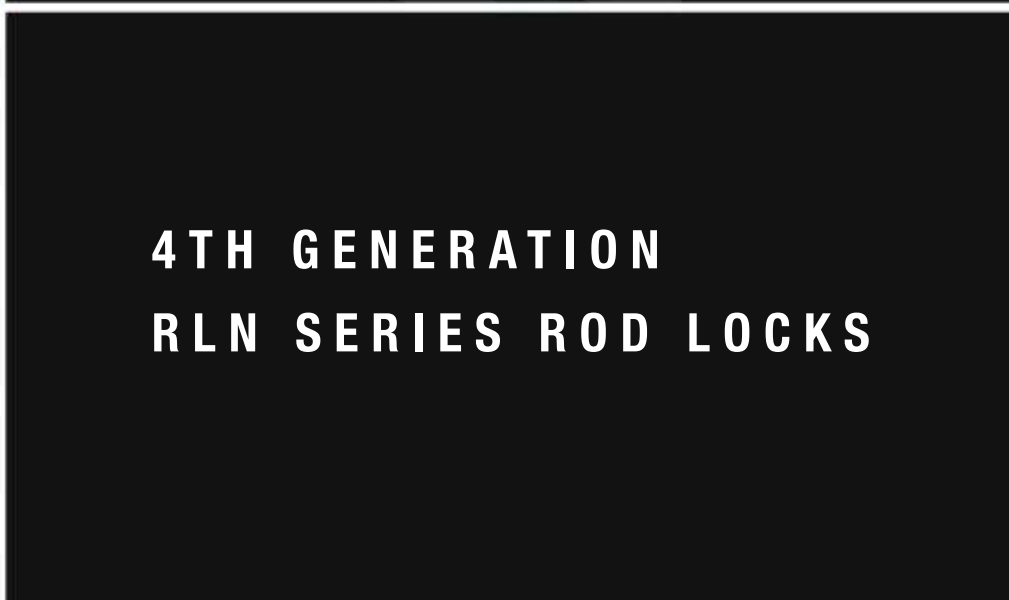
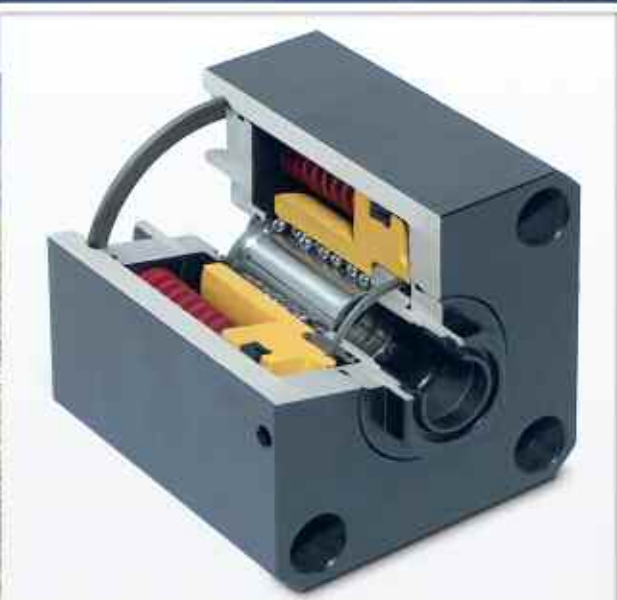
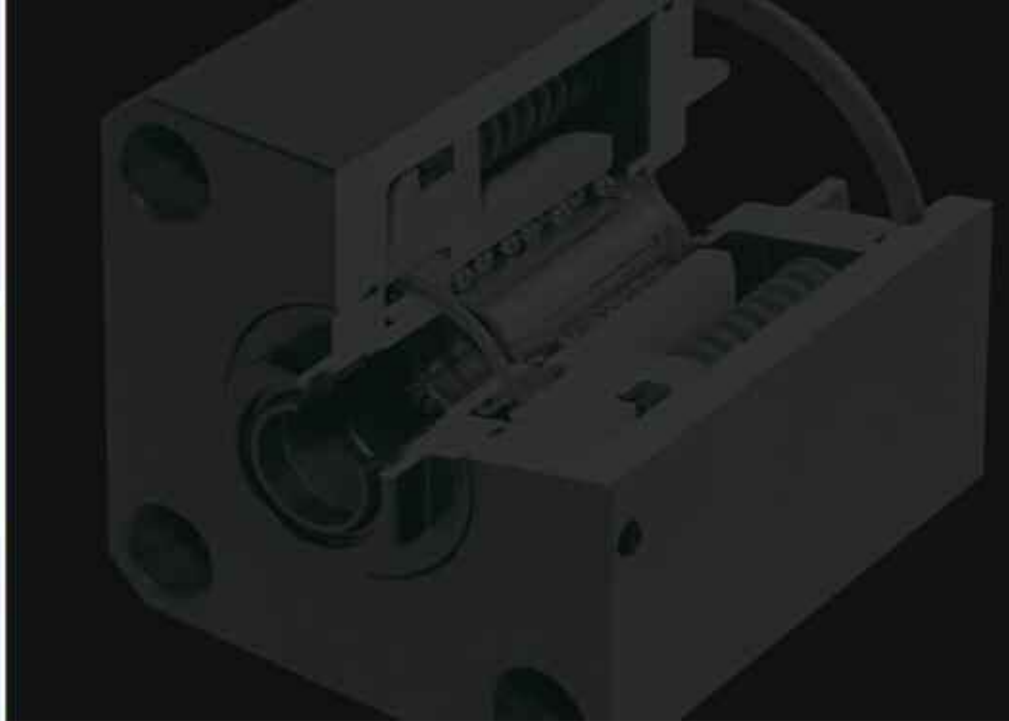




4TH GENERATION
RLN SERIES ROD LOCKS



ADVANCED
MACHINE & ENGINEERING CO.

Features and Benefits

This new 4th generation NFPA - Style AMLOK® Pneumatic Series RLN Rod Clamp has been developed as a solution to control problems inherent to pneumatics—over travel, drifting, bouncing and reverse traveling. The AMLOK® Power-Off Rod Clamp can be mounted to the NFPA cylinder of your choice, or as a stand alone unit to be used with no cylinder at all.

The AMLOK® has been designed with oversized components to withstand the most severe applications. For example, the contact area of the clamping collet is considerably greater than on similar units. The increased contact area reduces the pressure-per-square-inch on the rod, thereby extending service life.

The patented AMLOK® Type RLN consists of a anodized aluminum housing with a special piston and wedge locking mechanism actuated by a spring that mechanically locks the rod. This mechanically-operated intensifying mechanism increases the force created by the spring several times to guarantee quick and secure locking. The clamp is unlocked when air actuates the piston, which compresses the spring and releases the locking device.

Since the locking of the AMLOK® is accomplished mechanically by a spring and unlocked by air pressure, loss of air pressure will cause the unit to lock.

