

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



Part no. A32020SN

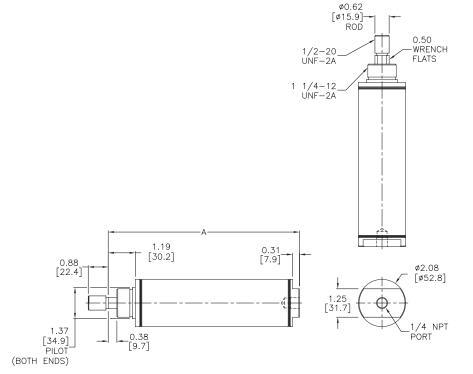
NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 NPT port, single acting, spring return, front nose mount.

Cylinder, 2 in bore, single acting, spring return, front nose mount					
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price	
A32010SN	1.0	5.41	1.5		
A32020SN	2.0	7.41	1.9		
A32030SN	3.0	8.66	2.3		
Specifications Specification Specification Specification Specification Specification Specification Specification Specification Specification					
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 psi = 310.0 lb.		Spring force = 15 lb. relaxed, 30 lb. compressed			

Mount Style		Bracket	Nut
Front Nose Mount		AMB-11	AN-114-12
Rear Pivot Mount		-	-
Pouble End Mount Front		_	-
Double End Mount	Rear	_	_

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

#### **Dimensions**





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

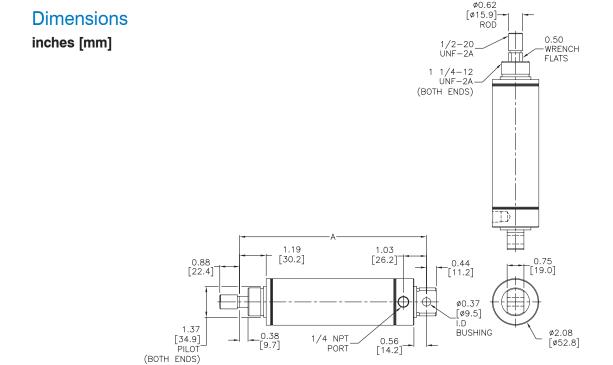


NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 NPT port, single acting, spring return, double end mount.

Cylinder, 2 in	bore, single actin	ig, spring retu	rn, double end	mount		
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price		
A32010SD	1.0	6.34	1.7			
A32020SD	2.0	8.34	2.1			
A32030SD	3.0	9.59	2.6			
	<b>Specifications</b>					
304 SS cylinder body		3.1 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 =	310.0 lb.	Spring force = 15 lb. relaxed, 30 lb. compressed				

Mount Style		Bracket	Nut
Front Nose Mount		AMB-11	AN-114-12
Rear Pivot Mount		APBP-5	-
Double End Mount	Front	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





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



Part no. A32020DN

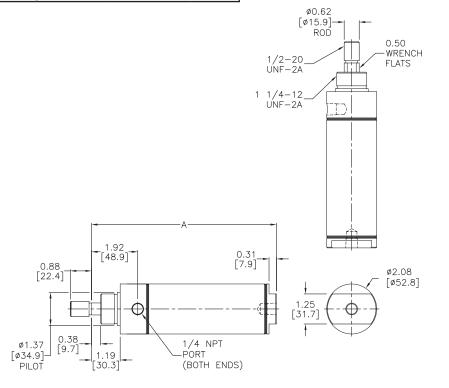
NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 2 inch bore, 1/4 NPT ports, double acting, front nose mount.

Cylind	ler, 2 in bore, doul	ble acting, fro	nt nose mount	
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A32010DN	1.0	5.69	1.6	
A32020DN	2.0	6.69	1.7	
A32030DN	3.0	7.69	1.9	
A32040DN	4.0	8.69	2.0	
A32050DN	5.0	9.69	2.2	
A32060DN	6.0	10.69	2.3	
	Speci	ifications		
304 SS cylinder body		3.1 sq. in. piston area	a	
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 psi =	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 Mount		_	-
Pouble Fred Mount		_	-
Double End Mount	Rear	-	_

