



# Miniature Shock Absorbers

## Adjustable

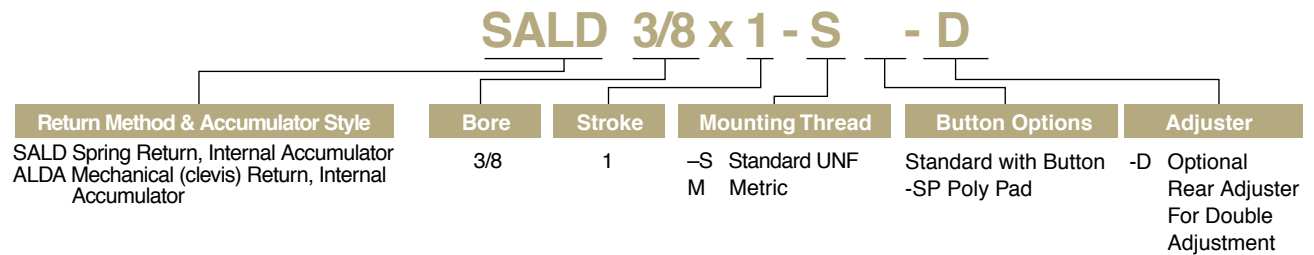
# SALD 3/8 Bore x 1"

**Enertrols 3/8 x 1"** bore adjustable miniature shock absorber offers high energy capacity and a wide effective weight range for handling a variety of applications. A unique feature of the multi-orifice 3/8 x 1" bore is the optional rear slot adjuster. Adjustment can be made by turning the frontal adjuster to the preferred setting, or by turning the rear slot adjuster if desired.

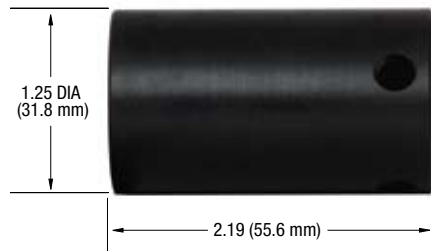
**Applications include:** slides, material handling equipment, robotics, machine tools, pick and place systems, packaging equipment and more.



