

## Fig. 868

## Angular Motion Spring

**Size Range:** 000 through 19 available

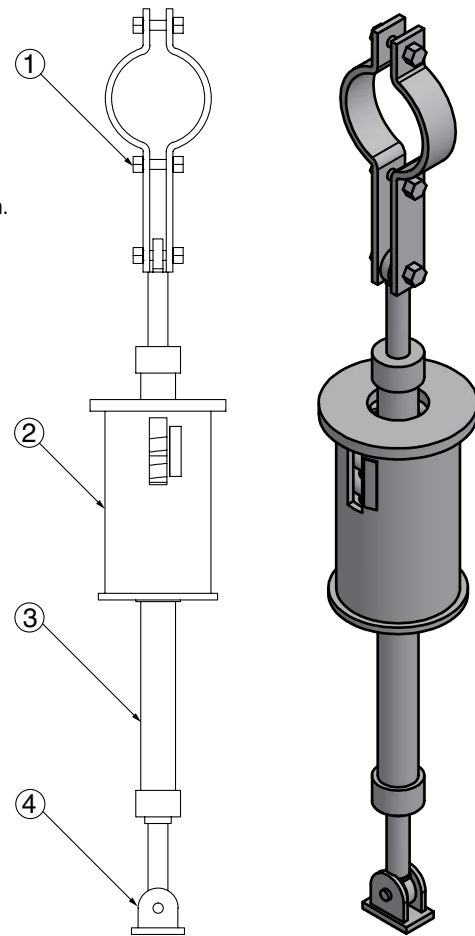
**Design Features:**

- Spring rates are equal to values for B-268 load tables
- The variable support has a total allowable travel range of 3½ inches.
- Working range min/max refer to the spring's load table chart.
- Assembly provides 2 inch of field adjustment in either direction.
- Self-aligned bushings permits +/- 5 degree misalignment or angular motion.
- Design virtually eliminates resultant forces and is free of friction forces.
- Allows minimum field welding.
- See catalog for more information in the spring hanger section.

**Operating Temperatures:**

- All components are suitable for operation of 400°F.
- The spring coils are suitable for operation at 300°F.
- Pipe clamps are suitable for operating piping temperatures as follows:
  - ASTM A 36 Carbon Steel - 650°F
  - ASTM A 516 GR. 65 Carbon Steel - 800°F
  - ASTM A 387 GR. 22 Alloy - 1075°F
  - Note: stainless steel pipe clamps available upon request.

**Ordering:** Specify figure number, assembly size based on hot (operating) load, cold (theoretical) load or movement and direction, extension piece, rear bracket(s), and pipe clamp size and material.

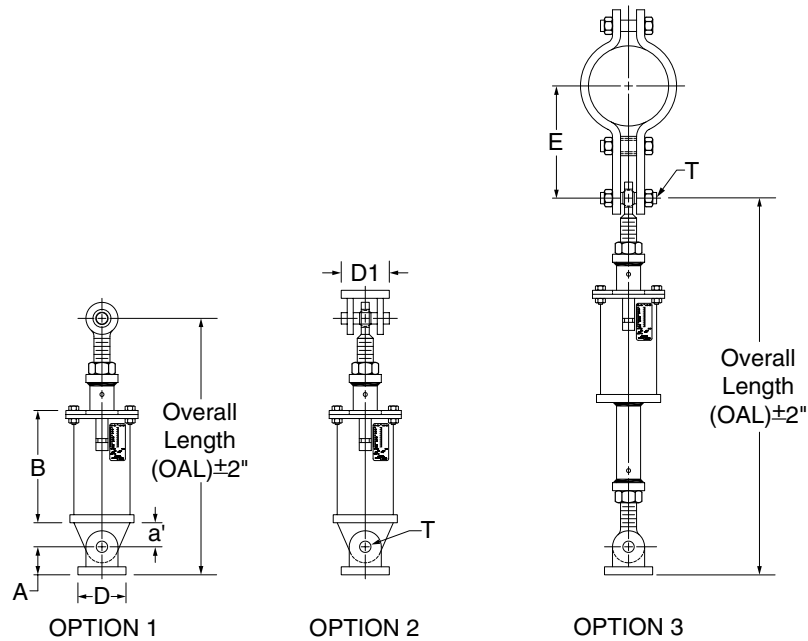


**FIG. 868 ANGULAR MOTION SPRING**

1	Pipe Clamp Assembly - "E-Take out Values"
2	Spring Size determined with hot and cold loads
3	Extension Piece available - Sizes A, C, 2, 4, and 5 from Figure 211 with selected spring size
4	Rear Bracket is determined by item 2

