

# AR Series Adjustable Shock Absorber

THE SHOCK ABSORBER BUILT TO WITHSTAND THE ABUSE OF FOUNDRY AND STEEL MILL SERVICE.



**THESE FEATURES PROLONG THE LIFE AND ENSURE PEAK PERFORMANCE FOR EQUIPMENT WHICH REQUIRES HEAVY DUTY SERVICE:**

- UNIFORM RATE OF DECELERATION, THROUGHOUT THE LENGTH OF WORKING STROKE AND ADJUSTMENT RANGE
- CAPACITIES TO ONE MILLION INCH POUNDS
- BORE SIZES 1 1/8, 2 AND 4 INCH
- SPRING OR AIR RETURN
- STROKE LENGTH TO 10 INCHES

## HOW TO ORDER THE AR SERIES SHOCK ABSORBERS

### ARS•B•1 1/8•2•PS•99

Efdyn's Adjustable Shock Absorber Prefix	S- Standard Model F- Foundry Model with 1/2" rod extension T- Foundry Model with 2" rod extension	Standard Adjustment location • B-Back • F-Front	Nominal Bore Size	Stroke Length	Piston Rod Return Method S-Spring Return A- Air (External Accumulator Required)	Designates Standard Unit Without Modifications
		Mounting Style • P-Primary • B- Back Flange • F- Front Flange • L-Lug • HR- Hinge-Rod eye				

Symbol	Dimensions Common To Spring Or Air Return Bore Size (Inches)		
	Bore Size	Stroke	Return
A	1 1/8	2	4
B	1 1/8	2	4
C	3/4	1 1/4	2 1/2
D	7/8	1 3/16	1 3/4
E	1 1/2	2 3/8	4 3/4
F	3/4	1	1 1/2
G	2 1/2	3 9/16	6 7/8
H	4	5	8 1/2
J	2 1/2	3 9/16	6
K	1 3/16	1 3/4	3 3/16
L	4 1/2	5 1/2	10
M	3 1/2	4 1/2	8
N	3 1/2	4	8
P	15/32	17/32	1 1/16
Q	7/16 - 14	1/2-20	7/8-9
R	9/16	11/16	1 1/4
S	3/4 - 16	1 5/16 - 12	1 5/8 - 12
T	1 1/16	1 13/16	2 15/16
U	1 1/4	1 3/4	3 1/8
V	4 1/2	5	10
W	7/16	9/16	7/8
X	1 7/16	2 7/16	4 1/4
Y	3/4	1 1/4	2
Z	1 1/4	2	3 1/8
BB	4 1/2	5 1/2	8 3/4
CB	3/4	1 1/4	2
CC	3 5/8	4 1/4	7
CD	1/2	1	1 3/4
CF	1	2	3 1/2
CL	1 7/8	3 3/8	4 3/4
CR	1/2	1	1 3/4
CW	3/4	1 1/2	2 1/2
DD	2 1/8	2 3/4	4 1/2
EE	1 3/4	1 3/4	2 3/4
FF	1	1 1/2	2 1/2
LB	2	2 3/8	4 1/2
LF	2	2 9/16	4 1/2
JJ	15/32	21/32	1 1/16
KK	3/4	1	1 1/2
CS	3/8	9/16	3/4

Stroke**	***MAXIMUM WORKING CAPACITY Inch-Lbs.			*HEAT DISSIPATION CAPACITY Inch-Lbs. Per Hour					
	Bore Size			Bore Size (Spring Return Models)			Bore Size (Air Return Models)		
	1 1/8	2	4	1 1/8	2	4	1 1/8	2	4
2	15,000	47,000	-	4,050,000	5,340,000	-	12,200,000	16,640,000	-
4	30,000	94,000	376,000	4,510,000	6,120,000	12,600,000	12,650,000	17,420,000	29,700,000
6	45,000	141,000	564,000	5,590,000	7,070,000	13,900,000	13,750,000	17,875,000	30,945,000
8	-	188,000	752,000	-	8,400,000	15,900,000	-	18,350,000	32,100,000
10	-	235,000	940,000	-	9,600,000	17,600,000	-	18,900,000	33,000,000

\* Heat capacity ratings are based on still air conditions (80°F ambient) and max. hydraulic fluid operating temperature of 200°F. Spring return model ratings apply to self-contained units. Air return model ratings apply to units with circulating hydraulic systems (external reservoir - double connecting ports). Heat capacity ratings can be increased using special fluid and seals and/or heat exchanger systems. Consult factory.