When attached to cylinders, longer cylinder rods must be specified to allow for the length of the AMLOK®. See “L+V” dimension in the chart.

If a hollow rod must be clamped, contact Advanced Machine for guidelines.

Recommended rod tolerances are cited on page 5. For maximum life, the rod should be hard chrome or surface-hardened with surface finish of about 32 micro inches. Avoid nicks and burrs which could damage the wiper and bearings.

The contact surfaces and bores to which the AMLOK® is clamped must be square and concentric to each other within .002" T.I.R. to avoid

The patented intensifier is a mechanical design, assuring a long service life. Since the clamping is accomplished through spring force, drifting caused by a lack of air pressure is not possible.

For hydraulic applications, please refer to our Type RCH AMLOK® catalog.

Warranty: AMLOK® RLN units are warranted for a period of one (1) year from date of shipment, to be free from defects of materials and workmanship, provided said items are properly applied.

The holding force depends upon the rod and piston diameter. The available holding forces can be multiplied by adding additional AMLOK® clamps to the same rod.

AMLOKS® are designed for locking reciprocating motions only. To lock rotary motions, contact the factory.

NOTE:

If these units are to be used as safety or braking devices, please consult the factory.

binding of the rod or excess wear. The rod must fully engage the clamping device at all times.

NOTE: AMLOK® Rod Clamps can be an integral part of your housing. We can provide mating components for your special applications. When side loads are acting on the cylinder rod, make sure that the rod is guided sufficiently in bearings to avoid excessive side loads on the locking mechanism. This is especially important at higher cylinder rod speeds.

For special mountings or higher holding forces, please consult the factory.

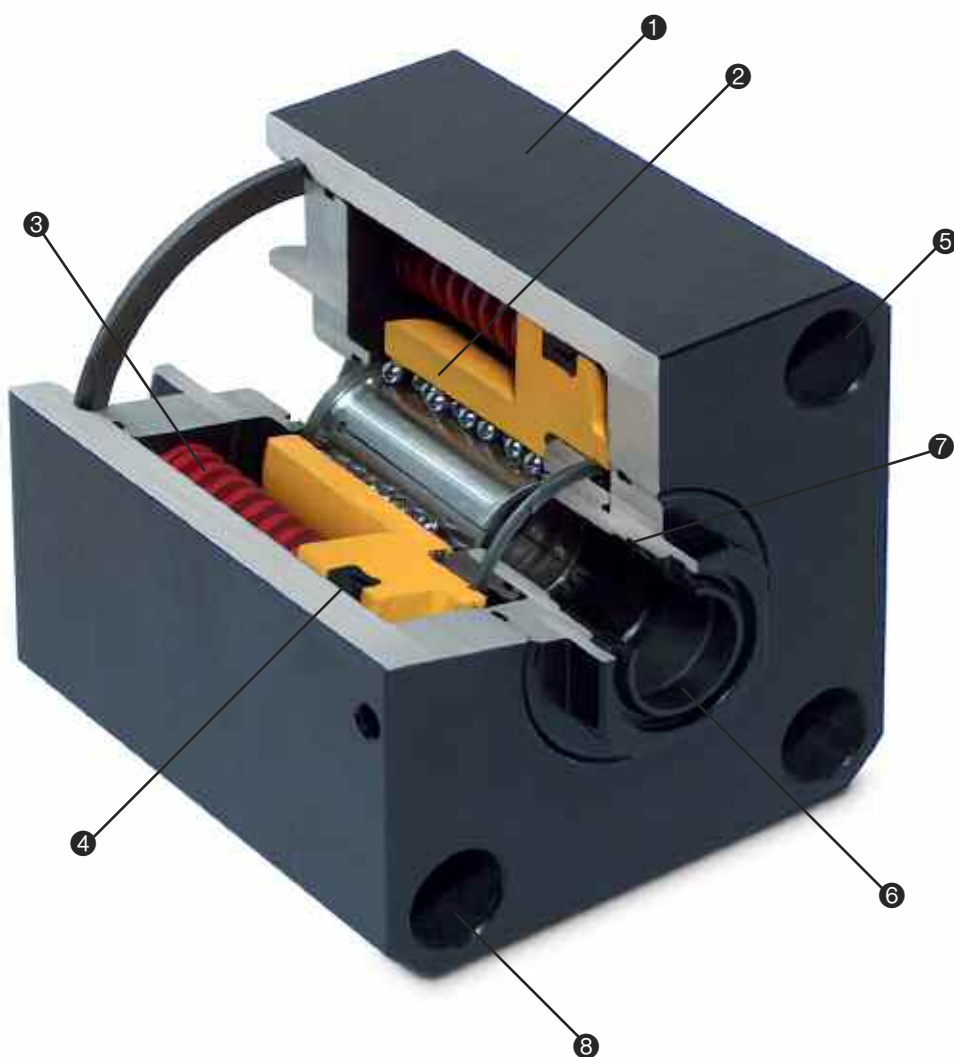
NEW Compact Design for Longer Life

Features

No Rod Displacement on Engagement
Large Clamping Surface
Fast Response Time
Extremely Low Backlash
Spring Engaged Units
Profile Matches NFPA Cylinder
4 bar (60 psi) release pressure

Benefits

Precision Holding (0.002-0.003)
Consistent Clamping Force
High Cycle Rates and accuracy
Holds Load During Power/Pressure Loss
Compact Unit, Easy Integration
Broad Applications



1 BODY

Solid aluminum precision machined for accurate alignment. Black anodized for appearance and corrosion resistance.

2 LOCKING MECHANISM

Oversized, hardened and ground locking with antifriction amplification.

3 COIL SPRINGS

Heavy duty springs designed for long life.

4 LIP-TYPE PISTON SEALS

Pressure activated lip seal is wear compensated for effective sealing at rated pressures. The seal is internally lubricated, reducing friction and extending life.

5 SLEEVE NUT DESIGN

Provides for direct mounting or allows attaching of a choice of NFPA detachable mounts.

6 ROD WIPER

The wiper is designed to wipe off abrasive dust and contamination on the retract stroke to ensure long life for the seals, bearing and piston rod. The standard wiper is carboxylated nitrile and is internally lubricated to reduce friction and extend life.

7 ROD BEARING

The phenolic bearing provides maximum piston rod support, reduces friction and resists wear abrasion (galling and seizing). Factory preset for minimum backlash.

8 TIE RODS - (if applicable)

Alloy steel, pre-stressed for maximum fatigue strength. Roll threaded for added strength on 1 1/2" - 6" bores.

