

## A-Series Pneumatic Cylinders 1-1/2 inch Bore

### 1-1/2 in. Bore, Double-acting, Rear Pivot Mount, Magnetic Piston



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/2 inch bore, 1/8 NPT ports, double acting, rear pivot mount, magnetic piston (pivot pin included). Cylinder cannot be double end mounted.

Cylinder, 1-1/2 in bore, double acting, rear pivot mount,							
magnetic piston							
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price			
<u>A24010DP-M</u>	1.0	5.38	0.8	\$0697:			
<u>A24020DP-M</u>	2.0	6.38	0.9	\$0698:			
A24030DP-M	3.0	7.38	1.0	\$00699:			
A24040DP-M	4.0	8.38	1.1	\$0069a:			
A24050DP-M	5.0	9.38	1.1	\$0069b:			
A24060DP-M	6.0	10.38	1.2	\$0069c:			
A24070DP-M	7.0	11.38	1.3	\$0069d:			
A24080DP-M	8.0	12.38	1.4	\$0069e:			
A24090DP-M	9.0	13.38	1.5	\$;0069f:			
A24100DP-M	10.0	14.38	1.5	\$0069g:			
A24120DP-M	12.0	16.38	1.7	\$0069h:			
<b>Specifications</b>							
304 SS cylinder body		1.7 sq. in. piston area					
High strength aluminum end caps		Pre-lubricated for maintenance-free life					
303 SS piston rod		Pressure rating 250 psi					
Low friction Buna-N seals		Temperature range -20°F to 200°F (-28 to 93°C)					
Extend force at 100 psi = 170.0 lb.		Retract force at 100 psi = 155.0 lb.					

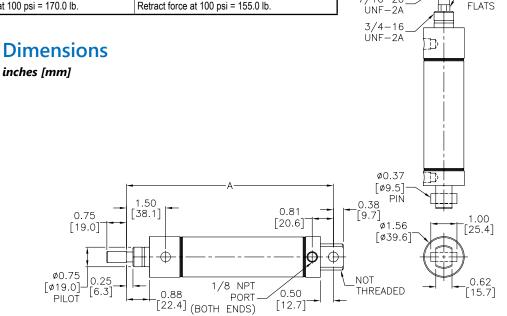
Mount Style		Bracket	Nut	
Front Nose Mount		AMB-7	AN-34-16	
Rear Pivot Mount		APB-3	_	
Double End Mount	Front	-	_	
Double Ella Moulli	Rear	-	_	

0.38 WRENCH

Cylinder rod clevis ARC-716-20 See end of 1-1/2" bore section for Accessories

> Ø0.44 [Ø11.1]

7/16-20





# A-Series Pneumatic Cylinders 1-1/2 inch Bore Accessories

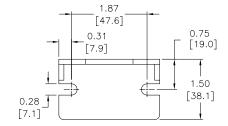
A-Series Pneumatic Cylinder 1-1/2 inch Bore Accessories						
Part Number	Part Number Description		Wt (lb)	Price		
<u>AMB-7</u>	Cylinder mounting bracket used to mount 1-1/4 and 1-1/2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	\$-5ic:		
APB-3	Cylinder pivot mounting bracket without pivot pin used to mount 1-1/2 bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	\$;-05if:		
ARC-716-20	Cylinder rod clevis and hex nut, 7/16-20 thread, for use with 1-1/4 and 1-1/2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$5u5:		
<u>AN-34-16</u>	Cylinder mounting nut with 3/4-16 UNF-2B threads used to mount 1-1/4 and 1-1/2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$;6fv:		

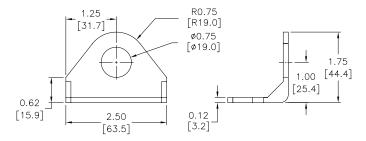
### **Dimensions**

inches [mm]

### AMB-7

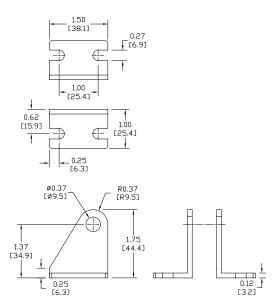






### APB-3







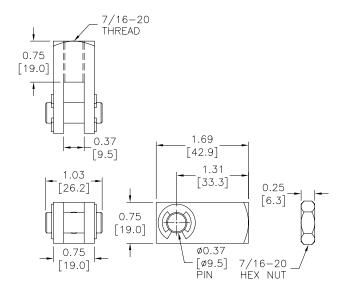
# A-Series Pneumatic Cylinders 1-1/2 inch Bore Accessories

### **Dimensions**

inches [mm]

