



Pneumatic Cylinders - A-Series

Nitra A-Series Pneumatic Stainless Steel Round Body Air Cylinders

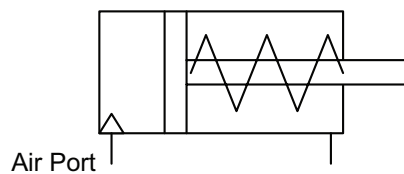
The NITRA Pneumatics A-Series non-repairable stainless steel round body cylinders includes bore sizes from 7/16" to 2" and stroke lengths from 1/2" to 18" to meet a broad range of applications. These high quality cylinders are constructed with stainless steel bodies and double rolled-in high strength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

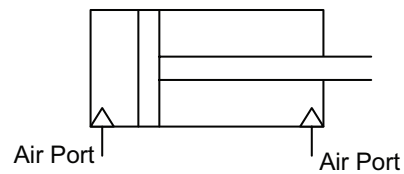
Operation

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" direction.

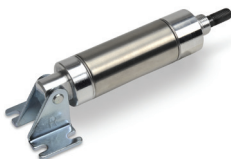


Double-Acting Cylinder
(Force in Push and Pull Direction)

Mounting Options



Nose mount uses one AMB bracket and one AN nut.



Pivot mount uses one APB or one APBP bracket.

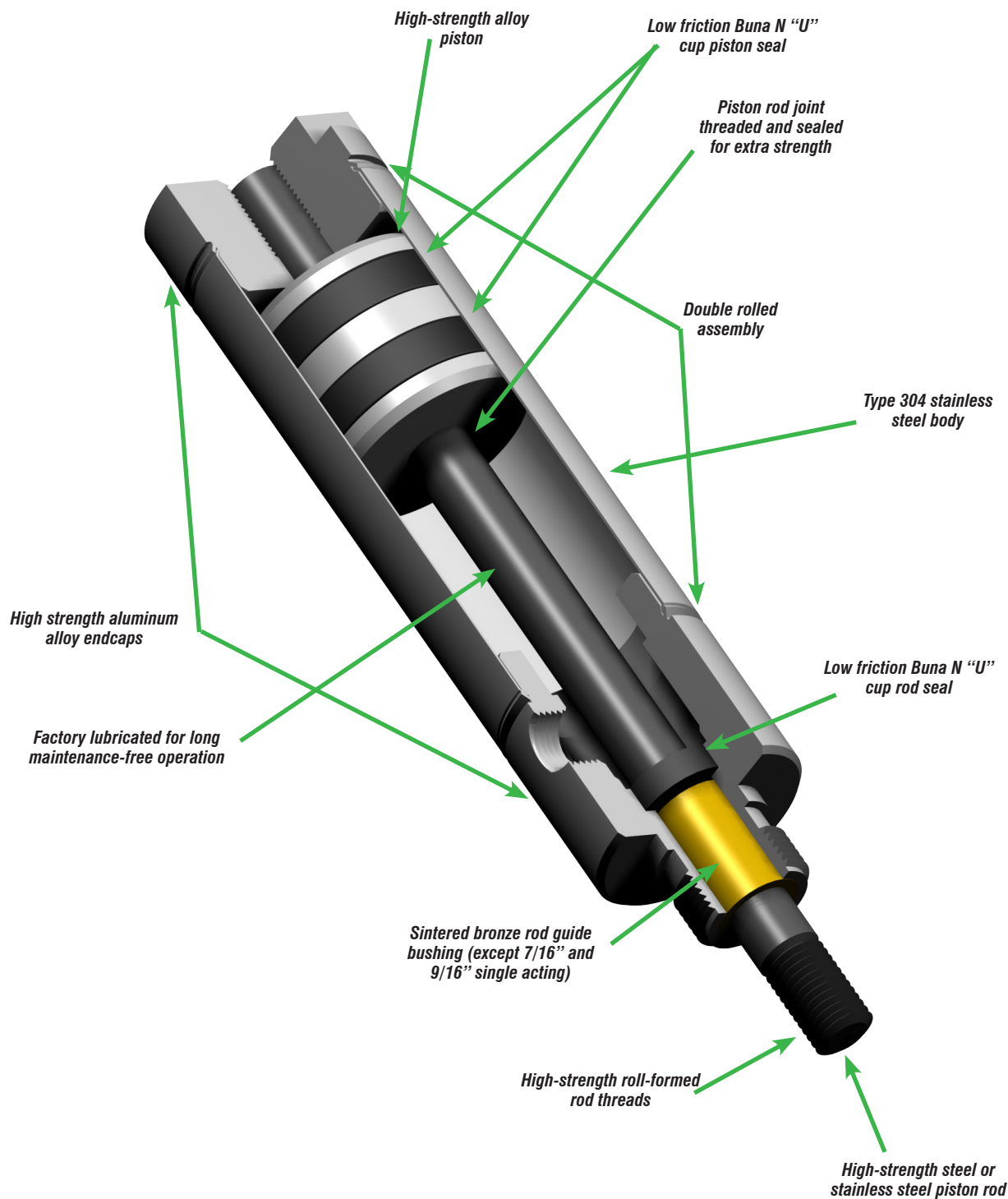


Double end mount uses two AMB brackets and two AN nuts.



Pneumatic Cylinders - A-Series

Cylinder Features



Made in North America



A-Series Pneumatic Cylinders

7/16 inch Bore

7/16 in. Bore, Single-acting, Spring Return, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/16 inch bore, #10-32 port, single acting, spring return, front nose mount.

Cylinder, 7/16 in bore, single-acting, spring return, front nose mount

Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A07005SN	0.5	2.25	0.1	\$18.00
A07010SN	1.0	3.19	0.1	\$19.50
A07015SN	1.5	4.13	0.1	\$21.00
A07020SN	2	5.07	0.1	\$22.50

Mount Style	Bracket	Nut
Front Nose Mount	AMB-3	AN-38-24*
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

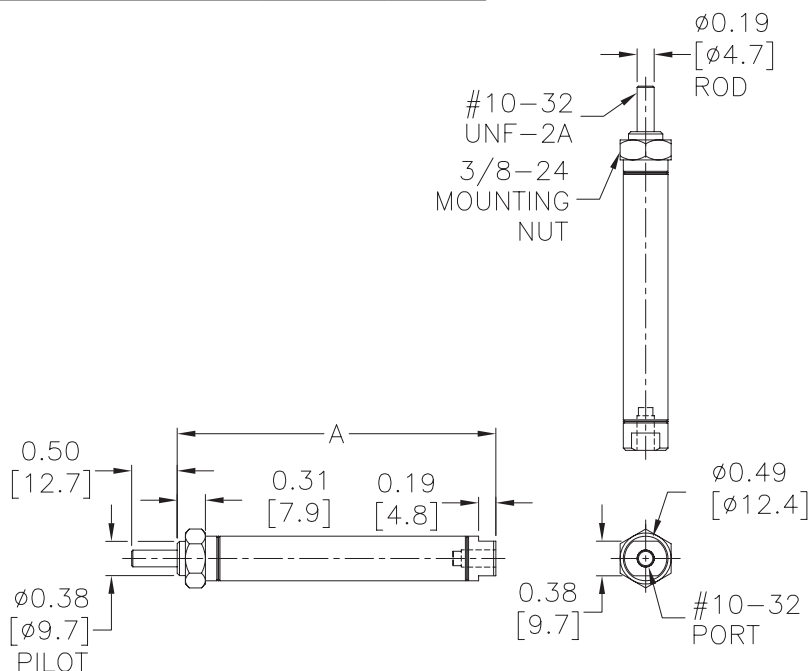
* (1) Nut included with cylinder
 Cylinder rod clevis ARC-10-32
 See end of 7/16" bore section for Accessories

Specifications

304 SS cylinder body	0.15 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 = 15.0 lb.	Spring force = 1 lb. relaxed, 2 lb. compressed

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

7/16 inch Bore

7/16 in. Bore, Single-acting, Spring Return, Rear Pivot Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/16 inch bore, #10-32 port, single acting, spring return, rear pivot mount (pivot pin included).

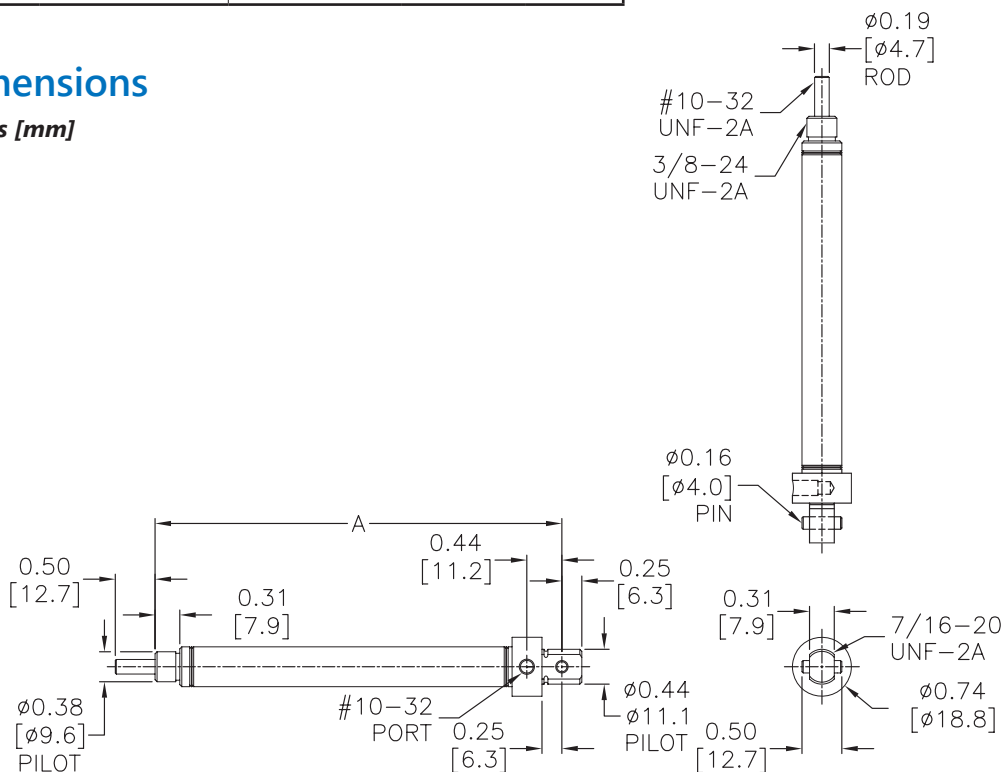
Cylinder, 7/16 in bore, single acting, spring return, rear pivot mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A07005SP	0.5	2.69	0.1	\$23.00
A07010SP	1.0	3.63	0.1	\$25.00
A07015SP	1.5	4.57	0.1	\$22.00
A07020SP	2	5.51	0.1	\$28.00
Specifications				
304 SS cylinder body		0.15 sq. 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 = 15.0 lb.		Spring force = 1 lb. relaxed, 2 lb. compressed		

Mount Style	Bracket	Nut
Front Nose Mount	AMB-3	AN-38-24
Rear Pivot Mount	APB-1	-
Double End Mount	Front	AMB-3
	Rear	AMB-4

Cylinder rod clevis [ARC-10-32](#)
 See end of 7/16" bore section for Accessories
 Note: Drive pin out for double end mounting

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

7/16 inch Bore

7/16 in. Bore, Double-acting, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/16 inch bore, #10-32 ports, double acting, front nose mount.

Cylinder, 7/16 in bore, double acting, front nose mount

Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A07005DN	0.5	2.62	0.1	\$20.00
A07010DN	1.0	3.12	0.1	\$25.50
A07015DN	1.5	3.62	0.1	\$26.50
A07020DN	2.0	4.12	0.1	\$23.00
A07030DN	3.0	5.12	0.1	\$25.00
A07040DN	4.0	6.12	0.2	\$26.00
A07060DN	6.0	8.12	0.2	\$37.50

Mount Style	Bracket	Nut
Front Nose Mount	AMB-4	AN-716-20*
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

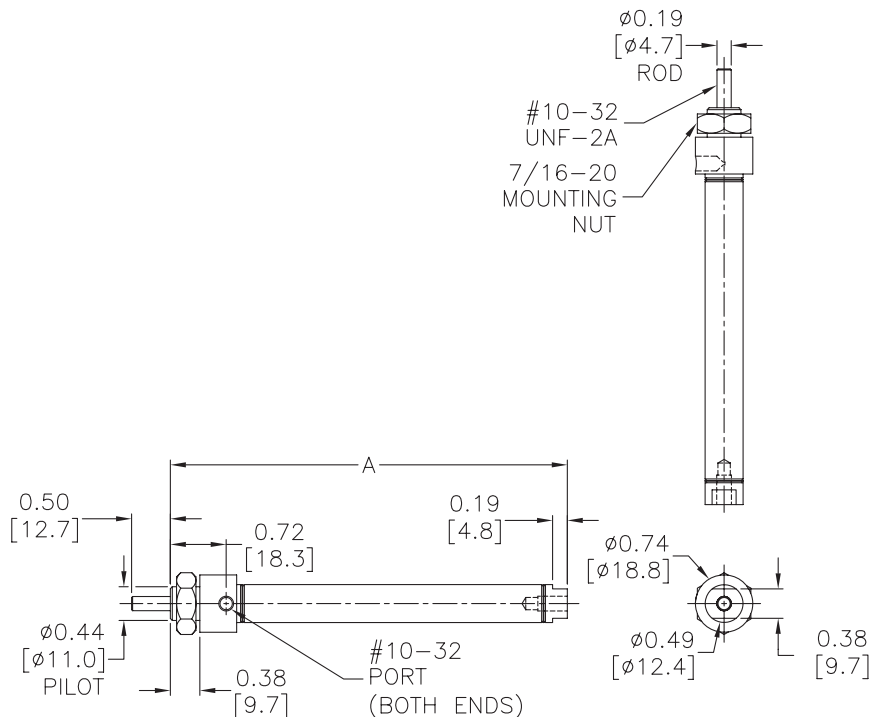
* (1) Nut included with cylinder
 Cylinder rod clevis ARC-10-32
 See end of 7/16" bore section for Accessories

Specifications

304 SS cylinder body	0.15 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 = 15.0 lb.	Retract force at 100 psi = 13.8 lb.

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

7/16 inch Bore

7/16 in. Bore, Double-acting, Rear Pivot Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/16 inch bore, #10-32 ports, double acting, rear pivot mount (pivot pin included).

Cylinder, 7/16 in bore, double acting, rear pivot mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A07005DP	0.5	3.06	0.1	\$24.00
A07010DP	1.0	3.56	0.1	\$30.00
A07015DP	1.5	4.06	0.1	\$31.00
A07020DP	2.0	4.56	0.1	\$32.00
A07030DP	3.0	5.56	0.1	\$41.50

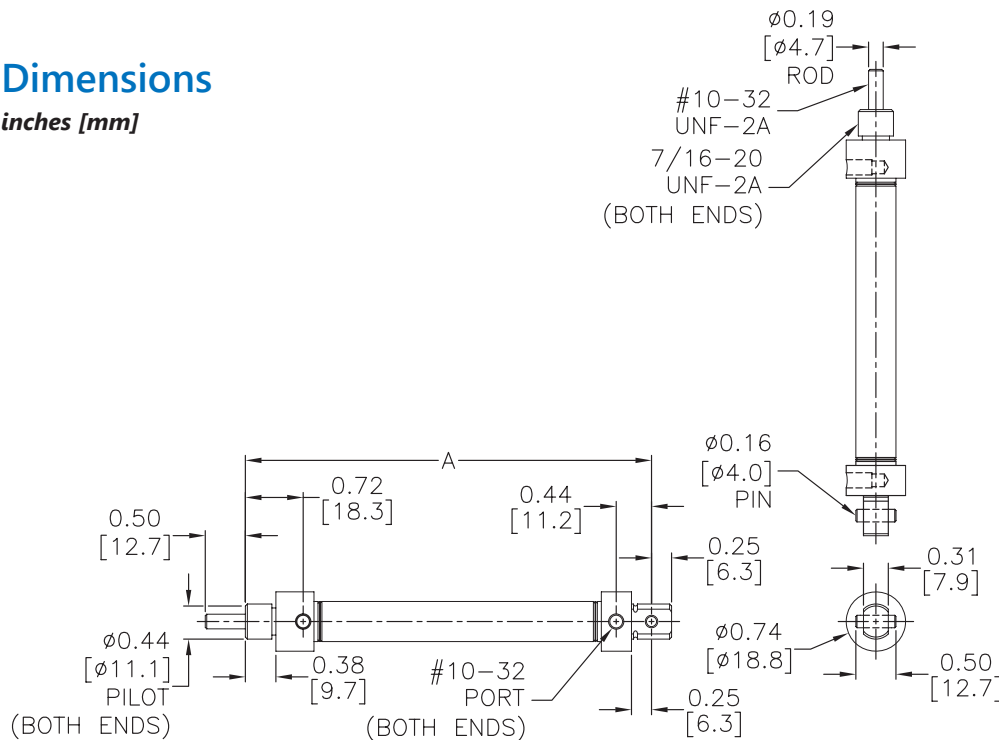
Specifications	
304 SS cylinder body	0.15 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 15.0 lb.	Retract force at 100 psi = 13.8 lb.

Mount Style	Bracket	Nut
Front Nose Mount	AMB-4	AN-716-20
Rear Pivot Mount	APB-1	-
Double End Mount	Front	AMB-4
	Rear	AMB-4

Cylinder rod clevis [ARC-10-32](#)
 See end of 7/16" bore section for Accessories
 Note: Drive pin out for double end mounting

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

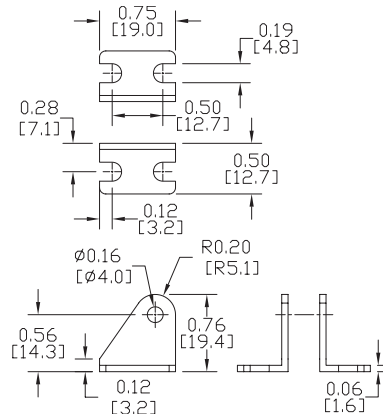
7/16 inch Bore Accessories

A-Series Pneumatic Cylinder 7/16 inch Bore Accessories				
Part Number	Description	Pcs/Pkg	Wt (lb)	Price
<u>APB-1</u>	Cylinder pivot mounting bracket without pivot pin used to mount 7/16 and 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$4.50
<u>AMB-3</u>	Cylinder mounting bracket used to mount 7/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$4.25
<u>AMB-4</u>	Cylinder mounting bracket used to mount 7/16 and 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$4.50
<u>ARC-10-32</u>	Cylinder rod clevis and hex nut, #10-32 thread, for use with 7/16 and 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$4.50
<u>AN-38-24</u>	Cylinder mounting nut with 3/8-24 UNF-2B threads used to mount 7/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$1.25
<u>AN-716-20</u>	Cylinder mounting nut with 7/16-20 UNF-2B threads used to mount 7/16 inch and 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	\$1.25

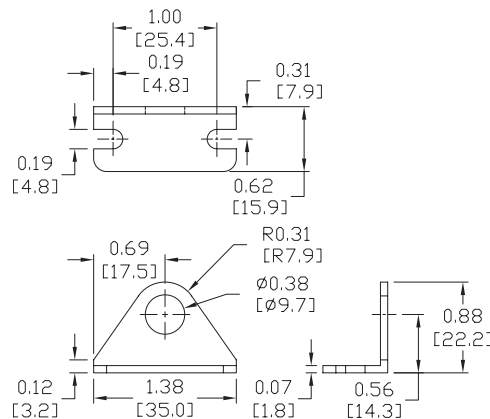
Dimensions

inches [mm]

APB-1



AMB-3





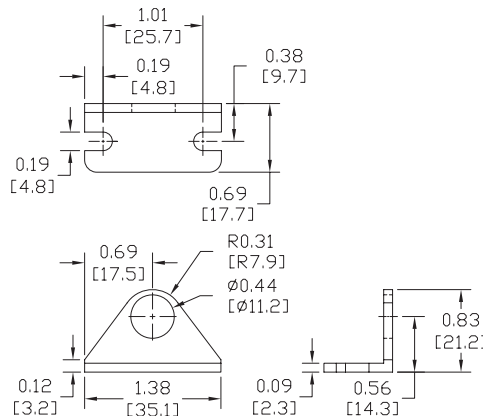
A-Series Pneumatic Cylinders

7/16 inch Bore Accessories

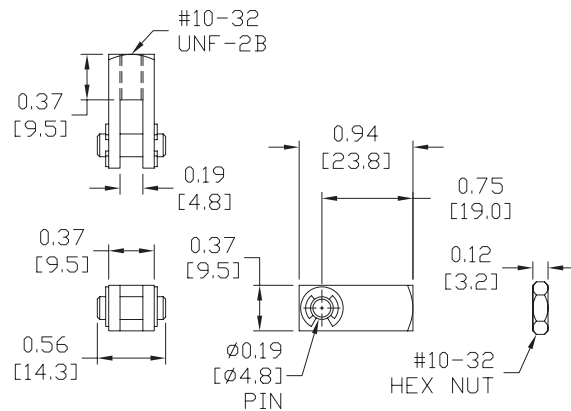
Dimensions

inches [mm]

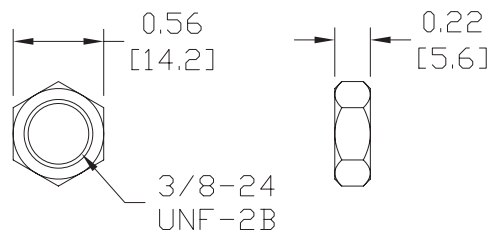
AMB-4



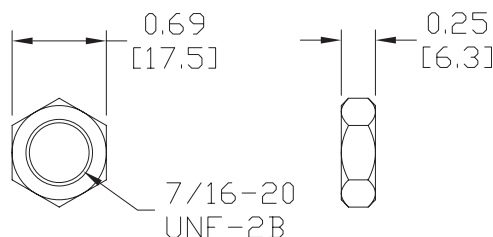
ARC-10-32



AN-38-24



AN-716-20





A-Series Pneumatic Cylinders

9/16 inch Bore

9/16 in. Bore, Single-acting, Spring Return, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 9/16 inch bore, #10-32 port, single acting, spring return, front nose mount.

Cylinder, 9/16 in bore, single acting, spring return, front nose mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A09005SN	0.5	2.34	0.1	\$19.00
A09010SN	1.0	3.15	0.1	\$17.00
A09020SN	2.0	4.77	0.2	\$20.00
A09030SN	3.0	6.39	0.2	\$22.50

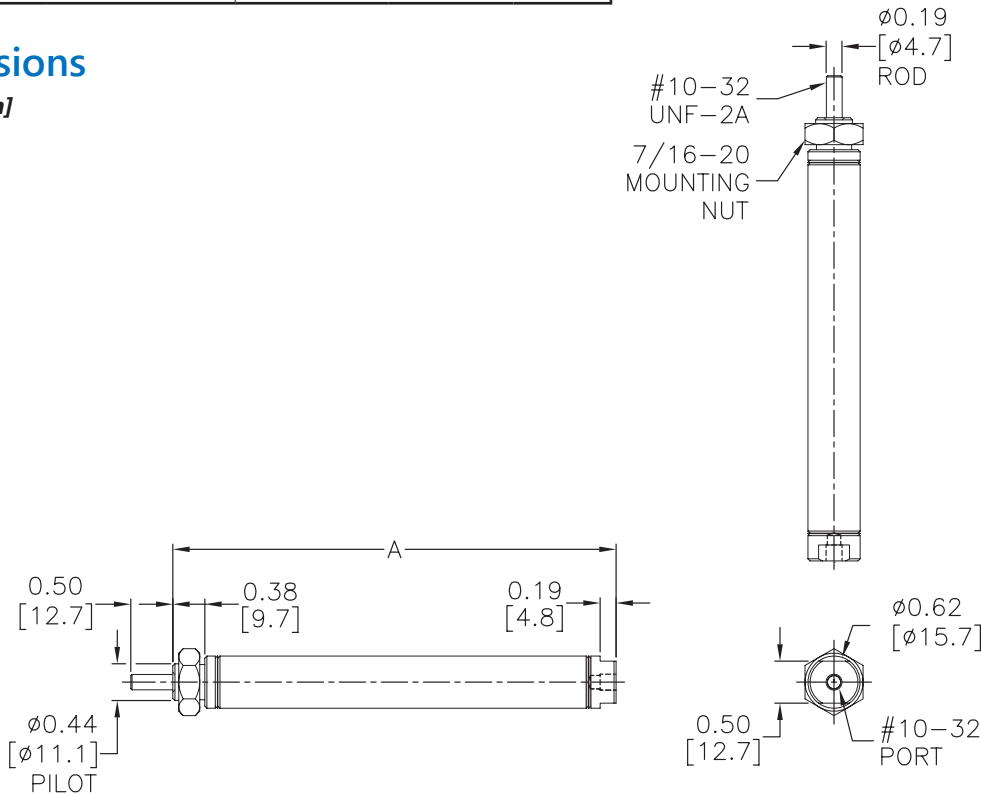
Specifications	
304 SS cylinder body	0.25 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 25.0 lb.	Spring force = 2 lb. relaxed, 4 lb. compressed

Mount Style	Bracket	Nut
Front Nose Mount	AMB-4	AN-716-20*
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

* (1) Nut included with cylinder
 Cylinder rod clevis ARC-10-32
 See end of 9/16" bore section for Accessories

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

9/16 inch Bore

9/16 in. Bore, Double-acting, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 9/16 inch bore, #10-32 ports, double acting, front nose mount.

Cylinder, 9/16 in bore, double acting, front nose mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A09005DN	0.5	2.78	0.1	\$25.00
A09010DN	1.0	3.28	0.1	\$21.50
A09020DN	2.0	4.28	0.1	\$23.50
A09030DN	3.0	5.28	0.2	\$25.50
A09040DN	4.0	6.28	0.2	\$27.50
A09060DN	6.0	8.28	0.2	\$31.50

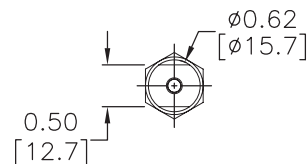
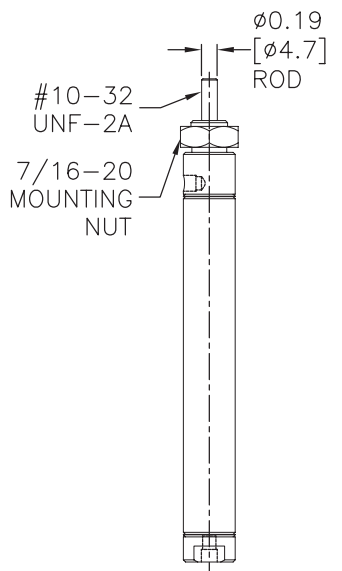
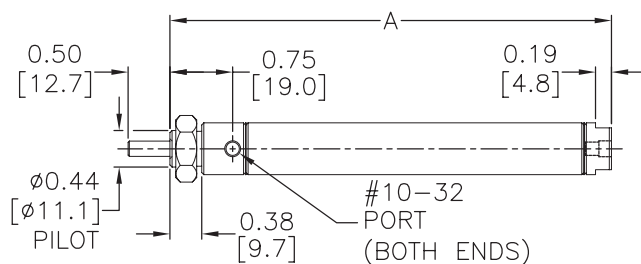
Specifications	
304 SS cylinder body	0.25 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 25.0 lb.	Retract force at 100 psi = 22.2 lb.

Mount Style	Bracket	Nut
Front Nose Mount	AMB-4	AN-716-20*
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

* (1) Nut included with cylinder
 Cylinder rod clevis [ARC-10-32](#)
 See end of 9/16" bore section for Accessories

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

9/16 inch Bore

9/16 in. Bore, Double-acting, Double End Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 9/16 inch bore, #10-32 ports, double acting, double end mount.

Cylinder, 9/16 in bore, double acting, double end mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A09005DD	0.5	3.06	0.1	\$29.50
A09010DD	1.0	3.56	0.1	\$25.50
A09020DD	2.0	4.56	0.1	\$27.50
A09030DD	3.0	5.56	0.2	\$29.50
A09040DD	4.0	6.56	0.2	\$31.50
A09060DD	6.0	8.56	0.2	\$35.50

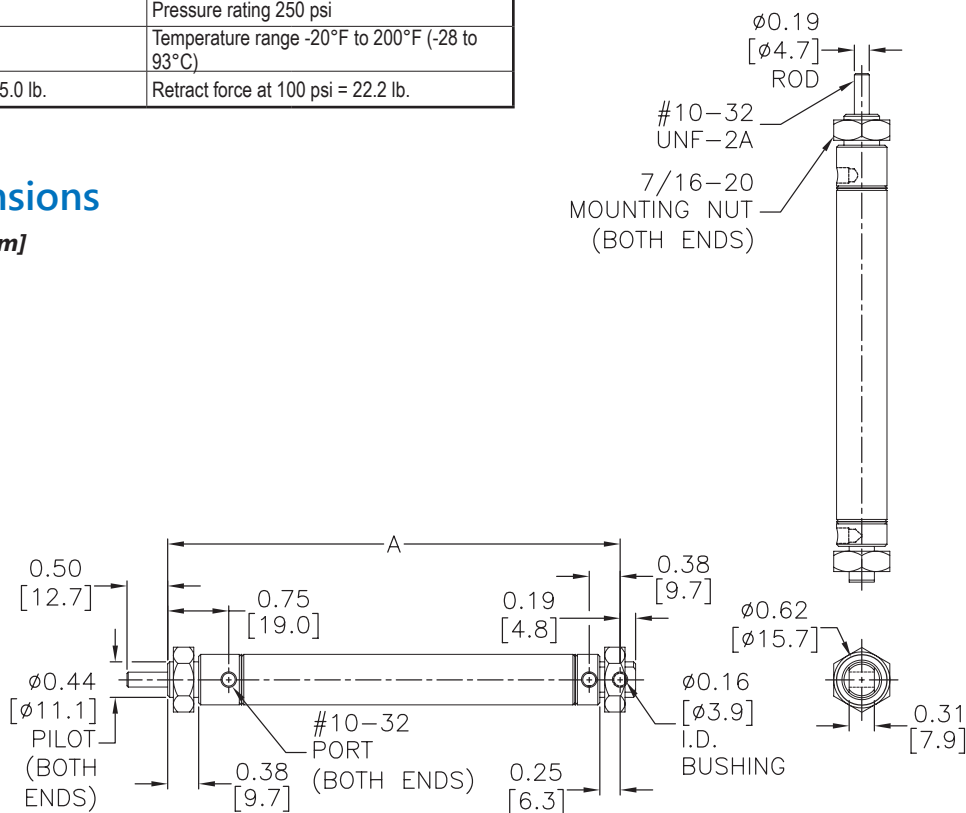
Specifications	
304 SS cylinder body	0.25 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 25.0 lb.	Retract force at 100 psi = 22.2 lb.

Mount Style	Bracket	Nut
Front Nose Mount	AMB-4	AN-716-20*
Rear Pivot Mount	APBP-2	-
Double End Mount	Front	AMB-4
	Rear	AMB-4

* (2) Nuts included with cylinder
 Cylinder rod clevis [ARC-10-32](#)
 See end of 9/16" bore section for Accessories

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

9/16 inch Bore

9/16 in. Bore, Double-acting, Double End Mount, Magnetic Piston



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 9/16 inch bore, #10-32 ports, double acting, double end mount, magnetic piston.

Cylinder, 9/16 in bore, double acting, double end mount, magnetic piston				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A09010DD-M	1.0	3.56	0.1	\$37.00
A09020DD-M	2.0	4.56	0.1	\$39.00
A09030DD-M	3.0	5.56	0.2	\$41.00
A09040DD-M	4.0	6.56	0.2	\$43.00
A09060DD-M	6.0	8.56	0.2	\$47.00

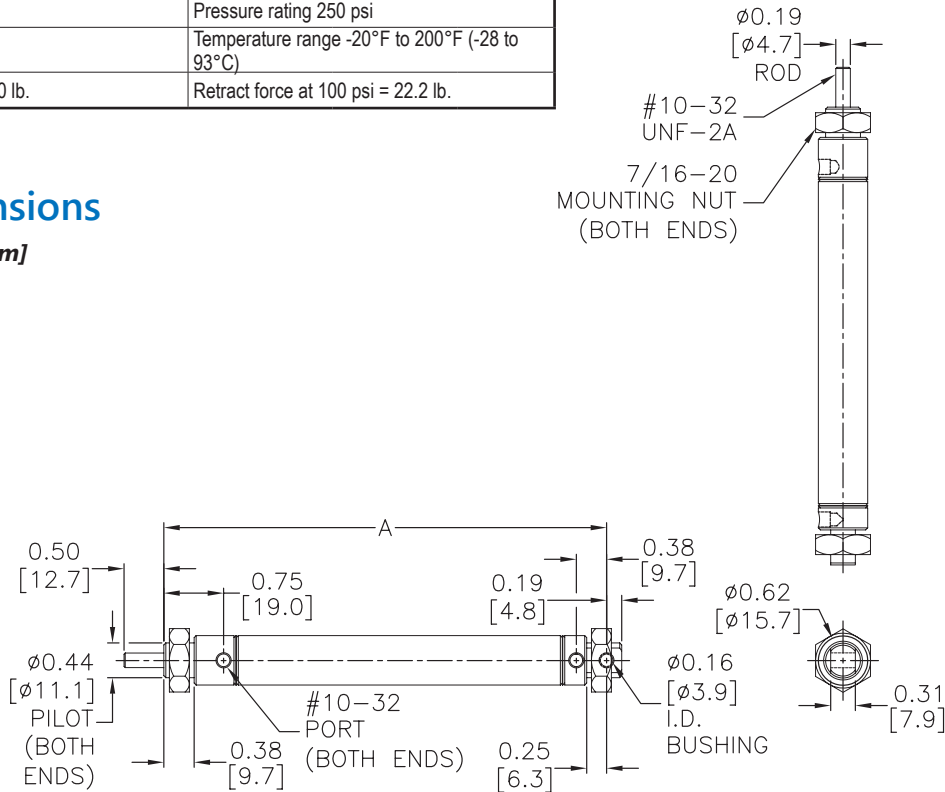
Specifications	
304 SS cylinder body	0.25 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 25.0 lb.	Retract force at 100 psi = 22.2 lb.

Mount Style	Bracket	Nut
Front Nose Mount	AMB-4	AN-716-20*
Rear Pivot Mount	APBP-2	-
Double End Mount	Front	AMB-4 AN-716-20*
	Rear	AMB-4 AN-716-20*

* (2) Nuts included with cylinder
 Cylinder rod clevis ARC-10-32
 See end of 9/16" bore section for Accessories

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

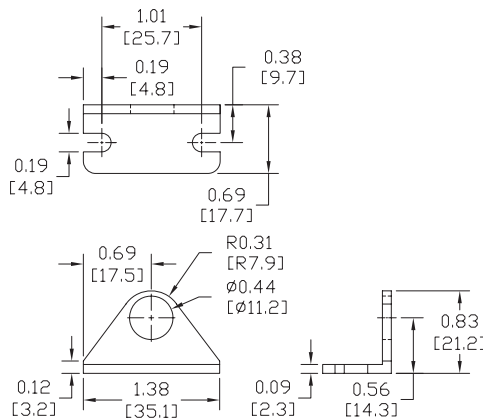
9/16 inch Bore Accessories

A-Series Pneumatic Cylinder 9/16 inch Bore Accessories				
Part Number	Description	Pcs/Pkg	Wt (lb)	Price
AMB-4	Cylinder mounting bracket used to mount 7/16 and 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$4.50
ARC-10-32	Cylinder rod clevis and hex nut, #10-32 thread, for use with 7/16 and 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$4.50
APBP-2	Cylinder pivot mounting bracket with pivot pin used to mount 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$5.25
AN-716-20	Cylinder mounting nut with 7/16-20 UNF-2B threads used to mount 7/16 inch and 9/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	\$1.25

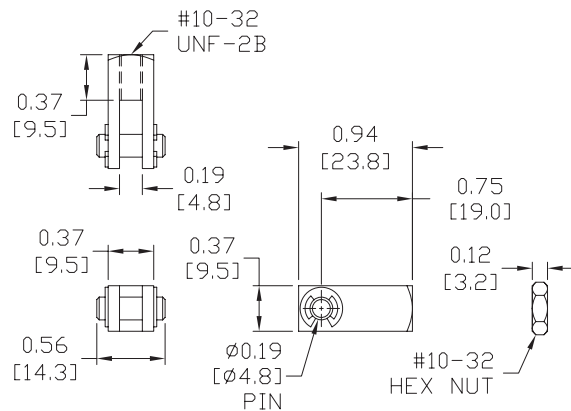
Dimensions

inches [mm]

AMB-4



ARC-10-32





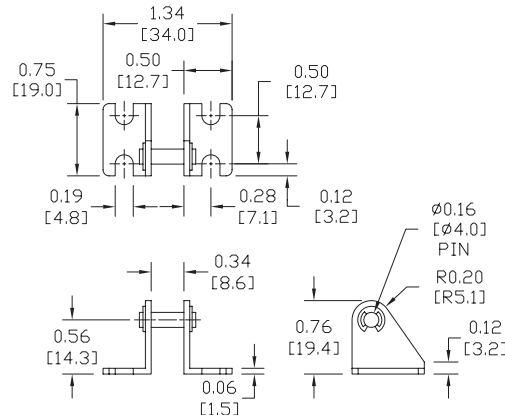
A-Series Pneumatic Cylinders

9/16 inch Bore Accessories

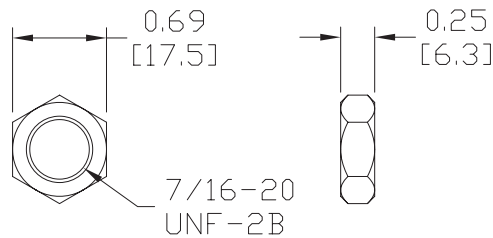
Dimensions

inches [mm]

APBP-2



AN-716-20





A-Series Pneumatic Cylinders

3/4 inch Bore

3/4 in. Bore, Single-acting, Spring Return, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 NPT port, single acting, spring return, front nose mount.

Cylinder, 3/4 in bore, single acting, spring return, front nose mount

Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A12005SN	0.5	2.69	0.1	\$16.50
A12010SN	1.0	3.19	0.2	\$21.00
A12015SN	1.5	4.38	0.2	\$23.00
A12020SN	2.0	4.88	0.3	\$25.00
A12030SN	3.0	6.57	0.3	\$28.00
A12040SN	4.0	8.26	0.4	\$31.00
A12050SN	5.0	9.95	0.5	\$34.00
A12060SN	6.0	11.64	0.6	\$31.00

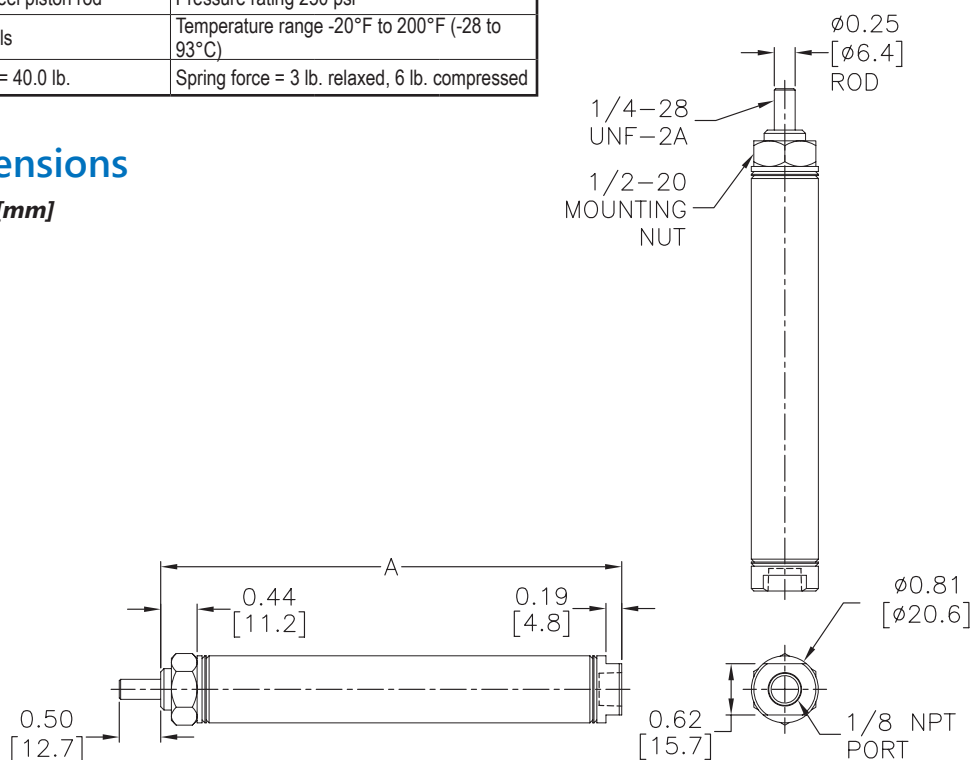
Mount Style	Bracket	Nut
Front Nose Mount	AMB-5	AN-12-20*
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

* (1) Nut included with cylinder
 Cylinder rod clevis [ARC-14-28](#)
 See end of 3/4" bore section for Accessories

Specifications	
304 SS cylinder body	0.40 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 = 40.0 lb.	Spring force = 3 lb. relaxed, 6 lb. compressed

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

3/4 inch Bore

3/4 in. Bore, Single-acting, Spring Return, Rear Pivot Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 NPT port, single acting, spring return, rear pivot mount (pivot pin included).

Cylinder, 3/4 in bore, single acting, spring return, rear pivot mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A12005SP	0.5	3.13	0.2	\$20.50
A12010SP	1.0	3.97	0.2	\$26.50
A12015SP	1.5	4.82	0.3	\$28.50
A12020SP	2.0	5.66	0.3	\$29.50
A12030SP	3.0	7.35	0.4	\$32.50
A12040SP	4.0	9.04	0.5	\$35.50
A12050SP	5.0	10.73	0.5	\$39.00
A12060SP	6.0	12.42	0.6	\$35.50

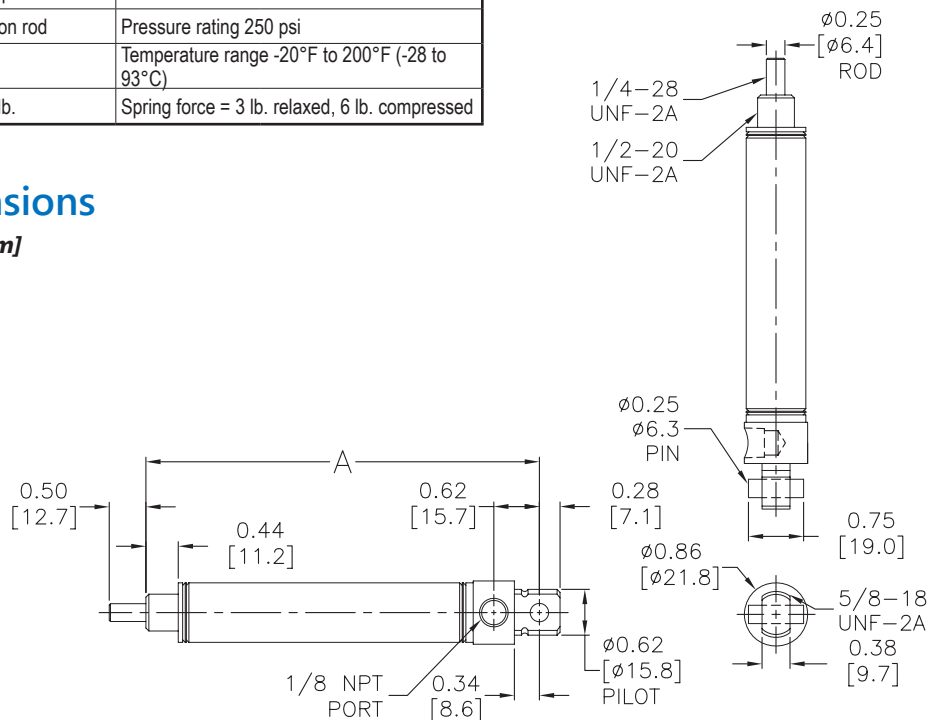
Specifications	
304 SS cylinder body	0.40 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High-strength carbon-steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 40.0 lb.	Spring force = 3 lb. relaxed, 6 lb. compressed

Mount Style	Bracket	Nut
Front Nose Mount	AMB-5	AN-12-20
Rear Pivot Mount	APB-2	-
Double End Mount	Front	AMB-5
	Rear	AMB-6

Cylinder rod clevis [ARC-14-28](#)
 See end of 3/4" bore section for Accessories
 Note: Drive pin out for double end mounting

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

3/4 inch Bore

3/4 in. Bore, Double-acting, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 NPT ports, double acting, front nose mount.

Cylinder, 3/4 in bore, double acting, front nose mount

Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A12005DN	0.5	3.47	0.2	\$24.50
A12010DN	1.0	3.97	0.2	\$26.00
A12015DN	1.5	4.47	0.3	\$31.50
A12020DN	2.0	4.97	0.3	\$28.50
A12030DN	3.0	5.97	0.3	\$30.50
A12040DN	4.0	6.97	0.3	\$32.50
A12050DN	5.0	7.97	0.4	\$35.00
A12060DN	6.0	8.97	0.4	\$38.00
A12080DN	8.0	10.97	0.5	\$35.50
A12100DN	10.0	12.97	0.5	\$39.50
A12120DN	12.0	14.97	0.6	\$43.50

Mount Style	Bracket	Nut
Front Nose Mount	AMB-6	AN-58-18*
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

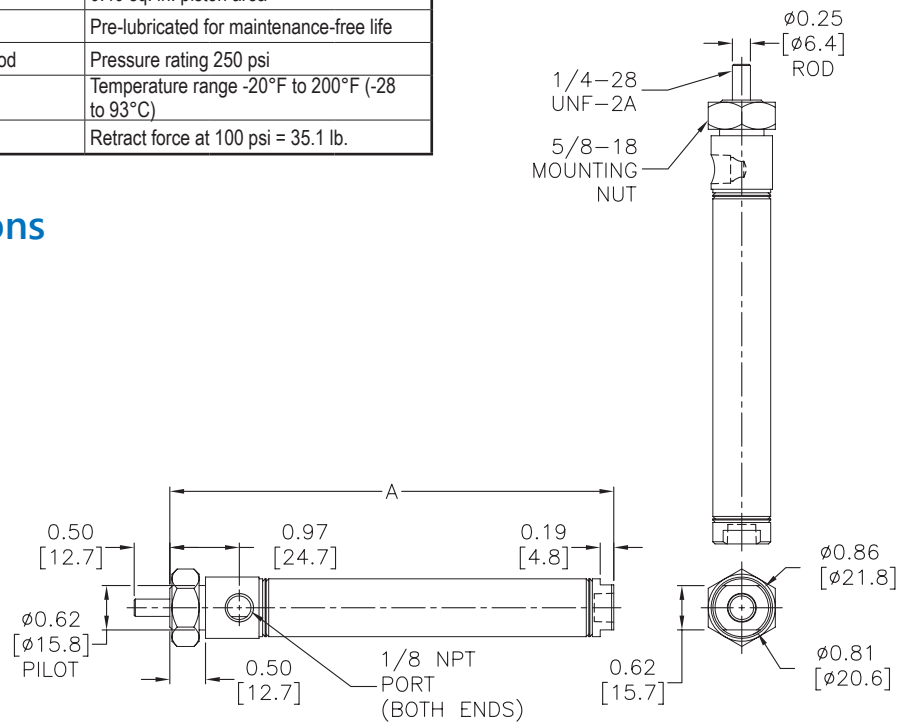
* (1) Nut included with cylinder
Cylinder rod clevis ARC-14-28
See end of 3/4" bore section for Accessories

Specifications

304 SS cylinder body	0.40 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 = 40.0 lb.	Retract force at 100 psi = 35.1 lb.

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

3/4 inch Bore

3/4 in. Bore, Double-acting, Rear Pivot Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 NPT ports, double acting, rear pivot mount (pivot pin included).

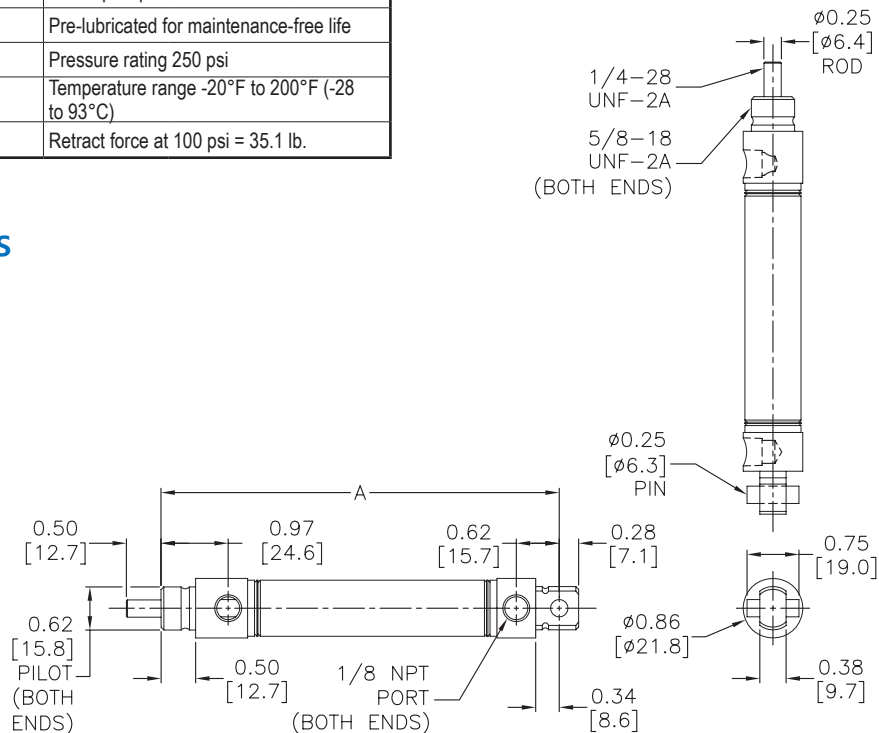
Cylinder, 3/4 in bore, double acting, rear pivot mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A12005DP	0.5	4.25	0.2	\$24.50
A12010DP	1.0	4.75	0.2	\$30.50
A12020DP	2.0	5.75	0.3	\$32.50
A12030DP	3.0	6.75	0.3	\$35.00
A12040DP	4.0	7.75	0.3	\$38.00
A12050DP	5.0	8.75	0.4	\$40.50
A12060DP	6.0	9.75	0.4	\$42.50
A12080DP	8.0	11.75	0.5	\$39.50
A12100DP	10.0	13.75	0.5	\$43.50
A12120DP	12.0	15.75	0.6	\$47.50
Specifications				
304 SS cylinder body	0.40 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 = 40.0 lb.	Retract force at 100 psi = 35.1 lb.			

Mount Style	Bracket	Nut
Front Nose Mount	AMB-6	AN-58-18
Rear Pivot Mount	APB-2	-
Double End Mount	Front	AMB-6 AN-58-18
	Rear	AMB-6 AN-58-18

Cylinder rod clevis ARC-14-28
 See end of 3/4" bore section for Accessories
 Note: Drive pin out for double end mounting

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

3/4 inch Bore

3/4 in. Bore, Double-acting, Rear Pivot Mount, Magnetic Piston



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 NPT ports, double acting, rear pivot mount (pivot pin included), magnetic piston.

Cylinder, 3/4 in bore, double acting, rear pivot mount, Magnetic Piston				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A12010DP-M	1.0	4.75	0.2	\$43.50
A12020DP-M	2.0	5.75	0.3	\$46.50
A12030DP-M	3.0	6.75	0.3	\$49.00
A12040DP-M	4.0	7.75	0.3	\$51.00
A12050DP-M	5.0	8.75	0.4	\$54.00
A12060DP-M	6.0	9.75	0.4	\$46.50
A12080DP-M	8.0	11.75	0.5	\$50.50
A12100DP-M	10.0	13.75	0.5	\$54.50
A12120DP-M	12.0	15.75	0.6	\$58.50

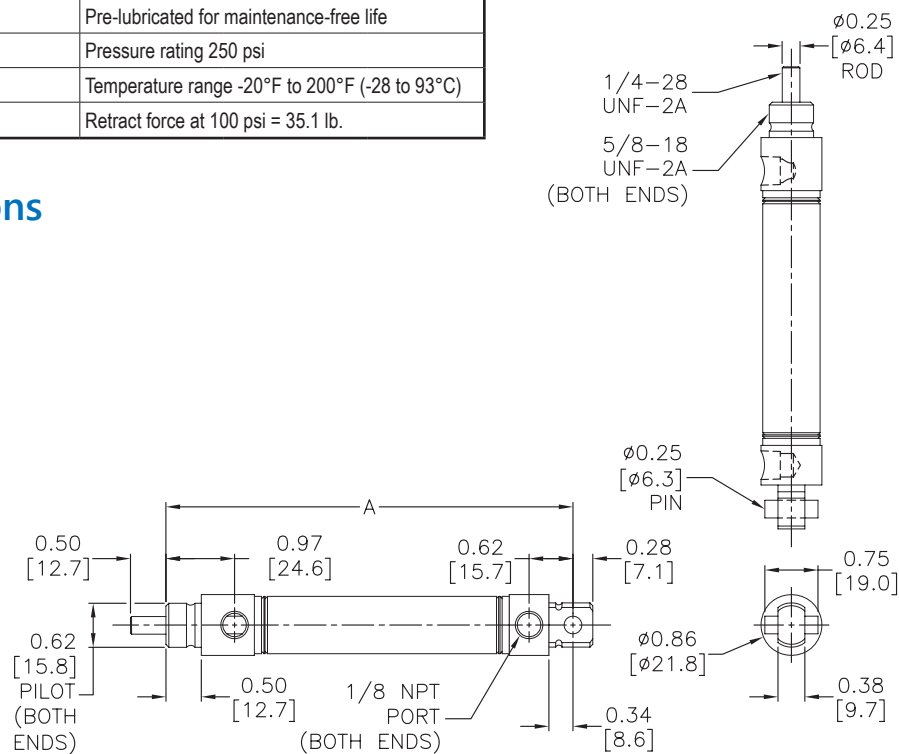
Specifications	
304 SS cylinder body	0.40 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 40.0 lb.	Retract force at 100 psi = 35.1 lb.

