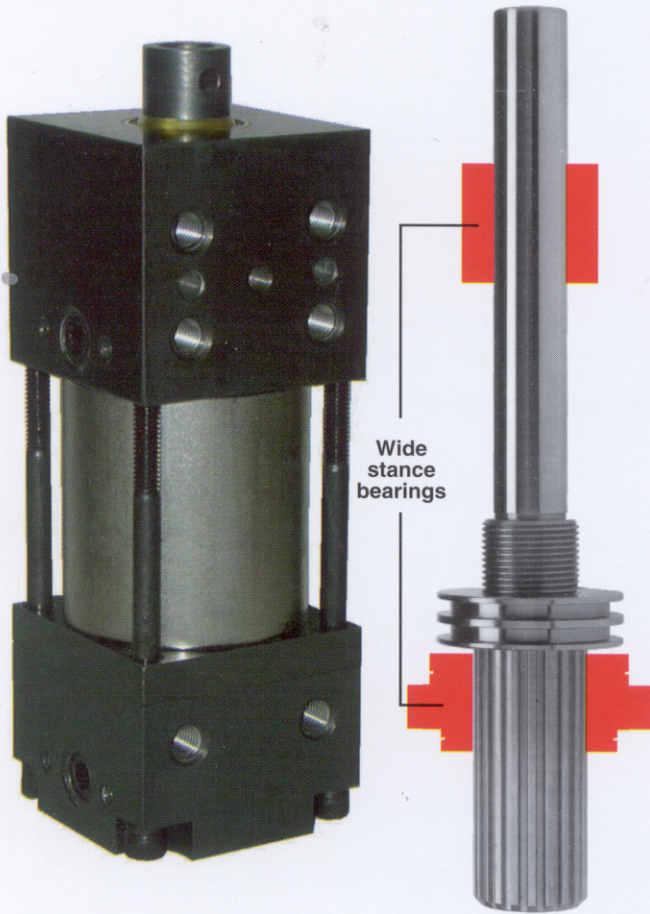


# LSA-75™

## Linear Straight Actuator



### **Rigid**

A wide stance, permanently lubricated bearing and a hardened steel uni-shaft assures deflections of less than 0.0010" in typical applications.

### **Rugged**

The weld immune, non-stick, anti-gauling treatment on the hardened shaft combined with the ultimate in super rod scrapers assures long life in the toughest environments. Lubrication for life assures resistance to air supply contamination as well.

### **Compact**

The smallest size in the industry, the LSA is easy to fit into most applications. The small size is achieved by using the unique wide stance bearing system and a less than 5 minute spline.

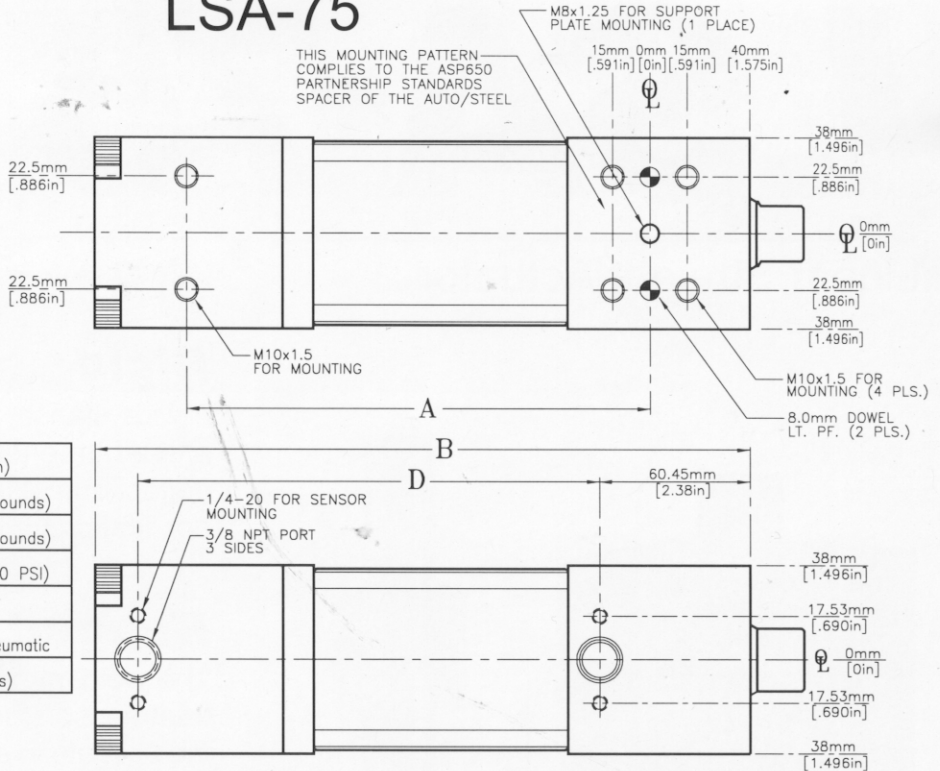
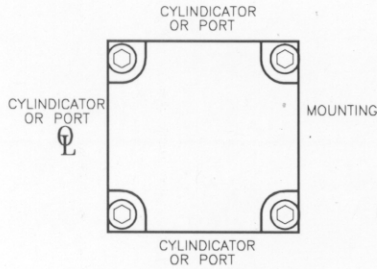
### **Easy To Apply**