Rod Lock Options:

Stainless Housing
Electroless Nickel Plated Housing
Viton Seals
Wiper Scraper
Sealed Unit

Applications



The new AMLOK® RLN Series Rod Lock design is sealed and suitable for food and washdown applications. Other common applications include:

Machine Tool Applications
Pneumatic and Hydraulic Presses
Scissor-lift Tables
Test and Positioning Equipment
Amusement Ride Equipment
Printing and Paper Handling Equipment
Theatrical Equipment (Platforms)
Assembly and Test Equipment

Standard Specifications

- NFPA Mounting Styles
- Tie Rod Design - One Piece Solid Body
- Maximum Operating Pressure - 160 PSI Air
Required Release Pressure - 60 PSI Air
Operating Media - Filtered Compressed Air
- Operating Temperature
 - Standard 10° F to + 180° F
 - Optional 10° F to + 250° F
- Holding Force - Axial holding forces were established after 2,000,000 fatigue test cycles
- Minimum linear movement may occur after clamp is fully engaged (.002-.003)

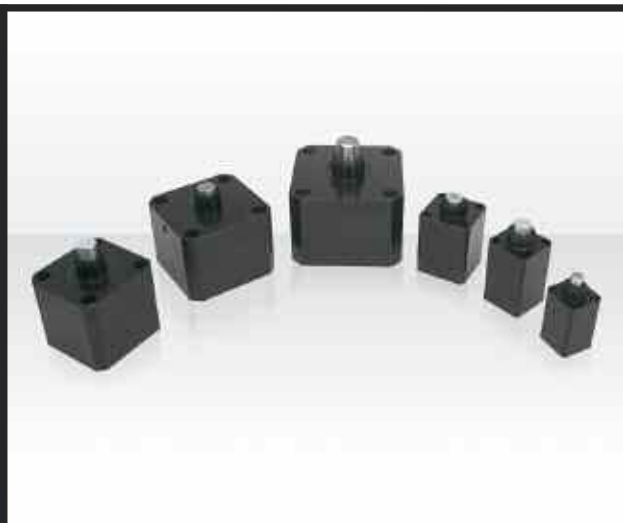


AMLOK® RLN attached to NFPA cylinder with CMF1 mounting flange and custom pressure check valve.

Applications

Rod Lock Operation Specifics

- Holds with consistent force in both directions
 - Can be mounted in any position
 - Release pressure can range from 4-8 bar (60 psi min. - 120 psi max.)
 - The Buna-N seals are rated to 100°C (212°F)
 - Operating temperature range from 0.5°C-66°C (33°F-150°F). Units are capable of intermittent use at temperatures up to 100°C (212°F)
- Consult factory for extreme applications.



Requirements for Optimal Performance

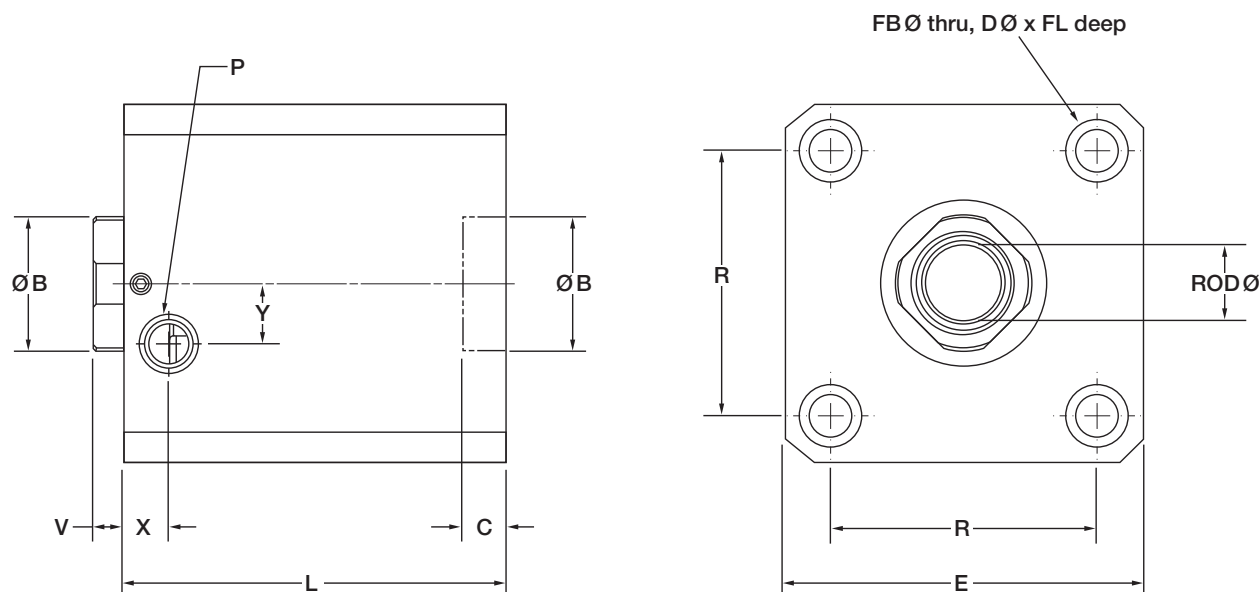
AMLOK® RLN Series rodlocks must be used in an application that meets the following specifications:

- Suitable for infrequent dynamic braking (emergency stops) when used with hardened shaft material and proper cylinder and motion control circuits. Repeated dynamic stops may cause rod wear, reduce holding forces and reduce life.
- Requires dry, clean, pressure regulated air
- Does not require lubrication
- Rated holding force corresponds to static load conditions. Slipping may occur if rated value is exceeded.
- Rod must be clean and dry to maintain optimum holding force.
- Cylinder pilot must mate properly with rod lock seal for food service washdown rating.
- Rod material requirements:
 - Standard NFPA cylinder rod
 - Hard chrome plate recommended
 - Rod diameter + 0.00/-0.003"

WARNING: If personal safety is required, contact AME for recommendations.

NOTE: For direct replacement of RCN style rod lock, please consult factory.