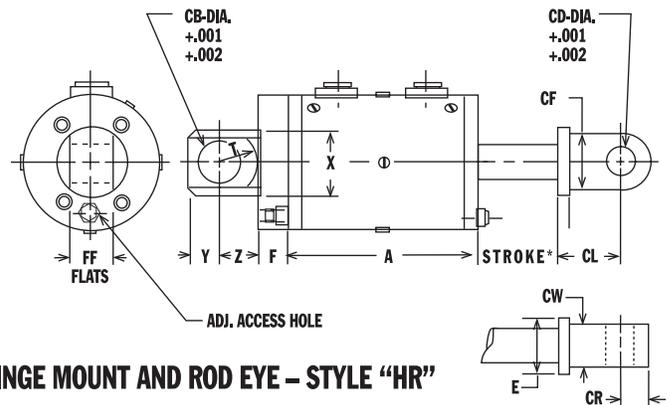
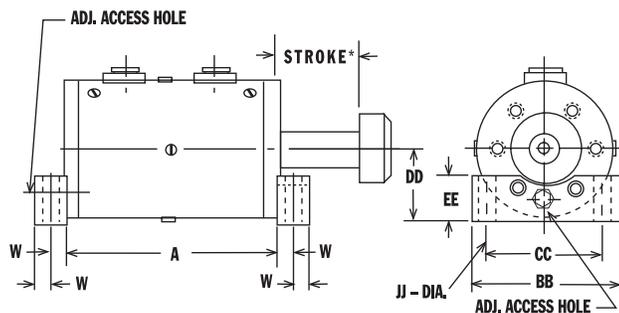
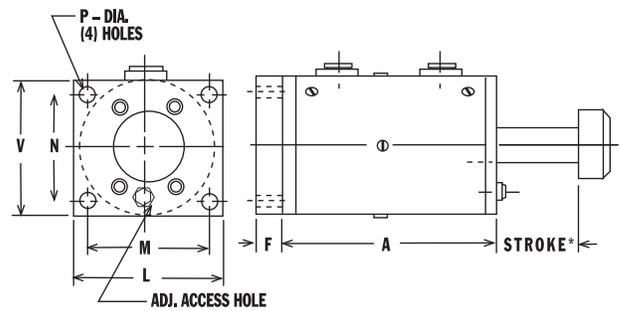
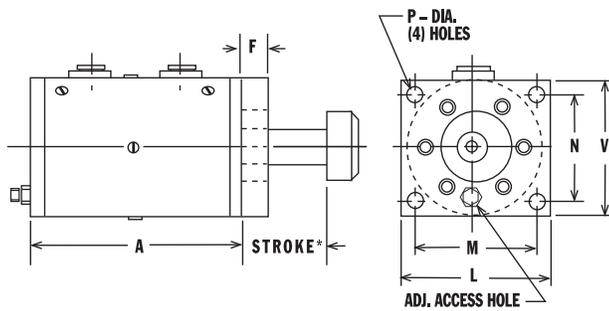
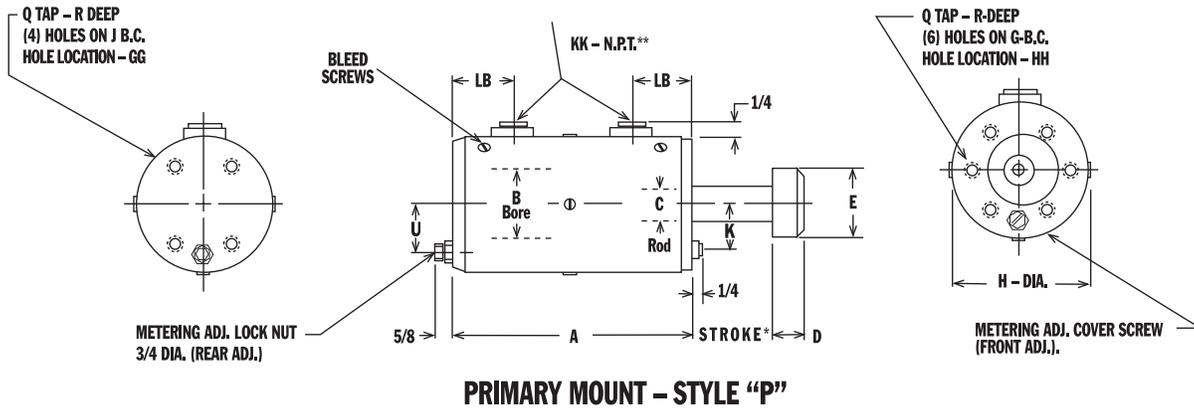
\*\* When load propelling force exceeds 25% of total stopping force, based on maximum unit capacity rating, external mechanical load stops are recommended. Mechanical load stops must be positioned to allow piston rod to compress to within 1/16" of completing full stroke. If mechanical load stops cannot be positioned this accurately, specify piston rod extension for additional clearance as full stroke must be utilized for proper unit performance.

\*\*\* Consult factory for optimum adjustability if unit selected will be used above 80% of its max. working capacity rating when impact velocities are 1.0 FPS or less, and under 60% of its max. working capacity rating when impact velocities are 15.0 FPS or greater.

Dimension A								
Stroke	Spring Return Bore Size (Inches)			Air Return Bore Size (Inches)				
	1 1/8	2	4	Stroke	1 1/8	2	4	
2	11 1/8	11 1/8	-	2	11 1/8	11 1/8	-	
4	13 1/8	13 7/8	16 1/4	4	13 1/8	13 7/8	16 1/4	
6	17 7/8	17 1/8	18 3/4	6	13 7/8	15 1/8	18	
8	-	21 3/4	22 7/8	8	-	17 1/8	20	
10	-	26 1/4	26 1/4	10	-	19 1/8	22	

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\* Add 1/2" for rod extension on Model ARF and 2" rod extension on model ART foundry type units.

\*\* Double ports (NPT) standard on all bore sizes. S=SAE ports can be provided as option.

## HOLE LOCATION

TYPE	BORE SIZE			TYPE	BORE SIZE		
	1 1/8	2	4		1 1/8	2	4
GG				HH			