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

#### **Dimensions**





#### 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, double acting, double end mount						
Part Number	Stroke Length (in.)		Weight (lbs)	Price		
A32010DD	1.0	6.62	1.8			
A32020DD	2.0	7.62	1.9			
A32030DD	3.0	8.62	2.1			
A32040DD	4.0	9.62	2.2			
A32050DD	5.0	10.62	2.4			
A32060DD	6.0	11.62	2.5			
A32070DD	7.0	12.62	2.7			
A32080DD	8.0	13.62	2.8			
A32100DD	10.0	15.62	3.1			
A32120DD	12.0	17.62	3.4			
A32140DD	14.0	19.62	3.7			
A32160DD	16.0	21.62	4.0			
A32180DD	18.0	23.62	4.3			
	Speci	ifications				
304 SS cylinder body		3.1 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 seal	S	Temperature range -20°F to 200°F (-28 to 93°C)				
Extend force at 100 psi =	310.0 lb.	Retract force at 100 p	osi = 279.3 lb.			

Mount Style		Bracket	Nut
Front Nose Mount		AMB-11	AN-114-12
Rear Pivot Mount		APBP-5	-
Pouble End Mount		AMB-11	AN-114-12
Double End Mount	Rear	AMB-11	AN-114-12

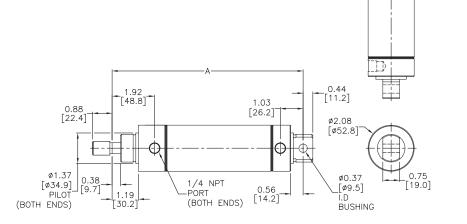
0.50 WRENCH

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

> ø0.62 [ø15.9]-ROD

1/2-20 UNF-2A 1 1/4-12 UNF-2A-(BOTH ENDS)

## **Dimensions**





## 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 b	ore, double acting	, double end	mount, magneti	c piston	
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price	
A32010DD-M	1.0	6.62	1.8		
A32020DD-M	2.0	7.62	1.9		
A32030DD-M	3.0	8.62	2.1		
A32040DD-M	4.0	9.62	2.2		
A32050DD-M	5.0	10.62	2.4		
A32060DD-M	6.0	11.62	2.5		
A32070DD-M	7.0	12.62	2.7		
A32080DD-M	8.0	13.62	2.8		
A32100DD-M	10.0	15.62	3.1		
A32120DD-M	12.0	17.62	3.4		
A32140DD-M	14.0	19.62	3.7		
A32160DD-M	16.0	21.62	4.0		
A32180DD-M	18.0	23.62	4.3		
Specifications Specification Spe					
304 SS cylinder body		3.10 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 seal	S	Temperature range -20°F to 200°F (-28 to 93°C)			

ø1.37 [ø34.9]

(BOTH ENDS)

PILOT

Mount Style		Bracket	Nut
Front Nose Mount		AMB-11	AN-114-12
Rear Pivot Mount		APBP-5	-
Double End Mount	Front	AMB-11	AN-114-12
Double End Mount	Rear	AMB-11	AN-114-12

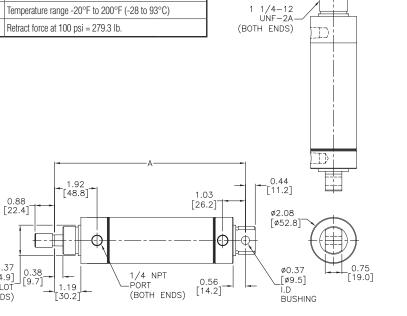
Cylinder rod clevis ARC-12-20 See end of 2" bore section for Accessories

> Ø0.62 [ø15.9]

> > 0.50 WRENCH FLATS



Extend force at 100 psi = 310 lb.





# A-Series Pneumatic Cylinders 2 inch Bore Accessories

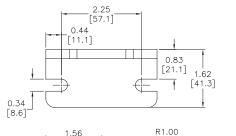
A-Series Pneumatic Cylinder 2 inch Bore Accessories						
Part Number	Description	Pcs/Pkg	Wt (lb)	Price		
AMB-11	Cylinder mounting bracket used to mount 2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.5			
APBP-5	Cylinder pivot mounting bracket with pivot pin used to mount 2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.4			
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			
AN-114-12	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			

