

## 2 in. Bore, Single-acting, Spring Return, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 NPT port, single acting, spring return, front nose mount.

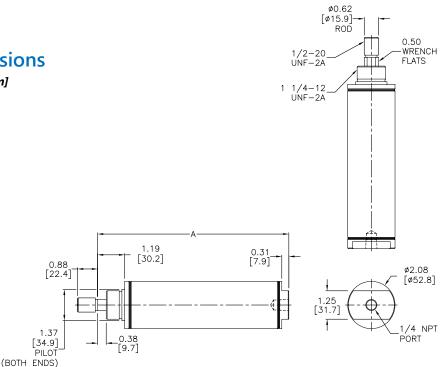
Cylinder, 2 in bore, single acting, spring return, front				
nose mount				
Part Number   Stroke Length (in.)   "A" (in)   Weight (lbs)				
<u> A32010SN</u>	1.0	5.41	1.5	\$101.00
<u> A32020SN</u>	2.0	7.41	1.9	\$111.00
<u> A32030SN</u>	3.0	8.66	2.3	\$119.00
	Speci	fications		
304 SS cylinder body		3.1 sq. in. piston a	ırea	
High strength aluminum end caps		Pre-lubricated for maintenance-free life		
High strength carbon steel 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 p	si = 310.0 lb.	Spring force = 15 lb. relaxed, 30 lb. compressed		

Mount Style		Bracket	Nut
Front Nose Mou	nt	AMB-11	AN-114-12
Rear Pivot Mou	Rear Pivot Mount		-
Double End Mount	Front	-	-
Double Ella Moull	Rear	1	-

Cylinder rod clevis ARC-12-20 See end of 2" bore section for Accessories

### **Dimensions**

inches [mm]





### 2 in. Bore, Single-acting, Spring Return, Double End Mount

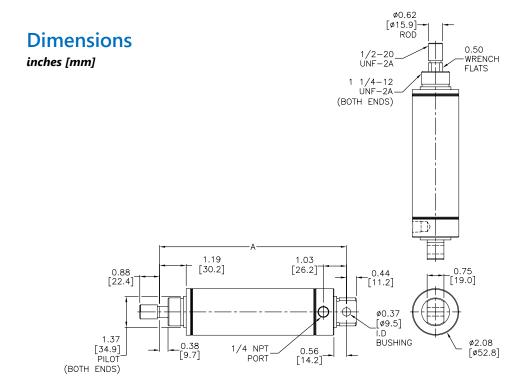


NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 NPT port, single acting, spring return, double end mount.

Cylinder, 2 in bore, single acting, spring return, double				
	end	mount		
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
<u>A32010SD</u>	1.0	6.34	1.7	\$122.00
A32020SD	2.0	8.34	2.1	\$130.00
A32030SD	3.0	9.59	2.6	\$141.00
	Speci	fications		
304 SS cylinder body		3.1 sq. in. piston a	irea	
High strength aluminu	ım 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 p	si = 310.0 lb.	Spring force = 15	lb. relaxed, 30 lb. cor	npressed

Mount Style		Bracket	Nut
Front Nose Mou	ınt	<u>AMB-11</u>	AN-114-12
Rear Pivot Mou	Rear Pivot Mount		-
Double End Mount	Front Front		AN-114-12
Double Ella Moulit	Rear	AMB-11	AN-114-12

Cylinder rod clevis ARC-12-20 See end of 2" bore section for Accessories





## 2 in. Bore, Double-acting, Front Nose Mount

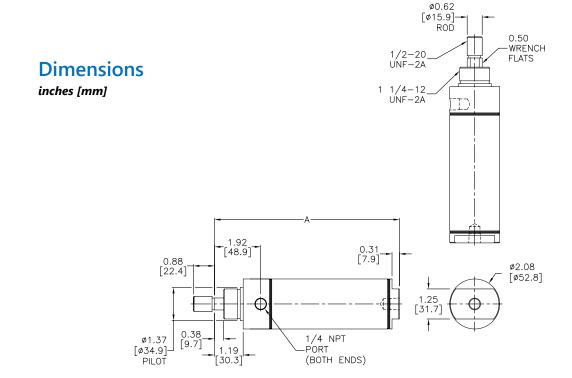


NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 NPT ports, double acting, front nose mount.

Cylinder, 2	2 in bore, doub	le acting.	front nose m	nount
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A32010DN	1.0	5.69	1.6	\$93.00
A32020DN	2.0	6.69	1.7	\$96.00
A32030DN	3.0	7.69	1.9	\$102.00
A32040DN	4.0	8.69	2.0	\$107.00
A32050DN	5.0	9.69	2.2	\$112.00
A32060DN	6.0	10.69	2.3	\$117.00
	Speci	fications		
304 SS cylinder body	•	3.1 sq. in. piston area		
High strength aluminum end caps		Pre-lubricated for maintenance-free life		
High strength carbon steel 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 p	si = 310.0 lb.	Retract force at 100 psi = 279.3 lb.		