## Ordering Information



## Stop Collar

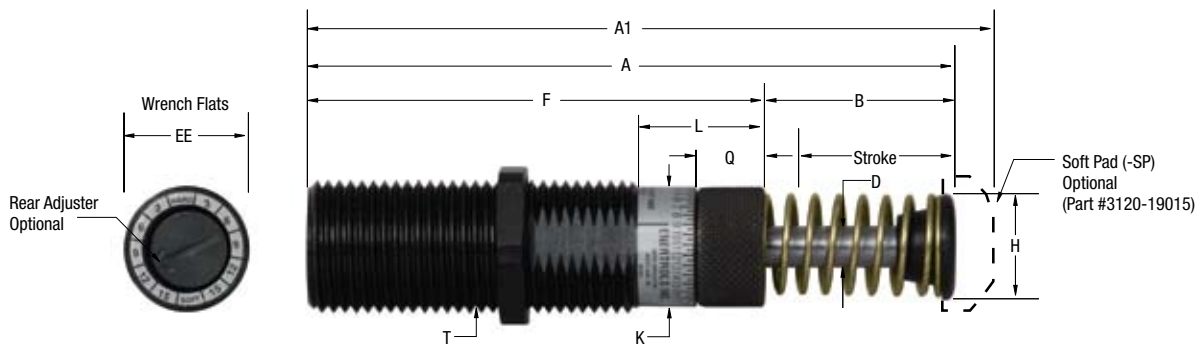


Part No. 3120-34000 U.S.  
Part No. 3120-34501 Metric

Courtesy of CMA/Flodyne/Hydradyne

# SALD 3/8 Bore x 1"

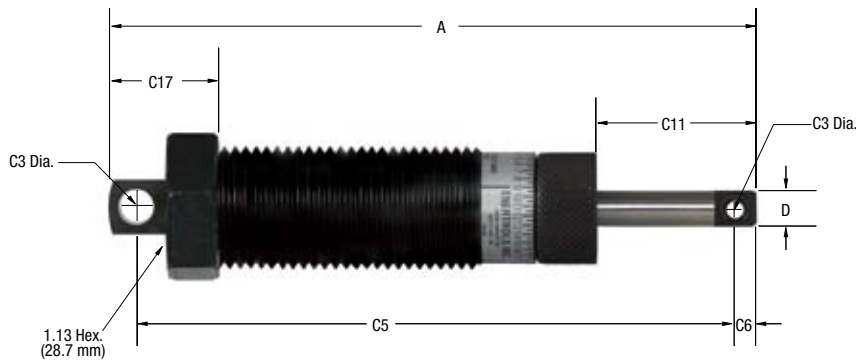
# Miniature Shock Absorbers Adjustable



### Dimensions in inches (millimeters)

Model	Stroke	A	A1	B	D	F	H	K	L	Q	T	EE
SALD 3/8 x 1	1	4.75	5.00	1.38	0.31	3.37	0.75	0.87	0.93	0.5	1-12	0.88
SALD 3/8 x 1M	(25.4)	(120.0)	(127.0)	(35.0)	(7.9)	(85.6)	(19.1)	(22.1)	(23.6)	(12.7)	(M25 x 1.5)	(22.2)

### Clevis Mount



Model	A	C3	C5	C6	C11	C17	D
ALDA 3/8 x 1	5.50 (139.7)	0.16 (4.0)	5.13 (130.2)	0.19 (4.8)	1.50 (38.1)	1.06 (27.0)	0.31 (7.9)

### Specifications

Model	We Effective Weight lbs (kg)	E <sub>3</sub> Energy per Cycle in lbs (Nm)	E <sub>4</sub> Energy per Hour in lbs/hour (Nm/hour)	Return Force lbs (N)	Return Time sec	Shipping Weight lbs (kg)
SALD 3/8 x 1	10 - 1,250	600	600,000	6 - 11	0.03	.50
SALD 3/8 x 1M	(4.5 - 545)	(68)	(67,791)	(27 - 49)		(0.22)

## Technical Data

**Impact velocity range:** 1.6 - 15 ft/sec (0.49 - 4.6 m/sec)

**Operating Temperature:** 10° to 150°F (-12° to 66°C)

**Oil type:** ISO 46AW

**Materials:** Steel body with standard black oxide finish.  
Hardened stainless steel piston rod.

Maximum side load depends on application.  
For additional information contact Enertrols  
Applications Department.

Lock nut included with each shock absorber.



# Miniature Shock Absorbers Adjustable

## SALD 1/2 Bore x 1, 2"

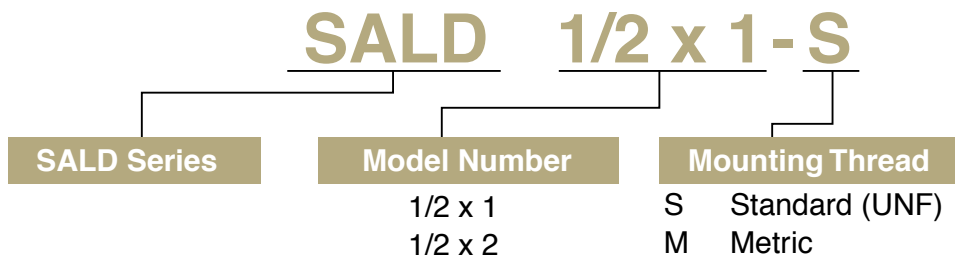
**Enertrols SALD 1/2" Bore Series** adjustable industrial shock absorbers offer high-energy capacity. Easily adjustable, these dependable models were designed to handle numerous applications.

A built-in positive stop prevents bottoming out damage and provides a positive work-positioning point.

