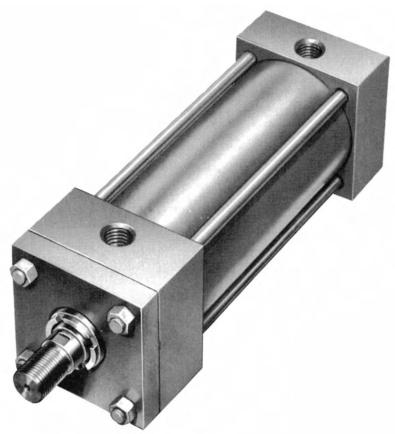
## Parker Non-Lube Heavy Duty Air Cylinders

### **Series 2AN**



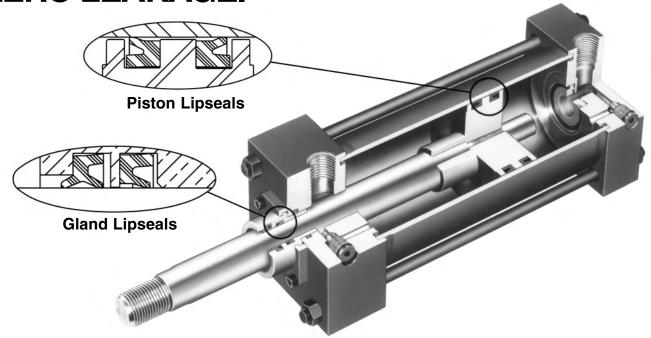
# For millions of trouble free cycles

- Nominal Pressure 250 PSI Air Service
- Standard Bore Sizes 11/2" through 14"
- Piston Rod Diameters -5/8" through 51/2"
- 17 Standard Mounting Styles
- N.F.P.A. Interchangeable
- Exceeds Automotive Specifications

# Another Parker Cylinder Innovation...

The SERIES 2AN Non-Lube Air Cylinder with Proven Performance.

Over 21 million trouble free cycles with... ZERO LEAKAGE.



### **Design Data**

In 1971 Parker experimented with the use of specially designed composite materials in the piston and gland of their cylinders. Their use of storing lubricating oil met with good results. Through extensive testing it was learned that the outside diameter of the material in the piston and the inside diameter on the material in the gland showed signs of wear and ultimately would lose contact with the surface of the cylinder body bore or piston rod. As a result, the cylinders lost their self lubricating capacity.

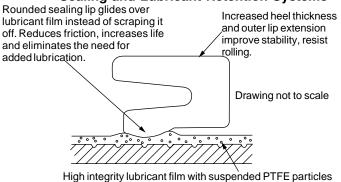
Today's industrial market demands more from a pneumatic cylinder. Cylinders are still required to handle tough, heavy-duty applications. But, more and more, these cylinders operate in environments or circumstances where it is not possible or advantageous to add lubrication to the compressed air entering the cylinder. Certain packaging and assembly operations, food environments, and microprocessor chip manufacturing are typical examples of areas where the exhausting of oil into the environment is not desirable. In many other situations, "non-lube" systems are used when proper air line lubrication is not present because of the time and expense of keeping lubricators filled and operating correctly.

Increased market demand and continuous research and testing efforts inspired the development of the

Series 2AN Non-Lubricated Air Cylinder. In bore sizes to 12" diameter and rod diameters to 2-1/2", the Parker Series 2AN air cylinder features rounded lip rod and piston seals. These seals glide over the PTFE based lubricant that is provided at the time of manufacture. The Parker Series 2AN Non Lubricated Air Cylinder maintains the lubricant film where it belongs; on the seals bearing surfaces, piston rod and cylinder bore.

**Benefits include...** long seal and bearing life. No oil needs to be added through the use of lubricators. As the cylinder strokes, no oil is expelled into the atmosphere with the exhaust air.

### Anatomy of Series 2AN Sealing and Lubricant Retention Systems



For Cylinder Division Plant Locations – See Page II.



# In the Series 2AN you get all the cost saving benefits and features of the popular heavy duty Series 2A air cylinder including...

- The Jewel Rod Gland Assembly for positive no leak sealing
- Piston rod, hard chrome plated and case hardened steel
- High strength rolled thread Piston Rod Stud

 Steel tube cylinder body with chromeplated micro finish bore...

**PLUS** the innovative "NON-LUBE" feature which further increases your benefits of lower operating and maintenance costs.

### Standard Specifications

- Heavy Duty Service—ANSI/(NFPA) T3.6.7R2-1996 Specifications and Mounting Dimension Standards.
- Standard Construction—Square Head —Tie Rod Design.
- Standard Temperature— -10°F. to +165°F.
- Standard Fluid—Filtered Dry Air.
- Strokes—Available in any Practical Stroke Length.
- Cushions—Optional at either end or both ends of stroke. "Float Check" at cap end.