Mount Style		Bracket	Nut
Front Nose Mount		AMB-11	AN-114-12
Rear Pivot Mou	Rear Pivot Mount		_
Pout to Fred Mount		-	-
Double End Mount	Rear	-	-

Cylinder rod clevis ARC-12-20 See end of 2" bore section for Accessories





### 2 in. Bore, Double-acting, Double End Mount

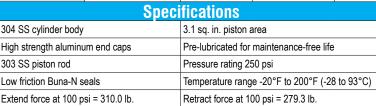


NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 NPT ports, double acting, double end mount

Cylinder, 2	in bore, doub	le acting, c	louble end n	nount
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A32010DD	1.0	6.62	1.8	\$111.00
<u>A32020DD</u>	2.0	7.62	1.9	\$115.00
A32030DD	3.0	8.62	2.1	\$119.00
<u>A32040DD</u>	4.0	9.62	2.2	\$125.00
<u>A32050DD</u>	5.0	10.62	2.4	\$130.00
A32060DD	6.0	11.62	2.5	\$136.00
A32070DD	7.0	12.62	2.7	\$140.00
A32080DD	8.0	13.62	2.8	\$111.00
A32100DD	10.0	15.62	3.1	\$157.00
A32120DD	12.0	17.62	3.4	\$165.00
A32140DD	14.0	19.62	3.7	\$176.00
A32160DD	16.0	21.62	4.0	\$185.00
<u>A32180DD</u>	18.0	23.62	4.3	\$196.00
Specifications				
304 SS cylinder body		3.1 cg in nicton	roo	

Mount Style		Bracket	Nut
Front Nose Mount		AMB-11	AN-114-12
Rear Pivot Mo	Rear Pivot Mount		-
Pout to Front Front		AMB-11	AN-114-12
Double End Mount	Rear	<u>AMB-11</u>	AN-114-12

Cylinder rod clevis ARC-12-20 See end of 2" bore section for Accessories



[22.4]

ø1.37

PILOT

[ø34.9]

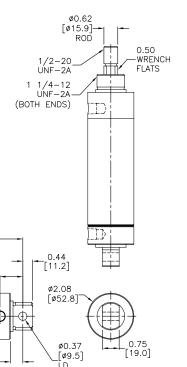
(BOTH ENDS)

[48.8]

1.19

1.03 [26.2]

(BOTH ENDS)



### **Dimensions**

inches [mm]

BUSHING



### 2 in. Bore, Double-acting, Double End Mount, Magnetic Piston



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 NPT ports, double acting, double end mount, magnetic piston.

Cylinder, 2 in bore, double acting, double end mount,						
magnetic piston						
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price		
<u>A32010DD-M</u>	1.0	6.62	1.8	\$139.00		
<u>A32020DD-M</u>	2.0	7.62	1.9	\$143.00		
<u>A32030DD-M</u>	3.0	8.62	2.1	\$149.00		
<u>A32040DD-M</u>	4.0	9.62	2.2	\$153.00		
<u>A32050DD-M</u>	5.0	10.62	2.4	\$159.00		
<u>A32060DD-M</u>	6.0	11.62	2.5	\$164.00		
A32070DD-M	7.0	12.62	2.7	\$170.00		
A32080DD-M	8.0	13.62	2.8	\$130.00		
A32100DD-M	10.0	15.62	3.1	\$184.00		
A32120DD-M	12.0	17.62	3.4	\$194.00		
A32140DD-M	14.0	19.62	3.7	\$153.00		
A32160DD-M	16.0	21.62	4.0	\$214.00		
A32180DD-M	18.0	23.62	4.3	\$224.00		
	Speci	fications				
304 SS cylinder body		3.10 sq. in. piston area				
High strength aluminum end caps		Pre-lubricated for	maintenance-free life	Э		
303 SS piston rod		Pressure rating 250 psi				
Low friction Buna-N s	eals	Temperature range -20°F to 200°F (-28 to 93°C)				
Extend force at 100 p	si = 310 lb.	Retract force at 100 psi = 279.3 lb.				

