



# C-Series Pneumatic Cylinders

## 1-1/2 inch Bore

Double-acting



NITRA pneumatic cylinder, stainless steel body, 1-1/2 inch bore, 1/8 inch NPT ports, double-acting, single end rod, counter-bored mounting holes, interchangeable with other brands. 2-year warranty.

Part no. C24005D

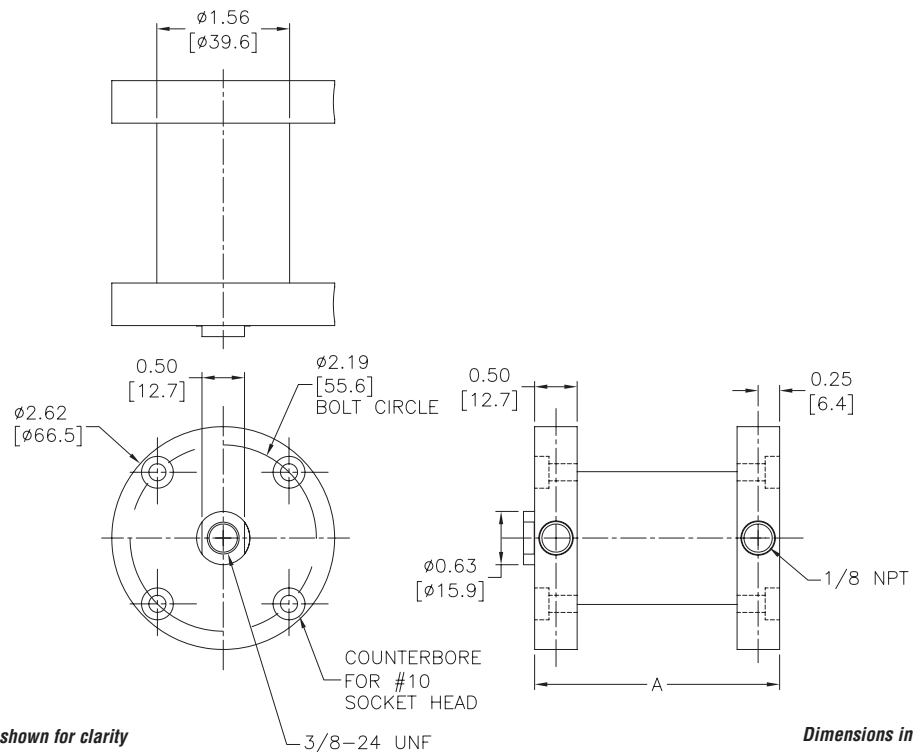
### Accessories

Cylinder, 1-1/2 in. bore, double-acting				
Part Number	Stroke Length (in.)	"A" (in.)	Weight (lb.)	Price
C24005D	0.50	1.38	0.70	
C240075D	0.75	1.63	0.75	
C24010D	1.00	1.88	0.80	
C24015D	1.50	2.38	0.90	
C24020D	2.00	2.88	1.00	
C24025D	2.50	3.38	1.10	
C24030D	3.00	3.88	1.20	
C24035D	3.50	4.38	1.30	
C24040D	4.00	4.88	1.40	
Specifications				
304 SS cylinder body		1.77 sq. in. piston area		
High strength aluminum end caps		Pre-lubricated for maintenance-free life		
303 SS piston rod		Pressure rating 200 psi		
Buna-N o-ring seals		Temperature range -20°F to 150°F (-28° to 66°C)		
Extend force at 100 psi = 176.7 lb.		Retract force at 100 psi = 146.0 lb.		

Part No.	Description	Price
CCB-40	Clevis bracket, anodized aluminum, stainless steel pin, for use with 1-1/2, 2 and 2-1/2 inch bore NITRA C-series compact cylinders	
CRP-24	Rod eye, 3/8-24 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 1-1/2 inch bore NITRA C-series compact cylinders	

See end of C-Series cylinder section for additional accessory details.