**Applications include:** relatively small, high-speed moving machines and equipment, material handling equipment, robotics, machine tools, packaging equipment, pick and place systems and more.



### Ordering Information



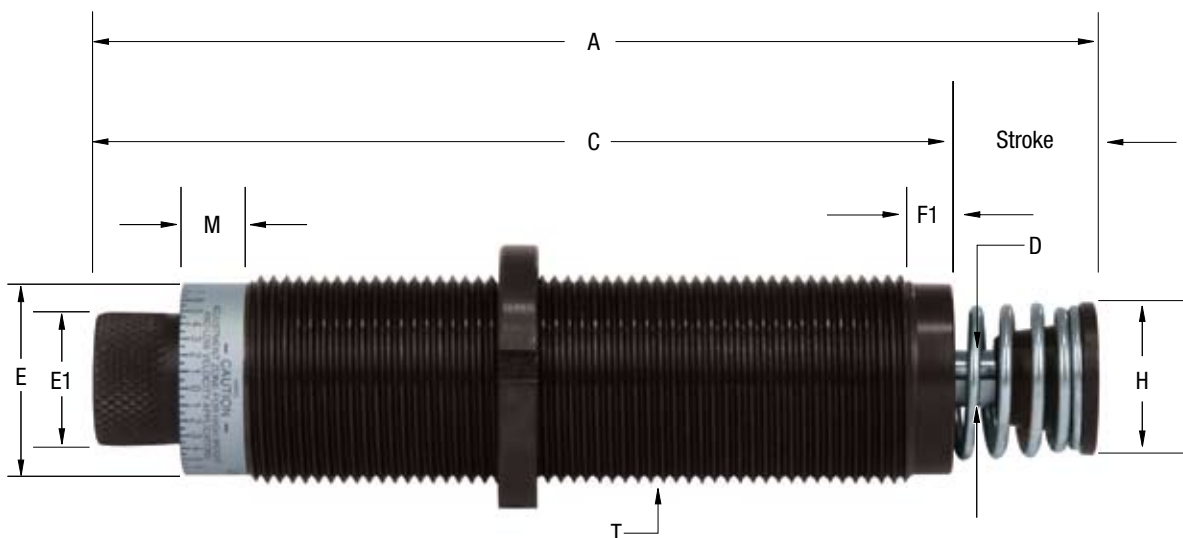
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Courtesy of CMA/Flodyne/Hydradyne

# SALD 1/2 Bore x 1, 2"

# Miniature Shock Absorbers Adjustable



**Dimensions in inches (millimeters)**

Model	Stroke	A	C	D	E	E1	F1	H	I	M	T
<b>SALD 1/2 x 1</b>	0.94 (23.8)	6.50 (165.0)	5.56 (141.2)	0.38 (9.5)	1.25 (31.8)	0.88 (22.2)	0.25 (6.4)	1.0 (25.4)	0.56 (15.0)	0.99 (25.2)	1-3/8"-12 (M36 x 1.5)
<b>SALD 1/2 x 2</b>	1.94 (49.2)	8.50 (215.9)	6.56 (166.6)	0.38 (9.5)	1.25 (31.8)	0.88 (22.2)	0.25 (6.4)	1.0 (25.4)	0.56 (15.0)	0.99 (25.2)	1-3/8"-12 (M36 x 1.5)

**Specifications**

Model	We Effective Weight lbs (kg)	E <sub>3</sub> Energy per Cycle in lbs (Nm)	E <sub>4</sub> Energy per Hour in lbs/hour (Nm/hour)	Return Force lbs (N)	Return Time sec
<b>SALD 1/2 x 1</b>	10 - 2,500 (4.5 - 1,135)	1,200 (169)	750,000 (84,739)	18.4 (81.8)	.04
<b>SALD 1/2 x 2</b>	21 - 5,000 (9.52 - 2,270)	2,400 (339)	870,000 (98,297)	28.85 (128.3)	.07

