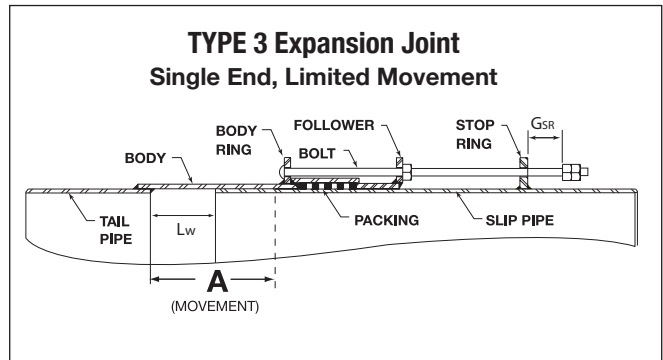
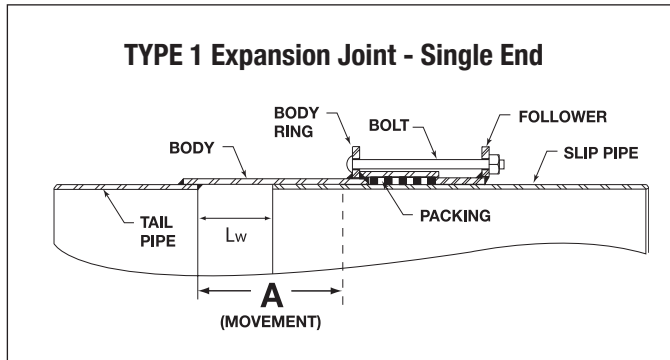




Style 63 Expansion Joints

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

L_w = Length to withdraw slip pipe from fully closed position (in)
 T_{max} = Maximum operating temperature (°F)
 T_{inst} = Installation temperature (°F)
 A = Total movement of expansion joint
 T_{range} = Operating temperature range (°F)
 G_{sr} = 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

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

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

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.



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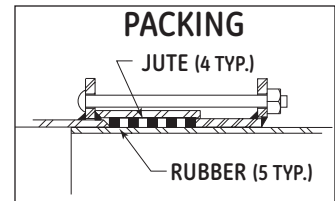
Style 63 Expansion Joints

Sizes 12” and Smaller: These joints are shipped completely assembled and are set at approximately the half open position of their total travel. These joints may require adjustment either by closing or opening. Use the formula on front page to determine the correct position the joint must be set at the time of installation. After joint is installed in the line, follow instructions as outlined in Steps 6, 7 & 8.

Sizes Larger Than 12”: These joints are shipped unassembled. Follow all instructions as outlined below.

1. Check the I.D. of the body and O.D. of the slip pipe to make sure they are clean.
2. Place gland over the slip pipe.
3. Stab slip pipe(s), with square end first, to full entry into joint body. Then withdraw the slip pipe(s) to a position that is correct depending on the ambient temperature at the time of installation. The amount the slip pipe(s) should be withdrawn is determined as noted on other side. NOTE: Body and slip pipe(s) are stenciled with Total Movement of Joint.

4. The first ring of packing must be rubber, the second ring should be jute, and the third ring should be rubber and so on until all packing rings are used. Final ring MUST be rubber. Slide packing rings along slip pipe(s) and into the packing recess(es). Stagger the packing end joints about 90° apart. If the packing rings are received long, trim to correct length in the field by cutting at same angle. For joints requiring packing other than rubber and jute, the packing method is the same as outlined above, except alternating the rings of packing is not required. The method of packing the joint(s) varies somewhat, but in general it is advisable to insert two or three packing rings at a time, compressing them into position by drawing up the gland, before adding more rings.



5. Align bolt holes of gland and body, insert bolts with head (or studs with nut) at body ring and assemble nuts.
6. Start tightening two nuts, one on each side of the joint and work around the joint turning each nut a little at a time. Keep the gland advancing evenly until 15 to 20 ft. lbs. torque is reached. If leakage occurs after line pressure is applied, tighten nuts further until no leakage is evident. Over tightening the nuts should be avoided to prevent:
 - (A) Build-up of excessive force to activate the joint, and (B) Packing wear.
7. On Type 3 (joints with stop rings), assemble two (2) nuts on the end of each bolt or stud to limit the maximum amount of slip pipe withdrawal. The distance between the stop nuts and stop ring will depend on the installed position of the slip pipe (see other side). Work the hex nuts against one another to lock them into the correct position.
8. Inspect joint(s) a few days after installation and recheck bolt tightness as the packing will become adjusted in the joint. Joints should be placed where they can be reached for future maintenance and adjustment (if required). It is important that the slip pipe be lubricated for its entire polished length with a dry or wet silicone lubricant (Dow Corning III or equal). Other non-petroleum lubricant may also be used. The lubricant should be applied at regular intervals.
9. If the joint requires repacking, it is suggested that two or three rings of packing be left in the joint to maintain alignment of the joint parts. Refer to Step #4 for installation of packing rings. Packing should not be replaced while the expansion joint is pressurized.

⚠ WARNING
 During assembly and testing operations proper support and anchor restraint must be provided. Failure to properly anchor could result in escaping line content and could cause property damage, serious injury or death.

⚠ WARNING The body of Type 2 expansion joints MUST be anchored to insure that all of the movement does not occur at one end. Failure to properly anchor could result in escaping line content and cause property damage, serious injury or death.

⚠ WARNING 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).



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