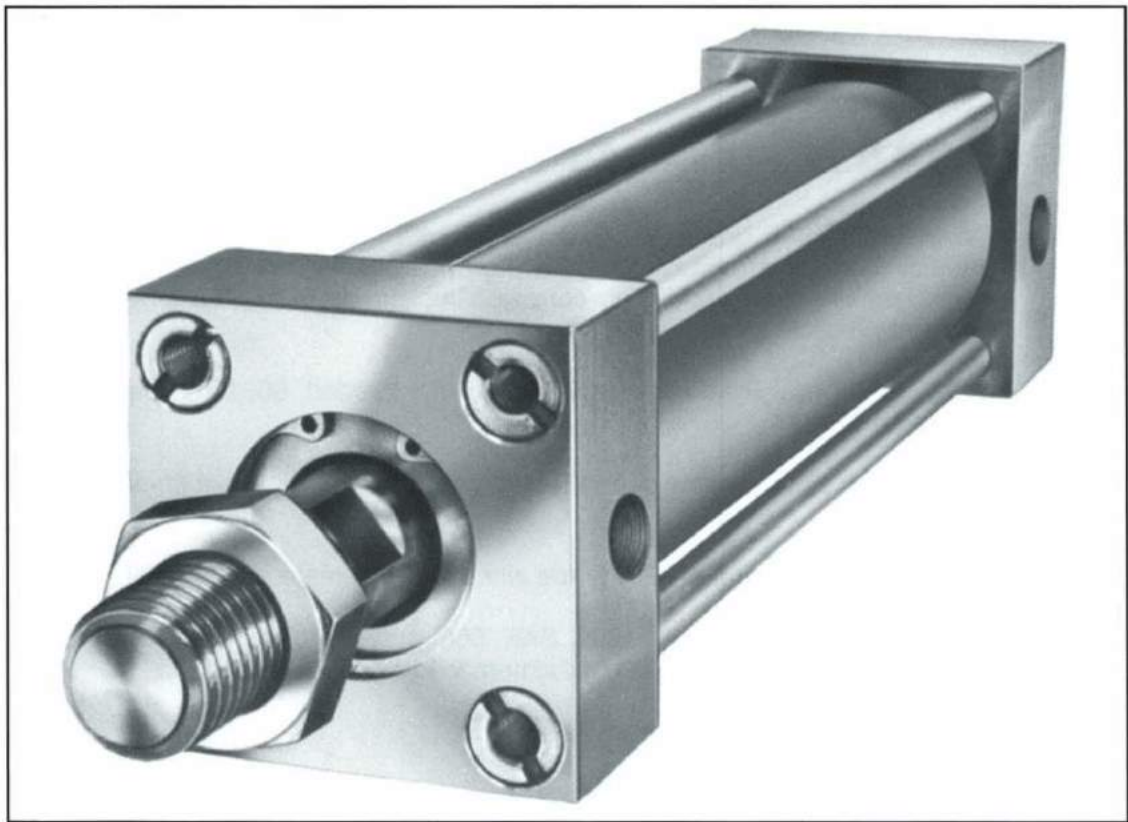
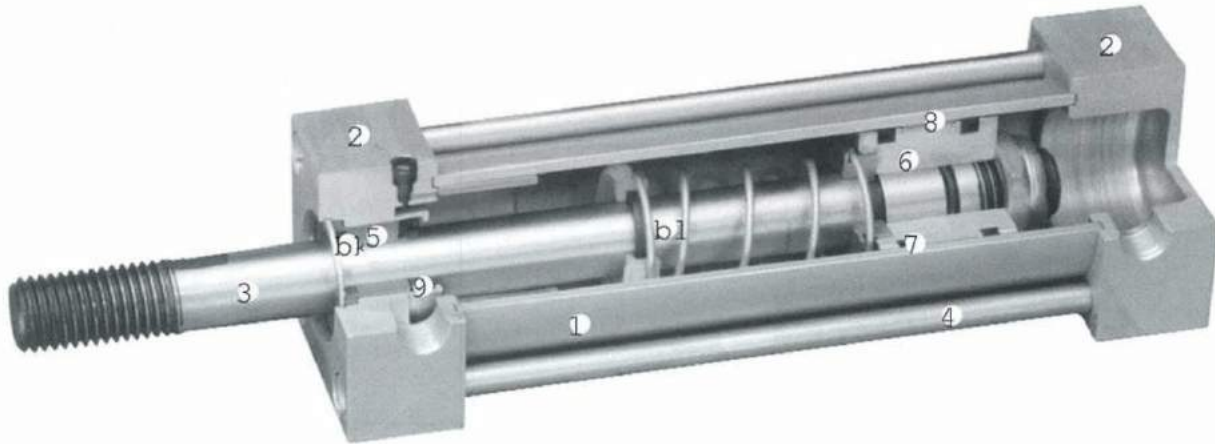


# • SERIES B & J



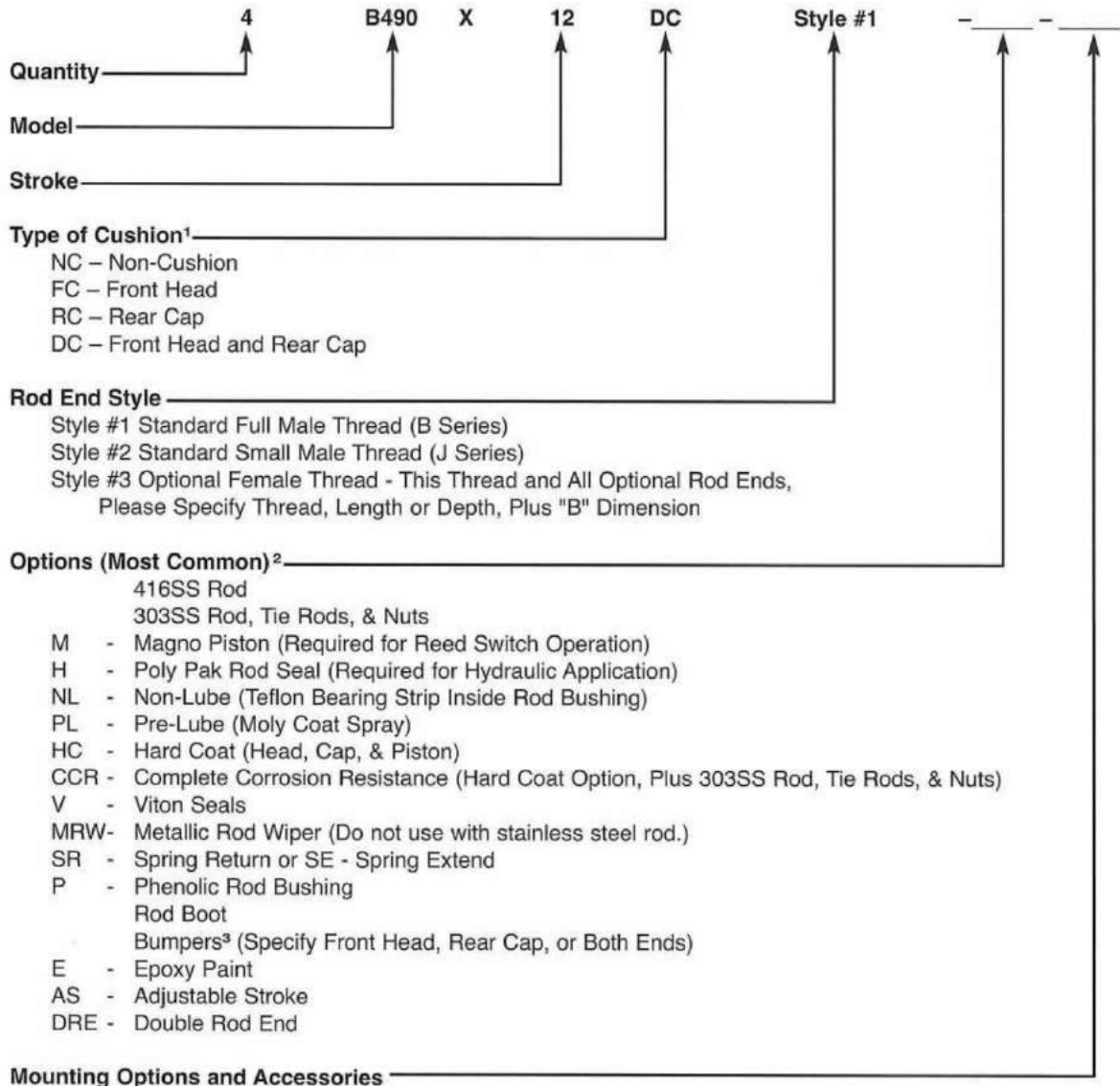
OEM Economy Line  
1 1/4" - 8" Bores  
250 PSI Pneumatic  
250 PSI Non-Shock Hydraulic



### **SERIES B & J MATERIAL AND DESIGN SPECIFICATIONS**

1. **Tube:** 6063-T832 grade aluminum alloy with hard coated I.D. This anodic coating provides extreme hardness, excellent wear, low coefficient of friction, and high corrosion resistance to ensure longer, trouble-free cycle life.
2. **Head and Cap:** Precision machined from extruded 6061-T6 grade aluminum alloy.
3. **Piston Rod:** Hard chrome plated steel ground and polished to a smooth finish.
4. **Tie Rods:** High strength 1215 grade zinc clear chromate plated steel.
5. **Rod Bushing:** Continuous cast SAE 660 grade bronze bushing is piloted into the head to provide maximum load bearing support.
6. **Piston:** High grade aluminum alloy.
7. **Piston Seals:** Block-Vee type, Buna N material is furnished as standard.
8. **Piston Bearing Strip:** A low friction, dimensionally stable nylon wear band constitutes an excellent bearing surface.
9. **Rod Seal:** Block-Vee type is self-adjusting to ensure proper seal.
10. **Rod Wiper:** Lip type urethane seal cleans piston rod and prevents foreign particles from entering cylinder.
11. **Cushion:** One inch long cushion for deceleration. (Optional)

## ORDERING INSTRUCTIONS FOR SERIES B & J CYLINDERS



Ports at Position #1 and Flush Mount Tapped Holes at Position #3 are standard in all cylinders.