## Technical Data

### Impact velocity range

**SALD 1/2 x 1:** 1-15 ft/sec (0.3-4.6 m/sec)

**SALD 1/2 x 2:** 1-15 ft/sec (0.3-4.6 m/sec)

**Operating Temperature:** 32° to 150°F (0° to 66°C)

**Mechanical Stop:** Integral mechanical stop built into shock absorber

**Oil type:** Standard petroleum oil

**Materials:** Steel body with standard black oxide finish. Hardened steel piston rod.

Maximum side load depends on application. For additional information contact Enertrols Applications Department.

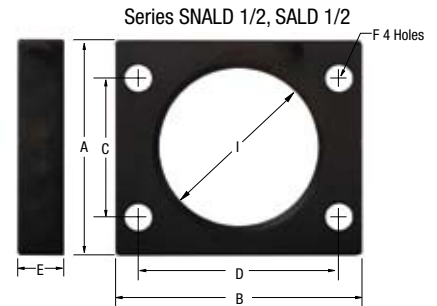
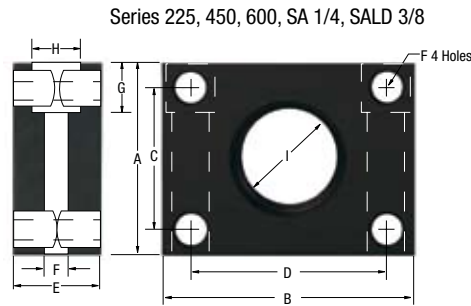
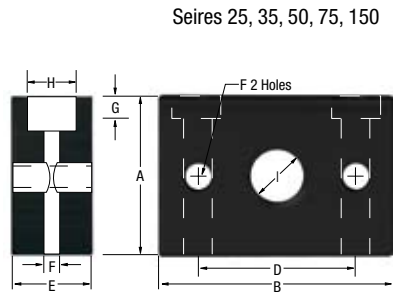
Lock nut included with each shock absorber.



# Miniature Series

## Adjustable & Self-Compensating Models

# Accessories



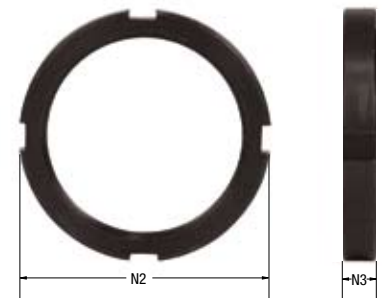
### Mounting Block in inches (millimeters)

Model	US Part #	Metric Part #	A	B	C	D	E	F	G	H	I
25, 50	3110-07005 (25 only)	3110-07501	1.00 (25.4)	1.50 (38.1)	-	1.00 (25.4)	0.56 (14.2)	0.18 (4.6)	0.21 (5.3)	0.32 (8.1)	3/8"-32 M10x1.0
35, 75	3113-07005	3113-07501	1.00 (25.4)	1.50 (38.1)	-	1.00 (25.4)	0.56 (14.2)	0.18 (4.6)	0.21 (5.3)	0.32 (8.1)	1/2"-20 M12x1.0
150	3115-07005	3115-07501	1.14 (29)	1.77 (45)	-	1.38 (35)	0.63 (16)	0.18 (4.6)	0.21 (5.3)	0.32 (8.1)	9/16"-18 M14x1.5
225, 450, SA 1/4	3116-07005	3116-07501	1.38 (35)	1.81 (46)	1.00 (25.4)	1.38 (35)	0.63 (16)	0.22 (5.6)	0.41 (10.4)	0.41 (10.4)	3/4"-16 M20x1.5
600, SALD 3/8	3120-07005	3120-07501	1.38 (35)	1.81 (46)	1.00 (25.4)	1.38 (35)	0.63 (16)	0.22 (5.6)	0.41 (10.4)	0.41 (10.4)	1"-12 M25x1.5
SNALD 1/2, SALD 1/2	3125-07008	3125-07508	1.75 (44.5)	2.00 (50.8)	1.13 (27)	1.63 (46.3)	0.38 (9.5)	0.22 (5.6)	-	-	1-3/8"-12 M36x1.5