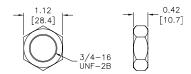






### AN-34-16







## **Pneumatic Cylinders - A-Series**

### Nitra A-Series Pneumatic Stainless Steel Round Body Air Cylinders

The NITRA Pneumatics A-Series non-repairable stainless steel round body cylinders includes bore sizes from 7/16" to 2" and stroke lengths from 1/2" to 18" to meet a broad range of applications. These high quality cylinders are constructed with stainless steel bodies and double rolled-in high strength aluminum end caps with full flow ports. To minimize friction the inside of the cylinder body is polished to a mirror finish and all cylinders are factory lubricated for optimum performance and long, reliable life. The high strength aluminum alloy piston is securely threaded and sealed to a piston rod that is ground and roller burnished 303 stainless steel (7/16" and 9/16" bores, and all cylinders with magnetic pistons) or ground and polished high strength steel (3/4" - 2" bores) with roll-formed threads for exceptional strength. Low friction wear compensating Buna N U-cup rod and piston seals, sintered bronze rod guide bushing (except 7/16" and 9/16" bores), and end caps with slots all combine for smooth breakaway even at low pressures.

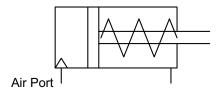
#### **Features**

- Interchangeable with other common brands of round body cylinders
- Available bore sizes: 7/16", 9/16", 3/4", 7/8", 1-1/16", 1-1/4", 1-1/2", 2"
- · Excellent selection of stroke lengths
- Single-acting (spring return) and double-acting models
- Nose, pivot and double-end mounting options
- Type 304 stainless steel body with high-strength aluminum alloy end caps
- Factory lubricated for long, maintenance-free operation
- 250 psi operating pressure
- Models available with magnetic piston for position indication
- · All models are available for same-day shipment
- · Made in North America
- 3-year warranty

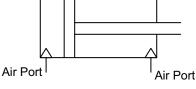
### **Operation**

Single-acting cylinders with spring return have one compressed air port to extend the rod in the "push" direction. The internal spring retracts in the "pull" direction.

Double-acting cylinders have two compressed air ports. One of the ports will extend the rod in the "push" direction and the other port will retract the rod in the "pull" directon.



Single-Acting Cylinder with Spring Return (Force in Push Direction)



Double-Acting Cylinder (Force in Push and Pull Direction)

### **Mounting Options**



Nose mount uses one AMB bracket and one AN nut.



Pivot mount uses one APB or one APBP bracket.

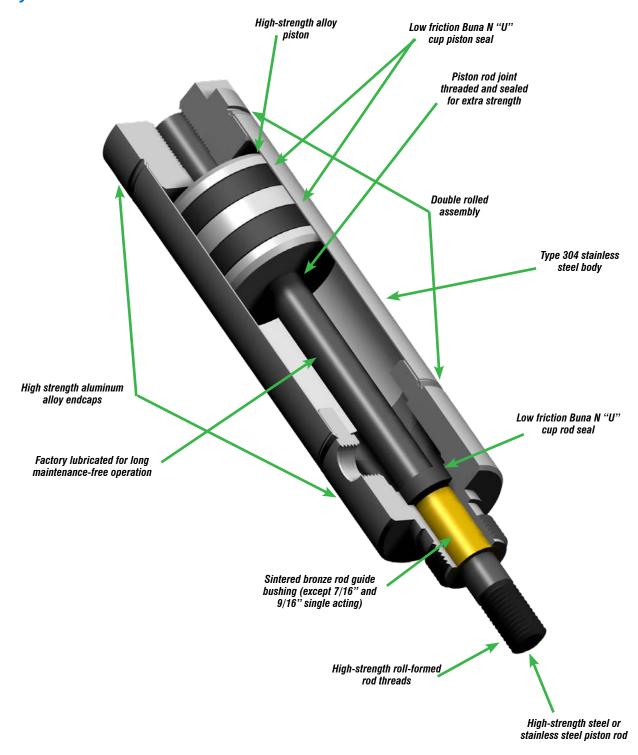


Double end mount uses two AMB brackets and two AN nuts.



## **Pneumatic Cylinders - A-Series**

### **Cylinder Features**





## **CPS Series Cylinder Position Switches**

Position Switch Cross Reference Chart				
NITRA Switch Type	Cylinder Brand (may fit some of these cylinders)	Photo Example	Groove Illustration	
CPS CPSF	NITRA A-Series NITRA D-Series NITRA F-Series		Switch Tie Rod Adapter (CFRA Series)  Adapter & Band (CPSB or CPSS Series)	
CPS9C	DE-STA-CO Robohand SMC Compact Air Bimba Fabco		2.53 Min. +/- 0.1 R 2.13 +/- 0.05	
CPS9D	NITRA L-Series Fabco Numatics Rotomation		1.52	
CPS9E	NITRA L-Series Fabco Numatics Rotomation		1.52	
CPS9F	NITRA G-Series Fabco Festo Numatics Rotomation		44 5.1 6.5 —	
СРЅ9Н	NITRA E-Series NITRA H-Series		3.05 TR 0.2 R 0.2 R 0.2	
CPS9M	Norgren		5.1 +/-0.1 R 3.25	
CPS9Q	NITRA L-Series NITRA G-Series Parker Fabco Festo Numatics Rotomation		4.4 3.2 6.5 — 6.5	