

# LA Series

**Air Cylinders for  
Valve Operator  
Applications**



**150 psi Pressure Rating  
Bore Sizes 3 1/4" through 24"  
Forces to 68,000 lbs.**

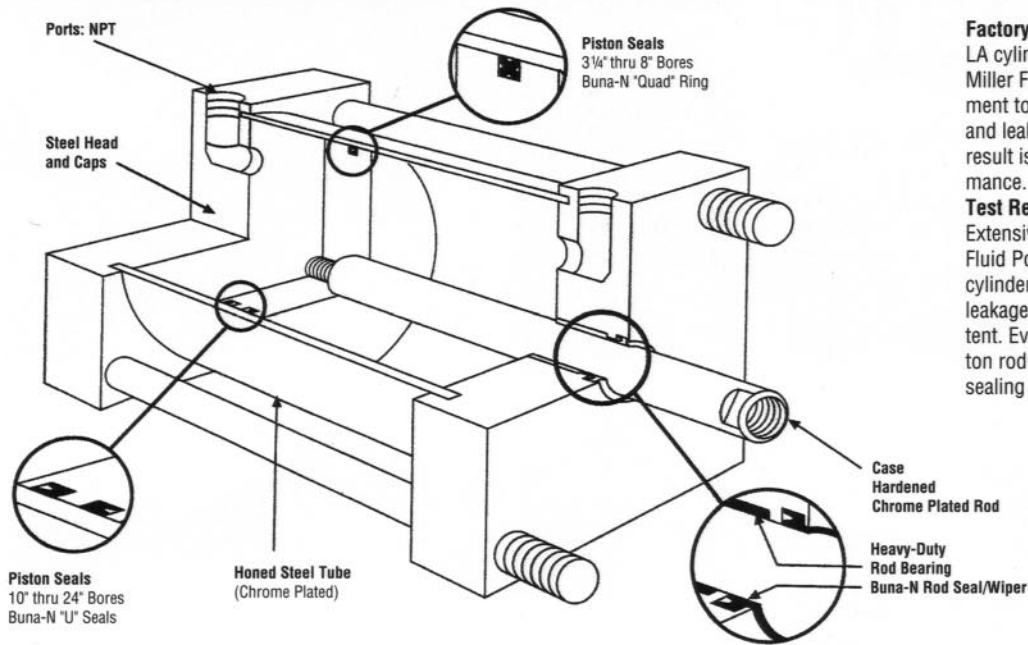
# LA Series

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# Factory Tested

## Features and Benefits



### Factory Tested

LA cylinders are 100% tested by Miller Fluid Power before shipment to assure smooth cycling and leak proof sealing. The end result is high quality valve performance.