### Dimensions



Cylinder assembly bolts not shown for clarity

Dimensions inches [mm]



# Pneumatic Cylinders - C-Series

## Nitra Pneumatic Compact Air Cylinders

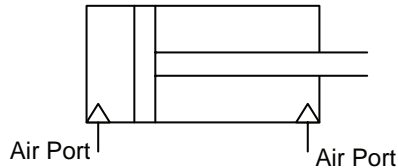
The NITRA Pneumatics C-Series compact cylinders includes bore sizes from 9/16" to 3" and stroke lengths from 1/4" to 4" to meet a broad range of applications where space is limited. These high quality cylinders are constructed with stainless steel bodies and high strength aluminum alloy end caps. To 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 compact piston is securely connected to a piston rod that is ground and polished 303 stainless steel. Oil impregnated bronze rod guide bushing and Buna-N o-ring piston and rod seals ensure smooth reliable operation.

### Features

- Interchangeable with other common brands of compact cylinders
- Available bore sizes: 9/16", 3/4", 1-1/16", 1-1/2", 2", 2-1/2", 3"
- Excellent selection of stroke lengths
- All models are double-acting
- Head and tail caps drilled for mounting
- Type 304 stainless steel body with high-strength aluminum alloy end caps
- Factory lubricated for long, low-maintenance operation
- 200 psi operating pressure (150 psi for 2" and larger bores)
- All models are available for same-day shipment
- Made in the USA

## Operation

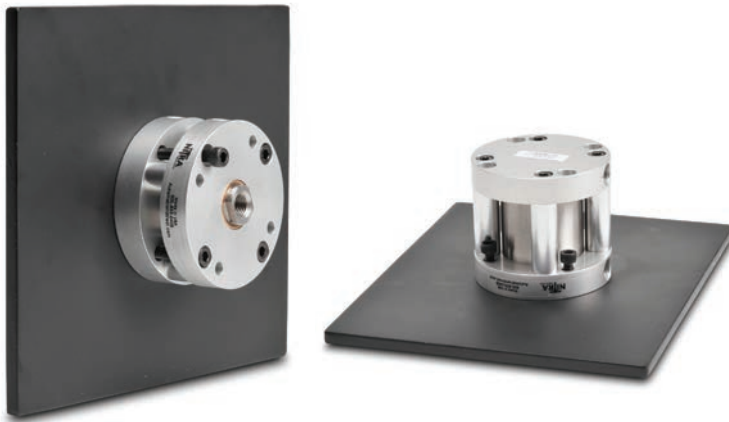
**Double-acting cylinders** have two compressed air ports. One of the ports will extend the rod in the "push" direction and the other port will retract the rod in the "pull" direction.