All mounting surfaces and proximity mounts comply with industry standards. Either pneumatic or hydraulic actuation is accommodated. Approved by Daimler Chrysler, Ford and General Motors.

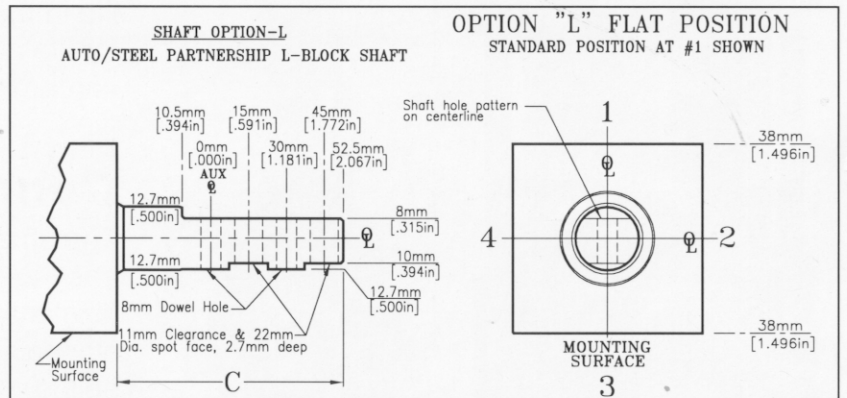
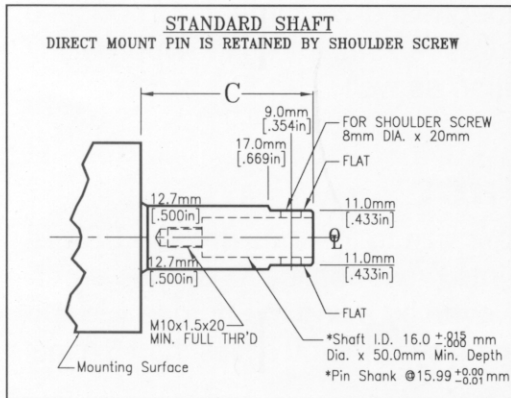


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# ZAYTRAN LSA-75



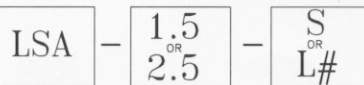
Bore Diameter	63.5mm (2.5in)
Retract Force @689 kPa (100 PSI)	168 kg (370 Pounds)
Extend Force @689 kPa (100 PSI)	200 kg (440 Pounds)
Maximum Pressure	6895 kPa (1000 PSI)
Rotary Motion	< 0.040°
Actuation	Hydraulic or Pneumatic
Weight	5 kg (11 pounds)



SHAFT	STROKE	A	B	C		D	OPTION "L" ONLY FULLY EXTENDED	
				RETRACTED	EXTENDED		MOUNTING	AUX.
STANDARD	38.1mm (1 1/2in)	135mm (5.315in)	210.92mm (8.304in)	21.89mm (.862in)	60mm (2.362in)	133.45mm (5.254in)	Ø	Ø
STANDARD	63.5mm (2 1/2in)	185mm (7.283in)	261.72 (10.304in)	21.49mm (.846in)	85mm (3.346in)	184.25mm (7.254in)	Ø	Ø
OPTION L	38.1mm (1 1/2in)	135mm (5.315in)	210.92mm (8.304in)	69.40mm (2.732in)	107.5mm (4.232in)	133.45mm (5.254in)	95mm (3.740)	
OPTION L	63.5mm (2 1/2in)	185mm (7.283in)	261.72 (10.304in)	69.00mm (2.716in)	132.5mm (5.216)	184.25mm (7.254in)	120mm (4.724)	

Cylindicator is a trademark of Namco, Inc.

