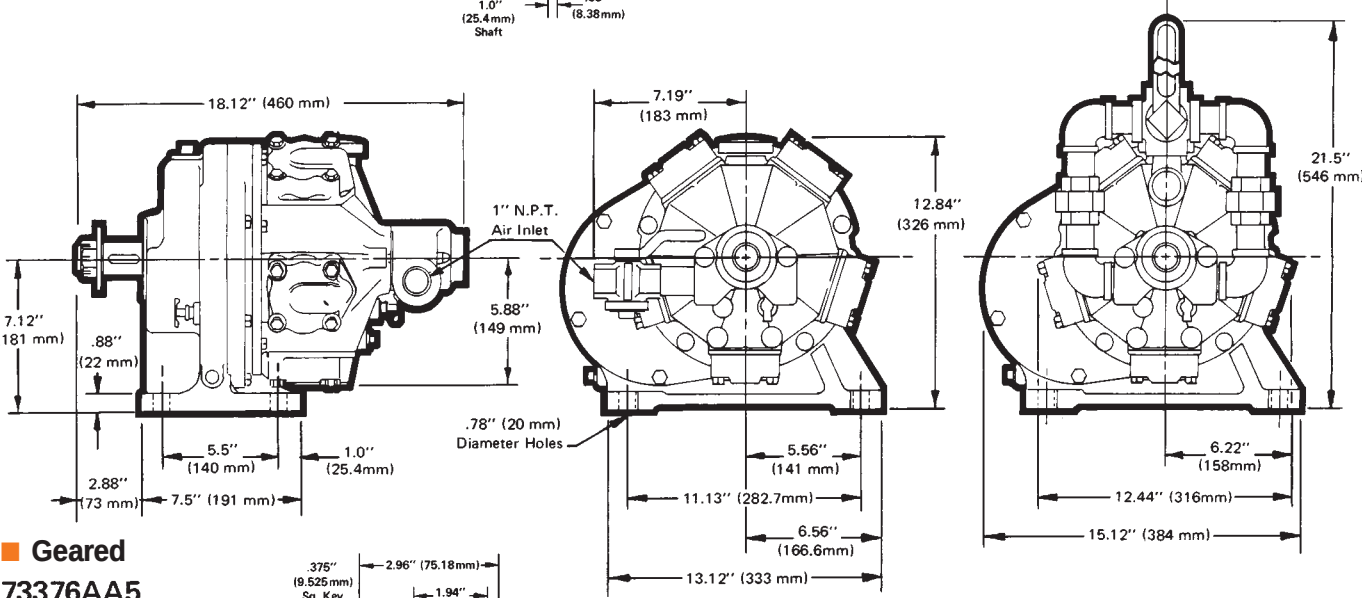
•Available On Quotation Basis Only
*All models assume overhung load located at 1" (25.4mm) from face of motor.
**These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.

GENERAL:
Air Inlet: 1" NPTF
All tools performance rated @ 90psi (620 kPa) air pressure.
OPTIONAL EQUIPMENT:
Lubricating Oil – Part 533485 (1 gallon)
Gear Oil – Part 535090 (1 gallon)

MB Series Dimensional Data

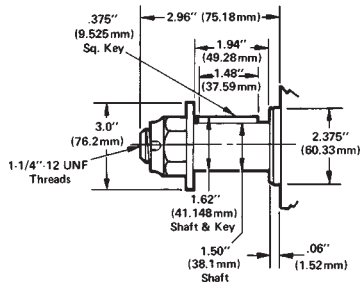


- Direct Drive
73374AA9
73375AA7
73410AA1



Geared

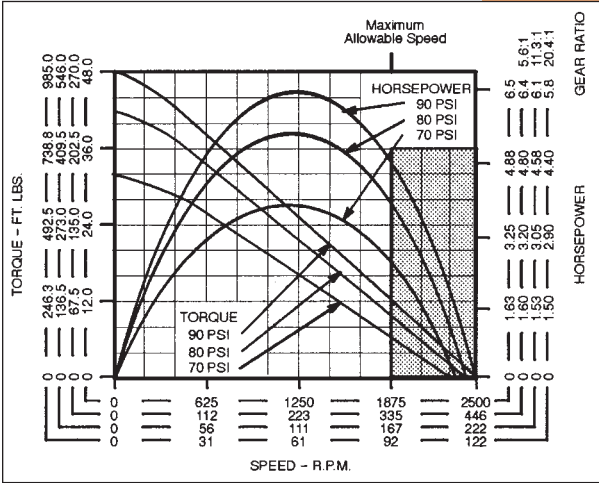
- 73376AA5
73377AA3
73378AA1
73379AA9
73380AA6
73381AA4
73411AA9
73412AA7
73413AA5



GARDNER-DENVER®

ME Series

- Maximum Motor Power
6.5 hp
4.85 kW
- Torque Range
48 – 985 ft. lbs.
65 – 1336 Nm