Mount Style	Bracket	Nut
Front Nose Mount	AMB-6	AN-58-18
Rear Pivot Mount	APB-2	-
Double End Mount	Front	AMB-6
	Rear	AMB-6

Cylinder rod clevis [ARC-14-28](#)
 See end of 3/4" bore section for Accessories
 Note: Drive pin out for double end mounting

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

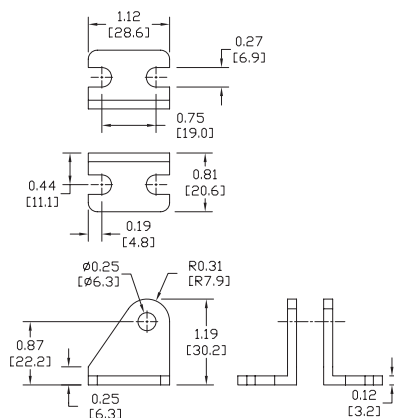
3/4 inch Bore Accessories

A-Series Pneumatic Cylinder 3/4 inch Bore Accessories				
Part Number	Description	Pcs/Pkg	Wt (lb)	Price
<u>APB-2</u>	Cylinder pivot mounting bracket without pivot pin used to mount 3/4, 7/8, and 1-1/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$4.50
<u>AMB-5</u>	Cylinder mounting bracket used to mount 3/4 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$4.00
<u>AMB-6</u>	Cylinder mounting bracket used to mount 3/4, 7/8, and 1-1/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$4.75
<u>ARC-14-28</u>	Cylinder rod clevis and hex nut, 1/4-28 thread, for use with 3/4 and 7/8 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$4.75
<u>AN-58-18</u>	Cylinder mounting nut with 5/8-18 UNF-2B threads used to mount 3/4, 7/8 and 1-1/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$1.25
<u>AN-12-20</u>	Cylinder mounting nut with 1/2-10 UNF-2B threads used to mount 3/4 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	\$1.25

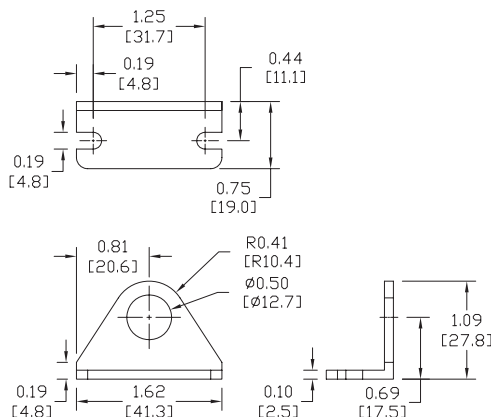
Dimensions

inches [mm]

APB-2



AMB-5





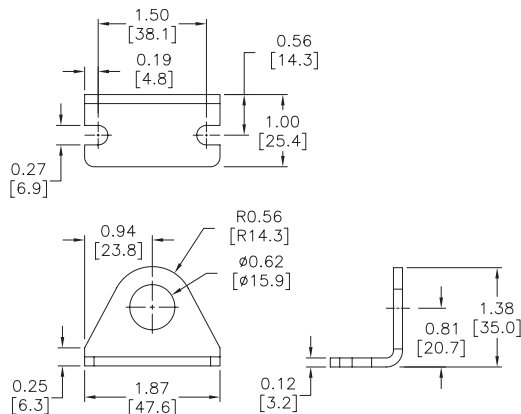
A-Series Pneumatic Cylinders

3/4 inch Bore Accessories

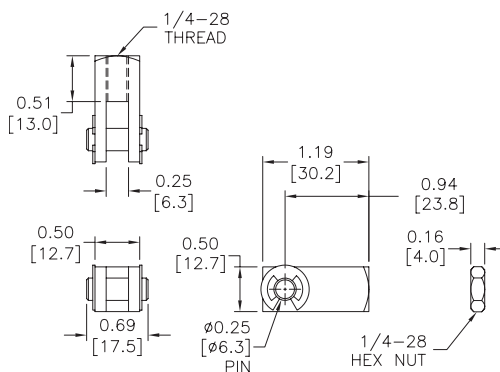
Dimensions

inches [mm]

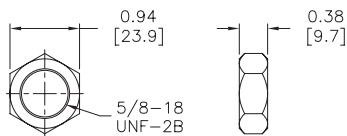
AMB-6



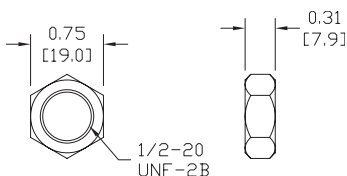
ARC-14-28



AN-58-18



AN-12-20





A-Series Pneumatic Cylinders

7/8 inch Bore

7/8 in. Bore, Single-acting, Spring Return, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/8 inch bore, 1/8 NPT port, single acting, spring return, front nose mount.

Cylinder, 7/8 in. bore, single acting, spring return, front nose mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A14010SN	1.0	3.40	0.3	\$23.00
A14020SN	2.0	4.96	0.4	\$26.50
A14030SN	3.0	6.52	0.4	\$30.50

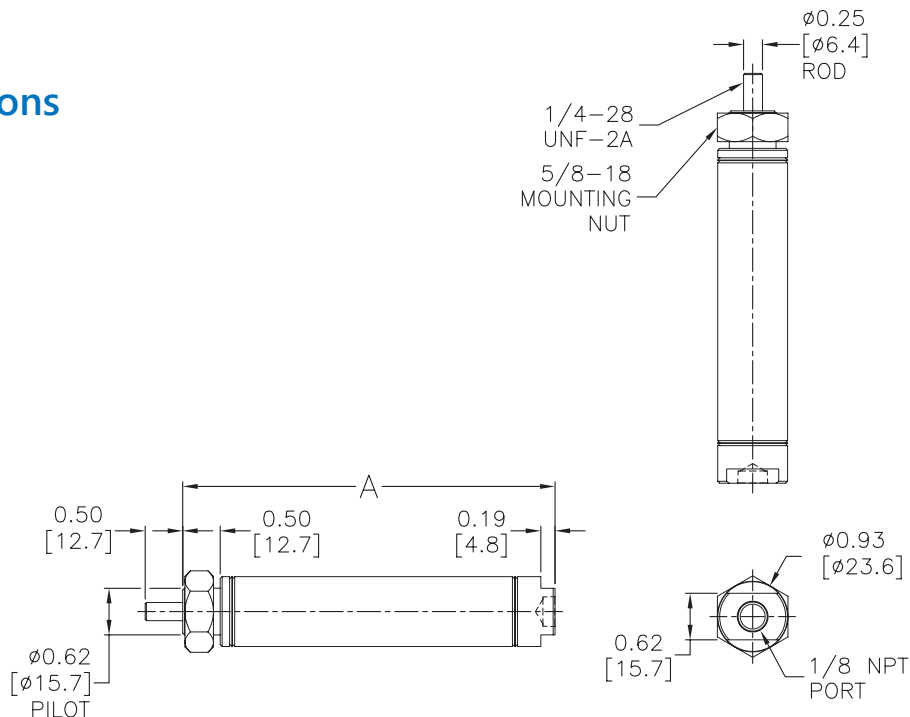
Specifications	
304 SS cylinder body	0.60 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 60.0 lb.	Spring force = 3 lb. relaxed, 6 lb. compressed

Mount Style	Bracket	Nut
Front Nose Mount	AMB-6	AN-58-18*
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

* (1) Nut included with cylinder
 Cylinder rod clevis ARC-14-28
 See end of 7/8" bore section for Accessories

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

7/8 inch Bore

7/8 in. Bore, Single-acting, Spring Return, Rear Pivot Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/8 inch bore, 1/8 NPT port, single acting, spring return, rear pivot mount (pivot pin included).

Cylinder, 7/8 in bore, single acting, spring return, rear pivot mount

Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A14010SP	1.0	4.03	0.3	\$28.50
A14020SP	2.0	5.59	0.4	\$32.00
A14030SP	3.0	7.15	0.4	\$35.50

Mount Style	Bracket	Nut
Front Nose Mount	AMB-6	AN-58-18
Rear Pivot Mount	APB-2	-
Double End Mount	Front	AMB-6
	Rear	AMB-6

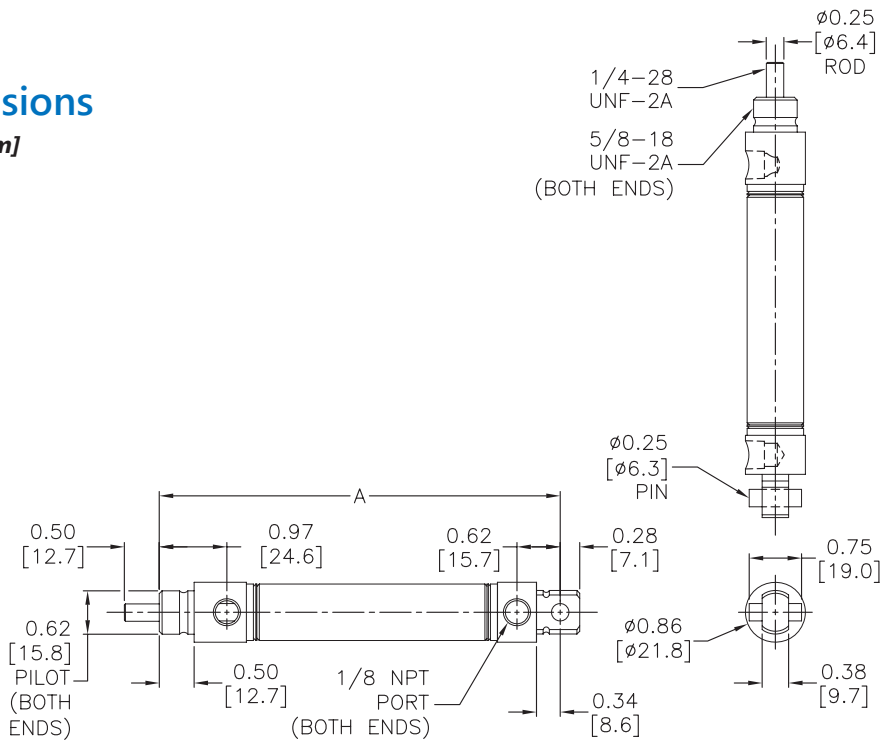
Cylinder rod clevis [ARC-14-28](#)
See end of 7/8" bore section for Accessories
Note: Drive pin out for double end mounting

Specifications

304 SS cylinder body	0.60 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 = 60.0 lb.	Spring force = 3 lb. relaxed, 6 lb. compressed

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

7/8 inch Bore

7/8 in. Bore, Double-acting, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/8 inch bore, 1/8 NPT ports, double acting, front nose mount.

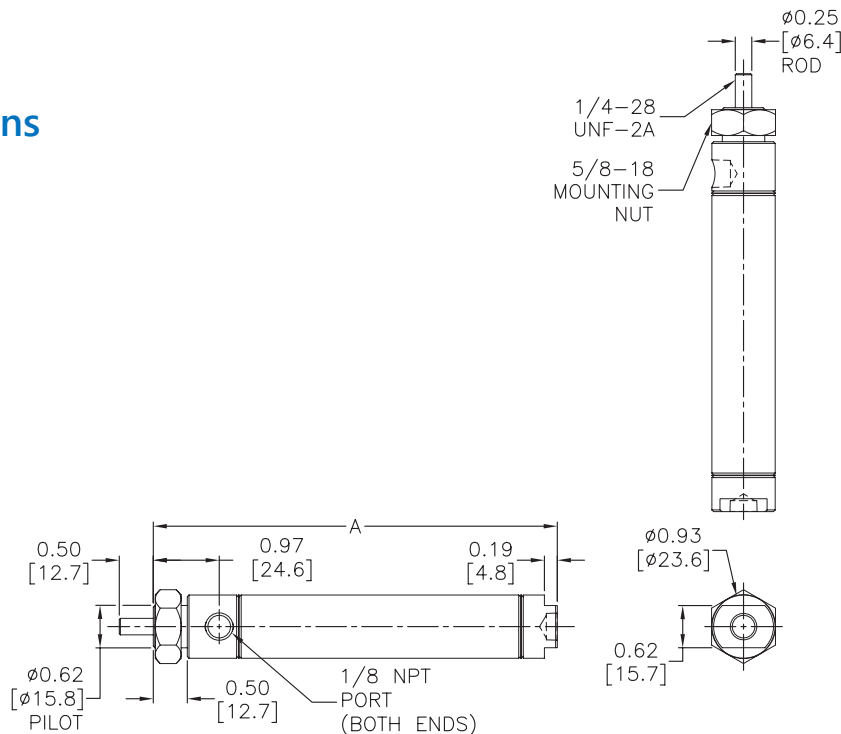
Cylinder, 7/8 in bore, double acting, front nose mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A14010DN	1.0	3.94	0.3	\$23.50
A14020DN	2.0	4.94	0.3	\$30.50
A14030DN	3.0	5.94	0.3	\$32.50
A14040DN	4.0	6.94	0.4	\$35.00
Specifications				
304 SS cylinder body		0.60 sq. in. piston area		
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 = 60.0 lb.		Retract force at 100 psi = 55.1 lb.		

Mount Style	Bracket	Nut
Front Nose Mount	AMB-6	AN-58-18*
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

* (1) Nut included with cylinder
 Cylinder rod clevis ARC-14-28
 See end of 7/8" bore section for Accessories

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

7/8 inch Bore

7/8 in. Bore, Double-acting, Double End Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/8 inch bore, 1/8 NPT ports, double acting, double end mount.

Cylinder, 7/8 in bore, double acting, double end mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A14010DD	1.0	4.56	0.4	\$30.50
A14020DD	2.0	5.56	0.4	\$38.50
A14030DD	3.0	6.56	0.4	\$41.00
A14040DD	4.0	7.56	0.4	\$43.50

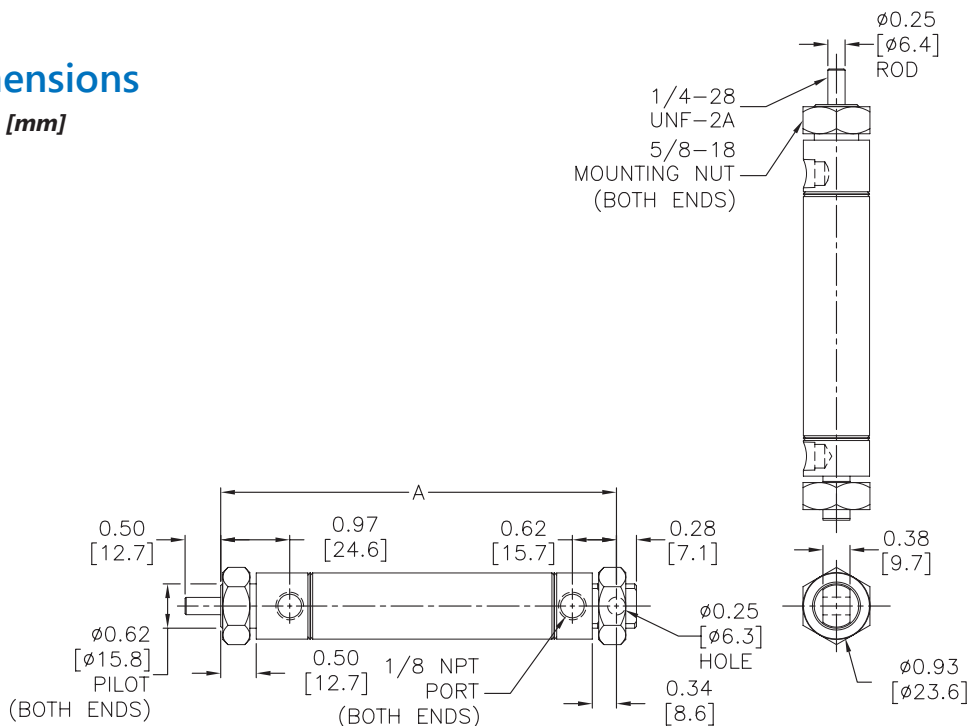
Specifications	
304 SS cylinder body	0.60 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 60.0 lb.	Retract force at 100 psi = 55.1 lb.

Mount Style	Bracket	Nut
Front Nose Mount	AMB-6	AN-58-18*
Rear Pivot Mount	APBP-3	-
Double End Mount	Front	AMB-6
	Rear	AMB-6

* (2) Nut included with cylinder
 Cylinder rod clevis ARC-14-28
 See end of 7/8" bore section for Accessories

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

7/8 inch Bore

7/8 in. Bore, Double-acting, Double end Mount, Magnetic Piston



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 7/8 inch bore, 1/8 NPT ports, double acting, double end mount, magnetic piston.

Cylinder, 7/8 in bore, double acting, double end mount, magnetic piston

Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A14010DD-M	1.0	4.56	0.4	\$41.50
A14020DD-M	2.0	5.56	0.4	\$53.00
A14030DD-M	3.0	6.56	0.4	\$55.00
A14040DD-M	4.0	7.56	0.4	\$57.00

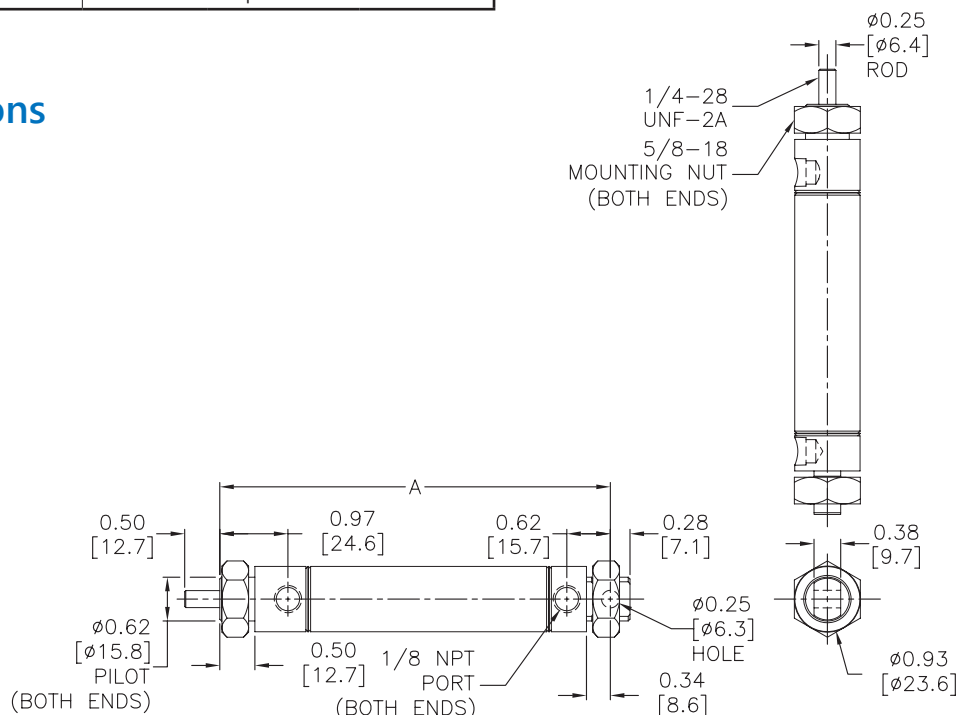
Specifications	
304 SS cylinder body	0.60 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 60.0 lb.	Retract force at 100 psi = 55.1 lb.

Mount Style	Bracket	Nut
Front Nose Mount	AMB-6	AN-58-18*
Rear Pivot Mount	APBP-3	-
Double End Mount	Front	AMB-6
	Rear	AMB-6

* (2) Nuts included with cylinder
 Cylinder rod clevis ARC-14-28
 See end of 7/8" bore section for Accessories

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

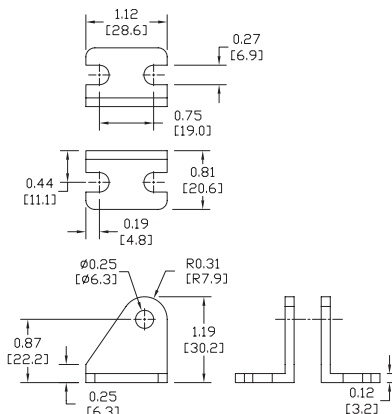
7/8 inch Bore Accessories

A-Series Pneumatic Cylinder 7/8 inch Bore Accessories				
Part Number	Description	Pcs/Pkg	Wt (lb)	Price
APB-2	Cylinder pivot mounting bracket without pivot pin used to mount 3/4, 7/8, and 1-1/16 inch bore, NITRA pneumatic, stainless steel, round body, interchangeable, non-repairable cylinders.	1	0.1	\$4.50
AMB-6	Cylinder mounting bracket used to mount 3/4, 7/8, and 1-1/16 inch bore NITRA pneumatic, stainless steel, round body, interchangeable, non-repairable cylinders.	1	0.1	\$4.75
APBP-3	Cylinder pivot mounting bracket with pivot pin used to mount 7/8 inch bore NITRA pneumatic, stainless steel, round body, interchangeable, non-repairable cylinders.	1	0.1	\$5.25
ARC-14-28	Cylinder rod clevis and hex nut, 1/4-28 thread, for use with 3/4 and 7/8 inch bore NITRA pneumatic, stainless steel, round body, interchangeable, non-repairable cylinders.	1	0.1	\$4.75
AN-58-18	Cylinder mounting nut with 5/8-18 UNF-2B threads used to mount 3/4, 7/8 and 1-1/16 inch bore NITRA pneumatic, stainless steel, round body, interchangeable, non-repairable cylinders.	1	0.1	\$1.25

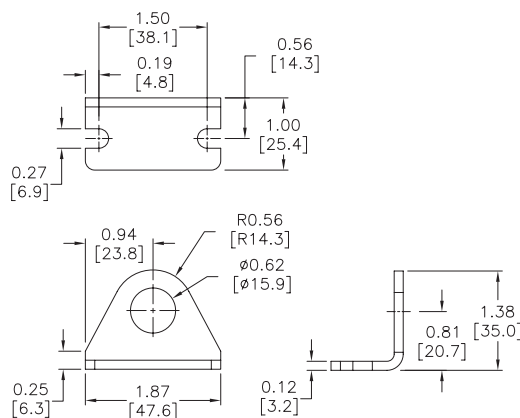
Dimensions

inches [mm]

APB-2



AMB-6





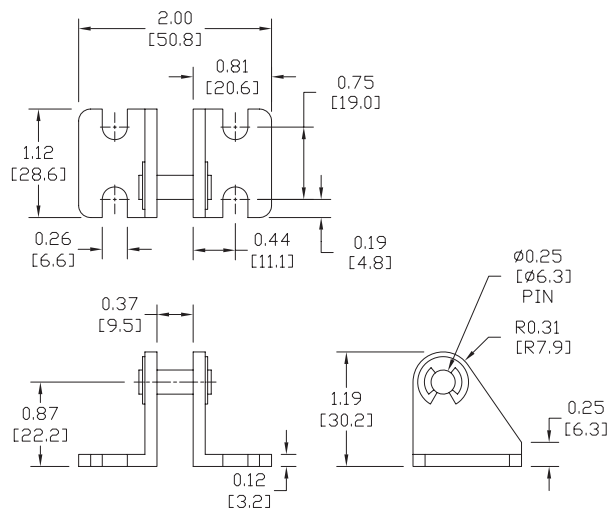
A-Series Pneumatic Cylinders

7/8 inch Bore Accessories

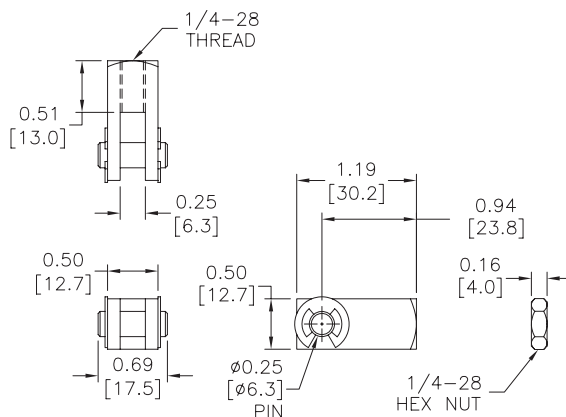
Dimensions

inches [mm]

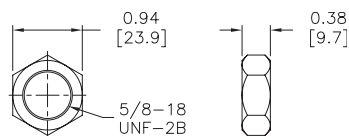
APBP-3



ARC-14-28



AN-58-18





A-Series Pneumatic Cylinders

1-1/16 inch Bore

1-1/16 in. Bore, Single-Acting, Spring Return, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/16 inch bore, 1/8 NPT port, single acting, spring return, front nose mount.

Cylinder, 1-1/16 in bore, single acting, spring return, front nose mount

Part Number	Stroke Length (in)	"A" (in)	Weight (lbs)	Price
A17010SN	1.0	3.50	0.3	\$24.00
A17020SN	2.0	5.06	0.5	\$28.50
A17030SN	3.0	6.62	0.6	\$32.00

Specifications

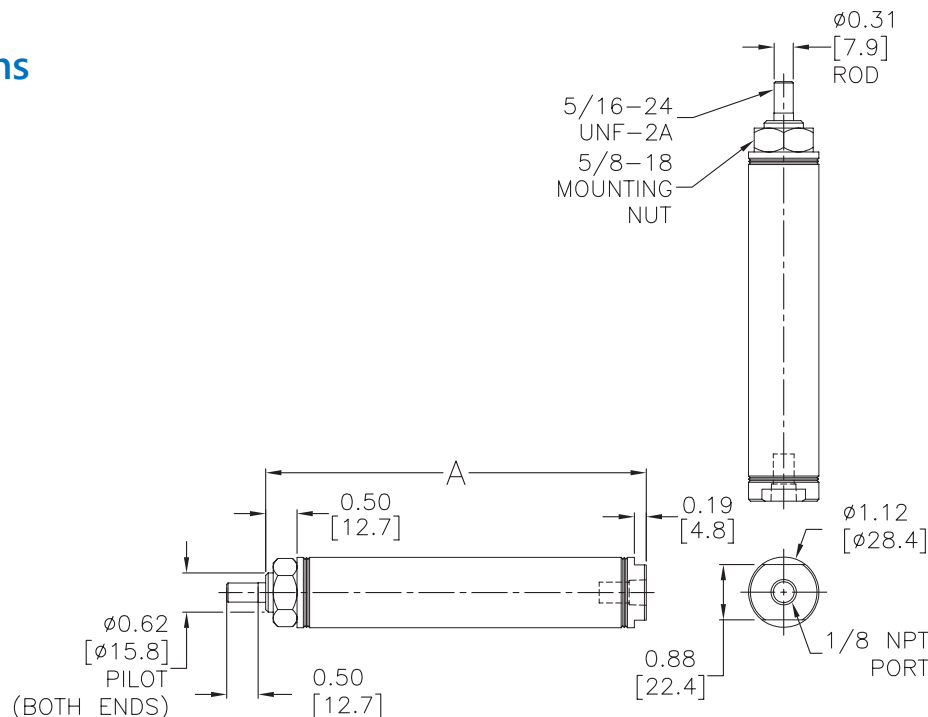
304 SS cylinder body	0.90 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 90.0 lb.	Spring force = 3 lb. relaxed, 6 lb. compressed

Mount Style	Bracket	Nut
Front Nose Mount	AMB-6	AN-58-18*
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

* (1) Nut included with cylinder
Cylinder rod clevis ARC-516-24
See end of 1-1/16" bore section for Accessories

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

1-1/16 inch Bore

1-1/16 in. Bore, Single-acting, Spring Return, Rear Pivot Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/16 inch bore, 1/8 NPT port, single acting, spring return, rear pivot mount (pivot pin included).

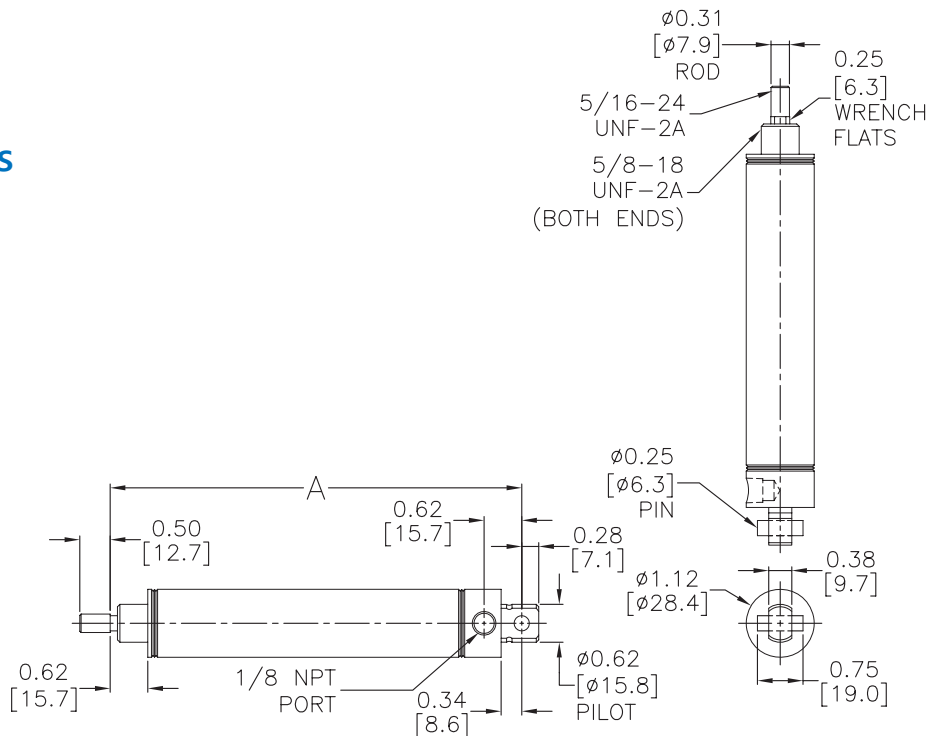
Cylinder, 1-1/16 in bore, single acting, spring return, rear pivot mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A17010SP	1.0	4.22	0.4	\$29.50
A17020SP	2.0	5.78	0.5	\$33.50
A17030SP	3.0	7.34	0.6	\$31.00
Specifications				
304 SS cylinder body		0.90 sq. in. piston area		
High strength 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 = 90.0 lb.		Spring force = 3 lb. relaxed, 6 lb. compressed		

Mount Style	Bracket	Nut
Front Nose Mount	AMB-6	AN-58-18
Rear Pivot Mount	APB-2	-
Double End Mount	Front	AMB-6 AN-58-18
	Rear	AMB-6 AN-58-18

Cylinder rod clevis ARC-516-24
 See end of 1-1/16" bore section for Accessories
 Note: Drive pin out for double end mounting

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

1-1/16 inch Bore

1-1/16 in. Bore, Double-acting, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, 1-1/16 inch bore, 1/8 NPT ports, double acting, front nose mount.

Cylinder, 1-1/16 in bore, double acting, front nose mount

Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A17005DN	0.5	3.62	0.4	\$29.00
A17010DN	1.0	4.12	0.4	\$30.00
A17020DN	2.0	5.12	0.4	\$32.00
A17030DN	3.0	6.12	0.5	\$34.50
A17040DN	4.0	7.12	0.5	\$30.50
A17050DN	5.0	8.12	0.6	\$33.00
A17060DN	6.0	9.12	0.6	\$35.00
A17080DN	8.0	11.12	0.7	\$48.50
A17100DN	10.0	13.12	0.8	\$43.00
A17120DN	12.0	15.12	0.9	\$47.00

Specifications

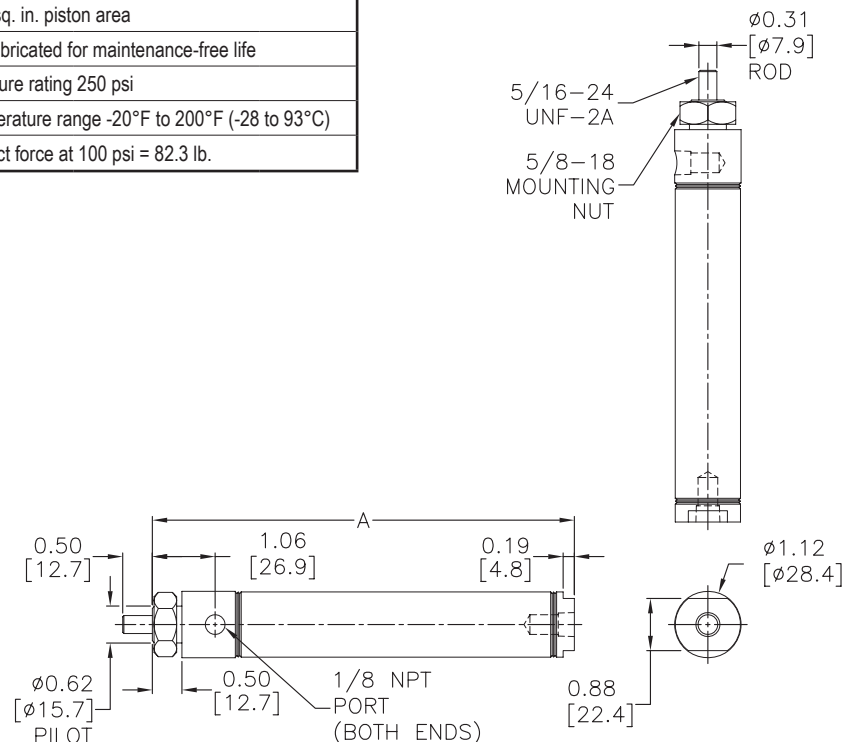
304 SS cylinder body	0.90 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High Strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 90.0 lb.	Retract force at 100 psi = 82.3 lb.

Mount Style	Bracket	Nut
Front Nose Mount	AMB-6	AN-58-18*
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

* (1) Nut included with cylinder
Cylinder rod clevis [ARC-516-24](#)
See end of 1-1/16" bore section for Accessories

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

1-1/16 inch Bore

1-1/16 in. Bore, Double-acting, Rear Pivot Mount



NITRA pneumatic stainless steel round body, interchangeable, 1-1/16 inch bore, 1/8 NPT ports, double acting, rear pivot mount (pivot pin included).

Cylinder, 1-1/16 in bore, double acting, rear pivot mount

Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A17010DP	1.0	4.84	0.4	\$35.00
A17020DP	2.0	5.84	0.4	\$37.50
A17030DP	3.0	6.84	0.5	\$40.00
A17040DP	4.0	7.84	0.5	\$35.00
A17050DP	5.0	8.84	0.6	\$37.00
A17060DP	6.0	9.84	0.6	\$39.00
A17080DP	8.0	11.84	0.7	\$43.50
A17100DP	10.0	13.84	0.8	\$47.50
A17120DP	12.0	15.84	0.9	\$51.50

Mount Style	Bracket	Nut
Front Nose Mount	AMB-6	AN-58-18
Rear Pivot Mount	APB-2	-
Double End Mount	Front	AMB-6
	Rear	AMB-6

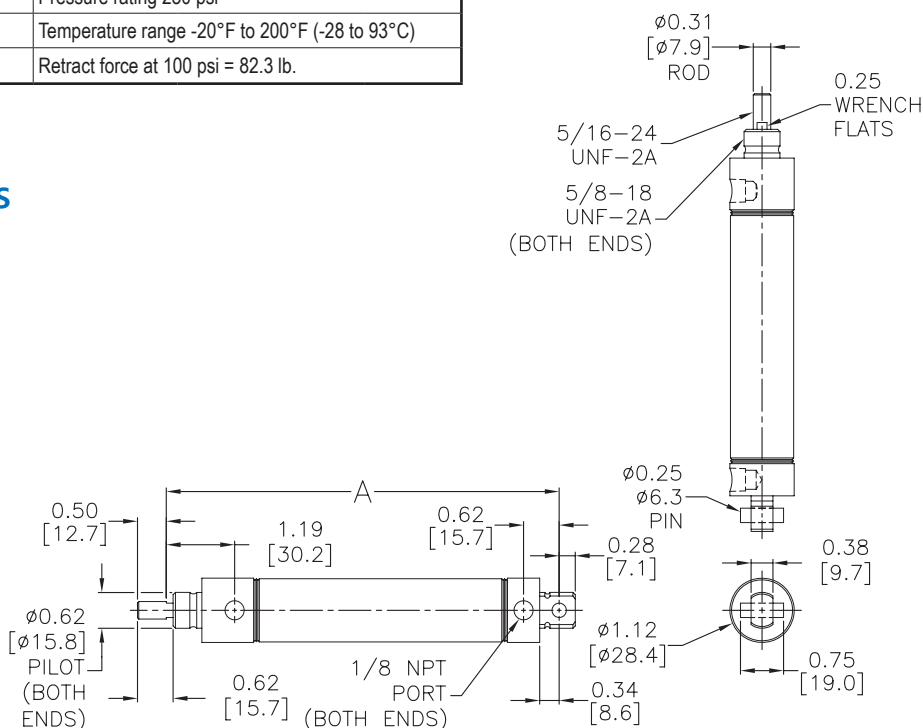
Cylinder rod clevis [ARC-516-24](#)
 See end of 1-1/16" bore section for Accessories
 Note: Drive pin out for double end mounting

Specifications

304 SS cylinder body	0.90 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 = 90.0 lb.	Retract force at 100 psi = 82.3 lb.

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

1-1/16 inch Bore

1-1/16 in. Bore, Double-acting, Rear Pivot Mount, Magnetic Piston



NITRA pneumatic stainless steel round body, interchangeable, 1-1/16 inch bore, 1/8 NPT ports, double acting, rear pivot mount, magnetic piston (pivot pin included).

Cylinder, 1-1/16 in bore, double acting, rear pivot mount, magnetic piston

Part Number	Stroke Length (in)	"A" (in)	Weight (lbs)	Price
A17010DP-M	1.0	4.84	0.4	\$52.00
A17020DP-M	2.0	5.84	0.4	\$54.00
A17030DP-M	3.0	6.84	0.5	\$57.00
A17040DP-M	4.0	7.84	0.5	\$49.00
A17050DP-M	5.0	8.84	0.6	\$51.00
A17060DP-M	6.0	9.84	0.6	\$53.00
A17080DP-M	8.0	11.84	0.7	\$57.00
A17100DP-M	10.0	13.84	0.8	\$61.00
A17120DP-M	12.0	15.84	0.9	\$65.00

Mount Style	Bracket	Nut
Front Nose Mount	AMB-6	AN-58-18
Rear Pivot Mount	APB-2	-
Double End Mount	Front AMB-6	AN-58-18
	Rear AMB-6	AN-58-18

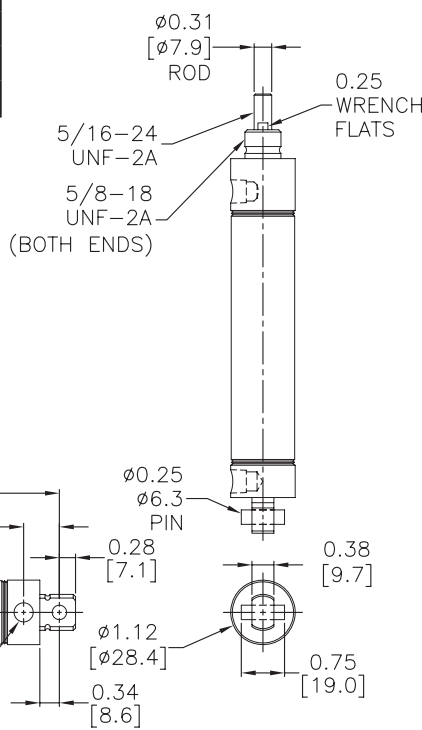
Cylinder rod clevis [ARC-516-24](#)
 See end of 1-1/16" bore section for Accessories
 Note: Drive pin out for double end mounting

Specifications

304 SS cylinder body	0.90 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 = 90.0 lb.	Retract force at 100 psi = 82.3 lb.

Dimensions

inches [mm]





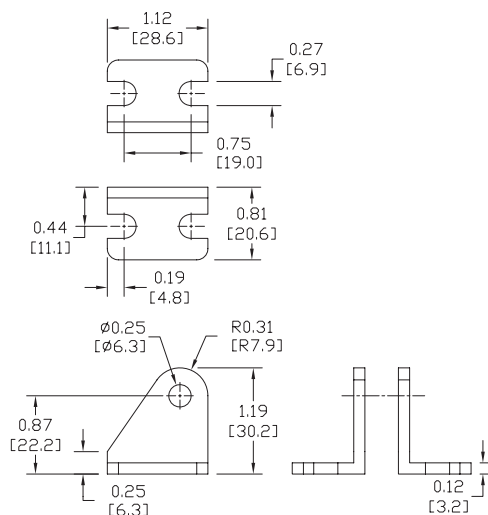
A-Series Pneumatic Cylinders 1-1/16 inch Bore Accessories

A-Series Pneumatic Cylinder 1-1/16 inch Bore Accessories				
Part Number	Description	Pcs/Pkg	Wt (lb)	Price
APB-2	Cylinder pivot mounting bracket without pivot pin used to mount 3/4, 7/8, and 1-1/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.2	\$4.50
AMB-6	Cylinder mounting bracket used to mount 3/4, 7/8, and 1-1/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$4.75
ARC-516-24	Cylinder rod clevis and hex nut, 5/16-24 thread, for use with 1-1/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$5.50
AN-58-18	Cylinder mounting nut with 5/8-18 UNF-2B threads used to mount 3/4, 7/8 and 1-1/16 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$1.25

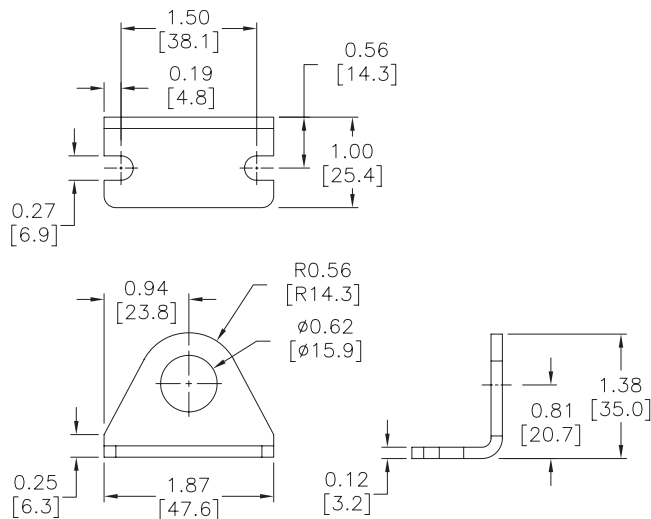
Dimensions

inches [mm]

APB-2



AMB-6





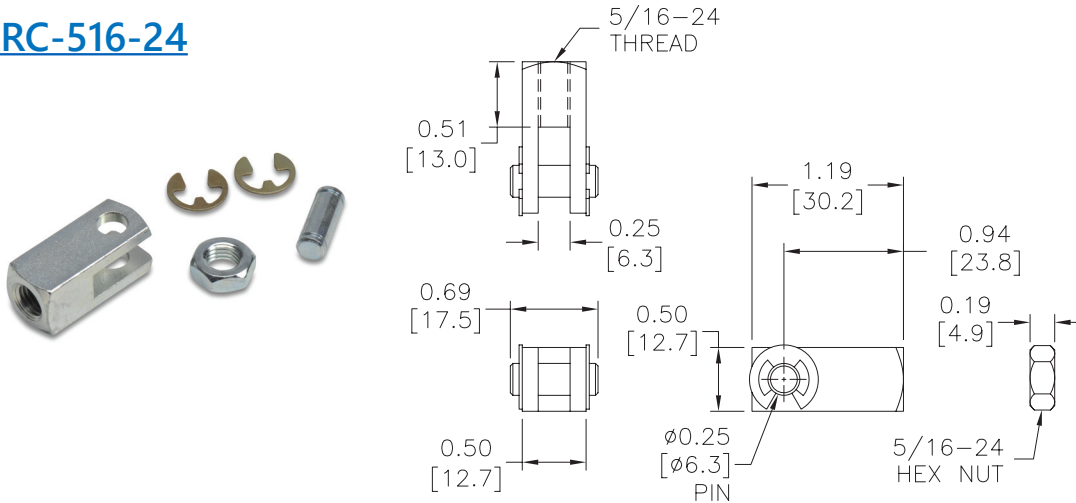
A-Series Pneumatic Cylinders

1-1/16 inch Bore Accessories

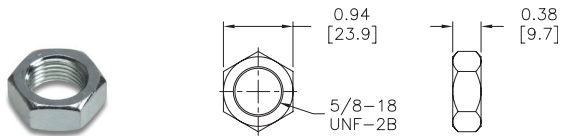
Dimensions

inches [mm]

ARC-516-24



AN-58-18





A-Series Pneumatic Cylinders

1-1/4 inch Bore

1-1/4 in. Bore, Single-acting, Spring Return, Front Nose Mount



NITRA pneumatic stainless steel round body interchangeable, non-repairable cylinder, 1-1/4 inch bore, 1/8 NPT port, single acting, spring return, front nose mount.

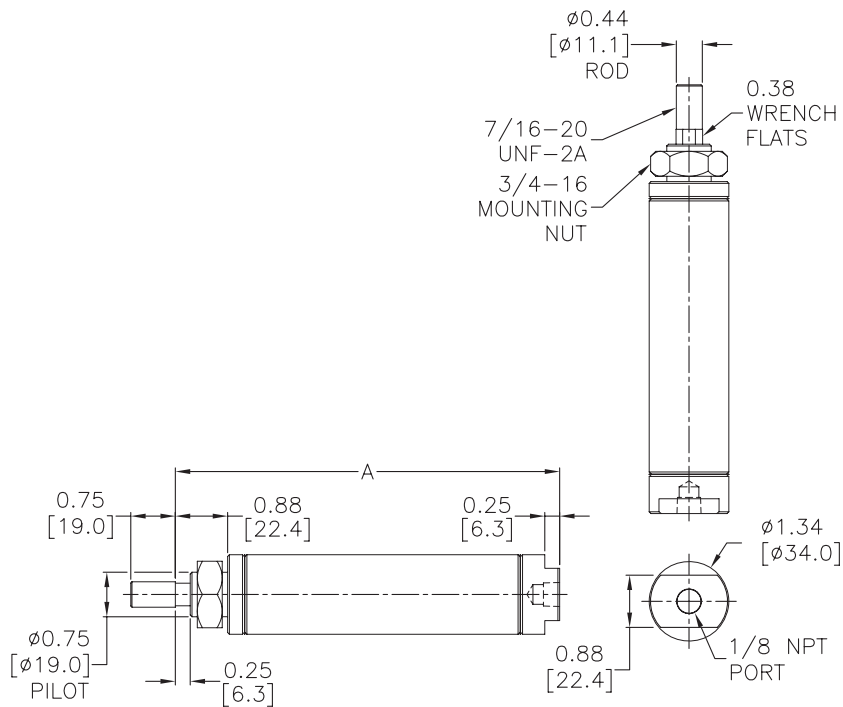
Cylinder, 1-1/4 in bore, single acting, spring return, front nose mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A20010SN	1.0	4.47	0.6	\$31.50
A20020SN	2.0	6.28	0.8	\$43.00
A20030SN	3.0	8.09	1.0	\$54.00
Specifications				
304 SS cylinder body	1.2 sq. in. piston area			
High strength 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 = 120.0 lb.	Spring force = 7.5 lb. relaxed, 15 lb. compressed.			

Mount Style	Bracket	Nut
Front Nose Mount	AMB-7	AN-34-16*
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

* (1) Nut included with cylinder
 Cylinder rod clevis ARC-716-20
 See end of 1-1/4" bore section for Accessories

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

1-1/4 inch Bore

1-1/4 in. Bore, Single-acting, Spring Return, Double End Mount



NITRA pneumatic stainless steel round body interchangeable, non-repairable cylinder, 1-1/4 inch bore, 1/8 NPT port, single acting, spring return, double end mount.

Cylinder, 1-1/4 in bore, single acting, spring return, double end mount				
Part Number	Stroke Length (in)	"A" (in)	Weight (lbs)	Price
A20010SD	1.0	5.19	0.7	\$38.00
A20020SD	2.0	7.00	1.0	\$51.00
A20030SD	3.0	8.81	1.2	\$56.00

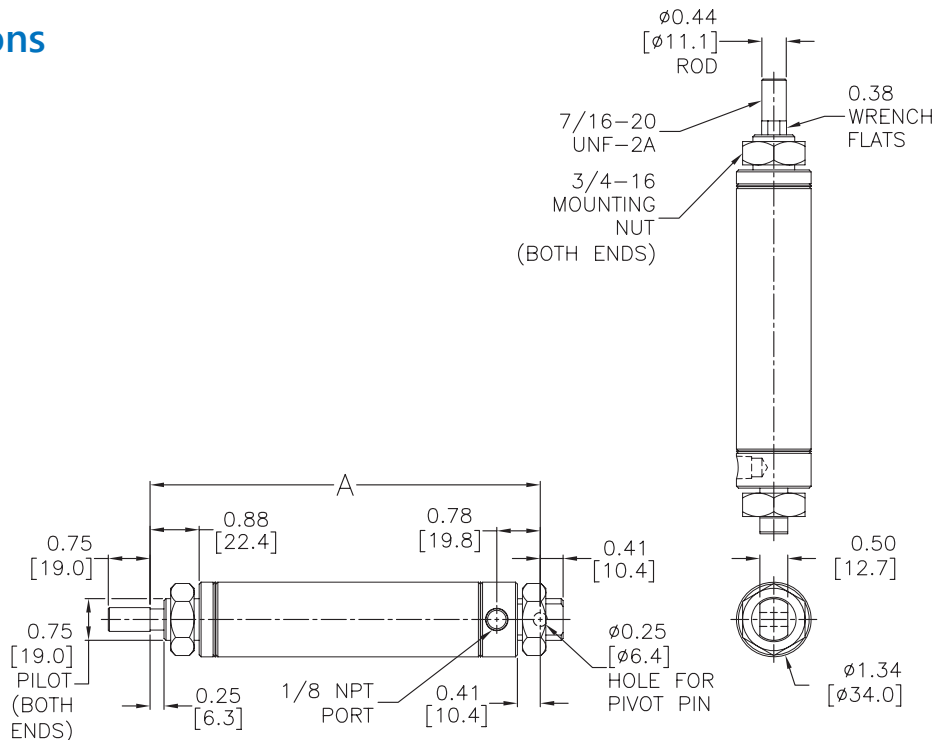
Specifications	
304 SS cylinder body	1.2 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 120.0 lb.	Spring force = 7.5 lb. relaxed, 15 lb. compressed

Mount Style	Bracket	Nut
Front Nose Mount	AMB-7	AN-34-16*
Rear Pivot Mount	APBP-4	-
Double End Mount	Front	AMB-7
	Rear	AMB-7

* (2) Nuts included with cylinder
 Cylinder rod clevis [ARC-716-20](#)
 See end of 1-1/4" bore section for Accessories

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

1-1/4 inch Bore

1-1/4 in. Bore, Double-acting, Front Nose Mount



NITRA pneumatic stainless steel round body interchangeable, non-repairable cylinder, 1-1/4 inch bore, 1/8 NPT ports, double acting, front nose mount.

Cylinder, 1-1/4 in bore, double acting, front nose mount

Part Number	Stroke Length (in)	"A" (in)	Weight (lbs)	Price
A20010DN	1.0	5.00	0.7	\$37.50
A20020DN	2.0	6.00	0.7	\$48.00
A20030DN	3.0	7.00	0.8	\$51.00
A20040DN	4.0	8.00	0.9	\$60.00
A20050DN	5.0	9.00	1.0	\$64.00
A20060DN	6.0	10.0	1.1	\$67.00
A20080DN	8.0	12.0	1.2	\$74.00

Mount Style	Bracket	Nut
Front Nose Mount	AMB-7	AN-34-16*
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

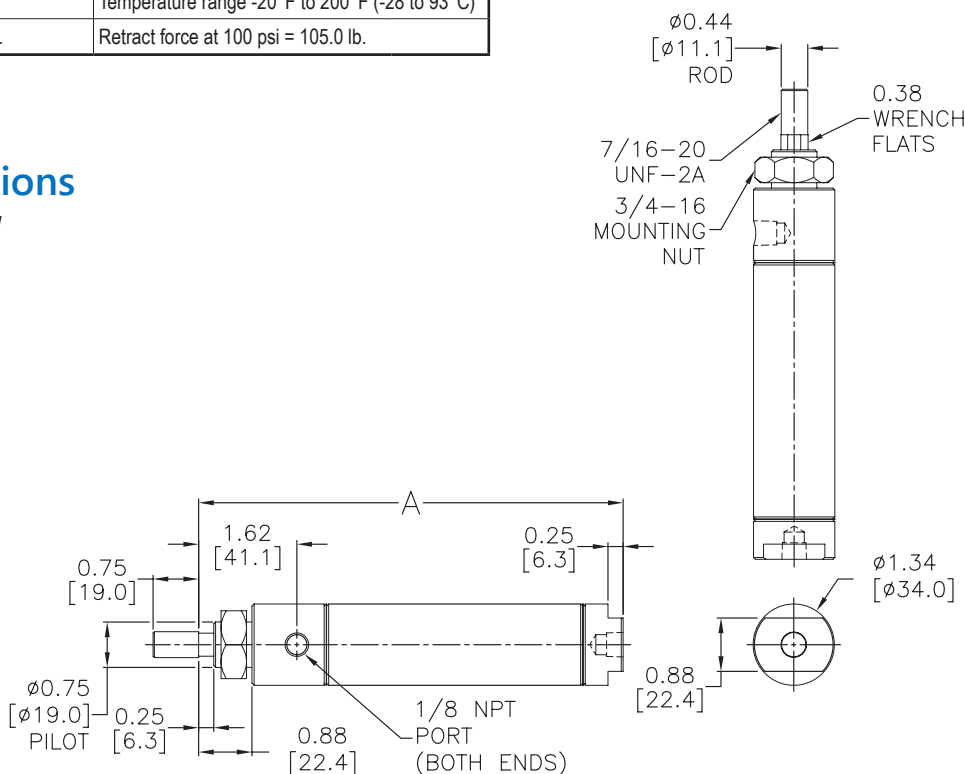
* (1) Nut included with cylinder
 Cylinder rod clevis [ARC-716-20](#)
 See end of 1-1/4" bore section for Accessories

Specifications

304 SS cylinder body	1.2 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 = 120.0 lb.	Retract force at 100 psi = 105.0 lb.

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

1-1/4 inch Bore

1-1/4 in. Bore, Double-acting, Double End Mount



NITRA pneumatic stainless steel round body interchangeable, non-repairable cylinder, 1-1/4 inch bore, 1/8 NPT ports, double acting, double end mount.