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

## Mounting Options

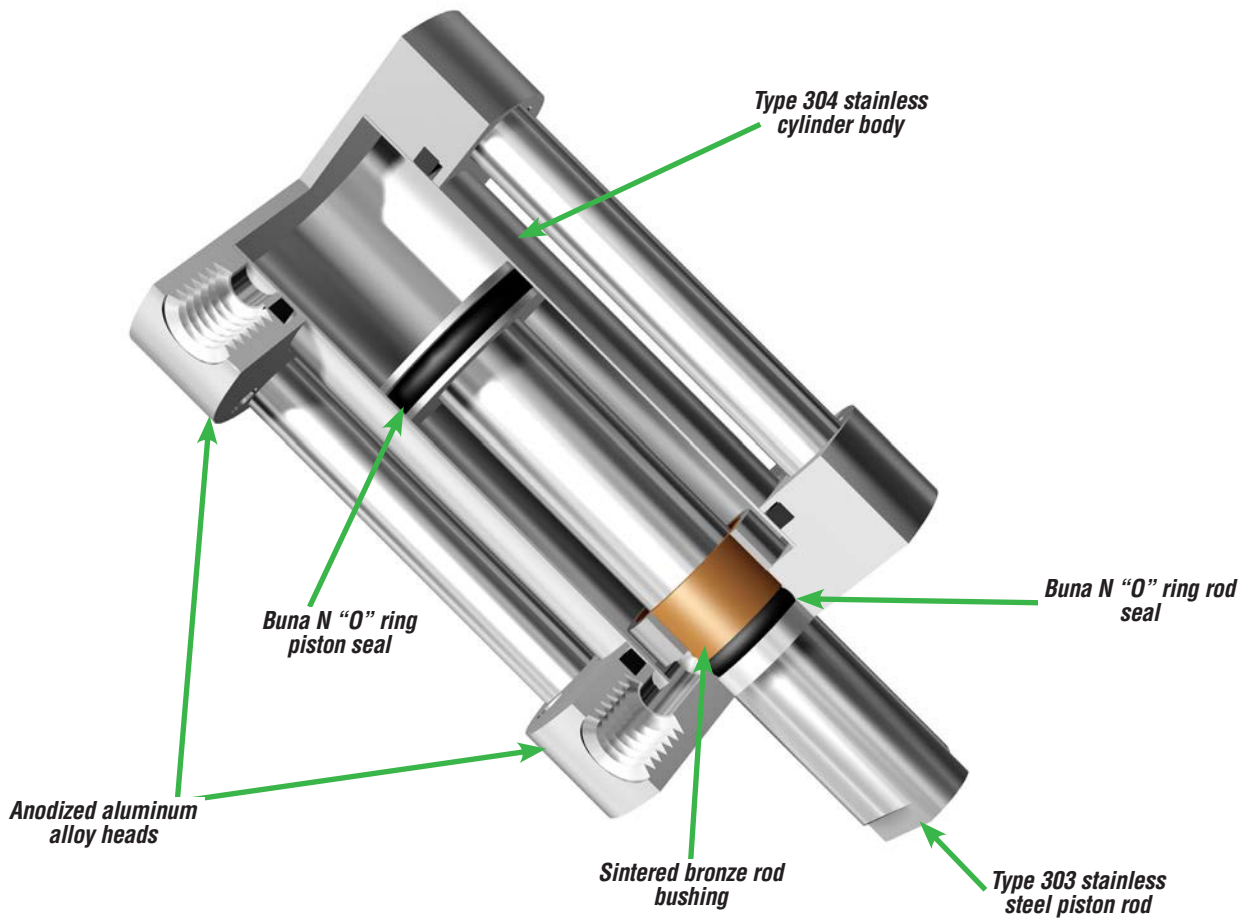
**Plate mount:** The cylinder has holes that allow easy mounting to a plate or other surfaces.



**Clevis bracket mount** uses a bracket that allows a pivoted mount. Clevis Bracket part number is CCB-40.



## Cylinder Features





# C-Series Pneumatic Cylinders Accessories

C-Series Pneumatic Cylinder Accessories					
Part Number	Description	Pcs/Pkg	Wt (lb)	Price	
<b>CCB-17</b>	Clevis bracket, anodized aluminum, stainless steel pin, for use with CRP-09, CRP-12 or CRP-17 Rod Eyes	1	0.20		
<b>CCB-40</b>	Clevis bracket, anodized aluminum, stainless steel pin, for use with CRP-24 or CRP-40 Rod Eyes	1	0.30		
<b>CCB-48</b>	Clevis bracket, anodized aluminum, stainless steel pin, for use with CRP-48 Rod Eye	1	0.40		
<b>CRP-09</b>	Rod eye, #8-32 UNC threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 9/16 inch bore NITRA C-series compact cylinders	1	0.10		
<b>CRP-12</b>	Rod eye, #10-32 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 3/4 inch bore NITRA C-series compact cylinders	1	0.10		
<b>CRP-17</b>	Rod eye, 5/16-24 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 1-1/16 inch bore NITRA C-series compact cylinders	1	0.20		
<b>CRP-24</b>	Rod eye, 3/8-24 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 1-1/2 inch bore NITRA C-series compact cylinders	1	0.30		
<b>CRP-40</b>	Rod eye, 1/2-20 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 2 or 2-1/2 inch bore NITRA C-series compact cylinders	1	0.40		
<b>CRP-48</b>	Rod eye, 5/8-18 UNF threads, zinc plated, high strength, heat treated alloy steel, bronze pivot bushing and nut for use with 3 inch bore NITRA C-series compact cylinders	1	0.50		