## ORDERING INFORMATION



NOTE: ANTI-ROTATE/SUPPORT PLATE MUST BE UTILIZED FOR OFFSET OR EXTREME LOAD CONDITIONS.

Linear Straight Actuator

Stroke

Shafts

1.5  
2.5

S = Straight Pin  
L = L-block

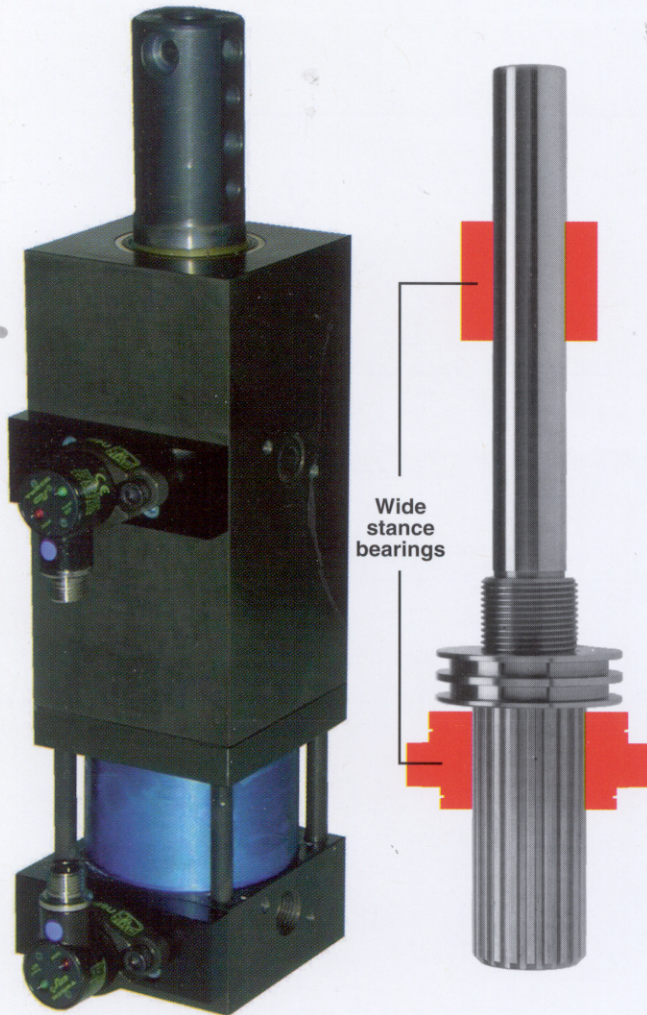
# = Flat Position  
(POSITION #1 STANDARD)

### Standard Features:

- Lubricated for life (typically 10,000,000 cycles)
- Set-up for 1.025" probe Cylindicators, 2 spacers included
- Patented spline anti-rotation - US Patent 5,974,948

# LSA-80<sup>TM</sup>

## Linear Straight Actuator



### **Rigid**

A wide stance, permanently lubricated bearing and a 1.5" hardened steel uni-shaft assures deflections of less than 0.0005" in typical applications.

### **Rugged**

The weld immune, non-stick, anti-gauling treatment on the hardened shaft combined with the ultimate in super rod scrapers assures long life in the toughest environments. Lubrication for life assures resistance to air supply contamination as well.

### **Compact**

The smallest size in the industry, the LSA is easy to fit into most applications. The small size is achieved by using the unique wide stance bearing system and a less than 5 minute spline.

### **Easy To Apply**

All mounting surfaces and proximity mounts comply with industry standards. Either pneumatic or hydraulic actuation is accommodated. Approved by Daimler Chrysler, Ford and General Motors.