Cylinder, 1-1/4 in bore, double acting, double end mount				
Part Number	Stroke Length (in)	"A" (in)	Weight (lbs)	Price
A20010DD	1.0	5.72	0.8	\$44.00
A20020DD	2.0	6.72	0.9	\$46.50
A20030DD	3.0	7.72	1.0	\$59.00
A20040DD	4.0	8.72	1.0	\$69.00
A20050DD	5.0	9.72	1.1	\$73.00
A20060DD	6.0	10.72	1.2	\$76.00
A20080DD	8.0	12.72	1.4	\$83.00
A20100DD	10.0	14.72	1.5	\$89.00
A20120DD	12.0	16.72	1.7	\$96.00

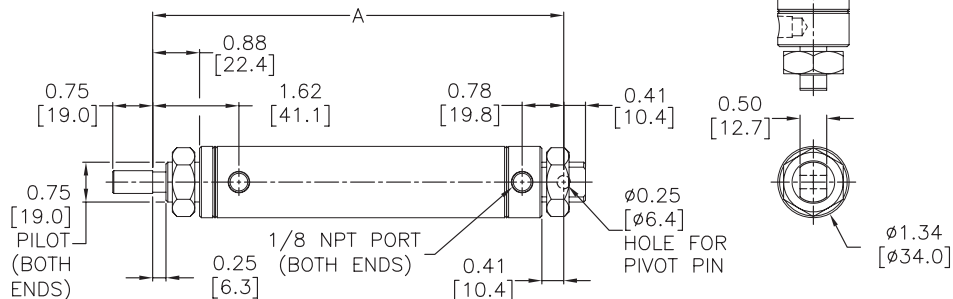
Mount Style	Bracket	Nut
Front Nose Mount	AMB-7	AN-34-16*
Rear Pivot Mount	APBP-4	-
Double End Mount	Front	AMB-7 AN-34-16*
	Rear	AMB-7 AN-34-16*

* (2) Nuts included with cylinder
 Cylinder rod clevis [ARC-716-20](#)
 See end of 1-1/4" bore section for Accessories

Specifications	
304 SS cylinder body	1.2 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 = 120.0 lb.	Retract force at 100 psi = 105.0 lb.

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

1-1/4 inch Bore

1-1/4 in. Bore, Double-acting, Double End Mount, Magnetic Piston



NITRA pneumatic stainless steel round body interchangeable, non-repairable cylinder, 1-1/4 inch bore, 1/8 NPT ports, double acting, double end mount, magnetic piston.

Cylinder, 1-1/4 in bore, double acting, double end mount, magnetic piston

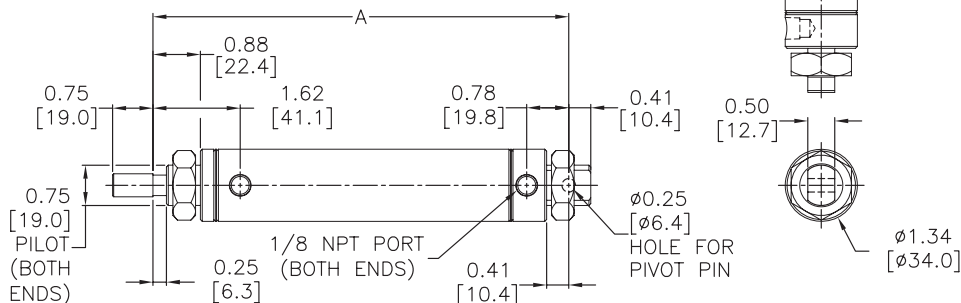
Part Number	Stroke Length (in)	"A" (in)	Weight (lbs)	Price
A20010DD-M	1.0	5.72	0.8	\$58.00
A20020DD-M	2.0	6.72	0.9	\$60.50
A20030DD-M	3.0	7.72	1.0	\$76.00
A20040DD-M	4.0	8.72	1.0	\$87.00
A20050DD-M	5.0	9.72	1.1	\$91.00
A20060DD-M	6.0	10.72	1.2	\$95.00
A20080DD-M	8.0	12.72	1.4	\$101.00
A20100DD-M	10.0	14.72	1.5	\$108.00
A20120DD-M	12.0	16.72	1.7	\$114.00

Specifications

304 SS cylinder body	1.2 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 = 120.0 lb.	Retract force at 100 psi = 105.0 lb.

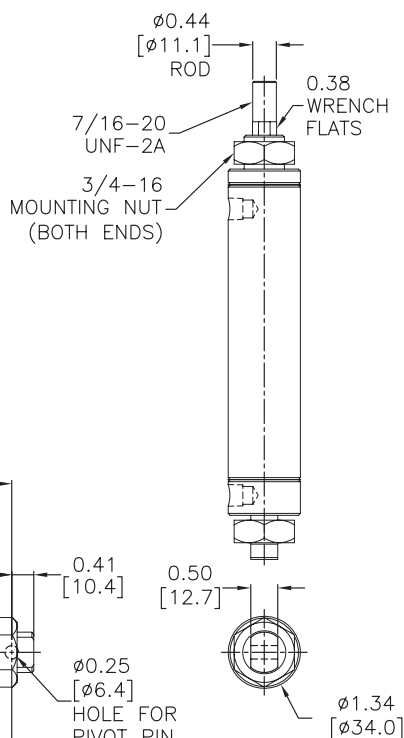
Dimensions

inches [mm]



Mount Style	Bracket	Nut
Front Nose Mount	AMB-7	AN-34-16*
Rear Pivot Mount	APBP-4	-
Double End Mount	Front	AMB-7 AN-34-16*
	Rear	AMB-7 AN-34-16*

* (2) Nuts included with cylinder
 Cylinder rod clevis ARC-716-20
 See end of 1-1/4" bore section for Accessories





A-Series Pneumatic Cylinders

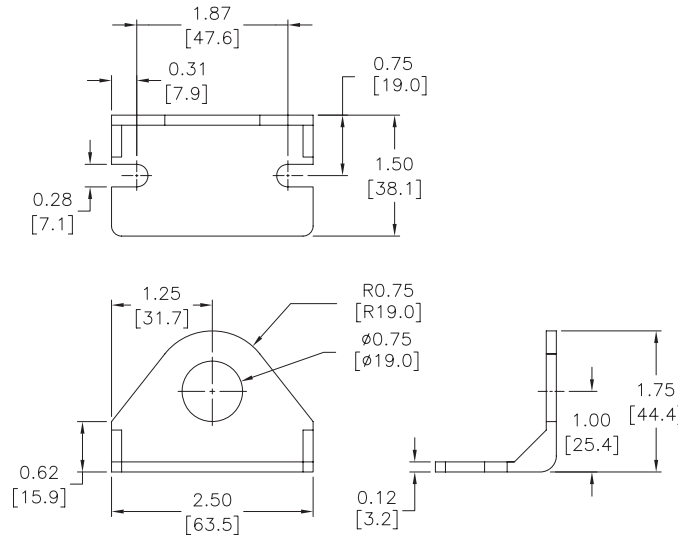
1-1/4 inch Bore Accessories

A-Series Pneumatic Cylinder 1-1/4 inch Bore Accessories				
Part Number	Description	Pcs/Pkg	Wt (lb)	Price
AMB-7	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	\$7.50
APBP-4	Cylinder pivot mounting bracket with pivot pin used to mount 1-1/4 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.1	\$9.50
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	\$8.75
AN-34-16	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	\$1.25

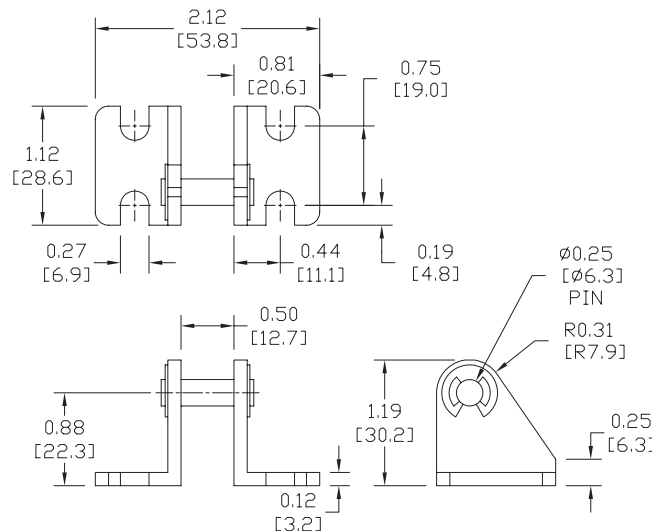
Dimensions

inches [mm]

AMB-7



APBP-4





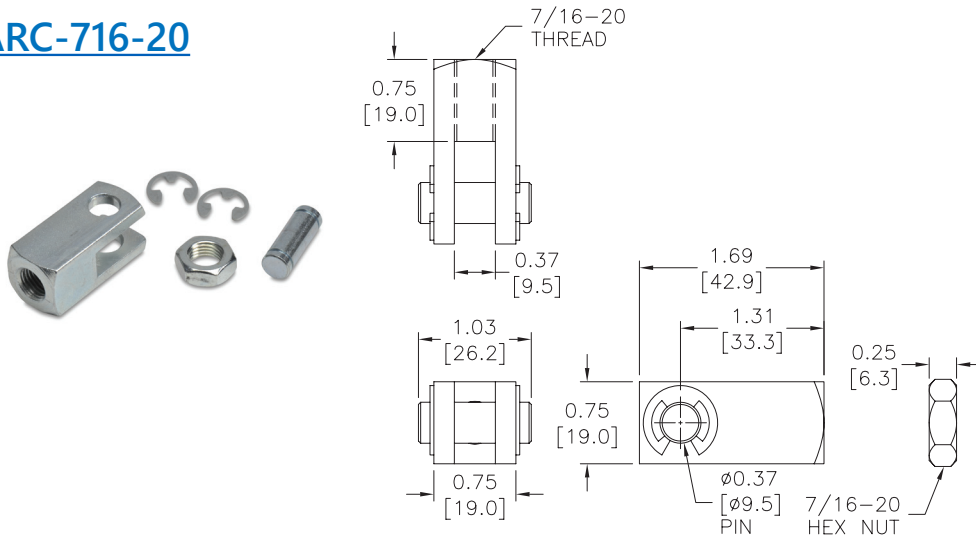
A-Series Pneumatic Cylinders

1-1/4 inch Bore Accessories

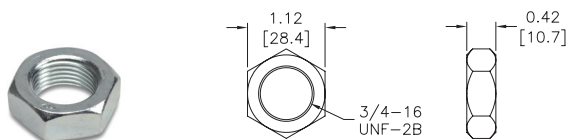
Dimensions

inches [mm]

ARC-716-20



AN-34-16





A-Series Pneumatic Cylinders

1-1/2 inch Bore

1-1/2 in. Bore, Single-acting, Spring Return, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/2 inch bore, 1/8 NPT port, single acting, spring return, front nose mount.

Cylinder, 1-1/2 in bore, single acting, spring return, front nose mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A24010SN	1.0	4.13	0.7	\$47.00
A24020SN	2.0	5.82	0.9	\$54.00
A24030SN	3.0	7.51	1.1	\$60.00
A24040SN	4.0	9.20	1.3	\$67.00
A24050SN	5.0	10.89	1.5	\$74.00
A24060SN	6.0	12.58	1.8	\$80.00

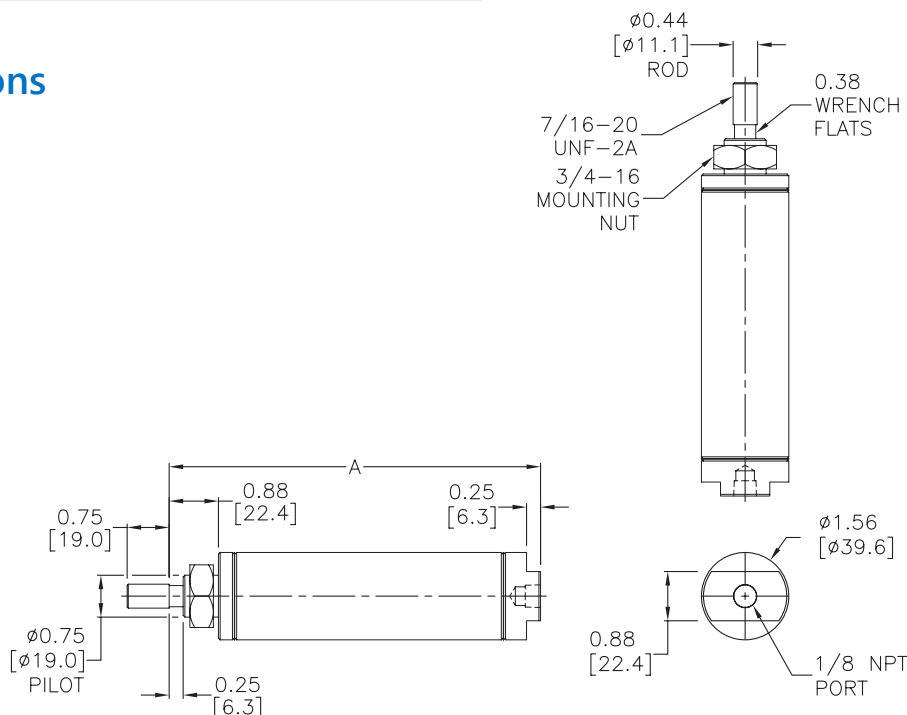
Specifications	
304 SS cylinder body	1.7 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 170.0 lb.	Spring force = 7.5 lb. relaxed, 14 lb. compressed

Mount Style	Bracket	Nut
Front Nose Mount	AMB-7	AN-34-16*
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

* (1) Nut included with cylinder
 Cylinder rod clevis ARC-716-20
 See end of 1-1/2" bore section for Accessories

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

1-1/2 inch Bore

1-1/2 in. Bore, Single-acting, Spring Return, Rear Pivot Mount



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

Cylinder, 1-1/2 in bore, single acting, spring return, rear pivot mount

Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A24010SP	1.0	4.81	0.7	\$55.00
A24020SP	2.0	6.50	0.9	\$61.00
A24030SP	3.0	8.19	1.1	\$68.00
A24040SP	4.0	9.88	1.3	\$74.00
A24050SP	5.0	11.57	1.6	\$81.00
A24060SP	6.0	13.26	1.8	\$87.00

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

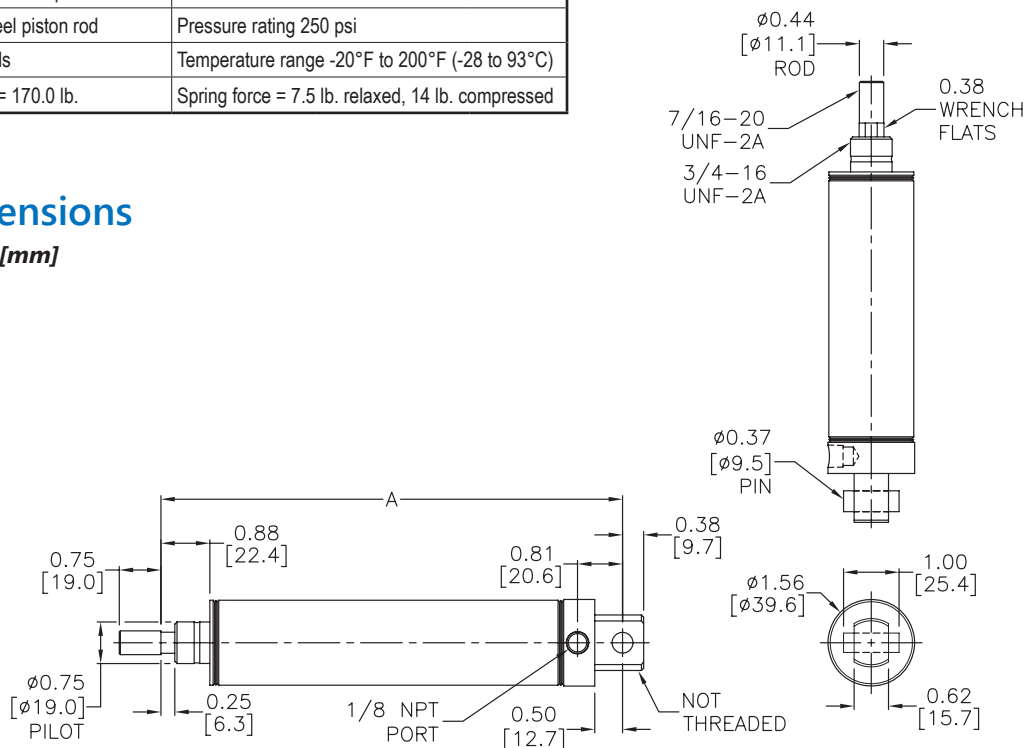
Cylinder rod clevis [ARC-716-20](#)
See end of 1-1/2" bore section for Accessories

Specifications

304 SS cylinder body	1.7 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 = 170.0 lb.	Spring force = 7.5 lb. relaxed, 14 lb. compressed

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

1-1/2 inch Bore

1-1/2 in. Bore, Double-acting, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/2 inch bore, 1/8 NPT ports, double acting, front nose mount.

Cylinder, 1-1/2 in bore, double acting, front nose mount

Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A24010DN	1.0	4.69	0.8	\$54.00
A24015DN	1.5	5.19	0.8	\$56.00
A24020DN	2.0	5.69	0.9	\$58.00
A24030DN	3.0	6.69	0.9	\$61.00
A24040DN	4.0	7.69	1.0	\$67.00
A24050DN	5.0	8.69	1.1	\$70.00
A24060DN	6.0	9.69	1.2	\$76.00
A24070DN	7.0	10.69	1.3	\$79.00
A24080DN	8.0	11.69	1.3	\$83.00
A24090DN	9.0	12.69	1.4	\$86.00
A24100DN	10.0	13.69	1.5	\$91.00
A24110DN	11.0	14.69	1.6	\$95.00
A24120DN	12.0	15.69	1.7	\$100.00

Mount Style	Bracket	Nut
Front Nose Mount	AMB-7	AN-34-16*
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

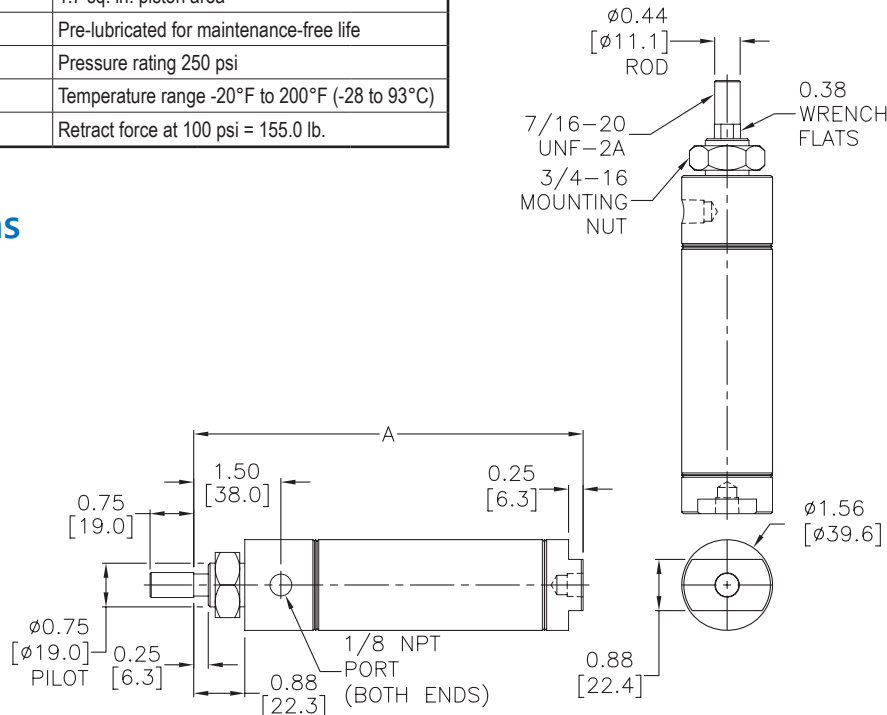
* (1) Nut included with cylinder
 Cylinder rod clevis [ARC-716-20](#)
 See end of 1-1/2" bore section for Accessories

Specifications

304 SS cylinder body	1.7 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 = 170.0 lb.	Retract force at 100 psi = 155.0 lb.

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

1-1/2 inch Bore

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



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

Cylinder, 1-1/2 in bore, double acting, rear pivot mount

Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A24010DP	1.0	5.38	0.8	\$61.00
A24020DP	2.0	6.38	0.9	\$65.00
A24030DP	3.0	7.38	1.0	\$69.00
A24040DP	4.0	8.38	1.1	\$74.00
A24050DP	5.0	9.38	1.1	\$77.00
A24060DP	6.0	10.38	1.2	\$81.00
A24070DP	7.0	11.38	1.3	\$86.00
A24080DP	8.0	12.38	1.4	\$90.00
A24090DP	9.0	13.38	1.5	\$93.00
A24100DP	10.0	14.38	1.5	\$99.00
A24120DP	12.0	16.38	1.7	\$105.00

Specifications

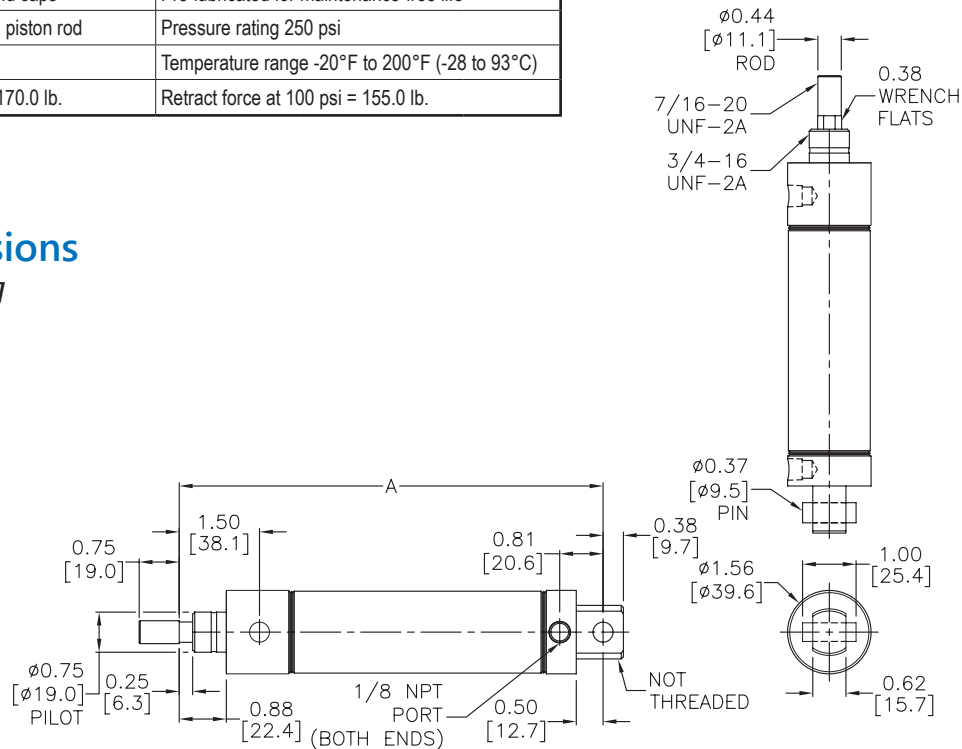
304 SS cylinder body	1.7 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
High strength carbon steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 170.0 lb.	Retract force 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	-
	Rear	-

Cylinder rod clevis [ARC-716-20](#)
See end of 1-1/2" bore section for Accessories

Dimensions

inches [mm]





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
A24010DP-M	1.0	5.38	0.8	\$84.00
A24020DP-M	2.0	6.38	0.9	\$87.00
A24030DP-M	3.0	7.38	1.0	\$91.00
A24040DP-M	4.0	8.38	1.1	\$96.00
A24050DP-M	5.0	9.38	1.1	\$100.00
A24060DP-M	6.0	10.38	1.2	\$103.00
A24070DP-M	7.0	11.38	1.3	\$108.00
A24080DP-M	8.0	12.38	1.4	\$112.00
A24090DP-M	9.0	13.38	1.5	\$116.00
A24100DP-M	10.0	14.38	1.5	\$120.00
A24120DP-M	12.0	16.38	1.7	\$128.00

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

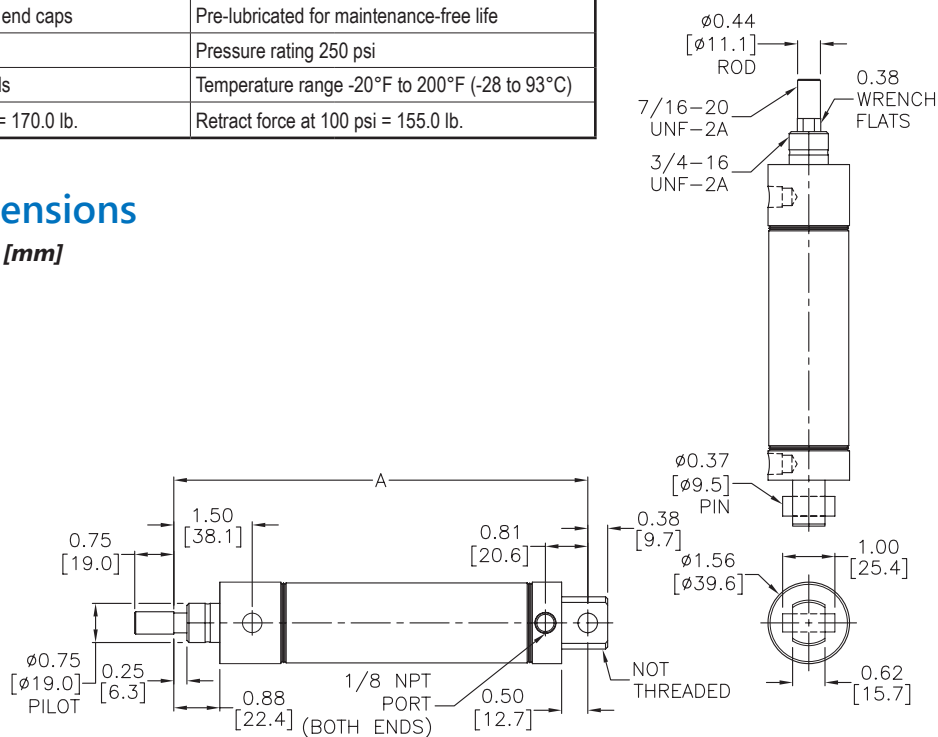
Cylinder rod clevis [ARC-716-20](#)
See end of 1-1/2" bore section for Accessories

Specifications

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.

Dimensions

inches [mm]





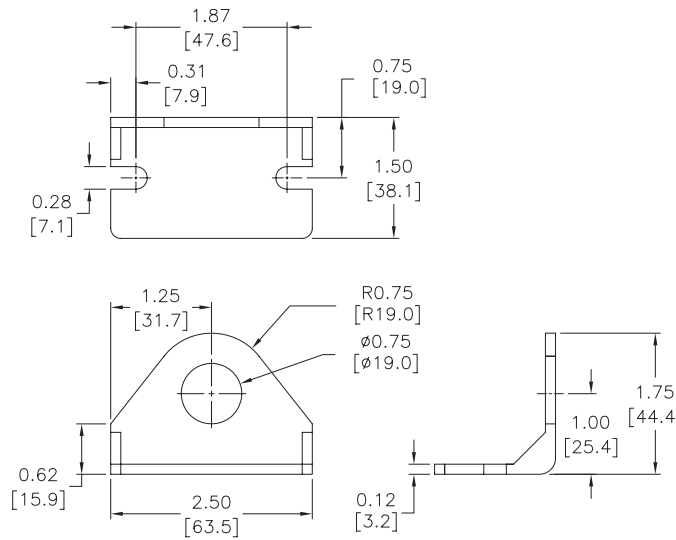
A-Series Pneumatic Cylinders 1-1/2 inch Bore Accessories

A-Series Pneumatic Cylinder 1-1/2 inch Bore Accessories				
Part Number	Description	Pcs/Pkg	Wt (lb)	Price
AMB-7	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	\$7.50
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	\$9.50
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	\$8.75
AN-34-16	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	\$1.25

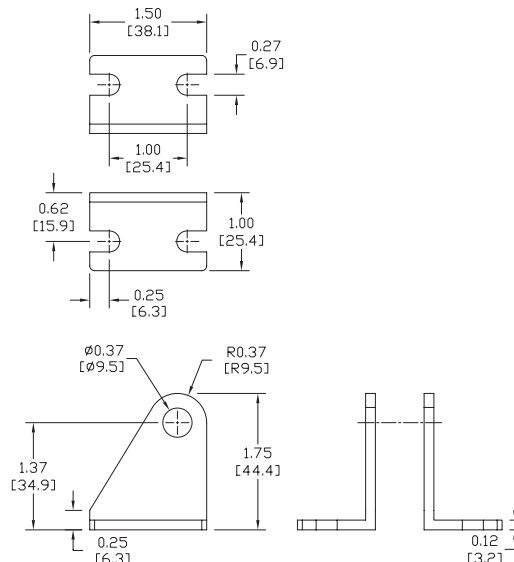
Dimensions

inches [mm]

AMB-7



APB-3





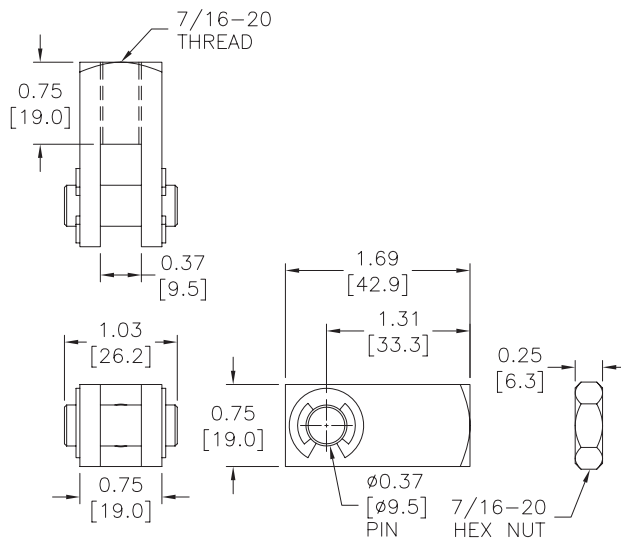
A-Series Pneumatic Cylinders

1-1/2 inch Bore Accessories

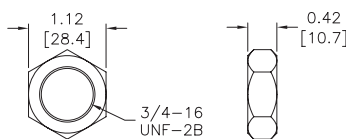
Dimensions

inches [mm]

ARC-716-20



AN-34-16





A-Series Pneumatic Cylinders

2 inch Bore

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.

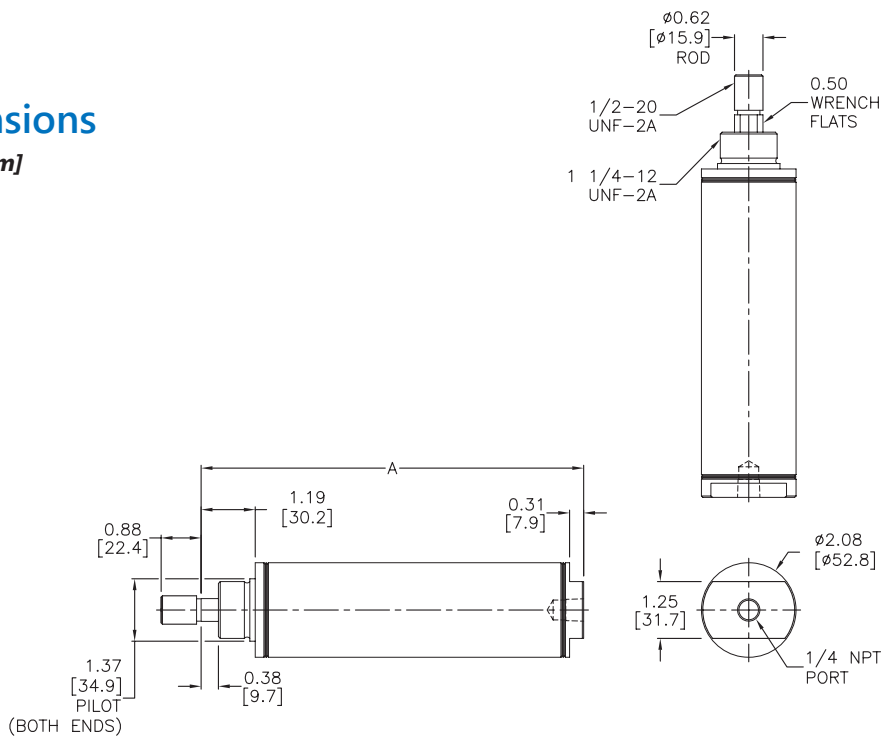
Cylinder, 2 in bore, single acting, spring return, front nose mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A32010SN	1.0	5.41	1.5	\$92.00
A32020SN	2.0	7.41	1.9	\$101.00
A32030SN	3.0	8.66	2.3	\$109.00
Specifications				
304 SS cylinder body		3.1 sq. in. piston area		
High strength 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	-	-
Double End Mount	Front	-
	Rear	-

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

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

2 inch Bore

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
A32010SD	1.0	6.34	1.7	\$111.00
A32020SD	2.0	8.34	2.1	\$119.00
A32030SD	3.0	9.59	2.6	\$129.00

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

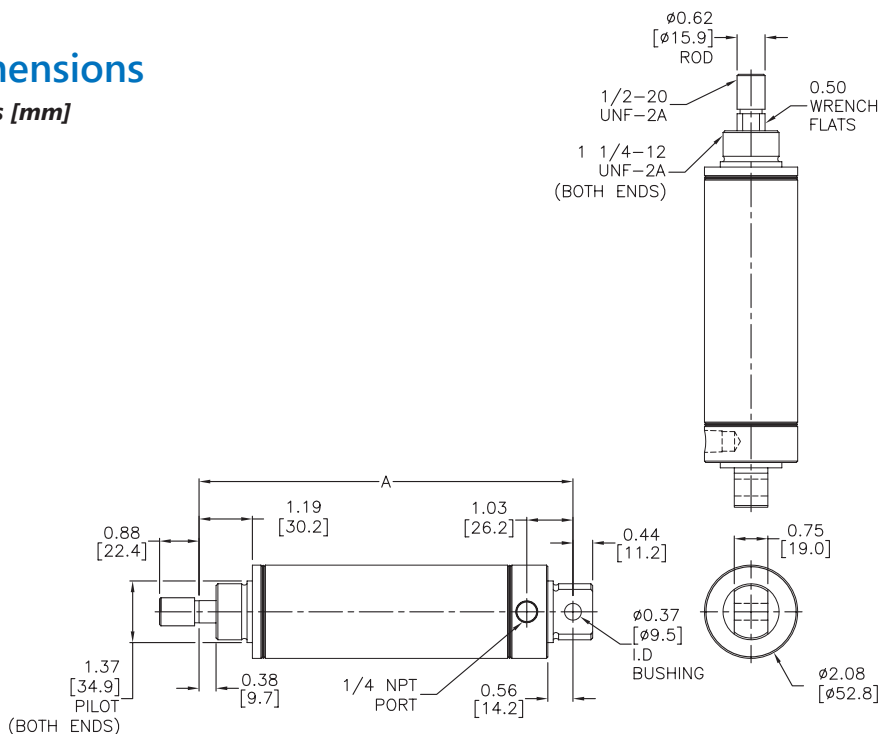
Cylinder rod clevis [ARC-12-20](#)
See end of 2" bore section for Accessories

Specifications

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

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

2 inch Bore

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 in bore, double acting, front nose mount				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A32010DN	1.0	5.69	1.6	\$85.00
A32020DN	2.0	6.69	1.7	\$88.00
A32030DN	3.0	7.69	1.9	\$93.00
A32040DN	4.0	8.69	2.0	\$98.00
A32050DN	5.0	9.69	2.2	\$102.00
A32060DN	6.0	10.69	2.3	\$107.00

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

Cylinder rod clevis [ARC-12-20](#)

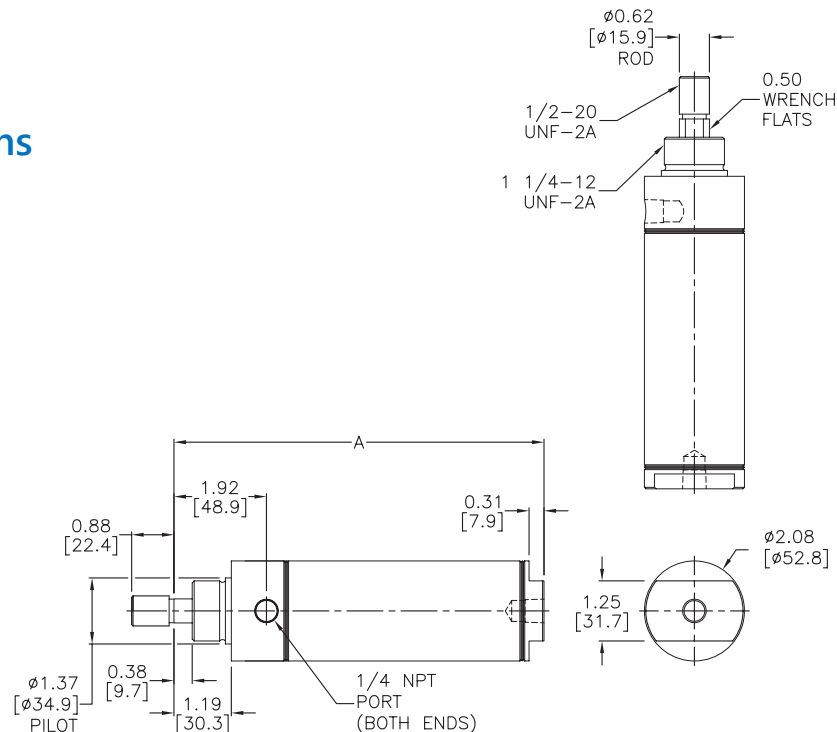
See end of 2" bore section for Accessories

Specifications

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.	Retract force at 100 psi = 279.3 lb.

Dimensions

inches [mm]





A-Series Pneumatic Cylinders

2 inch Bore

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

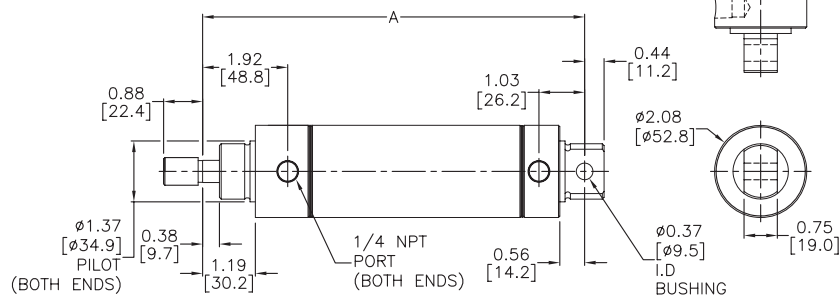
Part Number	Stroke Length (in.)	"A" (in)	Weight (lbs)	Price
A32010DD	1.0	6.62	1.8	\$101.00
A32020DD	2.0	7.62	1.9	\$105.00
A32030DD	3.0	8.62	2.1	\$109.00
A32040DD	4.0	9.62	2.2	\$114.00
A32050DD	5.0	10.62	2.4	\$119.00
A32060DD	6.0	11.62	2.5	\$124.00
A32070DD	7.0	12.62	2.7	\$128.00
A32080DD	8.0	13.62	2.8	\$101.00
A32100DD	10.0	15.62	3.1	\$143.00
A32120DD	12.0	17.62	3.4	\$151.00
A32140DD	14.0	19.62	3.7	\$161.00
A32160DD	16.0	21.62	4.0	\$169.00
A32180DD	18.0	23.62	4.3	\$179.00

Specifications

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.	Retract force at 100 psi = 279.3 lb.

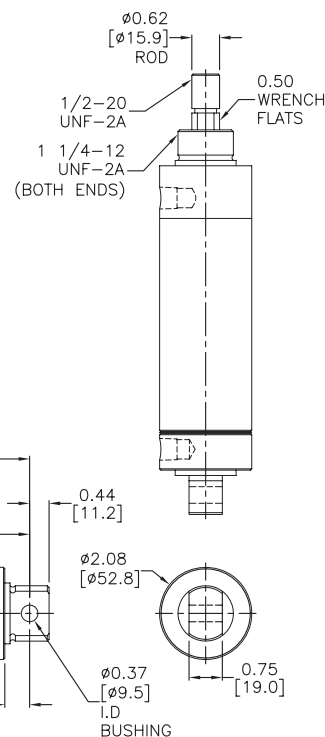
Dimensions

inches [mm]



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
	Rear	AMB-11 AN-114-12

Cylinder rod clevis [ARC-12-20](#)
See end of 2" bore section for Accessories





A-Series Pneumatic Cylinders 2 inch Bore

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
A32010DD-M	1.0	6.62	1.8	\$127.00
A32020DD-M	2.0	7.62	1.9	\$131.00
A32030DD-M	3.0	8.62	2.1	\$136.00
A32040DD-M	4.0	9.62	2.2	\$140.00
A32050DD-M	5.0	10.62	2.4	\$145.00
A32060DD-M	6.0	11.62	2.5	\$150.00
A32070DD-M	7.0	12.62	2.7	\$155.00
A32080DD-M	8.0	13.62	2.8	\$119.00
A32100DD-M	10.0	15.62	3.1	\$168.00
A32120DD-M	12.0	17.62	3.4	\$177.00
A32140DD-M	14.0	19.62	3.7	\$140.00
A32160DD-M	16.0	21.62	4.0	\$195.00
A32180DD-M	18.0	23.62	4.3	\$205.00

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

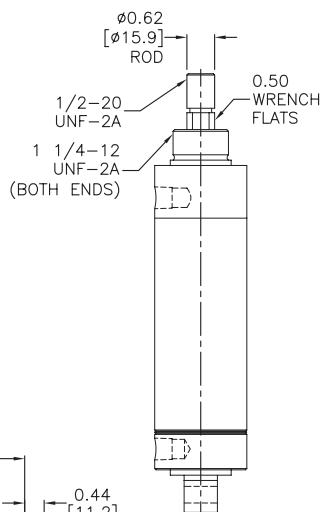
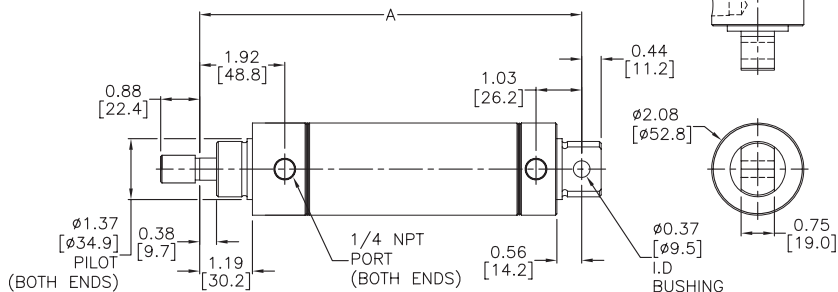
Cylinder rod clevis [ARC-12-20](#)
See end of 2" bore section for Accessories

Specifications

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 seals	Temperature range -20°F to 200°F (-28 to 93°C)
Extend force at 100 psi = 310 lb.	Retract force at 100 psi = 279.3 lb.

Dimensions

inches [mm]





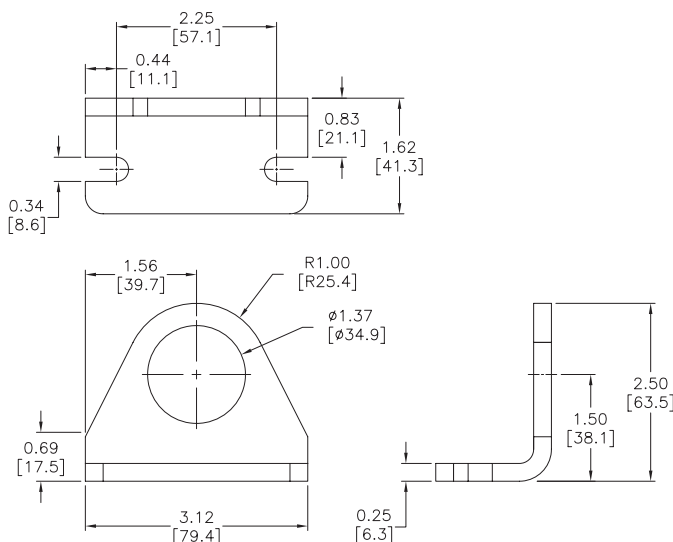
A-Series Pneumatic Cylinders 2 inch Bore Accessories

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	\$16.00
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	\$18.50
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	\$7.75
AN-114-12	Cylinder mounting nut with 1-1/4-12 UNF-2B threads used to mount 2 inch bore NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinders.	1	0.3	\$7.00

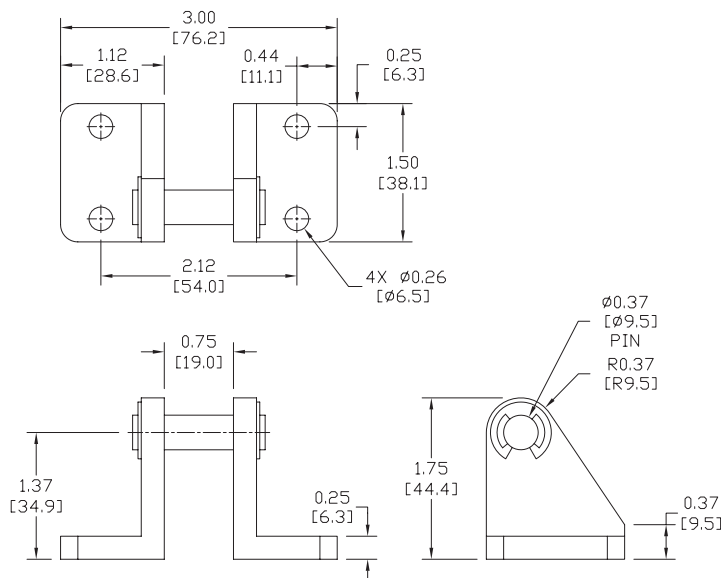
Dimensions

inches [mm]

AMB-11



APBP-5



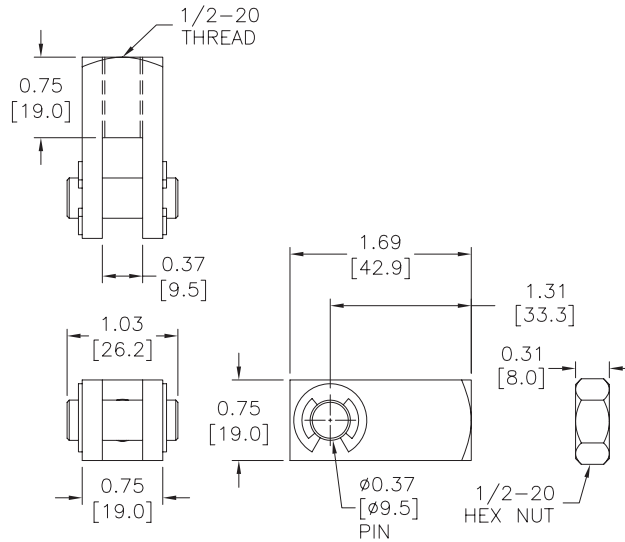


A-Series Pneumatic Cylinders 2 inch Bore Accessories

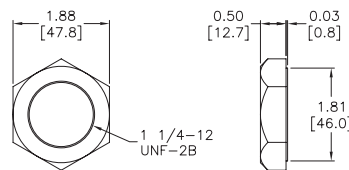
Dimensions

inches [mm]

ARC-12-20



AN-114-12





Pneumatic Cylinders - F-Series

All Stainless Steel

Nitra F-Series Pneumatic Stainless Steel Round Body Air Cylinders

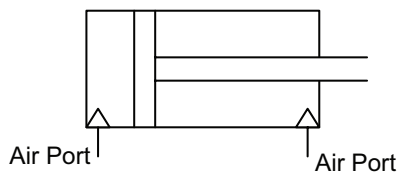
The NITRA Pneumatics F-Series non-repairable stainless steel round body cylinders includes bore sizes from 3/4" to 2" and stroke lengths from 1/2" to 18" to meet a broad range of applications. These high quality cylinders are constructed with stainless steel bodies and end caps with full flow ports. 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 aluminum piston is securely threaded and sealed to a piston rod that is ground and roller burnished 300 series stainless steel with roll-formed threads for exceptional strength. Low friction wear compensating Buna N U-cup rod and piston seals, PTFE rod guide bushing and slotted end caps all combine for smooth breakaway, even at low pressures.

Features

- Interchangeable with other common brands of round body cylinders
- Available bore sizes: 3/4", 1-1/16", 1-1/2", 2"
- Excellent selection of stroke lengths
- Double-acting models
- Nose, rear pivot and double-end mounting options
- Type 300 series stainless steel body, end caps, and rod
- Factory lubricated for long, maintenance-free operation
- 250 psi operating pressure
- Models available with magnetic piston for position indication
- All models are typically available for same-day shipment
- Made in North America
- 2-year warranty

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



Nose mount uses one FMB bracket and one FN nut.



Rear Pivot mount uses one FPBP bracket.

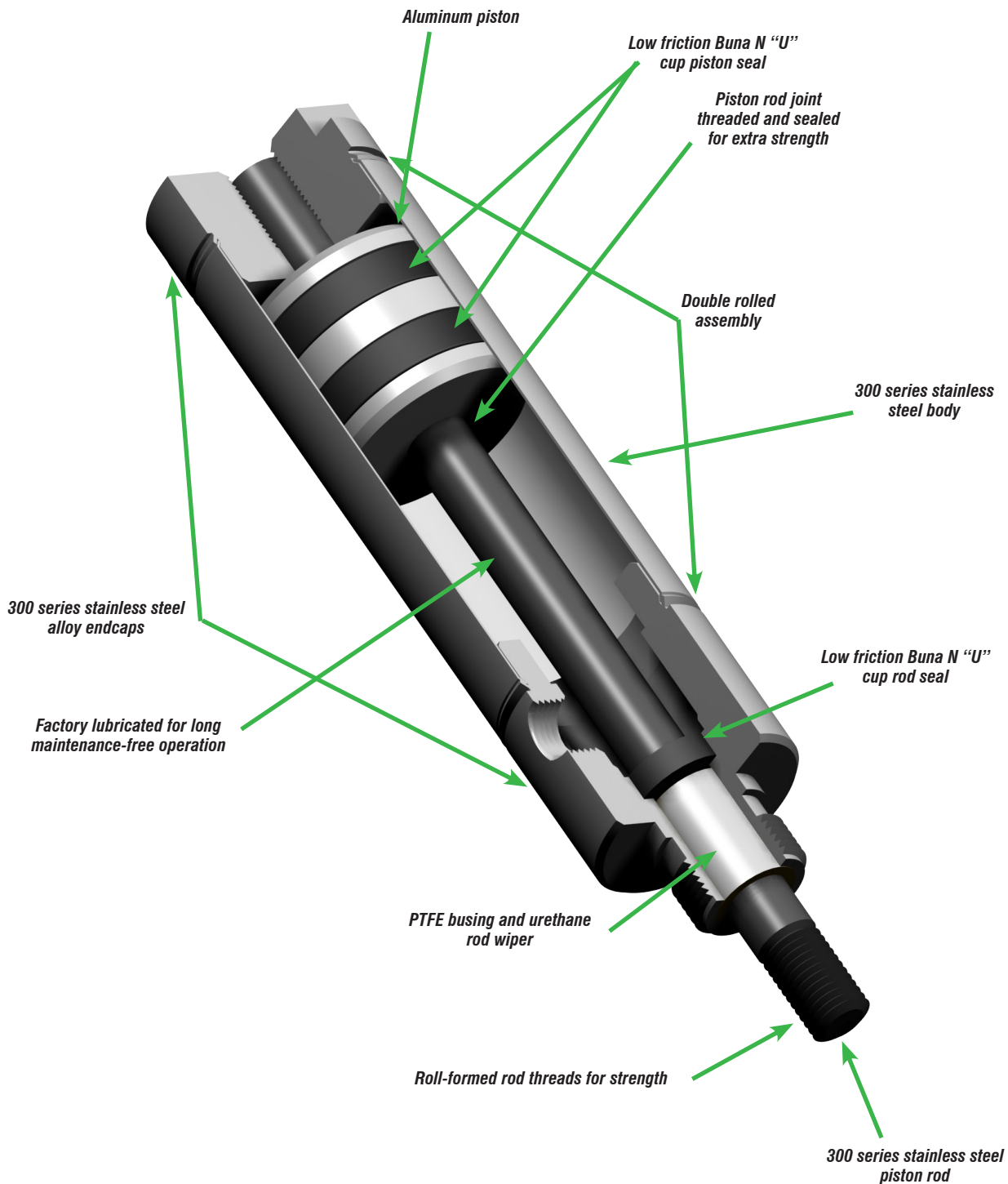


Double end mount uses two FMB brackets and two FN nuts.



Pneumatic Cylinders - F-Series All Stainless Steel

Cylinder Features



Made in North America



F-Series All Stainless Steel Pneumatic Cylinders - 3/4 inch Bore

3/4 in. Bore, Double-acting, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 inch female NPT ports, double acting, front nose mount.

All Stainless Steel Cylinder 3/4 in. bore, double acting, front nose mount				
Part Number	Stroke Length (in.)	Weight (lbs)	Price	Drawing Link
F12005DN	0.5	0.3	\$113.00	PDF
F12010DN	1.0	0.3	\$114.00	PDF
F12015DN	1.5	0.5	\$115.00	PDF
F12020DN	2.0	0.5	\$116.00	PDF
F12030DN	3.0	0.5	\$119.00	PDF
F12040DN	4.0	0.5	\$121.00	PDF
F12050DN	5.0	0.6	\$123.00	PDF
F12060DN	6.0	0.6	\$126.00	PDF
F12080DN	8.0	0.8	\$130.00	PDF
F12100DN	10.0	0.8	\$135.00	PDF
F12120DN	12.0	0.9	\$141.00	PDF
Specifications				
300 series stainless steel cylinder body		0.40 sq. in. piston area		
Rod diameter 1/4 in.		Rod thread 1/4-28		
300 series stainless steel end caps		Pre-lubricated for maintenance-free life		
300 series stainless 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 = 40.0 lb.		Retract force at 100 psi = 35.1 lb.		