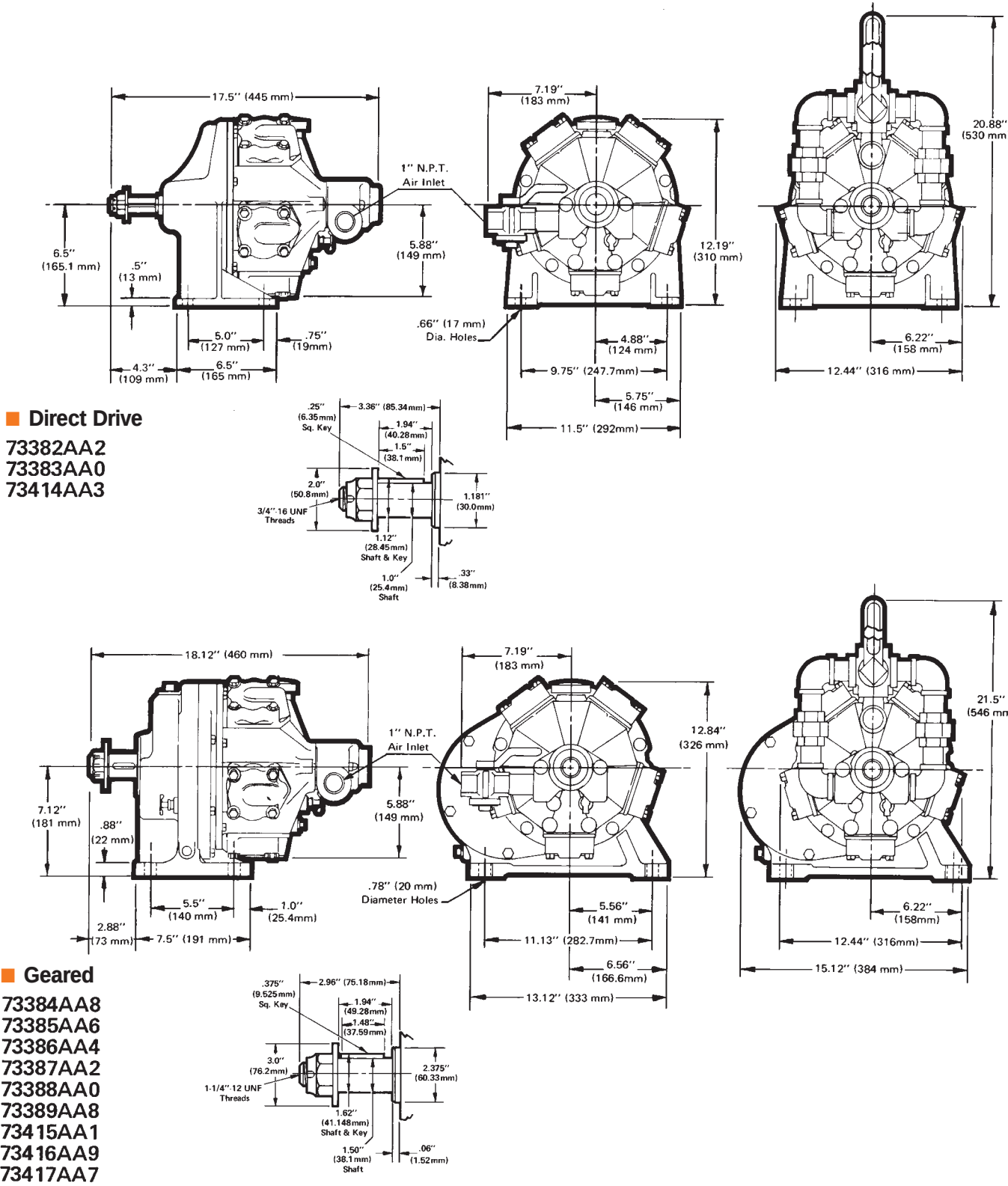


Model Number	RPM**		Stall Torque		Starting Torque		Weight		Air Consumption		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg	cfm	m³/min		lbs.	kg
with Single-Direction Valving													
• 73382AA2	1250	2500	48	65	19	26	101	45.8	167	4.73	—	1310	594
• 73388AA0	223	440	270	366	104	141	153	69.4	165	4.67	5.6:1	2200	998
73386AA4	111	220	546	740	209	283	153	69.4	169	4.79	11.3:1	2200	998
73384AA8	61	120	985	1336	377	511	153	69.4	168	4.76	20.4:1	2200	998
with Reversible Valving													
• 73383AA0	1225	2500	48	65	19	26	104	47.2	161	4.56	—	1310	594
73389AA8	219	440	270	366	104	141	157	71.2	152	4.30	5.6:1	2200	998
• 73387AA2	108	220	546	740	209	283	157	71.2	171	4.84	11.3:1	2200	998
73385AA6	60	120	985	1336	377	511	157	71.2	167	4.73	20.4:1	2200	998
without Valving													
73414AA3	1225	2500	48	65	19	26	104	47.2	161	4.56	—	1310	594
73417AA7	219	440	270	366	104	141	157	71.2	152	4.30	6.5:1	2200	998
• 73416AA9	108	220	546	740	209	283	157	71.2	171	4.84	11.3:1	2200	998
73415AA1	60	120	985	1336	377	511	157	71.2	167	4.73	20.4:1	2200	998

•Available On Quotation Basis Only
*All models assume overhung load located at 1" (25.40mm) from face of motor.
**These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.

GENERAL:
Air Inlet: 1" NPTF
All tools performance rated @ 90psi (620 kPa) air pressure.
OPTIONAL EQUIPMENT:
Lubricating Oil – Part 533485 (1 gallon)
Gear Oil – Part 535090 (1 gallon)

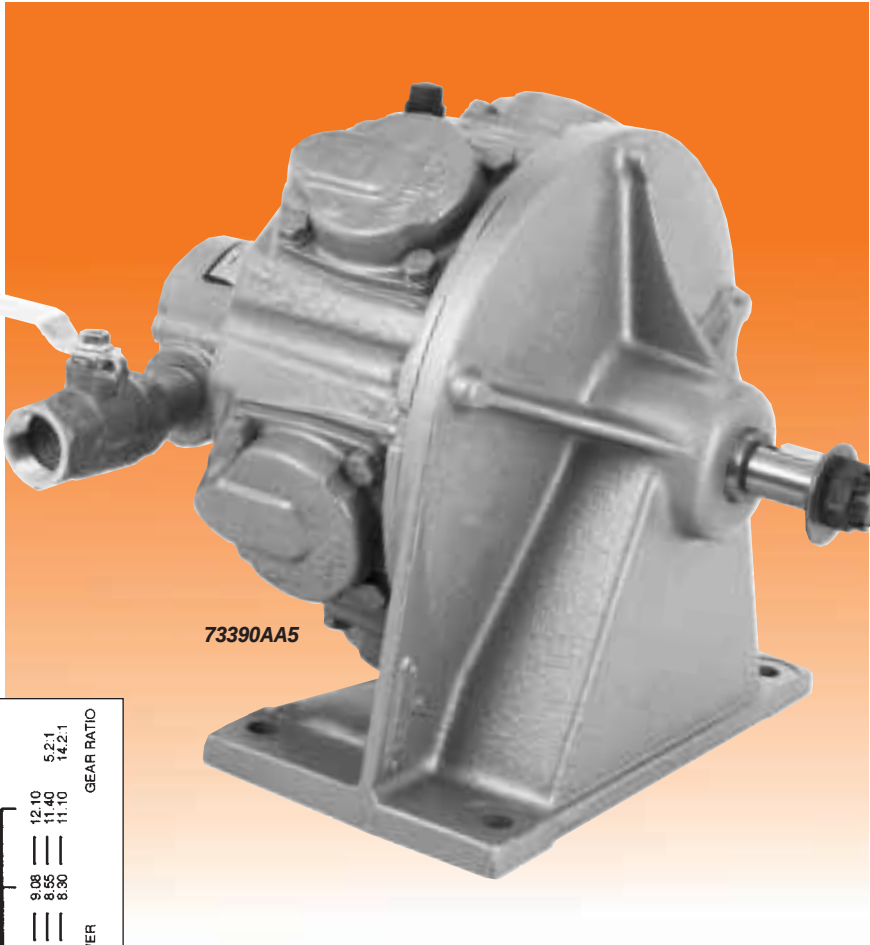
ME Series Dimensional Data



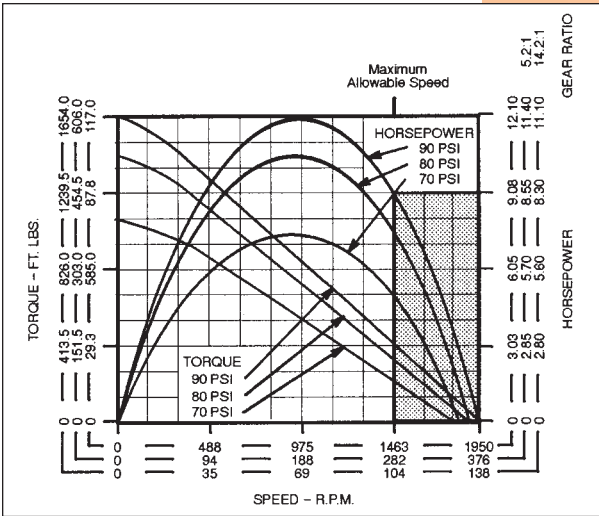
GARDNER-DENVER®

MK Series

- Maximum Motor Power
11 hp
8.20 kW
- Torque Range
117 – 1654 ft. lbs.
159 – 2243 Nm