AMLOK® RLN MXO and SN Basic Technical Data



AMLOK ROD CLAMP TECHNICAL DATA

AMLOK Type- RLN	Rod Dia. [in]	Bore Dia. [in]	Axial Holding Force [lbf]	B [in]	C [in]	D [in]	FL [in]	E [in]	FB [in]	L [in]	P [in]	R [in]	V [in]	X [in]	Y [in]	Weight [lb]
RLN-063150	0.625	1.500	200	1.125	0.375	0.422	0.896	1.98	0.281	3.05	1/8 NPT	1.430	0.63	0.60	0.25	3.0
RLN-063200	0.625	2.000	400	1.125	0.375	0.515	1.031	2.48	0.343	3.06	1/8 NPT	1.840	0.63	0.50	0.38	4.0
RLN-063250	0.625	2.500	650	1.125	0.375	0.515	1.031	2.98	0.343	3.18	1/8 NPT	2.190	0.63	0.50	0.50	5.0
RLN-100200	1.000	2.000	300	1.500	0.563	0.515	1.031	2.48	0.343	3.75	1/8 NPT	1.840	0.63	0.31	0.38	3.5
RLN-100250	1.000	2.500	450	1.500	0.563	0.515	1.031	2.98	0.343	3.65	1/8 NPT	2.190	0.63	0.38	0.50	5.0
RLN-100325	1.000	3.250	950	1.500	0.563	0.719	1.281	3.725	0.406	4.00	1/4 NPT	2.760	0.89	0.56	0.00	8.0
RLN-100400	1.000	4.000	1550	1.500	0.563	0.719	1.281	4.48	0.406	4.00	1/4 NPT	3.320	0.89	0.56	0.00	13.5
RLN-100500	1.000	5.000	2150	1.500	0.563	0.844	1.500	5.48	0.531	4.00	1/4 NPT	4.100	0.89	0.56	0.00	17.5
RLN-138325	1.375	3.250	950	2.000	0.625	0.719	1.281	3.725	0.406	4.00	1/4 NPT	2.760	0.89	0.56	0.00	8.1
RLN-138400	1.375	4.000	1550	2.000	0.625	0.719	1.281	4.48	0.406	4.00	1/4 NPT	3.320	0.89	0.56	0.00	12.0
RLN-138500	1.375	5.000	1950	2.000	0.625	0.844	1.500	5.48	0.531	4.00	1/4 NPT	4.100	0.89	0.56	0.00	18.0
RLN-138600	1.375	6.000	2650	2.000	0.625	0.844	1.500	6.48	0.531	4.50	1/4 NPT	4.880	1.00	0.56	0.00	24.5
RLN-175600	1.750	6.000	2450	2.375	0.750	0.844	1.500	6.48	0.531	4.50	1/4 NPT	4.880	1.00	0.56	0.00	22.5

AMLOK ROD CLAMP PART NUMBERING SYSTEM

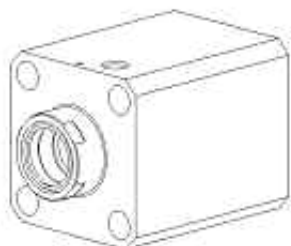
RLN XXX XXX X XXX X XX						
AMLOK Series	Rod Size: X.XX (inches)	Equivalent Cylinder Bore Size: X.XX (inches)	Type: C = Cylinder Mount S = Stand Alone * Blank = no hardware	Mounting Style (See pages 4-10)	Seal Material: Blank = Standard Nitrile V = Viton (optional)	Surface Coatings: Blank = Standard Black Anodized EN = Electroless Nickel (optional) SS = Stainless Steel (optional)

* Stand-alone unit contains wipers and rod bearings on each end.

NOTE: For direct replacement of RCN style rod lock, please consult factory.

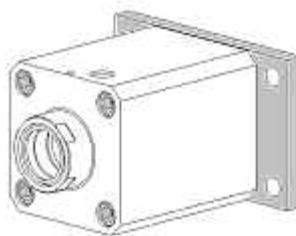
RLN NFPA Mounting Overview

MXO / SN : No Mount



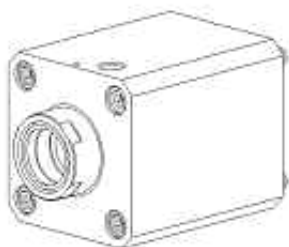
Rod lock housing contains 4 through holes.

CMF2 : Cylinder Mount



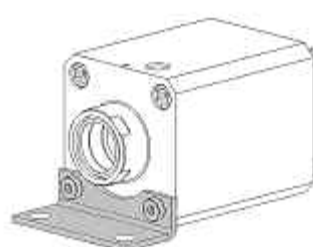
Assembly contains:
 1 Rod Lock
 1 Rear Flange
 4 Sleeve Nuts
 4 Tie Rods

CMXO : Cylinder Mount



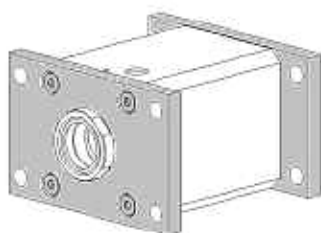
Kit contains:
 1 Rod Lock
 4 Sleeve Nuts
 4 Tie Rods

CMS1 : Cylinder Mount



Kit contains:
 1 Rod Lock
 1 Angle Bracket
 4 Sleeve Nuts
 4 Tie Rods
 4 SHCS

SA : Stand Alone / CA : Cylinder Mount



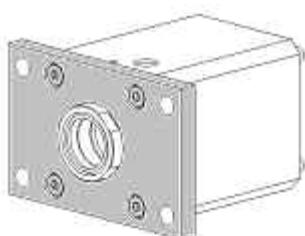
Assembly contains:
 1 Rod Lock
 1 Front Flange
 1 Rear Flange
 4 Sleeve Nuts
 4 Tie Rods
 4 SHCS

SMS1 : Stand Alone



Assembly contains:
 1 Rod Lock
 2 Angle Brackets
 2 Sleeve Nuts
 2 Tie Rods
 2 SHCS
 2 Hex Nuts

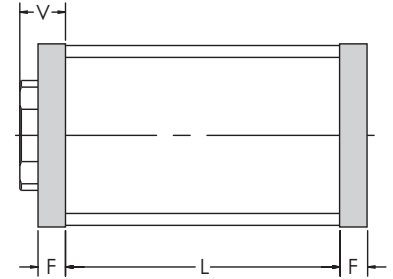
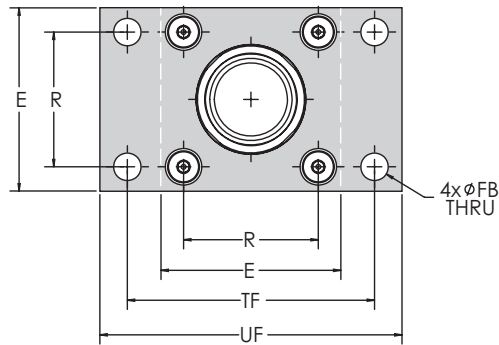
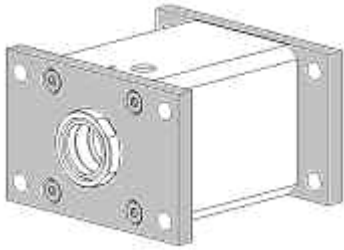
SMF1 : Stand Alone / CMF1 : Cylinder Mount



SMF1 Assembly contains:
 1 Rod Lock
 1 Front Flange
 4 Sleeve Nuts
 4 Tie Rods
 4 SHCS
 4 Hex Nuts

