



Size	T	X	LE	LC	Activation Force	Weight
(in)	(deg)	(in)	(in)	(in)	(lbs)	(lbs)
6"	7	3	28 1/2	21 1/2	100	23.0
8"	7	3	28 1/2	21 1/2	120	25.0
10"	7	3	28 1/2	21 1/2	140	28.0
12"	7	3	31 1/2	24 1/2	150	33.0
14"	7	4	31 1/2	24 1/2	160	39.0
16"	7	4	31 1/2	24 1/2	170	47.0
18"	7	5	33 1/2	26 1/2	180	60.0
20"	7	5	33 1/2	26 1/2	190	77.0
24"	7	5	33 1/2	26 1/2	200	93.0

### Procedure for determining Pre-Set of Expansion Joints

Determine Average design temperature. Maximum temperature minus Minimum temperature divided by 2  
 Example:  $110 + (-20) / 2 = 45 \text{ deg F}$

Determine Offset Temperature (Difference between Installation Temperature and Design temperature)  
 Installation temperature minus Design temperature  
 Example: assume a 75 Deg installation temperature  $75 - 45 = (30 \text{ deg F.})$

Determine the Pre-Set offset  
 Multiply the Distance between Expansion Joints (times 12 to convert to inches) times the Coefficient of expansion (0.000014 in. / in. / deg. F.) Times the offset Temperature  
 Example:  $200 \times 12 \times 0.000014 \times (30) = (1.008\text{'})$

The result is the amount of Pre-set from the center of travel on the Expansion Joint.  
 Example: Set the joint approximately 1" from the center of travel on the positive side of the scale

Drawn by:  
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Checked by:

Drawing Date: 11/17/09

Revised Date / #:



## FRP BRIDGE DRAIN PIPE

Manufactured by Grace Composite  
 Lonoke, AR 501-676-9505

Marketed by Westfall Company, Inc.  
 Eureka, MO 636-938-6313

Title:

Expansion Joint

Bridge Drain Fittings