GLOBAL STANDARD COMPONENTS  
**NAAMS**   
Assembly

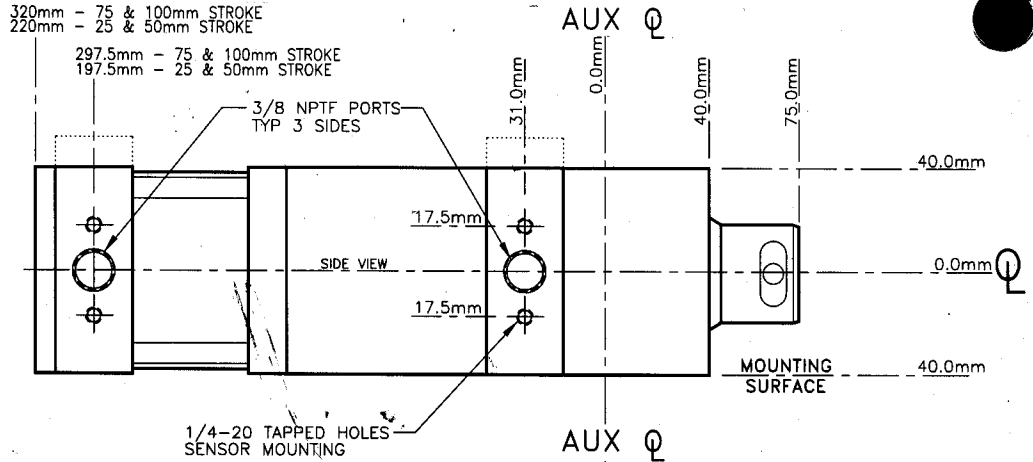


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# ZAYTRAN LSA-80

COMPLIES WITH:  
NAAMS GLOBAL STANDARD COMPONENTS - ASSEMBLY  
CHAPTER P - RETRACTABLE LOCATING PIN PACKAGE

Stroke	25, 50, 75, 100mm
Rap	2mm Optional
Bore Diameter	70mm
Maximum Pressure	69 BAR (1000 PSI)
Actuation	Hydraulic or Pneumatic
25/50mm of Stroke	Weight of Pin Assembly 14.3 lbs (6.5 kg)
75/100mm of Stroke	17.6 lbs (8.0 kg)



**Model Nomenclature:**  
LSA-80-(STROKE)-(S or L#)-(RAP or N0rap)

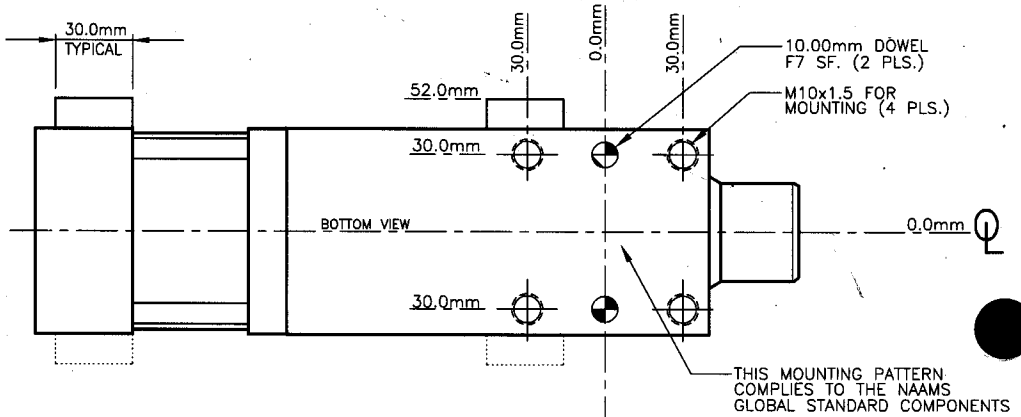
Note: # = 1,2,3,4 Flat Position  
(Position 1 is Standard)

S= Shaft For Inline Pin Mounting  
L= L-Block Pin Mounting

Example: LSA-80-50-L1-RAP

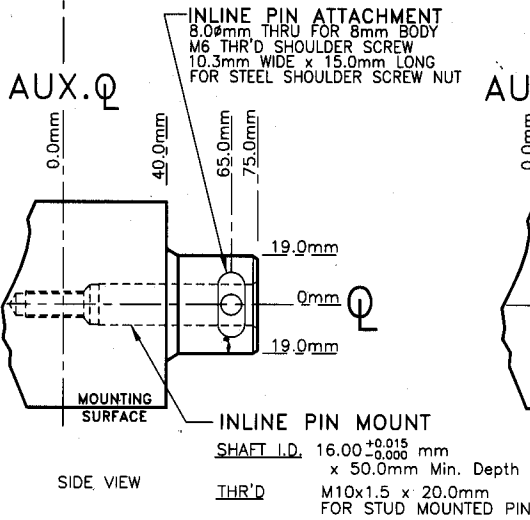
Included with Each "S" Unit:

- Shoulder Bolt with Steel Nut
- Pin Retaining Stud
- Permanent Risers for Cylindicators
- Utilizes Standard 1.025" Cylindicators



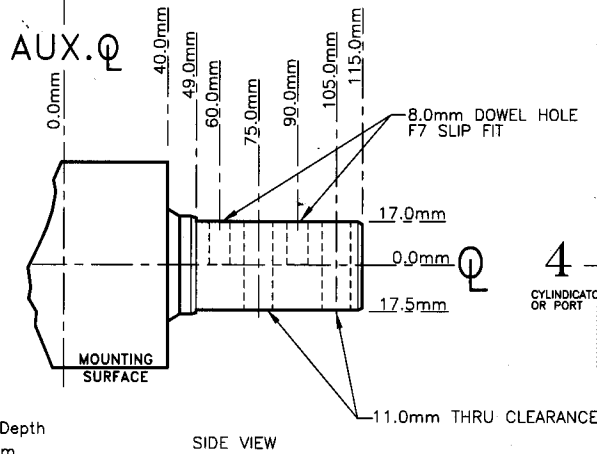
## "S" INLINE MOUNTING

SHAFT SHOWN AT RETRACTED POSITION



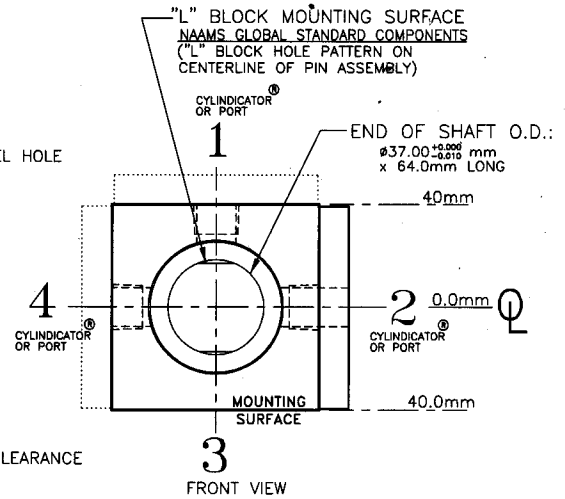
## "L" BLOCK MOUNTING

SHAFT SHOWN AT RETRACTED POSITION



## "L" BLOCK FLAT POSITION

\*STANDARD POSITION AT #1 SHOWN BELOW

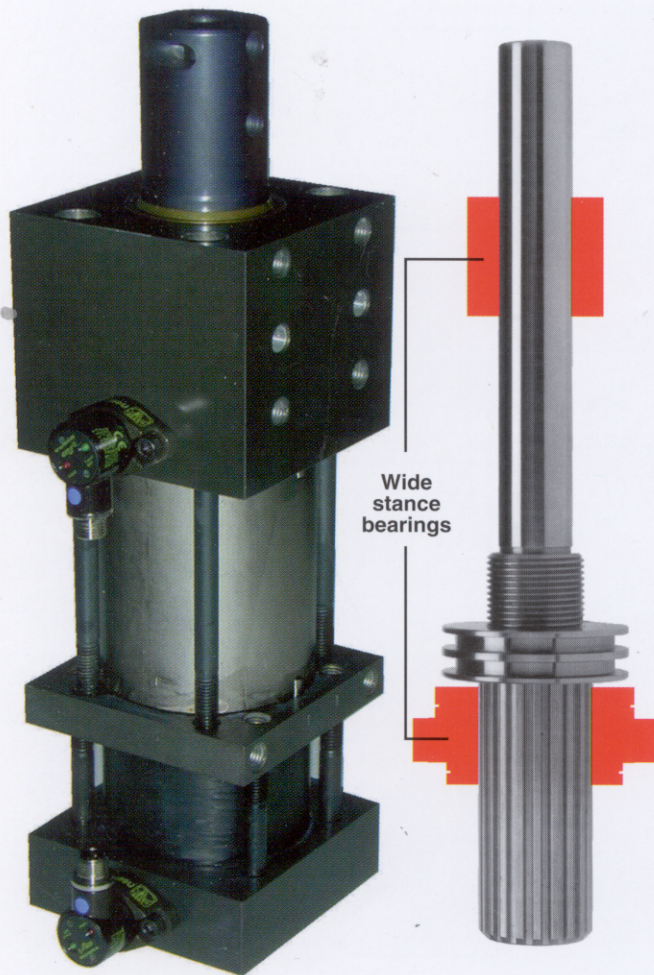


PSI	FORCE (pounds)	
	EXTEND	RETRACT
100	594	417
95	564	396
90	535	376
85	505	355

PSI	FORCE (pounds)	
	EXTEND	RETRACT
80	475	334
75	445	313
70	416	292
65	386	271
60	356	250