Cushion Screw at Position #4 is standard.

**Note:** If not specified, AAC will assume cylinder desired is non-cushion, standard rod end and "B" dimension, hard chrome plated steel rod, Buna N seals, and ports at #1.

<sup>1</sup> 1" long standard. Consult factory for longer cushions.

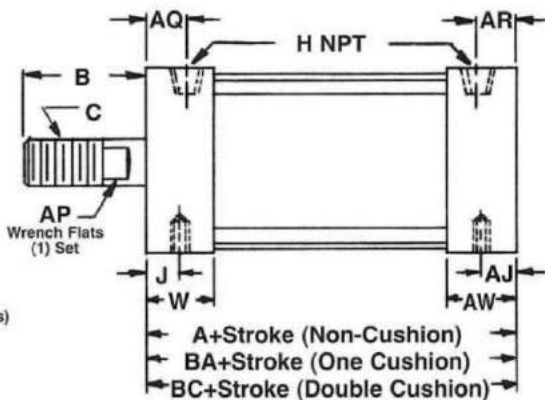
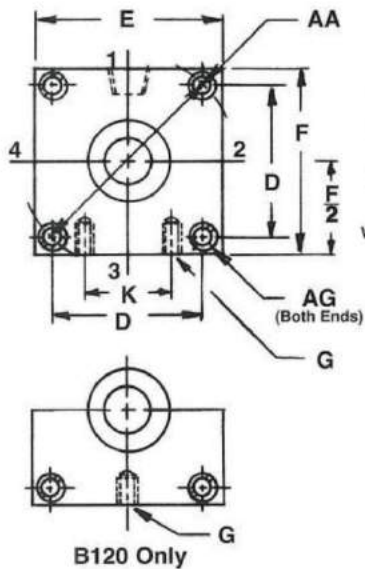
<sup>2</sup> Consult factory for other options not listed.

<sup>3</sup> Bumpers increase cylinder length. Consult factory.

# SERIES B & J CYLINDER DIMENSIONS

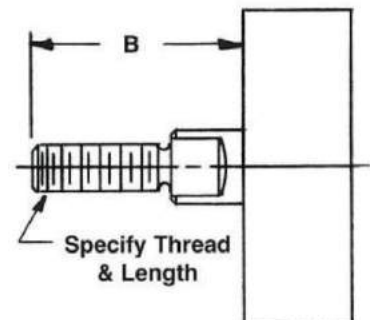
MODEL	BORE	ROD DIA.	EXTEND POWER MULTIPLE	RETRACT POWER MULTIPLE	A	B BD	C CD	D	E	F	G
B120	1¼	¾	1.23	1.12	2 <sup>29</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>8</sub>	¾-16x1	1.281	1 <sup>13</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>16</sub>	¼-28x¼
B240	1¾	¾	2.40	1.96	3 <sup>5</sup> / <sub>64</sub>	2¼	¾-10x1½	1.718	2 <sup>3</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>	⅝-24x <sup>3</sup> / <sub>8</sub>
B300	2	¾	3.14	2.70	3 <sup>5</sup> / <sub>64</sub>	2¼	¾-10x1½	1.875	2 <sup>3</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>	⅝-24x <sup>3</sup> / <sub>8</sub>
B490	2½	¾	4.91	4.47	3 <sup>5</sup> / <sub>64</sub>	2¼	¾-10x1½	2.203	2 <sup>7</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	⅝-24x <sup>9</sup> / <sub>16</sub>
B700	3	¾	7.07	6.62	3 <sup>5</sup> / <sub>64</sub>	2¼	¾-10x1½	2.625	3 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	⅝-24x <sup>9</sup> / <sub>16</sub>
B960	3½	1	9.62	8.84	4 <sup>35</sup> / <sub>64</sub>	2 <sup>5</sup> / <sub>8</sub>	1-8x1 <sup>5</sup> / <sub>8</sub>	3.219	4	4 <sup>1</sup> / <sub>8</sub>	¾-24x1 <sup>1</sup> / <sub>16</sub>
B1600	4½	1	15.90	15.12	4 <sup>35</sup> / <sub>64</sub>	2 <sup>5</sup> / <sub>8</sub>	1-8x1 <sup>5</sup> / <sub>8</sub>	4.031	5	5 <sup>1</sup> / <sub>8</sub>	½-20x1 <sup>1</sup> / <sub>16</sub>
B1960	5	1	19.63	18.85	4 <sup>5</sup> / <sub>64</sub>	2 <sup>5</sup> / <sub>8</sub>	1-8x1 <sup>5</sup> / <sub>8</sub>	4.100	5½	5½	½-20x1 <sup>1</sup> / <sub>16</sub>
J2800	6	1½	28.27	26.50	5¾	2½	1¼-12x1 <sup>5</sup> / <sub>8</sub>	4.875	6½	6½	½-20x <sup>5</sup> / <sub>8</sub>
J5000	8	1½	50.26	48.50	5¾	2½	1¼-12x1 <sup>5</sup> / <sub>8</sub>	6.440	8½	8½	⅝-18x¾

(1) AH dimension is minimum distance from cylinder face to centerline of rod clevis pin.