73390AA5

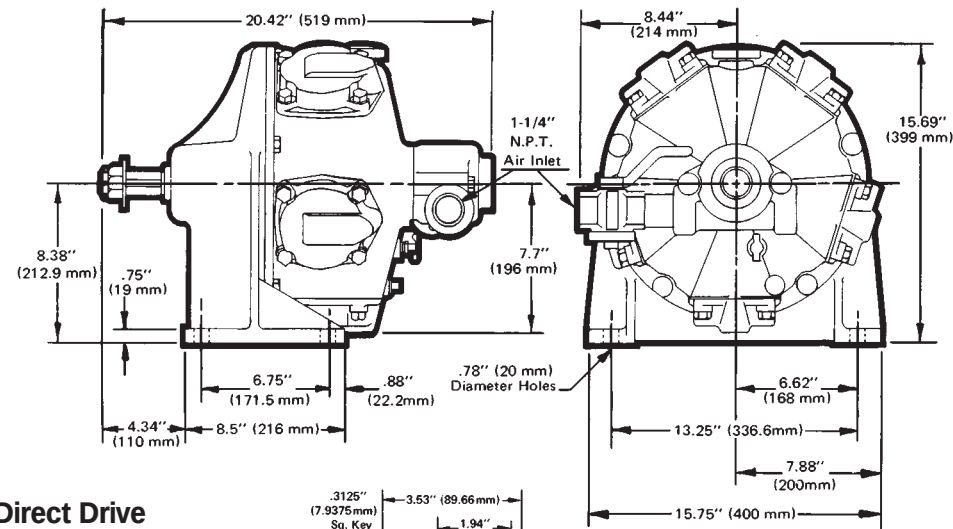


Model Number	RPM**		Stall Torque		Starting Torque		Weight		Air Consumption		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg	cfm	m³/min		lbs.	kg
with Single-Direction Valving													
73390AA5	975	1900	117	159	72	98	195	88.5	302	8.55	—	2500	1134
• 73394AA7	188	375	606	822	374	507	225	102.1	295	8.35	5.2:1	2800	1270
73392AA1	69	135	1654	2243	1021	1384	225	102.1	293	8.30	14.2:1	2800	1270
with Reversible Valving													
73391AA3	975	1900	117	159	72	98	202	91.6	311	8.81	—	2500	1134
73395AA5	183	375	606	822	374	507	230	104.3	299	8.47	5.2:1	2800	1270
73393AA9	67	135	1654	2243	1021	1384	230	104.3	288	8.16	14.2:1	2800	1270
without Valving													
73418AA5	975	1900	117	159	72	98	104	91.6	311	8.81	—	2500	1134
73420AA0	183	375	606	822	374	507	230	104.3	299	8.47	5.2:1	2800	1270
73419AA3	67	135	1654	2243	1021	1384	230	104.3	288	8.16	14.2:1	2800	1270

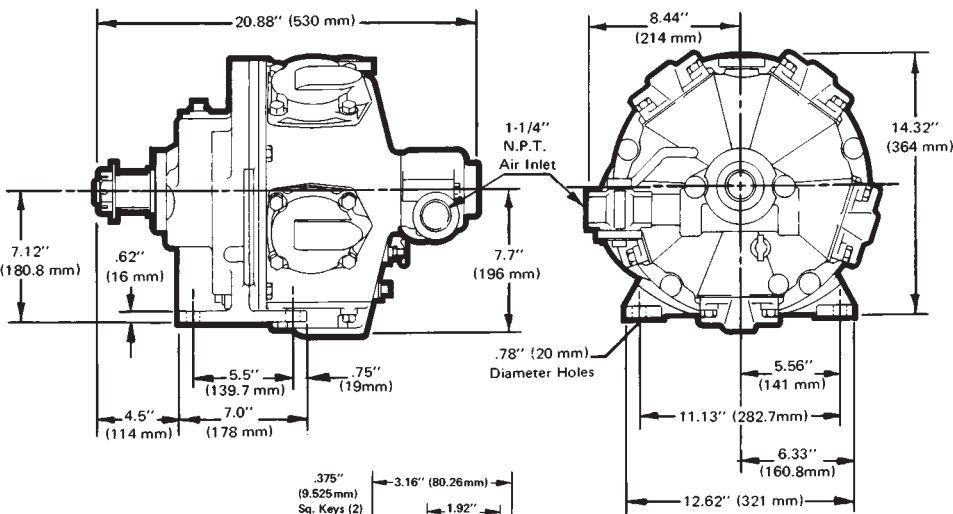
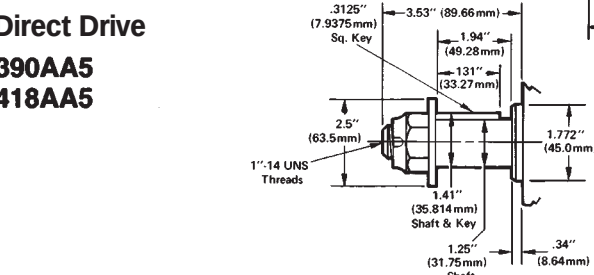
•Available On Quotation Basis Only
*All models assume overhung load located at 1" (25.40mm) from face of motor.
**These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.

GENERAL:
Air Inlet: 1-1/4" NPTF
All tools performance rated @ 90psi (620 kPa) air pressure.
OPTIONAL EQUIPMENT:
Lubricating Oil – Part 533485 (1 gallon)
Gear Oil – Part 535090 (1 gallon)