### Test Results

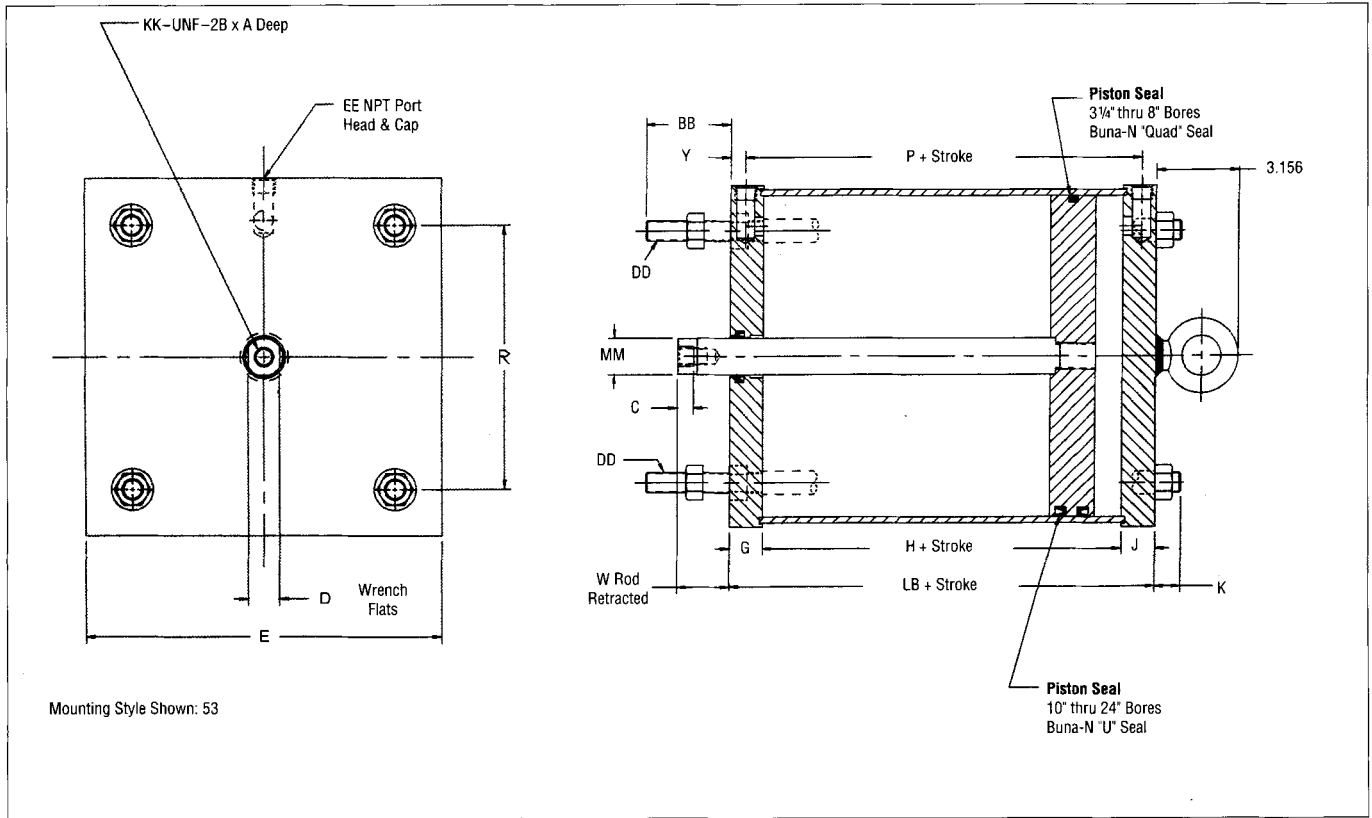
Extensive cycle testing by Miller Fluid Power has confirmed LA cylinder durability. Piston seal leakage was virtually non-existent. Even side-loading the piston rod did not adversely affect sealing or smooth cycling.

Features	Specs	Design	Benefits	
Steel Tube	ASTM A519 or equivalent	<ul style="list-style-type: none"> <li>All bore sizes</li> <li>ID honed to 10-15 RMS</li> <li>ID chrome plated</li> </ul>	<ul style="list-style-type: none"> <li>Durability</li> <li>High efficiency</li> <li>Low break-away force</li> </ul>	<ul style="list-style-type: none"> <li>Smooth cycling</li> <li>Corrosion resistant</li> </ul>
Steel Piston Rod (stainless steel optional)	ASTM A108 or equivalent	<ul style="list-style-type: none"> <li>Case hardened to 50-54 Rockwell C</li> <li>OD chrome plated</li> </ul>	<ul style="list-style-type: none"> <li>Smooth, concentric bearing surface</li> <li>Longer rod seal life</li> </ul>	<ul style="list-style-type: none"> <li>Resists nicks and dents</li> <li>Corrosion resistant</li> </ul>
Iron Piston (spring return optional)	ASTM A536 Nodular Iron or equivalent	<ul style="list-style-type: none"> <li>One Piece</li> <li>Assembly pilots on full rod diameter</li> </ul>	<ul style="list-style-type: none"> <li>High strength</li> </ul>	<ul style="list-style-type: none"> <li>Ensures concentricity of piston OD to tube ID and piston rod</li> </ul>
Piston Seal, Rod Seal and Wiper (high/low temp seal optional)	Buna-N	<ul style="list-style-type: none"> <li>Buna-N quad seal and lip seal provide twice the sealing surface of an O-ring</li> </ul>	<ul style="list-style-type: none"> <li>Leak-proof piston sealing (and accurate valve positioning)</li> </ul>	<ul style="list-style-type: none"> <li>High efficiency</li> <li>Low break/loose</li> <li>Long seal life</li> </ul>
Miller Heavy Duty Bearing	Steel-backed Composite	<ul style="list-style-type: none"> <li>Abrasion resistant</li> <li>Self Lubricating</li> </ul>	<ul style="list-style-type: none"> <li>Wear resistance</li> <li>Load capacity</li> </ul>	<ul style="list-style-type: none"> <li>High efficiency</li> <li>Long service life</li> </ul>
Steel Heads and Caps	ASTM A108 or equivalent	<ul style="list-style-type: none"> <li>All bore sizes</li> </ul>	<ul style="list-style-type: none"> <li>Extremely durable</li> </ul>	
Steel Lifting Eye	1034 Forged steel	<ul style="list-style-type: none"> <li>All bore sizes</li> <li>Welded to cap</li> </ul>	<ul style="list-style-type: none"> <li>Labor saving</li> <li>Safety awareness</li> </ul>	<ul style="list-style-type: none"> <li>Easy assembly of actuator to valve</li> </ul>