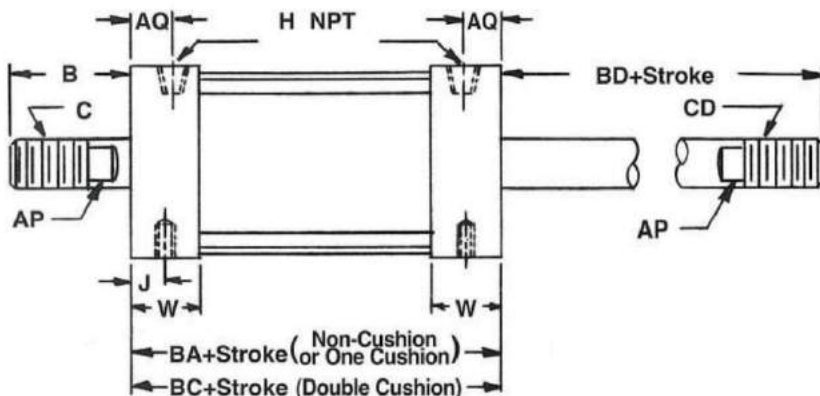


**STYLE #1 Standard Full Male Thread**  
jam nut furnished with standard style #1

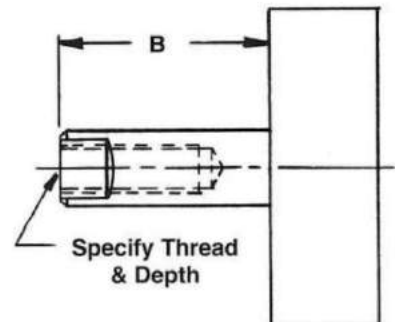
## OPTIONAL ROD END STYLES FOR SERIES B



**STYLE #2 Small Male Thread**  
unless specified, "B" dimension furnished standard length



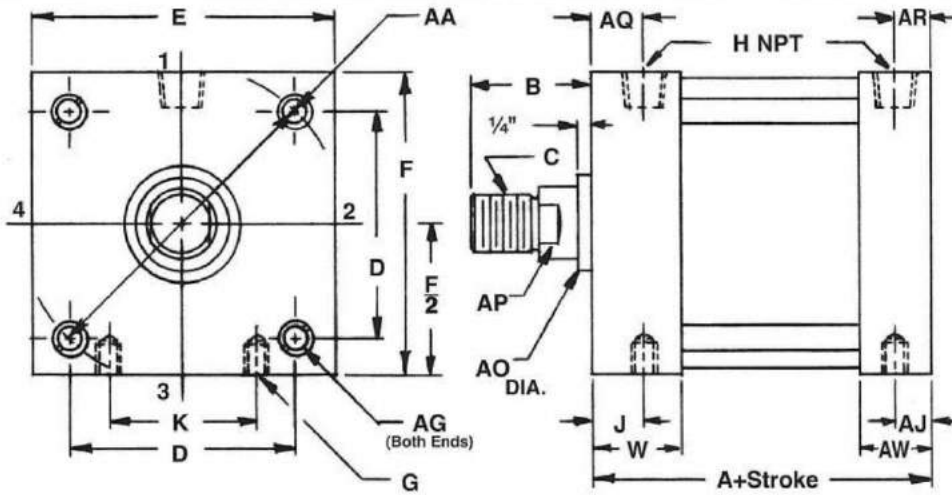
## DOUBLE ROD END



**STYLE #3 Female Thread**  
unless specified, "B" dimension furnished standard length

# SERIES B & J CYLINDER DIMENSIONS

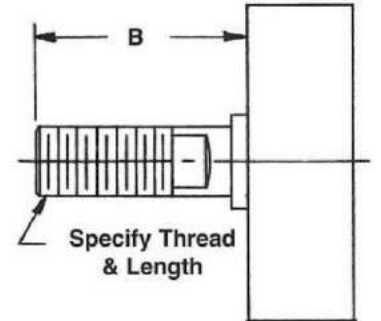
	H NPT	J	K	W	AA	AG	(1) AH	AJ	AO	AP	AQ	AR	AW	BA	BC	JA
	1/8	7/16	—	7/8	1.811	1/4-28x3/8	23/16	7/16	—	5/16	1/2	1/2	7/8	3 <sup>29</sup> / <sub>32</sub>	4 <sup>29</sup> / <sub>32</sub>	—
	1/4	19/32	25/32	13/16	2.430	5/16-24x1/2	3/8	19/32	—	5/8	3/4	3/4	13/16	4 <sup>51</sup> / <sub>64</sub>	5 <sup>51</sup> / <sub>64</sub>	—
	1/4	19/32	25/32	13/16	2.652	1/4-28x3/8	3/8	19/32	—	5/8	3/4	3/4	13/16	4 <sup>51</sup> / <sub>64</sub>	5 <sup>51</sup> / <sub>64</sub>	—
	3/8	19/32	1 1/4	13/16	3.115	5/16-24x1/2	35/16	19/32	—	5/8	1 1/16	1 1/16	13/16	4 <sup>51</sup> / <sub>64</sub>	5 <sup>51</sup> / <sub>64</sub>	—
	3/8	19/32	1 1/4	13/16	3.712	5/16-24x1/2	35/16	19/32	—	5/8	1 1/16	1 1/16	13/16	4 <sup>51</sup> / <sub>64</sub>	5 <sup>51</sup> / <sub>64</sub>	—
	1/2	23/32	127/32	1 1/2	4.552	3/8-24x1 1/16	3 15/16	23/32	—	7/8	27/32	27/32	1 1/2	5 <sup>35</sup> / <sub>64</sub>	6 <sup>35</sup> / <sub>64</sub>	—
	1/2	23/32	2 1/2	1 1/2	5.701	1/2-20x1 1/16	3 15/16	23/32	—	7/8	27/32	27/32	1 1/2	5 <sup>35</sup> / <sub>64</sub>	6 <sup>35</sup> / <sub>64</sub>	—
	1/2	3/4	2 11/16	1 1/2	5.798	1/2-20x1 1/16	3 15/16	3/4	—	7/8	27/32	27/32	1 1/2	5 <sup>51</sup> / <sub>64</sub>	6 <sup>51</sup> / <sub>64</sub>	—
	3/4	1 1/4	3 1/4	2	6.894	1/2-20x1/2	3 7/8	3/4	2	1 1/4	1 1/4	3/4	1 1/2	—	—	6 1/4
	3/4	1 1/4	4 1/2	2	9.108	5/8-18x1/2	3 7/8	3/4	2	1 1/4	1 1/4	3/4	1 1/2	—	—	6 1/4



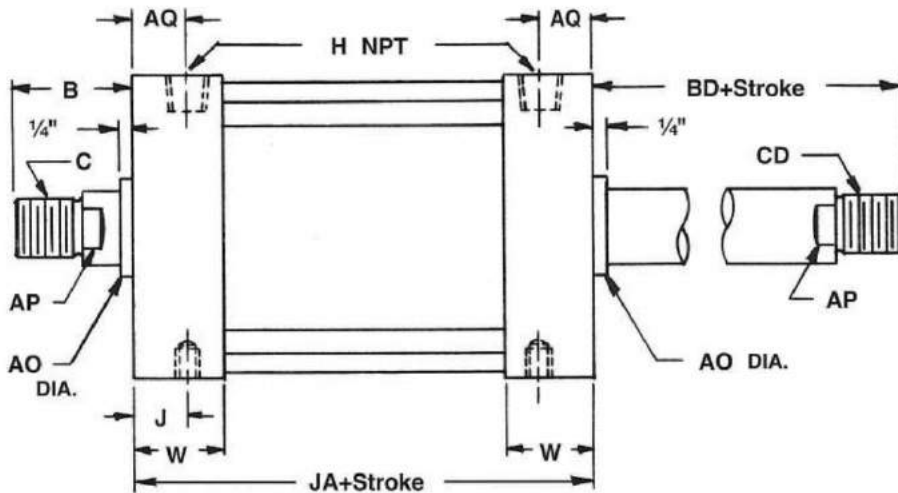
**STANDARD OR CUSHION**

**STYLE #2 Standard Small Male Thread**

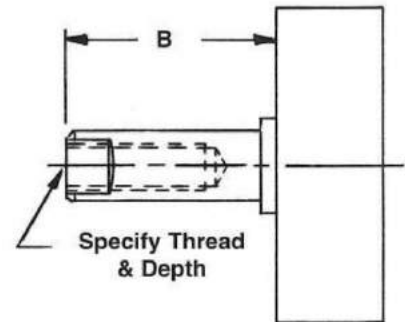
**OPTIONAL ROD END STYLES FOR SERIES J**



**STYLE #1 Full Male Thread** unless specified, "B" dimension furnished standard length



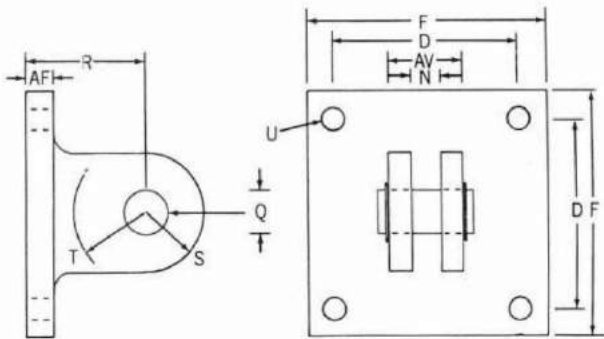
**STANDARD OR CUSHION DOUBLE ROD END**



**STYLE #3 Female Thread** unless specified, "B" dimension furnished standard length

# SERIES B & J MOUNTING OPTIONS

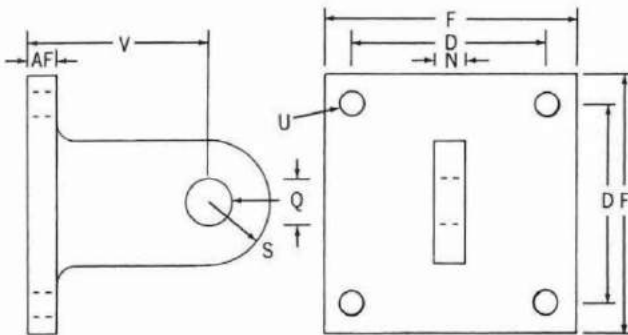
## CLEVIS MOUNT & PIN



MODEL	PART NO.	D	F	N	Q	R	S	T	U	AF	AV
B120	B120CM	1.281	1 <sup>13</sup> / <sub>16</sub>	1/4	3/8	1	7/16	9/16	17/64	1/4	3/4
B240	B240CM	1.718	2 <sup>3</sup> / <sub>8</sub>	1/2	1/2	1 <sup>3</sup> / <sub>8</sub>	5/8	7/8	2 <sup>1</sup> / <sub>64</sub>	1 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>8</sub>
B300	B300CM	1.875	2 <sup>3</sup> / <sub>8</sub>	1/2	1/2	1 <sup>3</sup> / <sub>8</sub>	5/8	7/8	17/64	1 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>8</sub>
B490	B490CM	2.203	2 <sup>7</sup> / <sub>8</sub>	1/2	5/8	1 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>16</sub>	1	2 <sup>1</sup> / <sub>64</sub>	7/16	1 <sup>1</sup> / <sub>4</sub>
B700	B700CM	2.625	3 <sup>3</sup> / <sub>8</sub>	1/2	5/8	2 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>64</sub>	3/8	1 <sup>1</sup> / <sub>4</sub>
B960	B960CM	3.219	4	1/2	3/4	2 <sup>1</sup> / <sub>16</sub>	1	1 <sup>1</sup> / <sub>4</sub>	2 <sup>5</sup> / <sub>64</sub>	9/16	1 <sup>1</sup> / <sub>2</sub>
B1600	B1600CM	4.031	4 <sup>7</sup> / <sub>8</sub>	1/2	3/4	2 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>64</sub>	9/16	1 <sup>1</sup> / <sub>2</sub>
B1960	B1960CM	4.031	4 <sup>7</sup> / <sub>8</sub>	1/2	3/4	2 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	5/8	9/16	1 <sup>1</sup> / <sub>2</sub>
J2800	J2800CM	4.875	6 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	1	2 <sup>1</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>32</sub>	5/8	3
J5000	J5000CM	4.875	6 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	1	2 <sup>1</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>32</sub>	5/8	3

NOTE: J5000 cap must be tapped to accept clevis mount.

