

KEFLEX EXPANSION JOINTS

Corrugated, Packless Type

FOR STEAM AND HOT WATER HEATING SYSTEMS AND PROCESS PIPING

KEFLEX packless type Expansion Joints are made from highly flexible laminations of Type 321 or 347 stabilized stainless steel. Standard equipment in both KEFLEX Types 158 and 308 consists of a packless type, stainless steel bellows; weld ends or carbon steel flanges; self guiding, full bore, flow liner; and self equalizing contour control rings in sizes over 4 in., also available for smaller sizes. Type 308 also has reinforcing shoulder rings. Sizes 2 in. through 48 in. The force to compress KEFLEX Expansion Joints is usually less than 100 lb.



Rigid flanges supplied on standard Types 158-12E and 158-15-12E assemblies have a series 15 drilling, but with special elongated bolt holes to permit easy installation in the event companion flange bolt holes are misaligned.

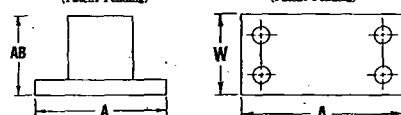
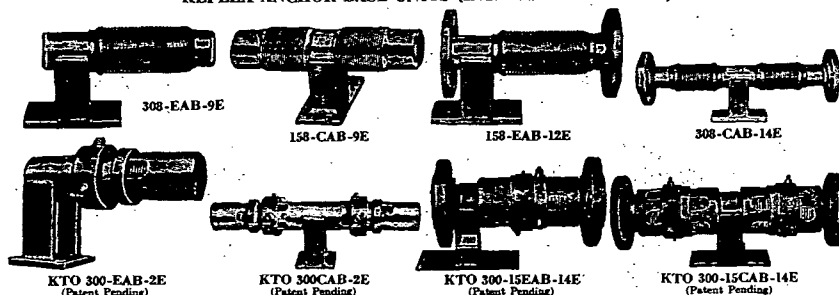
TYPE	158-9E	158-15-9E	158-12E	158-15-12E
Overall Length	13.00"	19.75"	7.25"	14.00"
Size 2"-3/4"	13.00"	19.75"	6.75"	13.00"
Maximum Working Pressure psig	150	150	150	150
Maximum Temperature Fahr.	300	300	300	300
Traverse Compression	2.00"	4.00"	2.00"	4.00"
Extension	0.50"	1.00"	0.50"	1.00"



When flanges are required, Type 308 is fitted with lap joint or swivel flanges. 150 lb type is standard; 300 lb type and heavier are available.

TYPE	308-9E	308-15-9E	308-14E	308-15-14E
Overall Length	14.50"	22.00"	14.50"	22.00"
Size 2"-3/4"	14.00"	22.00"	14.00"	22.00"
Maximum Working Pressure psig	300	300	300	300
Maximum Temperature Fahr.	300	300	300	300
Traverse Compression	2.00"	4.00"	2.00"	4.00"
Extension	0.50"	1.00"	0.50"	1.00"

KEFLEX ANCHOR BASE UNITS (INTERMEDIATE TYPES)



ANCHOR BASE dimensions for standard Keflex Units are listed below.

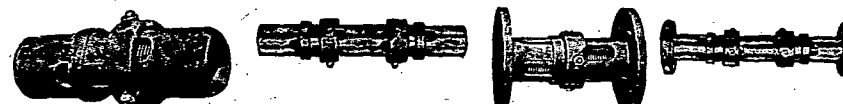
Size	2.00	3.00	3.00	3.50	4.00	5.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	24.00
A—Base Len.	6.00	6.00	6.00	8.00	8.00	8.00	10.00	10.00	10.00	10.00	12.00	12.00	12.00	12.00	12.00
AB—C/L to Base	4.50	4.75	5.25	5.50	6.00	6.50	7.25	8.50	9.75	11.25	12.25	12.50	12.50	13.50	16.00
W—Width	3.38	3.88	4.50	5.00	5.50	6.68	7.68	9.68	11.75	13.75	15.00	17.00	19.00	21.00	25.00

KEFLEX-KETROL CONTROLLED EXPANSION JOINTS FOR EXTRA SAFETY
POSITIVE PROTECTION AGAINST TORSION. FOR USE IN PIPE LINES TO COMPENSATE
FOR EXPANSION AND CONTRACTION

(Patent Pending)

KEFLEX-KETROL, self guiding, anti-torsion, packless type, expansion joints are manufactured with multi-ply, Type 321 or 347, stabilized stainless steel and enclosed by a special alloy steel shroud having two matched sections. Each section has at least four equally spaced finger-type projections at one end, which fit axially into the space between the finger projections of the companion section so as to serve as a positive guide to the bellows element and prevent torsion and deflection. The shroud cage also protects the bellows from exterior damage.

The lengths of the finger projections determine the full extent to which the bellows may be compressed, and also provide sufficient travel to accommodate extension of the bellows in the event ambient temperatures drop below normal and the pipe lines contract accordingly. Steel rings to prevent over extension of the bellows element are attached to the ends of the finger projections of each companion section. The rings also maintain complete concentricity of the matched shroud-cage and insure structural stability.



Rigid flanges supplied on standard Types KTO-150-12E and KTO-150-15-12E assemblies have a series 15 drilling, but with special elongated bolt holes to permit easy installation in the event companion flange bolt holes are misaligned.

TYPE	KTO-150-2E	KTO-150-15-2E	KTO-150-12E	KTO-150-15-12E
Overall Length	12.50"	22.00"	12.50"	22.00"
Size 2"-3/4"	12.50"	22.00"	12.50"	22.00"
Maximum Working Pressure lb	150	150	150	150
Maximum Temperature F	300	300	300	300
Traverse Compression	2.00"	4.00"	2.00"	4.00"
Extension	0.50"	1.00"	0.50"	1.00"



When flanges are required, KTO 300 are fitted with lap joint or swivel flanges. 150 lb type are standard; 300 lb type and heavier are available.

TYPE	KTO-300-2E	KTO-300-15-2E	KTO-300-14E	KTO-300-15-14E
Overall Length	17.50"	28.00"	17.50"	28.00"
Size 2"-3/4"	17.50"	28.00"	17.50"	28.00"
Maximum Working Pressure lb	300	300	300	300
Maximum Temperature F	300	300	300	300
Traverse Compression	2.00"	4.00"	2.00"	4.00"
Extension	0.50"	1.00"	0.50"	1.00"

TYPE KTO 450

Pressures to 450 psig—Temperatures to 800 F.

For 2 in. Traverse in Compression and 1/2 in. in Extension

Type KTO-450-2E with Ends Beveled for Welding

Type KTO-450-14E with 300 lb, Type Lap Joint Flange

For 4 in. Traverse in Compression and 1 in. in Extension

Type KTO-450-15-2E with Ends Beveled for Welding

Type KTO-450-15-14E with 300 lb, Type Lap Joint Flange

NOTE: Type 450 measurements are essentially the same as type 300 listed above, except 450 standard flanges are series 30 (300-lb type)