### Options Available:

- Double rod end
- Manual overrides
- Adjustable stroke
- Water Fitted, AWWA
- Stainless steel piston rods and tubes
- Position sensing
- Spring extend or spring retract
- Proximity switches
- Viton seals
- Special materials for hazardous environments
- Epoxy or special paints
- Prepiped air valve packages

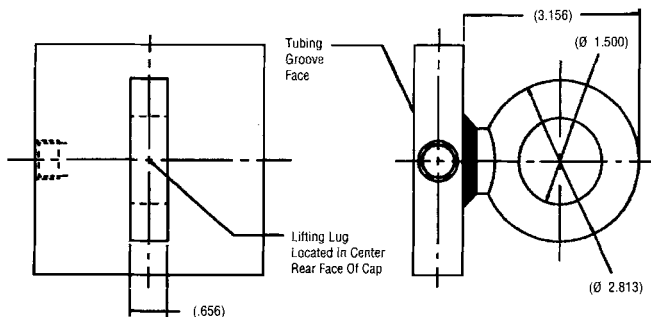
# Dimensions



Bore	MM	A	C	D	KK	BB	DD	E	EE	G	H	J	LB	R	W	K	P	Y
3 1/4	1	1 1/8	1/2	7/8	3/4-16	1 3/8	3/8-24	4	1/4-18	7/8	3/4	7/8	2 1/2	2.76	3/4	3/8	1 3/4	.375
4	1	1 1/8	1/2	7/8	3/4-16	1 3/8	3/8-24	4 1/2	3/8-18	1	1	1	3	3.32	3/4	3/8	2 1/8	.437
5	1	1 1/8	1/2	7/8	3/4-16	1 13/16	1/2-20	5 1/2	3/8-18	1	1	1	3	4.10	3/4	7/16	2 1/8	.437
6	1	1 1/8	1/2	7/8	3/4-16	1 13/16	1/2-20	6 1/2	3/8-18	1	1 1/4	1	3 1/4	4.88	7/8	7/16	2 3/8	.437
7	1	1 1/8	1/2	7/8	3/4-16	2	5/8-18	7 15/32	3/8-18	1	1 1/2	1	3 1/2	5.73	7/8	9/16	2 5/8	.437
8	1	1 1/8	1/2	7/8	3/4-16	2	5/8-18	8 5/8	3/8-18	1	1 1/2	1	3 1/2	6.44	7/8	9/16	2 5/8	.437
10	1	1 1/8	1/2	7/8	3/4-16	2 1/4	3/4-16	10 7/8	1/2-14	1 1/4	1 5/8	1 1/4	4 1/8	7.92	1	11/16	3	.562
12	1 3/8	1 5/8	5/8	1 1/8	1-14	2 1/4	3/4-16	12 3/4	1/2-14	1 1/4	1 5/8	1 1/4	4 1/8	9.40	1	11/16	3	.562
14	1 3/8	1 5/8	5/8	1 1/8	1-14	2 1/2	7/8-14	14 3/4	3/4-14	1 1/2	1 3/4	1 1/2	4 3/4	10.90	1	13/16	3 3/8	.687
16	1 3/4	1 5/8	3/4	1 1/2	1-14	2 3/4	1-14	17	3/4-14	1 1/2	2	1 1/2	5	12.59	1 1/4	7/8	3 5/8	.687
18	2	2 1/4	7/8	1 11/16	1 1/2-12	3 1/4	1 1/8-12	19	3/4-14	1 3/4	2 1/4	1 3/4	5 3/4	14.14	1 1/2	1	3 7/8	.937
20	2	2 1/4	7/8	1 11/16	1 1/2-12	3 1/4	1 1/4-12	21	3/4-14	2	2 1/2	2	6 1/2	15.77	1 1/2	1 1/4	4 1/8	1.187
22	3	3 1/2	1	2 5/8	2 1/4-12	3 1/2	1 1/4-12	23	3/4-14	2	3 1/2	2	7 1/2	17.15	2 1/4	1 1/4	5 1/8	1.187
24	3 1/2	3 1/2	1	3	2 1/2-12	3 1/2	1 1/4-12	25 1/4	3/4-14	2 1/2	3 1/2	2 1/2	8 1/2	18.74	2 1/4	1 1/4	5 1/2	1.500

