

Badger Manufacturing Company

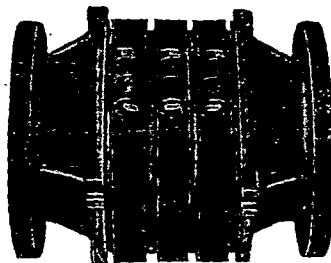
230 Bent St., Cambridge 41, Mass. • 60 East 42nd St., New York 17, N. Y.

Representatives in principal cities
Also in Canada and Mexico

Badger "PACKLESS" Corrugated Expansion Joints

Badger "PACKLESS"
Corrugated Expansion Joints
For pipe lines—to compensate for expan-

sion and contraction due to temperature changes, and to relieve stresses and absorb vibrations.



(Left) Badger Non-Equalizing "Packless" Corrugated Expansion Joint, for low pressure service
Single Corrugation joint illustrated
Multiple Corrugation joint available
(Right) Standard Flanged-End Badger Directed Flexing, Self-Equalizing "Packless" Corrugated Expansion Joint.

INSTALLATION, OPERATING, MAINTENANCE ECONOMIES

"Packless"—Made from a single tube. . . no packing . . . no servicing . . . no man-holes or tunnels are required.

Wide range of traverses—By varying the number of corrugations, traverses from a fraction of an inch up to any practical limit are possible.

Engineered Relationship between Diameter of Joint, Depth of Corrugation and Traverse.

Wide range of pressures—Standard joints for normal pressures . . . special joints for higher pressures.

Compact, easy to install—Outside diameter is about the same as regular pipe flange; as easily installed as any pipe fitting.

Directed flexing, all-curve corrugations plus all-curve self-equalizing rings—Exclusive features on Badger Joints eliminate localized stresses—assure long life, greater dependability. Rings limit and progressively control flexing movement.

Flanged or Welding Ends available.

Heat treatment—Scientific heat-treatment during manufacture removes forming stresses . . . increases life of the joint.

Available in copper, stainless steel and other metals—To meet temperature, pressure and corrosion conditions.

Flexonics Corporation

EXPANSION JOINT DIVISION

Maywood, Illinois

DISTRICT OFFICES

ATLANTA BOSTON BUFFALO CINCINNATI CLEVELAND DETROIT FT. WORTH KANSAS CITY
LOS ANGELES MEMPHIS MILWAUKEE NEW YORK PHILADELPHIA SAN FRANCISCO
IN CANADA: FLEXONICS CORPORATION OF CANADA, LTD., BRAMPTON, ONTARIO

FLEXON EXPANSION COMPENSATORS

For low pressure steam and hot water heating systems

The Flexon Expansion Compensator consists of a two ply phosphor-bronze bellows with copper tube end connections enclosed in a floating protective shroud of brass. It is especially designed for control of expansion in finned type convectors, baseboard, radiator or heating supply and return lines.

Sizes from $\frac{3}{4}$ in. through $1\frac{1}{4}$ in.



Suitable for temperatures from -60 F. to 250 F. and for pressures up to 40 psig. A single unit will handle motion up to $\frac{1}{2}$ in.

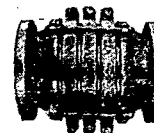
FLEXON CONTROLLED-FLEXING EXPANSION JOINTS

For pressures up to 300 psi—temperatures to 800 F

The control rings of FLEXON Controlled-Flexing Expansion Joints provide guided flexing of the joint and prevent any permanent deformation of corrugations. Control rings are firmly anchored into corrugations to close working dimension tolerances. Expansion travel up

to $7\frac{1}{2}$ in. may be secured with a single FLEXON Expansion Joint.

Standard sizes from 3 in. to 48 in. N.P.S. in either stainless steel or copper. Available with or without stainless steel internal sleeves.



FLEXON Controlled-Flexing Expansion Joint with flanged ends.



FLEXON Controlled-Flexing Expansion Joint with welding ends.

FLEXON FREE-FLEXING EXPANSION JOINTS

For pressures up to 30 psi . . . temperatures to 850 F

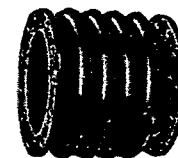
FLEXON Free-Flexing Expansion Joints are made with single or multiple corrugations. Designed for expansion travel up to $3\frac{3}{4}$ in. per unit. Used in low to moderate pressure systems to com-

pensate for expansion and for correcting piping misalignment.

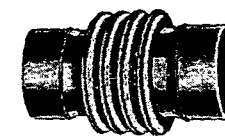
Standard sizes from 3 in. to 48 in. I.D. in either stainless steel or copper. Available with or without stainless steel internal sleeves.



Single Corrugation FLEXON Free-Flexing Expansion Joint with flanged ends.



FLEXON Free-Flexing Expansion Joint with multiple corrugations and flanged ends.



FLEXON Free-Flexing Expansion Joint with welding ends.