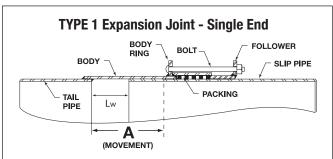
# **DRESSER Product Submittal**

# **Style 63 Expansion Joints**

# For absorbing concentrated pipe movement



Type 1 is a single-end expansion joint permitting up to 10" of concentrated pipe movement. Standard packing consists of alternate layers of resilient sealing rings and split jute lubricating rings.

# TYPE 3 Expansion Joint Single End, Limited Movement BODY FOLLOWER STOP RING BODY BOLT TAIL PIPE LW PACKING SLIP PIPE (MOVEMENT)

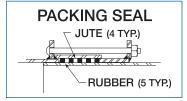
Type 3 is a single-end expansion joint equipped with a limited movement feature to limit the maximum amount of slip pipe withdrawal.

# Style 63 Type 1 Size Specifications

Pipe Nominal	Outside	Bolts No./Diam.	Overall Dimensions		Weight Per
Size	Diameter	x Length	Diam.	Length	Joint
(in)	(OD)	(in)	(in)	(in)	(lbs)
3	3.500	4–5/8 x 11	8-1/2	CONSI	65
4	4.500	4–5/8 x 11	9-1/2		75
5	5.563	4–5/8 x 11	10-5/8		110
6	6.625	6–5/8 x 11	11-3/4	JLT FA	130
8	8.625	6–5/8 x 11	13-3/4		180
10 12	10.750 12.750 14.000	8–5/8 x 11 8–5/8 x 11 8–5/8 x 11	15-7/8 17-7/8 19-1/2	CONSULT FACTORY PER	250 315 340
	16.000 18.000 20.000 22.000 24.000	10-5/8 x 11 10-5/8 x 11 12-5/8 x 11 14-5/8 x 11 14-5/8 x 11	21-1/2 23-1/2 25-1/2 27-1/2 29-1/2	PER ORDER	380 415 470 525 565

# Style 63 Type 3 Size Specifications

Pipe Nominal	Outside	Bolts No./Diam.	Overall Dimensions		Weight Per
Size (in)	Diameter (OD)	x Length (in)	Diam. (in)	Length (in)	Joint (lbs)
3	3.500	4–5/8 x 24	8-1/2		80
4	4.500	4–5/8 x 24	9-1/2	<u>     </u>	90
5	5.563	4–5/8 x 24	10-5/8	<u> </u>	125
6	6.625	6-5/8 x 24	11-3/4	CONSULT FACTORY	155
8	8.625	6-5/8 x 24	13-3/4	E	205
10	10.750	8–5/8 x 24	15-7/8		285
12	12.750	8–5/8 x 24	17-7/8	호	350
	14.000	8–5/8 x 24	19-1/2	≝	385
	16.000	10-5/8 x 24	21-1/2	PER	430
	18.000	10-5/8 x 24	23-1/2		470
	20.000	12-5/8 x 24	25-1/2	ਸ਼ੁੱ	530
	22.000	14–5/8 x 24	27-1/2	ORDER	590
	24.000	14–5/8 x 24	29-1/2		635



Style 63 packing seals include alternating rings of BUNA-S rubber and lubricating split jute. See back page for maintenance.

The pipe(s) adjacent to the expansion joint MUST be properly supported and guided to prevent deflection and/or misalignment between the slip pipe(s) and the body cylinder(s).

Materials of Construction				
Body & Tail Pipe	AISI C1006, C1010, C1015 or ASTM A513 Carbon Steel			
Followers	AISI C1012, C1021, ASTM A20 OR A36 Carbon Steel			
Bolts	ANSI/AWWA C111/ANSI A21.11			
Slip Pipe	Chrome Plated			
Packing	Alternating Rings of BUNA-S and Lubricated Split Jute			
Coatings	Fusion-bonded Grey Epoxy Dresser RED-D Shopcoat Optional			

### **Dresser Pipeline Solutions**

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# **DRESSER Product Submittal**

# **Style 63 Expansion Joints**

Prior to installing Dresser Style 63 slip type expansion joints, the initial setting position of the slip pipe must be determined. This is based on the operating temperature range, maximum movement and installation temperature

of the pipe. The amount the slip pipe should be retracted from the fully closed position and setting position of the stop ring nuts (if applicable) are determined as follows:

### **STYLE 63 EQUATIONS**

$$L_{w} = \frac{(T_{max} - T_{inst}) \times A}{T_{range}}$$

$$G_{sr} = A - L_w$$

## **VARIABLES**

= Length to withdraw slip pipe from fully closed position (in)

 $T_{max}$  = Maximum operating temperature (°F)

T<sub>inst</sub> = Installation temperature (°F)

A = Total movement of expansion joint

 $T_{range} = Operating temperature range$ 

G<sub>sr</sub> = Gap from stop ring to stop nuts (in) at setting position

# **EXAMPLE:**

Max. Operating Temp = 100° F Installation Temp = 75° F

Total Temp Range = 125° F

TOTAL RANGE = 10

$$L_w = \frac{(100^{\circ} \text{ F} - 75^{\circ} \text{ F}) \times 10 \text{ in}}{125 \text{ F}^{\circ}} = 2in$$

$$G_{sr} = 10 in - 2in = 8in$$

In the above example the expansion joint should be retracted 2 inches from the fully closed position at installation and the stop nuts should be positioned 8 inches from the stop ring on the slip pipe (if applicable.)

NOTE: Body and slip pipe(s) are stenciled with Total Movement of Joint. 10" movement is standard.

# **Maintenance of Dresser Slip-Type Expansion Joints**

### FOR SEASONAL CYCLING

If pipe movement occurs due to seasonal temperature changes or other than daily cycling, Dresser recommends that inspection and maintenance be done on a yearly basis. During inspection, bolts used to compress the packing should be checked to make sure the nuts are tight.

In the event leakage is evident, tighten bolts on the packing gland until leakage stops. It is recommended that the slip pipe be cleaned and then coated with a non-petroleum based grease, such as Dow-Corning DC-111 grease or an equivalent grease at each inspection, preferably when the expansion joint is in the open position.

### FOR DAILY CYCLING

When pipe movement occurs daily due to differential temperature changes caused by something other than seasonal temperature changes, the inspection should be done on a monthly basis. Follow same procedure as outlined above for all sizes of Dresser Style 63 Expansion Joints.

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