## Lifting Eye Dimensions

(Lifting Eye is welded to cylinder cap)



### NOTES:

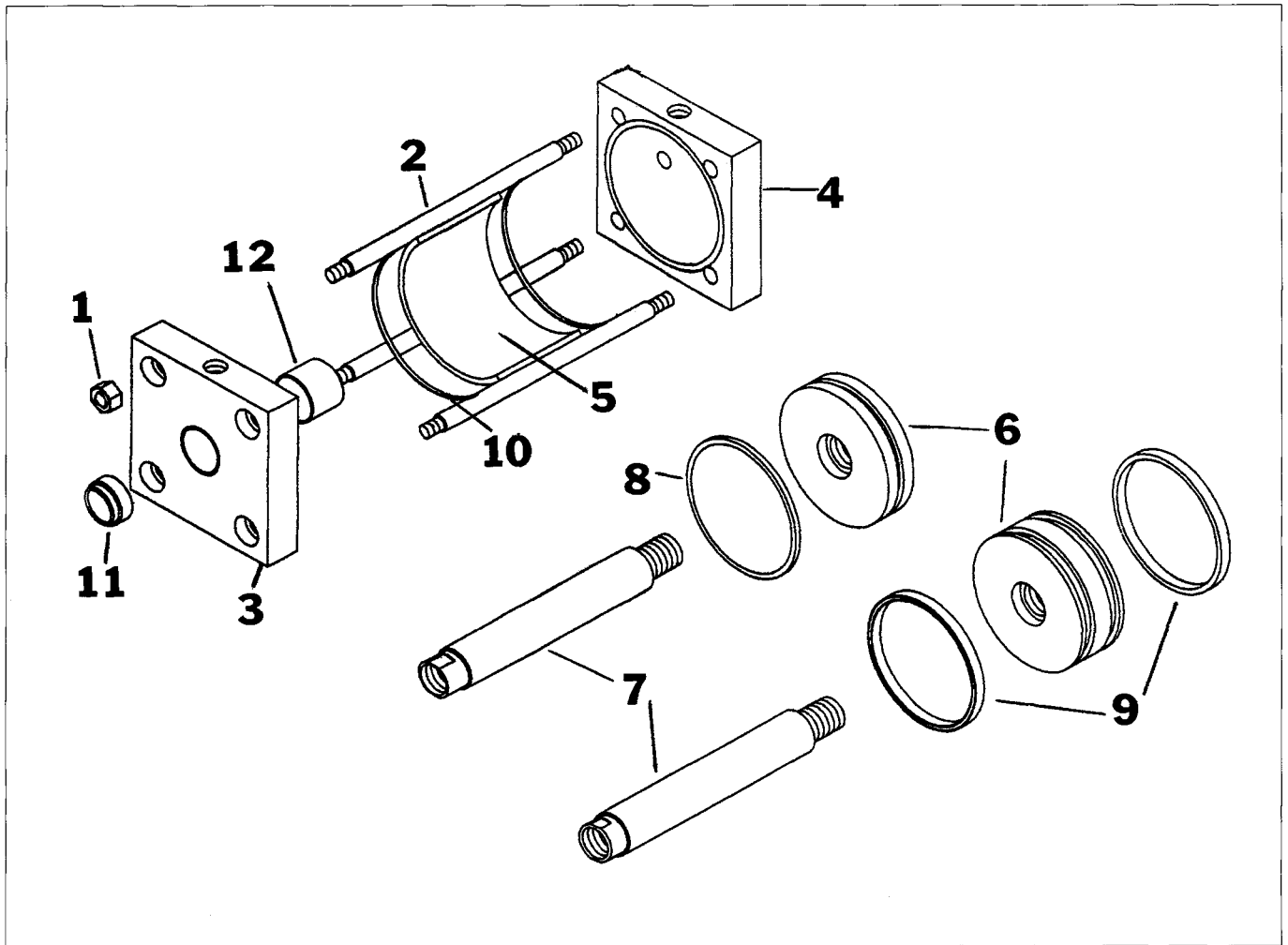
1. All LA cylinders include lifting eye as standard. Please specify when ordering if lifting eye is not required.