# LSA-100™

## Linear Straight Actuator



### **Rigid**

A wide stance, permanently lubricated bearing and a 2.0" hardened steel uni-shaft assures deflections of less than 0.0005" in typical applications.

### **Rugged**

The weld immune, non-stick, anti-gauling treatment on the hardened shaft combined with the ultimate in super rod scrapers assures long life in the toughest environments. Lubrication for life assures resistance to air supply contamination as well.

### **Compact**

The smallest size in the industry, the LSA is easy to fit into most applications. The small size is achieved by using the unique wide stance bearing system and a less than 5 minute spline.

### **Easy To Apply**

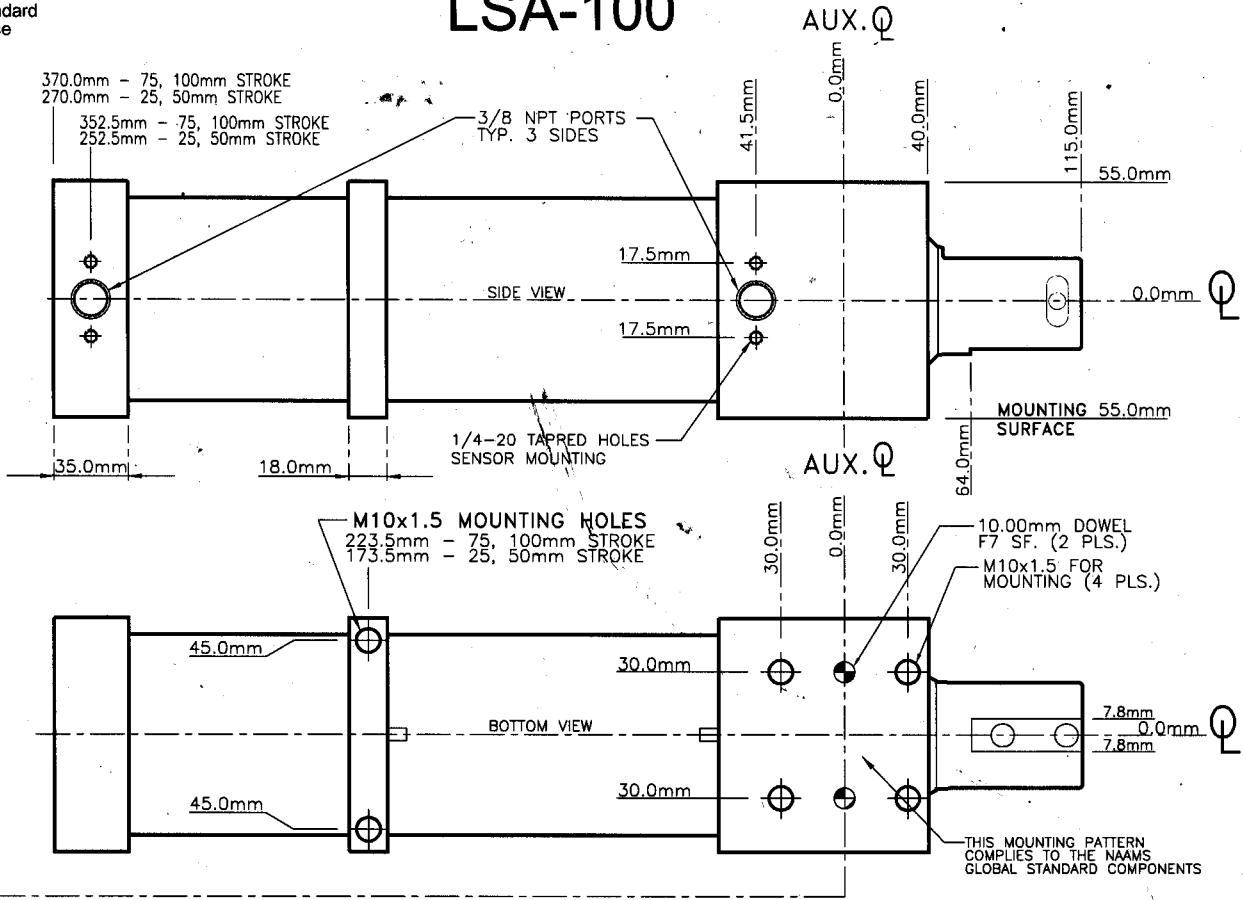
All mounting surfaces and proximity mounts comply with industry standards. Either pneumatic or hydraulic actuation is accommodated. Approved by Daimler Chrysler, Ford and General Motors.



