

numatics®

***Nu* Lock Units**

NFPA and ISO/VDMA *Nu* Locks



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NuLock Series

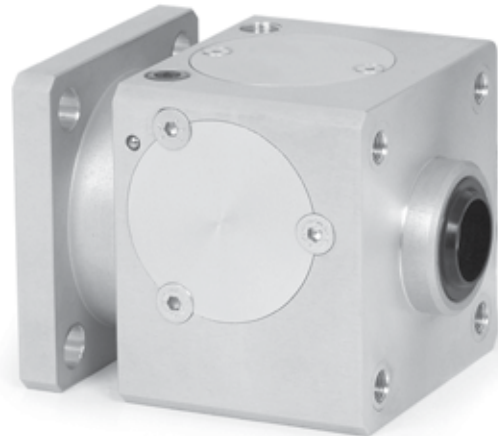
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The **Nu Lock Series** is a comprehensive rod lock product line that is designed with safety in mind. The cutting edge design allows for effortless load holding during Emergency Stop (E- Stop) conditions. It is designed to mechanically lock a cylinder piston rod in the event of an air supply failure. Use caution when applying the **Nu Lock Series** rod lock unit. It should not be used to “brake” the cylinder piston rod in dynamic conditions.

Nu Lock Series Standard Specifications:

- Economical OEM type rod lock
- Compact profile
- NFPA sizes: 1-1/2” to 5” bores
- VDMA sizes: 32 mm to 125 mm bores
- Minimum unlocking air pressure is 45 psi (3 Bar)
- Maximum unlocking air pressure is 90 psi (6 Bar)
- Clamping force on all Nu Lock Series units is equal to the area of the cylinder piston at 145 psi (10 Bar)
- All standard NFPA and ISO/VDMA mounting accessories can be used with the RL Series installed on the cylinder
- Temperature rating: -10° F to 165° F

The **Nu Lock Series** individual locking units are recommended for replacement use only. This particular unit must be used with a chrome plated steel cylinder piston rod. Consult factory for additional details.



How to Order

Nu Lock Series Rod Lock Units

	BM	I /	032	
Type				Cylinder Bore Size
A = NFPA				032 = 32 mm (ISO)
I = ISO/VDMA				040 = 40 mm (ISO)
				050 = 50 mm (ISO)
				063 = 63 mm (ISO)
				080 = 80 mm (ISO)
				100 = 100 mm (ISO)
				125 = 125 mm (ISO)
				K = 1-1/2" (NFPA)
				L = 2" (NFPA)
				M = 2-1/2" (NFPA)
				P = 3-1/4" (NFPA)
				R = 4" (NFPA)
				T = 5" (NFPA)