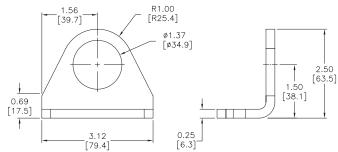
#### **Dimensions**

#### inches [mm]

#### **AMB-11**

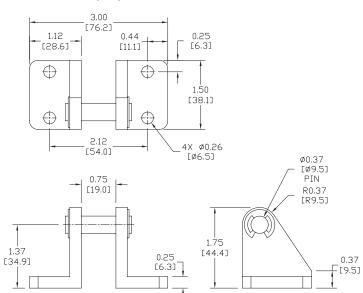






## APBP-5







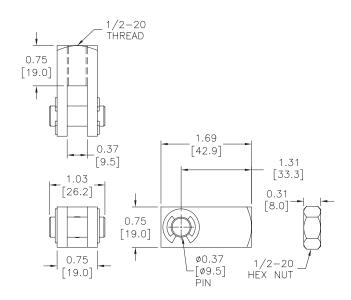
# A-Series Pneumatic Cylinders 2 inch Bore Accessories

#### **Dimensions**

inches [mm]

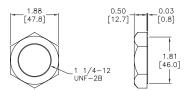
#### ARC-12-20





#### AN-114-12







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

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

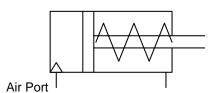
The NITRA Pneumatics A-Series non-repairable stainless steel round body cylinders includes bore sizes from 7/16" to 2" and stroke lengths from 1/2" to 18" to meet a broad range of applications. These high quality cylinders are constructed with stainless steel bodies and double rolled-in high strength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

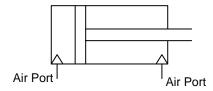
#### Operation

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.

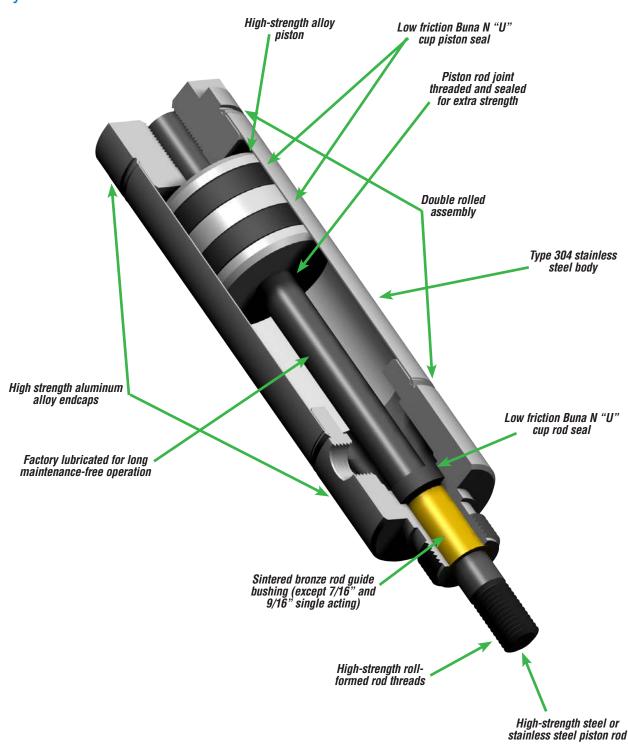


Double end mount uses two AMB brackets and two AN nuts.



# **Pneumatic Cylinders - A-Series**

## **Cylinder Features**



Made in North America



# 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, D-Series, F-Series		Switch Switch Tie Rod Adapter (CPSA Series)  Adapter & Band (CPSB or CPSS Series)		
CPS9C	DE-STA-CO Robohand SMC Compact Air		2.53 Min. +/- 0.1 R 2.13 +/- 0.05		
CPS9D	Fabco Numatics Rotomation		1.52		
CPS9F	NITRA G-Series Fabco Festo Numatics Rotomation		4.4 3.2 6.5 —		
СРЅ9Н	NITRA E-Series NITRA H-Series		5.0 42 R0.2		
СРЅ9М	Norgren		5.1 +/-0.1 R 3.25		
CPS9Q	NITRA G-Series Parker		5.1 — 5.1 — 6.5 —		
СРЅ9Т	SMC		1.06 + 5.5 - 1.06 + 7.2 - 1.06 +		