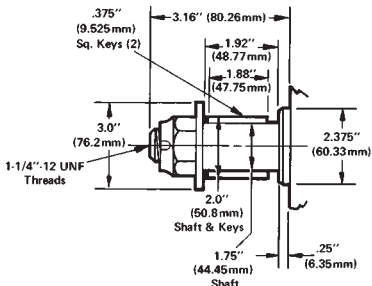
MK Series Dimensional Data



Direct Drive
73390AA5
73418AA5



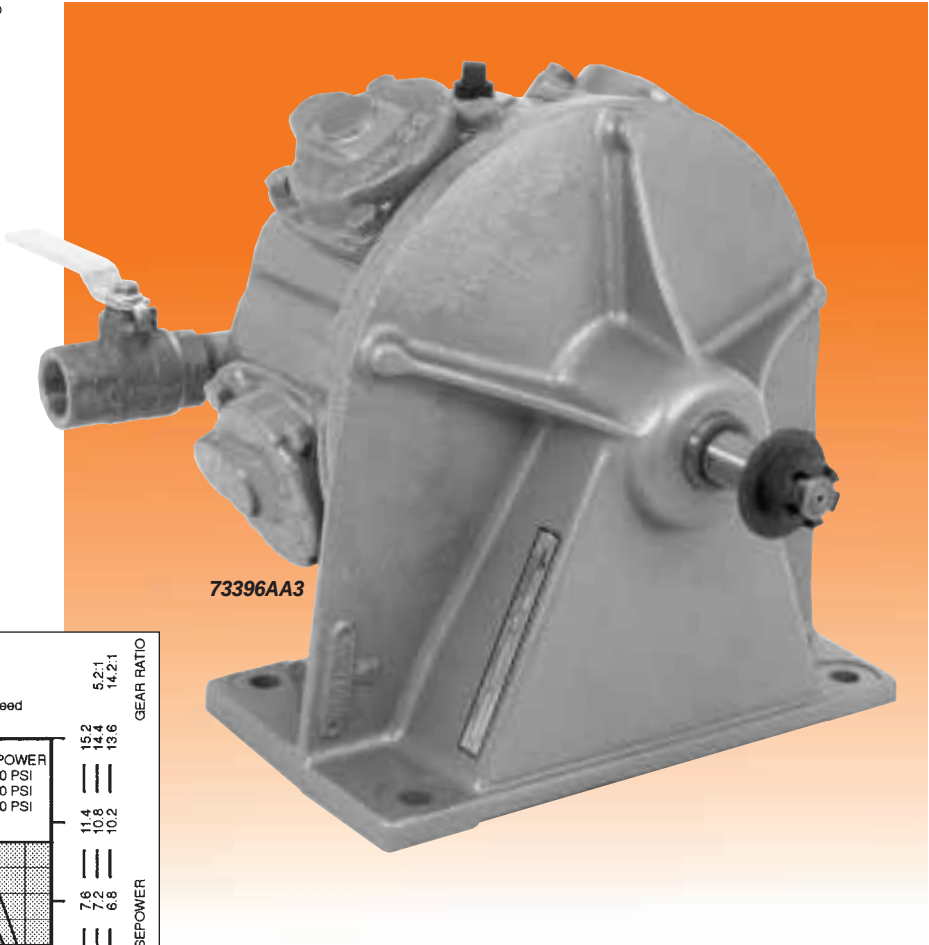
Geared
73392AA1
73394AA7
73419AA3
73420AA0



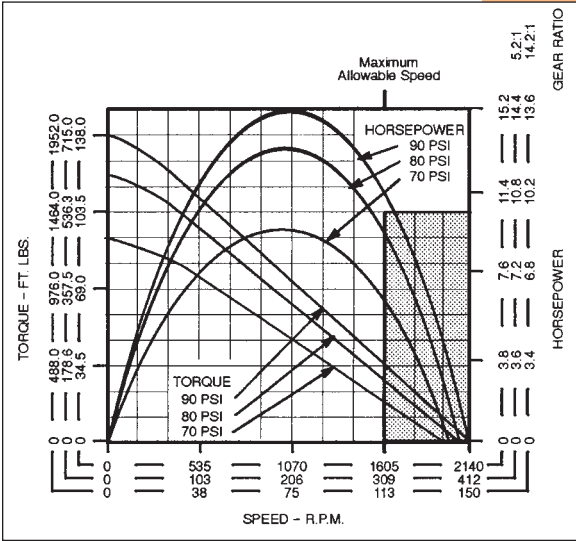
GARDNER-DENVER®

MM Series

- Maximum Motor Power
15 hp
11.19 kW
- Torque Range
138 – 1952 ft. lbs.
187 – 2647 Nm



73396AA3

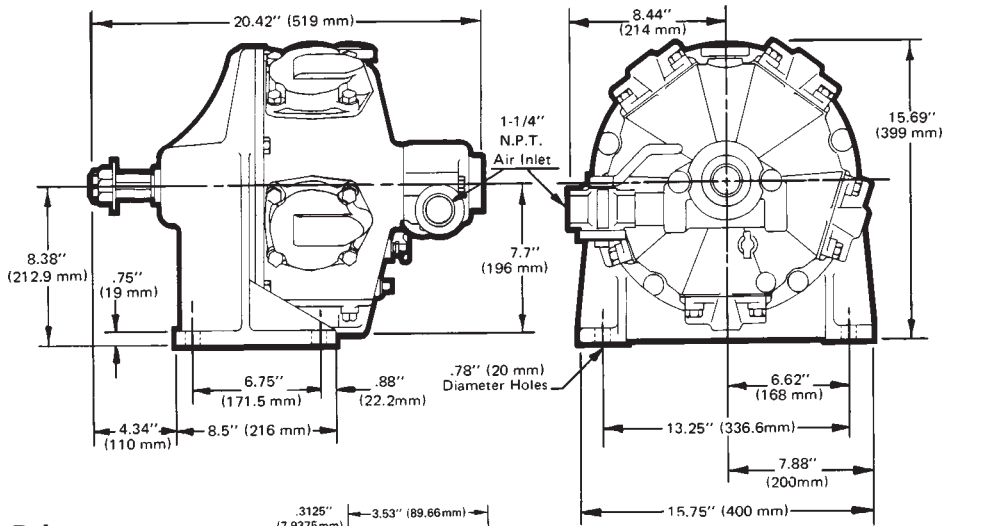


Model Number	RPM**		Stall Torque		Starting Torque		Weight		Air Consumption		Gear Ratio	Max. Overhung Load @ Stall*	
	at Max. hp	Free Speed	ft. lbs.	Nm	ft. lbs.	Nm	lbs.	kg	cfm	m³/min		lbs.	kg
with Single-Direction Valving													
73396AA3	1070	2100	138	187	82	111	210	95.3	348	9.86	—	2500	1134
• 73400AA2	206	400	715	970	424	575	226	102.5	336	9.52	5.2:1	2800	1270
• 73398AA9	75	150	1952	2647	1157	1569	226	102.5	352	9.97	14.2:1	2800	1270
with Reversible Valving													
73397AA1	1010	2100	138	187	82	111	214	97.1	352	9.97	—	2500	1134
73401AA0	194	400	715	970	424	575	231	104.8	332	9.40	5.2:1	2800	1270
73399AA7	71	150	1952	2647	1157	1569	231	104.8	345	9.77	14.2:1	2800	1270
without Valving													
73421AA8	1010	2100	138	187	82	111	214	97.1	352	9.97	—	2500	1134
73423AA4	194	400	715	970	424	575	231	104.8	332	9.40	5.2:1	2800	1270
73422AA6	71	150	1952	2647	1157	1569	231	104.8	345	9.77	14.2:1	2800	1270