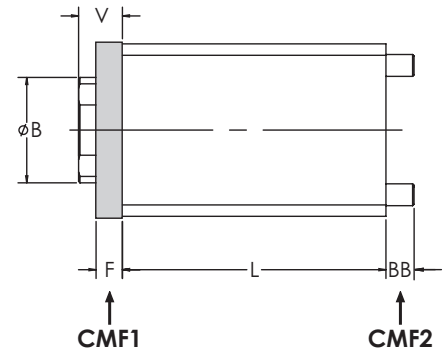
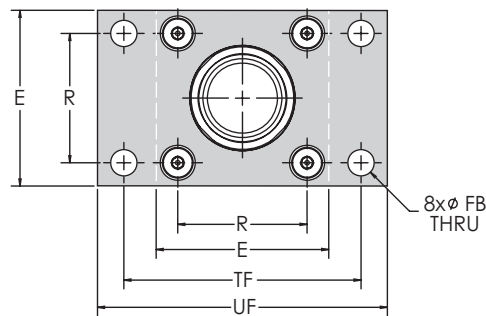
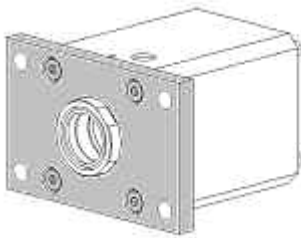
CMF1 Kit contains:
 1 Rod Lock
 1 Front Flange
 4 Sleeve Nuts
 4 Tie Rods
 4 SHCS
 4 Hex Nuts

Mounting Dimensions CA - Cylinder Mount



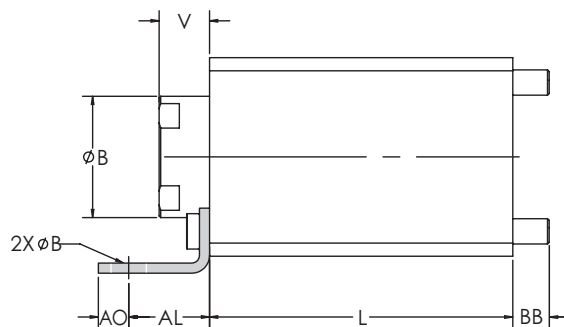
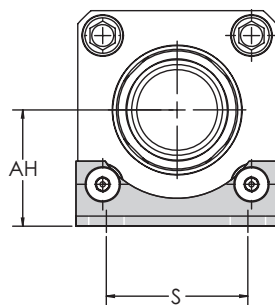
RLN - XXX XXX CA X XX	AMLOK Type - RLN	Rod Dia. [in]	Bore Dia. [in]	L [in]	E [in]	UF [in]	F [in]	FB Dia. [in]	TF [in]	R [in]	V [in]	Weight [lb]
CYLINDER MOUNT	RLN-063150	0.625	1.500	3.050	1.980	3.375	0.375	0.312	2.750	1.430	0.63	2.53
Front Flange Mount (NFA Style MF1)	RLN-063200	0.625	2.000	3.060	2.480	4.125	0.375	0.375	3.375	1.840	0.63	4.43
Rear Flange Mount (NFA Style MF2)	RLN-063250	0.625	2.500	3.180	2.980	4.625	0.375	0.375	3.875	2.190	0.63	5.96
Ships assembled	RLN-100200	1.000	2.000	3.750	2.480	4.125	0.375	0.375	3.375	1.840	0.63	4.26
	RLN-100250	1.000	2.500	3.650	2.980	4.625	0.375	0.375	3.875	2.190	0.63	6.01
	RLN-100325	1.000	3.250	4.000	3.725	5.500	0.625	0.437	4.687	2.760	0.89	12.52
	RLN-100400	1.000	4.000	4.000	4.480	6.250	0.625	0.437	5.437	3.320	0.89	18.35
	RLN-100500	1.000	5.000	4.000	5.480	7.625	0.625	0.562	6.625	4.100	0.89	27.81
	RLN-138325	1.375	3.250	4.000	5.500	3.725	0.625	0.437	4.687	2.760	0.89	12.23
	RLN-138400	1.375	4.000	4.000	4.480	6.250	0.625	0.437	5.437	3.320	0.89	17.92
	RLN-138500	1.375	5.000	4.000	5.480	7.625	0.625	0.562	6.625	4.100	0.89	26.97
	RLN-138600	1.375	6.000	4.500	6.480	8.625	0.750	0.562	7.628	4.880	1.00	42.18
	RLN-175600	1.750	6.000	4.500	6.480	8.625	0.750	0.562	7.625	4.880	1.00	42.24

Mounting Dimensions CMF1 and CMF2 - Cylinder Mount



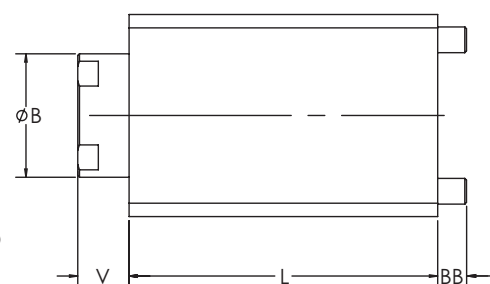
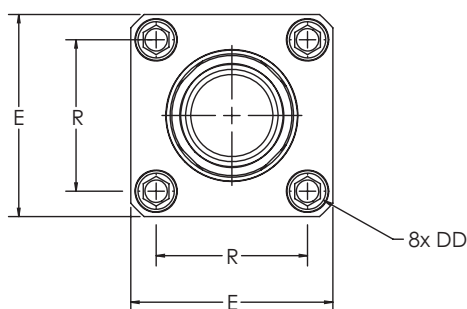
RLN - XXX XXX CMF1 X XX RLN - XXX XXX CMF2 X XX	AMLOK Type - RLN	Rod Dia. [in]	Bore Dia. [in]	L [in]	E [in]	UF [in]	F [in]	FB Dia. [in]	TF [in]	R [in]	V [in]	Weight [lb]	BB [in]
CYLINDER MOUNT	RLN-063150	0.625	1.500	3.050	1.980	3.375	0.375	0.312	2.750	1.430	0.63	1.97	.35
Front Flange Mount - CMF1 (NFA Style MF1 for cylinder mounting)	RLN-063200	0.625	2.000	3.060	2.480	4.125	0.375	0.375	3.375	1.840	0.63	3.51	.35
Ships as a kit	RLN-063250	0.625	2.500	3.180	2.980	4.625	0.375	0.375	3.875	2.190	0.63	4.66	.35
	RLN-100200	1.000	2.000	3.750	2.480	4.125	0.375	0.375	3.375	1.840	0.63	3.45	.35
	RLN-100250	1.000	2.500	3.650	2.980	4.625	0.375	0.375	3.875	2.190	0.63	4.79	.35
Rear Flange Mount - CMF2 (NFA Style MF2 for cylinder mounting)	RLN-100325	1.000	3.250	4.000	3.725	5.500	0.625	0.437	4.687	2.760	0.89	9.33	.60
Ships assembled	RLN-100400	1.000	4.000	4.000	4.480	6.250	0.625	0.437	5.437	3.320	0.89	13.82	.60
	RLN-100500	1.000	5.000	4.000	5.480	7.625	0.625	0.562	6.625	4.100	0.89	20.94	.60
	RLN-138325	1.375	3.250	4.000	5.500	3.725	0.625	0.437	4.687	2.760	0.89	9.28	.60
	RLN-138400	1.375	4.000	4.000	4.480	6.250	0.625	0.437	5.437	3.320	0.89	13.65	.60
	RLN-138500	1.375	5.000	4.000	5.480	7.625	0.625	0.562	6.625	4.100	0.89	20.35	.60
	RLN-138600	1.375	6.000	4.500	6.480	8.625	0.750	0.562	7.628	4.880	1.00	31.22	.70
	RLN-175600	1.750	6.000	4.500	6.480	8.625	0.750	0.562	7.625	4.880	1.00	31.55	.70