### Lock Nut in inches (millimeters)

Used With	N1	N2	N3	Used With	N1	N2	N3	Used With	N1	N2	N3
SM 9M	.31 (8)	.36 (9.3)	0.9 (2.5)	SNALD 150	0.88 (22.4)	.24 (6)		SA 1/4 x 1/2	.99 (25.1)	11.4 (28.9)	.24 (6.1)
SM 10E	.43 (11)	.48 (12.3)	0.8 (2.0)	SNALD 150M	0.67 (17)	.20 (5)		SA 1/4 x 1/2M	.91 (22.8)	.96 (24.3)	.31 (8)
SM10M	.39 (10.0)	.44 (11.3)	.12 (3.0)	SNALD 225	1.00 (25.4)	.32 (8)		SALD 3/8 x 1	1.25 (31.8)	1.44 (36.6)	.25 (6.4)
SM 25	.50 (12.7)	.56 (14.2)	.09 (2.3)	SNALD 225M	.91 (23)	.24 (6.1)		SALD 3/8 x 1M	1.18 (30.0)	1.24 (31.6)	.39 (10.0)
SM 25M SA 50M	.47 (12.0)	.53 (13.6)	.16 (4.0)	SNALD 450	1.00 (25.4)	.32 (8)		SALD 1/2 x 1	N/A	1.75 (44.4)	.25 (6.3)
SM 30M SA 30M	.39 (10.0)	.44 (11.3)	.12 (3.0)	SNALD 450M	.91 (23)	.24 (6.1)		SALD 1/2 x 1M	N/A	1.75 (44.4)	.25 (6.3)
SA 35 SM 75	.62 (16.5)	.70 (17.8)	.13 (3.3)	SNALD 600	1.25 (31.8)	.39 (10)		SALD 1/2 x 2	N/A	1.75 (44.4)	.25 (6.3)
SA 35M SM 75M	.55 (14.0)	.62 (15.8)	.20 (5.0)	SNALD 600M	1.18 (30)	.32 (8)		SALD 1/2 x 2M	N/A	1.75 (44.4)	.25 (6.3)
SA 150	.87 (22.2)	1.00 (25.4)	.31 (7.9)	SNALD 1/2 x 1	1.63 (41.3)	.25 (6.4)					
SA 150M	.67 (17.0)	.76 (19.4)	.23 (6.0)	SNALD 1/2 x 1M	1.63 (41.3)	.25 (6.4)					
SA 150ME	.67 (17.0)	.77 (19.5)	.20 (5.0)	SNALD 1/2 x 2	1.63 (41.3)	.25 (6.4)					
				SNALD 1/2 x 2M	1.63 (41.3)	.25 (6.4)					

SALD 1/2" Bore Lock Nut



Model	Standard Lock Nut		Stainless Steel Lock Nut		Poly Pad Part #
	US Part #	Metric Part #	US Part #	Metric Part #	
9	-	3106-09505	-	-	-
10E	-	3108-09505	-	-	-
10M, 30M	-	3108-09506	-	-	-
25	3110-09005	3110-09505	-	-	-
35, 75	3113-09005	3113-09505	-	-	-
50M	-	3110-09505	-	-	-
150	3115-09005	3115-09505	3115-09009	3115-09509	3115-19015
225, 450, 1/4	3116-09005	3116-09505	3116-09009	3116-09509	3116-19015
600	3120-09005	3120-09505	3120-09009	3120-09509	3119-19015
3/8	3120-09005	3120-09505	3120-09009	3120-09509	3120-19015
1/2	3125-09503	3125-09504	3125-09009	3125-09509	-