Mount Style	Bracket	Nut
Front Nose Mount	FMB-6	FN-58-18
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

Cylinder rod clevis [FRC-14-28](#)
See end of F-series section for Accessories



F-Series All Stainless Steel Pneumatic Cylinders - 3/4 inch Bore

3/4 in. Bore, Double-acting, Double End Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 inch female NPT ports, double acting, double end mount.

All Stainless Steel Cylinder 3/4 in. bore, double acting, double end mount				
Part Number	Stroke Length (in.)	Weight (lbs)	Price	Drawing Link
F1205DD	0.5	0.3	\$120.00	PDF
F12010DD	1.0	0.3	\$138.00	PDF
F12020DD	2.0	0.5	\$141.00	PDF
F12030DD	3.0	0.5	\$144.00	PDF
F12040DD	4.0	0.5	\$146.00	PDF
F12050DD	5.0	0.6	\$149.00	PDF
F12060DD	6.0	0.6	\$151.00	PDF
F12080DD	8.0	0.8	\$156.00	PDF
F12100DD	10.0	0.8	\$160.00	PDF
F12120DD	12.0	0.9	\$165.00	PDF
Specifications				
300 series stainless steel cylinder body		0.40 sq. in. piston area		
Rod diameter 1/4 in.		Rod thread 1/4-28		
300 series stainless steel end caps		Pre-lubricated for maintenance-free life		
300 series stainless 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 = 40.0 lb.		Retract force at 100 psi = 35.1 lb.		

Mount Style	Bracket	Nut	
Front Nose Mount	FMB-6	FN-58-18	
Rear Pivot Mount	FPBP-2	-	
Double End Mount	Front	FMB-6	FN-58-18
	Rear	FMB-6	FN-58-18

Cylinder rod clevis [FRC-14-28](#)
See end of F-series section for Accessories



F-Series All Stainless Steel Pneumatic Cylinders - 3/4 inch Bore

3/4 in. Bore, Double-acting, Double End Mount, Magnetic Piston



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 3/4 inch bore, 1/8 inch female NPT ports, double acting, double end mount, magnetic piston.

All Stainless Steel Cylinder 3/4 in. bore, double acting, double end mount, magnetic piston				
Part Number	Stroke Length (in.)	Weight (lbs)	Price	Drawing Link
F12010DD-M	1.0	0.3	\$152.00	PDF
F12020DD-M	2.0	0.5	\$155.00	PDF
F12030DD-M	3.0	0.5	\$157.00	PDF
F12040DD-M	4.0	0.5	\$159.00	PDF
F12050DD-M	5.0	0.6	\$161.00	PDF
F12060DD-M	6.0	0.6	\$164.00	PDF
F12080DD-M	8.0	0.8	\$168.00	PDF
F12100DD-M	10.0	0.8	\$174.00	PDF
F12120DD-M	12.0	0.9	\$179.00	PDF
Specifications				
300 series stainless steel cylinder body		0.40 sq. in. piston area		
Rod diameter 1/4 in.		Rod thread 1/4-28		
300 series stainless steel end caps		Pre-lubricated for maintenance-free life		
300 series stainless steel piston rod		Pressure rating 250 psi		
Low friction Buna-N seals		Temperature range -20°F to 185°F (-28 to 85°C)		
Extend force at 100 psi = 40.0 lb.		Retract force at 100 psi = 35.1 lb.		

Mount Style		Bracket	Nut
Front Nose Mount		FMB-6	FN-58-18
Rear Pivot Mount		FPBP-2	-
Double End Mount	Front	FMB-6	FN-58-18
	Rear	FMB-6	FN-58-18

Cylinder rod clevis [FRC-14-28](#)
See end of F-series section for Accessories



F-Series All Stainless Steel Pneumatic Cylinders - 1-1/16 inch Bore

1-1/16 in. Bore, Double-acting, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/16 inch bore, 1/8 inch female NPT ports, double acting, front nose mount.

All Stainless Steel Cylinder 1-1/16 in. bore, double acting, front nose mount				
Part Number	Stroke Length (in.)	Weight (lbs)	Price	Drawing Link
F17005DN	0.5	0.6	\$121.00	PDF
F17010DN	1.0	0.6	\$122.00	PDF
F17020DN	2.0	0.6	\$126.00	PDF
F17030DN	3.0	0.8	\$128.00	PDF
F17040DN	4.0	0.8	\$130.00	PDF
F17050DN	5.0	0.9	\$133.00	PDF
F17060DN	6.0	0.9	\$135.00	PDF
F17080DN	8.0	1.1	\$139.00	PDF
F17100DN	10.0	1.2	\$144.00	PDF
F17120DN	12.0	1.4	\$150.00	PDF
Specifications				
300 series stainless steel cylinder body		0.90 sq. in. piston area		
Rod diameter 5/16 in.		Rod thread 5/16-24		
300 series stainless steel end caps		Pre-lubricated for maintenance-free life		
300 series stainless 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 = 90.0 lb.		Retract force at 100 psi = 82.3 lb.		

Mount Style	Bracket	Nut
Front Nose Mount	FMB-6	FN-58-18
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

Cylinder rod clevis [FRC-516-24](#)
See end of *F-series* section for Accessories



F-Series All Stainless Steel Pneumatic Cylinders - 1-1/16 inch Bore

1-1/16 in. Bore, Double-acting, Double End Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/16 inch bore, 1/8 inch female NPT ports, double acting, double end mount.

All Stainless Steel Cylinder 1-1/16 in. bore, double acting, double end mount				
Part Number	Stroke Length (in.)	Weight (lbs)	Price	Drawing Link
F17010DD	1.0	0.6	\$147.00	PDF
F17020DD	2.0	0.6	\$150.00	PDF
F17030DD	3.0	0.8	\$152.00	PDF
F17040DD	4.0	0.8	\$155.00	PDF
F17050DD	5.0	0.9	\$157.00	PDF
F17060DD	6.0	0.9	\$160.00	PDF
F17080DD	8.0	1.1	\$165.00	PDF
F17100DD	10.0	1.2	\$169.00	PDF
F17120DD	12.0	1.4	\$174.00	PDF
Specifications				
300 series stainless steel cylinder body		0.90 sq. in. piston area		
Rod diameter 5/16 in.		Rod thread 5/16-24		
300 series stainless steel end caps		Pre-lubricated for maintenance-free life		
300 series stainless 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 = 90.0 lb.		Retract force at 100 psi = 82.3 lb.		

Mount Style	Bracket	Nut
Front Nose Mount	FMB-6	FN-58-18
Rear Pivot Mount	FPBP-2	–
Double End Mount	Front	FMB-6
	Rear	FMB-6

Cylinder rod clevis [FRC-516-24](#)

See end of F-series section for Accessories



F-Series All Stainless Steel Pneumatic Cylinders - 1-1/16 inch Bore

1-1/16 in. Bore, Double-acting, Double End Mount, Magnetic Piston



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/16 inch bore, 1/8 inch female NPT ports, double acting, double end mount, magnetic piston.

All Stainless Steel Cylinder 1-1/16 in. bore, double acting, double end mount, magnetic piston

Part Number	Stroke Length (in.)	Weight (lbs)	Price	Drawing Link
F17010DD-M	1.0	0.6	\$164.00	PDF
F17020DD-M	2.0	0.6	\$166.00	PDF
F17030DD-M	3.0	0.8	\$168.00	PDF
F17040DD-M	4.0	0.8	\$172.00	PDF
F17050DD-M	5.0	0.9	\$174.00	PDF
F17060DD-M	6.0	0.9	\$176.00	PDF
F17080DD-M	8.0	1.1	\$181.00	PDF
F17100DD-M	10.0	1.2	\$186.00	PDF
F17120DD-M	12.0	1.4	\$190.00	PDF

Specifications

300 series stainless steel cylinder body	0.90 sq. in. piston area
Rod diameter 5/16 in.	Rod thread 5/16-24
300 series stainless steel end caps	Pre-lubricated for maintenance-free life
300 series stainless steel piston rod	Pressure rating 250 psi
Low friction Buna-N seals	Temperature range -20°F to 185°F (-28 to 85°C)
Extend force at 100 psi = 90.0 lb.	Retract force at 100 psi = 82.3 lb.

Mount Style	Bracket	Nut
Front Nose Mount	FMB-6	FN-58-18
Rear Pivot Mount	FPBP-2	-
Double End Mount	Front	FMB-6
	Rear	FMB-6

Cylinder rod clevis [FRC-516-24](#)
See end of F-series section for Accessories



F-Series All Stainless Steel Pneumatic Cylinders - 1-1/2 inch Bore

1-1/2 in. Bore, Double-acting, Front Nose Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/2 inch bore, 1/8 inch female NPT ports, double acting, front nose mount.

All Stainless Steel Cylinder 1-1/2 in. bore, double acting, front nose mount				
Part Number	Stroke Length (in.)	Weight (lbs)	Price	Drawing Link
F24010DN	1.0	1.2	\$136.00	PDF
F24015DN	1.5	1.2	\$138.00	PDF
F24020DN	2.0	1.4	\$141.00	PDF
F24030DN	3.0	1.4	\$144.00	PDF
F24040DN	4.0	1.5	\$147.00	PDF
F24050DN	5.0	1.6	\$151.00	PDF
F24060DN	6.0	1.8	\$156.00	PDF
F24080DN	8.0	2.0	\$163.00	PDF
F24100DN	10.0	2.3	\$169.00	PDF
F24120DN	12.0	2.5	\$178.00	PDF
Specifications				
300 series stainless steel cylinder body		1.7 sq. in. piston area		
Rod diameter 7/16 in.		Rod thread 7/16-20		
300 series stainless steel end caps		Pre-lubricated for maintenance-free life		
300 series stainless 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 = 170.0 lb.		Retract force at 100 psi = 155.0 lb.		

Mount Style	Bracket	Nut
Front Nose Mount	FMB-7	FN-34-16
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

Cylinder rod clevis FRC-716-20

See end of F-series section for Accessories



F-Series All Stainless Steel Pneumatic Cylinders - 1-1/2 inch Bore

1-1/2 in. Bore, Double-acting, Double End Mount



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/2 inch bore, 1/8 inch female NPT ports, double acting, double end mount.

All Stainless Steel Cylinder 1-1/2 in. bore, double acting, double end mount				
Part Number	Stroke Length (in.)	Weight (lbs)	Price	Drawing Link
F24010DD	1.0	1.2	\$157.00	PDF
F24020DD	2.0	1.4	\$161.00	PDF
F24030DD	3.0	1.5	\$165.00	PDF
F24040DD	4.0	1.7	\$168.00	PDF
F24050DD	5.0	1.7	\$172.00	PDF
F24060DD	6.0	1.8	\$175.00	PDF
F24080DD	8.0	2.1	\$183.00	PDF
F24100DD	10.0	2.3	\$190.00	PDF
F24120DD	12.0	2.6	\$198.00	PDF
Specifications				
300 series stainless steel cylinder body		1.7 sq. in. piston area		
Rod diameter 7/16 in.		Rod thread 7/16-20		
300 series stainless steel end caps		Pre-lubricated for maintenance-free life		
300 series stainless 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 = 170.0 lb.		Retract force at 100 psi = 155.0 lb.		

Mount Style	Bracket	Nut
Front Nose Mount	FMB-7	FN-34-16
Rear Pivot Mount	FPBP-3	-
Double End Mount	Front	FMB-7 FN-34-16
	Rear	FMB-7 FN-34-16

Cylinder rod clevis [FRC-716-20](#)
See end of F-series section for Accessories



F-Series All Stainless Steel Pneumatic Cylinders - 1-1/2 inch Bore

1-1/2 in. Bore, Double-acting, Double End Mount, Magnetic Piston



NITRA pneumatic stainless steel round body, interchangeable, non-repairable cylinder, 1-1/2 inch bore, 1/8 inch female NPT ports, double acting, double end mount, magnetic piston.

All Stainless Steel Cylinder 1-1/2 in. bore, double acting, double end mount, magnetic piston				
Part Number	Stroke Length (in.)	Weight (lbs)	Price	Drawing Link
F24010DD-M	1.0	1.2	\$176.00	PDF
F24020DD-M	2.0	1.4	\$181.00	PDF
F24030DD-M	3.0	1.5	\$184.00	PDF
F24040DD-M	4.0	1.7	\$191.00	PDF
F24050DD-M	5.0	1.7	\$191.00	PDF
F24060DD-M	6.0	1.8	\$196.00	PDF
F24080DD-M	8.0	2.1	\$203.00	PDF
F24100DD-M	10.0	2.3	\$211.00	PDF
F24120DD-M	12.0	2.6	\$223.00	PDF
Specifications				
300 series stainless steel cylinder body		1.7 sq. in. piston area		
Rod diameter 7/16 in.		Rod thread 7/16-20		
300 series stainless steel end caps		Pre-lubricated for maintenance-free life		
300 series stainless steel piston rod		Pressure rating 250 psi		
Low friction Buna-N seals		Temperature range -20°F to 185°F (-28 to 85°C)		
Extend force at 100 psi = 170.0 lb.		Retract force at 100 psi = 155.0 lb.		

Mount Style	Bracket	Nut
Front Nose Mount	FMB-7	FN-34-16
Rear Pivot Mount	FPBP-3	-
Double End Mount	Front	FMB-7
	Rear	FMB-7

Cylinder rod clevis [FRC-716-20](#)

See end of F-series section for Accessories



F-Series All Stainless Steel Pneumatic Cylinders - 2 inch Bore

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



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

All Stainless Steel Cylinder 2 in. bore, double acting, front nose mount				
Part Number	Stroke Length (in.)	Weight (lbs)	Price	Drawing Link
F32010DN	1.0	2.4	\$147.00	PDF
F32020DN	2.0	2.6	\$152.00	PDF
F32030DN	3.0	2.9	\$157.00	PDF
F32040DN	4.0	3.0	\$160.00	PDF
F32050DN	5.0	3.3	\$165.00	PDF
F32060DN	6.0	3.5	\$169.00	PDF
Specifications				
300 series stainless steel cylinder body		3.1 sq. in. piston area		
Rod diameter 5/8 in.		Rod thread 1/2-20		
300 series stainless steel end caps		Pre-lubricated for maintenance-free life		
300 series stainless 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	FMB-11	FN-114-12
Rear Pivot Mount	-	-
Double End Mount	Front	-
	Rear	-

Cylinder rod clevis FRC-12-20

See end of F-series section for Accessories



F-Series All Stainless Steel Pneumatic Cylinders - 2 inch Bore

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



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

All Stainless Steel Cylinder 2 in. bore, double acting, double end mount				
Part Number	Stroke Length (in.)	Weight (lbs)	Price	Drawing Link
F32010DD	1.0	2.7	\$169.00	PDF
F32020DD	2.0	2.8	\$174.00	PDF
F32030DD	3.0	3.2	\$178.00	PDF
F32040DD	4.0	3.3	\$182.00	PDF
F32050DD	5.0	3.6	\$187.00	PDF
F32060DD	6.0	3.8	\$190.00	PDF
F32080DD	8.0	4.2	\$199.00	PDF
F32100DD	10.0	4.6	\$208.00	PDF
F32120DD	12.0	5.1	\$215.00	PDF
F32140DD	14.0	5.6	\$145.00	PDF
F32160DD	16.0	6.0	\$233.00	PDF
F32180DD	18.0	6.5	\$242.00	PDF
Specifications				
300 series stainless steel cylinder body		3.1 sq. in. piston area		
Rod diameter 5/8 in.		Rod thread 1/2-20		
300 series stainless steel end caps		Pre-lubricated for maintenance-free life		
300 series stainless 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	FMB-11	FN-114-12
Rear Pivot Mount	FPBP-4	-
Double End Mount	Front	FMB-11 FN-114-12
	Rear	FMB-11 FN-114-12

Cylinder rod clevis [FRC-12-20](#)

See end of F-series section for Accessories



F-Series All Stainless Steel Pneumatic Cylinders - 2 inch Bore

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 inch female NPT ports, double acting, double end mount, magnetic piston.

All Stainless Steel Cylinder 2 in. bore, double acting, double end mount, magnetic piston				
Part Number	Stroke Length (in.)	Weight (lbs)	Price	Drawing Link
F32010DD-M	1.0	2.7	\$192.00	PDF
F32020DD-M	2.0	2.8	\$196.00	PDF
F32030DD-M	3.0	3.2	\$204.00	PDF
F32040DD-M	4.0	3.3	\$205.00	PDF
F32050DD-M	5.0	3.6	\$209.00	PDF
F32060DD-M	6.0	3.8	\$213.00	PDF
F32080DD-M	8.0	4.2	\$221.00	PDF
F32100DD-M	10.0	4.6	\$231.00	PDF
F32120DD-M	12.0	5.0	\$238.00	PDF
F32140DD-M	14.0	5.6	\$248.00	PDF
F32160DD-M	16.0	6.0	\$256.00	PDF
F32180DD-M	18.0	6.5	\$264.00	PDF
Specifications				
300 series stainless steel cylinder body		3.10 sq. in. piston area		
Rod diameter 5/8 in.		Rod thread 1/2-20		
300 series stainless steel end caps		Pre-lubricated for maintenance-free life		
300 series stainless steel piston rod		Pressure rating 250 psi		
Low friction Buna-N seals		Temperature range -20°F to 185°F (-28 to 85°C)		
Extend force at 100 psi = 310 lb.		Retract force at 100 psi = 279.3 lb.		

Mount Style	Bracket	Nut
Front Nose Mount	FMB-11	FN-114-12
Rear Pivot Mount	FPBP-4	-
Double End Mount	Front	FMB-11
	Rear	FMB-11

Cylinder rod clevis [FRC-12-20](#)
See end of F-series section for Accessories



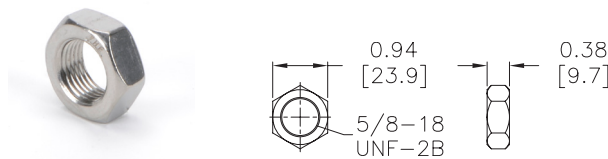
F-Series All Stainless Steel Pneumatic Cylinder Accessories

F-Series All Stainless Steel Pneumatic Cylinder Accessories				
Part Number	Description	Pcs/Pkg	Wt (lb)	Price
FN-58-18	Cylinder mounting nut with 5/8-18 UNF-2B threads, stainless steel, used to mount 3/4 and 1-1/16 inch bore NITRA F-series round body air cylinders	1	0.1	\$3.50
FN-34-16	Cylinder mounting nut with 3/4-16 UNF-2B threads, stainless steel, used to mount 1-1/2 inch bore NITRA F-series round body air cylinders	1	0.1	\$4.50
FN-114-12	Cylinder mounting nut with 1-1/4-12 UNF-2B threads, stainless steel, used to mount 2 inch bore NITRA F-series round body air cylinders	1	0.3	\$11.00
FMB-6	Cylinder mounting bracket, stainless steel, used to mount 3/4 and 1-1/16 inch bore NITRA F-series round body air cylinders	1	0.1	\$10.00
FMB-7	Cylinder mounting bracket, stainless steel, used to mount 1-1/2 inch bore NITRA F-series round body air cylinders	1	0.2	\$30.50
FMB-11	Cylinder mounting bracket, stainless steel, used to mount 2 inch bore NITRA F-series round body air cylinders	1	0.5	\$44.00
FPBP-2	Cylinder pivot mounting bracket with pivot pin, stainless steel, used to mount 3/4 and 1-1/16 inch bore NITRA F-series round body air cylinders	1	0.1	\$28.00
FPBP-3	Cylinder pivot mounting bracket with pivot pin, stainless steel, used to mount 1-1/2 inch bore NITRA F-series round body air cylinders	1	0.2	\$35.00
FPBP-4	Cylinder pivot mounting bracket with pivot pin, stainless steel, used to mount 2 inch bore NITRA F-series round body air cylinders	1	0.3	\$43.00
FRC-14-28	Cylinder rod clevis and hex nut, stainless steel, 1/4-28 thread, for use with 3/4 inch bore NITRA F-series round body air cylinders	1	0.1	\$36.00
FRC-516-24	Cylinder rod clevis and hex nut, stainless steel, 5/16-24 thread, for use with 1-1/16 inch bore NITRA F-series round body air cylinders	1	0.1	\$40.50
FRC-716-20	Cylinder rod clevis and hex nut, stainless steel, 7/16-20 thread, for use with 1-1/2 inch bore NITRA F-series round body air cylinders	1	0.2	\$50.00
FRC-12-20	Cylinder rod clevis and hex nut, stainless steel, 1/2-20 thread, for use with 2 inch bore NITRA F-series round body air cylinders	1	0.2	\$59.00

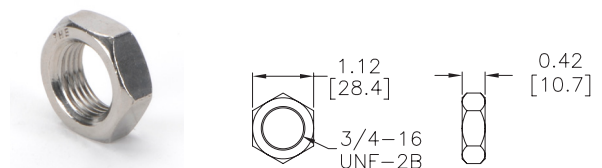
Dimensions

inches [mm]

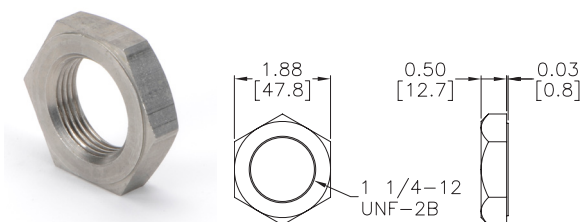
FN-58-18



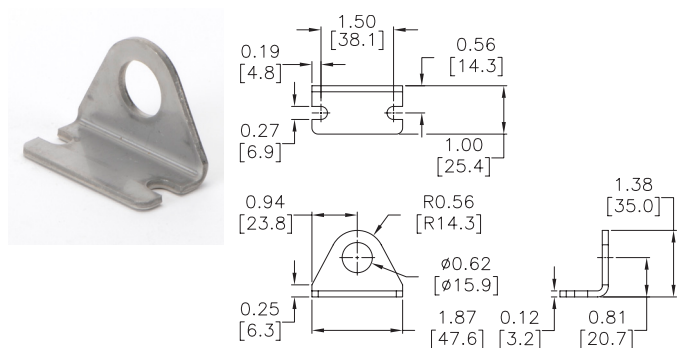
FN-34-16



FN-114-12



FMB-6



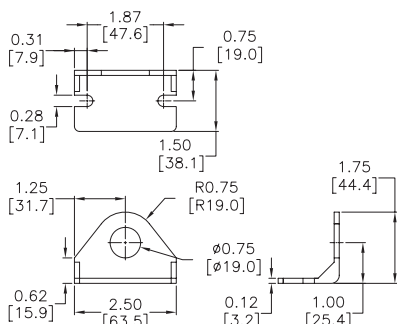


F-Series All Stainless Steel Pneumatic Cylinder Accessories

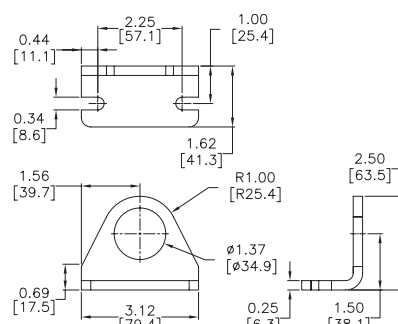
Dimensions

inches [mm]

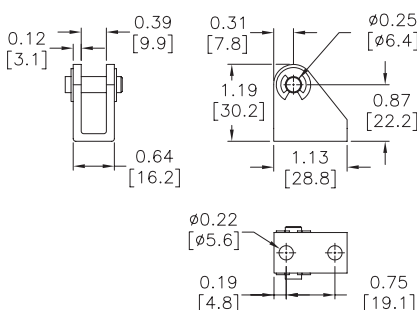
FMB-7



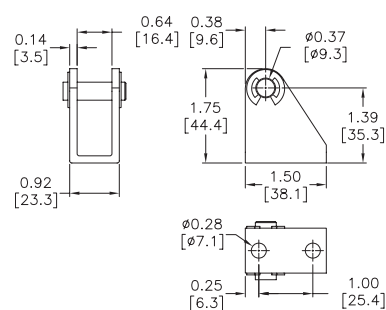
FMB-11



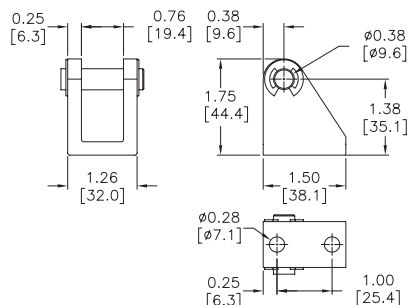
FPBP-2



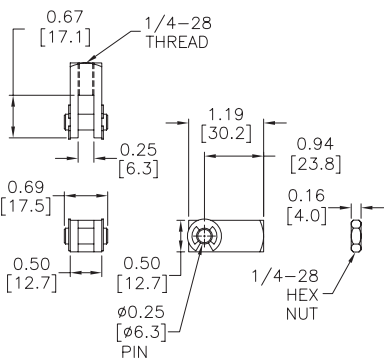
FPBP-3



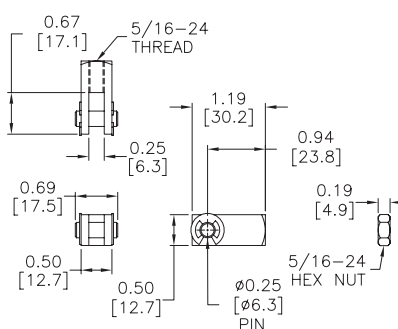
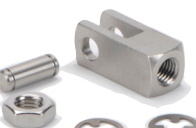
FPBP-4



FRC-14-28



FRC-516-24



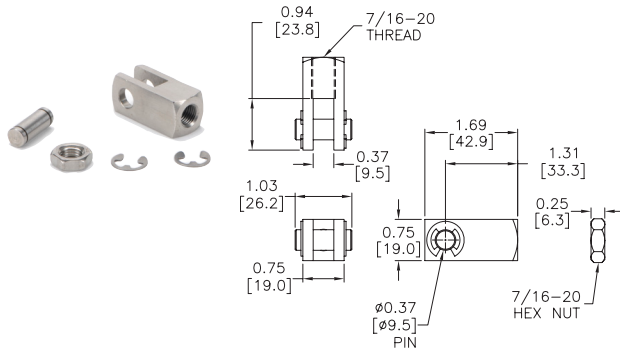


F-Series All Stainless Steel Pneumatic Cylinder Accessories

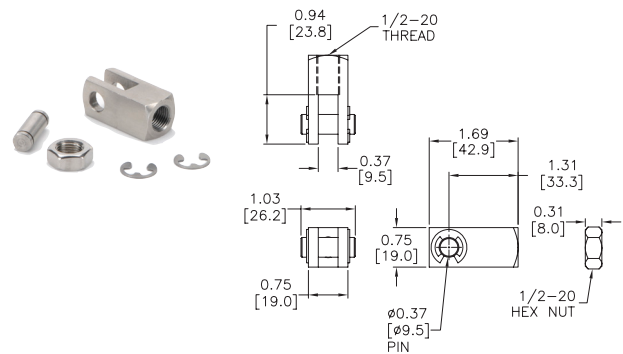
Dimensions

inches [mm]

FRC-716-20



FRC-12-20





Pneumatic Cylinders - C-Series

Nitra Pneumatic Compact Air Cylinders

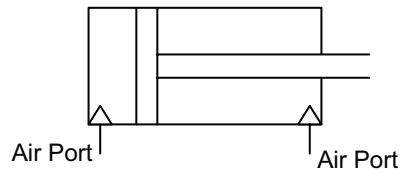
The NITRA Pneumatics C-Series compact cylinders includes bore sizes from 9/16" to 3" and stroke lengths from 1/4" to 4" to meet a broad range of applications where space is limited. These high quality cylinders are constructed with stainless steel bodies and high strength aluminum alloy end caps. To 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

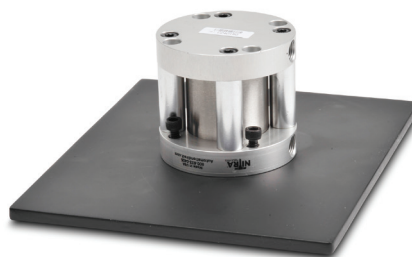
Double-acting cylinders have two compressed air ports. One of the ports will extend the rod in the "push" direction and the other port will retract the rod in the "pull" direction.



*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.



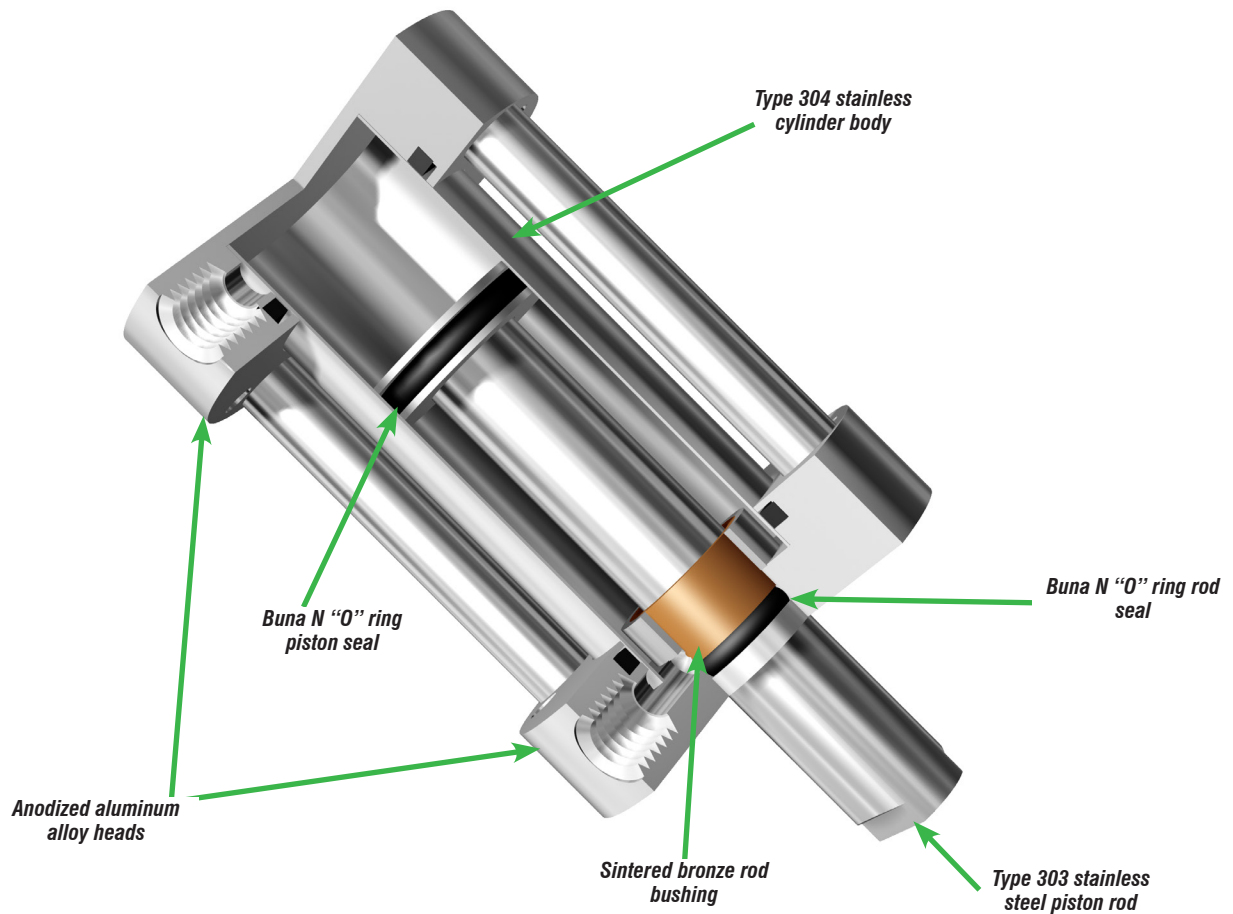
Clevis bracket mount uses a bracket that allows a pivoted mount. Clevis Bracket part number is CCB-40.





C-Series Compact Pneumatic Cylinders

Cylinder Features





C-Series Pneumatic Cylinders 9/16 inch Bore

Double-acting



NITRA pneumatic cylinder, stainless steel body, 9/16 inch bore, #10-32 ports, double-acting, single end rod, counter-bored mounting holes, interchangeable with other brands. 2-year warranty.

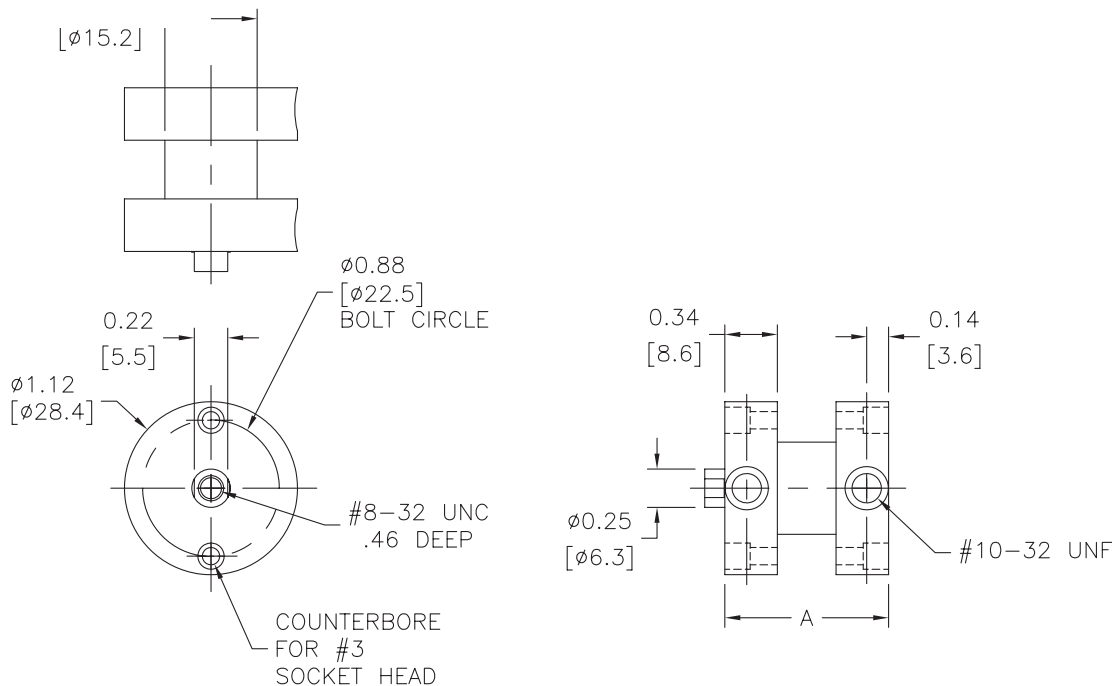
Accessories

Cylinder, 9/16 in. bore, double-acting				
Part Number	Stroke Length (in.)	"A" (in)	Weight (lb)	Price
C090025D	0.25	0.81	0.09	\$54.00
C09005D	0.50	1.06	0.10	\$54.00
Specifications				
304 SS cylinder body		0.25 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 = 25.0 lb.		Retract force at 100 psi = 19.9 lb.		

Part No.	Description	Price
CCB-17	Clevis bracket, anodized aluminum, stainless steel pin, for use with 9/16, 3/4 and 1-1/16 inch bore NITRA C-series compact cylinders	\$24.00
CRP-09	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	\$15.50

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

Dimensions



Cylinder assembly bolts not shown for clarity

Dimensions inches [mm]



C-Series Pneumatic Cylinders

3/4 inch Bore

Double-acting



NITRA pneumatic cylinder, stainless steel body, 3/4 inch bore, #10-32 ports, double-acting, single end rod, counter-bored mounting holes, interchangeable with other brands. 2-year warranty.

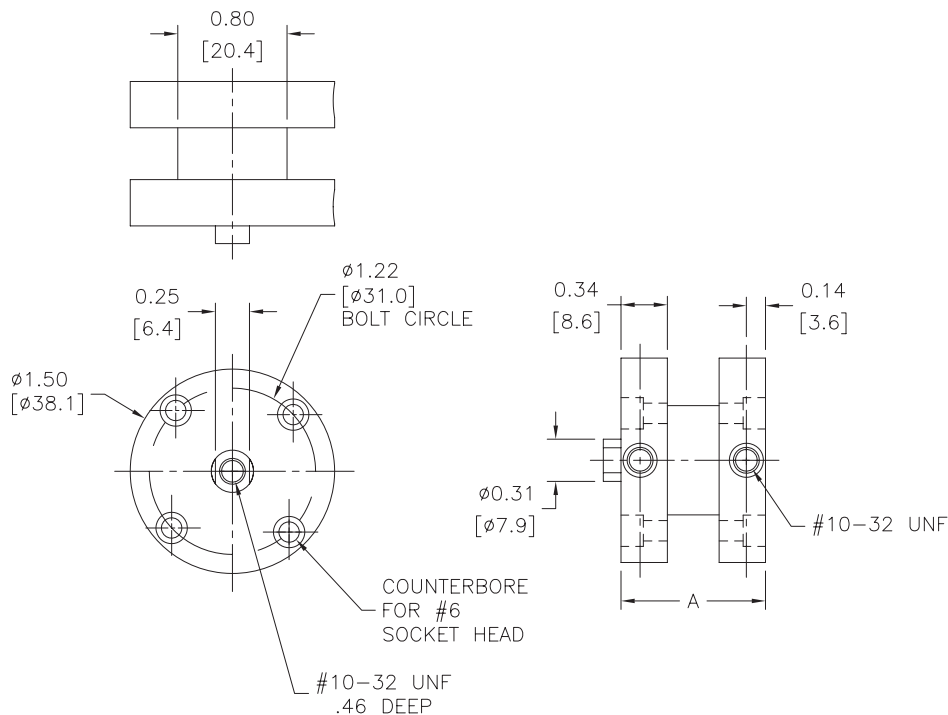
Accessories

Cylinder, 3/4 in. bore, double-acting				
Part Number	Stroke Length (in.)	"A" (in.)	Weight (lb.)	Price
C12005D	0.50	1.06	0.14	\$56.00
C120075D	0.75	1.31	0.16	\$57.00
C12010D	1.00	1.56	0.17	\$58.00
C12015D	1.50	2.06	0.19	\$60.00
Specifications				
304 SS cylinder body		0.44 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 = 44.2 lb.		Retract force at 100 psi = 36.5 lb.		

Part No.	Description	Price
CCB-17	Clevis bracket, anodized aluminum, stainless steel pin, for use with 9/16, 3/4 and 1-1/16 inch bore NITRA C-series compact cylinders	\$24.00
CRP-12	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	\$17.50

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

Dimensions



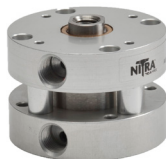
Cylinder assembly bolts not shown for clarity

Dimensions inches [mm]



C-Series Pneumatic Cylinders 1-1/16 inch Bore

Double-acting



NITRA pneumatic cylinder, stainless steel body, 1-1/16 inch bore, 1/8 inch NPT ports, double-acting, single end rod, counter-bored mounting holes, interchangeable with other brands. 2-year warranty.

Accessories

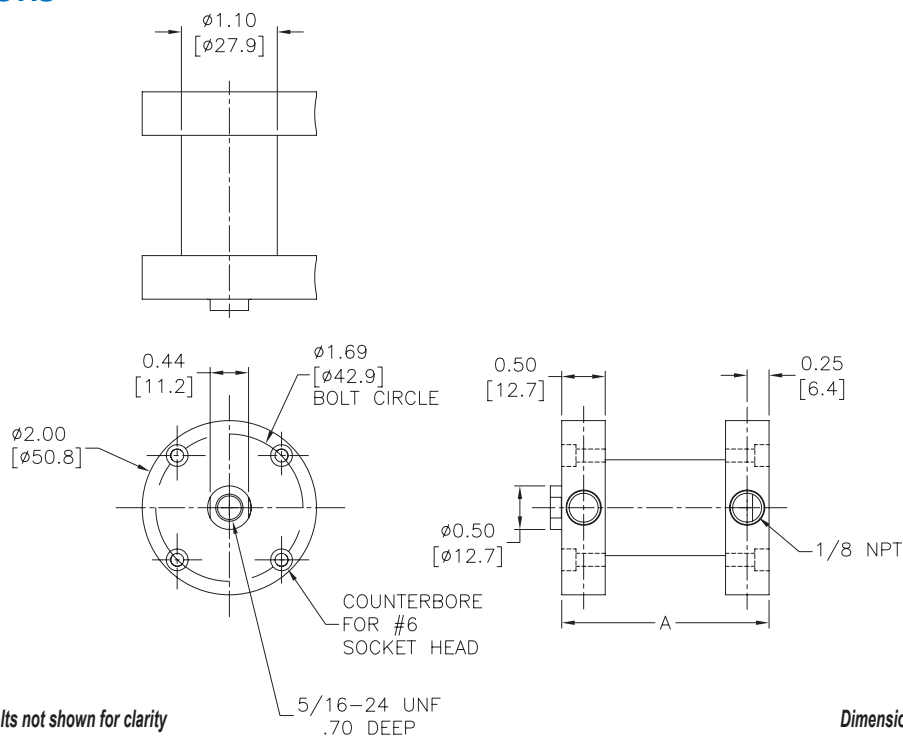
Cylinder, 1-1/16 in. bore, double-acting				
Part Number	Stroke Length (in.)	"A" (in.)	Weight (lb.)	Price
C170025D	0.25	1.13	0.34	\$71.00
C17005D	0.50	1.38	0.38	\$71.00
C170075D	0.75	1.63	0.42	\$71.00
C17010D	1.00	1.88	0.46	\$73.00
C17015D	1.50	2.38	0.53	\$74.00
C17020D	2.00	2.88	0.61	\$76.00
C17025D	2.50	3.38	0.68	\$78.00
C17030D	3.00	3.88	0.76	\$82.00

Part No.	Description	Price
CCB-17	Clevis bracket, anodized aluminum, stainless steel pin, for use with 9/16, 3/4 and 1-1/16 inch bore NITRA C-series compact cylinders	\$24.00
CRP-17	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	\$16.50

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

Specifications	
304 SS cylinder body	0.89 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS steel 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 = 88.7 lb.	Retract force at 100 psi = 69.0 lb.

Dimensions



Cylinder assembly bolts not shown for clarity

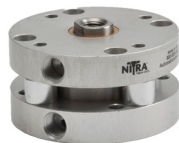
Dimensions inches [mm]



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.

Accessories

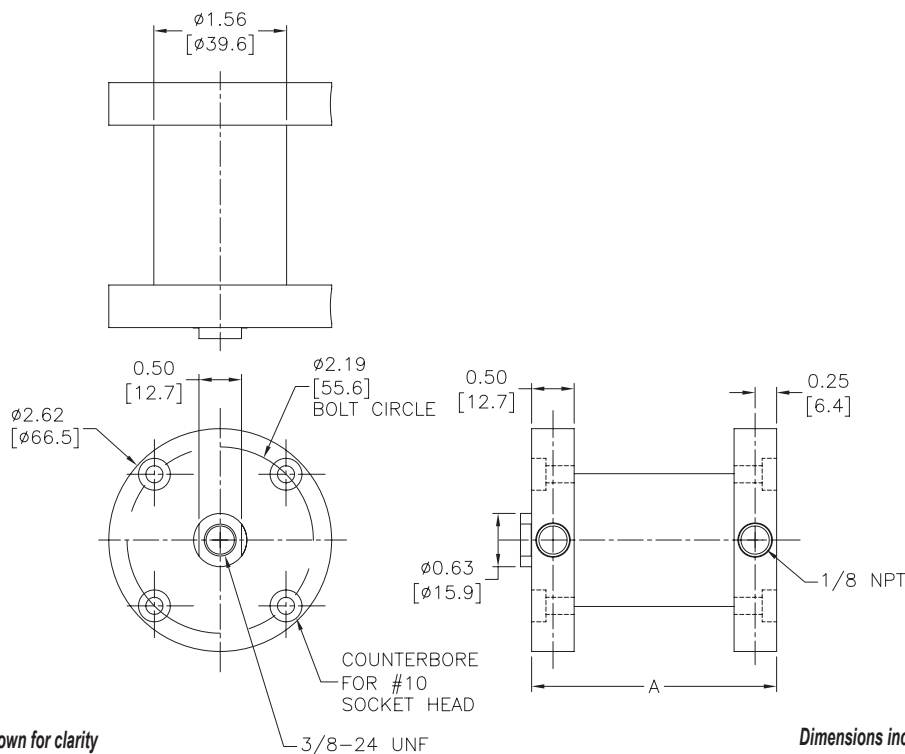
Cylinder, 1-1/2 in. bore, double-acting				
Part Number	Stroke Length (in.)	"A" (in.)	Weight (lb.)	Price
C24005D	0.50	1.38	0.70	\$87.00
C240075D	0.75	1.63	0.75	\$87.00
C24010D	1.00	1.88	0.80	\$88.00
C24015D	1.50	2.38	0.90	\$91.00
C24020D	2.00	2.88	1.00	\$95.00
C24025D	2.50	3.38	1.10	\$98.00
C24030D	3.00	3.88	1.20	\$102.00
C24035D	3.50	4.38	1.30	\$106.00
C24040D	4.00	4.88	1.40	\$109.00

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	\$34.50
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	\$18.00

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

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.

Dimensions



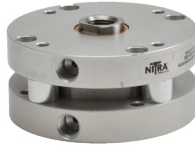
Cylinder assembly bolts not shown for clarity

Dimensions inches [mm]



C-Series Pneumatic Cylinders 2 inch Bore

Double-acting



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

Accessories

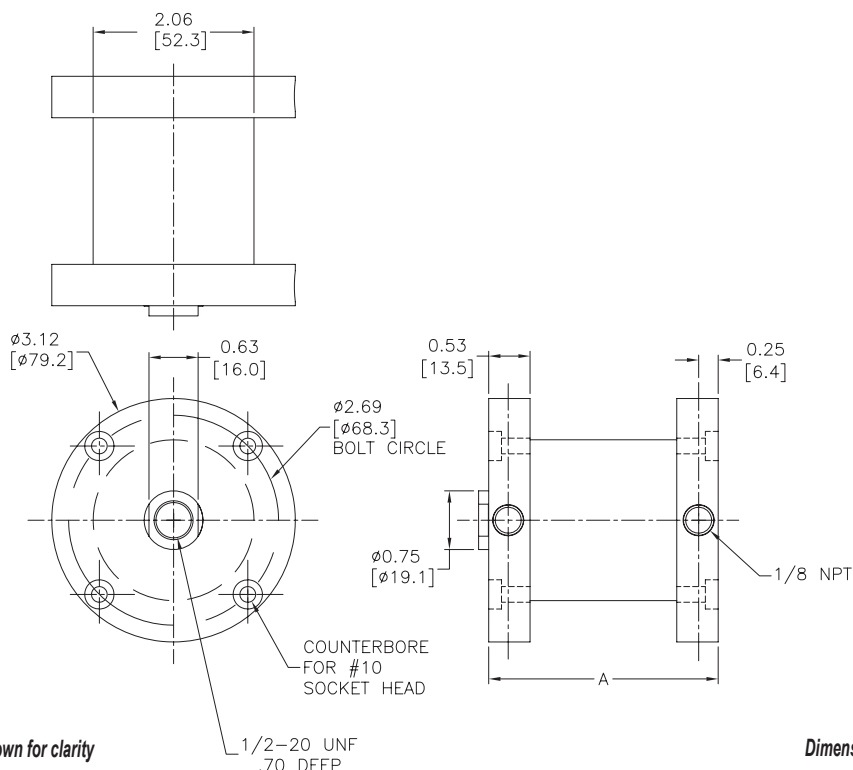
Cylinder, 2 in. bore, double-acting				
Part Number	Stroke Length (in.)	"A" (in.)	Weight (lb.)	Price
C32005D	0.50	1.44	0.94	\$102.00
C320075D	0.75	1.69	1.00	\$103.00
C32010D	1.00	1.94	1.06	\$104.00
C32015D	1.50	2.44	1.19	\$110.00
C32020D	2.00	2.94	1.31	\$116.00
C32025D	2.50	3.44	1.44	\$120.00
C32030D	3.00	3.94	1.56	\$125.00
C32035D	3.50	4.44	1.69	\$131.00

Specifications	
304 SS cylinder body	3.14 sq. in. piston area
High strength aluminum end caps	Pre-lubricated for maintenance-free life
303 SS piston rod	Pressure rating 150 psi
Buna-N o-ring seals	Temperature range -20°F to 150°F (-28° to 66°C)
Extend force at 100 psi = 314.2 lb.	Retract force at 100 psi = 270.0 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	\$34.50
CRP-40	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	\$18.00

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

Dimensions



Cylinder assembly bolts not shown for clarity

Dimensions inches [mm]



C-Series Pneumatic Cylinders

2-1/2 inch Bore

Double-acting



NITRA pneumatic cylinder, stainless steel body, 2-1/2 inch bore, 1/4 inch NPT ports, double-acting, single end rod, counter-bored mounting holes, interchangeable with other brands. 2-year warranty.

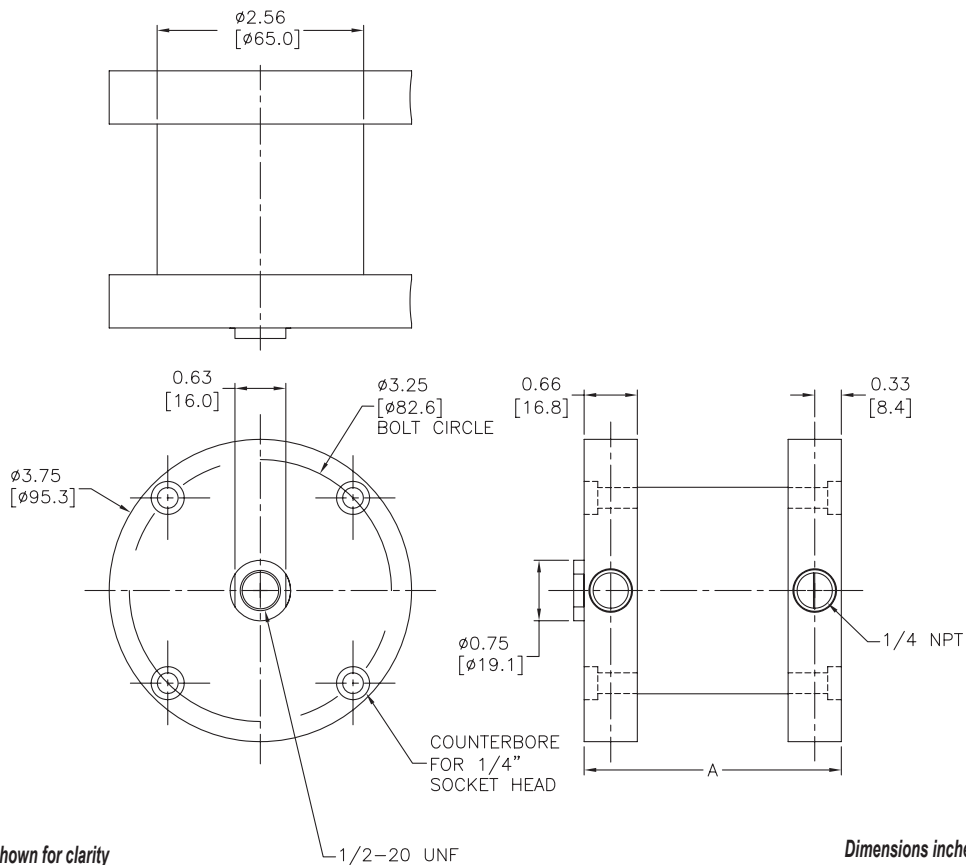
Accessories

Cylinder, 2-1/2 in. bore, double-acting				
Part Number	Stroke Length (in.)	"A" (in.)	Weight (lb.)	Price
C40005D	0.50	1.69	1.55	\$130.00
C40010D	1.00	2.19	1.70	\$135.00
C40020D	2.00	3.19	2.00	\$143.00
C40025D	2.50	3.69	2.15	\$152.00
Specifications				
304 SS cylinder body		4.91 sq. in. piston area		
High strength aluminum end caps		Pre-lubricated for maintenance-free life		
303 SS piston rod		Pressure rating 150 psi		
Buna-N o-ring seals		Temperature range -20°F to 150°F (-28° to 66°C)		
Extend force at 100 psi = 490.1 lb.		Retract force at 100 psi = 446.7 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	\$34.50
CRP-40	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	\$18.00

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

Dimensions



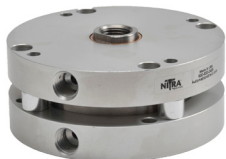
Cylinder assembly bolts not shown for clarity

Dimensions inches [mm]



C-Series Pneumatic Cylinders 3 inch Bore

Double-acting



NITRA pneumatic cylinder, stainless steel body, 3 inch bore, 1/4 inch NPT ports, double-acting, single end rod, counter-bored mounting holes, interchangeable with other brands. 2-year warranty.