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# ZAYTRAN LSA-100

Larger than  
NAAMS Global Standard  
For Heavier Duty Use

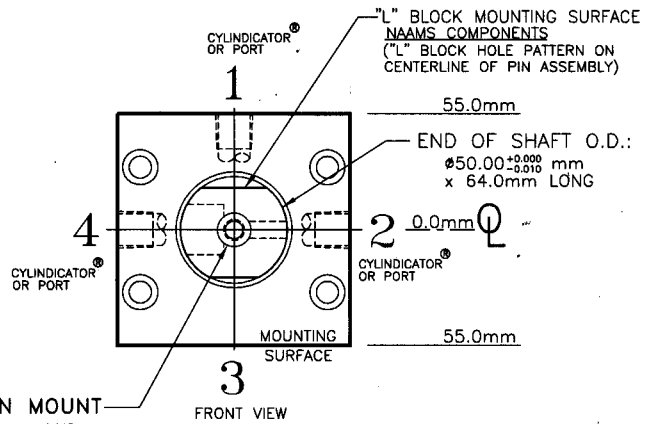
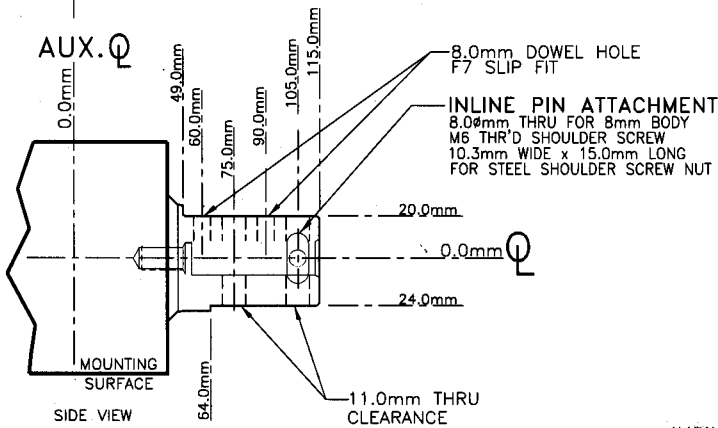


## PIN MOUNTING

SHAFT SHOWN AT RETRACTED POSITION

## "L" FLAT POSITION

\*STANDARD POSITION AT #1 SHOWN BELOW



## INCINE PIN MOUNT

**SHAFT I.D.** 16.00 $\pm 0.015$  mm  
x 50.0mm Min. Depth

**THR'D** M10x1.5 x 20.0mm  
FOR STUD MOUNTED PIN

**Model Nomenclature:**  
LSA-100-(STROKE)-(L#)-(RAP or N0rap)  
Note: # = 1,2,3,4 Flat Position  
(Position 1 is Standard)  
Example: LSA-100-50-L1-RAP

**Included with Each Unit:**  
Shoulder Bolt with Steel Nut  
Pin Retaining Stud

Utilizes Standard 1.025" Cylindicators

Stroke	25, 50, 75, 100mm
Rap	2mm Optional
Bore Diameter	83mm
Maximum Pressure	69 BAR (1000 PSI)
Actuation	Hydraulic or Pneumatic
25/50 mm of Stroke	Weight of Pin Assembly* 28 lbs (15.5 kg)
75/100 mm of Stroke	34.5 lbs (12.8 kg)

PSI	FORCE (pounds)	
	EXTEND	RETRACT
100	830	520
95	790	490
90	750	460
85	710	440
80	660	410
75	620	390
70	580	360
65	540	340
60	500	310