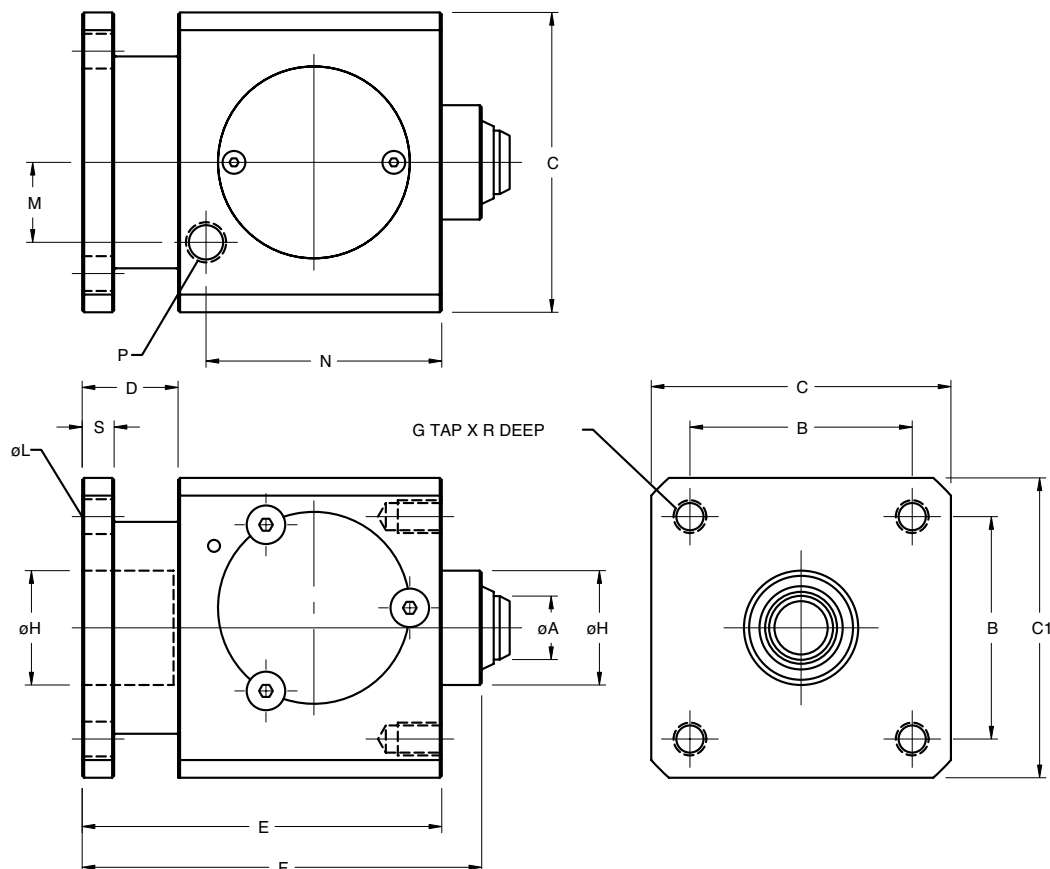
NFPA

1. A Series cylinders with “YA” in the option code include the **Nu Lock Series** rod lock unit **assembled** to the cylinder. Note that the cylinder includes the correct amount of rod extension.
2. A Series cylinders with “YE” in the option code includes a rod extension and sleeve nut mount on the head of the cylinder preparing it to install the **Nu Lock Series** rod lock unit.
3. Standard chrome plated steel material is recommended for rod lock applications.

ISO/VDMA

1. ISO/VDMA cylinders with “BMI” in the option code includes the **Nu Lock Series** rod lock unit **assembled** to the cylinder. Note that the cylinder includes the correct amount of rod extension.
2. ISO/VDMA cylinder with “BOI” in the option code includes a rod extension and sleeve nut mount on the head of the cylinder preparing it to install the **Nu Lock Series** rod lock unit.
3. Standard chrome plated steel material is recommended for rod lock applications.

Nu Lock Series



NFPA Locking Unit Dimensions (inches)

Part No.	Bore	ØA*	B	C	C1	D	E	F	G	ØH	ØL	M	N	P	R	S	Weight lb
BMA/K	1-1/2"	0.625	1.430	2.000	1.950	0.787	2.756	3.150	1/4-28 UNF	1.125	0.283	0.709	1.69	1/8 NPTF	0.354	0.236	1.33
BMA/L	2"	0.625	1.840	2.500	2.450	0.945	3.543	3.937	5/16-24 UNF	1.125	0.343	0.787	2.28	1/8 NPTF	0.551	0.315	2.43
BMA/M	2-1/2"	0.625	2.190	2.950	2.950	0.945	3.543	3.937	5/16-24 UNF	1.125	0.343	0.787	2.32	1/8 NPTF	0.551	0.315	3.31
BMA/P	3-1/4"	1.000	2.760	3.740	3.700	1.260	4.330	4.724	3/8-24 UNF	1.500	0.413	1.181	2.71	1/4 NPTF	0.630	0.472	5.73
BMA/R	4"	1.000	3.320	4.490	4.450	1.260	4.330	4.724	3/8-24 UNF	1.500	0.413	1.457	2.71	1/4 NPTF	0.630	0.472	7.71
BMA/T	5"	1.000	4.100	5.430	5.430	1.770	5.512	5.906	1/2-20 UNF	1.500	0.413	1.969	3.32	1/4 NPTF	0.827	0.787	14.33