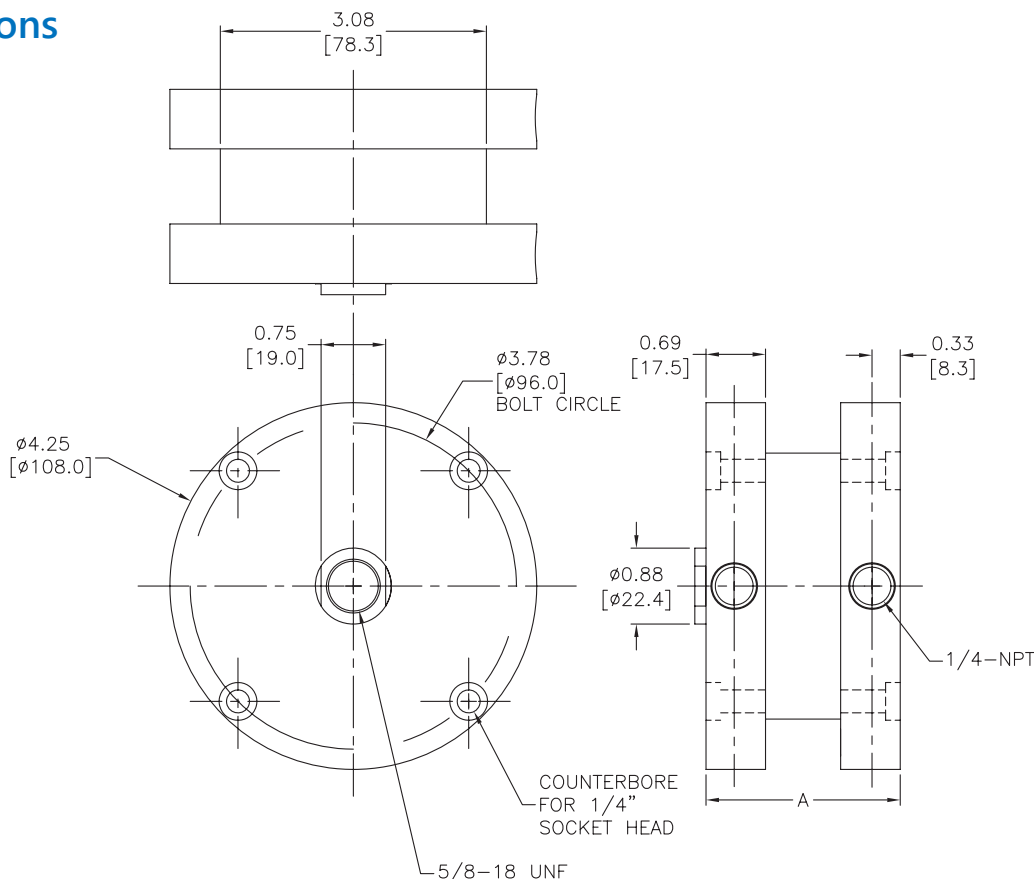
Accessories

Cylinder, 3 in. bore, double-acting				
Part Number	Stroke Length (in.)	"A" (in.)	Weight (lb.)	Price
C48005D	0.50	1.75	2.01	\$155.00
C48010D	1.00	2.25	2.21	\$158.00
Specifications				
304 SS cylinder body		7.07 sq. in. piston area		
High strength aluminum end caps		Pre-lubricated for maintenance-free life		
303 SS steel piston rod		Pressure rating 150 psi		
Buna-N o-ring seals		Temperature range -20°F to 150°F (-28° to 66°C)		
Extend force at 100 psi = 706.9 lb.		Retract force at 100 psi = 646.7 lb.		

Part No.	Description	Price
CCB-48	Clevis bracket, anodized aluminum, stainless steel pin, for use with 3 inch bore NITRA C-series compact cylinders	\$45.50
CRP-48	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	\$20.50

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

Dimensions



Cylinder assembly bolts not shown for clarity

Dimensions inches [mm]



C-Series Pneumatic Cylinders Accessories

C-Series Pneumatic Cylinder Accessories					
Part Number	Description	Pcs/Pkg	Wt (lb)	Price	
CCB-17	Clevis bracket, anodized aluminum, stainless steel pin, for use with CRP-09, CRP-12 or CRP-17 Rod Eyes	1	0.20	\$24.00	
CCB-40	Clevis bracket, anodized aluminum, stainless steel pin, for use with CRP-24 or CRP-40 Rod Eyes	1	0.30	\$34.50	
CCB-48	Clevis bracket, anodized aluminum, stainless steel pin, for use with CRP-48 Rod Eye	1	0.40	\$45.50	
CRP-09	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	\$15.50	
CRP-12	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	\$17.50	
CRP-17	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	\$16.50	
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	1	0.30	\$18.00	
CRP-40	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	\$18.00	
CRP-48	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	\$20.50	

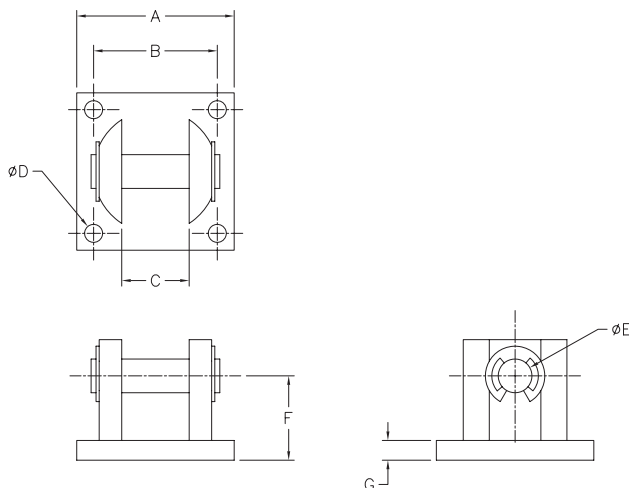


Photo shows C-series pneumatic cylinder with optional clevis bracket and rod eye.

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]

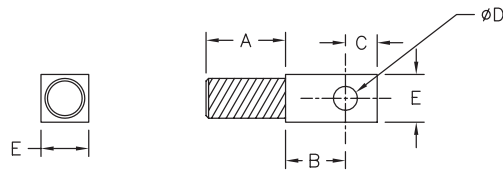


C-Series Pneumatic Cylinders Accessories

CRP Rod Eyes



Part No. CRP-24



PART NUMBER	CYLINDER BORE SIZE	THREAD SIZE	A	B	C	ØD	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]



D-Series Heavy Duty Pneumatic Cylinders

Nitra Heavy Duty Pneumatic Air Cylinders

The NITRA Pneumatics D-Series heavy duty cylinders include bore sizes from 1-1/2" to 4" and stroke lengths from 1" to 24" to meet a broad range of applications where abusive conditions exist. These heavy duty cylinders are constructed with high quality aluminum components and a magnetic piston fitted with a PTFE wear band.

The cylinders are fitted with a Teflon® impregnated and hardcoat anodized heavy-duty external rod bearing. This bearing ensures smooth rod motion while maintaining rod rigidity and stability.

All D-Series cylinders have a magnetic piston that can be used along with solid state or reed switches for rod position sensing. The solid state and reed switches sense the rod position by emitting an electrical signal when the magnetized piston reaches a point adjacent to their location. Tie rod mounting allows fast and accurate positioning setup.

Cushioned cylinders are also available to provide end-of-

stroke deceleration at both ends. The cushions decelerate the piston rod at the end-of-stroke and are adjustable with a flat head screwdriver.

Features

- Interchangeable with other popular brands of NFPA cylinders
- Available bore sizes: 1-1/2", 2", 2-1/2", 3-1/4", 4"
- Wide selection of stroke lengths
- All models are double-acting
- Head and tail caps drilled for mounting
- All models have a magnetic piston
- Teflon® impregnated and hardcoat anodized heavy-duty external rod bearing
- 250 psi max operating pressure
- Some models available with adjustable cushions (both ends)
- Made in the USA
- All models are typically available for same-day shipment

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.

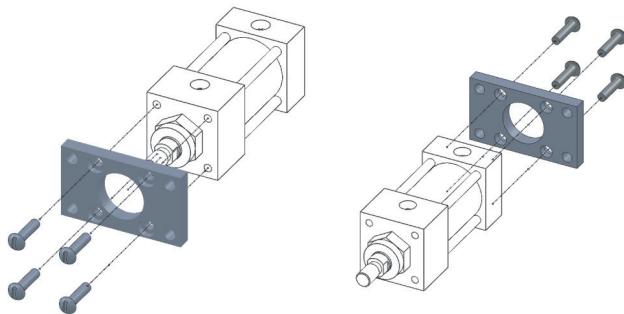
Mounting Options

Flange Mounted:

The cylinder has holes on the ends of the end caps that allow easy mounting to a plate or other surfaces. See Flange Mount Kits in Accessories section.

Front Flange Mount (MF1)

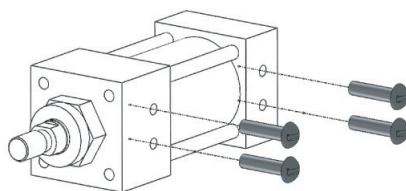
Rear Flange Mount (MF2)



Side Mounted:

The cylinder has holes on the sides of the end caps that allow easy mounting to a surface. No mounting kit needed, only bolts.

Side Tap Mount (MS4)

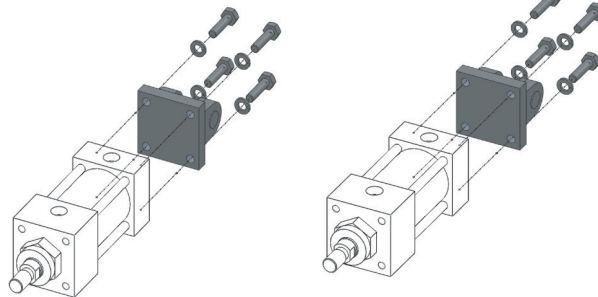


Rear Clevis and Rear Pivot Mount:

Clevis and Pivot mounts use a bracket that allows a pivoted mount. See Rear Clevis and Pivot Attachments in Accessories section.

Rear Clevis Mount (MP2)

Rear Pivot Mount (MP4)

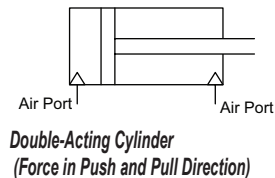
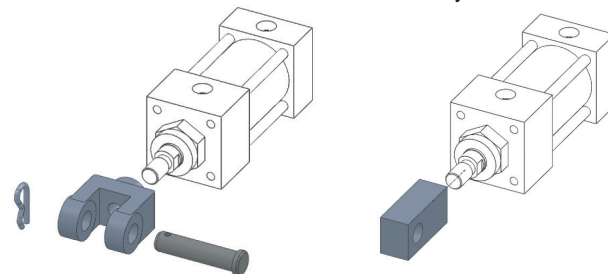


Rod Clevis:

The Rod Clevis uses a rod-mounted bracket and pin that allows a pivoted mount. Rod Eye uses a rod-mounted block with eye that allows a pivoted mount. See Accessories Section.

Rod Clevis

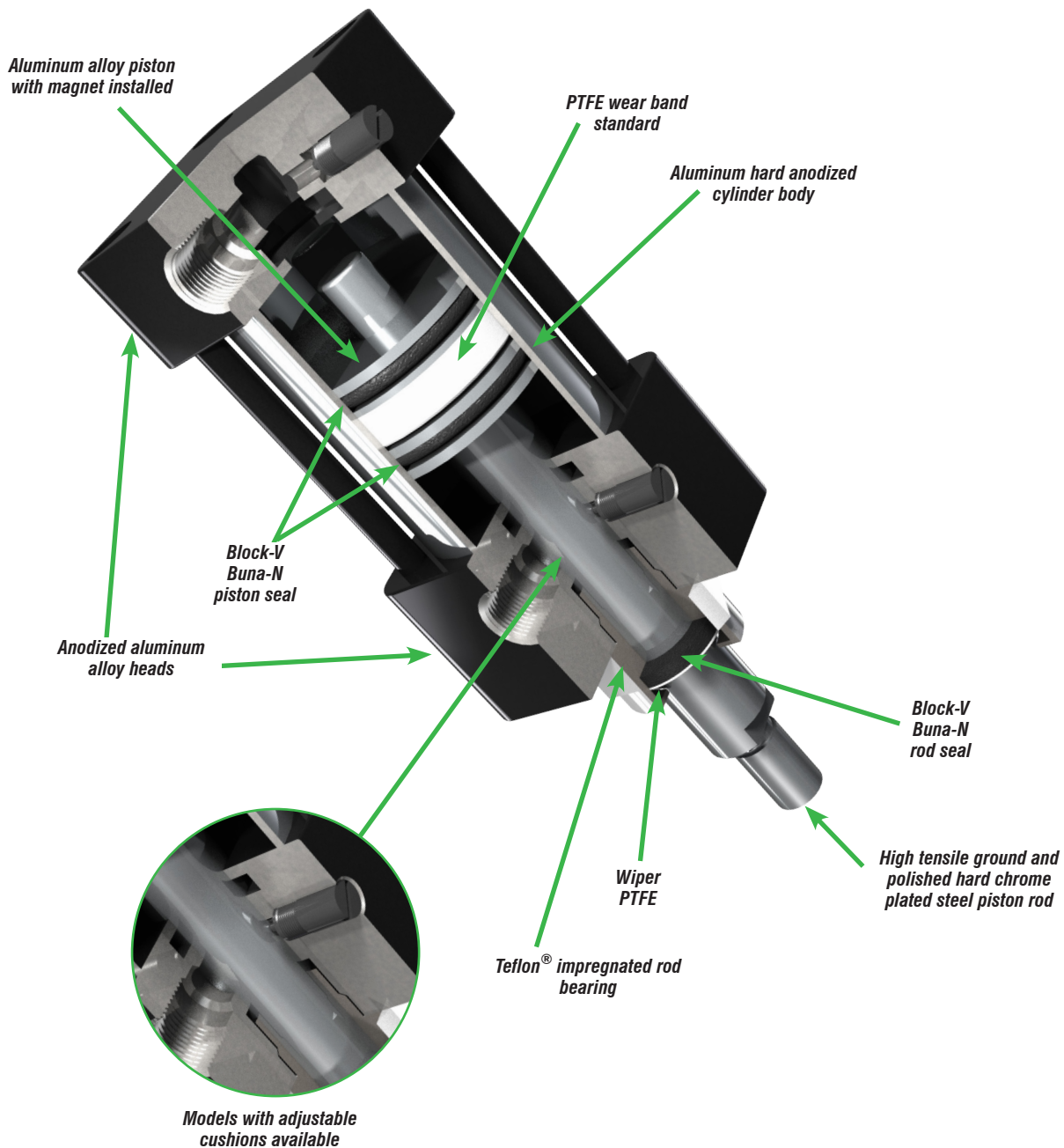
Rod Eye





D-Series Heavy Duty Pneumatic Cylinders

Cylinder Features





D-Series Heavy Duty Pneumatic Cylinders – 2 inch Bore

2 in. Bore, Double-acting, Tapped End Caps, Magnetic Piston



NITRA heavy duty pneumatic, NFPA interchangeable cylinder, 2 inch bore, 5/8" diameter piston rod, 1/4" female NPT ports, double acting, tapped end caps and one side for mount, flange, pivot and clevis mount options available. Some models available with cushions on both ends.

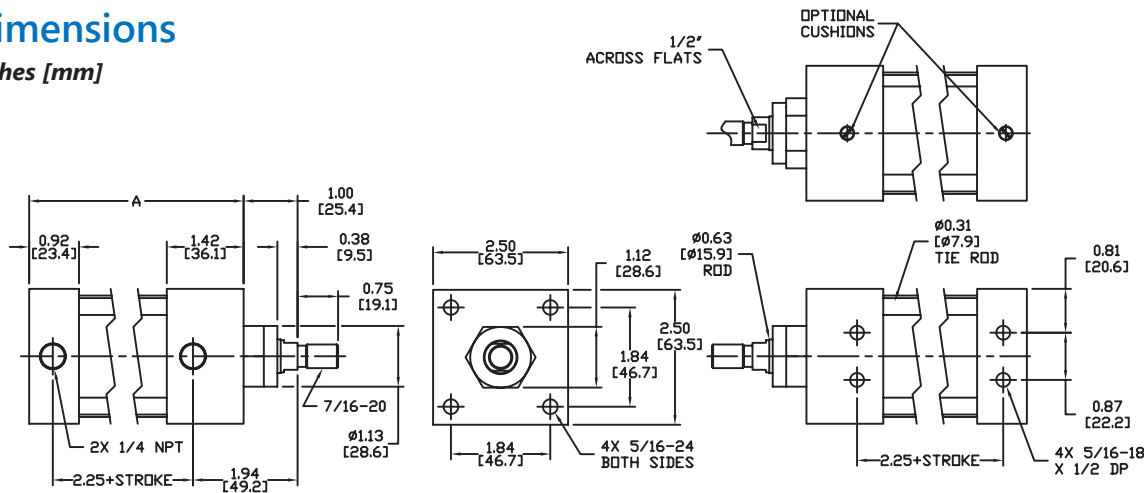
2 in bore, double acting, tapped end caps						
Part Number no Cushions	Price	Part Number w/ Cushions*	Price	Stroke Length (in)	"A" (in [mm])	Weight (lb)
-		D32010DT-MC	Retired	1	4.63 [117.6]	2.5
D32070DT-M	Retired	-		7	10.63 [270.0]	3.9

* The cushions decelerate the piston rod over the last 11/16 inch (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.

Specifications	
Aluminum hard anodized to 60 Rc cylinder body	3.14 sq. in. piston area
Solid aluminum bar, black anodized end caps	Pressure rating 250 psi, AIR ONLY
High tensile ground and polished hard chrome plated steel piston rod	Non-detergent petroleum based oil is recommended
Low friction Buna-N seals	Temperature range -40°F to 250°F (-40 to 121°C)
Extend force at 100 psi = 314 lb.	Retract force at 100 psi = 283 lb.
Filtration: Not essential, however a standard 40 micron filter placed upstream will prolong seal life.	

Dimensions

inches [mm]





D-Series Heavy Duty Pneumatic Cylinders – 2-1/2 inch Bore

2-1/2 in. Bore, Double-acting, Tapped End Caps, Magnetic Piston



NITRA heavy duty pneumatic, NFPA interchangeable cylinder, 2-1/2 inch bore, 5/8" diameter piston rod, 1/4" female NPT ports, double acting, tapped end caps and one side for mount, flange, pivot and clevis mount options available. Some models available with cushions on both ends.

2-1/2 in bore, double acting, tapped end caps						
Part Number no Cushions	Price	Part Number w/ Cushions*	Price	Stroke Length (in)	"A" (in [mm])	Weight (lb)
-		D40020DT-MC	Retired	2	5.75 [146.0]	3.7
D40160DT-M	Retired	-		16	19.75 [501.6]	7.3

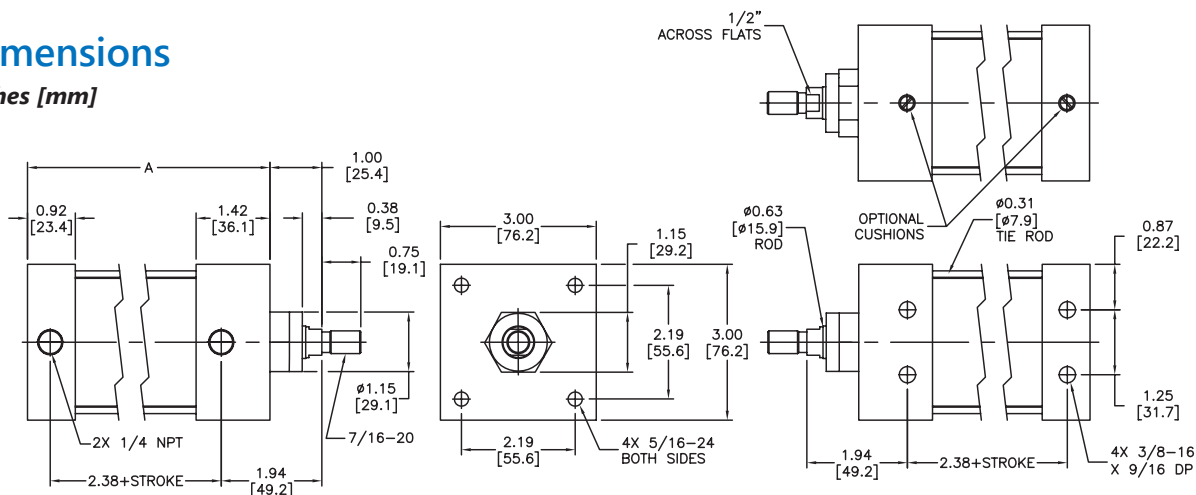
* The cushions decelerate the piston rod over the last 11/16 inch (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.

Specifications	
Aluminum hard anodized to 60 Rc cylinder body	4.91 sq. in. piston area
Solid aluminum bar, black anodized end caps	Pressure rating 250 psi, AIR ONLY
High tensile ground and polished hard chrome plated steel piston rod	Non-detergent petroleum based oil is recommended
Low friction Buna-N seals	Temperature range -40°F to 250°F (-40 to 121°C)
Extend force at 100 psi = 491 lb.	Retract force at 100 psi = 460 lb.
Filtration: Not essential, however a standard 40 micron filter placed upstream will prolong seal life.	

Mounting Accessories		
Style	NFPA Designation	Part No.
Front Flange	MF1	DFM-3
Rear Flange	MF2	DFM-3

Dimensions

inches [mm]





D-Series Heavy Duty Pneumatic Cylinders – 4 inch Bore

4 in. Bore, Double-acting, Tapped End Caps, Magnetic Piston



NITRA heavy duty pneumatic, NFPA interchangeable cylinder, 4 inch bore, 1 inch diameter piston rod, 1/2" female NPT ports, double acting, tapped end caps and one side for mount, flange, pivot and clevis mount options available. Some models available with cushions on both ends.

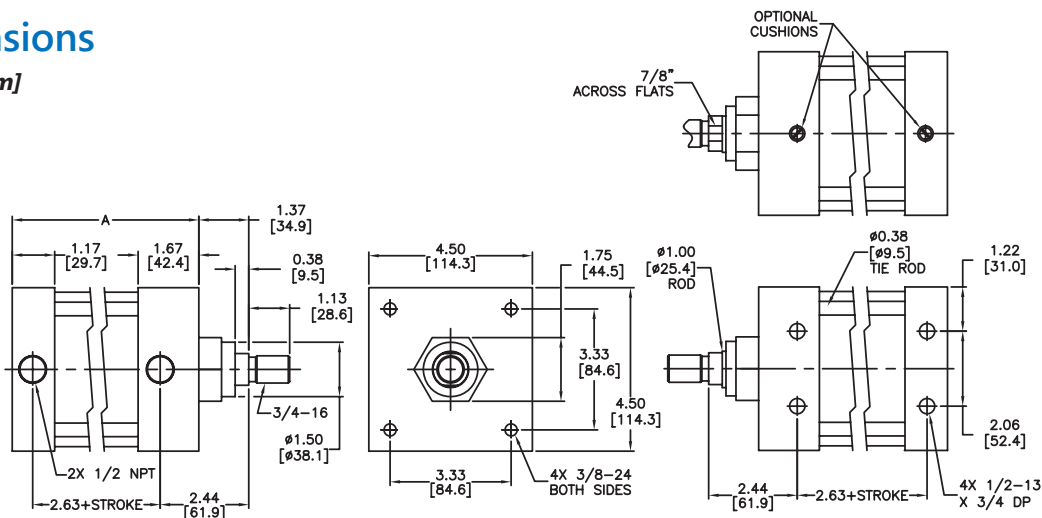
4 in bore, double acting, tapped end caps						
Part Number no Cushions	Price	Part Number w/ Cushions*	Price	Stroke Length (in)	"A" (in [mm])	Weight (lb)
-		<u>D64030DT-MC</u>	Retired	3	7.25 [184.1]	9.7

Specifications	
Aluminum hard anodized to 60 Rc cylinder body	12.57 sq. in. piston area
Solid aluminum bar, black anodized end caps	Pressure rating 250 psi, AIR ONLY
High tensile ground and polished hard chrome plated steel piston rod	Non-detergent petroleum based oil is recommended
Low friction Buna-N seals	Temperature range -40°F to 250°F (-40 to 121°C)
Extend force at 100 psi = 1,257 lb.	Retract force at 100 psi = 1,178 lb.
Filtration: Not essential, however a standard 40 micron filter placed upstream will prolong seal life.	

* The cushions decelerate the piston rod over the last 11/16 inch (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.

Dimensions

inches [mm]





D-Series Heavy Duty Pneumatic Cylinders – Accessories

D-Series Heavy Duty Pneumatic Cylinder Accessories

<i>Part Number</i>	<i>Description</i>	<i>Pcs/Pkg</i>	<i>Wt (lb)</i>	<i>Price</i>
<u>DFM-3</u>	NFPA style MF1 or MF2 cylinder flange mounting plate and attaching hardware, for 2-1/2 inch bore NITRA NFPA D-series pneumatic cylinders	1	0.5	Retired

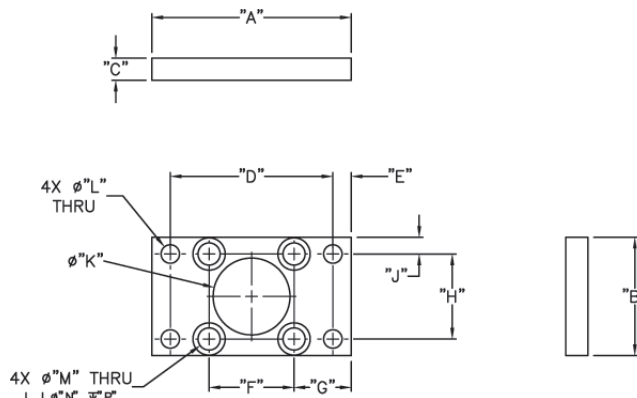


D-Series Heavy Duty Pneumatic Cylinders – Accessories

Flange Attachment

Dimensions

inches [mm]



Flange Attachment Dimension Table														
Part #	A	B	C	D	E	F	G	H	J	(Dia) K	(Dia) L	(Dia) M	(Dia) N	P
DFM-3	4.63 [117.6]	3.00 [76.2]	0.38 [9.7]	3.88 [98.6]	0.38 [9.7]	2.19 [55.6]	1.22 [31.0]	2.19 [55.6]	0.41 [10.4]	ø1.74 [ø44.2]	ø0.38 [ø9.7]	ø0.38 [ø9.7]	ø0.66 [ø16.8]	0.16 [4.1]



D2-Series Heavy Duty Pneumatic Cylinders

Nitra Heavy Duty Pneumatic Air Cylinders

The NITRA Pneumatics D2-Series heavy duty cylinders include bore sizes from 1-1/2" to 4" and stroke lengths from 1" to 32" to meet a broad range of applications where abusive conditions exist. These NFPA heavy duty cylinders are constructed with high quality aluminum components and a magnetic piston fitted with a PTFE wear band.

The cylinders feature flush-mount sleeve nuts on the tie rods and are fitted with a PTFE coated cast iron bushing. This bearing ensures smooth rod motion while maintaining rod rigidity and stability.

All D2-Series cylinders have a magnetic piston that can be used along with solid state or reed switches for rod position sensing. The solid state and reed switches sense the rod position by emitting an electrical signal when the magnetized piston reaches a point adjacent to their location. Tie rod mounting allows fast and accurate positioning setup.

Cushioned cylinders are also available to provide end-of-

stroke deceleration at both ends. The cushions decelerate the piston rod at the end-of-stroke and are adjustable with a flat head screwdriver.

Features

- Interchangeable with other popular brands of NFPA cylinders
- Available bore sizes: 1-1/2", 2", 2-1/2", 3-1/4", 4"
- Wide selection of stroke lengths
- All models are double-acting
- Head and end caps drilled for mounting
- All models have a magnetic piston
- PTFE coated cast iron bushing
- 250 psi max operating pressure
- Some models available with adjustable cushions (both ends)
- Made in the USA
- All models are typically available for same-day shipment
- Temperature range is -20° F to 200° F

Operation

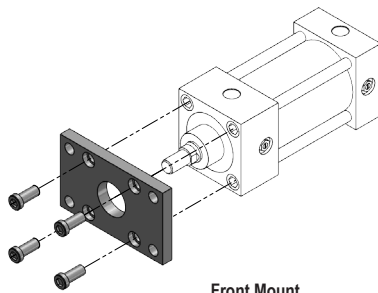
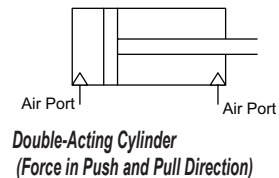
Double-acting cylinders have two compressed air ports. One of the ports will extend the rod in the "push" direction and the other port will retract the rod in the "pull" direction.

Mounting Options and Accessories

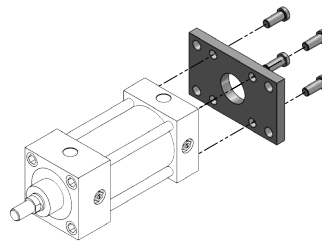
Front or Rear Flange Mount (MF1 or MF2)

For Front or Rear Flange mounting, use the Flange Mount Kit.

Use the drawings below for installation reference.



Front Mount

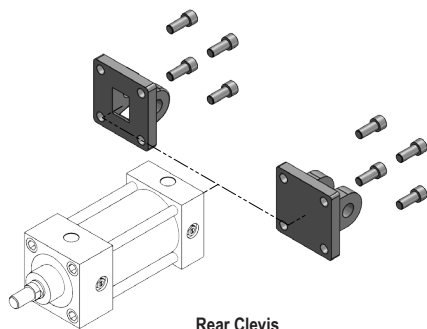


Rear Mount

Rear Clevis Mount (MP1 or MP2)

For Rear Clevis mounting, use the Rear Clevis Mount Kit.

Use the drawing below for installation reference.



Rear Clevis



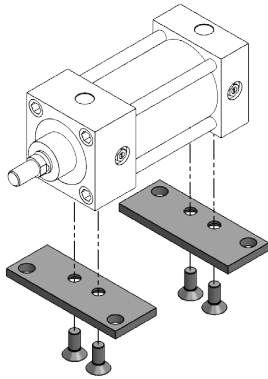
Click on the thumbnail or go to <https://www.automationdirect.com/VID-PN-0047> for a short video on NITRA D2 Series Heavy Duty Cylinders.



D2-Series Heavy Duty Pneumatic Cylinders

Base Mount Bracket (Non NFPA)

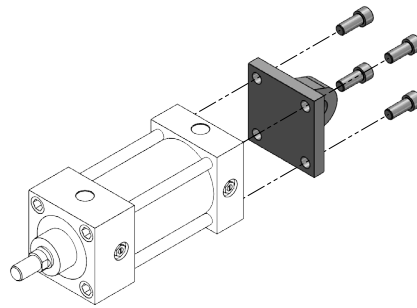
For base mounting, use the Base Mount Bracket Kit. Use the drawing below for installation reference.



Base Mount

Rear Pivot Mount (MP4)

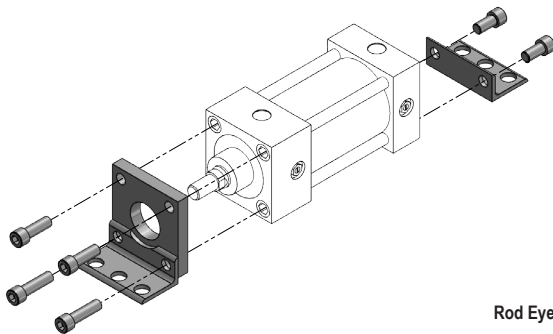
For Rear Pivot mounting, use the Pivot Attachment Kit. Use the drawing below for installation reference.



Rear Pivot

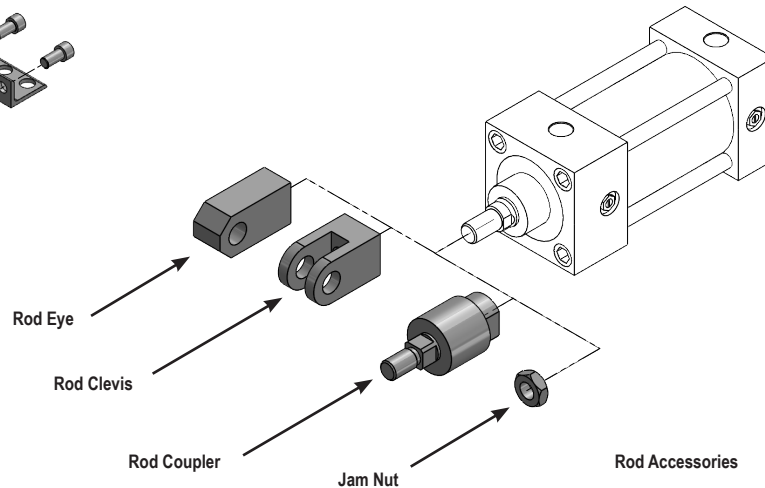
Angle Mount Bracket (MS1)

For angle mounting, use the Angle Mount Bracket Kit. Use the drawing below for installation reference.



Rod Accessories

There is a Rod Eye, Rod Clevis and Self-Aligning Rod Coupler to fit each size piston rod. 7/16-20 thread size fits 1-1/2", 2" and 2-1/2" bore cylinders. 3/4-16 thread fits 3-1/4" and 4" bore cylinders. Jam nuts are sold separately.

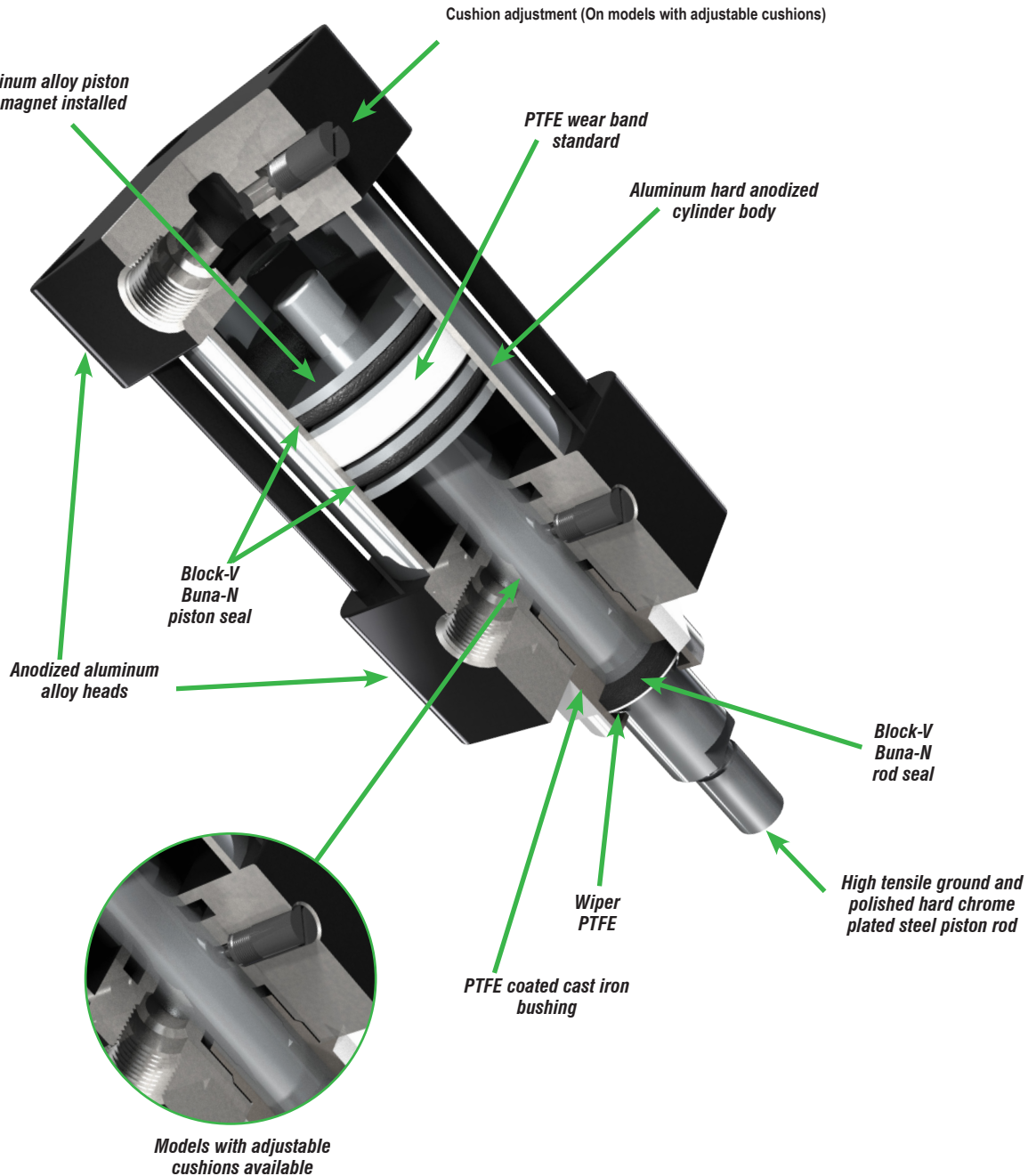


Rod Accessories



D2-Series Heavy Duty Pneumatic Cylinders

Cylinder Features





D2-Series Heavy Duty Pneumatic Cylinders – 1-1/2 inch Bore

1-1/2 in. Bore, Double-acting, Tapped End Caps, Magnetic Piston



NITRA heavy duty pneumatic, NFPA interchangeable cylinder, 1-1/2" bore, 5/8" diameter piston rod, 7/16"-20 male threaded end, 1/4" female NPT ports, double acting, tapped end caps and one side for mount; flange, pivot and clevis mount options available. Some models available with cushions on both ends.

1-1/2 in bore, double acting, tapped end caps							
Part Number no Cushions	Price	Drawing Link	Part Number w/ Cushions*	Price	Drawing Link	Stroke Length (in)	Weight (lb)
D224010DT-M	\$211.00	PDF	D224010DT-MC	\$291.00	PDF	1	1.5
D224020DT-M	\$218.00	PDF	D224020DT-MC	\$298.00	PDF	2	1.7
D224030DT-M	\$225.00	PDF	D224030DT-MC	\$305.00	PDF	3	1.9
D224040DT-M	\$231.00	PDF	D224040DT-MC	\$312.00	PDF	4	2.2
D224050DT-M	\$239.00	PDF	D224050DT-MC	\$320.00	PDF	5	2.4
D224060DT-M	\$246.00	PDF	D224060DT-MC	\$327.00	PDF	6	2.6
D224070DT-M	\$253.00	PDF	D224070DT-MC	\$334.00	PDF	7	2.8
D224080DT-M	\$259.00	PDF	D224080DT-MC	\$341.00	PDF	8	3.0
D224100DT-M	\$274.00	PDF	D224100DT-MC	\$356.00	PDF	10	3.5
D224120DT-M	\$287.00	PDF	D224120DT-MC	\$370.00	PDF	12	3.9
D224140DT-M	\$302.00	PDF	D224140DT-MC	\$384.00	PDF	14	4.4
D224160DT-M	\$315.00	PDF	D224160DT-MC	\$399.00	PDF	16	4.8
D224180DT-M	\$329.00	PDF	D224180DT-MC	\$413.00	PDF	18	5.3
D224200DT-M	\$343.00	PDF	D224200DT-MC	\$427.00	PDF	20	5.7
D224220DT-M	\$357.00	PDF	D224220DT-MC	\$442.00	PDF	22	6.1
D224240DT-M	\$370.00	PDF	D224240DT-MC	\$456.00	PDF	24	6.6
D224280DT-M	\$399.00	PDF	D224280DT-MC	\$485.00	PDF	28	7.1
D224320DT-M	\$426.00	PDF	D224320DT-MC	\$514.00	PDF	32	7.5

* The cushions decelerate the piston rod over the last 11/16 inch (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.

Specifications	
Aluminum hard anodized to 60 Rc cylinder body	1.77 sq. in. piston area
Solid aluminum bar, black anodized end caps	Pressure rating 250 psi, AIR ONLY
High tensile ground and polished hard chrome plated steel piston rod	Non-detergent petroleum based oil is recommended
Low friction Buna-N seals	Temperature range -20°F to 200°F (-25 to 90°C)
Extend force at 100 psi = 177 lb.	Retract force at 100 psi = 146 lb.
Filtration: Not essential, however a standard 40 micron filter placed upstream will prolong seal life.	

Mounting Accessories		
Style	NFPA Designation	Part No.
Front Flange	MF1	D2FM-1
Rear Flange	MF2	D2FM-1
Rear Clevis	MP2	D2PC-1
Rear Clevis Short	MP1	D2SPC-1
Rear Pivot	MP4	D2PA-1
Angle Mount	MS1	D2AM-1
Base Mount	None	D2BB-1

Rod Accessories	
Style	Part No.
Rod Clevis	D2RC-1
Rod Eye	D2RE-1
Rod Couplers	D2RCP-1
Rod Nuts	D2-716-20
Seal Kit	D2SK-24



D2-Series Heavy Duty Pneumatic Cylinders – 2 inch Bore

2 in. Bore, Double-acting, Tapped End Caps, Magnetic Piston



NITRA heavy duty pneumatic, NFPA interchangeable cylinder, 2" bore, 5/8" diameter piston rod, 7/16"-20 male threaded end, 1/4" female NPT ports, double acting, tapped end caps and one side for mount, flange, pivot and clevis mount options available. Some models available with cushions on both ends.

2 in bore, double acting, tapped end caps							
Part Number no Cushions	Price	Drawing Link	Part Number w/ Cushions*	Price	Drawing Link	Stroke Length (in)	Weight (lb)
D232010DT-M	\$241.00	PDF	-	-	-	1	2.5
D232020DT-M	\$248.00	PDF	D232020DT-MC	\$329.00	PDF	2	2.7
D232030DT-M	\$256.00	PDF	D232030DT-MC	\$337.00	PDF	3	2.9
D232040DT-M	\$263.00	PDF	D232040DT-MC	\$345.00	PDF	4	3.2
D232050DT-M	\$270.00	PDF	D232050DT-MC	\$352.00	PDF	5	3.4
D232060DT-M	\$279.00	PDF	D232060DT-MC	\$360.00	PDF	6	3.7
D232070DT-M	\$286.00	PDF	D232070DT-MC	\$368.00	PDF	7	3.9
D232080DT-M	\$293.00	PDF	D232080DT-MC	\$375.00	PDF	8	4.1
D232100DT-M	\$307.00	PDF	D232100DT-MC	\$391.00	PDF	10	4.6
D232120DT-M	\$322.00	PDF	D232120DT-MC	\$407.00	PDF	12	5.1
D232140DT-M	\$338.00	PDF	D232140DT-MC	\$421.00	PDF	14	5.6
D232160DT-M	\$352.00	PDF	D232160DT-MC	\$437.00	PDF	16	6.0
D232180DT-M	\$367.00	PDF	D232180DT-MC	\$453.00	PDF	18	6.5
D232200DT-M	\$382.00	PDF	D232200DT-MC	\$467.00	PDF	20	7.0
D232220DT-M	\$397.00	PDF	D232220DT-MC	\$483.00	PDF	22	7.5
D232240DT-M	\$412.00	PDF	D232240DT-MC	\$499.00	PDF	24	7.9
D232280DT-M	\$441.00	PDF	D232280DT-MC	\$529.00	PDF	28	8.4
D232320DT-M	\$471.00	PDF	D232320DT-MC	\$561.00	PDF	32	8.9

* The cushions decelerate the piston rod over the last 11/16 inch (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.

Specifications	
Aluminum hard anodized to 60 Rc cylinder body	3.14 sq. in. piston area
Solid aluminum bar, black anodized end caps	Pressure rating 250 psi, AIR ONLY
High tensile ground and polished hard chrome plated steel piston rod	Non-detergent petroleum based oil is recommended
Low friction Buna-N seals	Temperature range -20°F to 200°F (-25 to 90°C)
Extend force at 100 psi = 314 lb.	Retract force at 100 psi = 283 lb.
Filtration: Not essential, however a standard 40 micron filter placed upstream will prolong seal life.	

Mounting Accessories		
Style	NFPA Designation	Part No.
Front Flange	MF1	D2FM-2
Rear Flange	MF2	D2FM-2
Rear Clevis	MP2	D2PC-2
Rear Clevis Short	MP1	D2SPC-2
Rear Pivot	MP4	D2PA-2
Angle Mount	MS1	D2AM-2
Base Mount	None	D2BB-2

Rod Accessories	
Style	Part No.
Rod Clevis	D2RC-1
Rod Eye	D2RE-1
Rod Couplers	D2RCP-1
Rod Nuts	D2-716-20
Seal Kit	D2SK-32



D2-Series Heavy Duty Pneumatic Cylinders – 2-1/2 inch Bore

2-1/2 in. Bore, Double-acting, Tapped End Caps, Magnetic Piston



NITRA heavy duty pneumatic, NFPA interchangeable cylinder, 2-1/2" bore, 5/8" diameter piston rod, 7/16"-20 male threaded end, 1/4" female NPT ports, double acting, tapped end caps and one side for mount, flange, pivot and clevis mount options available. Some models available with cushions on both ends.

2-1/2 in bore, double acting, tapped end caps							
Part Number no Cushions	Price	Drawing Link	Part Number w/ Cushions*	Price	Drawing Link	Stroke Length (in)	Weight (lb)
D240010DT-M	\$265.00	PDF	-			1	3.4
D240020DT-M	\$273.00	PDF	D240020DT-MC	\$355.00	PDF	2	3.7
D240030DT-M	\$281.00	PDF	D240030DT-MC	\$363.00	PDF	3	4.0
D240040DT-M	\$288.00	PDF	D240040DT-MC	\$372.00	PDF	4	4.2
D240050DT-M	\$297.00	PDF	D240050DT-MC	\$379.00	PDF	5	4.4
D240060DT-M	\$304.00	PDF	D240060DT-MC	\$387.00	PDF	6	4.7
D240070DT-M	\$312.00	PDF	D240070DT-MC	\$396.00	PDF	7	5.0
D240080DT-M	\$320.00	PDF	D240080DT-MC	\$403.00	PDF	8	5.2
D240100DT-M	\$336.00	PDF	D240100DT-MC	\$419.00	PDF	10	5.8
D240120DT-M	\$351.00	PDF	D240120DT-MC	\$436.00	PDF	12	6.3
D240140DT-M	\$367.00	PDF	D240140DT-MC	\$451.00	PDF	14	6.8
D240160DT-M	\$383.00	PDF	D240160DT-MC	\$468.00	PDF	16	7.3
D240180DT-M	\$399.00	PDF	D240180DT-MC	\$484.00	PDF	18	7.8
D240200DT-M	\$413.00	PDF	D240200DT-MC	\$500.00	PDF	20	8.4
D240240DT-M	\$444.00	PDF	D240240DT-MC	\$532.00	PDF	24	9.1
D240280DT-M	\$476.00	PDF	D240280DT-MC	\$565.00	PDF	28	9.8
D240320DT-M	\$507.00	PDF	D240320DT-MC	\$598.00	PDF	32	10.5

* The cushions decelerate the piston rod over the last 11/16 inch (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.

Specifications	
Aluminum hard anodized to 60 Rc cylinder body	4.91 sq. in. piston area
Solid aluminum bar, black anodized end caps	Pressure rating 250 psi, AIR ONLY
High tensile ground and polished hard chrome plated steel piston rod	Non-detergent petroleum based oil is recommended
Low friction Buna-N seals	Temperature range -20°F to 200°F (-25 to 90°C)
Extend force at 100 psi = 491 lb.	Retract force at 100 psi = 460 lb.
Filtration: Not essential, however a standard 40 micron filter placed upstream will prolong seal life.	

Mounting Accessories		
Style	NFPA Designation	Part No.
Front Flange	MF1	D2FM-3
Rear Flange	MF2	D2FM-3
Rear Clevis	MP2	D2PC-3
Rear Clevis Short	MP1	D2SPC-3
Rear Pivot	MP4	D2PA-3
Angle Mount	MS1	D2AM-2
Base Mount	None	D2BB-3

Rod Accessories	
Style	Part No.
Rod Clevis	D2RC-1
Rod Eye	D2RE-1
Rod Couplers	D2RCP-1
Rod Nuts	D2-716-20
Seal Kit	D2SK-40



D2-Series Heavy Duty Pneumatic Cylinders – 3-1/4 inch Bore

3-1/4 in. Bore, Double-acting, Tapped End Caps, Magnetic Piston



NITRA heavy duty pneumatic, NFPA interchangeable cylinder, 3-1/4" bore, 1" diameter piston rod, 3/4"-16 male threaded end, 3/8" female NPT ports, double acting, tapped end caps and one side for mount, flange, pivot and clevis mount options available. Some models available with cushions on both ends.

3-1/4 in bore, double acting, tapped end caps							
Part Number no Cushions	Price	Drawing Link	Part Number w/ Cushions*	Price	Drawing Link	Stroke Length (in)	Weight (lbs)
D252010DT-M	\$346.00	PDF	–	–	–	1	6.8
D252020DT-M	\$357.00	PDF	D252020DT-MC	\$463.00	PDF	2	7.3
D252030DT-M	\$369.00	PDF	D252030DT-MC	\$473.00	PDF	3	7.7
D252040DT-M	\$380.00	PDF	D252040DT-MC	\$485.00	PDF	4	8.1
D252050DT-M	\$392.00	PDF	D252050DT-MC	\$498.00	PDF	5	8.6
D252060DT-M	\$403.00	PDF	D252060DT-MC	\$509.00	PDF	6	9.0
D252070DT-M	\$415.00	PDF	D252070DT-MC	\$522.00	PDF	7	9.4
D252080DT-M	\$426.00	PDF	D252080DT-MC	\$534.00	PDF	8	9.9
D252100DT-M	\$449.00	PDF	D252100DT-MC	\$557.00	PDF	10	10.7
D252120DT-M	\$472.00	PDF	D252120DT-MC	\$581.00	PDF	12	11.6
D252140DT-M	\$495.00	PDF	D252140DT-MC	\$605.00	PDF	14	12.5
D252160DT-M	\$518.00	PDF	D252160DT-MC	\$629.00	PDF	16	13.4
D252180DT-M	\$541.00	PDF	D252180DT-MC	\$652.00	PDF	18	14.2
D252200DT-M	\$513.00	PDF	D252200DT-MC	\$594.00	PDF	20	15.1
D252240DT-M	\$610.00	PDF	D252240DT-MC	\$724.00	PDF	24	16.8
D252280DT-M	\$656.00	PDF	D252280DT-MC	\$772.00	PDF	28	18.5
D252320DT-M	\$702.00	PDF	D252320DT-MC	\$819.00	PDF	32	20.2

* The cushions decelerate the piston rod over the last 11/16 inch (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.

Specifications	
Aluminum hard anodized to 60 Rc cylinder body	8.3 sq. in. piston area
Solid aluminum bar, black anodized end caps	Pressure rating 250 psi, AIR ONLY
High tensile ground and polished hard chrome plated steel piston rod	Non-detergent petroleum based oil is recommended
Low friction Buna-N seals	Temperature range -20°F to 200°F (-25 to 90°C)
Extend force at 100 psi = 830 lb.	Retract force at 100 psi = 751 lb.
Filtration: Not essential, however a standard 40 micron filter placed upstream will prolong seal life.	

Mounting Accessories		
Style	NFPA Designation	Part No.
Front Flange	MF1	D2FM-4
Rear Flange	MF2	D2FM-4
Rear Clevis	MP2	D2PC-4
Rear Clevis Short	MP1	D2SPC-4
Rear Pivot	MP4	D2PA-4
Angle Mount	MS1	D2AM-4
Base Mount	None	D2BB-4

Rod Accessories	
Style	Part No.
Rod Clevis	D2RC-2
Rod Eye	D2RE-2
Rod Couplers	D2RCP-2
Rod Nuts	D2-34-16
Seal Kit	D2SK-52



D2-Series Heavy Duty Pneumatic Cylinders – 4 inch Bore

4 in. Bore, Double-acting, Tapped End Caps, Magnetic Piston



NITRA heavy duty pneumatic, NFPA interchangeable cylinder, 4" bore, 1" diameter piston rod, 3/4"-16 male threaded end, 3/8" female NPT ports, double acting, tapped end caps and one side for mount, flange, pivot and clevis mount options available. Some models available with cushions on both ends.

4 in bore, double acting, tapped end caps							
Part Number no Cushions	Price	Drawing Link	Part Number w/ Cushions*	Price	Drawing Link	Stroke Length (in)	Weight (lb)
D264010DT-M	\$408.00	PDF	-	-	-	1	8.7
D264020DT-M	\$420.00	PDF	-	-	-	2	9.2
D264030DT-M	\$432.00	PDF	D264030DT-MC	\$540.00	PDF	3	9.7
D264040DT-M	\$444.00	PDF	D264040DT-MC	\$552.00	PDF	4	10.2
D264050DT-M	\$457.00	PDF	D264050DT-MC	\$565.00	PDF	5	10.7
D264060DT-M	\$468.00	PDF	D264060DT-MC	\$577.00	PDF	6	11.1
D264070DT-M	\$481.00	PDF	D264070DT-MC	\$589.00	PDF	7	11.6
D264080DT-M	\$493.00	PDF	D264080DT-MC	\$603.00	PDF	8	12.1
D264100DT-M	\$518.00	PDF	D264100DT-MC	\$628.00	PDF	10	13.1
D264120DT-M	\$543.00	PDF	D264120DT-MC	\$653.00	PDF	12	14.0
D264140DT-M	\$567.00	PDF	D264140DT-MC	\$679.00	PDF	14	15.0
D264160DT-M	\$591.00	PDF	D264160DT-MC	\$705.00	PDF	16	15.9
D264180DT-M	\$615.00	PDF	D264180DT-MC	\$729.00	PDF	18	16.9
D264200DT-M	\$639.00	PDF	D264200DT-MC	\$754.00	PDF	20	17.9
D264240DT-M	\$689.00	PDF	D264240DT-MC	\$805.00	PDF	24	19.8
D264280DT-M	\$737.00	PDF	D264280DT-MC	\$856.00	PDF	28	21.7
D264320DT-M	\$787.00	PDF	D264320DT-MC	\$907.00	PDF	32	23.6

* The cushions decelerate the piston rod over the last 11/16 inch (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.

Specifications	
Aluminum hard anodized to 60 Rc cylinder body	12.57 sq. in. piston area
Solid aluminum bar, black anodized end caps	Pressure rating 250 psi, AIR ONLY
High tensile ground and polished hard chrome plated steel piston rod	Non-detergent petroleum based oil is recommended
Low friction Buna-N seals	Temperature range -20°F to 200°F (-25 to 90°C)
Extend force at 100 psi = 1,257 lb.	Retract force at 100 psi = 1,178 lb.
Filtration: Not essential, however a standard 40 micron filter placed upstream will prolong seal life.	

Mounting Accessories		
Style	NFPA Designation	Part No.
Front Flange	MF1	D2FM-5
Rear Flange	MF2	D2FM-5
Rear Clevis	MP2	D2PC-5
Rear Clevis Short	MP1	D2SPC-5
Rear Pivot	MP4	D2PA-5
Angle Mount	MS1	D2AM-5
Base Mount	None	D2BB-5

Rod Accessories	
Style	Part No.
Rod Clevis	D2RC-2
Rod Eye	D2RE-2
Rod Couplers	D2RCP-2
Rod Nuts	D2-34-16
Seal Kit	D2SK-64



D2-Series Heavy Duty Pneumatic Cylinders – Accessories

Rod Clevis



Part no. [D2RC-2](#)



Note: Comes with Pivot Pin installed.