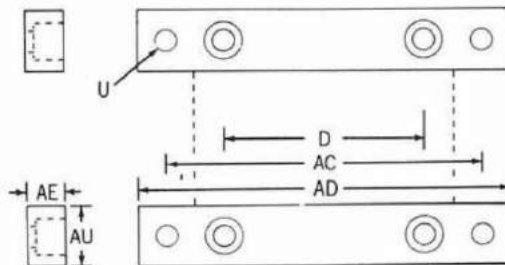
## EYE MOUNT



MODEL	PART NO.	D	F	N	Q	S	U	V	AF
B120	BEM-375	1.281	1 <sup>13</sup> / <sub>16</sub>	1/4	3/8	7/16	17/64	1 <sup>1</sup> / <sub>2</sub>	1/4
B240	BEM-500	1.718	2 <sup>3</sup> / <sub>8</sub>	1/2	1/2	5/8	2 <sup>1</sup> / <sub>64</sub>	1 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>32</sub>
B300	BEM-501	1.875	2 <sup>3</sup> / <sub>8</sub>	1/2	1/2	5/8	17/64	1 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>32</sub>
B490	BEM-625	2.203	2 <sup>7</sup> / <sub>8</sub>	1/2	5/8	1 <sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>64</sub>	2 <sup>1</sup> / <sub>8</sub>	7/16
B700	BEM-626	2.203	2 <sup>7</sup> / <sub>8</sub>	1/2	5/8	1 <sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>64</sub>	2 <sup>1</sup> / <sub>8</sub>	7/16
B960	BEM-750	3.219	4	1/2	3/4	1	2 <sup>5</sup> / <sub>64</sub>	3	9/16
B1600	BEM-751	4.031	4 <sup>7</sup> / <sub>8</sub>	1/2	3/4	1 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>64</sub>	3 <sup>1</sup> / <sub>2</sub>	9/16
B1960	BEM-752	4.031	4 <sup>7</sup> / <sub>8</sub>	1/2	3/4	1 <sup>1</sup> / <sub>8</sub>	5/8	3 <sup>1</sup> / <sub>2</sub>	9/16
J2800	BEM-100	4.875	6 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	1	1 <sup>5</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>4</sub>	5/8
J5000	BEM-101	4.875	6 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	1	1 <sup>5</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>4</sub>	5/8

NOTE: B700 & J5000 cap must be tapped to accept eye mount.

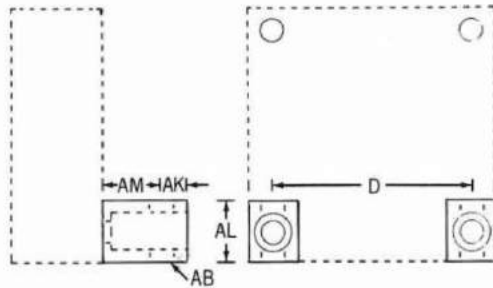
## FLANGE MOUNT



MODEL	PART NO.	D	U	AC	AD	AE	AU
B120	B120FM	1.281	1 <sup>7</sup> / <sub>64</sub>	2 <sup>5</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub>	3/8	5/8
B240	B240FM	1.718	2 <sup>1</sup> / <sub>64</sub>	3 <sup>1</sup> / <sub>32</sub>	3 <sup>19</sup> / <sub>32</sub>	7/16	5/8
B300	B300FM	1.875	2 <sup>1</sup> / <sub>64</sub>	3 <sup>1</sup> / <sub>32</sub>	3 <sup>5</sup> / <sub>8</sub>	7/16	3/4
B490	B490FM	2.203	2 <sup>1</sup> / <sub>64</sub>	3 <sup>7</sup> / <sub>16</sub>	4	7/16	3/4
B700	B700FM	2.625	2 <sup>1</sup> / <sub>64</sub>	3 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	7/16	3/4
B960	B960FM	3.219	2 <sup>5</sup> / <sub>64</sub>	5 <sup>1</sup> / <sub>16</sub>	5 <sup>19</sup> / <sub>16</sub>	5/8	1
B1600	B1600FM	4.031	3 <sup>3</sup> / <sub>64</sub>	6 <sup>1</sup> / <sub>16</sub>	7	5/8	1
B1960	B1960FM	4.100	3 <sup>3</sup> / <sub>64</sub>	6 <sup>9</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	5/8	1
J2800	J2800FM	4.875	1 <sup>7</sup> / <sub>32</sub>	7 <sup>5</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub>	3/4	1 <sup>5</sup> / <sub>8</sub>
J5000	J5000FM	6.440	4 <sup>1</sup> / <sub>64</sub>	10	11 <sup>1</sup> / <sub>4</sub>	7/8	2

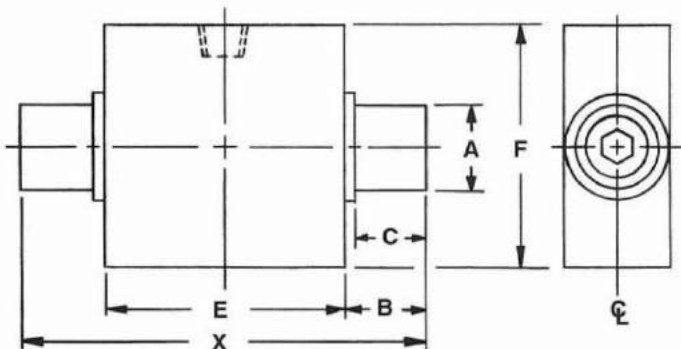
# SERIES B & J MOUNTING OPTIONS

## END LUG MOUNT



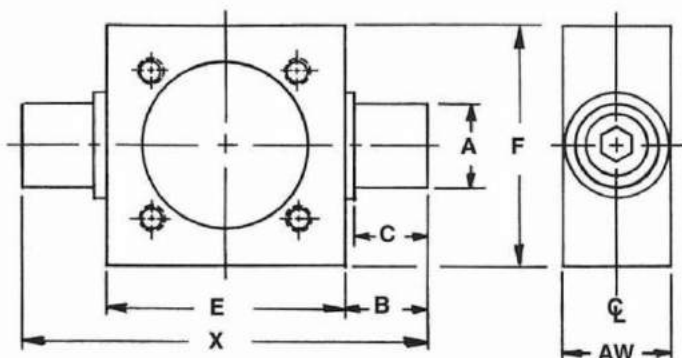
MODEL	PART NO.	D	AB	AK	AL	AM
B120	B120ELM	1.281	.257	5/16	9/16	1/2
B240	B240ELM	1.718	.323	5/16	11/16	5/8
B300	B120ELM	1.875	.257	5/16	9/16	1/2
B490	B240ELM	2.203	.323	5/16	11/16	5/8
B700	B240ELM	2.625	.323	5/16	11/16	5/8
B960	B960ELM	3.219	33/64	3/8	7/8	1
B1600	B1600ELM	4.031	33/64	3/8	1	1
B1960	B1960ELM	4.100	33/64	3/8	1 1/8	1
J2800	J2800ELM	4.875	33/64	3/8	1 1/8	1
J5000	J5000ELM	6.440	33/64	3/4	2	1 1/4

NOTE: (4) pieces total, (2) for each end.



## FRONT OR REAR TRUNNION

MODEL	A	B	C	E	F	X
B120	3/8	7/16	3/8	1 13/16	1 13/16	2 11/16
B240	1	15/16	7/8	2 3/8	2 3/8	4 1/4
B300	1	15/16	7/8	2 3/8	2 3/8	4 1/4
B490	1	15/16	7/8	2 7/8	2 7/8	4 3/4
B700	1	15/16	7/8	3 3/8	3 3/8	5 1/4
B960	1	15/16	7/8	4	4 1/8	5 7/8
B1600	1	15/16	7/8	5	5 1/8	6 7/8
B1960	1	15/16	7/8	5 1/2	5 1/2	7 3/8
J2800	1 3/8	1 3/8	1 1/4	6 1/2	6 1/2	9 1/4
J5000	1 3/8	1 3/8	1 1/4	8 1/2	8 1/2	11 1/4

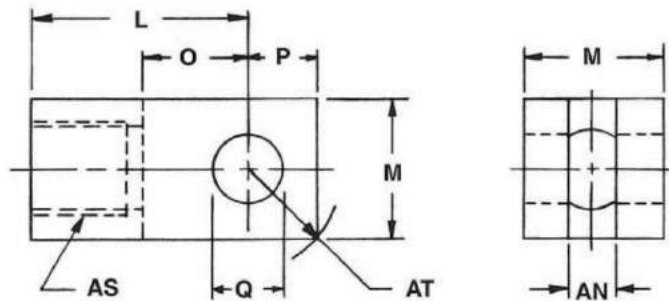


## CENTER TRUNNION

MODEL	A	B	C	E	F	X	AW
B240	1	15/16	7/8	2 7/8	2 7/8	4 3/4	1 3/16
B300	1	15/16	7/8	2 7/8	2 7/8	4 3/4	1 3/16
B490	1	15/16	7/8	3 3/8	3 3/8	5 1/4	1 3/16
B700	1	15/16	7/8	4	4 1/8	5 7/8	1 1/2
B960	1	15/16	7/8	5	5 1/8	6 7/8	1 1/2
B1600	1	15/16	7/8	5 1/2	5 1/2	7 3/8	1 1/2
B1960	1	15/16	7/8	6 1/2	6 1/2	8 3/8	1 1/2
J2800	1 3/8	1 3/8	1 1/4	8 1/2	8 1/2	11 1/4	1 1/2

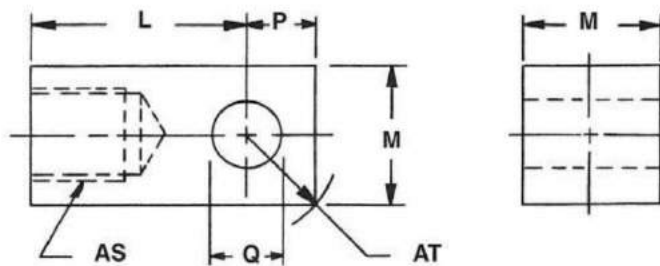
NOTE: Unless specified, trunnion located in the center of cylinder.