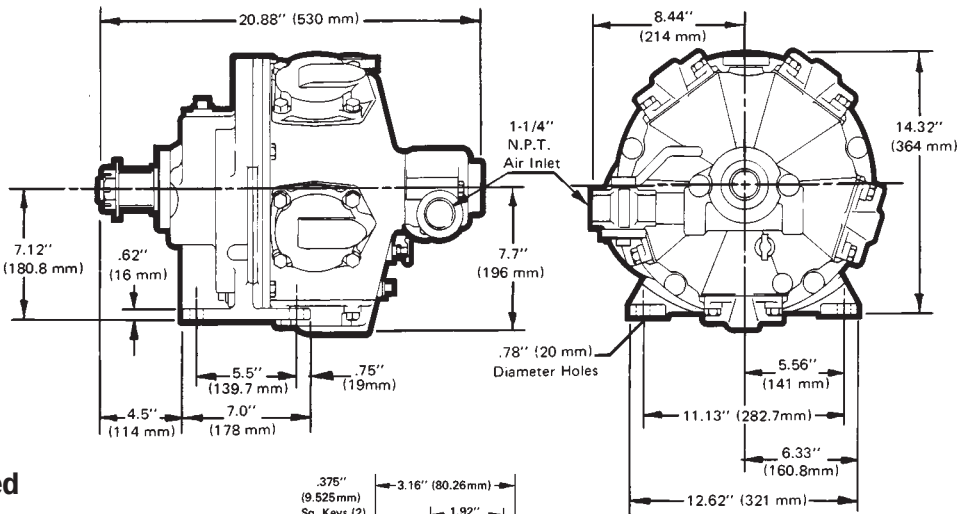
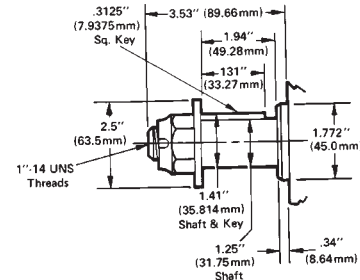
•Available On Quotation Basis Only
*All models assume overhung load located at 1" (25.40mm) from face of motor.
**These motors must be operated with sufficient load to prevent speed from exceeding maximum allowable speed shown on performance curve.

GENERAL:
Air Inlet: 1-1/4" NPTF
All tools performance rated @ 90psi (620 kPa) air pressure.
OPTIONAL EQUIPMENT:
Lubricating Oil – Part 533485 (1 gallon)
Gear Oil – Part 535090 (1 gallon)

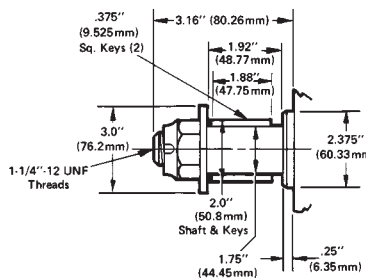
MM Series Dimensional Data



- Direct Drive
73396AA3
73421AA8

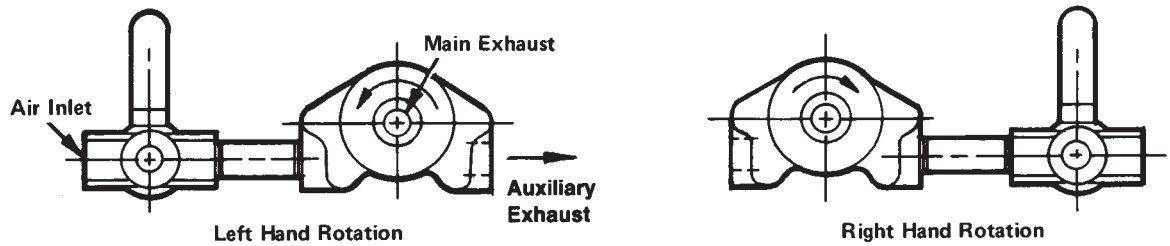


- Geared
73398AA9
73400AA2
73422AA6
73423AA4

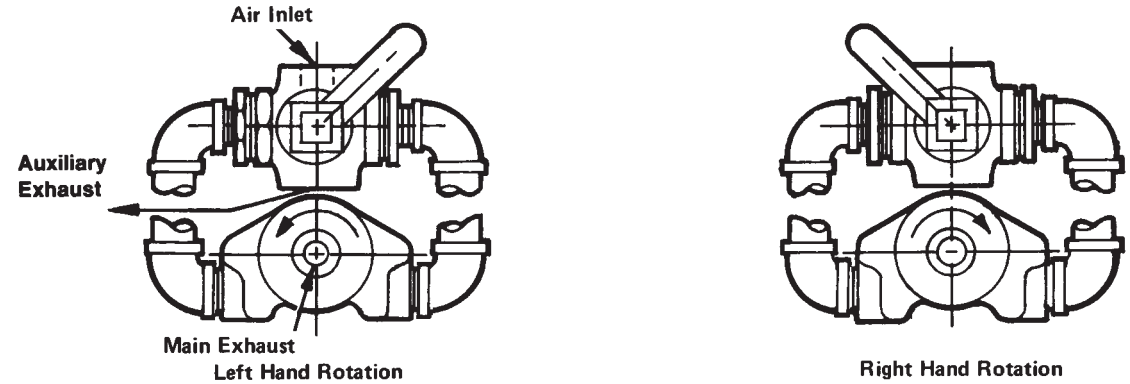


Throttle Combinations for Radial Piston Motors

SINGLE DIRECTION VALVING



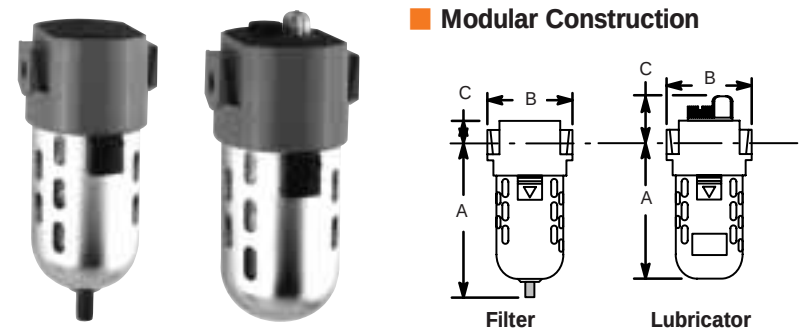
REVERSIBLE VALVING



General Accessories

Filters, Lubricators

Modular Construction



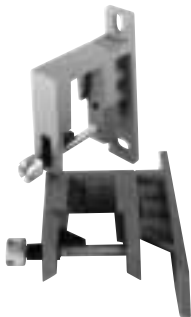
Model Number	NPT	Air Flow		Bowl Capacity		"A"		"B"		"C"	
	in.	SCFM	m³/min	oz.	liter	in.	mm	in.	mm	in.	mm

Filters											
F02-M	1/4	35	9.9	5.0	0.15	5.6	142	3.0	76	0.9	23
F03-M	3/8	44	12.9	5.0	0.15	5.6	142	3.0	76	0.9	23

Lubricators – Economist (Standard Mist)											
L03-EP	3/8	48	6.2	5.0	0.15	4.8	122	3.0	76	1.6	41

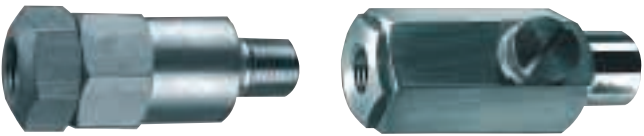
Modular Sleeve & Bracket (with O-Ring)

Model: MS-102
Combination sleeve/wall mounting bracket as shown. Designed for mounting a single unit or combination of units directly to the wall. The sleeve and mounting bracket can be ordered assembled at the factory, or just the mounting bracket alone to be used on existing modular sleeves.