## Cylinder Weight Chart

Bore	Rod Dia.	Weight at Zero Stroke (Lbs)	Weight per Inch of Stroke (Lbs)
3 1/4	1	10.2	0.6
4	1	15.4	0.8
5	1	23.6	1.0
6	1	35.3	1.1
7	1	51.0	1.6
8	1	67.4	2.0
10	1	125.8	2.6
12	1 3/8	173.8	3.3
14	1 3/8	269.5	3.8
16	1 3/4	374.0	5.9
18	2	491.0	6.9
20	2	752.8	10.0
22	3	972.2	12.2
24	3 1/2	1414.1	15.0

2. Lifting Eye rated at 3300 lbs. maximum lifting load.

# Parts List



## PARTS LIST

- |                     |           |  |                    |
|---------------------|-----------|--|--------------------|
| 1. Tie Rod Nuts (8) | 4. Cap    | 7. Piston rod                            | 10. End Seals (2)  |
| 2. Tie Rods (4)     | 5. Tube   | 8. Piston Seal (1 Reqd.) 3 1/4"-8" Bores | 11. Rod/Wiper Seal |
| 3. Head             | 6. Piston | 9. Piston Seals (2 Reqd.) 10"-24" Bores  | 12. Rod Bearing    |

## LA Cylinder Repair Kit Contents Items 8 or 9, 10, 11

Bore	Cylinder Repair Kit Part Number
3 1/4	080-CRK01- 325-100
4	080-CRK01- 400-100
5	080-CRK01- 500-100
6	080-CRK01- 600-100
7	080-CRK01- 700-100
8	080-CRK01- 800-100
10	080-CRK01-1000-100

Bore	Cylinder Repair Kit Part Number
12	080-CRK01-1200-138
14	080-CRK01-1400-138
16	080-CRK01-1600-175
18	080-CRK01-1800-200
20	080-CRK01-2000-200
22	080-CRK01-2200-300
24	080-CRK01-2400-350

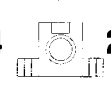
**Important:** When ordering repair part kits, specify serial number and part kit number as shown. Cylinder serial number can be located on the cylinder name tag or stamped on the head and cap near the ports.

# Miller LA Series Valve Operator Air Cylinders      How To Order

## How To Order

Example: LA-53H4N-012.00-016.00-01.38-N 1 1 0

LA - 53                      H                      4                      N                      - 0 12.00 -016.00 -01.38- N                      1                      1                      0

Series	Mounting Style	Bushing Rod Bearing	Rod End Style #4(Std)	Cushions ** N= Non- Cushioned	Bore Dia.	Stroke	Rod Dia.	Port Type S= SAE N= NPT	Port Location		Modified  0= Standard 9= Modified (See * Below)
									Head End	Cap End	
LA DLA (D= Dbl. Rod End)									1 (Std.)	1	
									2	2	
									3	3	
									4	4	
										1	
									4		2
										3	

For other modification requirements, contact Miller Fluid Power application engineering department. Refer to back cover for location nearest you.

## Miller LA Series Air Cylinder Warranty

Subject to the conditions below, Miller Fluid Power Corporation ("Miller") warrants to the first end user (the "Buyer") that Miller's products are free from defects in material and workmanship.

Miller will either repair or replace a defective product, including lowest transportation cost but not including installation or any other similar charges, provided that (1) the buyer notifies Miller in writing of the claimed defect within one year from shipment from Miller's factory (2) provides a complete explanation of the defect, the application of the product, and such other information concerning use of the product as Miller may request, and (3) returns the product to Miller in accordance with Miller's specific written instructions and authorization obtained from Miller prior to return of the product, and Miller's inspection confirms that the product was defective.

This warranty applies only if the product was used and applied correctly under normal operating conditions and good engineering practice; was installed, operated and maintained in accordance with all instructions issued or published by Miller; was used within stated pressure, media and operating limitations published by Miller and in effect of the date of shipment; and was not subject to abuse, misuse or unauthorized modification.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, notwithstanding any disclosure to Miller of the use to which the product is to be put. The Buyer's SOLE AND EXCLUSIVE REMEDY on any claim of any kind for any loss or damage arising out of the manufacture, sale, delivery or use of Miller's products shall be for the repair or replacement of any defective products as provided herein.

IN NO EVENT SHALL MILLER BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. There are no warranties, express or implied, made by Miller other than the warranty against defects in material and workmanship set forth above, and Miller neither assumes nor authorizes any other person or firm to assume for it any other obligations or liability.

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change without notice or prior obligation.

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