# SERIES B & J ACCESSORIES



### ROD CLEVIS

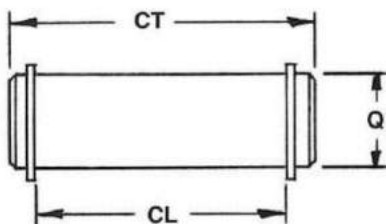
MODEL	PART NO.	L	M	O	P	Q	AN	AS	AT
B120	BRC-375	1 <sup>11</sup> / <sub>32</sub>	3/4	1 <sup>7</sup> / <sub>32</sub>	3/8	3/8	1/4	3/8-16 x 7/8	1 <sup>7</sup> / <sub>32</sub>
B240-300	BRC-750	1 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	3/4	9/16	1/2	1/2	3/4-10 x 1	5 <sup>1</sup> / <sub>64</sub>
B490-700	BRC-751	2 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>16</sub>	9/16	5/8	1/2	3/4-10 x 1	5 <sup>1</sup> / <sub>64</sub>
B960-1600 -1960	BRC-100	2 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>8</sub>	3/4	3/4	1/2	1-8 x 1	1 <sup>1</sup> / <sub>16</sub>
J2800-5000	BRC-125	3	2	1	1	1	1	1 <sup>1</sup> / <sub>4</sub> -12 x 1 <sup>5</sup> / <sub>8</sub>	1 <sup>27</sup> / <sub>64</sub>



### ROD EYE

MODEL	PART NO.	L	M	P	Q	AS	AT
B120	BRE-375	1 <sup>11</sup> / <sub>32</sub>	3/4	3/8	3/8	3/8-16 x 7/8	1 <sup>7</sup> / <sub>32</sub>
B240-300	BRE-750	1 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	9/16	1/2	3/4-10 x 1	5 <sup>1</sup> / <sub>64</sub>
B490-700	BRE-751	2 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	9/16	5/8	3/4-10 x 1	5 <sup>1</sup> / <sub>64</sub>
B960-1600 -1960	BRE-100	2 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3/4	3/4	1-8 x 1	1 <sup>1</sup> / <sub>16</sub>
J2800-5000	BRE-125	3	2	1	1	1 <sup>1</sup> / <sub>4</sub> -12 x 1 <sup>5</sup> / <sub>8</sub>	1 <sup>27</sup> / <sub>64</sub>

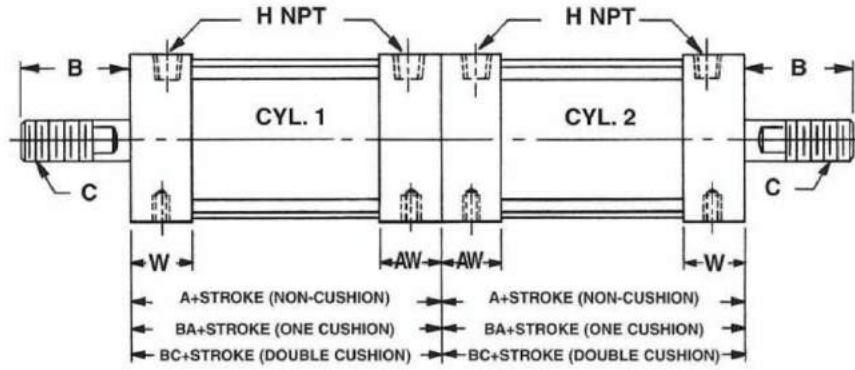
### PIVOT PIN & SNAPS



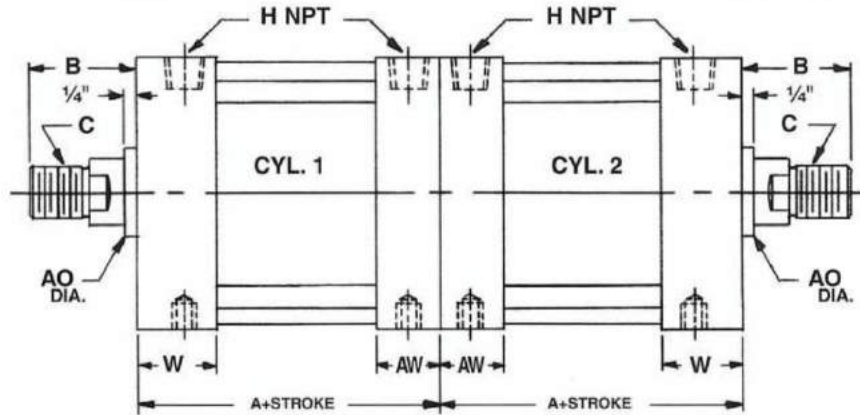
MODEL	PART NO.	Q	CL	CT	W/ROD CLEVIS
B120	BP-375	3/8	1 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	BRC-375
B240-300	BP-500	1/2	1 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	BRC-750
B490-700	BP-625	5/8	1 <sup>5</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	BRC-751
B960-1600 -1960	BP-750	3/4	1 <sup>9</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	BRC-100
J2800-5000	BP-1100	1	2 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>	BRC-125



# MULTIPLE POSITION CYLINDERS



**SERIES B MULTIPLE POSITION  
TANDEM BACK TO BACK**



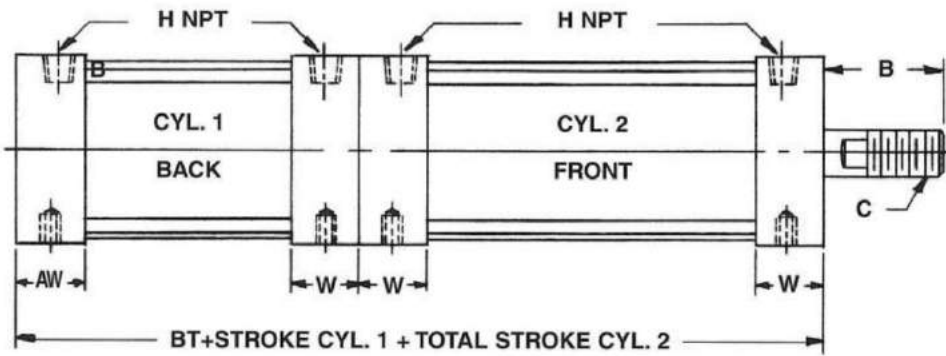
**SERIES J MULTIPLE POSITION TANDEM BACK TO BACK STANDARD OR CUSHION**

CONSULT FACTORY FOR ORDERING INSTRUCTIONS

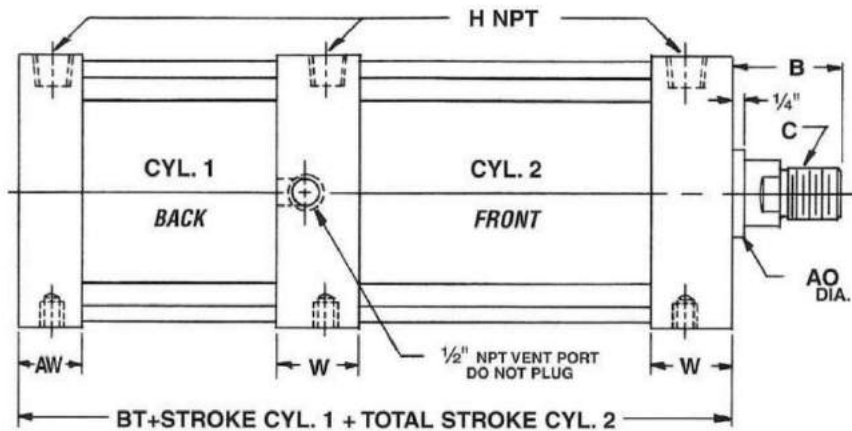
## SERIES B & J CYLINDER DIMENSIONS

MODEL	BORE	ROD DIA.	A	B	C	H NPT	W	AO	AW	BA	BC
B120	1 1/4	3/8	2 <sup>29</sup> / <sub>32</sub>	1 5/8	3/8-16 x 1	1/8	7/8	---	7/8	3 <sup>29</sup> / <sub>32</sub>	4 <sup>29</sup> / <sub>32</sub>
B240	1 3/4	3/4	3 <sup>51</sup> / <sub>64</sub>	2 1/4	3/4-10 x 1 1/2	1/4	1 3/16	---	1 3/16	4 <sup>51</sup> / <sub>64</sub>	5 <sup>31</sup> / <sub>64</sub>
B300	2	3/4	3 <sup>51</sup> / <sub>64</sub>	2 1/4	3/4-10 x 1 1/2	1/4	1 3/16	---	1 3/16	4 <sup>51</sup> / <sub>64</sub>	5 <sup>31</sup> / <sub>64</sub>
B490	2 1/2	3/4	3 <sup>51</sup> / <sub>64</sub>	2 1/4	3/4-10 x 1 1/2	3/8	1 3/16	---	1 3/16	4 <sup>51</sup> / <sub>64</sub>	5 <sup>31</sup> / <sub>64</sub>
B700	3	3/4	3 <sup>51</sup> / <sub>64</sub>	2 1/4	3/4-10 x 1 1/2	3/8	1 3/16	---	1 3/16	4 <sup>51</sup> / <sub>64</sub>	5 <sup>31</sup> / <sub>64</sub>
B960	3 1/2	1	4 <sup>35</sup> / <sub>64</sub>	2 5/8	1-8 x 1 5/8	1/2	1 1/2	---	1 1/2	5 <sup>35</sup> / <sub>64</sub>	6 <sup>35</sup> / <sub>64</sub>
B1600	4 1/2	1	4 <sup>35</sup> / <sub>64</sub>	2 5/8	1-8 x 1 5/8	1/2	1 1/2	---	1 1/2	5 <sup>35</sup> / <sub>64</sub>	6 <sup>35</sup> / <sub>64</sub>
B1960	5	1	4 <sup>51</sup> / <sub>64</sub>	2 5/8	1-8 x 1 5/8	1/2	1 1/2	---	1 1/2	5 <sup>51</sup> / <sub>64</sub>	6 <sup>31</sup> / <sub>64</sub>
J2800	6	1 1/2	5 3/4	2 1/2	1 1/4-12 x 1 5/8	3/4	2	2	1 1/2	---	---
J5000	8	1 1/2	5 3/4	2 1/2	1 1/4-12 x 1 5/8	3/4	2	2	1 1/2	---	---