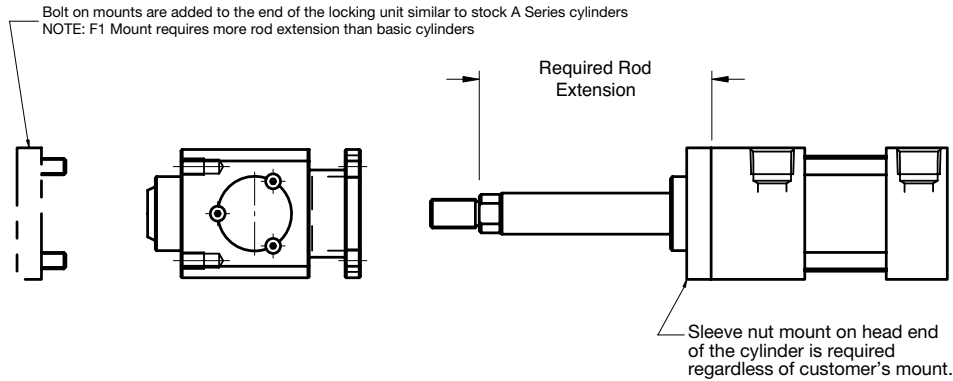
ISO Locking Unit Dimensions (mm)

Part No.	Bore	ØA*	B	C	C1	E	F	G	ØH	ØL	M	N	P	R	S	Weight kg
BMI/032	32 mm	12.0	32.5	47.0	47.0	60.0	67.5	M6	30.0	6.5	14.5	33.25	1/8" G	8.0	6.0	0.4
BMI/040	40 mm	16.0	38.0	54.0	54.0	70.0	80.0	M6	34.5	6.5	18.0	42.50	1/8" G	8.0	6.0	0.6
BMI/050	50 mm	20.0	46.5	65.0	65.0	90.0	100.0	M8	40.0	9.0	20.0	58.00	1/8" G	12.0	8.0	1.1
BMI/063	63 mm	20.0	56.5	75.0	75.0	90.0	100.0	M8	45.0	9.0	20.0	59.00	1/8" G	12.0	8.0	1.5
BMI/080	80 mm	25.0	72.0	95.0	95.0	110.0	120.0	M10	45.0	11.0	30.0	69.00	1/4" G	16.0	12.0	2.6
BMI/100	100 mm	25.0	89.0	114.0	114.0	110.0	120.0	M10	55.0	11.0	37.0	69.00	1/4" G	16.0	12.0	3.5
BMI/125	125 mm	32.0	110.0	138.0	138.0	140.0	156.0	M12	60.0	14.0	50.0	84.50	1/4" G	20.0	20.0	6.5

* Dimension denotes cylinder piston rod diameter.

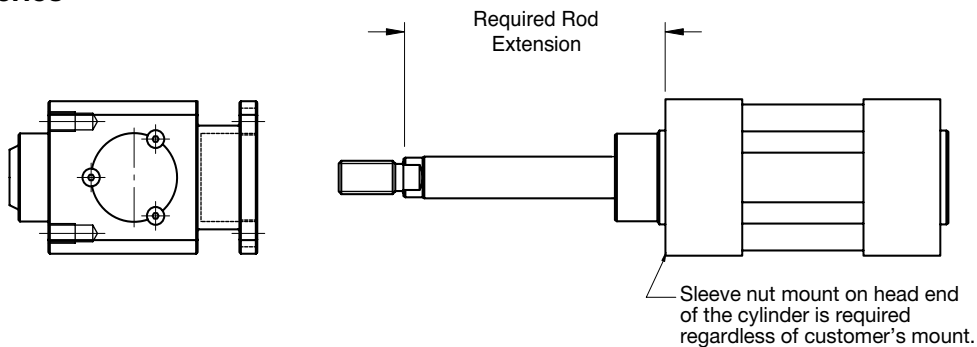
Cylinder and Lock Information

NFPA - A Series



Bore Size	Standard Mount Rod Extension	F1 Mount Rod Extension
1-1/2" (K)	2.756	3.131
2" (L)	3.543	3.918
2-1/2" (M)	3.543	3.918
3-1/4" (P)	4.330	4.955
4" (R)	4.330	4.955
5" (T)	5.512	6.137

ISO/452 Series



Bore Size (mm)	Standard Mount Rod Extension
32	60.0
40	70.0
50	90.0
63	90.0
80	110.0
100	110.0
125	140.0

Installation of a Nu Lock and Cylinder Combination

The Nu Lock unit is not equipped with a manual override. Therefore, to extend and/or retract the piston rod with the locking unit installed requires air pressure to be applied to the supply port of the Nu Lock unit. This pressure must be in a range of 45 to 90 psi. Once unlocked, the cylinder piston rod can be extended and/or retracted as desired for the setup of the machine.



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