Mounting Dimensions CMS1 - Cylinder Mount



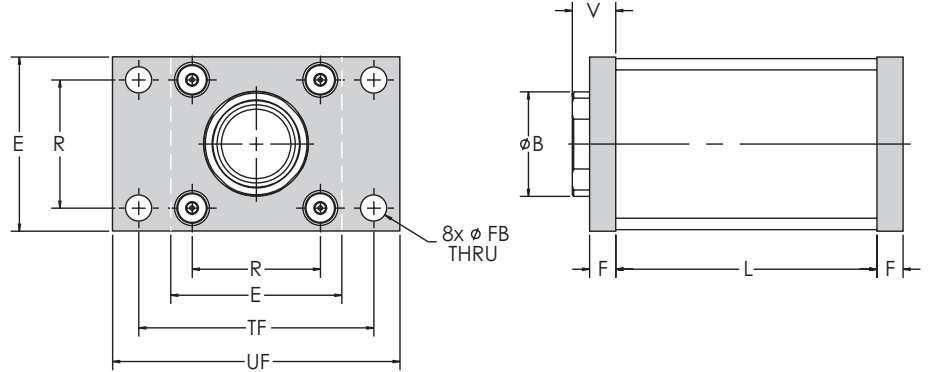
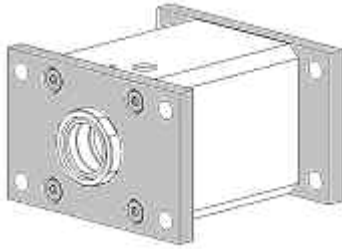
RLN - XXX XXX CMS1	AMLOK Type - RLN	Rod Dia. [in]	Bore Dia. [in]	L [in]	AO [in]	AL [in]	AH [in]	S [in]	V [in]	Weight [lb]	BB [in]
CYLINDER MOUNT Front Flange Mount - CMS1 (NFPA Style MS1) Ships as a kit	RLN-063150	0.625	1.500	3.050	0.375	1.000	1.187	1.250	0.625	1.51	.35
	RLN-063200	0.625	2.000	3.060	0.375	1.000	1.437	1.750	0.627	2.72	.35
	RLN-063250	0.625	2.500	3.180	0.375	1.000	1.625	2.250	0.623	3.54	.35
	RLN-100200	1.000	2.000	3.750	0.375	1.000	1.437	1.750	0.623	2.74	.35
	RLN-100250	1.000	2.500	3.650	0.375	1.000	1.625	2.250	0.632	3.75	.35
	RLN-100325	1.000	3.250	4.000	0.500	1.250	1.937	2.750	0.865	6.42	.60
	RLN-100400	1.000	4.000	4.000	0.500	1.250	2.238	3.500	0.875	9.66	.60
	RLN-100500	1.000	5.000	4.000	0.625	1.375	2.738	4.250	0.875	14.89	.60
	RLN-138325	1.375	3.250	4.000	0.500	1.250	1.937	2.750	0.875	6.62	.60
	RLN-138400	1.375	4.000	4.000	0.500	1.279	2.238	3.500	0.871	9.75	.60
	RLN-138500	1.375	5.000	4.000	0.625	1.375	2.738	4.250	0.866	14.54	.60
	RLN-138600	1.375	6.000	4.500	0.625	1.375	3.235	5.250	1.000	21.24	.70
	RLN-175600	1.750	6.000	4.500	0.625	1.375	3.235	5.250	1.000	21.84	.70

Mounting Dimensions CMXO - Cylinder Mount



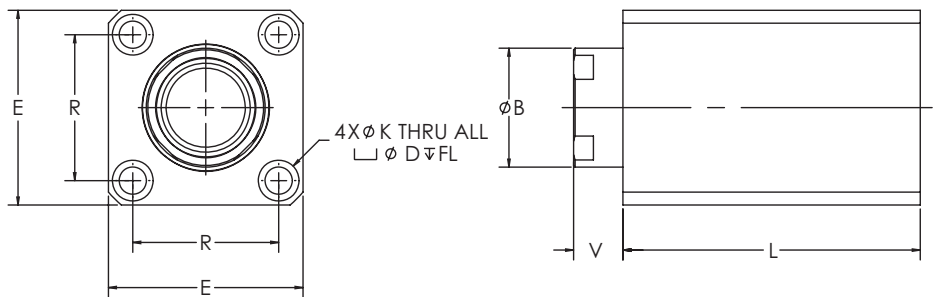
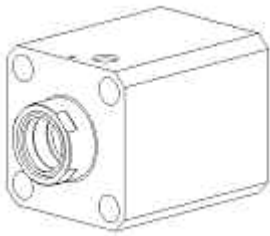
RLN - XXX XXX CMXO	AMLOK Type - RLN	Rod Dia. [in]	Bore Dia. [in]	L [in]	E [in]	R [in]	DD Thread	V [in]	Weight [lb]	BB [in]
CYLINDER MOUNT (NFPA Style MXO for cylinder mounting) Ships as a kit	RLN-063150	0.625	1.500	3.050	0.375	1.430	1/4-28	0.625	1.24	.35
	RLN-063200	0.625	2.000	3.060	0.375	1.840	5/16-24	0.627	2.06	.35
	RLN-063250	0.625	2.500	3.180	0.375	2.190	5/16-24	0.623	2.98	.35
	RLN-100200	1.000	2.000	3.750	0.375	1.840	5/16-24	0.623	2.23	.35
	RLN-100250	1.000	2.500	3.605	0.375	2.190	5/16-24	0.632	3.20	.35
	RLN-100325	1.000	3.250	4.000	0.500	2.760	3/8-24	0.865	5.31	.60
	RLN-100400	1.000	4.000	4.000	0.500	3.320	3/8-24	0.875	8.47	.60
	RLN-100500	1.000	5.000	4.000	0.625	4.100	1/2-20	0.875	12.43	.60
	RLN-138325	1.375	3.250	4.000	0.500	2.760	5/16-24	0.875	5.62	.60
	RLN-138400	1.375	4.000	4.000	0.500	3.320	5/16-24	0.871	9.03	.60
	RLN-138500	1.375	5.000	4.000	0.625	4.100	1/2-20	0.866	12.78	.60
	RLN-138600	1.375	6.000	4.500	0.625	4.880	1/2-20	1.000	18.84	.70
	RLN-175600	1.750	6.000	4.500	0.625	4.880	1/2-20	1.000	19.55	.70