# MULTIPLE POSITION CYLINDERS



**SERIES B MULTIPLE POSITION TANDEM FRONT TO BACK**  
 CONSULT FACTORY FOR ONE CENTER HEAD DESIGN



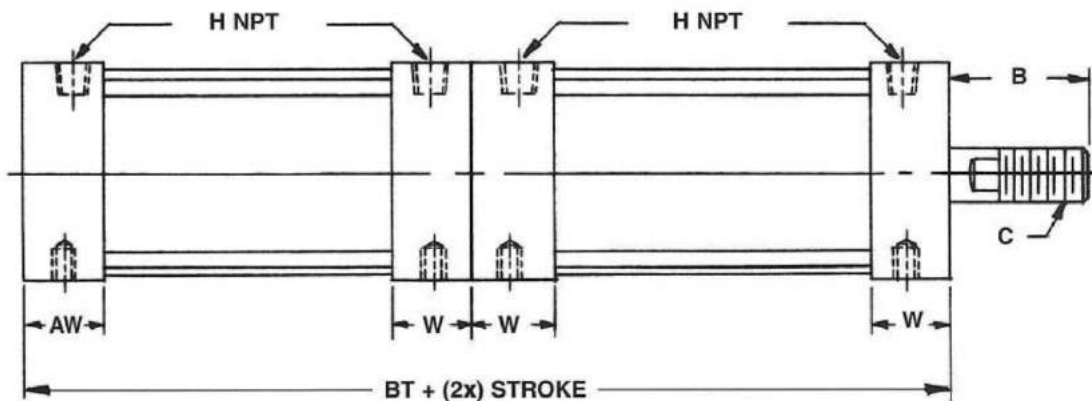
**SERIES J MULTIPLE POSITION TANDEM FRONT TO BACK**

CONSULT FACTORY FOR ORDERING INSTRUCTIONS

## SERIES B & J CYLINDER DIMENSIONS

MODEL	BORE	ROD DIA.	B	C	H NPT	W	AO	AW	BT
B120	1 1/4	3/8	1 5/8	3/8-16 x 1	1/8	7/8	---	7/8	6 13/16
B240	1 3/4	3/4	2 1/4	3/4-10 x 1 1/2	1/4	1 3/16	---	1 3/16	8 19/32
B300	2	3/4	2 1/4	3/4-10 x 1 1/2	1/4	1 3/16	---	1 3/16	8 19/32
B490	2 1/2	3/4	2 1/4	3/4-10 x 1 1/2	3/8	1 3/16	---	1 3/16	8 19/32
B700	3	3/4	2 1/4	3/4-10 x 1 1/2	3/8	1 3/16	---	1 3/16	8 19/32
B960	3 1/2	1	2 5/8	1-8 x 1 5/8	1/2	1 1/2	---	1 1/2	10 3/32
B1600	4 1/2	1	2 5/8	1-8 x 1 5/8	1/2	1 1/2	---	1 1/2	10 3/32
B1960	5	1	2 5/8	1-8 x 1 5/8	1/2	1 1/2	---	1 1/2	10 19/32
J2800	6	1 1/2	2 1/2	1 1/4-12 x 1 5/8	3/4	2	2	1 1/2	11
J5000	8	1 1/2	2 1/2	1 1/4-12 x 1 5/8	3/4	2	2	1 1/2	11

# TANDEM COMMON ROD CYLINDERS



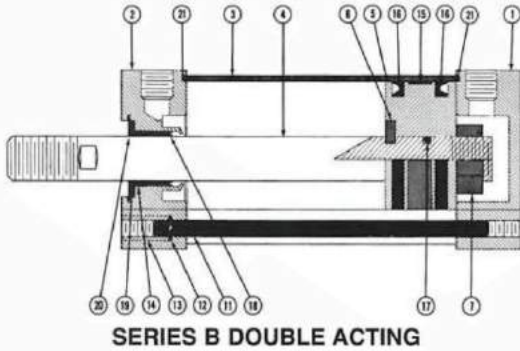
## SERIES B TANDEM FRONT TO BACK WITH COMMON ROD

CONSULT FACTORY FOR ORDERING INSTRUCTIONS

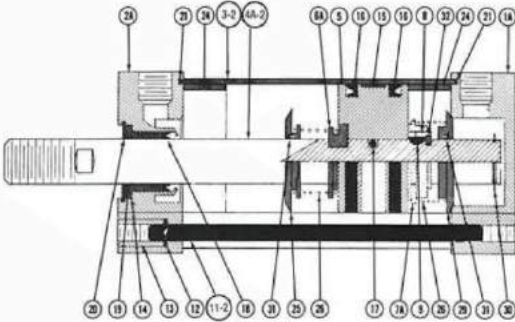
## SERIES B CYLINDER DIMENSIONS

MODEL	BORE	ROD DIA.	B	C	H NPT	W	AW	BT
B120	1¼	¾	1½	¾-16 x 1	⅛	⅞	⅞	6 <sup>13</sup> / <sub>16</sub>
B240	1¾	¾	2¼	¾-10 x 1½	¼	1 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	8 <sup>19</sup> / <sub>32</sub>
B300	2	¾	2¼	¾-10 x 1½	¼	1 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	8 <sup>19</sup> / <sub>32</sub>
B490	2½	¾	2¼	¾-10 x 1½	⅜	1 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	8 <sup>19</sup> / <sub>32</sub>
B700	3	¾	2¼	¾-10 x 1½	⅜	1 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	8 <sup>19</sup> / <sub>32</sub>
B960	3½	1	2 <sup>5</sup> / <sub>8</sub>	1-8 x 1 <sup>5</sup> / <sub>8</sub>	½	1½	1½	10 <sup>3</sup> / <sub>32</sub>
B1600	4½	1	2 <sup>5</sup> / <sub>8</sub>	1-8 x 1 <sup>5</sup> / <sub>8</sub>	½	1½	1½	10 <sup>3</sup> / <sub>32</sub>
B1960	5	1	2 <sup>5</sup> / <sub>8</sub>	1-8 x 1 <sup>5</sup> / <sub>8</sub>	½	1½	1½	10 <sup>19</sup> / <sub>32</sub>

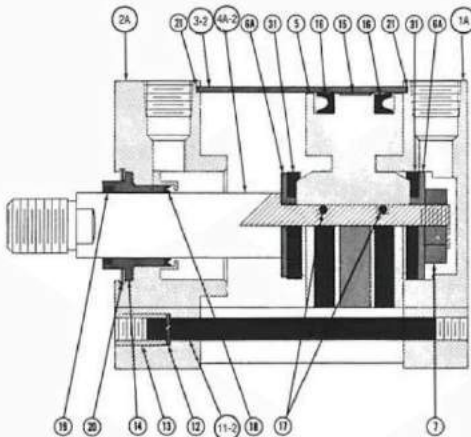
PARTS LIST



SERIES B DOUBLE ACTING



SERIES B DOUBLE CUSHION



SERIES J DOUBLE CUSHION

P/N	DESCRIPTION	QTY.
1	REAR CAP	1
1A	REAR CAP CUSHIONED (WITH P/N 27 & 18)	1
2	FRONT HEAD	1
2A	FRONT HEAD CUSHIONED (WITH P/N 27 & 28)	1
3	CYLINDER TUBE	1
3-1	CYLINDER TUBE (CUSHION ONE END)	1
3-2	CYLINDER TUBE (DOUBLE CUSHION)	1
4	PISTON ROD	1
4A	PISTON ROD — REAR CUSHION (WITH P/N 7A, 8 & 9)	1
4A-1	PISTON ROD — FRONT CUSHION	1
4A-2	PISTON ROD — DOUBLE CUSHION (WITH P/N 7A, 8 & 9)	1
4A-B	PISTON ROD — DOUBLE ROD END (WITH P/N 7A, 8 & 9)	1
5	PISTON	1
6	PISTON SUPPORT	1*
6A	PISTON SUPPORT CUSHIONED	1*
7	PISTON NUT	1
7A	PISTON NUT (REAR CUSHION & DOUBLE ROD END)	1*
8-9	SPLIT SCREW & KEY	1*
10	PISTON ROD JAM NUT	1*
11	TIE ROD	4
11-1	TIE ROD (CUSHION ONE END)	4
11-2	TIE ROD (DOUBLE CUSHION)	4
12	TIE ROD LOCKWASHER	4
13	TIE ROD NUT	4
14	ROD BUSHING	1
15	PISTON BEARING STRIP	1
16	PISTON SEAL	2
17	PISTON ROD "O" RING	1*
18	ROD SEAL (STANDARD)	1
18PP	ROD SEAL (HYDRAULIC)	1
19	ROD WIPER	1
20	BUSHING RETAINING RING	1
21	TUBE SEAL GASKET OR ("O" RING J SERIES)	2
24	CUSHION INSERT	1†
25	FRONT CUSHION	1*
26	CUSHION SPRING	1†
27	CUSHION SCREW	1†
28	CUSHION SCREW "O" RING	1†
29	REAR CUSHION	1*
30	REAR CUSHION RETAINING RING	1*
31	CUSHION SEAL	1†
32	SPLIT SCREW SUPPORT	1*

NOTE: \* Difference in quantities between series  
 † Per cushion

REPAIR KITS

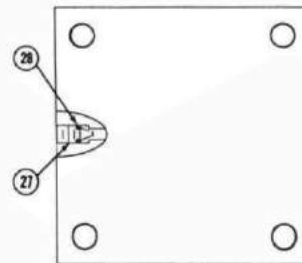
Repair kits containing all wearable replacement parts are available. Please specify cylinder model, single or double ended, type of cushion, air or hydraulic operated and any options which affect repair kit.