General Accessories

Airline Filter and Lubricator



Part Number	Description	NPT	Air Flow		Max. Pressure	
		in.	SCFM	m³/min	psig	bar
45-0211	Filter w/cartridge*	1/4	17	8.0	100	6.9
45-0212	Filter cartridge	–	–	–	–	–
45-0201	Lubricator**	1/4	22	10	100	6.9
45-0301	Lubricator**	3/8	22	10	100	6.9

GENERAL: Use where inconvenient for standard filter or lubricator.
* NOTE: Filter will not remove water.
** NOTE: One ounce reservoir good for an average eight hour shift.



Air Hoses

Part Number	Hose I.D.		Fittings (NPT)		Length	
	in.	mm	in.	mm	ft.	m
A139856	3/16	4.7	1/8	1/8	6.0	1.8
45-1307	3/16	4.7	1/8	1/4	7.0	2.1
45-1408	1/4	6.4	1/4	1/4	8.0	2.4
45-1409	1/4	6.4	1/8	1/4	8.0	2.4
45-1508	5/16	7.9	1/4	1/4	8.0	2.4
45-1610	3/8	9.5	3/8	3/8	10	3.0
45-1810	1/2	12.7	3/8	1/2	10	3.0
45-1812	1/2	12.7	1/2	1/2	12	3.7
45-1825	1/2	12.7	1/2	1/2	25	7.6

GENERAL: 3/16" & 1/4" hoses have braided covers, all others have neoprene covers.
* NOTE: 3/8"-24 is a straight thread

Lubricants (do not substitute)

Oil –

- **Air Tool Oil #500021:**
Available in: 1 gal. can – part #533485
- **High Film Strength oil (for severe use):**
Available in: 1 gal. can – part #536333
NOTE: Cannot be used in AtoMist Lubricators. Use only with EconoMist or Servoil type lubricators.
- **MR Series Motors – Gearing Oil:**
Available in: 1 gal. can – part #535090

Grease –

- **Gear Lube:**
Available in: 1 lb. can – part #A123771
1 gal. can – part #533485
NOTE: Same as Shell Oil Co. Alvania #EP RIO 71039
Grade "00" or Sun Petroleum Products Prestige 740 AEP Grade "00".

• Available On Quotation Basis Only

Swivel Hose Couplings

Part Number	NPT in.
A20744	1/4
A20741	3/8
A20764	1/2



Air Pressure Gage Kit

Part Number	Description
A13157	Gage, needle, cap & case



Quick Disconnect Fittings

Fitting Type*	NPT in.	Nominal Size		
		1/4"	3/8"	1/2"

Coupler (male NPT)

	1/8	45-0710	–	–
	1/4	45-0711	45-0713	–
	3/8	45-0712	–	–
	1/2	–	–	45-0717

Coupler (female NPT)

	3/8	45-0732	45-0734	45-0736
--	-----	---------	---------	---------

Nipple (male NPT)

	1/8	45-0720	–	–
	1/4	–	45-0724	–
	3/8	45-0722	45-0725	45-0726
	1/2	–	–	45-0727

Nipple (female NPT)

	1/4	–	45-0744	–
	3/8	45-0742	45-0745	45-0746
	1/2	–	–	45-0747

Nipple (with hose barbs)

	1/4**	45-0748	–	–
	1/2**	–	–	45-0753

* NOTE: Nipples of one size will not fit couplers of another size.
** NOTE: Indicates inside diameter of hose.
NOTE: 1/4" nominal will pass 49 cfm free air @ 90 psi, but pressure drop exceeds 10 psi with air flow over 30 cfm.
3/8" nominal will pass 90 cfm free air @ 90 psi, but pressure drop exceeds 10 psi with air flow over 53 cfm.
1/2" nominal will pass 168 cfm free air @ 90 psi, but pressure drop exceeds 10 psi with air flow over 109 cfm.