Mounting Dimensions SA - Stand Alone



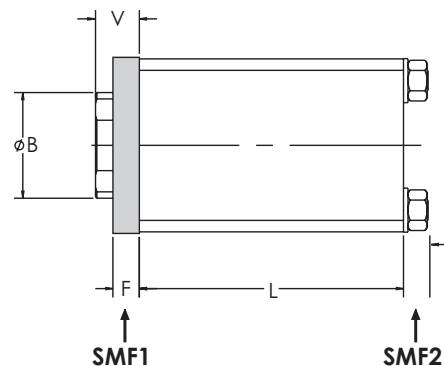
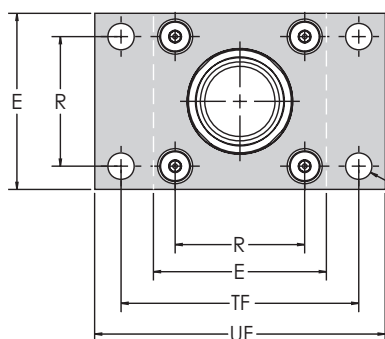
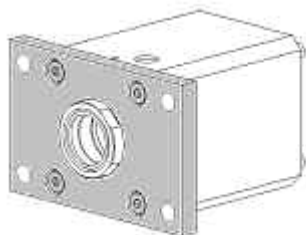
RLN - XXX XXX SA X XX	AMLOK Type - RLN	Rod Dia. [in]	Bore Dia. [in]	L [in]	E [in]	UF [in]	F [in]	FB Dia. [in]	TF [in]	R [in]	V [in]	Weight [lb]
STAND ALONE Front Flange Mount (NFA Style MF1 and MF2) Ships assembled Includes rod bearings and wipers on both ends.	RLN-063150	0.625	1.500	3.050	1.980	3.375	0.375	0.312	2.750	1.430	0.63	2.62
	RLN-063200	0.625	2.000	3.060	2.480	4.125	0.375	0.375	3.375	1.840	0.63	4.31
	RLN-063250	0.625	2.500	3.180	2.980	4.625	0.375	0.375	3.875	2.190	0.63	6.02
	RLN-100200	1.000	2.000	3.750	2.480	4.125	0.375	0.375	3.375	1.840	0.63	4.37
	RLN-100250	1.000	2.500	3.650	2.980	4.625	0.375	0.375	3.875	2.190	0.63	6.10
	RLN-100325	1.000	3.250	4.000	3.725	5.500	0.625	0.437	4.687	2.760	0.89	12.60
	RLN-100400	1.000	4.000	4.000	4.480	6.250	0.625	0.437	5.437	3.320	0.89	18.46
	RLN-100500	1.000	5.000	4.000	5.480	7.625	0.625	0.562	6.625	4.100	0.89	27.89
	RLN-138325	1.375	3.250	4.000	5.500	3.725	0.625	0.437	4.687	2.760	0.89	12.42
	RLN-138400	1.375	4.000	4.000	4.480	6.250	0.625	0.437	5.437	3.320	0.89	18.54
	RLN-138500	1.375	5.000	4.000	5.480	7.625	0.625	0.562	6.625	4.100	0.89	27.48
	RLN-138600	1.375	6.000	4.500	6.480	8.625	0.750	0.562	7.628	4.880	1.00	42.18
	RLN-175600	1.750	6.000	4.500	6.480	8.625	0.750	0.562	7.625	4.880	1.00	42.52

Mounting Dimensions MXO / SN - Stand Alone



RLN - XXX XXX MXO X XX RLN - XXX XXX SN X XX	AMLOK Type - RLN	Rod Dia. [in]	Bore Dia. [in]	L [in]	E [in]	R [in]	V [in]	TF [in]	UF [in]	Weight [lb]
MXO OR STAND ALONE No mounting hardware included	RLN-063150	0.625	1.500	3.050	1.980	1.430	0.63	2.750	3.375	1.24
	RLN-063200	0.625	2.000	3.060	2.480	1.840	0.63	3.375	4.125	2.06
	RLN-063250	0.625	2.500	3.180	2.980	2.190	0.63	3.875	4.625	2.98
	RLN-100200	1.000	2.000	3.750	2.480	1.840	0.63	3.375	4.125	2.23
	RLN-100250	1.000	2.500	3.650	2.980	2.190	0.63	3.875	4.625	3.20
	RLN-100325	1.000	3.250	4.000	3.725	2.760	0.89	4.687	5.500	5.31
	RLN-100400	1.000	4.000	4.000	4.480	3.320	0.89	5.437	6.250	8.47
	RLN-100500	1.000	5.000	4.000	5.480	4.100	0.89	6.625	7.625	12.43
	RLN-138325	1.375	3.250	4.000	5.500	2.760	0.89	4.687	5.500	5.62
	RLN-138400	1.375	4.000	4.000	4.480	3.320	0.89	5.437	6.250	9.03
	RLN-138500	1.375	5.000	4.000	5.480	4.100	0.89	6.625	7.625	12.78
	RLN-138600	1.375	6.000	4.500	6.480	4.880	1.00	7.628	8.625	18.84
	RLN-175600	1.750	6.000	4.500	6.480	4.880	1.00	7.625	8.625	19.55

Mounting Dimensions SMF1 and SMF2 - Stand Alone



RLN - XXX XXX SMF1 X XX
RLN - XXX XXX SMF2 X XX

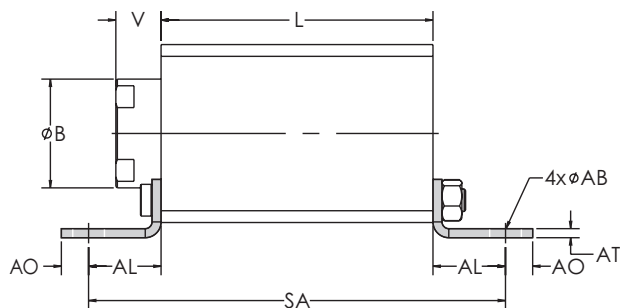
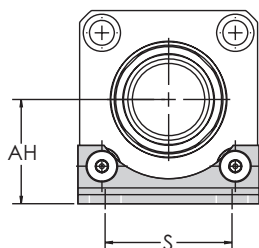
STAND ALONE