**(B&J) STANDARD REPAIR KIT CONTAINS:** P/N 14, 15, 16, 17, 18, 19, 20 & 21.

**(B) REAR CUSHION REPAIR KIT CONTAINS:** Standard repair kit plus P/N 26, 28, 30 & 31.

**(B) FRONT CUSHION REPAIR KIT CONTAINS:** Standard repair kit plus P/N 26, 28 & 31.

**(J) CUSHION REPAIR KIT CONTAINS:** Standard repair kit plus P/N 28 & 31.



SERIES B & J CUSHION ADJUSTMENT



### **SERIES R MATERIAL AND DESIGN SPECIFICATIONS**

1. **Tube:** 6063-T832 grade aluminum alloy with hard coated I.D. This anodic coating provides extreme hardness, excellent wear, low coefficient of friction, and high corrosion resistance to ensure longer, trouble-free cycle life.
2. **Head and Cap:** Precision machined from extruded 6061-T6 grade aluminum alloy and hard coated for corrosion resistance as standard.
3. **Piston Rod:** Hard chrome plated steel ground and polished to a smooth finish.
4. **Rod Bushing:** Continuous cast SAE 660 grade bronze bushing is piloted into the head to provide maximum load bearing support.
5. **Piston:** High grade aluminum alloy.
6. **Piston Seals:** Block-Vee type, Buna N material is furnished as standard.
7. **Piston Bearing Strip:** A low friction, dimensionally stable nylon wear band constitutes an excellent bearing surface.
8. **Rod Seal:** Block-Vee type is self-adjusting to ensure proper seal.
9. **Rod Wiper:** Lip type urethane seal cleans piston rod and prevents foreign particles from entering cylinder.
10. **Cushion:** Self-adjusting urethane cup moves into the head/cap to insure a positive seal and allows air to meter across the cushion screw. This method provides a fast breakaway and more precise adjustment. (Optional)

## ORDERING INSTRUCTIONS FOR SERIES R CYLINDERS

	4	R300	X	6	Clevis Mount	DC	Style #1	-	-	-
Quantity	↑									
Model		↑								
Stroke				↑						
Mounting Style					↑					
Type of Cushion						↑				
NC - Non-Cushion FC - Front Head RC - Rear Cap DC - Front Head and Rear Cap										
Rod End Style							↑			
Style #1 Standard Full Male Thread (R300, R490, & R700) Style #2 Standard Small Male Thread (R240) Style #3 Optional Female Thread - This Thread and all Optional Rod Ends, Please Specify Thread, Length or Depth, Plus "B" Dimension										
Options (Most Common) <sup>1</sup>							↑			
416SS Rod 303SS Rod M - Magno Piston (Required for Reed Switch Operation) <sup>2</sup> H - Poly Pak Rod Seal (Required for Hydraulic Application) NL - Non-Lube (Teflon Bearing Strip Inside Rod Bushing) PL - Pre-Lube (Moly Coat Spray) HC - Hard Coat (Piston Only) CCR - Complete Corrosion Resistance (Hard Coat Option, Plus 303SS Rod) V - Viton Seals MRW - Metallic Rod Wiper (Do not use with stainless steel rod.) SR - Spring Return or SE - Spring Extend P - Phenolic Rod Bushing Bumpers <sup>3</sup> (Specify Front Head, Rear Cap, or Both Ends) E - Epoxy Paint DRE - Double Rod End										
Cylinder Accessories							↑			

**Note:** If not specified, AAC will assume cylinder desired is non-cushion, standard rod end and "B" dimension, hard chrome plated steel rod, and Buna N seals.

<sup>1</sup> Consult factory for other options not listed.

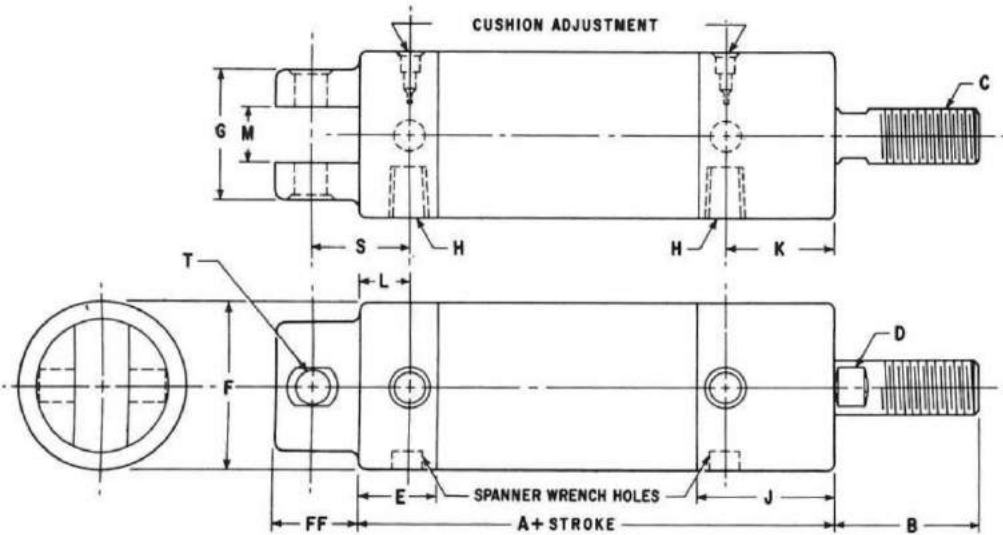
<sup>2</sup> A tie rod is attached to outside of cylinder to mount switch.

<sup>3</sup> Bumpers increase cylinder length. Consult factory.

# SERIES R CYLINDER & ACCESSORIES DIMENSIONS

MODEL	BORE	ROD DIA.	EXTEND POWER MULTIPLE	RETRACT POWER MULTIPLE	A	B	C	D	E	F	G	H NPT	J	K	L	M	N	P	Q	R	S	T	U	V
R240	1 3/4	3/4	2.40	1.96	5 7/16	1 1/2	1/2-20x1	5/8	7/8	2	1 1/2	1/4	1 25/32	1 9/16	1 3/32	3/4	1 1/16	1 1/2-16UN-2A	3/8	2	3 1/32	3/8	1 5/32	5/16
R300	2	3/4	3.14	2.70	6 3/8	2	3/4-16x1 1/2	5/8	1 1/16	2 1/4	1 3/4	1/4	1 57/64	1 29/64	5/8	3/4	1 1/16	2-16UN-2A	3/8	2 1/2	1 1/4	1/2	1 7/32	3/8
R490	2 1/2	3/4	4.91	4.47	6 9/16	2	3/4-16x1 1/2	5/8	1 7/64	2 3/4	2 1/4	3/8	1 29/32	1 15/32	43/64	1	1 1/16	2 1/2-16UN-2A	3/8	3	1 27/64	1/2	1 7/32	3/8
R700	3	1	7.07	6.28	6 3/8	2 1/2	1-14x2	7/8	1	3 1/4	2 3/4	3/8	2	1 9/16	9/16	1 1/4	1 1/16	3-16UN-2A	3/8	3 1/2	1 7/16	3/4	3/4	7/16

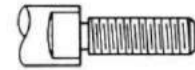
## CLEVIS MOUNT (Furnished with Clevis Pin)



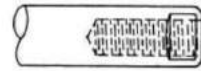
## ROD END STYLES



Style #1 Standard Full Male Thread on Models R300, R490 & R700

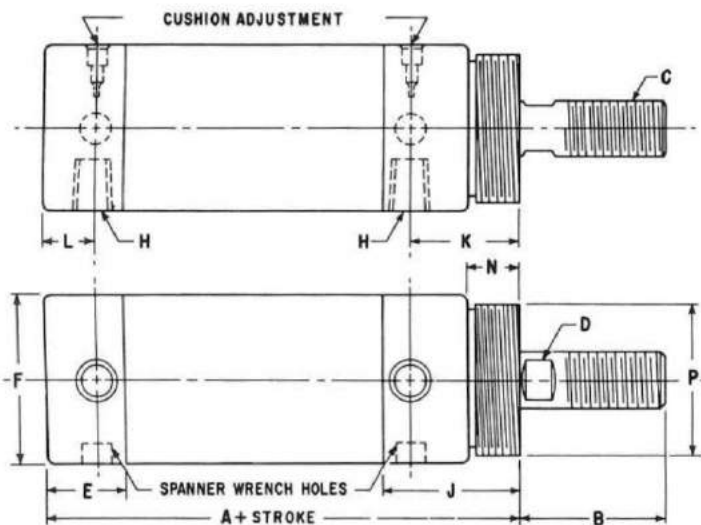


Style #2 Standard Small Male Thread on Model R240



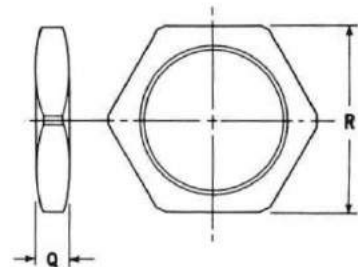
Style #3 Optional Female Thread

## NOSE MOUNT (Nose Mount Nut Optional)







For female thread and optional rod ends, please specify thread, length or depth, plus "B" dimension.