D2-Series Heavy Duty Pneumatic Cylinder Accessories

Part Number	Description	Pcs/Pkg	Wt (lb)	Price	Drawing Link
D2RC-1	NITRA rod clevis, 7/16-20 UNF thread, steel. For use with D2 series NFPA cylinders.	1	0.3	\$29.00	PDF
D2RC-2	NITRA rod clevis, 3/4-16 UNF thread, steel. For use with D2 series NFPA cylinders.	1	0.8	\$40.00	PDF

Rod Eye



Part no. [D2RE-2](#)

D2-Series Heavy Duty Pneumatic Cylinder Accessories

Part Number	Description	Pcs/Pkg	Wt (lb)	Price	Drawing Link
D2RE-1	NITRA rod eye, 7/16-20 UNF thread, steel. For use with D2 series NFPA cylinders.	1	0.4	\$33.50	PDF
D2RE-2	NITRA rod eye, 3/4-16 UNF thread, steel. For use with D2 series NFPA cylinders.	1	1.2	\$47.50	PDF



D2-Series Heavy Duty Pneumatic Cylinders – Accessories

Rear Clevis

Part no. [D2PC-3](#)Part no. [D2SPC-3](#)

Note: Comes with pivot pin installed.

D2-Series Heavy Duty Pneumatic Cylinder Accessories

Part Number	Description	Pcs/Pkg	Wt (lb)	Price	Drawing Link
D2PC-1	NITRA cylinder rear clevis bracket, steel. For use with 1.5in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.5	\$31.50	PDF
D2PC-2	NITRA cylinder rear clevis bracket, steel. For use with 2in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.7	\$37.00	PDF
D2PC-3	NITRA cylinder rear clevis bracket, steel. For use with 2.5in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.8	\$43.50	PDF
D2PC-4	NITRA cylinder rear clevis bracket, steel. For use with 3.25in bore D2 series NFPA cylinders. Mounting hardware included.	1	1.6	\$55.00	PDF
D2PC-5	NITRA cylinder rear clevis bracket, steel. For use with 4in bore D2 series NFPA cylinders. Mounting hardware included.	1	1.7	\$62.00	PDF
D2SPC-1	NITRA cylinder rear short clevis bracket, steel. For use with 1.5in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.7	\$31.50	PDF
D2SPC-2	NITRA cylinder rear short clevis bracket, steel. For use with 2in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.7	\$37.00	PDF
D2SPC-3	NITRA cylinder rear short clevis bracket, steel. For use with 2.5in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.8	\$43.50	PDF
D2SPC-4	NITRA cylinder rear short clevis bracket, steel. For use with 3.25in bore D2 series NFPA cylinders. Mounting hardware included.	1	2.4	\$55.00	PDF
D2SPC-5	NITRA cylinder rear short clevis bracket, steel. For use with 4in bore D2 series NFPA cylinders. Mounting hardware included.	1	3.2	\$62.00	PDF

Rear Pivot Eye

Part no. [D2PA-3](#)

D2-Series Heavy Duty Pneumatic Cylinder Accessories

Part Number	Description	Pcs/Pkg	Wt (lb)	Price	Drawing Link
D2PA-1	NITRA rear pivot eye, steel. For use with 1.5in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.4	\$31.50	PDF
D2PA-2	NITRA rear pivot eye, steel. For use with 2in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.5	\$37.00	PDF
D2PA-3	NITRA rear pivot eye, steel. For use with 2.5in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.7	\$43.50	PDF
D2PA-4	NITRA rear pivot eye, steel. For use with 3.25in bore D2 series NFPA cylinders. Mounting hardware included.	1	1.3	\$55.00	PDF
D2PA-5	NITRA rear pivot eye, steel. For use with 4in bore D2 series NFPA cylinders. Mounting hardware included.	1	1.4	\$62.00	PDF



D2-Series Heavy Duty Pneumatic Cylinders – Accessories

Flange Attachment

Part no. [D2FM-2](#)

D2-Series Heavy Duty Pneumatic Cylinder Accessories						
Part Number	Description	Pcs/Pkg	Wt (lb)	Price	Drawing Link	
D2FM-1	NITRA flange mount plate, steel. For use with 1.5in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.3	\$31.50	PDF	
D2FM-2	NITRA flange mount plate, steel. For use with 2in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.4	\$36.00	PDF	
D2FM-3	NITRA flange mount plate, steel. For use with 2.5in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.5	\$41.00	PDF	
D2FM-4	NITRA flange mount plate, steel. For use with 3.25in bore D2 series NFPA cylinders. Mounting hardware included.	1	3.0	\$53.00	PDF	
D2FM-5	NITRA flange mount plate, steel. For use with 4in bore D2 series NFPA cylinders. Mounting hardware included.	1	4.3	\$59.00	PDF	

Rod Couplers

Part no. [D2RCP-2](#)

NITRA self-aligning rod couplers reduce cylinder alignment issues by compensating for $\pm 1^\circ$ angular error and 1/16" lateral misalignment on both the extension and retraction strokes. Better reliability by reducing cylinder and component wear.

D2-Series Heavy Duty Pneumatic Cylinder Accessories						
Part Number	Description	Pcs/Pkg	Wt (lb)	Price	Drawing Link	
D2RCP-1	NITRA self-aligning rod coupler, 7/16-20 UNF thread, steel. For use with D2 series NFPA cylinders.	1	0.5	\$45.00	PDF	
D2RCP-2	NITRA self-aligning rod coupler, 3/4-16 UNF thread, steel. For use with D2 series NFPA cylinders.	1	0.6	\$68.00	PDF	

Jam Nuts

Part no. [D2-34-16](#)

D2-Series Heavy Duty Pneumatic Cylinder Accessories						
Part Number	Description	Pcs/Pkg	Wt (lb)	Price	Drawing Link	
D2-716-20	NITRA jam nut, 7/16-20 UNF thread, steel. For use with D2 series NFPA cylinders.	1	0.02	\$1.75	PDF	
D2-34-16	NITRA jam nut, 3/4-16 UNF thread, steel. For use with D2 series NFPA cylinders.	1	0.07	\$5.50	PDF	



D2-Series Heavy Duty Pneumatic Cylinders – Accessories

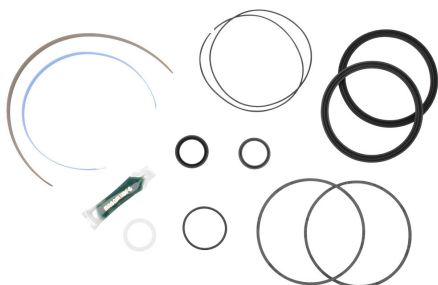
Mount Brackets

Part no. **D2AM-3**Part no. **D2BB-3**

D2-Series Heavy Duty Pneumatic Cylinder Accessories

Part Number	Description	Pcs/Pkg	Wt (lb)	Price	Drawing Link
D2AM-1	NITRA angle mount bracket, steel. For use with 1.5in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.5	\$29.50	PDF
D2AM-2	NITRA angle mount bracket, steel. For use with 2in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.9	\$34.00	PDF
D2AM-3	NITRA angle mount bracket, steel. For use with 2.5in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.9	\$39.50	PDF
D2AM-4	NITRA angle mount bracket, steel. For use with 3.25in bore D2 series NFPA cylinders. Mounting hardware included.	1	1.5	\$50.00	PDF
D2AM-5	NITRA angle mount bracket, steel. For use with 4in bore D2 series NFPA cylinders. Mounting hardware included.	1	2.2	\$56.00	PDF
D2BB-1	NITRA base mount bracket, anodized aluminum. For use with 1.5in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.3	\$36.00	PDF
D2BB-2	NITRA base mount bracket, anodized aluminum. For use with 2in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.4	\$41.50	PDF
D2BB-3	NITRA base mount bracket, anodized aluminum. For use with 2.5in bore D2 series NFPA cylinders. Mounting hardware included.	1	0.6	\$49.00	PDF
D2BB-4	NITRA base mount bracket, anodized aluminum. For use with 3.25in bore D2 series NFPA cylinders. Mounting hardware included.	1	1.1	\$59.00	PDF
D2BB-5	NITRA base mount bracket, anodized aluminum. For use with 4in bore D2 series NFPA cylinders. Mounting hardware included.	1	1.2	\$59.00	PDF

Seal Kits

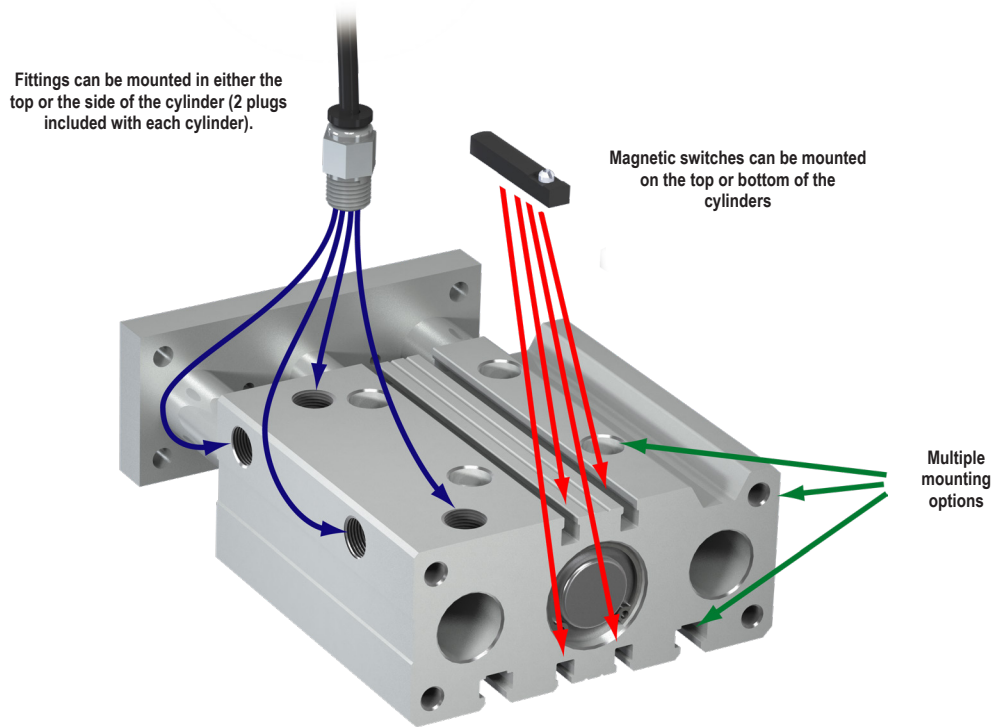


D2-Series Heavy Duty Pneumatic Cylinder Replacement Seal Kit

Part Number	Description	Pcs/Pkg	Wt (lb)	Price
D2SK-24	NITRA seal kit, for use with 1.5in bore NFPA cylinders. All wear parts for both D-series and D2-series NFPA cylinders included.	1	0.1	\$87.00
D2SK-32	NITRA seal kit, for use with 2in bore NFPA cylinders. All wear parts for both D-series and D2-series NFPA cylinders included.	1	0.1	\$93.00
D2SK-40	NITRA seal kit, for use with 2.5in bore NFPA cylinders. All wear parts for both D-series and D2-series NFPA cylinders included.	1	0.1	\$96.00
D2SK-52	NITRA seal kit, for use with 3.25in bore NFPA cylinders. All wear parts for both D-series and D2-series NFPA cylinders included.	1	0.2	\$117.00
D2SK-64	NITRA seal kit, for use with 4in bore NFPA cylinders. All wear parts for both D-series and D2-series NFPA cylinders included.	1	0.2	\$127.00



E-Series Dual Guide Rod Cylinders



NITRA pneumatic guided actuator with dual guide rods, bronze bushings, extruded aluminum housing and switch mounting tracks.

- Mild steel tooling plate
- Nitrile / Buna-N O-rings

- Eight bore sizes
- Interchangeable with other popular brands
- Work with 4mm square T-slot cylinder switches
- Chrome plated stainless steel guide rods

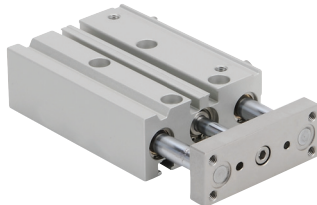


E-Series Dual Guide Rod Cylinder Specifications								
Bore Size (mm)	12	16	20	25	32	40	50	63
Action	Double acting							
Fluid	Air (clean/dry)							
Temperature Range	23 to 158°F (-5 to 70°C)							
Pressure Range	18-142 psi (1.2-10 bar)							
Proof Pressure	213 psi (15 bar)							
Lubrication	Not required							
Cushion Type	Urethane Bumper							
Non-Rotate Tolerance	±0.10°		±0.09°		±0.08°		±0.06°	
Port Size	M5x0.8		1/8-NPT				1/4-NPT	
Extend Force @ 100 psi (lbs.)	17.5	31.2	48.7	76.1	124.7	194.8	304.3	483.2
Retract Force @ 100 psi (lbs.)	9.7	19.0	31.2	44.9	76.0	146.1	255.6	434.5



E-Series Dual Guide Rod Cylinders

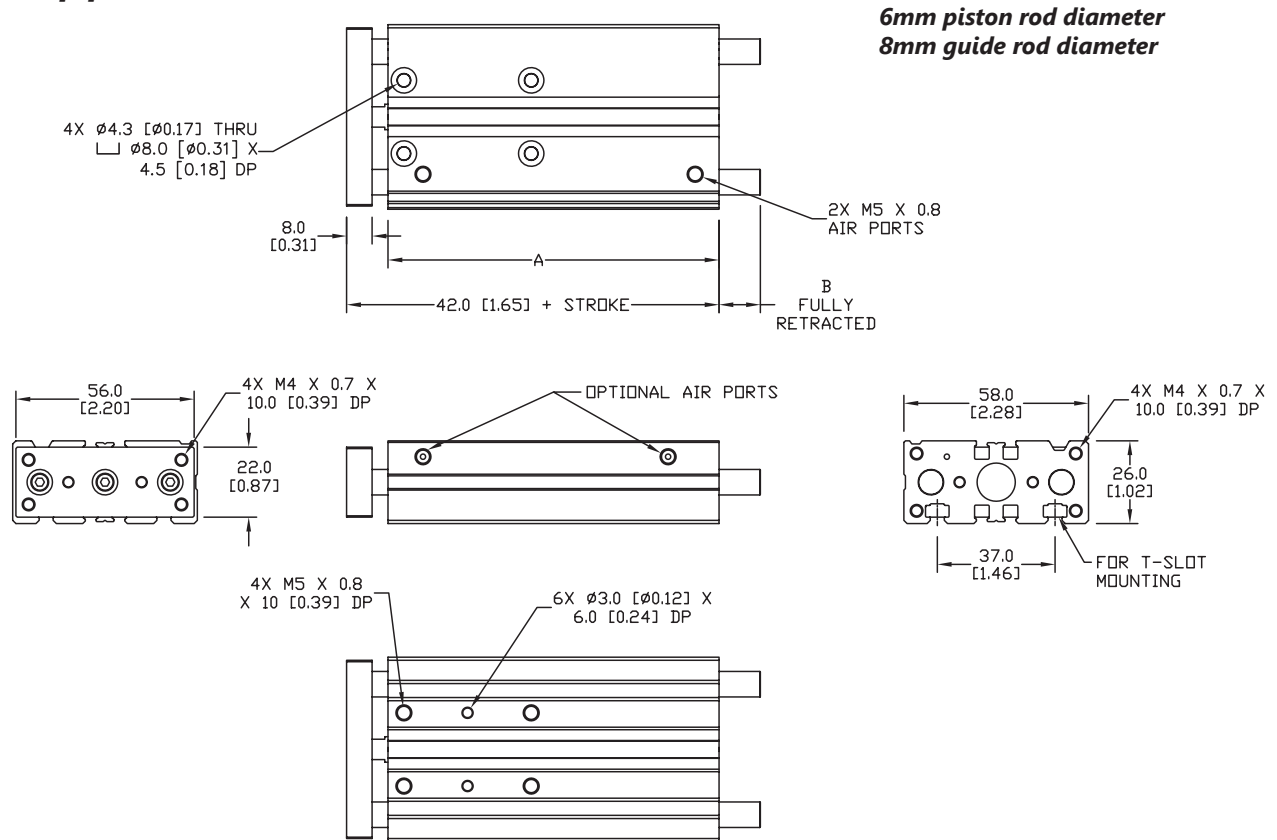
12 mm Bore, Double Acting



12 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Weight (lbs)	Price
E12M010MD-M	10	39.0 [1.53]	-4.0 [-0.16]	0.6	\$186.00
E12M020MD-M	20	49.0 [1.93]	-4.0 [-0.16]	0.6	\$145.00
E12M025MD-M	25	54.0 [2.13]	-4.0 [-0.16]	0.7	\$145.00
E12M030MD-M	30	59.0 [2.32]	-4.0 [-0.16]	0.7	\$200.00
E12M040MD-M	40	69.0 [2.72]	-4.0 [-0.16]	0.8	\$200.00
E12M050MD-M	50	79.0 [3.11]	-4.0 [-0.16]	0.9	\$156.00
E12M075MD-M	75	104.0 [4.09]	13.0 [0.51]	1.2	\$206.00
E12M100MD-M	100	129.0 [5.08]	13.0 [0.51]	1.4	\$216.00
E12M125MD-M	125	154.0 [6.06]	43.0 [1.69]	1.7	\$177.00
E12M150MD-M	150	179.0 [7.05]	43.0 [1.69]	1.9	\$239.00

Dimensions

mm [in]



E12MXXXMD-M

See our website www.AutomationDirect.com for complete Engineering drawings.



E-Series Dual Guide Rod Cylinders

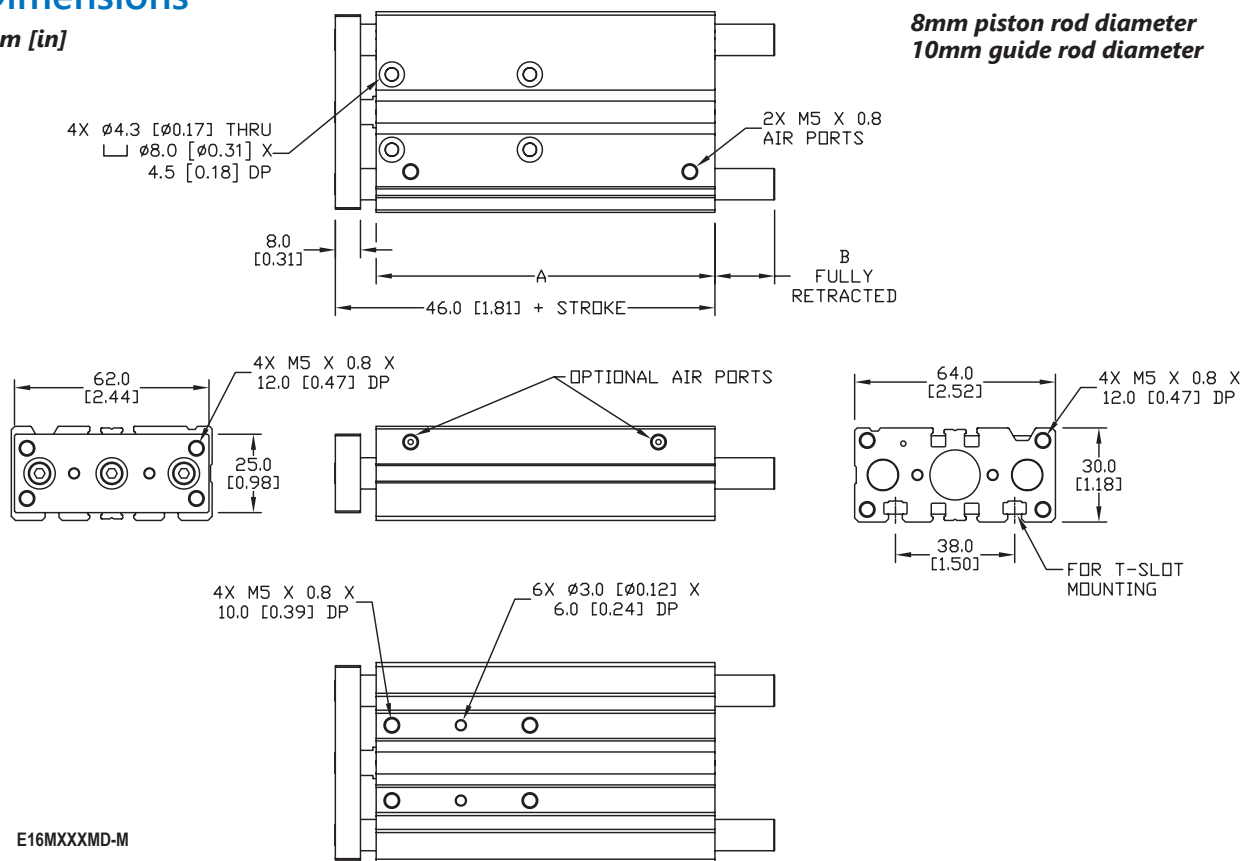
16 mm Bore, Double Acting



16 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Weight (lbs)	Price
E16M010MD-M	10	43.0 [1.69]	-3.0 [-0.12]	0.8	\$226.00
E16M020MD-M	20	53.0 [2.09]	-3.0 [-0.12]	0.9	\$209.00
E16M025MD-M	25	58.0 [2.28]	-3.0 [-0.12]	1.0	\$225.00
E16M030MD-M	30	63.0 [2.48]	-3.0 [-0.12]	1.0	\$225.00
E16M040MD-M	40	73.0 [2.87]	-3.0 [-0.12]	1.2	\$225.00
E16M050MD-M	50	83.0 [3.27]	-3.0 [-0.12]	1.3	\$225.00
E16M075MD-M	75	108.0 [4.25]	19.0 [0.75]	1.7	\$237.00
E16M100MD-M	100	133.0 [5.27]	19.0 [0.75]	2.0	\$261.00
E16M125MD-M	125	158.0 [6.22]	49.0 [1.93]	2.3	\$281.00
E16M150MD-M	150	183.0 [7.20]	49.0 [1.93]	2.6	\$227.00
E16M175MD-M	175	208.0 [8.19]	49.0 [1.93]	2.9	\$305.00
E16M200MD-M	200	233.0 [9.17]	49.0 [1.93]	3.2	\$308.00

Dimensions

mm [in]



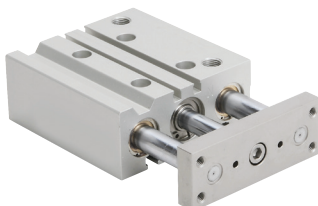
8mm piston rod diameter
10mm guide rod diameter

See our website www.AutomationDirect.com for complete Engineering drawings.



E-Series Dual Guide Rod Cylinders

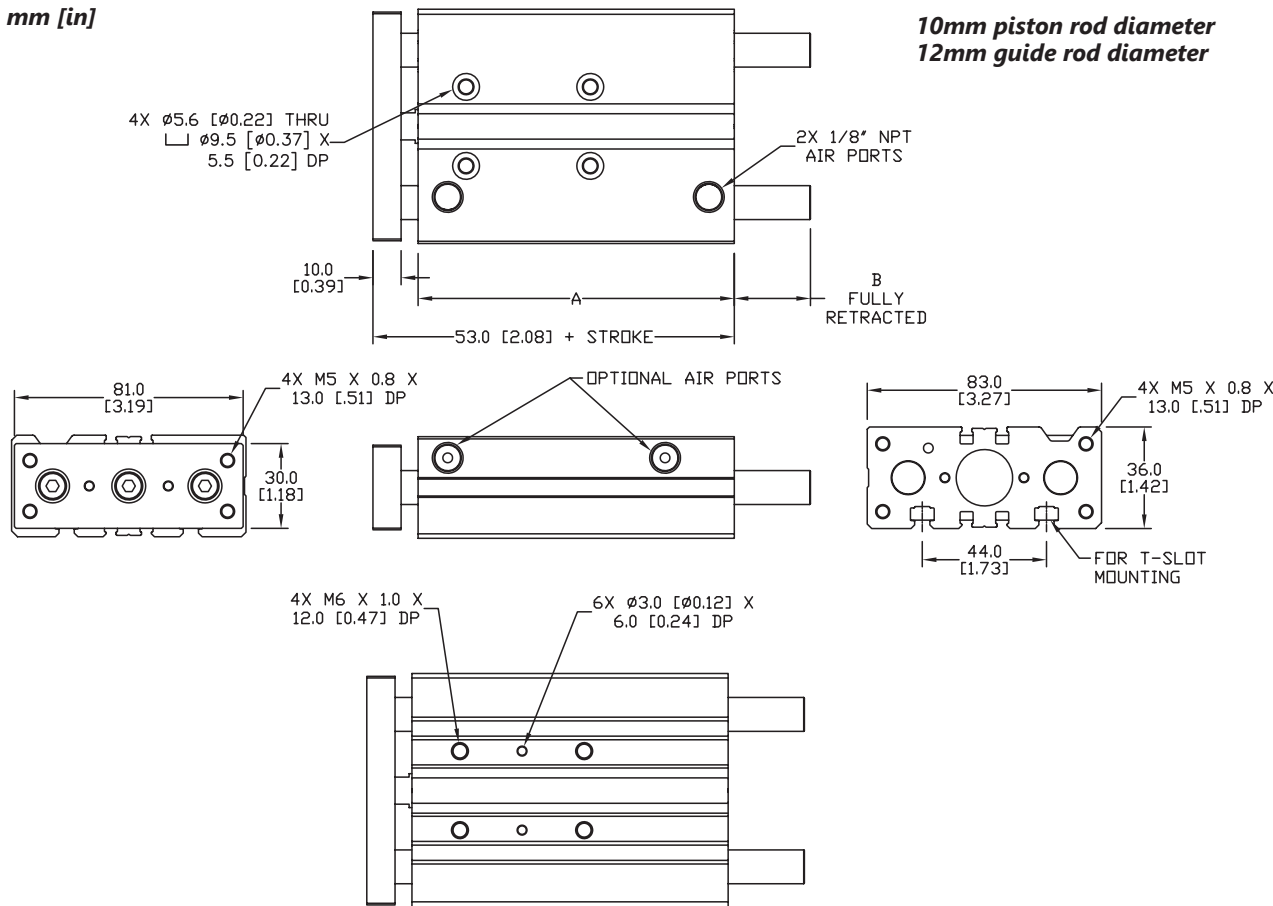
20 mm Bore, Double Acting



20 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Weight (lbs)	Price
E20M020MD-M	20	57.0 [2.24]	-2.0 [-0.079]	1.6	\$254.00
E20M025MD-M	25	62.0 [2.44]	-2.0 [-0.079]	1.7	\$268.00
E20M030MD-M	30	67.0 [2.64]	-2.0 [-0.079]	1.8	\$268.00
E20M040MD-M	40	77.0 [3.03]	-2.0 [-0.079]	2.0	\$210.00
E20M050MD-M	50	87.0 [3.43]	-2.0 [-0.079]	2.1	\$268.00
E20M075MD-M	75	112.0 [4.41]	27.0 [1.06]	2.8	\$290.00
E20M100MD-M	100	137.0 [5.39]	27.0 [1.06]	3.2	\$300.00
E20M125MD-M	125	162.0 [6.38]	51.0 [2.01]	3.8	\$319.00
E20M150MD-M	150	187.0 [7.36]	51.0 [2.01]	4.2	\$340.00
E20M175MD-M	175	212.0 [8.35]	51.0 [2.01]	4.6	\$357.00
E20M200MD-M	200	237.0 [9.33]	51.0 [2.01]	5.1	\$378.00
E20M250MD-M	250	287.0 [11.30]	69.0 [2.72]	6.0	\$320.00

Dimensions

mm [in]



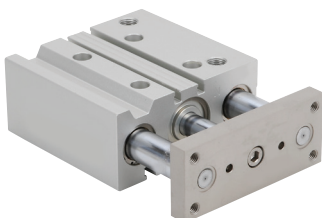
E20MXXMD-M

See our website www.AutomationDirect.com for complete Engineering drawings.



E-Series Dual Guide Rod Cylinders

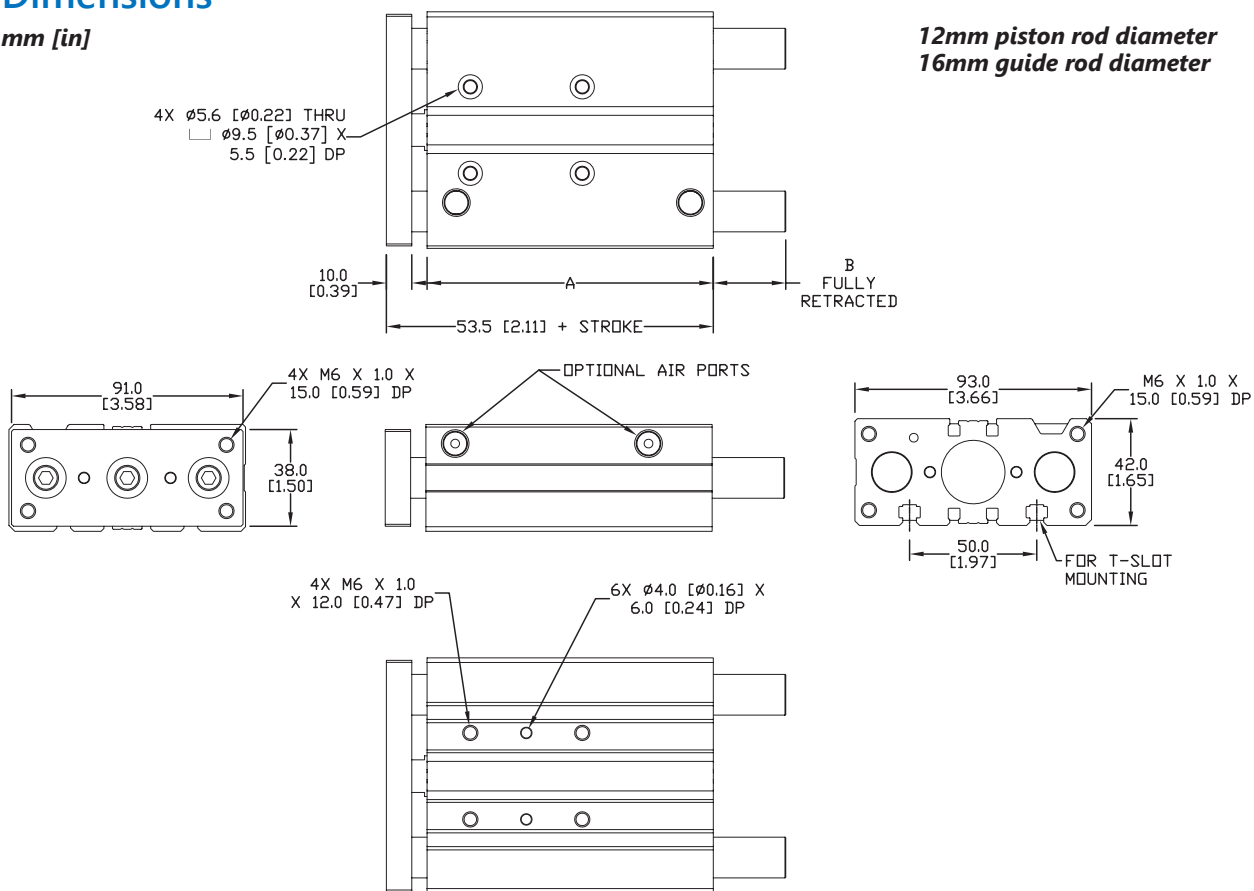
25 mm Bore, Double Acting



25 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Weight (lbs)	Price
E25M020MD-M	20	57.5 [2.26]	-1.5 [-0.06]	2.2	\$284.00
E25M025MD-M	25	62.5 [2.40]	-1.5 [-0.06]	2.3	\$304.00
E25M030MD-M	30	67.5 [2.66]	-1.5 [-0.06]	2.4	\$238.00
E25M040MD-M	40	77.5 [3.05]	-1.5 [-0.06]	2.7	\$304.00
E25M050MD-M	50	87.5 [3.44]	-1.5 [-0.06]	2.9	\$238.00
E25M075MD-M	75	112.5 [4.43]	28.5 [1.12]	3.9	\$329.00
E25M100MD-M	100	137.5 [5.41]	28.5 [1.12]	4.5	\$274.00
E25M125MD-M	125	162.5 [6.40]	51.0 [2.01]	5.3	\$291.00
E25M150MD-M	150	187.5 [7.38]	51.0 [2.01]	5.8	\$394.00
E25M175MD-M	175	212.5 [8.37]	51.0 [2.01]	6.5	\$420.00
E25M200MD-M	200	237.5 [9.35]	51.0 [2.01]	7.1	\$442.00
E25M250MD-M	250	287.5 [11.32]	68.5 [2.70]	8.4	\$476.00

Dimensions

mm [in]



**12mm piston rod diameter
16mm guide rod diameter**

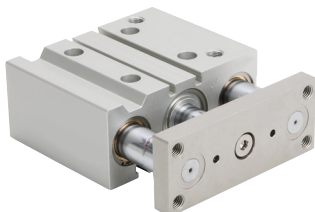
E25MXXMD-M

See our website www.AutomationDirect.com for complete Engineering drawings.



E-Series Dual Guide Rod Cylinders

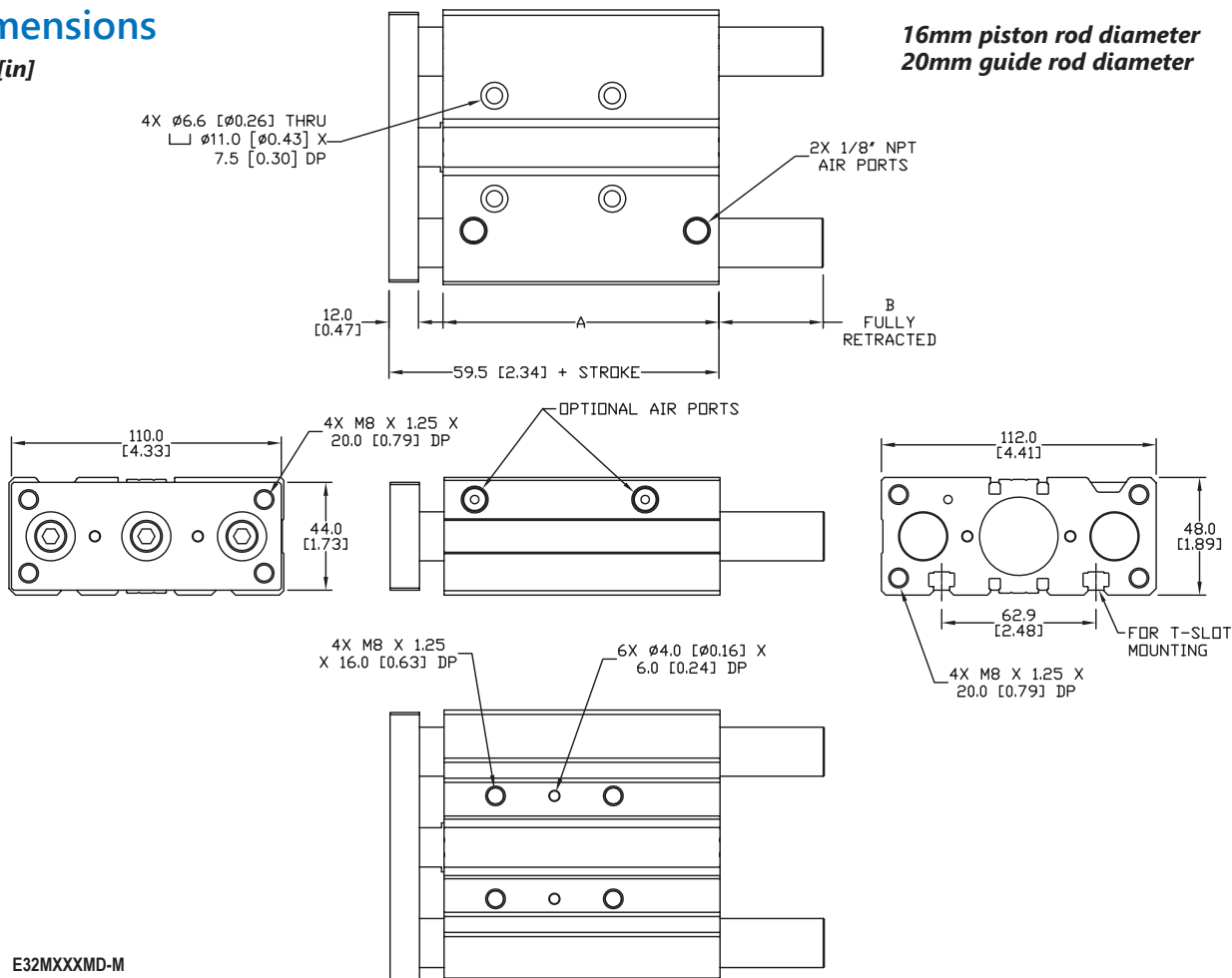
32 mm Bore, Double Acting



32 mm Bore D-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Weight (lbs)	Price
E32M025MD-M	25	62.5 [2.40]	18.5 [0.73]	3.3	\$372.00
E32M030MD-M	30	67.5 [2.66]	18.5 [0.73]	3.5	\$471.00
E32M040MD-M	40	77.5 [3.05]	18.5 [0.73]	3.8	\$404.00
E32M050MD-M	50	87.5 [3.44]	18.5 [0.73]	4.1	\$316.00
E32M075MD-M	75	112.5 [4.43]	42.5 [1.67]	5.8	\$439.00
E32M100MD-M	100	137.5 [5.41]	42.5 [1.67]	6.6	\$461.00
E32M125MD-M	125	162.5 [6.40]	58.5 [2.30]	7.6	\$500.00
E32M150MD-M	150	187.5 [7.38]	58.5 [2.30]	8.4	\$412.00
E32M175MD-M	175	212.5 [8.37]	58.5 [2.30]	9.3	\$429.00
E32M200MD-M	200	237.5 [9.35]	58.5 [2.30]	10.1	\$458.00
E32M250MD-M	250	287.5 [11.32]	80.0 [3.15]	12.0	\$500.00

Dimensions

mm [in]

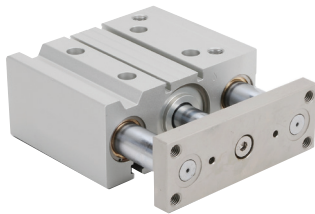


See our website www.AutomationDirect.com for complete Engineering drawings.



E-Series Dual Guide Rod Cylinders

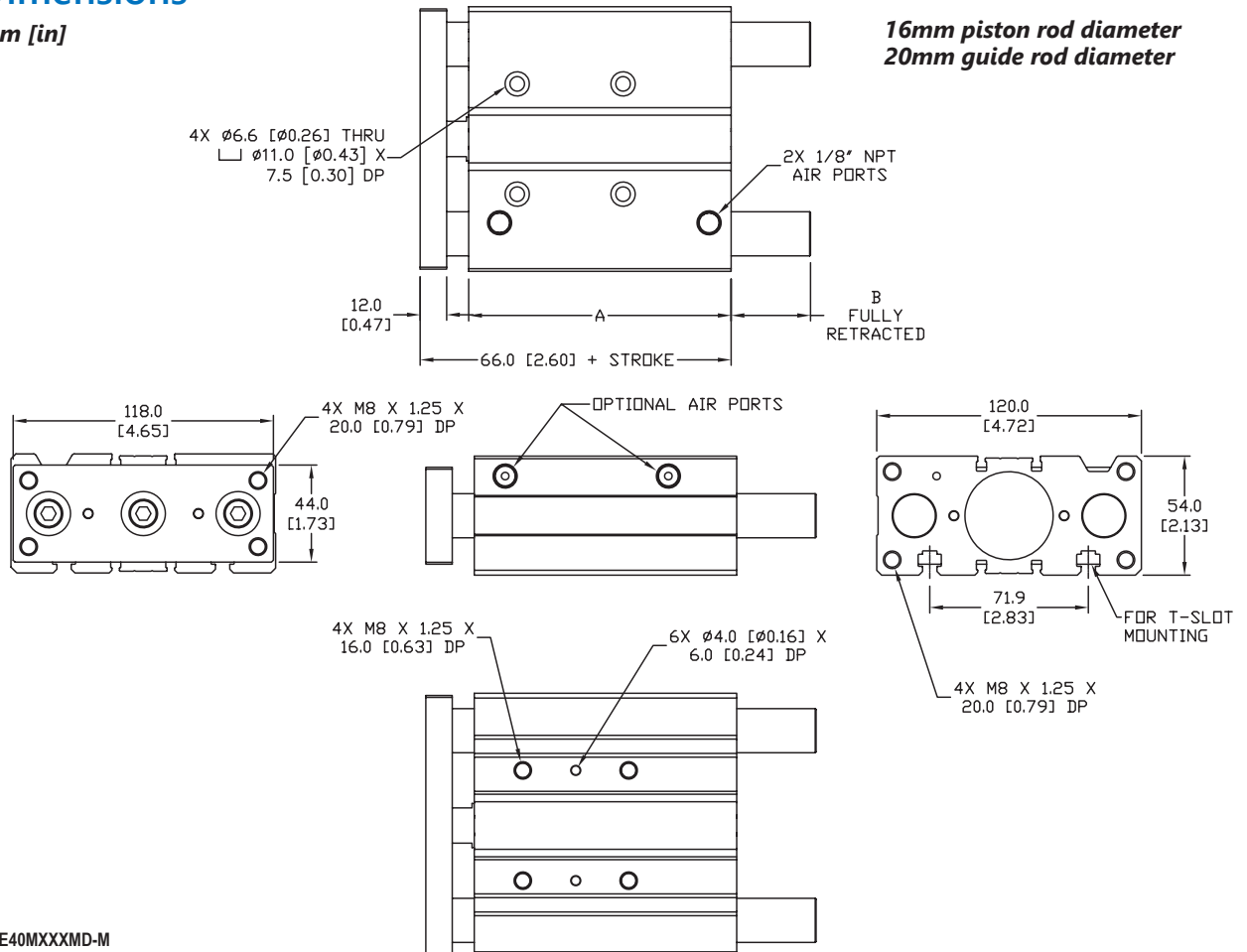
40 mm Bore, Double Acting



40 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Weight (lbs)	Price
E40M025MD-M	25	69.0 [2.72]	12.0 [0.47]	3.8	\$394.00
E40M030MD-M	30	74.0 [2.91]	12.0 [0.47]	4.0	\$423.00
E40M040MD-M	40	84.0 [3.31]	12.0 [0.47]	4.4	\$423.00
E40M050MD-M	50	94.0 [3.70]	12.0 [0.47]	4.7	\$423.00
E40M075MD-M	75	119.0 [4.69]	36.0 [1.42]	6.5	\$358.00
E40M100MD-M	100	144.0 [5.67]	36.0 [1.42]	7.4	\$377.00
E40M125MD-M	125	169.0 [6.65]	52.0 [2.05]	8.5	\$518.00
E40M150MD-M	150	194.0 [7.64]	52.0 [2.05]	9.4	\$549.00
E40M175MD-M	175	219.0 [8.62]	52.0 [2.05]	10.5	\$568.00
E40M200MD-M	200	244.0 [9.61]	52.0 [2.05]	11.3	\$601.00
E40M250MD-M	250	294.0 [11.6]	74.0 [2.91]	13.4	\$661.00

Dimensions

mm [in]

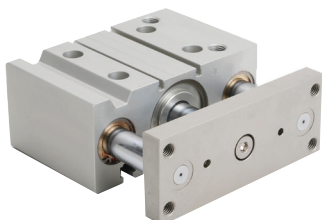


See our website www.AutomationDirect.com for complete Engineering drawings.



E-Series Dual Guide Rod Cylinders

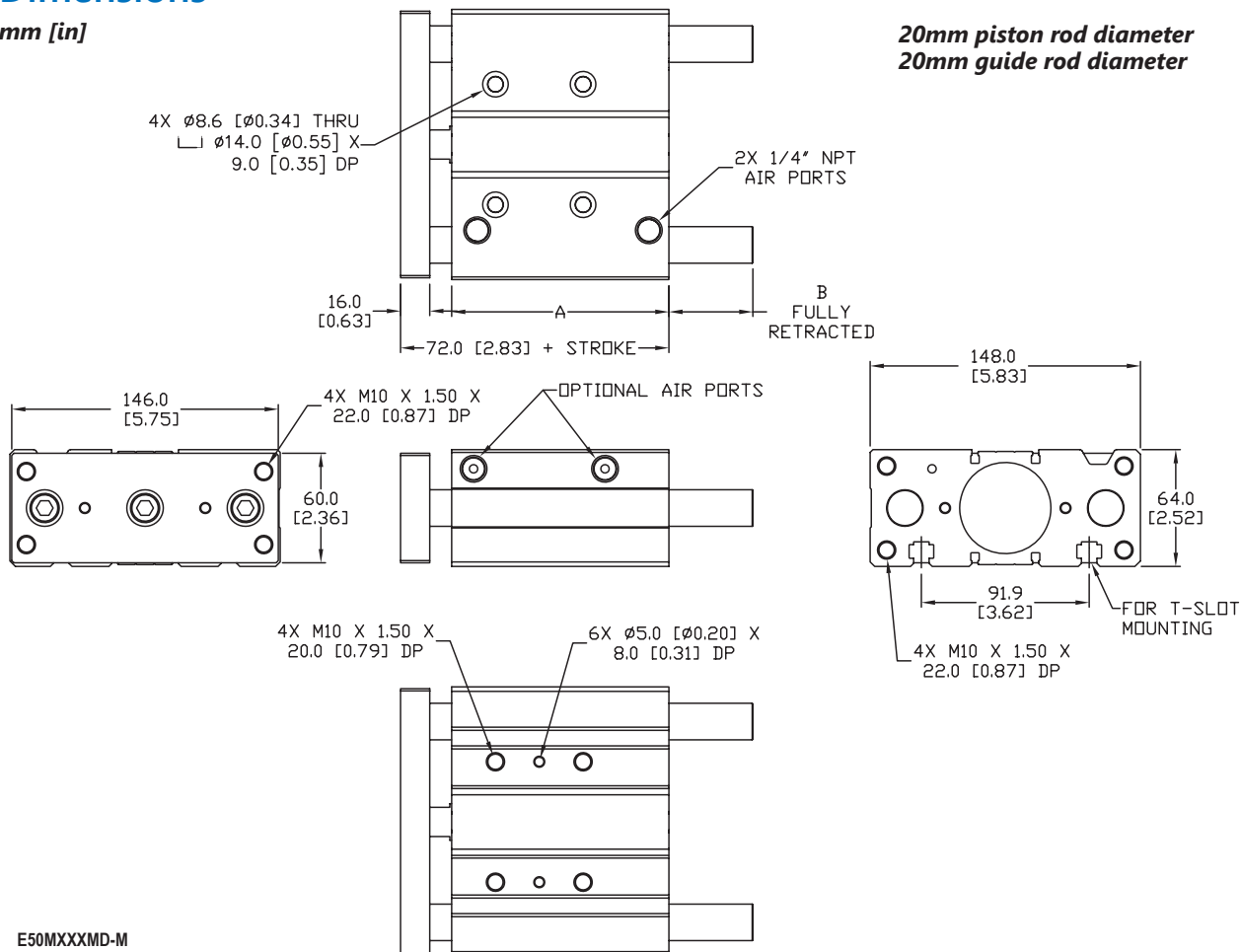
50 mm Bore, Double Acting



50 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Weight (lbs)	Price
E50M025MD-M	25	69.0 [2.72]	17.0 [0.67]	6.0	\$454.00
E50M030MD-M	30	74.0 [2.91]	17.0 [0.67]	6.3	\$497.00
E50M040MD-M	40	84.0 [3.31]	17.0 [0.67]	6.8	\$497.00
E50M050MD-M	50	94.0 [3.70]	17.0 [0.67]	7.3	\$497.00
E50M075MD-M	75	119.0 [4.69]	46.0 [1.81]	9.8	\$523.00
E50M100MD-M	100	144.0 [5.67]	46.0 [1.81]	11.0	\$559.00
E50M125MD-M	125	169.0 [6.65]	62.0 [2.44]	12.5	\$595.00
E50M150MD-M	150	194.0 [7.64]	62.0 [2.44]	13.8	\$591.00
E50M175MD-M	175	219.0 [8.62]	62.0 [2.44]	15.1	\$516.00
E50M200MD-M	200	244.0 [9.61]	62.0 [2.44]	16.4	\$700.00
E50M250MD-M	250	294.0 [11.6]	89.0 [3.50]	19.6	\$794.00

Dimensions

mm [in]

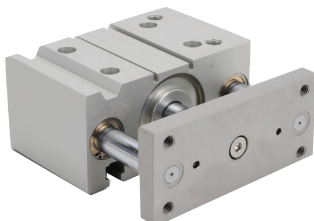


See our website www.AutomationDirect.com for complete Engineering drawings.



E-Series Dual Guide Rod Cylinders

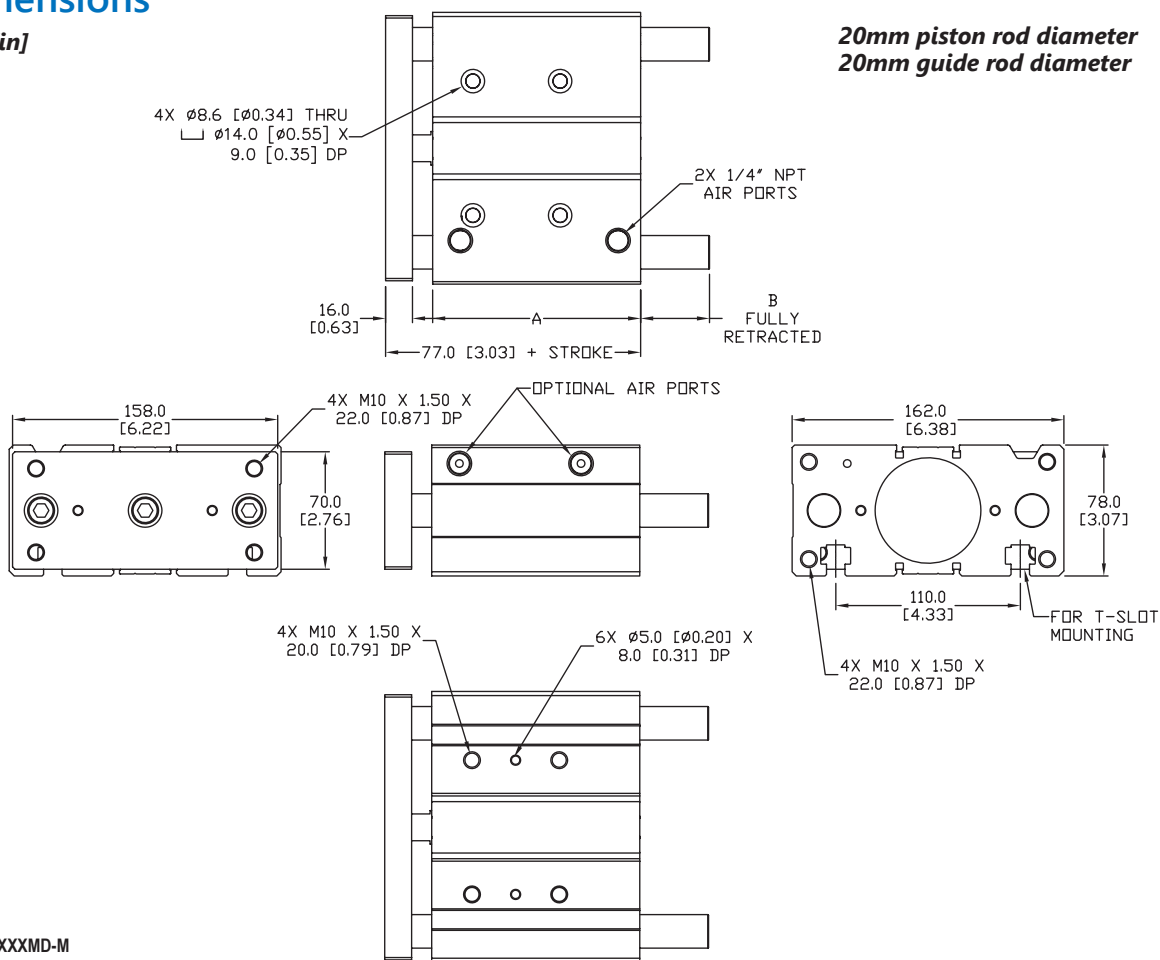
63 mm Bore, Double Acting



63 mm Bore E-Series Dual Guide Rod Cylinders - Double Acting					
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Weight (lbs)	Price
E63M025MD-M	25	74.0 [2.91]	12.0 [0.47]	7.6	\$482.00
E63M030MD-M	30	79.0 [3.11]	12.0 [0.47]	8.0	\$514.00
E63M040MD-M	40	89.0 [3.50]	12.0 [0.47]	8.6	\$514.00
E63M050MD-M	50	99.0 [3.90]	12.0 [0.47]	9.2	\$514.00
E63M075MD-M	75	124.0 [4.88]	41.0 [1.61]	11.9	\$557.00
E63M100MD-M	100	149.0 [5.87]	41.0 [1.61]	13.5	\$583.00
E63M125MD-M	125	174.0 [6.85]	57.0 [2.24]	15.3	\$617.00
E63M150MD-M	150	199.0 [7.83]	57.0 [2.24]	16.7	\$661.00
E63M175MD-M	175	224.0 [8.82]	57.0 [2.24]	18.2	\$684.00
E63M200MD-M	200	249.0 [9.80]	57.0 [2.24]	19.7	\$733.00
E63M250MD-M	250	299.0 [11.8]	84.0 [3.31]	23.1	\$788.00

Dimensions

mm [in]



See our website www.AutomationDirect.com for complete Engineering drawings.