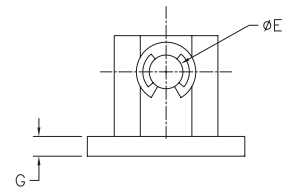
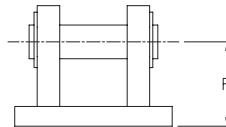
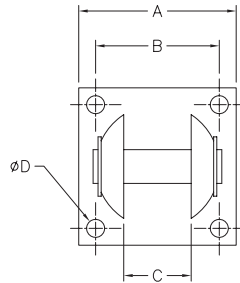


Photo shows C-series pneumatic cylinder with optional clevis bracket and rod eye.

## CCB Clevis Brackets



Part No. CCB-40



PART NUMBER	A	B	C	D	E	F	G
CCB-17	1.00 [25.4]	0.75 [19.1]	0.39 [9.9]	#6	0.19 [4.8]	0.56 [14.2]	0.16 [4.1]
CCB-40	1.75 [44.5]	1.38 [35.1]	0.75 [19.1]	#10	0.38 [9.7]	0.94 [23.9]	0.22 [5.6]
CCB-48	2.50 [63.5]	2.00 [50.8]	1.00 [25.4]	0.25 [6.4]	0.63 [16.0]	1.25 [31.8]	0.25 [6.4]

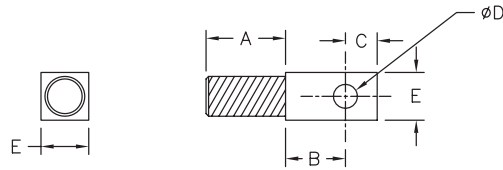
Dimensions inches [mm]

# C-Series Pneumatic Cylinders Accessories

## CRP Rod Eyes



**Part No. CRP-24**



PART NUMBER	CYLINDER BORE SIZE	THREAD SIZE	A	B	C	$\phi D$	E
CRP-09	9/16" [14.3]	#8-32 UNC	0.38 [9.6]	0.47 [11.9]	0.25 [6.4]	0.19 [4.8]	0.38 [9.6]
CRP-12	3/4" [19.1]	#10-32 UNF	0.38 [9.6]	0.47 [11.9]	0.25 [6.4]	0.19 [4.8]	0.38 [9.6]
CRP-17	1 1/16" [27.0]	5/16-24 UNF	0.63 [16.0]	0.47 [11.9]	0.25 [6.4]	0.19 [4.8]	0.38 [9.6]
CRP-24	1 1/2" [38.1]	3/8-24 UNF	0.63 [16.0]	0.72 [18.3]	0.44 [11.2]	0.38 [9.6]	0.75 [19.1]
CRP-40	2.00" [50.8]	1/2-20 UNF	0.75 [19.1]	0.72 [18.3]	0.44 [11.2]	0.38 [9.6]	0.75 [19.1]
CRP-40	2 1/2" [63.5]	1/2-20 UNF	0.75 [19.1]	0.72 [18.3]	0.44 [11.2]	0.38 [9.6]	0.75 [19.1]
CRP-48	3.00" [76.2]	5/8-18 UNF	0.88 [22.4]	1.00 [25.4]	0.63 [16.0]	0.63 [16.0]	1.00 [25.4]

*Dimensions inches [mm]*

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		
CPS9C	DE-STA-CO Robohand SMC Compact Air		
CPS9D	Fabco Numatics Rotomation		
CPS9F	NITRA G-Series Fabco Festo Numatics Rotomation		
CPS9H	NITRA E-Series NITRA H-Series		
CPS9M	Norgren		
CPS9Q	NITRA G-Series Parker		
CPS9T	SMC		