Conversion Tables

Millimeter – Decimal – Fraction

mm	Dec.	in.	mm	Dec.	in.	mm	Dec.	in.	mm	Dec.	in.	mm	Dec.	in.m
0.100	.0039	1/64	5.159	.2031	13/64	10.200	.4016	13/32	15.300	.6024	39/64	20.300	.7992	13/16
0.200	.0079		5.200	.2047		10.300	.4055		15.400	.6063		20.400	.8031	
0.300	.0118		5.300	.2087		10.319	.4063		15.478	.6094		20.500	.8071	
0.397	.0156		5.400	.2126		10.400	.4094		15.500	.6102		20.600	.8110	
0.400	.0157	1/32	5.500	.2165	7/32	10.500	.4134	27/64	15.600	.6142	53/64	20.638	.8125	53/64
0.500	.0197		5.556	.2188		10.600	.4173		15.700	.6181		20.700	.8150	
0.600	.0236		5.600	.2205		10.700	.4219		15.800	.6220		20.800	.8189	
0.700	.0276		5.700	.2244		10.716	.4219		15.875	.6250		20.900	.8228	
0.794	.0313	3/64	5.800	.2283	15/64	10.800	.4252	7/16	15.900	.6250	27/32	21.000	.8268	27/32
0.800	.0315		5.900	.2323		10.900	.4291		16.000	.6299		21.034	.8182	
0.900	.0354		5.953	.2344		11.000	.4331		16.100	.6339		21.100	.8307	
1.000	.0394		6.000	.2362		11.100	.4370		16.200	.6378		21.200	.8307	
1.100	.0433	1/8	6.100	.2402	1/4	11.113	.4375	31/64	16.272	.6406	11/16	21.200	.8346	7/8
1.191	.0469		6.200	.2441		11.200	.4409		16.300	.6417		21.300	.8386	
1.200	.0472		6.300	.2480		11.300	.4449		16.400	.6457		21.400	.8425	
1.300	.0512		6.350	.2500		11.400	.4488		16.500	.6496		21.431	.8438	
1.400	.0551	1/16	6.400	.2520	17/64	11.500	.4528	29/64	16.600	.6535	21/32	21.500	.8465	55/94
1.500	.0591		6.500	.2559		11.509	.4531		16.669	.6563		21.600	.8504	
1.588	.0625		6.600	.2598		11.600	.4567		16.700	.6575		21.700	.8543	
1.600	.0630		6.700	.2638		11.700	.4606		16.800	.6614		21.800	.8583	
1.700	.0669	5/64	6.747	.2656	19/64	11.800	.4646	15/32	16.900	.6654	43/64	21.828	.8594	55/94
1.800	.0709		6.800	.2677		11.900	.4685		17.000	.6693		21.900	.8622	
1.900	.0748		6.900	.2717		11.906	.4688		17.066	.6719		22.000	.8661	
1.984	.0781		7.000	.2756		12.000	.4724		17.100	.6732		22.100	.8701	
2.000	.0878	3/32	7.100	.2795	9/32	12.100	.4764	31/64	17.200	.6772	11/16	22.200	.8740	7/8
2.100	.0827		7.144	.2813		12.200	.4803		17.300	.6811		22.225	.8750	
2.200	.0866		7.200	.2835		12.300	.4843		17.400	.6850		22.300	.8780	
2.300	.0906		7.300	.2874		12.303	.4844		17.463	.6875		22.400	.8819	
2.381	.0938	7/64	7.400	.2913	19/64	12.400	.4882	1/2	17.500	.6890	45/64	22.500	.8858	57/64
2.400	.0945		7.500	.2953		12.500	.4921		17.600	.6929		22.600	.8898	
2.500	.0984		7.541	.2969		12.600	.4961		17.700	.6968		22.622	.8906	
2.600	.1024		7.600	.2992		12.700	.5000		17.800	.7008		22.700	.8937	
2.700	.1063	1/8	7.700	.3031	5/16	12.800	.5039	33/64	17.859	.7031	23/32	22.800	.8976	59/64
2.778	.1094		7.800	.3071		12.900	.5079		17.900	.7047		22.900	.9016	
2.800	.1102		7.900	.3110		13.000	.5118		18.000	.7087		23.000	.9055	
2.900	.1142		7.938	.3125		13.097	.5156		18.100	.7126		23.019	.9063	
3.000	.1181	1/8	8.000	.3150	21/64	13.100	.5157	17/32	18.200	.7165	47/64	23.100	.9094	59/64
3.100	.1220		8.100	.3189		13.200	.5197		18.256	.7188		23.200	.9134	
3.175	.1250		8.200	.3228		13.300	.5236		18.300	.7205		23.300	.9173	
3.200	.1260		8.300	.3268		13.400	.5276		18.400	.7244		23.400	.9213	
3.300	.1299	9/64	8.334	.3281	11/32	13.494	.5313	35/64	18.500	.7283	3/4	23.416	.9219	61/64
3.400	.1339		8.400	.3307		13.500	.5315		18.600	.7323		23.500	.9252	
3.500	.1378		8.500	.3346		13.600	.5354		18.653	.7344		23.600	.9291	
3.572	.1406		8.600	.3386		13.700	.5394		18.700	.7362		23.700	.9331	
3.600	.1417	5/32	8.700	.3425	23/64	13.800	.5433	31/64	18.800	.7402	49/64	23.800	.9370	63/64
3.700	.1457		8.731	.3438		13.891	.5469		18.900	.7441		23.900	.9409	
3.800	.1496		8.800	.3465		13.900	.5472		19.000	.7480		24.000	.9449	
3.900	.1535		8.900	.3504		14.000	.5512		19.050	.7500		24.100	.9488	
3.969	.1563	11/64	9.000	.3543	3/8	14.100	.5551	9/16	19.100	.7520	25/32	24.200	.9528	31/32
4.000	.1575		9.100	.3583		14.200	.5591		19.200	.7559		24.209	.9531	
4.100	.1624		9.128	.3594		14.288	.5625		19.300	.7598		24.300	.9567	
4.200	.1654		9.200	.3622		14.300	.5630		19.400	.7638		24.400	.9606	
4.300	.1693	3/16	9.300	.3661	25/64	14.400	.5669	19/32	19.447	.7656	51/64	24.500	.9646	1
4.366	.1719		9.400	.3701		14.500	.5709		19.500	.7677		24.600	.9685	
4.400	.732		9.500	.3740		14.600	.5748		19.600	.7717		24.606	.9688	
4.500	.1772		9.525	.3750		14.684	.5781		19.700	.7756		24.700	.9724	
4.600	.1811	3/16	9.600	.3780	25/64	14.700	.5787	19/32	19.800	.7795	25/32	24.800	.9764	63/64
4.700	.1850		9.700	.3819		14.800	.5827		19.844	.7813		24.900	.9803	
4.763	.1875		9.800	.3858		14.900	.5866		19.900	.7835		25.000	.9843	
4.800	.1890		9.900	.3898		15.000	.5906		20.000	.7874		25.003	.9844	
4.900	.1929	3/16	9.922	.3902	25/64	15.081	.5938	19/32	20.100	.7913	51/64	25.100	.9882	1
5.000	.1969		10.000	.3937		15.100	.5945		20.200	.7953		25.200	.9921	
5.100	.2008		10.100	.3976		15.200	.5984		20.241	.7969		25.300	.9961	
									25.400	1.000				

Conversion Tables

Torque – Air Pressure – Miscellaneous

Torque Conversion – In. Lbs. (Nm)					
In.	Nm	In.	Nm	In.	Nm
5	0.6	50	5.7	140	15.8
10	1.1	60	6.8	150	17.0
15	1.7	70	7.9	160	18.1
20	2.3	80	9.0	170	19.2
25	2.8	90	10.2	180	20.3
30	3.4	100	11.3	190	21.5
35	4.0	110	12.4	200	22.6
40	4.5	120	13.6		
45	5.1	130	14.7		

Torque Conversion – Ft. Lbs. (Nm)					
Ft. Lbs.	Nm	Ft. Lbs.	Nm	Ft. Lbs.	Nm
1	1.36	43	58.3	85	115.3
2	2.7	44	60.0	86	117.0
3	4.1	45	61.0	87	118.0
4	5.4	46	62.4	88	119.3
5	6.8	47	63.7	89	121.0
6	8.1	48	65.1	90	122.0
7	9.5	49	66.4	91	123.4
8	10.9	50	67.8	92	125.0
9	12.2	51	69.2	93	126.1
10	13.6	52	70.5	94	127.5
11	14.9	53	71.9	95	129.0
12	16.3	54	73.2	96	130.2
13	17.6	55	74.6	97	131.5
14	19.0	56	75.9	98	133.0
15	20.3	57	77.3	99	134.2
16	21.7	58	78.7	100	135.6
17	23.1	59	80.0	110	149.2
18	24.4	60	81.4	115	156.0
19	25.8	61	82.7	120	163.0
20	27.1	62	84.1	125	170.0
21	28.5	63	85.4	130	176.3
22	29.8	64	86.8	135	183.1
23	31.2	65	88.1	140	190.0
24	32.5	66	90.0	145	197.0
25	33.9	67	90.9	150	203.4
26	35.3	68	92.2	155	210.2
27	36.6	69	93.6	160	217.0
28	38.0	70	94.9	165	224.0
29	39.3	71	96.3	170	231.0
30	40.7	72	97.6	175	237.3
31	42.0	73	99.0	180	244.1
32	43.4	74	100.3	185	251.0
33	44.8	75	102.0	190	258.0
34	46.1	76	103.1	195	264.4
35	47.5	77	104.4	200	271.2
36	48.8	78	105.8	225	305.1
37	50.2	79	107.1	250	339.0
38	52.0	80	108.5	275	373.0
39	52.9	81	110.0	300	407.0
40	54.2	82	111.2	350	475.0
41	55.6	83	112.6	400	542.4
42	57.0	84	114.0		