E-Series Dual Guide Rod Cylinders - Load and Torque Ratings

Cylinder Max Side Load Ratings (lbs)													
Bore Size (mm)	Stroke (mm)												
	10	20	25	30	40	50	75	100	125	150	175	200	250
12	9.9	7.4	6.5	5.9	9.2	8.1	5.9	5.0	4.3	3.8	-	-	-
16	15	11	9.5	8.3	14	13	8.3	7.2	6.1	5.4	5.0	4.5	-
20	-	18	14	13	28	25	20	17	15	13	12	11	9.5
25	-	21	20	17	32	29	23	19	20	18	16	15	12
32	-	-	46	43	40	37	41	35	32	29	26	24	20
40	-	-	46	43	40	37	41	35	32	29	26	24	20
50	-	-	67	64	60	55	61	54	49	44	40	37	32
63	-	-	67	64	60	55	61	54	49	44	40	37	32

Conversion: 1 lb = 4.45 N

Cylinder Max Torque Ratings (in-lb)													
Bore Size (mm)	Stroke (mm)												
	10	20	25	30	40	50	75	100	125	150	175	200	250
12	7.97	6.99	6.28	5.75	6.82	6.37	4.43	3.19	2.74	2.39	-	-	-
16	10.7	9.20	8.32	7.79	10.89	9.82	6.11	5.13	4.43	3.89	3.54	3.19	-
20	-	13.9	12.6	11.6	21.2	19.0	16.6	14.4	12.7	11.3	10.3	9.38	7.97
25	-	21.2	19.6	17.8	32.4	29.7	26.2	22.7	20.0	17.9	16.2	14.8	12.6
32	-	-	56.2	53.1	50.7	45.4	50.4	44.0	39.1	35.2	32.0	29.3	25.1
40	-	-	62.0	58.4	54.1	50.1	55.5	48.5	43.1	38.8	35.2	32.3	27.7
50	-	-	115	112	97.4	95.6	106	93.8	84.1	76.1	69.6	64.1	55.2
63	-	-	130	120	114	107	119	105	94.7	85.8	78.4	72.2	62.3

Conversion: 1 in-lb = 0.113 N-m



G-Series ISO Pneumatic Cylinders – 32mm Bore

32mm Bore, Double-acting, Magnetic Piston, Cushions



NITRA pneumatic ISO 15552 interchangeable cylinder, 32mm bore, 12mm diameter piston rod, G1/8 (BSPP) female ports, double acting; flange, pivot and clevis mount options available. Adjustable cushions on both ends. See the end of the section for accessory details.

Features

- Adjustable cushions
- Internal magnet for sensor switching
- Three sides with longitudinal slots for inserting and securing retractable sensors such as type CPS9F and CPS9Q (see position switches at the end of the cylinder section for further details)
- G (BSPP) threaded ports



32mm bore, double acting, tapped end caps

Part Number	Price	Stroke Length (mm)	"A" (mm [inch])	Weight (lb)
G32M025MD-MC	\$69.00	25	119 [4.69]	1.1
G32M050MD-MC	\$71.00	50	144 [5.67]	1.3
G32M075MD-MC	\$75.00	75	169 [6.65]	1.4
G32M100MD-MC	\$76.00	100	194 [7.64]	1.6
G32M125MD-MC	\$78.00	125	219 [8.62]	1.9
G32M150MD-MC	\$79.00	150	244 [9.61]	2.0
G32M200MD-MC	\$83.00	200	294 [11.57]	2.4
G32M250MD-MC	\$87.00	250	344 [13.54]	2.7
G32M300MD-MC	\$90.00	300	394 [15.51]	3.1
G32M400MD-MC	\$98.00	400	494 [19.45]	3.7
G32M500MD-MC	\$104.00	500	594 [23.39]	4.4
G32M600MD-MC	\$111.00	600	694 [27.32]	5.1

Specifications	
Aluminum body and end caps	Plastoferrite magnet
C45 chromed piston rod	NBR (Nitrile Butadiene Rubber) buffer + static o-rings
Die cast aluminum head	NBR (Nitrile Butadiene Rubber) cushioning gasket
NBR (Nitrile Butadiene Rubber) piston and piston rod gasket	Brass cushioning needle with needle out movement safety system
Steel guide bushing with bronze and PTFE (Teflon) insert	Pressure rating 145 psi [10 bar], AIR ONLY
Drawn anodized aluminum body	Temperature rating 14°F to 176°F [-10°C to 80°C]
Self-lubricating technopolymer piston	
Extend force at 100 psi = 124.6 lb.	Retract force at 100 psi = 107.1 lb.

* The cushions decelerate the piston rod over the last mm (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.

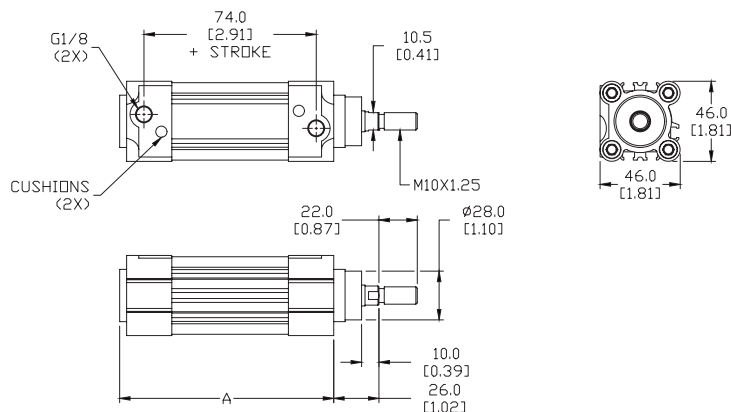
BSPP = British Standard Pipe Parallel

Mounting Accessories	
Style	Part No.
Foot Mount	GMB-32MM
Front or Rear Flange	GFL-32MM
Male Rear Clevis	GMC-32MM
Spherical Male Clevis	GSMC-32MM

Rod Accessories	
Style	Part No.
Rod Clevis	GRC-M10-125
Rod Eye	GRE-M10-125
Self Aligning Rod Coupler	GRCP-M10-125
Rod Nut	GN-M10-125

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.



G-Series ISO Pneumatic Cylinders – 40mm Bore

40mm Bore, Double-acting, Magnetic Piston, Cushions



NITRA pneumatic ISO 15552 interchangeable cylinder, 40mm bore, 16mm diameter piston rod, G1/4 (BSPP) female ports, double acting; flange, pivot and clevis mount options available. Adjustable cushions on both ends. See the end of the section for accessory details.

Features

- Adjustable cushions
- Internal magnet for sensor switching
- Three sides with longitudinal slots for inserting and securing retractable sensors such as type CPS9F and CPS9Q (see position switches at the end of the cylinder section for further details)
- G (BSPP) threaded ports



40mm bore, double acting, tapped end caps

Part Number	Price	Stroke Length (mm)	"A" (mm [inch])	Weight (lb)
G40M025MD-MC	\$80.00	25	130 [5.12]	1.8
G40M050MD-MC	\$82.00	50	155 [6.10]	2.0
G40M075MD-MC	\$83.00	75	180 [7.09]	2.2
G40M100MD-MC	\$87.00	100	205 [8.07]	2.5
G40M125MD-MC	\$88.00	125	230 [9.06]	2.7
G40M150MD-MC	\$90.00	150	255 [10.04]	2.9
G40M200MD-MC	\$96.00	200	305 [12.01]	3.4
G40M250MD-MC	\$100.00	250	355 [13.98]	3.8
G40M300MD-MC	\$104.00	300	405 [15.94]	4.3
G40M400MD-MC	\$112.00	400	505 [19.88]	5.1
G40M500MD-MC	\$123.00	500	605 [23.82]	6.0
G40M600MD-MC	\$131.00	600	705 [27.76]	6.9

Specifications	
Aluminum body and end caps	Plastoferrite magnet
C45 chromed piston rod	NBR (Nitrile Butadiene Rubber) buffer + static o-rings
Die cast aluminum head	NBR (Nitrile Butadiene Rubber) cushioning gasket
NBR (Nitrile Butadiene Rubber) piston and piston rod gasket	Brass cushioning needle with needle out movement safety system
Steel guide bushing with bronze and PTFE (Teflon) insert	Pressure rating 145 psi [10 bar], AIR ONLY
Drawn anodized aluminum body	Temperature rating 14°F to 176°F [-10°C to 80°C]
Self-lubricating technopolymer piston	
Extend force at 100 psi = 194.6 lb.	Retract force at 100 psi = 163.4 lb.

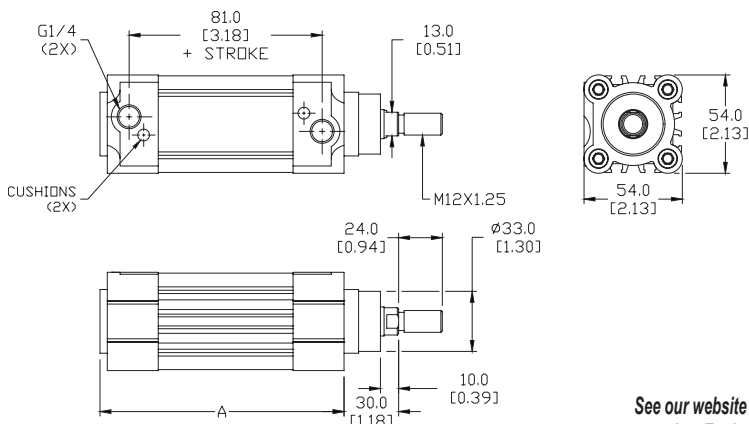
BSPP = British Standard Pipe Parallel

* The cushions decelerate the piston rod over the last mm (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.

Mounting Accessories	
Style	Part No.
Foot Mount	GMB-40MM
Front or Rear Flange	GFL-40MM
Male Rear Clevis	GMC-40MM
Spherical Male Clevis	GSMC-40MM

Rod Accessories	
Style	Part No.
Rod Clevis	GRC-M12-125
Rod Eye	GRE-M12-125
Self Aligning Rod Coupler	GRCP-M12-125
Rod Nut	GN-M12-125

Dimensions mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.



G-Series ISO Pneumatic Cylinders – 50mm Bore

50mm Bore, Double-acting, Magnetic Piston, Cushions



NITRA pneumatic ISO 15552 interchangeable cylinder, 50mm bore, 20mm diameter piston rod, G1/4 (BSPP) female ports, double acting; flange, pivot and clevis mount options available. Adjustable cushions on both ends. See the end of the section for accessory details.

Features

- Adjustable cushions
- Internal magnet for sensor switching
- Three sides with longitudinal slots for inserting and securing retractable sensors such as type CPS9F and CPS9Q (see position switches at the end of the cylinder section for further details)
- G (BSPP) threaded ports



50mm bore, double acting, tapped end caps				
Part Number	Price	Stroke Length (mm)	"A" (mm [inch])	Weight (lb)
G50M025MD-MC	\$92.00	25	131 [5.16]	2.8
G50M050MD-MC	\$97.00	50	156 [6.14]	3.2
G50M075MD-MC	\$99.00	75	181 [7.13]	3.5
G50M100MD-MC	\$101.00	100	206 [8.11]	3.8
G50M125MD-MC	\$104.00	125	231 [9.09]	4.1
G50M150MD-MC	\$106.00	150	256 [10.08]	4.5
G50M200MD-MC	\$111.00	200	306 [12.05]	5.1
G50M250MD-MC	\$116.00	250	356 [14.06]	5.8
G50M300MD-MC	\$124.00	300	406 [15.98]	6.4
G50M400MD-MC	\$135.00	400	506 [19.92]	7.7
G50M500MD-MC	\$147.00	500	606 [23.86]	9.0
G50M600MD-MC	\$158.00	600	706 [27.80]	10.3

Specifications	
Aluminum body and end caps	Plastoferrite magnet
C45 chromed piston rod	NBR (Nitrile Butadiene Rubber) buffer + static o-rings
Die cast aluminum head	NBR (Nitrile Butadiene Rubber) cushioning gasket
NBR (Nitrile Butadiene Rubber) piston and piston rod gasket	Brass cushioning needle with needle out movement safety system
Steel guide bushing with bronze and PTFE (Teflon) insert	Pressure rating 145 psi [10 bar], AIR ONLY
Drawn anodized aluminum body	Temperature rating 14°F to 176°F
Self-lubricating technopolymer piston	[-10°C to 80°C]
Extend force at 100 psi = 304.3 lb.	Retract force at 100 psi = 255.6 lb.

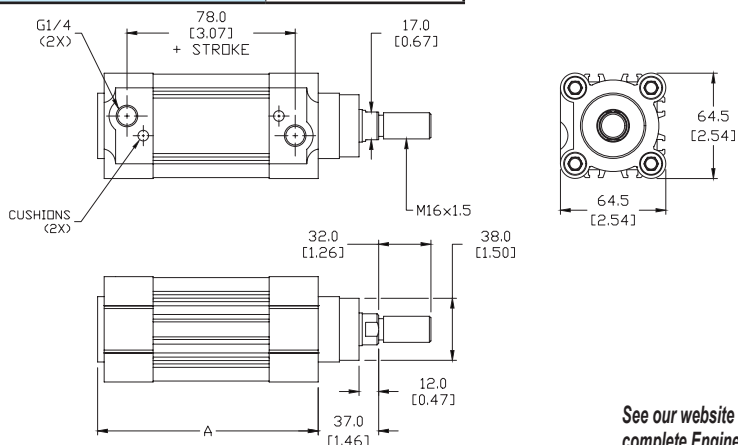
BSPP = British Standard Pipe Parallel

* The cushions decelerate the piston rod over the last mm (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.

Mounting Accessories	
Style	Part No.
Foot Mount	GMB-50MM
Front or Rear Flange	GFL-50MM
Male Rear Clevis	GMC-50MM
Spherical Male Clevis	GSMC-50MM

Rod Accessories	
Style	Part No.
Rod Clevis	GRC-M16-15
Rod Eye	GRE-M16-15
Self Aligning Rod Coupler	GRCP-M16-15
Rod Nut	GN-M16-15

Dimensions mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.



G-Series ISO Pneumatic Cylinders – 63mm Bore

63mm Bore, Double-acting, Magnetic Piston, Cushions



NITRA pneumatic ISO 15552 interchangeable cylinder, 63mm bore, 20mm diameter piston rod, G3/8 (BSPP) female ports, double acting; flange, pivot and clevis mount options available. Adjustable cushions on both ends. See the end of the section for accessory details.

Features

- Adjustable cushions
- Internal magnet for sensor switching
- Three sides with longitudinal slots for inserting and securing retractable sensors such as type CPS9F and CPS9Q (see position switches at the end of the cylinder section for further details)
- G (BSPP) threaded ports

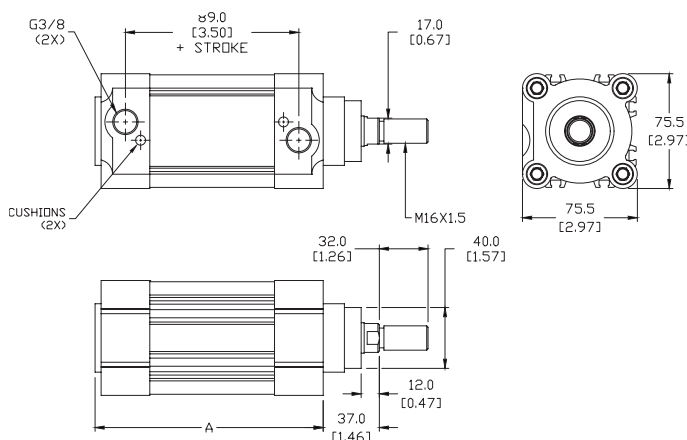


63mm bore, double acting, tapped end caps				
Part Number	Price	Stroke Length (mm)	"A" (mm [inch])	Weight (lb)
G63M025MD-MC	\$112.00	25	146 [5.75]	3.7
G63M050MD-MC	\$115.00	50	171 [6.73]	4.0
G63M075MD-MC	\$120.00	75	196 [7.72]	4.4
G63M100MD-MC	\$125.00	100	221 [8.70]	4.7
G63M125MD-MC	\$127.00	125	246 [9.69]	5.0
G63M150MD-MC	\$129.00	150	271 [10.67]	5.3
G63M200MD-MC	\$135.00	200	321 [12.64]	6.0
G63M250MD-MC	\$140.00	250	371 [14.61]	6.6
G63M300MD-MC	\$147.00	300	421 [16.57]	7.3
G63M400MD-MC	\$158.00	400	521 [20.51]	8.6
G63M500MD-MC	\$172.00	500	621 [24.45]	9.8
G63M600MD-MC	\$184.00	600	721 [28.39]	11.2

* The cushions decelerate the piston rod over the last mm (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.

Dimensions

mm [inches]



Specifications	
Aluminum body and end caps	Plastoferrite magnet
C45 chromed piston rod	NBR (Nitrile Butadiene Rubber) buffer + static o-rings
Die cast aluminum head	NBR (Nitrile Butadiene Rubber) cushioning gasket
NBR (Nitrile Butadiene Rubber) piston and piston rod gasket	Brass cushioning needle with needle out movement safety system
Steel guide bushing with bronze and PTFE (Teflon) insert	Pressure rating 145 psi [10 bar], AIR ONLY
Drawn anodized aluminum body	Temperature rating 14°F to 176°F [-10°C to 80°C]
Self-lubricating technopolymer piston	
Extend force at 100 psi = 483.0 lb.	Retract force at 100 psi = 434.4 lb.

BSPP = British Standard Pipe Parallel

Mounting Accessories	
Style	Part No.
Foot Mount	GMB-63MM
Front or Rear Flange	GFL-63MM
Male Rear Clevis	GMC-63MM
Spherical Male Clevis	GSMC-63MM

Rod Accessories	
Style	Part No.
Rod Clevis	GRC-M16-15
Rod Eye	GRE-M16-15
Self Aligning Rod Coupler	GRCP-M16-15
Rod Nut	GN-M16-15

See our website www.AutomationDirect.com for complete Engineering drawings.



G-Series ISO Pneumatic Cylinders – 80mm Bore

80mm Bore, Double-acting, Magnetic Piston, Cushions



NITRA pneumatic ISO 15552 interchangeable cylinder, 80mm bore, 25mm diameter piston rod, G3/8 (BSPF) female ports, double acting; flange, pivot and clevis mount options available. Adjustable cushions on both ends. See the end of the section for accessory details.

Features

- Adjustable cushions
- Internal magnet for sensor switching
- Three sides with longitudinal slots for inserting and securing retractable sensors such as type CPS9F and CPS9Q (see position switches at the end of the cylinder section for further details)
- G (BSPF) threaded ports

80mm bore, double acting, tapped end caps

Part Number	Price	Stroke Length (mm)	"A" (mm [inch])	Weight (lb)
G80M025MD-MC	\$131.00	25	153 [6.02]	6.9
G80M050MD-MC	\$135.00	50	178 [7.01]	7.4
G80M075MD-MC	\$139.00	75	203 [7.99]	7.9
G80M100MD-MC	\$142.00	100	228 [8.98]	8.4
G80M125MD-MC	\$148.00	125	253 [9.96]	8.9
G80M150MD-MC	\$152.00	150	278 [10.94]	9.4
G80M200MD-MC	\$160.00	200	328 [12.91]	10.4
G80M250MD-MC	\$172.00	250	378 [14.88]	11.4
G80M300MD-MC	\$181.00	300	428 [16.85]	12.4
G80M400MD-MC	\$197.00	400	528 [20.79]	14.4
G80M500MD-MC	\$216.00	500	628 [24.72]	16.4
G80M600MD-MC	\$233.00	600	728 [28.66]	18.4

Specifications

Aluminum body and end caps	Plastoferrite magnet
C45 chromed piston rod	NBR (Nitrile Butadiene Rubber) buffer + static o-rings
Die cast aluminum head	NBR (Nitrile Butadiene Rubber) cushioning gasket
NBR (Nitrile Butadiene Rubber) piston and piston rod gasket	Brass cushioning needle with needle out movement safety system
Steel guide bushing with bronze and PTFE (Teflon) insert	Pressure rating 145 psi [10 bar], AIR ONLY
Drawn anodized aluminum body	Temperature rating 14°F to 176°F [-10°C to 80°C]
Aluminum piston with PTFE (Teflon) pad	
Extend force at 100 psi = 779.1 lb.	Retract force at 100 psi = 703.0 lb.

BSPF = British Standard Pipe Parallel

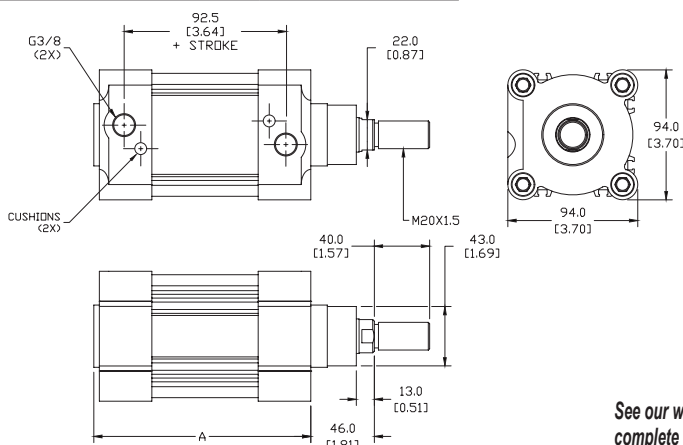
* The cushions decelerate the piston rod over the last mm (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.

Mounting Accessories	
Style	Part No.
Foot Mount	GMB-80MM
Front or Rear Flange	GFL-80MM
Male Rear Clevis	GMC-80MM
Spherical Male Clevis	GSMC-80MM

Rod Accessories	
Style	Part No.
Rod Clevis	GRC-M20-15
Rod Eye	GRE-M20-15
Self Aligning Rod Coupler	GRCP-M20-15
Rod Nut	GN-M20-15

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.



G-Series ISO Pneumatic Cylinders – 100mm Bore

100mm Bore, Double-acting, Magnetic Piston, Cushions



NITRA pneumatic ISO 15552 interchangeable cylinder, 100mm bore, 25mm diameter piston rod, G1/2 (BSPP) female ports, double acting; flange, pivot and clevis mount options available. Adjustable cushions on both ends. See the end of the section for accessory details.

Features

- Adjustable cushions
- Internal magnet for sensor switching
- Three sides with longitudinal slots for inserting securing retractable sensors such as type CPS9F and CPS9Q (see position switches at the end of the cylinder section for further details)
- G (BSPP) threaded ports



100mm bore, double acting, tapped end caps

Part Number	Price	Stroke Length (mm)	"A" (mm [inch])	Weight (lb)
G100M025MD-MC	\$181.00	25	163 [6.42]	9.3
G100M050MD-MC	\$185.00	50	188 [7.40]	9.8
G100M075MD-MC	\$189.00	75	213 [8.39]	10.3
G100M100MD-MC	\$193.00	100	238 [9.37]	10.8
G100M125MD-MC	\$198.00	125	263 [10.35]	11.4
G100M150MD-MC	\$201.00	150	288 [11.34]	11.9
G100M200MD-MC	\$212.00	200	338 [13.31]	13.0
G100M250MD-MC	\$224.00	250	388 [15.28]	14.0
G100M300MD-MC	\$232.00	300	438 [17.24]	15.0
G100M400MD-MC	\$250.00	400	538 [21.18]	17.1
G100M500MD-MC	\$270.00	500	638 [25.12]	19.2
G100M600MD-MC	\$288.00	600	738 [29.10]	21.3

Specifications

Aluminum body and end caps	Plastoferrite magnet
C45 chromed piston rod	NBR (Nitrile Butadiene Rubber) buffer + static o-rings
Die cast aluminum head	NBR (Nitrile Butadiene Rubber) cushioning gasket
NBR (Nitrile Butadiene Rubber) piston and piston rod gasket	Brass cushioning needle with needle out movement safety system
Steel guide bushing with bronze and PTFE (Teflon) insert	Pressure rating 145 psi [10 bar], AIR ONLY
Drawn anodized aluminum body	Temperature rating 14°F to 176°F [-10°C to 80°C]
Aluminum piston with PTFE (Teflon) pad	
Extend force at 100 psi = 1217.4 lb.	Retract force at 100 psi = 1141.3 lb.

BSPP = British Standard Pipe Parallel

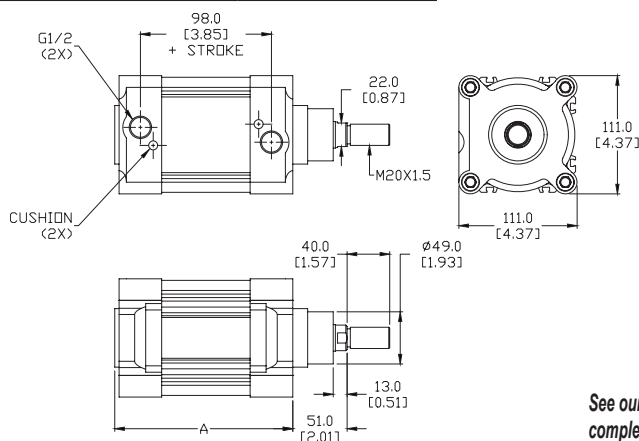
* The cushions decelerate the piston rod over the last mm (approx.) of stroke and are adjustable. Cushioned cylinders have an adjustable orifice and pre-lubricated nitrile cushion seal.

Mounting Accessories	
Style	Part No.
Foot Mount	GMB-100MM
Front or Rear Flange	GFL-100MM
Male Rear Clevis	GMC-100MM
Spherical Male Clevis	GSMC-100MM

Rod Accessories	
Style	Part No.
Rod Clevis	GRC-M20-15
Rod Eye	GRE-M20-15
Self Aligning Rod Coupler	GRCP-M20-15
Rod Nut	GN-M20-15

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.



G-Series ISO Pneumatic Cylinders – Accessories

D-Series Heavy Duty Pneumatic Cylinder Accessories				
Part Number	Description	Pcs/Pkg	Wt (lb)	Price
<u>GRC-M10-125</u>	Rod clevis, M10 X 1.25 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.2	\$4.50
<u>GRC-M12-125</u>	Rod clevis, M12 X 1.25 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.3	\$7.50
<u>GRC-M16-15</u>	Rod clevis, M16 X 1.5 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.8	\$16.00
<u>GRC-M20-15</u>	Rod clevis, M20 X 1.5 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	1.5	\$26.00
<u>GRE-M10-125</u>	Rod eye, M10 X 1.25 thread, spherical bearing, zinc plated steel. For use with NITRA G-series cylinders.	1	0.2	\$25.00
<u>GRE-M12-125</u>	Rod eye, M12 X 1.25 thread, spherical bearing, zinc plated steel. For use with NITRA G-series cylinders.	1	0.3	\$28.50
<u>GRE-M16-15</u>	Rod eye, M16 X 1.5 thread, spherical bearing, zinc plated steel. For use with NITRA G-series cylinders.	1	0.5	\$53.00
<u>GRE-M20-15</u>	Rod eye, M20 X 1.5 thread, spherical bearing, zinc plated steel. For use with NITRA G-series cylinders.	1	0.9	\$71.00
<u>GRCP-M10-125</u>	Self-aligning rod coupler, M10 X 1.25 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.5	\$57.00
<u>GRCP-M12-125</u>	Self-aligning rod coupler, M12 X 1.25 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.7	\$60.00
<u>GRCP-M16-15</u>	Self-aligning rod coupler, M16 X 1.5 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	1.4	\$78.00
<u>GRCP-M20-15</u>	Self-aligning rod coupler, M20 X 1.5 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	1.5	\$96.00
<u>GMB-32MM</u>	Foot mount bracket, zinc plated steel. For use with 32mm bore NITRA G-series cylinders.	1	0.2	\$7.00
<u>GMB-40MM</u>	Foot mount bracket, zinc plated steel. For use with 40mm bore NITRA G-series cylinders.	1	0.3	\$8.25
<u>GMB-50MM</u>	Foot mount bracket, zinc plated steel. For use with 50mm bore NITRA G-series cylinders.	1	0.4	\$9.50
<u>GMB-63MM</u>	Foot mount bracket, zinc plated steel. For use with 63mm bore NITRA G-series cylinders.	1	0.6	\$10.50
<u>GMB-80MM</u>	Foot mount bracket, zinc plated steel. For use with 80mm bore NITRA G-series cylinders.	1	1.0	\$15.00
<u>GMB-100MM</u>	Foot mount bracket, zinc plated steel. For use with 100mm bore NITRA G-series cylinders.	1	1.3	\$24.00
<u>GMC-32MM</u>	Rear pivot eye, zinc plated steel. For use with 32mm bore NITRA G-series cylinders.	1	0.2	\$18.00
<u>GMC-40MM</u>	Rear pivot eye, zinc plated steel. For use with 40mm bore NITRA G-series cylinders.	1	0.3	\$19.00
<u>GMC-50MM</u>	Rear pivot eye, zinc plated steel. For use with 50mm bore NITRA G-series cylinders.	1	0.6	\$22.00
<u>GMC-63MM</u>	Rear pivot eye, zinc plated steel. For use with 63mm bore NITRA G-series cylinders.	1	0.9	\$26.00
<u>GMC-80MM</u>	Rear pivot eye, zinc plated steel. For use with 80mm bore NITRA G-series cylinders.	1	1.5	\$32.00
<u>GMC-100MM</u>	Rear pivot eye, zinc plated steel. For use with 100mm bore NITRA G-series cylinders.	1	2.4	\$44.50
<u>GSMC-32MM</u>	Rear spherical pivot, spherical bearing, zinc plated steel. For use with 32mm bore NITRA G-series cylinders.	1	0.3	\$25.00
<u>GSMC-40MM</u>	Rear spherical pivot, spherical bearing, zinc plated steel. For use with 40mm bore NITRA G-series cylinders.	1	0.4	\$27.00
<u>GSMC-50MM</u>	Rear spherical pivot, spherical bearing, zinc plated steel. For use with 50mm bore NITRA G-series cylinders.	1	0.5	\$39.00
<u>GSMC-63MM</u>	Rear spherical pivot, spherical bearing, zinc plated steel. For use with 63mm bore NITRA G-series cylinders.	1	0.7	\$50.00
<u>GSMC-80MM</u>	Rear spherical pivot, spherical bearing, zinc plated steel. For use with 80mm bore NITRA G-series cylinders.	1	1.3	\$62.00
<u>GSMC-100MM</u>	Rear spherical pivot, spherical bearing, zinc plated steel. For use with 100mm bore NITRA G-series cylinders.	1	1.9	\$84.00
<u>GFL-32MM</u>	Flange mount plate, zinc plated steel. For use with 32mm bore NITRA G-series cylinders.	1	0.5	\$12.00
<u>GFL-40MM</u>	Flange mount plate, zinc plated steel. For use with 40mm bore NITRA G-series cylinders.	1	0.6	\$13.00
<u>GFL-50MM</u>	Flange mount plate, zinc plated steel. For use with 50mm bore NITRA G-series cylinders.	1	1.2	\$16.00
<u>GFL-63MM</u>	Flange mount plate, zinc plated steel. For use with 63mm bore NITRA G-series cylinders.	1	1.5	\$23.00
<u>GFL-80MM</u>	Flange mount plate, zinc plated steel. For use with 80mm bore NITRA G-series cylinders.	1	3.1	\$26.00
<u>GFL-100MM</u>	Flange mount plate, zinc plated steel. For use with 100mm bore NITRA G-series cylinders.	1	4.5	\$31.00
<u>GN-M10-125</u>	Rod nut, M10 X 1.25 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.2	\$1.50
<u>GN-M12-125</u>	Rod nut, M12 X 1.25 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.2	\$1.75
<u>GN-M16-15</u>	Rod nut, M16 X 1.5 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.2	\$2.00
<u>GN-M20-15</u>	Rod nut, M20 X 1.5 thread, zinc plated steel. For use with NITRA G-series cylinders.	1	0.2	\$2.25



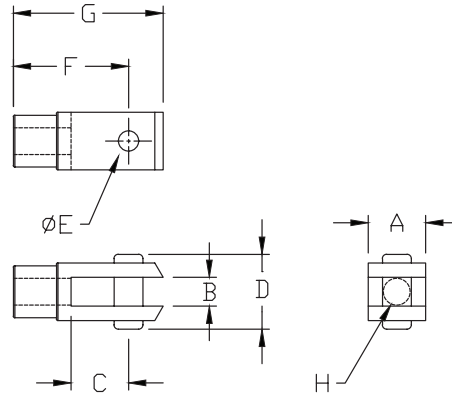
G-Series ISO Pneumatic Cylinders – Accessories

Rod Clevis



Part no. [GRC-M10-125](#)

Dimensions mm [inches]



Note: Comes with Pivot Pin installed.

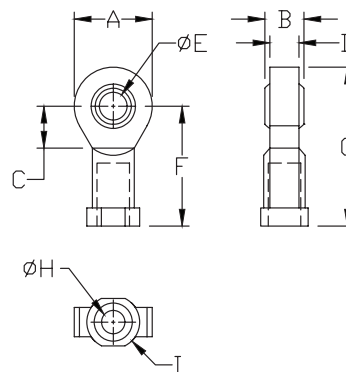
Rod Clevis Dimension Table								
Part #	A	B	C	D	E	F	G	H
GRC-M10-125	20.00 [0.78]	10.00 [0.39]	10.00 [0.39]	26.00 [1.02]	10.00 [0.39]	40.00 [1.57]	52.00 [2.04]	M10x1.25
GRC-M12-125	24.00 [0.94]	12.00 [0.47]	24.00 [0.94]	32.00 [1.25]	12.00 [0.47]	48.00 [1.88]	62.00 [2.44]	M12x1.25
GRC-M16-15	32.00 [1.25]	16.00 [0.62]	32.00 [1.25]	40.00 [1.57]	16.00 [0.62]	64.00 [2.51]	83.00 [3.26]	M16x1.5
GRC-M20-15	40.00 [1.57]	20.00 [0.78]	40.00 [1.57]	48.00 [1.88]	20.00 [0.78]	80.00 [3.14]	105.00 [4.13]	M20x1.5

Rod Eye



Part no. [GRE-M10-125](#)

Dimensions mm [inches]



Rod Eye Dimension Table									
Part #	A	B	C	D	E	F	G	H	I
GRE-M10-125	28.00 [1.10]	14.00 [0.55]	15.00 [0.59]	10.50 [0.41]	10.00 [0.39]	43.00 [1.69]	57.00 [2.24]	M10x1.25	19 [0.74]
GRE-M12-125	32.00 [1.25]	16.00 [0.62]	17.00 [0.66]	12.00 [0.47]	12.00 [0.47]	50.00 [1.96]	66.00 [2.59]	M12x1.25	19 [0.74]
GRE-M16-15	42.00 [1.65]	21.00 [0.82]	22.00 [0.86]	15.00 [0.59]	16.00 [0.62]	64.00 [2.51]	85.00 [3.34]	M16x1.5	22 [0.86]
GRE-M20-15	50.00 [1.96]	25.00 [0.98]	26.00 [1.02]	18.00 [0.70]	20.00 [0.78]	77.00 [3.03]	102.00 [4.01]	M20x1.5	27 [1.06]

See our website www.AutomationDirect.com for complete Engineering drawings.



G-Series ISO Pneumatic Cylinders – Accessories

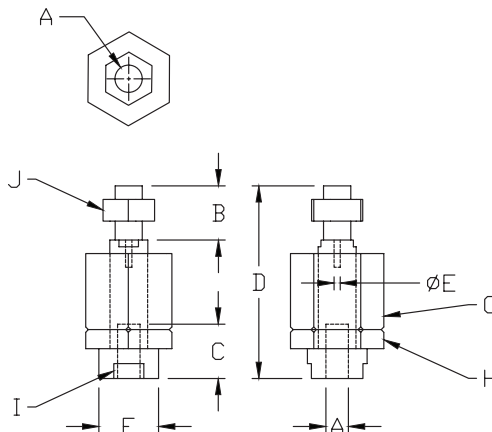
Self Aligning Rod Coupler



Part no. [GRCP-M10-125](#)

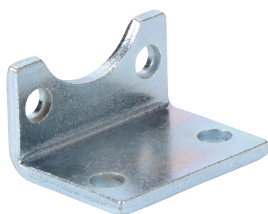
Dimensions

mm [inches]



Self Aligning Rod Coupler Dimension Table										
Part #	A	B	C	D	E	F	G	H	I	J
GRCP-M10-125	M10x1.25	20.00 [0.78]	20.00 [0.78]	71.00 [2.79]	4.00 [0.15]	22.00 [0.86]	30.00 [1.18]	30.00 [1.18]	19.00 [0.74]	17.00 [0.66]
GRCP-M12-125	M12x1.25	24.00 [0.94]	20.00 [0.78]	75.00 [2.95]	4.00 [0.15]	22.00 [0.86]	30.00 [1.18]	30.00 [1.18]	19.00 [0.74]	19.00 [0.74]
GRCP-M16-15	M16x1.5	32.00 [1.25]	32.00 [1.25]	103.00 [4.05]	4.00 [0.15]	32.00 [1.25]	41.00 [1.61]	41.00 [1.61]	30.00 [1.18]	24.00 [0.94]
GRCP-M20-15	M20x1.5	40.00 [1.57]	40.00 [1.57]	119.00 [4.68]	4.00 [0.15]	32.00 [1.25]	41.00 [1.61]	41.00 [1.61]	30.00 [1.18]	30.00 [1.18]

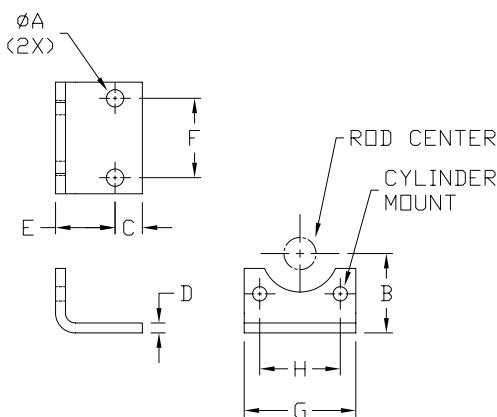
Foot Mount Bracket



Part no. [GMB-32MM](#)

Dimensions

mm [inches]



Note: Individually packed with 2 screws

Foot Mount Dimension Table								
Part #	A	B	C	D	E	F	G	H
GMB-32MM	7.00 [0.27]	32.00 [1.25]	11.00 [0.43]	4.00 [0.15]	24.00 [0.94]	32.00 [1.25]	45.00 [1.77]	32.5 [1.28]
GMB-40MM	9.00 [0.35]	36.00 [1.41]	15.00 [0.59]	4.00 [0.15]	28.00 [1.10]	36.00 [1.41]	52.00 [2.04]	38.0 [1.50]
GMB-50MM	9.00 [0.35]	45.00 [1.77]	15.00 [0.59]	4.00 [0.15]	32.00 [1.25]	45.00 [1.77]	52.00 [2.04]	46.5 [1.83]
GMB-63MM	9.00 [0.35]	50.00 [1.96]	15.00 [0.59]	6.00 [0.23]	32.00 [1.25]	50.00 [1.96]	75.00 [2.95]	56.5 [2.22]
GMB-80MM	12.00 [0.47]	63.00 [2.48]	20.00 [0.78]	6.00 [0.23]	41.00 [1.61]	63.00 [2.48]	95.00 [3.74]	63.0 [2.48]
GMB-100MM	14.00 [0.55]	71.00 [2.79]	25.00 [0.98]	6.00 [0.23]	41.00 [1.61]	75.00 [2.95]	115.00 [4.52]	89.0 [3.50]

See our website www.AutomationDirect.com for complete Engineering drawings.

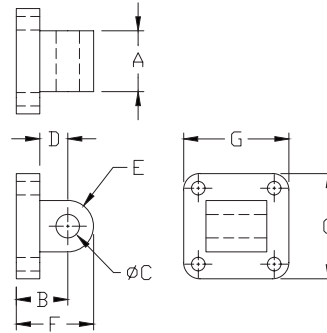


G-Series ISO Pneumatic Cylinders – Accessories

Rear Pivot Eye



Dimensions mm [inches]



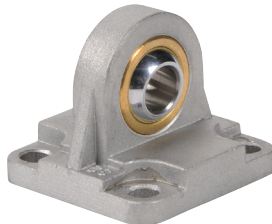
Part no. [GMC-32MM](#)



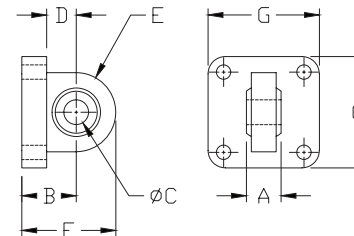
Note: Supplied with 4 screws, 4 washers

Male Rear Clevis Dimension Table							
Part #	A	B	C	D	E	F	G
GMC-32MM	26.00 [1.02]	22.00 [0.86]	10.00 [0.39]	12.00 [0.47]	11.00 [0.43]	33.00 [1.29]	45.00 [1.77]
GMC-40MM	28.00 [1.10]	25.00 [0.98]	12.00 [0.47]	15.00 [0.59]	13.00 [0.51]	38.00 [1.49]	52.00 [2.04]
GMC-50MM	32.00 [1.25]	27.00 [1.06]	12.00 [0.47]	15.00 [0.59]	13.00 [0.51]	40.00 [1.57]	65.00 [2.55]
GMC-63MM	40.00 [1.57]	32.00 [1.25]	16.00 [0.62]	20.00 [0.78]	17.00 [0.66]	49.00 [1.92]	75.00 [2.95]
GMC-80MM	50.00 [1.96]	36.00 [1.41]	16.00 [0.62]	20.00 [0.78]	17.00 [0.66]	53.00 [2.08]	95.00 [3.74]
GMC-100MM	60.00 [2.36]	41.00 [1.61]	20.00 [0.78]	25.00 [0.98]	21.00 [0.82]	62.00 [2.44]	115.00 [4.52]

Spherical Rear Pivot



Dimensions mm [inches]



Part no. [GSMC-32MM](#)



Note: Supplied with 4 screws, 4 washers

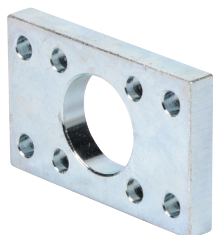
Spherical Male Clevis Dimension Table							
Part #	A	B	C	D	E	F	G
GSMC-32MM	14.00 [0.55]	22.00 [0.86]	10.00 [0.39]	12.00 [0.47]	16.00 [0.62]	38.00 [1.49]	45.00 [1.77]
GSMC-40MM	16.00 [0.62]	25.00 [0.98]	12.00 [0.47]	15.00 [0.59]	19.00 [0.74]	44.00 [1.73]	52.00 [2.04]
GSMC-50MM	16.00 [0.62]	27.00 [1.06]	12.00 [0.47]	15.00 [0.59]	19.00 [0.74]	46.00 [1.81]	65.00 [2.55]
GSMC-63MM	21.00 [0.82]	32.00 [1.25]	16.00 [0.62]	20.00 [0.78]	24.00 [0.94]	56.00 [2.20]	75.00 [2.95]
GSMC-80MM	21.00 [0.82]	36.00 [1.41]	16.00 [0.62]	20.00 [0.78]	24.00 [0.94]	60.00 [2.36]	95.00 [3.74]
GSMC-100MM	25.00 [0.98]	41.00 [1.61]	20.00 [0.78]	25.00 [0.98]	30.00 [1.18]	71.00 [2.79]	115.00 [4.52]

See our website www.AutomationDirect.com for complete Engineering drawings.



G-Series ISO Pneumatic Cylinders – Accessories

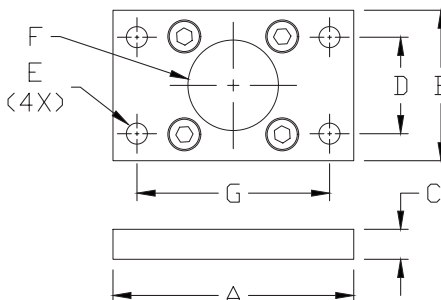
Front or Rear Flange



Part no. [GFL-32MM](#)

Dimensions

mm [inches]



Note: Supplied with 4 screws

Front or Rear Flange Dimension Table							
Part #	A	B	C	D	E	F	G
GFL-32MM	80.00 [3.14]	50.00 [1.96]	10.00 [0.39]	32.00 [1.25]	7.00 [1.25]	32.00 [1.25]	64.00 [2.52]
GFL-40MM	90.00 [3.54]	55.00 [2.16]	10.00 [0.39]	36.00 [1.41]	9.00 [0.35]	40.00 [1.57]	72.00 [2.83]
GFL-50MM	110.00 [4.33]	65.00 [2.55]	12.00 [0.47]	45.00 [1.77]	9.00 [0.35]	50.00 [1.96]	90.00 [3.54]
GFL-63MM	120.00 [4.72]	75.00 [2.95]	12.00 [0.47]	50.00 [1.96]	9.00 [0.35]	63.00 [2.48]	100.00 [3.93]
GFL-80MM	153.00 [6.02]	95.00 [3.74]	16.00 [0.62]	63.00 [2.48]	12.00 [0.47]	80.00 [3.14]	126.00 [4.96]
GFL-100MM	178.00 [7.00]	115.00 [4.52]	16.00 [0.62]	75.00 [2.95]	14.00 [0.55]	100.00 [3.93]	150.00 [5.90]

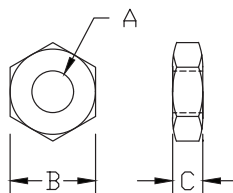
Rod Nut



Part no. [GN-M20-15](#)

Dimensions

mm [inches]



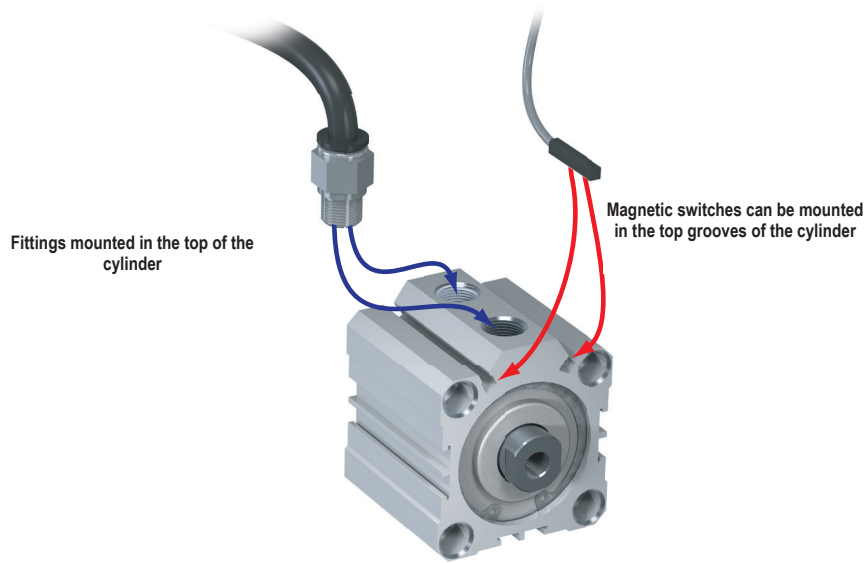
Rod Nut Dimension Table			
Part #	A	B	C
GN-M10-125	M10x1.25	17.00 [0.66]	6.00 [0.23]
GN-M12-125	M12x1.25	19.00 [0.74]	7.00 [0.27]
GN-M16-15	M16x1.5	24.00 [0.94]	8.00 [0.31]
GN-M20-15	M20x1.5	30.00 [1.18]	9.00 [0.35]

See our website www.AutomationDirect.com for complete Engineering drawings.



H-Series Pneumatic Cylinders

NITRA Pneumatic Compact Extruded Body Air Cylinders



Click on the thumbnail or go to <https://www.automationdirect.com/VID-PN-0052> for a short video on pneumatic cylinder selection and purchasing.

The NITRA Pneumatics H-Series compact extruded body cylinders includes bore sizes from 12mm to 100mm and stroke lengths from 5mm to 100mm to meet a broad range of limited space applications. These high quality cylinders are constructed with hard anodized extruded aluminum bodies and end caps. Cylinder switch

mounting slots are built in to the bodies. All sizes include a magnet in the piston and a chrome plated steel piston rod. Interchangeable with other common brands, these cylinders are factory lubricated for optimum performance and long, reliable life.

Features

- Ten bore sizes
- Eight stroke lengths
- Interchangeable with other popular brands
- Work with 4mm square T-slot cylinder switches
- Nitrile / Buna-N O-rings



Click the icon or scan the QR code to be taken to https://www.automationdirect.com/pneumatics/cylinders/cylinder_sizing for additional information regarding cylinder sizing & force.

H-Series Cylinder Specifications										
Bore Size (mm)	12	16	20	25	32	40	50	63	80	100
Action	Double acting									
Fluid	Air (clean/dry)									
Temperature Range	-4 to 176°F (-20 to 80°C)									
Pressure Range	14 to 145 psi (0.96 to 9.9 bar)									
Proof Pressure	215psi (14.8 bar)									
Lubrication	Not required									
Cushion Type	Bumper - Polyurethane (ø12 - ø25); Buna-N (ø32 - ø100)									
Speed Range	30 to 500 mm/s									
Stroke Tolerance	+1.0 / -0 mm									
Port Size	M5x0.8			1/8-NPT		1/4-NPT		3/8-NPT		
Extend Force @ 87psi (lbs.)	15	27	42	66	108	169	264	420	678	1059
Retract Force @ 87psi (lbs.)	11	20	32	51	81	142	222	378	611	950
Sensor Switch Compatibility	CPS9H Series Switches									



H-Series 12mm Pneumatic Cylinders

12mm Bore, Double Acting with Magnet

Part No. [H12M005MD-M](#)

12mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Port Size	Weight (lbs)	Price
H12M005MD-M	5	36.5 [1.44]	33.0 [1.30]	M5x0.8	0.1	\$36.50
H12M010MD-M	10	41.5 [1.63]	38.0 [1.50]		0.2	\$38.50
H12M015MD-M	15	46.5 [1.83]	43.0 [1.69]		0.2	\$39.50
H12M020MD-M	20	51.5 [2.03]	48.0 [1.89]		0.2	\$41.00
H12M025MD-M	25	56.5 [2.22]	53.0 [2.09]		0.2	\$42.00
H12M030MD-M	30	61.5 [2.42]	58.0 [2.28]		0.2	\$43.50
H12M040MD-M	40	71.5 [2.81]	68.0 [2.68]		0.3	\$50.00
H12M050MD-M	50	81.5 [3.21]	78.0 [3.07]		0.7	\$56.00

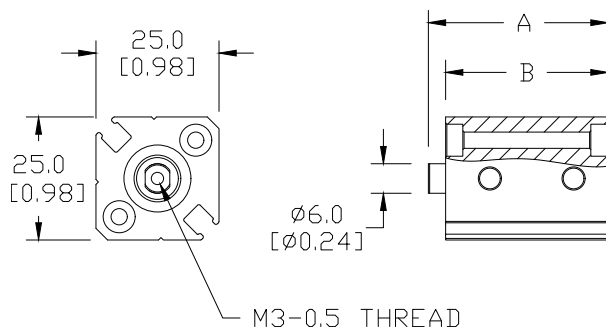
Mounting Accessories

Rod Clevis	HRC-12M
Rod Male Adapter	HMA-12M
Female Rear Clevis	HFC-12M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.



H-Series 16mm Pneumatic Cylinders

16mm Bore, Double Acting with Magnet



Part No. [H16M005MD-M](#)

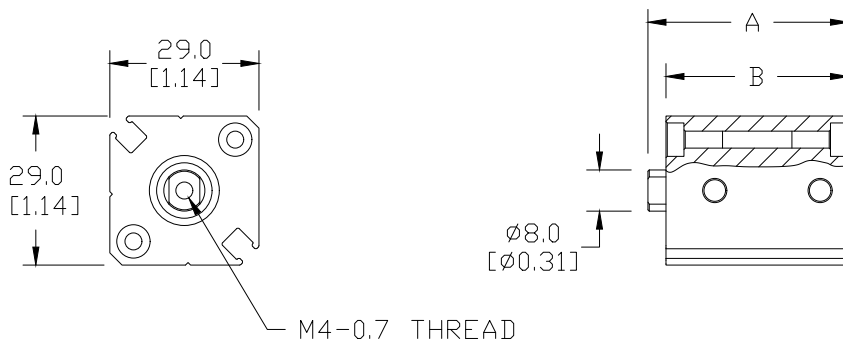
16mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Port Size	Weight (lbs)	Price
H16M005MD-M	5	39.0 [1.54]	35.5 [1.40]	M5x0.8	0.2	\$49.00
H16M010MD-M	10	44.0 [1.73]	40.5 [1.59]		0.2	\$50.00
H16M015MD-M	15	49.0 [1.93]	45.5 [1.79]		0.2	\$52.00
H16M020MD-M	20	54.0 [2.13]	50.5 [1.99]		0.3	\$53.00
H16M025MD-M	25	59.0 [2.32]	55.5 [2.19]		0.3	\$55.00
H16M030MD-M	30	64.0 [2.52]	60.5 [2.38]		0.3	\$56.00
H16M040MD-M	40	74.0 [2.91]	70.5 [2.78]		0.4	\$62.00
H16M050MD-M	50	84.0 [3.31]	80.5 [3.17]		0.4	\$68.00

Mounting Accessories	
Rod Clevis	HRC-16M
Rod Male Adapter	HMA-16M
Female Rear Clevis	HFC-16M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.



H-Series 20mm Pneumatic Cylinders

20mm Bore, Double Acting with Magnet



Part No. [H20M005MD-M](#)

20mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Port Size	Weight (lbs)	Price
H20M005MD-M	5	41.0 [1.61]	36.5 [1.44]	M5x0.8	0.3	\$59.00
H20M010MD-M	10	46.0 [1.81]	41.5 [1.63]		0.3	\$61.00
H20M015MD-M	15	51.0 [2.01]	46.5 [1.83]		0.4	\$62.00
H20M020MD-M	20	56.0 [2.20]	51.5 [2.03]		0.4	\$63.00
H20M025MD-M	25	61.0 [2.40]	56.5 [2.22]		0.4	\$64.00
H20M030MD-M	30	66.0 [2.60]	61.5 [2.42]		0.4	\$65.00
H20M040MD-M	40	76.0 [2.99]	71.5 [2.81]		0.4	\$68.00
H20M050MD-M	50	86.0 [3.39]	81.5 [3.21]		0.5	\$71.00
H20M075MD-M	75	111.0 [4.37]	106.5 [4.19]		0.7	\$73.00
H20M100MD-M	100	136.0 [5.35]	131.5 [5.18]		0.7	\$79.00

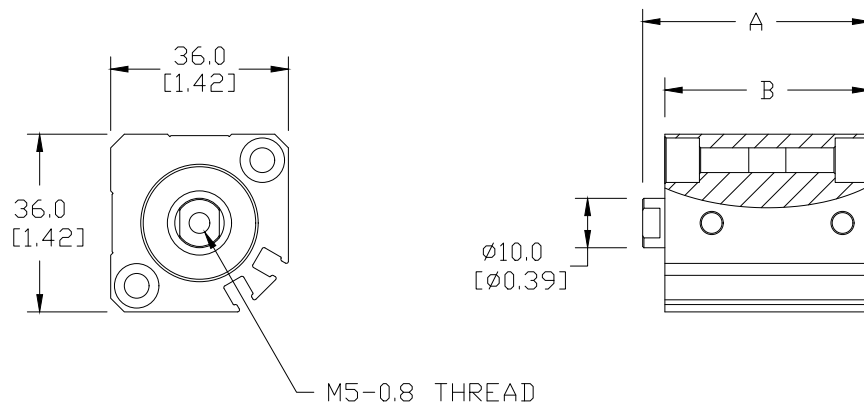
Mounting Accessories

Rod Clevis	HRC-20M
Rod Male Adapter	HMA-20M
Female Rear Clevis	HFC-20M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.