In line with our policy of continuing product improvement, specifications in this catalog are subject to change.

### Available Bore and Rod Sizes\*

Bore Sizes Available	11/2"	2"	21/2"	31/4"	4"	5"	6"	8"	10"	12"	14"	
Rod Sizes Available	5/8"	1"	1 <sup>3</sup> / <sub>8</sub> "	13/4"	2"	21/2"	3"	31/2"	4"	41/2"	5"	5 <sup>1</sup> / <sub>2</sub> "

<sup>\*</sup>For specific cylinder bore size/piston rod availabilities and dimensions, see Series 2A Cylinder.

### How to order Series "2AN" Non-Lube Air Cylinders

### Data Required on all 2AN Cylinder Orders

When ordering Series "2AN" cylinders, be sure to specify each of the following requirements:

(**Note:** Duplicate cylinders can be ordered by giving the SERIAL NUMBER from the nameplate of the original cylinder. Factory records supply a quick, positive identification.)

#### a) Bore Size

### b) Mounting Style

Specify your choice of mounting style — as shown and dimensioned in Series 2A. If double rod is wanted, specify "with double rod".

- c) Series Designation ("2AN")
- d) Length of Stroke

### e) Piston Rod Diameter

Specify rod diameter or rod code number. In Series "2AN" cylinders, standard rod diameters (code No. 1) will be furnished if not otherwise specified, unless length of stroke makes the application questionable.

#### f) Piston Rod End Thread Style

Give thread style number or specify dimensions. Thread style number 4 will be supplied if not otherwise specified.

### g) Cushions (if required)

Specify "Cushion-head end", "Cushion-cap end" or "Cushion-both ends" as required. If cylinder is to have a double rod and only one cushion is required, be sure to specify clearly which end of the cylinder is to be cushioned.

**Note:** Parker Series 2AN cylinders can be completely and accurately described by a model number consisting of coded symbols. To develop a model number select only those symbols that represent the cylinder required and place them in the sequence as shown in the chart below.

	Series 2AN Model Numbers – How to Develop Them – How to Decode Them.													
	BORE SIZE 31/4"	CUSHION HEAD END	DOUBLE ROD	MOUNTING STYLE	MOUNTING MOD.	COMBINA- TION MOUNTING STYLE TB	SERIES 2AN	PORT	SPECIAL FEATURES S	ROD NO.	ROD END THREAD STYLE NO.	THREAD TYPE A	CUSHION CAP END	STROKE
E X A M P L E	Specify 1 <sup>1</sup> / <sub>2</sub> " thru 14"	Specify only if cushion head end is	Use only	Specify– Mounting Style BB, BC, C, CB, D, DB, DD,	Specify: P-for Thrust Key-Mtg. Style C, F, G & CB only	Specify any practical Mount- ing Style available	Specify Series 2AN	_	Specify: Only if special modifica- tion is required Note: Do not use symbol "S" for Rod End Modifica- tions	Specify: Rod Code No.	Specify: Style 4 Small Male  Style 8 Inter- mediate Male  Style 9 Short Female  Style 3 Special. Specify KK, A, LA or W Dim.	Specify: A = UNF W = BSF M = METRIC	Specify only if Cushion Cap End is Req'd.	Specify in inches. Show Symbol "X" just ahead of stroke length.

**Modifications:** All modifications that apply to the Series 2A Air Cylinder also apply to the Series 2AN *except* the use of Fluorocarbon seals. The maximum temperature of the Series 2AN is +165°F. Consult factory for higher temperature applications.

### Warranty

Seller warrants the goods sold hereunder to be free from defects in material and workmanship. This warranty shall terminate eighteen months after date of shipment from Seller's plant and claims not made in writing within such period are waived.

The above warranty does not extend to goods damaged after date of shipment from Seller's plant where the damage is not directly due to a defect in material or workmanship, nor does it apply to goods altered or repaired by anyone other than Seller's authorized employees, nor to goods furnished by Buyer or acquired at Buyer's request and/or to Buyer's specifications.

If the goods are in accordance with or in reference to an engineering drawing specified by or furnished to the customer, the specifications and information on the drawing shall be applicable in determining such correct use, operation and application.

When claiming a breach of warranty, Buyer must notify Seller promptly whereupon Seller will either examine the goods at their site, or issue shipping instructions for return to Seller (transportation costs prepaid by Buyer). When any goods sold hereunder are proved not as warranted, Seller's sole obligation under this warranty shall be to repair or replace the goods, at its option, without charge to Buyer.

The above warranty comprises Seller's sole and entire warranty obligation and liability to Buyer, its customers and assigns in connection with goods sold hereunder. All other warranties, express or implied, including but not limited to, warranties of merchantability and fitness, are expressly excluded.