## Fig. 868

### Angular Motion Spring (cont.)



**FIG. 868: DIMENSIONS (IN)**

Spring Size	Extension Piece (Fig. 211)	A	a'	B	D	D1	E	T	OAL Max.
000 - 5	A	1	3/4	Refer to B Dimension Table	2	1 1/4	Refer to E-Take Out Table	3/8	50 1/2
6 - 13	C	2 1/2	1 3/4			2 3/8		3/4	80
14 - 16	2		2 7/8		1	98			
17 & 18	4	3	2 1/4		3 3/16			1 1/4	
19	5		2 3/4	6 1/8	4 1/4	1 1/2			

**B DIMENSIONS (IN)**

Spring Size	Casing Length B
000	5 5/8
00	7 9/16
0	6 11/16
1	7 9/16
2	8 5/16
3	7 15/16
4	
5	8 5/8
6	8 13/16
7	10
8	
9	10 7/16
10	12 1/8
11	10 7/16
12	
13	13 3/8
14	13 1/4
15	
16	16 1/16
17	18 1/8
18	18 1/4
19	20 1/2

### E-TAKE OUT

Pipe Size	E-Take Out: Dimensions (in) at 650°F					E Dimension at 1075°F				
	A	C	2	4	5	A	C	2	4	5
3/4	2 7/16	-	-	-	-	8	-	-	-	-
1	2 9/16	-	-	-	-	8 1/8	-	-	-	-
1 1/4	2 11/16	-	-	-	-	8 1/4	-	-	-	-
1 1/2	4 1/8	-	-	-	-	8 3/8	-	-	-	-
2	5 1/8	6 3/8	6 3/8	-	-	8 5/8	9 3/8	9 3/8	-	-
2 1/2	5 3/8	7	7	-	-	8 7/8	9 3/8	9 3/8	-	-
3	5 15/16			-	-	9 1/8	9 3/8	9 3/8	-	-
3 1/2	6 3/16			-	-	9 3/8	9 3/8	9 3/8	-	-
4	6 1/2			7 1/4	7 1/4	-	9 3/8	9 3/8	9 3/8	-
5	7 3/4	7 3/4	7 3/4	9 3/8	10	10 1/4	10 1/4	10 1/4	-	-
6	8 3/8	8 3/8	8 3/8	10		10 3/4	10 3/4	10 3/4	10 3/4	11 1/8
8	9 3/8	9 3/8	9 3/8	11 1/4		11 1/4	11 3/4	11 3/4	11 3/4	12 3/8
10	10 1/2	10 1/2	10 1/2	12 3/4		12 3/4	12 3/4	12 3/4	12 3/4	13 3/8
12	-	11 7/8	11 7/8	13 3/8	13 3/8	-	13 3/4	13 3/4	13 3/4	14 3/4
14	-	12 5/8	12 5/8	14 1/2	14 1/2	-	14 3/8	14 3/8	14 3/8	15 3/8
16	-	13 3/8	13 3/8	15 1/4	15 1/4	-	15 3/8	15 3/8	15 3/8	16 7/8
18	-	14 5/8	14 5/8	16 3/8	16 3/8	-	16 3/8	16 3/8	16 1/2	18
20	-	15 3/4	15 3/4	17 3/4	17 3/4	-	17 3/8	17 3/8	17 1/2	19 3/8
24	-	18 1/8	18 1/8	19 7/8	19 7/8	-	19 3/8	19 3/8	20 3/8	21 1/2
30	-	21 1/4	21 1/4	23	23	-	22 3/8	22 3/8	23 1/2	24 1/2
36	-	24	24	26 1/2	26 1/2	-	25 3/8	25 3/8	26 5/8	27 1/2