Front Flange Mount - SMF1
(NFPA Style MF1)
Ships assembled

Rear Flange Mount - SMF2
(NFPA Style MF2)
Ships assembled

AMLOK Type - RLN	Rod Dia. [in]	Bore Dia. [in]	L [in]	E [in]	UF [in]	F [in]	FB Dia. [in]	TF [in]	R [in]	V [in]	Weight [lb]
RLN-063150	0.625	1.500	3.050	1.980	3.375	0.375	0.312	2.750	1.430	0.63	2.11
RLN-063200	0.625	2.000	3.060	2.480	4.125	0.375	0.375	3.375	1.840	0.63	3.40
RLN-063250	0.625	2.500	3.180	2.980	4.625	0.375	0.375	3.875	2.190	0.63	4.72
RLN-100200	1.000	2.000	3.750	2.480	4.125	0.375	0.375	3.375	1.840	0.63	3.54
RLN-100250	1.000	2.500	3.650	2.980	4.625	0.375	0.375	3.875	2.190	0.63	4.88
RLN-100325	1.000	3.250	4.000	3.725	5.500	0.625	0.437	4.687	2.760	0.89	9.42
RLN-100400	1.000	4.000	4.000	4.480	6.250	0.625	0.437	5.437	3.320	0.89	13.97
RLN-100500	1.000	5.000	4.000	5.480	7.625	0.625	0.562	6.625	4.100	0.89	21.05
RLN-138325	1.375	3.250	4.000	5.500	3.725	0.625	0.437	4.687	2.760	0.89	9.51
RLN-138400	1.375	4.000	4.000	4.480	6.250	0.625	0.437	5.437	3.320	0.89	14.29
RLN-138500	1.375	5.000	4.000	5.480	7.625	0.625	0.562	6.625	4.100	0.89	20.89
RLN-138600	1.375	6.000	4.500	6.480	8.625	0.750	0.562	7.628	4.880	1.00	31.15
RLN-175600	1.750	6.000	4.500	6.480	8.625	0.750	0.562	7.625	4.880	1.00	31.86

Mounting Dimensions SMS1 - Stand Alone



RLN - XXX XXX SMS1 X XX

STAND ALONE

Front Flange Mount - SMS1
(NFPA Style MS1)
Ships assembled

AMLOK Type - RLN	Rod Dia. [in]	Bore Dia. [in]	L [in]	AO [in]	AL [in]	AH [in]	AT [in]	S [in]	SA [in]	AB [in]	V [in]	Weight [lb]
RLN-063150	0.625	1.500	3.050	0.375	1.000	1.187	0.125	1.250	5.050	0.437	0.625	1.60
RLN-063200	0.625	2.000	3.060	0.375	1.000	1.437	0.125	1.750	5.060	0.437	0.627	2.59
RLN-063250	0.625	2.500	3.180	0.375	1.000	1.625	0.125	2.250	5.175	0.437	0.623	3.59
RLN-100200	1.000	2.000	3.750	0.375	1.000	1.437	0.125	1.750	5.750	0.437	0.623	2.76
RLN-100250	1.000	2.500	3.650	0.375	1.000	1.625	0.125	2.250	5.650	0.437	0.632	3.82
RLN-100325	1.000	3.250	4.000	0.500	1.250	1.937	0.125	2.750	6.500	0.562	0.865	6.42
RLN-100400	1.000	4.000	4.000	0.500	1.250	2.238	0.125	3.500	6.500	0.562	0.875	9.73
RLN-100500	1.000	5.000	4.000	0.625	1.375	2.738	0.188	4.250	6.750	0.687	0.875	15.23
RLN-138325	1.375	3.250	4.000	0.500	1.250	1.937	0.125	2.750	6.500	0.562	0.875	6.73
RLN-138400	1.375	4.000	4.000	0.500	1.279	2.238	0.125	3.500	6.500	0.562	0.871	10.31
RLN-138500	1.375	5.000	4.000	0.625	1.375	2.738	0.188	4.250	6.750	0.687	0.866	15.30
RLN-138600	1.375	6.000	4.500	0.625	1.375	3.235	0.188	5.250	7.250	0.812	1.000	21.77
RLN-175600	1.750	6.000	4.500	0.625	1.375	3.235	0.188	5.250	7.250	0.812	1.000	22.47

Design Considerations

Air Controls and Programming

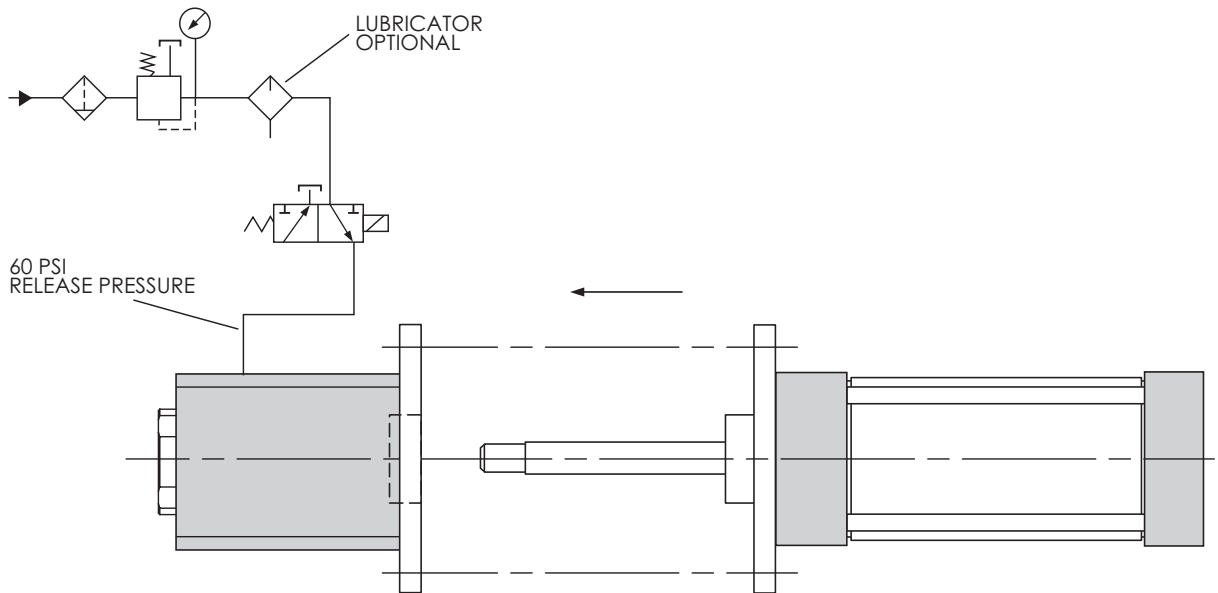
minimum release pressure = 4 bar (60 psi)

maximum pressure = 8 bar (120 psi)

Cylinder Mounting

Note: Avoid repeated overlapping conditions when programming the rod lock into your system (i.e.: forced motion during engagement or disengagement of rod lock). Shaft and/or clamp system wear will result. Control system should be designed to use the rod lock in static conditions. Rod lock should not be used for dynamic braking.

Assembly Instructions for NFPA CMF1 Cylinder and CMF2 Rod Lock



1. Read Assembly Instructions and Caution Label on unit.
2. Connect a flexible hose to the pressure port of the AMLOK®, apply air pressure to release the clamping mechanism and slide the AMLOK® over the rod to be clamped.
3. Align the mounting holes and port hole to the proper location.
4. Release pressure.
5. Bolt AMLOK® to cylinder or housing.
6. Pressurize the AMLOK® to the specified release pressure.
7. Release and pressurize several times. With the specified pressure the rod should move freely through the AMLOK®.
8. If the rod does not move freely, check the squareness of the housing and cylinder contact surface and correct if necessary.



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Data subject to change.

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