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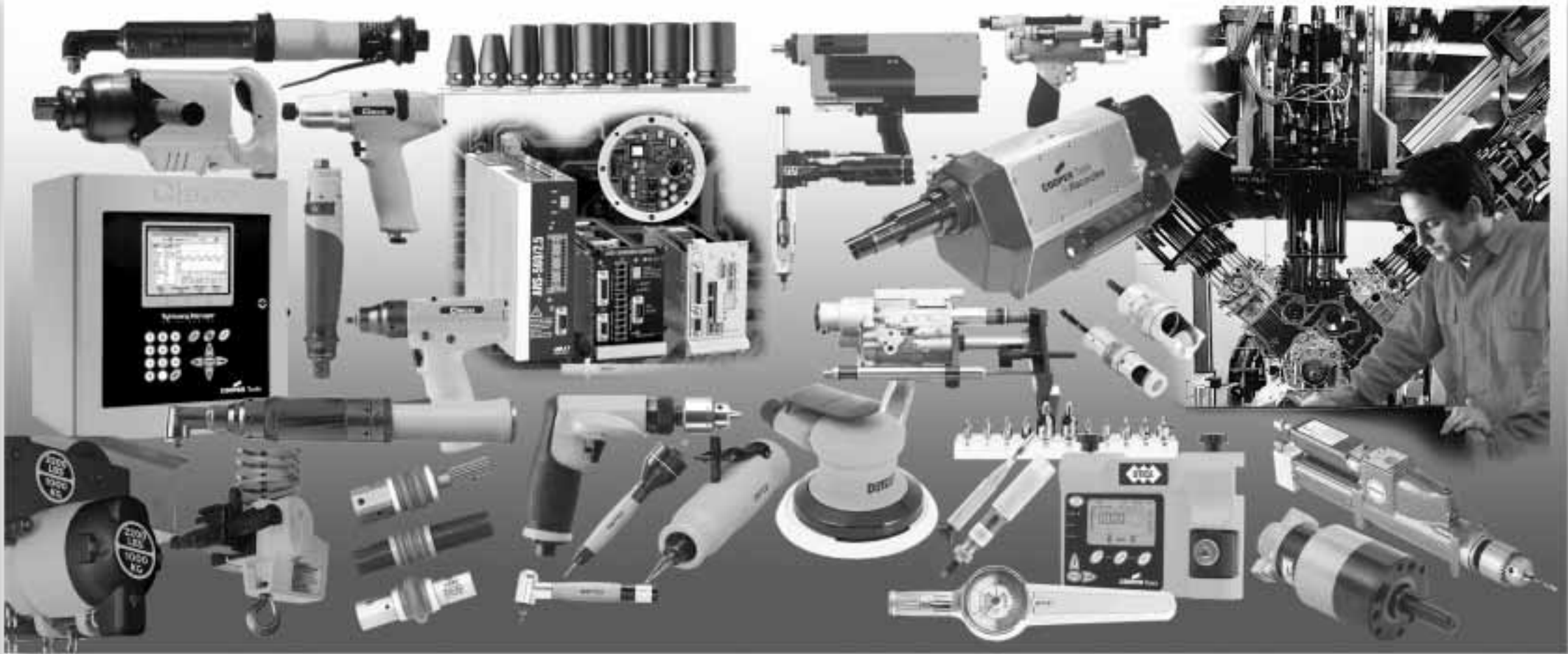
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China
Cooper (China) Co., Ltd.
18th Floor Yu An Building
738 Dongfang Road
Pudong, Shanghai 200122
China
Tel: 011 8621 5111 5300
Fax: 011 8621 5111 8446

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Cooper Power Tools Sales & Service Center
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Tel: (713) 849-2364
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Canada
Cooper Power Tools Sales & Service Center
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Mississauga, Ont. L5R 1B8
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Tel: (905) 501-4785
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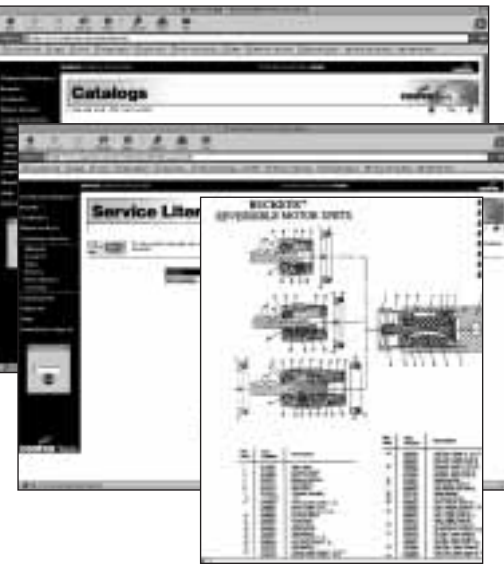
France
Cooper Power Tools SAS Recoules Operation
Zone Industrielle
BP 28
Avenue Maurice Chevalier
77831 Ozoir-la-Ferrière Cedex
France
Tel: (011) 33 1 64 43 22 00
Fax: (011) 33 1 64 40 17 17

Germany
Cooper Power Tools GmbH & Co.
Postfach 30
D-73461 Westhausen
Tel: +49 (0) 73 63-8 10
Fax: +49 (0) 73 63-8 12 22

Mexico
Cooper Power Tools de México S.A. de C.V.
Libramiento La Joya No. 1
Bodega No. 2
Esq. Politécnico, Barrio San José
Cuautitlán, Edo de México C.P. 54870
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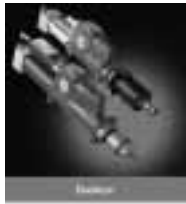
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Phone: 803-359-1200
Fax: 803-951-7576

Cooper Power Tools
5925 McLaughlin Road
Mississauga, Ontario
Canada L5R 1B8
Phone: (905) 501-4785
Fax: (905) 501-4786

**Cooper Power Tools
de México S.A. de C.V.**
Libramiento La Joya No. 1
Bodega No. 2
Esq. Politécnico
Barrio San José
Cuautitlán, Edo de México
C.P. 54870
Phone: (011) 525 5899 9510
Fax: (011) 525 5870 5012

Cooper Tools Industrial Ltda.
Av. Liberdade, 4055
Zona Industrial - Iporanga
18087-170 Sorocaba, SP
Brazil
Tel: +55-15-3238-3929
Fax: +55-15-228-3260

Cooper Power Tools SAS
Zone industrielle - B.P. 28
77831 Ozoir-la-Ferrière Cedex
France
Téléphone: +33-1-6443-2200
Téléfax: +33-1-6440-1717

DGD/Automated Systems
Postfach 30
D-73461 Westhausen
Germany
Phone: +49-7363-810
Fax: +49-7363-81222

Cooper Tools Hungária Kft.
Berkenyefa sor 7
H-9027 Győr
Hungary
Tel: +36 96 505 300
Fax: +36 96 505 301

Cooper (China) Co., Ltd.
18th Floor Yu An Building
738 Dongfang Road
Pudong, Shanghai 200122
China
Phone: +86 21 5831 6805
Fax: +86 21 5831 6762

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