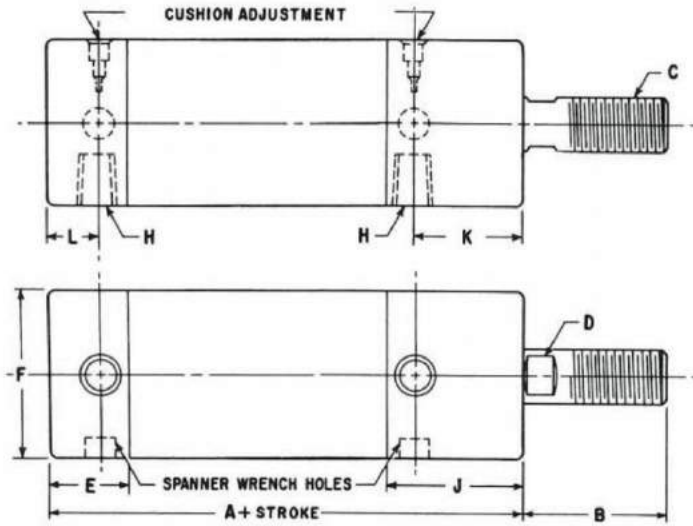
## NOSE MOUNT NUT



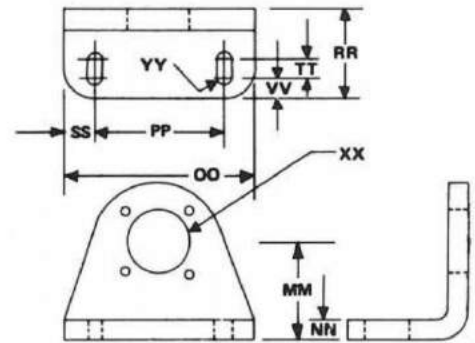
# SERIES R CYLINDER & ACCESSORIES DIMENSIONS

	W	X	Y	Z	AA DIA.	AC	AD	BB	CC	DD	EE	FF	GG	HH	JJ	KK	LL	MM	NN	OO	PP	RR	SS	TT	VV	XX DIA.	YY RAD.
	17/16	1 3/4	1 1/4	3/4	1/4	1 25/32	2	2	1 1/2	1 3/4	3/4	1	3/4	1/2	3/8	1	1/2-20	1 5/8	1/4	2 1/2	1 5/8	1 1/4	7/16	1/4	5/16	1	1/8
	1 9/16	2 1/4	1 5/8	3/4	5/16	1 25/32	2	2 1/16	2 1/8	1 1/2	3/4	1 1/8	1 1/8	9/16	1/2	1 1/8	3/4-16	1 5/8	1/4	2 1/2	1 5/8	1 1/4	7/16	1/4	5/16	1	1/8
	1 9/16	2 1/4	1 5/8	1	5/16	1 25/32	2	2 3/4	2 1/8	1 3/4	1	1 1/4	1 1/8	5/8	1/2	1 1/8	3/4-16	2 3/8	5/16	3 1/2	2 1/4	1 7/8	5/8	1/4	1/2	1 9/16	3/16
	2 1/4	3 1/4	2 3/8	1 1/4	3/8	2 1/16	2 7/16	3 5/8	2 3/4	2	1 1/4	1 5/8	1 3/8	7/8	3/4	1 3/8	1-14	2 3/8	5/16	3 1/2	2 1/4	1 7/8	5/8	1/4	1/2	1 3/8	3/16

## BASIC MOUNT

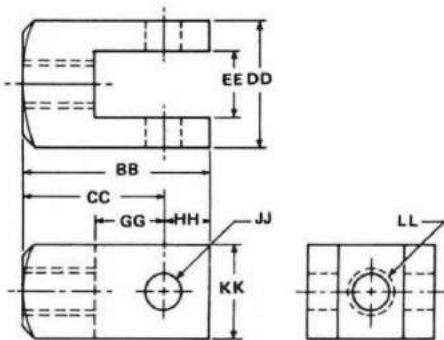


## FOOT MOUNT BRACKET

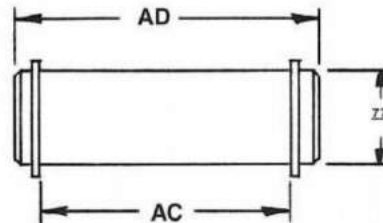


ATTACHES TO BASIC MOUNT. HEAD AND CAP MUST BE TAPPED TO ATTACH.

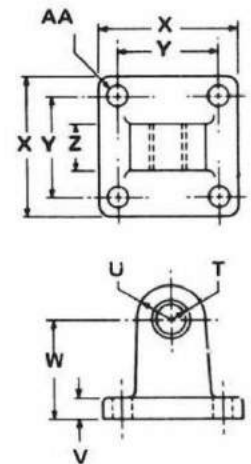
## ROD CLEVIS



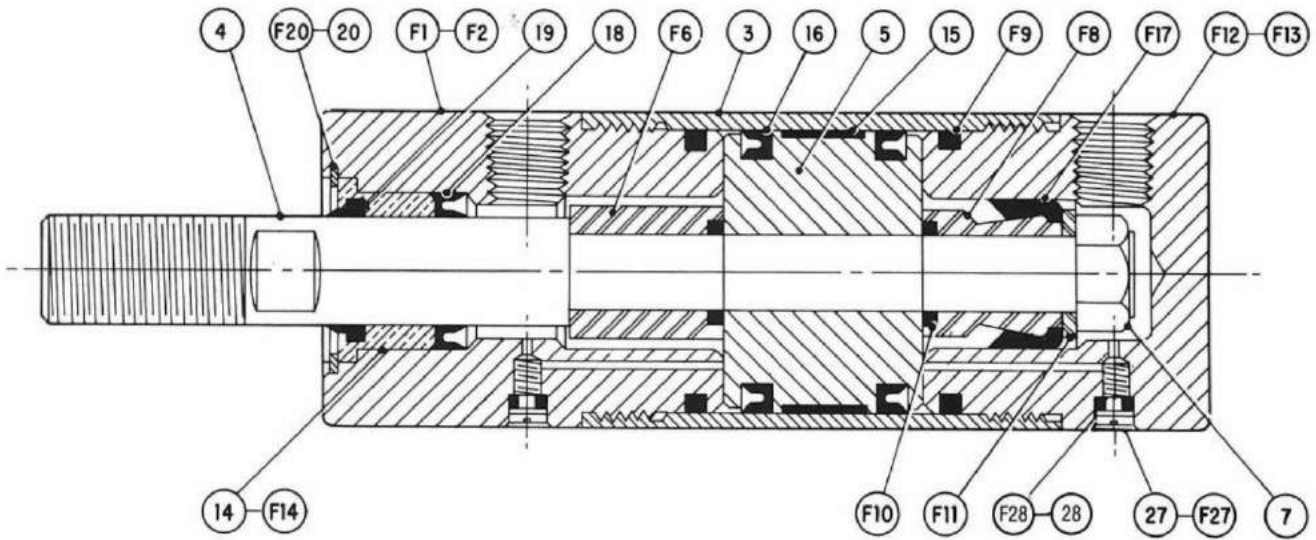
## PIVOT PIN & SNAPS



## EYE MOUNT







**PARTS LIST**

P/N	DESCRIPTION	QTY.
F-1	FRONT HEAD (STANDARD) WITH P/N 27 & 28	1
F-2	FRONT HEAD (NOSE MOUNT) WITH P/N 27 & 28	1
3	CYLINDER TUBE	1
4	PISTON ROD	1
5	PISTON	1
F-6	STANDARD SPACER	2
7	PISTON NUT	1
F-8	CUSHION SPACER	1*
F-9	TUBE SEAL "O" RING	2
F-10	PISTON ROD "O" RING	2
F-11	WASHER	1*
F-12	REAR CAP (STANDARD) WITH P/N 27 & 28	1
F-13	REAR CAP (CLEVIS MOUNT) WITH PIN & P/N 27 & 28	1
14	ROD BUSHING (STANDARD)	1
F-14	ROD BUSHING (R240 NOSE MOUNT ONLY)	1
15	PISTON BEARING STRIP	1
16	PISTON SEAL	2
F-17	CUSHION CUP	1*
18	ROD SEAL (STANDARD)	1
18-PP	ROD SEAL (HYDRAULIC)	1
19	ROD WIPER	1
20	BUSHING RETAINING RING (STANDARD)	1
F-20	BUSHING RETAINING RING (R240 NOSE MOUNT ONLY)	1
27	CUSHION SCREW (STANDARD)	2
F-27	CUSHION SCREW (R700 ONLY)	2
28	CUSHION SCREW "O" RING (STANDARD)	2
F-28	CUSHION SCREW "O" RING (R700 ONLY)	2

NOTE: \*Refers to amount per cushion

**REPAIR KITS**

Repair kits containing all wearable replacement parts are available.

Please specify cylinder model, single or double ended, type of cushion, air or hydraulic operated and any options which affect repair kit.

The R240 nose mount cylinder requires a special size rod bushing and bushing retaining ring. Please specify nose mount when ordering this model repair kit.

**STANDARD REPAIR KIT CONTAINS:**

P/N F-9, F-10, 14, 15, 16, 18, 19, 20 & 28.

**CUSHION REPAIR KIT CONTAINS:**

Standard repair kit plus P/N F-17.