Mount Style		Bracket	Nut
Front Nose Mo	unt	<u>AMB-11</u>	AN-114-12
Rear Pivot Mount		APBP-5	-
Pour Food Mount		AMB-11	AN-114-12
Double End Mount	Rear	AMB-11	AN-114-12

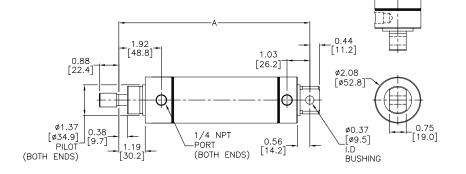
Cylinder rod clevis ARC-12-20 See end of 2" bore section for Accessories

> ø0.62 [ø15.9]

1 1/4-12 UNF-2A (BOTH ENDS) 0.50 -WRENCH FLATS



inches [mm]





# A-Series Pneumatic Cylinders 2 inch Bore Accessories

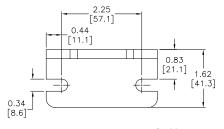
A-Series Pneumatic Cylinder 2 inch Bore Accessories					
Part Number	Part Number Description				
<u>AMB-11</u>	Cylinder mounting bracket used to mount 2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.5	\$17.50	
APBP-5	Cylinder pivot mounting bracket with pivot pin used to mount 2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.4	\$20.50	
ARC-12-20	Cylinder rod clevis and hex nut, 1/2-20 thread, for use with 2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	\$8.50	
<u>AN-114-12</u>	Cylinder mounting nut with 1-1/14-12 UNF-2B threads used to mount 2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.3	\$7.75	

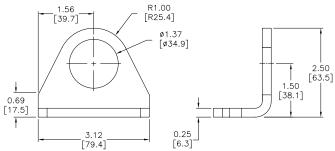
#### **Dimensions**

inches [mm]

#### **AMB-11**

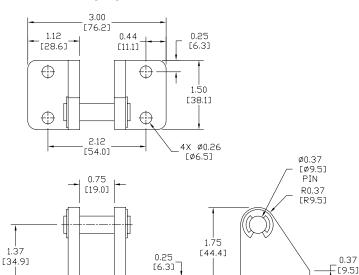






# APBP-5







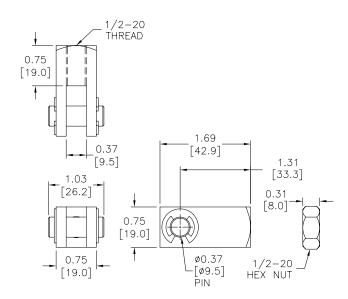
# A-Series Pneumatic Cylinders 2 inch Bore Accessories

### **Dimensions**

inches [mm]

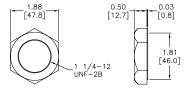
#### ARC-12-20





#### AN-114-12







# **Pneumatic Cylinders - A-Series**

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

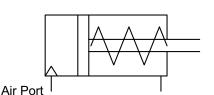
The NITRA Pneumatics A-Series non-repairable stainless steel round body cylinders includes bore sizes from 7/16" to 2" and stroke lengths from 1/2" to 18" to meet a broad range of applications. These high quality cylinders are constructed with stainless steel bodies and double rolled-in high strength 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

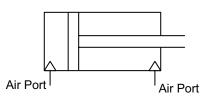
### **Operation**

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.



Single-Acting Cylinder with Spring Return (Force in Push 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.



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.

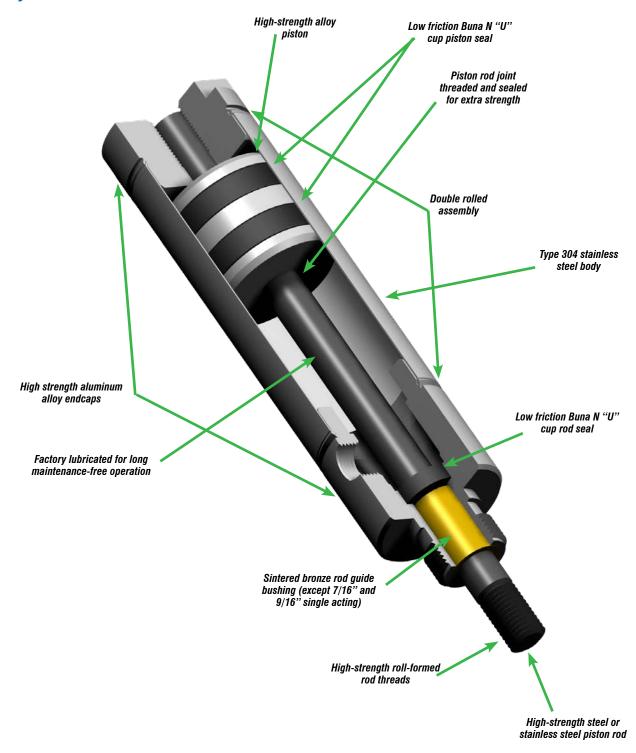


Double end mount uses two AMB brackets and two AN nuts.



# **Pneumatic Cylinders - A-Series**

## **Cylinder Features**





# **CPS Series Cylinder Position Switches**

		<b>Position Switch Cro</b>	ss 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