H-Series 25mm Pneumatic Cylinders

25mm Bore, Double Acting with Magnet



Part No. [H25M005MD-M](#)

25mm Bore H-Series Cylinders - Double Acting w/ Magnet

Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Port Size	Weight (lbs)	Price
H25M005MD-M	5	42.5 [1.67]	37.5 [1.48]	M5x0.8	0.4	\$55.00
H25M010MD-M	10	47.5 [1.87]	42.5 [1.67]		0.4	\$66.00
H25M015MD-M	15	52.5 [2.07]	47.5 [1.87]		0.4	\$68.00
H25M020MD-M	20	57.5 [2.26]	52.5 [2.07]		0.4	\$69.00
H25M025MD-M	25	62.5 [2.46]	57.5 [2.26]		0.5	\$70.00
H25M030MD-M	30	67.5 [2.66]	62.5 [2.46]		0.5	\$71.00
H25M040MD-M	40	77.5 [3.05]	72.5 [2.85]		0.6	\$75.00
H25M050MD-M	50	87.5 [3.44]	82.5 [3.25]		0.7	\$77.00
H25M075MD-M	75	112.5 [4.43]	107.5 [4.23]		0.9	\$78.00
H25M100MD-M	100	137.5 [5.41]	132.5 [5.22]		1.1	\$99.00

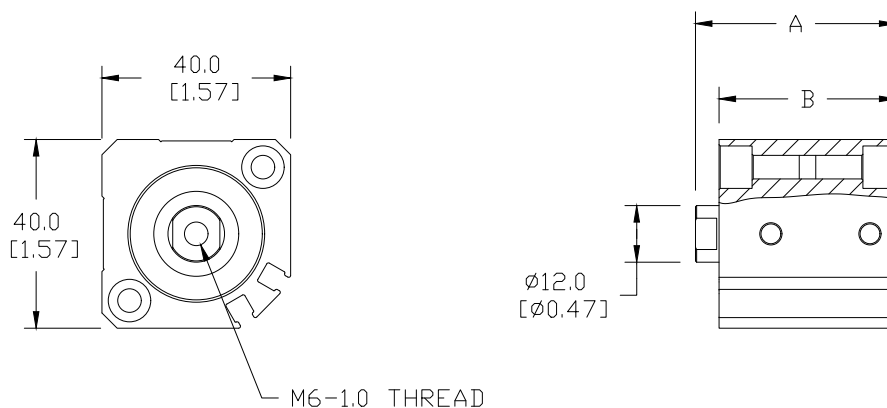
Mounting Accessories

Rod Clevis	HRC-25M
Rod Male Adapter	HMA-25M
Female Rear Clevis	HFC-25M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.



H-Series 32mm Pneumatic Cylinders

32mm Bore, Double Acting with Magnet



Part No. H32M005MD-M

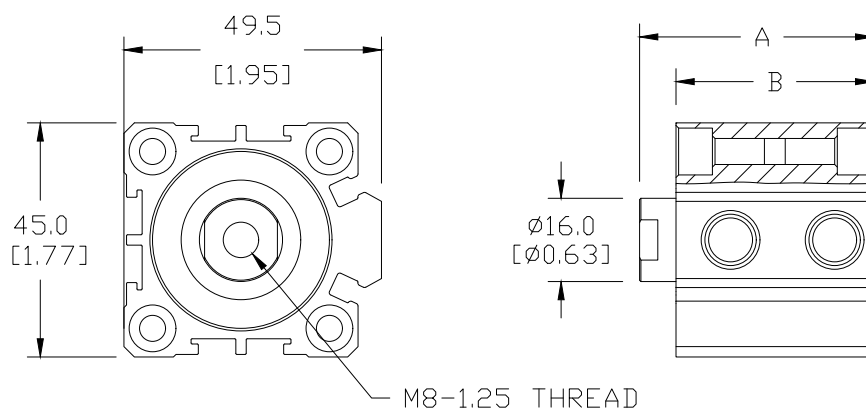
32mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Port Size	Weight (lbs)	Price
<u>H32M005MD-M</u>	5	45.0 [1.77]	38.0 [1.50]	1/8-NPT	0.5	\$79.00
<u>H32M010MD-M</u>	10	50.0 [1.97]	43.0 [1.69]		0.5	\$81.00
<u>H32M015MD-M</u>	15	55.0 [2.17]	48.0 [1.89]		0.6	\$82.00
<u>H32M020MD-M</u>	20	60.0 [2.36]	53.0 [2.09]		0.7	\$83.00
<u>H32M025MD-M</u>	25	65.0 [2.56]	58.0 [2.28]		0.7	\$84.00
<u>H32M030MD-M</u>	30	70.0 [2.76]	63.0 [2.48]		0.7	\$87.00
<u>H32M040MD-M</u>	40	80.0 [3.15]	73.0 [2.87]		0.8	\$89.00
<u>H32M050MD-M</u>	50	90.0 [3.54]	83.0 [3.27]		0.8	\$91.00
<u>H32M075MD-M</u>	75	115.0 [4.53]	108.0 [4.25]		1.3	\$98.00
<u>H32M100MD-M</u>	100	140.0 [5.51]	133.0 [5.24]		1.7	\$106.00

Mounting Accessories	
Rod Clevis	<u>HRC-32M</u>
Rod Male Adapter	<u>HMA-32M</u>
Female Rear Clevis	<u>HFC-32M</u>

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]

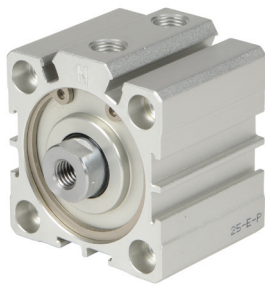


See our website www.AutomationDirect.com for complete Engineering drawings.



H-Series 40mm Pneumatic Cylinders

40mm Bore, Double Acting with Magnet

Part No. [H40M005MD-M](#)

40mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Port Size	Weight (lbs)	Price
H40M005MD-M	5	51.5 [2.03]	44.5 [1.75]	1/8-NPT	0.6	\$91.00
H40M010MD-M	10	56.5 [2.22]	49.5 [1.95]		0.7	\$92.00
H40M015MD-M	15	61.5 [2.42]	54.5 [2.15]		0.7	\$94.00
H40M020MD-M	20	66.5 [2.62]	59.5 [2.34]		0.8	\$96.00
H40M025MD-M	25	71.5 [2.81]	64.5 [2.54]		0.9	\$97.00
H40M030MD-M	30	76.5 [3.01]	69.5 [2.74]		0.9	\$98.00
H40M040MD-M	40	86.5 [3.41]	79.5 [3.13]		1.0	\$102.00
H40M050MD-M	50	96.5 [3.80]	89.5 [3.52]		1.1	\$104.00
H40M075MD-M	75	121.5 [4.78]	114.5 [4.51]		1.6	\$112.00
H40M100MD-M	100	146.5 [5.77]	139.5 [5.49]		2.0	\$118.00

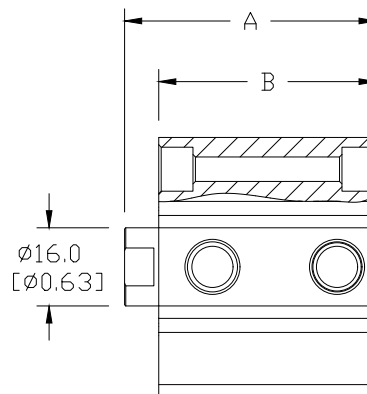
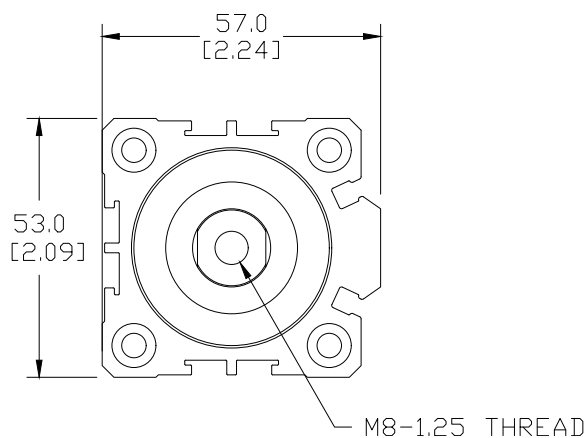
Mounting Accessories

Rod Clevis	HRC-40M
Rod Male Adapter	HMA-40M
Female Rear Clevis	HFC-40M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.



H-Series 50mm Pneumatic Cylinders

50mm Bore, Double Acting with Magnet



Part No. [H50M005MD-M](#)

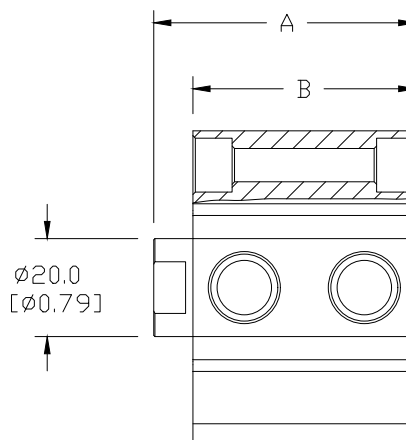
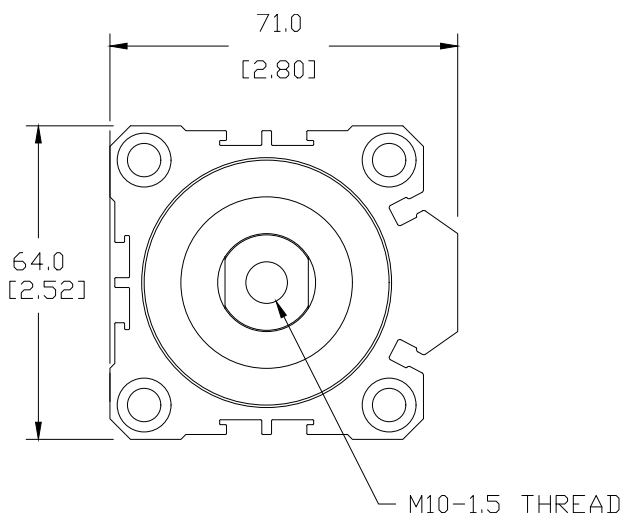
50mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Port Size	Weight (lbs)	Price
H50M005MD-M	5	53.5 [2.11]	45.5 [1.79]	1/4-NPT	1.0	\$107.00
H50M010MD-M	10	58.5 [2.30]	50.5 [1.99]		1.1	\$110.00
H50M015MD-M	15	63.5 [2.50]	55.5 [2.19]		1.1	\$113.00
H50M020MD-M	20	68.5 [2.70]	60.5 [2.38]		1.2	\$114.00
H50M025MD-M	25	73.5 [2.89]	65.5 [2.58]		1.3	\$116.00
H50M030MD-M	30	78.5 [3.09]	70.5 [2.78]		1.4	\$117.00
H50M040MD-M	40	88.5 [3.48]	80.5 [3.17]		1.6	\$122.00
H50M050MD-M	50	98.5 [3.88]	90.5 [3.56]		1.7	\$125.00
H50M075MD-M	75	123.5 [4.86]	115.5 [4.55]		2.2	\$135.00
H50M100MD-M	100	148.5 [5.85]	140.5 [5.53]		2.6	\$144.00

Mounting Accessories	
Rod Clevis	HRC-50M
Rod Male Adapter	HMA-50M
Female Rear Clevis	HFC-50M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.



H-Series 63mm Pneumatic Cylinders

63mm Bore, Double Acting with Magnet



Part No. [H63M005MD-M](#)

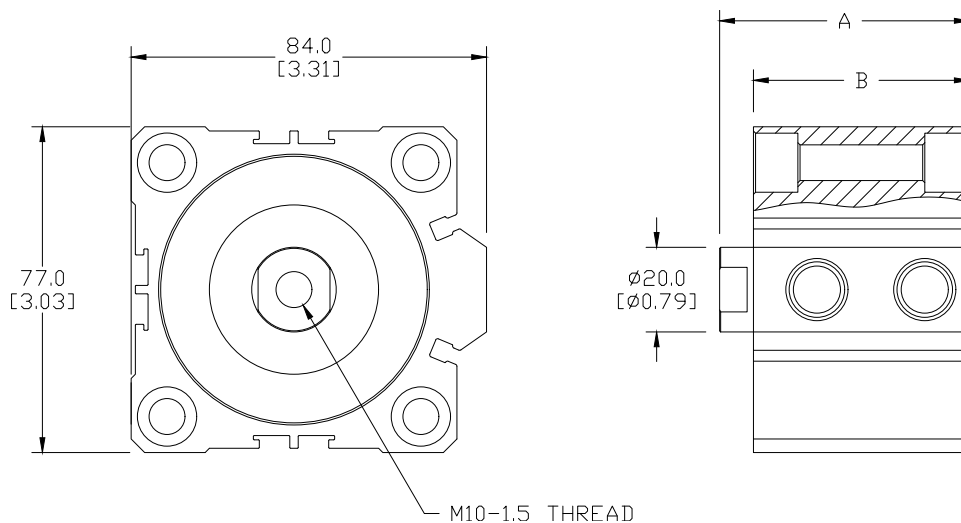
63mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Port Size	Weight (lbs)	Price
H63M005MD-M	5	59.0 [2.32]	51.0 [2.01]	1/4-NPT	1.5	\$124.00
H63M010MD-M	10	64.0 [2.52]	56.0 [2.20]		1.6	\$128.00
H63M015MD-M	15	69.0 [2.72]	61.0 [2.40]		1.7	\$130.00
H63M020MD-M	20	74.0 [2.91]	66.0 [2.60]		1.8	\$133.00
H63M025MD-M	25	79.0 [3.11]	71.0 [2.80]		1.9	\$134.00
H63M030MD-M	30	84.0 [3.31]	76.0 [2.99]		2.0	\$136.00
H63M040MD-M	40	94.0 [3.70]	86.0 [3.39]		2.2	\$141.00
H63M050MD-M	50	104.0 [4.09]	96.0 [3.78]		2.4	\$144.00
H63M075MD-M	75	129.0 [5.08]	121.0 [4.76]		3.0	\$155.00
H63M100MD-M	100	154.0 [6.06]	146.0 [5.75]		3.5	\$165.00

Mounting Accessories	
Rod Clevis	HRC-63M
Rod Male Adapter	HMA-63M
Female Rear Clevis	HFC-63M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]

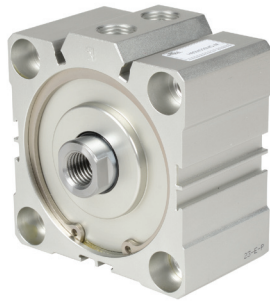


See our website www.AutomationDirect.com for complete Engineering drawings.



H-Series 80mm Pneumatic Cylinders

80mm Bore, Double Acting with Magnet



Part No. [H80M005MD-M](#)

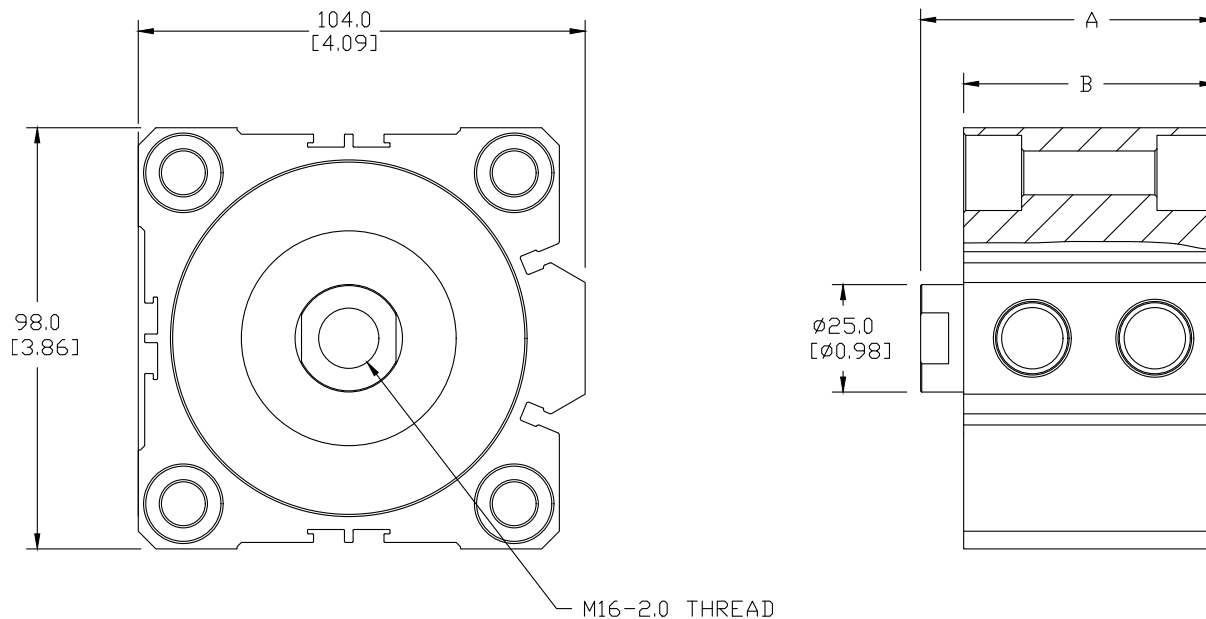
80mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Port Size	Weight (lbs)	Price
H80M005MD-M	5	68.5 [2.70]	58.5 [2.30]	3/8-NPT	2.6	\$158.00
H80M010MD-M	10	73.5 [2.89]	63.5 [2.50]		2.9	\$161.00
H80M015MD-M	15	78.5 [3.09]	68.5 [2.70]		3.0	\$163.00
H80M020MD-M	20	83.5 [3.29]	73.5 [2.89]		3.2	\$166.00
H80M025MD-M	25	88.5 [3.48]	78.5 [3.09]		3.4	\$167.00
H80M030MD-M	30	93.5 [3.68]	83.5 [3.29]		3.5	\$169.00
H80M040MD-M	40	103.5 [4.07]	93.5 [3.68]		3.8	\$174.00
H80M050MD-M	50	113.5 [4.47]	103.5 [4.07]		4.2	\$179.00
H80M075MD-M	75	138.5 [5.45]	128.5 [5.06]		5.3	\$191.00
H80M100MD-M	100	163.5 [6.44]	153.5 [6.04]		6.4	\$202.00

Mounting Accessories	
Rod Clevis	HRC-80M
Rod Male Adapter	HMA-80M
Female Rear Clevis	HFC-80M

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.



H-Series 100mm Pneumatic Cylinders

100mm Bore, Double Acting with Magnet



Part No. H100M005MD-M

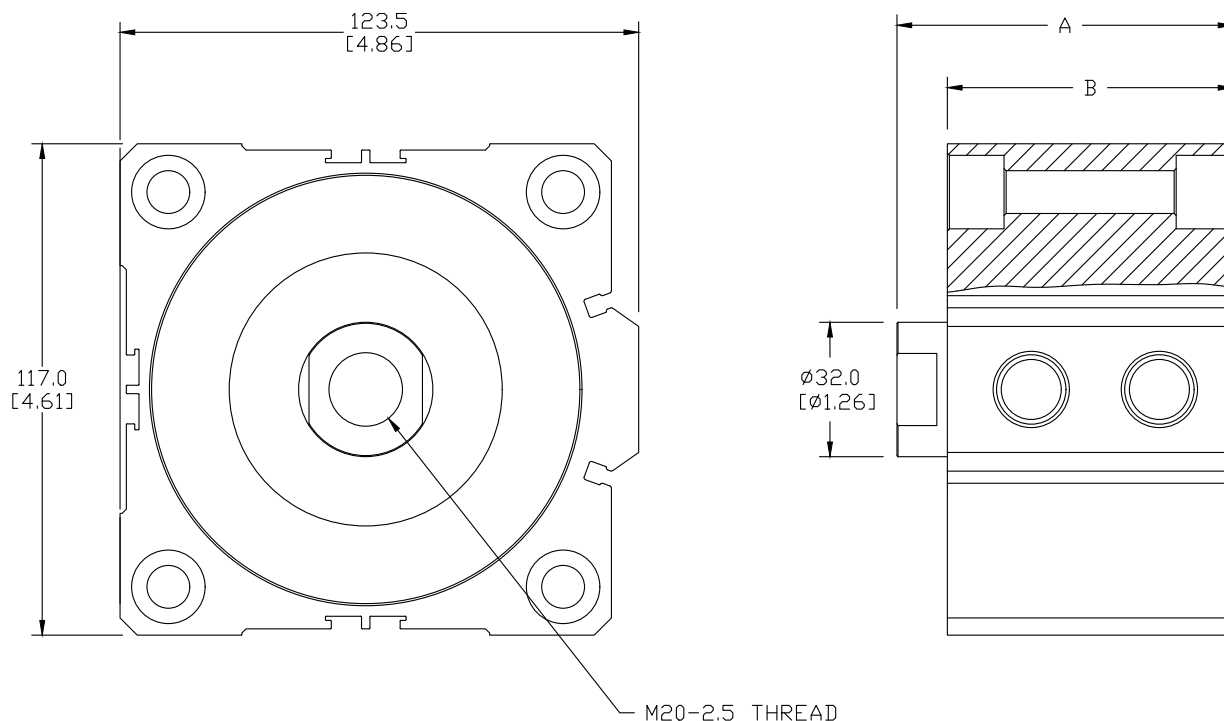
100mm Bore H-Series Cylinders - Double Acting w/ Magnet						
Part Number	Stroke Length (mm)	"A" (mm [in])	"B" (mm [in])	Port Size	Weight (lbs)	Price
<u>H100M005MD-M</u>	5	80.0 [3.15]	68.0 [2.68]	3/8-NPT	4.9	\$206.00
<u>H100M010MD-M</u>	10	85.0 [3.35]	73.0 [2.87]		4.9	\$226.00
<u>H100M015MD-M</u>	15	90.0 [3.54]	78.0 [3.07]		5.1	\$230.00
<u>H100M020MD-M</u>	20	95.0 [3.74]	83.0 [3.27]		5.4	\$232.00
<u>H100M025MD-M</u>	25	100.0 [3.94]	88.0 [3.46]		5.6	\$236.00
<u>H100M030MD-M</u>	30	105.0 [4.13]	93.0 [3.66]		5.8	\$238.00
<u>H100M040MD-M</u>	40	115.0 [4.53]	103.0 [4.06]		6.2	\$244.00
<u>H100M050MD-M</u>	50	125.0 [4.92]	113.0 [4.45]		7.5	\$250.00
<u>H100M075MD-M</u>	75	150.0 [5.91]	138.0 [5.43]		9.7	\$206.00
<u>H100M100MD-M</u>	100	175.0 [6.89]	163.0 [6.42]		11.9	\$279.00

Mounting Accessories	
Rod Clevis	<u>HRC-100M</u>
Rod Male Adapter	<u>HMA-100M</u>
Female Rear Clevis	<u>HFC-100M</u>

Note: For full details see Accessories at the end of the section.

Dimensions

mm [inches]



See our website www.AutomationDirect.com for complete Engineering drawings.



H-Series Pneumatic Cylinder Accessories

H-Series Pneumatic Cylinder Accessories				
Part Number	Description	Pcs/Pkg	Wt (lb)	Price
<u>HRC-12M</u>	NITRA cylinder rod clevis, plated steel, M5 x 0.8 thread. For use with 12 mm H-series cylinders. Male adapter and hex nut included.	1	0.1	\$14.00
<u>HRC-16M</u>	NITRA cylinder rod clevis, plated steel, M6 x 1.0 thread. For use with 16 mm H-series cylinders. Male adapter and hex nut included.	1	0.1	\$15.00
<u>HRC-20M</u>	NITRA cylinder rod clevis, plated steel, M8 x 1.25 thread. For use with 20 mm H-series cylinders. Male adapter and hex nut included.	1	0.1	\$15.50
<u>HRC-25M</u>	NITRA cylinder rod clevis, plated steel, M10 x 1.25 thread. For use with 25 mm H-series cylinders. Male adapter and hex nut included.	1	0.2	\$16.00
<u>HRC-32M</u>	NITRA cylinder rod clevis, cast iron, M14 x 1.5 thread. For use with 32 mm H-series cylinders. Male adapter and hex nut included.	1	0.3	\$19.50
<u>HRC-40M</u>	NITRA cylinder rod clevis, cast iron, M14 x 1.5 thread. For use with 40 mm H-series cylinders. Male adapter and hex nut included.	1	0.3	\$19.50
<u>HRC-50M</u>	NITRA cylinder rod clevis, cast iron, M18 x 1.5 thread. For use with 50 mm H-series cylinders. Male adapter and hex nut included.	1	0.6	\$25.00
<u>HRC-63M</u>	NITRA cylinder rod clevis, cast iron, M18 x 1.5 thread. For use with 63 mm H-series cylinders. Male adapter and hex nut included.	1	0.6	\$25.50
<u>HRC-80M</u>	NITRA cylinder rod clevis, cast iron, M22 x 1.5 thread. For use with 80 mm H-series cylinders. Male adapter and hex nut included.	1	1.5	\$32.50
<u>HRC-100M</u>	NITRA cylinder rod clevis, cast iron, M26 x 1.5 thread. For use with 100 mm H-series cylinders. Male adapter and hex nut included.	1	2.0	\$38.00
<u>HMA-12M</u>	NITRA cylinder male adapter, stainless steel, M5 x 0.8 thread. For use with 12 mm H-series cylinders. Hex nut included.	1	0.1	\$8.75
<u>HMA-16M</u>	NITRA cylinder male adapter, stainless steel, M6 x 1.0 thread. For use with 16 mm H-series cylinders. Hex nut included.	1	0.1	\$8.75
<u>HMA-20M</u>	NITRA cylinder male adapter, stainless steel, M8 x 1.25 thread. For use with 20 mm H-series cylinders. Hex nut included.	1	0.1	\$9.25
<u>HMA-25M</u>	NITRA cylinder male adapter, stainless steel, M10 x 1.25 thread. For use with 25 mm H-series cylinders. Hex nut included.	1	0.1	\$9.50
<u>HMA-32M</u>	NITRA cylinder male adapter, stainless steel, M14 x 1.5 thread. For use with 32 mm H-series cylinders. Hex nut included.	1	0.1	\$10.50
<u>HMA-40M</u>	NITRA cylinder male adapter, stainless steel, M14 x 1.5 thread. For use with 40 mm H-series cylinders. Hex nut included.	1	0.1	\$10.50
<u>HMA-50M</u>	NITRA cylinder male adapter, stainless steel, M18 x 1.5 thread. For use with 50 mm H-series cylinders. Hex nut included.	1	0.2	\$12.00
<u>HMA-63M</u>	NITRA cylinder male adapter, stainless steel, M18 x 1.5 thread. For use with 63 mm H-series cylinders. Hex nut included.	1	0.2	\$12.00
<u>HMA-80M</u>	NITRA cylinder male adapter, stainless steel, M22 x 1.5 thread. For use with 80 mm H-series cylinders. Hex nut included.	1	0.4	\$14.50
<u>HMA-100M</u>	NITRA cylinder male adapter, stainless steel, M26 x 1.5 thread. For use with 100 mm H-series cylinders. Hex nut included.	1	0.5	\$17.00
<u>HFC-12M</u>	NITRA cylinder rear clevis bracket, aluminum. For use with 12 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.1	\$14.00
<u>HFC-16M</u>	NITRA cylinder rear clevis bracket, aluminum. For use with 16 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.1	\$14.50
<u>HFC-20M</u>	NITRA cylinder rear clevis bracket, aluminum. For use with 20 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.2	\$16.00
<u>HFC-25M</u>	NITRA cylinder rear clevis bracket, aluminum. For use with 25 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.2	\$19.00
<u>HFC-32M</u>	NITRA cylinder rear clevis bracket, cast iron. For use with 32 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.4	\$22.50
<u>HFC-40M</u>	NITRA cylinder rear clevis bracket, cast iron. For use with 40 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.4	\$22.50
<u>HFC-50M</u>	NITRA cylinder rear clevis bracket, cast iron. For use with 50 mm H-series cylinders. Mounting hardware and pivot pin included.	1	0.8	\$31.00
<u>HFC-63M</u>	NITRA cylinder rear clevis bracket, cast iron. For use with 63 mm H-series cylinders. Mounting hardware and pivot pin included.	1	1.3	\$31.00
<u>HFC-80M</u>	NITRA cylinder rear clevis bracket, cast iron. For use with 80 mm H-series cylinders. Mounting hardware and pivot pin included.	1	2.3	\$41.50
<u>HFC-100M</u>	NITRA cylinder rear clevis bracket, cast iron. For use with 100 mm H-series cylinders. Mounting hardware and pivot pin included.	1	3.8	\$46.50



H-Series Pneumatic Cylinder Accessories

Rod Clevis



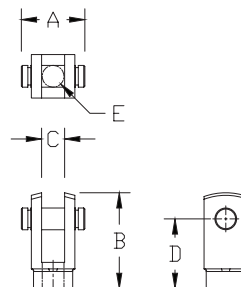
Part no. [HRC-20M](#)



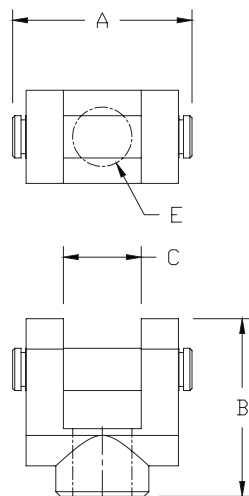
Part no. [HRC-32M](#)

Dimensions

mm [inches]



HRC-12M - HRC-25M



HRC-32M - HRC-100M



Note: Comes with Pivot Pin installed. Includes Rod Male Adapter (see below)

Rod Clevis Dimension Table					
Part #	A	B	C	D	E
HRC-12M	14.6 [0.57]	22.0 [0.87]	5.3 [0.21]	16.0 [0.63]	M5x0.8
HRC-16M	16.8 [0.66]	28.0 [1.10]	6.6 [0.26]	21.0 [0.83]	M6x1.0
HRC-20M	21.0 [0.83]	34.0 [1.34]	8.3 [0.33]	25.0 [0.98]	M8x1.25
HRC-25M	26.4 [1.04]	41.0 [1.61]	10.3 [0.41]	30.0 [1.18]	M10x1.5
HRC-32M	42.4 [1.67]	42.0 [1.65]	18.4 [0.72]	30.0 [1.18]	M14x1.5
HRC-40M	42.4 [1.67]	42.0 [1.65]	18.4 [0.72]	30.0 [1.18]	M14x1.5
HRC-50M	50.4 [1.98]	56.0 [2.20]	22.4 [0.88]	40.0 [1.57]	M18x1.5
HRC-63M	50.4 [1.98]	56.0 [2.20]	22.4 [0.88]	40.0 [1.57]	M18x1.5
HRC-80M	63.6 [2.50]	71.0 [2.80]	28.4 [1.12]	50.0 [1.97]	M22x1.5
HRC-100M	72.6 [2.86]	79.0 [3.11]	32.4 [1.28]	55.0 [2.17]	M26x1.5

Rod Male Adapter

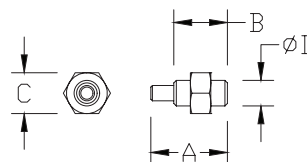


Part no. [HMA-32M](#)

Rod Male Adapter Dimension Table				
Part #	A	B	C	D
HMA-12M	15.0 [0.59]	10.5 [0.41]	8.0 [0.31]	M5x0.8
HMA-16M	18.0 [0.71]	12.0 [0.47]	10.0 [0.39]	M6x1.0
HMA-20M	19.5 [0.77]	14.0 [0.55]	12.0 [0.47]	M8x1.25
HMA-25M	26.5 [1.04]	17.5 [0.69]	17.0 [0.67]	M10x1.25
HMA-32M	31.5 [1.24]	21.5 [0.85]	19.0 [0.75]	M14x1.5
HMA-40M	31.5 [1.24]	21.5 [0.85]	19.0 [0.75]	M14x1.5
HMA-50M	36.5 [1.44]	25.5 [1.00]	27.0 [1.06]	M18x1.5
HMA-63M	36.5 [1.44]	25.5 [1.00]	27.0 [1.06]	M18x1.5
HMA-80M	49.5 [1.95]	33.5 [1.32]	32.0 [1.26]	M22x1.5
HMA-100M	51.5 [2.03]	31.5 [1.24]	36.0 [1.42]	M26x1.5

Dimensions

mm [inches]



HMA-12M - HMA-100M

See our website www.AutomationDirect.com for complete Engineering drawings.



H-Series Pneumatic Cylinder Accessories

Female Rear Clevis



Part no. [HFC-20M](#)

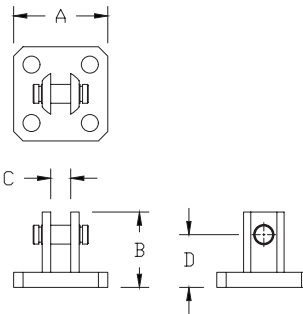


Part no. [HFC-32M](#)



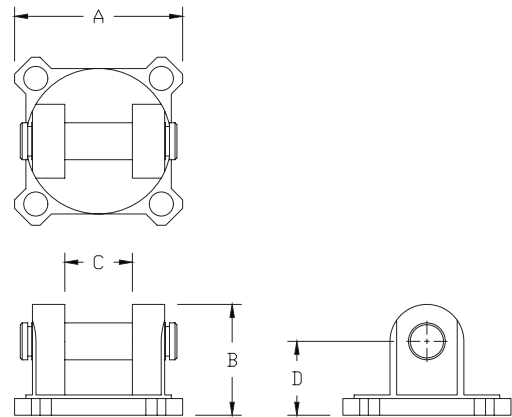
comes with Pivot Pin installed. Mounting Included.

Dimensions mm [inches]



HFC-12M - HFC-25M

Female Rear Clevis Dimension Table				
Part #	A	B	C	D
HFC-12M	25.0 [0.98]	20.0 [0.79]	5.3 [0.21]	14.0 [0.55]
HFC-16M	29.0 [1.14]	21.0 [0.83]	6.8 [0.27]	15.0 [0.59]
HFC-20M	36.0 [1.42]	27.0 [1.06]	8.3 [0.33]	18.0 [0.71]
HFC-25M	40.0 [1.57]	30.0 [1.18]	10.3 [0.41]	20.0 [0.79]
HFC-32M	45.5 [1.79]	30.0 [1.18]	18.3 [0.72]	20.0 [0.79]
HFC-40M	53.5 [2.11]	32.0 [1.26]	18.3 [0.72]	22.0 [0.87]
HFC-50M	64.5 [2.54]	42.0 [1.65]	22.3 [0.88]	28.0 [1.10]
HFC-63M	77.5 [3.05]	44.0 [1.73]	22.3 [0.88]	30.0 [1.18]
HFC-80M	98.5 [3.88]	56.0 [2.20]	28.3 [1.11]	38.0 [1.50]
HFC-100M	117.5 [4.63]	67.0 [2.64]	32.3 [1.27]	45.0 [1.77]



HFC-32M - HFC-100M

See our website www.AutomationDirect.com for complete Engineering drawings.



L-Series Rodless Pneumatic Cylinders

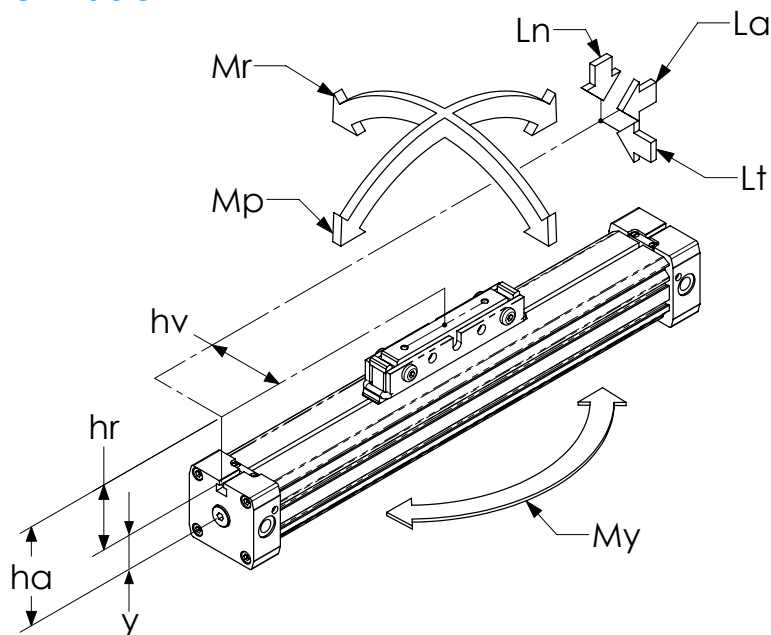
NITRA L-Series Rodless Cylinders offer a robust design in a compact package. Rodless cylinders can offer the same stroke as rodless cylinders in a smaller space. All sizes have magnetic pistons and are double acting. Mounting brackets and cylinder position switches are sold separately.



Features

- Rodless cylinder design
- Double acting with magnetic piston
- Front and rear adjustable cushions
- Tapped end caps mount
- 16mm to 40mm bore sizes available
- 100mm to 1000mm stroke lengths available
- Operating pressure: 1 to 8 bar (14.5 to 116 psi)
- Temperature range: -10 to +80°C (14 to 176°F)
- 2-year warranty

Torque Information



NITRA L-Series Rodless Pneumatic Cylinder Force and Torque Information							
Bore	Center Distance Y	Actual Force F at 6 bar [N]	Cushioning Stroke [mm]	Max. Load Ln [N]	Mp Max [Nm]	Mr Max [Nm]	My Max [Nm]
16	9	110	15	120	4	0.3	0.5
25	14	250	21	300	15	1	3
32	18	420	26	450	30	2	4
40	22	640	32	750	60	4	8

Note: When the cylinder is subjected simultaneously to torque and force, use the following equations, where the lengths have to be given in meters.

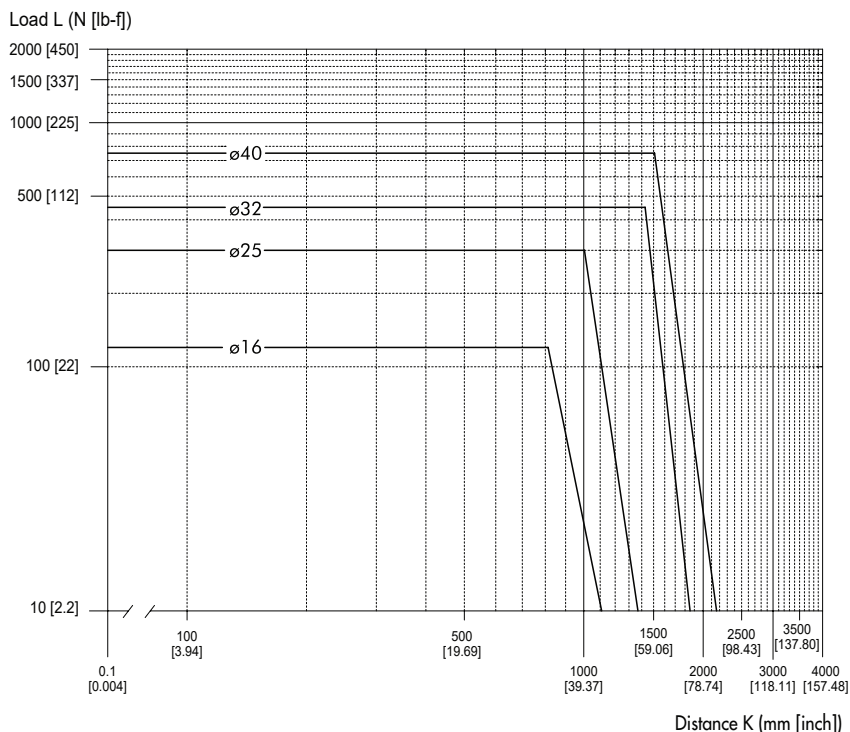
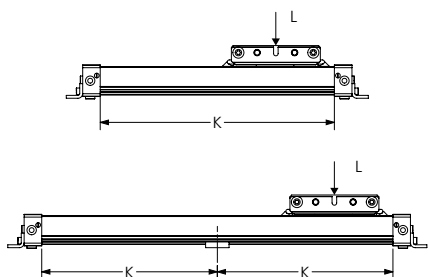
$$M_p = F \times h_a \quad M_r = L \times h_v + L_t \times h_r \quad M_y = F \times h_v$$

$$\frac{M_y}{M_{y \max}} \leq 1; \quad \frac{L_n}{L_{n \max}} \leq 1; \quad \frac{M_p}{M_{p \max}} + \frac{M_r}{M_{r \max}} + 0.22 \times \frac{M_y}{M_{y \max}} + 0.4 \frac{L_n}{L_{n \max}} \leq 1$$



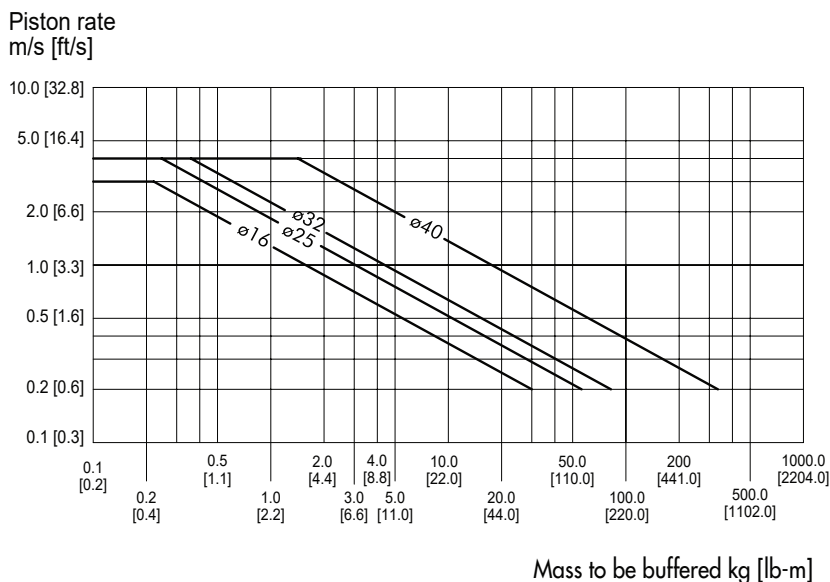
L-Series Rodless Pneumatic Cylinders

Load Information



Speed and Maximum Cushionable Load

For the cylinder to reach the end-of-stroke position without intense or repeated impact which would damage it, it is necessary to annul the kinetic energy of the moving mass and the work generated. The maximum cushionable load depends on the traversing speed and the absorption of the air buffer supplied standard with the various cylinders. The diagram shows the speeds and cushionable mass for the various diameters at a pressure of 6 bar (87psi).





L-Series Rodless Pneumatic Cylinders

NITRA L-Series Rodless Pneumatic Cylinder Selection				
Part No.	Bore (mm)	Stroke (mm)	Weight (lbs)	Price
<u>L16M0100MD-MC</u>	16	100	1.84	\$239.00
<u>L16M0200MD-MC</u>		200	1.88	\$251.00
<u>L16M0300MD-MC</u>		300	2.68	\$256.00
<u>L16M0400MD-MC</u>		400	2.69	\$262.00
<u>L16M0500MD-MC</u>		500	2.71	\$267.00
<u>L16M0600MD-MC</u>		600	4.08	\$277.00
<u>L16M0800MD-MC</u>		800	4.11	\$285.00
<u>L25M0200MD-MC</u>		25	200	4.46
<u>L25M0300MD-MC</u>	300		4.64	\$303.00
<u>L25M0400MD-MC</u>	400		5.33	\$315.00
<u>L25M0500MD-MC</u>	500		6.2	\$322.00
<u>L25M0600MD-MC</u>	600		6.37	\$333.00
<u>L25M0800MD-MC</u>	800		7.42	\$341.00
<u>L25M1000MD-MC</u>	1000		8.45	\$349.00
<u>L32M0200MD-MC</u>	32		200	7.24
<u>L32M0300MD-MC</u>		300	7.74	\$360.00
<u>L32M0400MD-MC</u>		400	8.14	\$372.00
<u>L32M0500MD-MC</u>		500	9.96	\$395.00
<u>L32M0600MD-MC</u>		600	10.44	\$401.00
<u>L32M0800MD-MC</u>		800	12.16	\$416.00
<u>L32M1000MD-MC</u>		1000	13.56	\$425.00
<u>L40M0200MD-MC</u>		40	200	10.19
<u>L40M0300MD-MC</u>	300		10.75	\$402.00
<u>L40M0400MD-MC</u>	400		12.01	\$413.00
<u>L40M0500MD-MC</u>	500		14.36	\$438.00
<u>L40M0600MD-MC</u>	600		14.94	\$445.00
<u>L40M0800MD-MC</u>	800		17.44	\$480.00
<u>L40M1000MD-MC</u>	1000		19.44	\$513.00

Click on the thumbnail or go to <https://www.automationdirect.com/VID-PN-0045> for a short video on NITRA Rodless Cylinders.

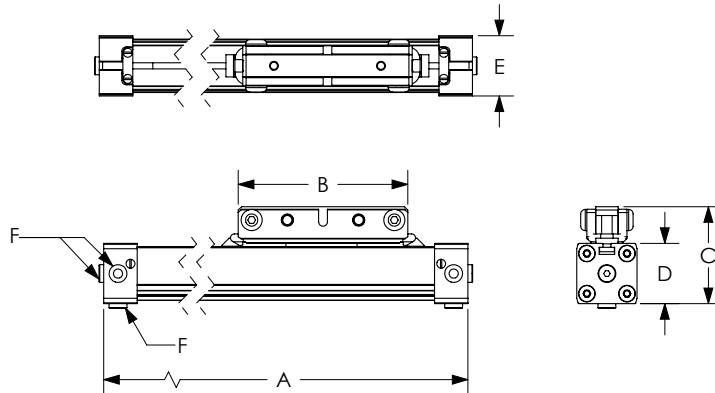




L-Series Rodless Pneumatic Cylinders

Dimensions

inches [mm]



L-Series Rodless Pneumatic Cylinder Dimensions											
Model	A		B		C		D		E		F G (BSPP)
	mm	[inches]	mm	[inches]	mm	[inches]	mm	[inches]	mm	[inches]	
L16M0100MD-MC	230.0	9.06	76.0	2.99	43.5	1.71	27.0	1.06	27.0	1.06	M5
L16M0200MD-MC	330.0	12.99	76.0	2.99	43.5	1.71	27.0	1.06	27.0	1.06	M5
L16M0300MD-MC	430.0	16.93	76.0	2.99	43.5	1.71	27.0	1.06	27.0	1.06	M5
L16M0400MD-MC	530.0	20.87	76.0	2.99	43.5	1.71	27.0	1.06	27.0	1.06	M5
L16M0500MD-MC	630.0	24.80	76.0	2.99	43.5	1.71	27.0	1.06	27.0	1.06	M5
L16M0600MD-MC	730.0	28.74	76.0	2.99	43.5	1.71	27.0	1.06	27.0	1.06	M5
L16M0800MD-MC	930.0	36.61	76.0	2.99	43.5	1.71	27.0	1.06	27.0	1.06	M5
L25M0200MD-MC	400.0	15.75	120.0	4.72	66.0	2.60	40.0	1.57	40.0	1.57	1/8
L25M0300MD-MC	500.0	19.69	120.0	4.72	66.0	2.60	40.0	1.57	40.0	1.57	1/8
L25M0400MD-MC	600.0	23.62	120.0	4.72	66.0	2.60	40.0	1.57	40.0	1.57	1/8
L25M0500MD-MC	700.0	27.56	120.0	4.72	66.0	2.60	40.0	1.57	40.0	1.57	1/8
L25M0600MD-MC	800.0	31.50	120.0	4.72	66.0	2.60	40.0	1.57	40.0	1.57	1/8
L25M0800MD-MC	1000.0	39.37	120.0	4.72	66.0	2.60	40.0	1.57	40.0	1.57	1/8
L25M1000MD-MC	1200.0	47.24	120.0	4.72	66.0	2.60	40.0	1.57	40.0	1.57	1/8
L32M0200MD-MC	450.0	17.72	150.0	5.91	86.0	3.39	56.0	2.20	42.0	1.65	1/4
L32M0300MD-MC	550.0	21.65	150.0	5.91	86.0	3.39	56.0	2.20	42.0	1.65	1/4
L32M0400MD-MC	650.0	25.59	150.0	5.91	86.0	3.39	56.0	2.20	42.0	1.65	1/4
L32M0500MD-MC	750.0	29.53	150.0	5.91	86.0	3.39	56.0	2.20	42.0	1.65	1/4
L32M0600MD-MC	850.0	33.46	150.0	5.91	86.0	3.39	56.0	2.20	42.0	1.65	1/4
L32M0800MD-MC	1050.0	41.34	150.0	5.91	86.0	3.39	56.0	2.20	42.0	1.65	1/4
L32M1000MD-MC	1250.0	49.21	150.0	5.91	86.0	3.39	56.0	2.20	42.0	1.65	1/4
L40M0200MD-MC	500.0	19.69	150.0	5.91	97.0	3.82	69.0	2.72	72.0	2.83	1/4
L40M0300MD-MC	600.0	23.62	150.0	5.91	97.0	3.82	69.0	2.72	72.0	2.83	1/4
L40M0400MD-MC	700.0	27.56	150.0	5.91	97.0	3.82	69.0	2.72	72.0	2.83	1/4
L40M0500MD-MC	800.0	31.50	150.0	5.91	97.0	3.82	69.0	2.72	72.0	2.83	1/4
L40M0600MD-MC	900.0	35.43	150.0	5.91	97.0	3.82	69.0	2.72	72.0	2.83	1/4
L40M0800MD-MC	1100.0	43.31	150.0	5.91	97.0	3.82	69.0	2.72	72.0	2.83	1/4
L40M1000MD-MC	1300.0	51.18	150.0	5.91	97.0	3.82	69.0	2.72	72.0	2.83	1/4

See our website www.AutomationDirect.com for complete Engineering drawings



L-Series Rodless Pneumatic Cylinder Accessories

NITRA L-Series accessories include end mounting brackets and center support brackets for longer cylinders. Refer to load chart in this section to determine if a center support is required. Sensor clamp brackets are required for 16mm and 25mm bore cylinders.

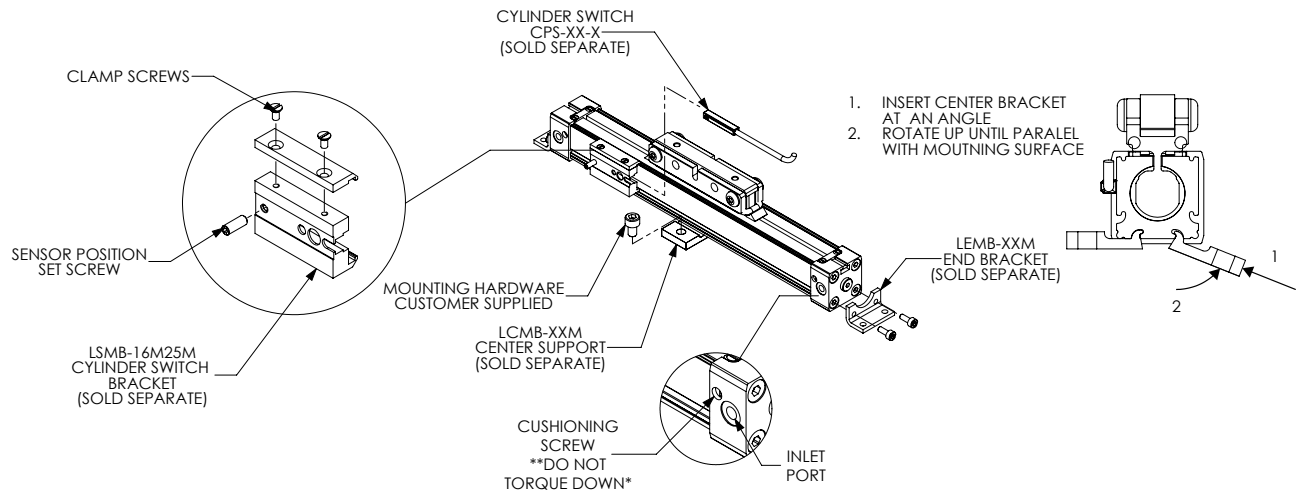
NITRA L-Series Rodless Pneumatic Cylinder Accessories				
<i>Item</i>	<i>Part No.</i>	<i>Description</i>	<i>Weight (lbs)</i>	<i>Price</i>
	<u>LEMB-16M</u>	NITRA mounting bracket, end, stainless steel. For use with L16M series rodless cylinders. Mounting screws included.	0.03	\$5.50
	<u>LEMB-25M</u>	NITRA mounting bracket, end, stainless steel. For use with L25M series rodless cylinders. Mounting screws included.	0.07	\$6.00
	<u>LEMB-32M</u>	NITRA mounting bracket, end, aluminum. For use with L32M series rodless cylinders. Mounting screws included.	0.2	\$21.50
	<u>LEMB-40M</u>	NITRA mounting bracket, end, aluminum. For use with L40M series rodless cylinders. Mounting screws included.	0.25	\$29.50
	<u>LCMB-16M</u>	NITRA mounting bracket, center, aluminum. For use with L16M series rodless cylinders.	0.02	\$12.50
	<u>LCMB-25M</u>	NITRA mounting bracket, center, aluminum. For use with L25M series rodless cylinders.	0.02	\$14.00
	<u>LCMB-32M</u>	NITRA mounting bracket, center, aluminum. For use with L32M series rodless cylinders. Mounting screws included.	0.16	\$29.00
	<u>LCMB-40M</u>	NITRA mounting bracket, center, aluminum. For use with L40M series rodless cylinders. Mounting screws included.	0.23	\$30.00
	<u>LSMB-16M25M</u>	NITRA mounting bracket, switch, aluminum. For use with L16M and L25M series rodless cylinders. Mounting screws included.	0.03	\$12.00

See our website www.AutomationDirect.com for complete Engineering drawings



L-Series Rodless Pneumatic Cylinder Accessories

Mounting guidelines for 16mm and 25mm bore cylinders



Mounting guidelines for 32mm and 40mm bore cylinders

