

Badger Manufacturing Company

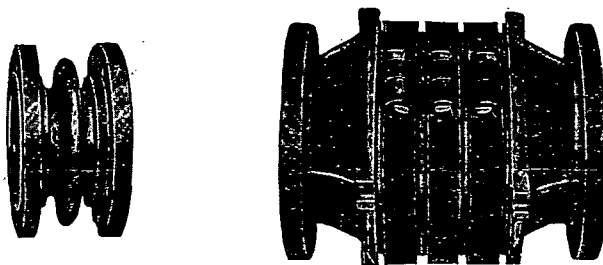
230 Bent St., Cambridge 41, Mass. • 60 East 42nd St., New York

Representatives in principal cities

Badger "PACKLESS" Corrugated Expansion Joint

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 and to absorb vibration.
Single Corrugation.
(Right) Standard Flanged-End Badger Directed Flexing Self-Equalizing "Packless" Corrugated Expansion Joint.

INSTALLATION, OPERATING, MAINTENANCE ECONOMIES

Flexible—Reduces to a minimum the thrust on adjacent equipment.

"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 to be Handled.

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—nothing clumsy or hard to install.

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

Flanged and Welding Ends available as standard equipment.

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

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

Flexonics Corporation

EXPANSION JOINT DIVISION

(Formerly Chicago Metal Hose Corp.)

Maywood, Illinois

DISTRICT OFFICES

ATLANTA BOSTON CINCINNATI CLEVELAND DETROIT FT. WORTH
HOUSTON LOS ANGELES NEW YORK PHILADELPHIA ST. LOUIS SAN FRANCISCO
IN CANADA: FLEXONICS CORPORATION OF CANADA, LTD., BRAMPTON, ONTARIO

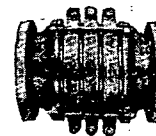
FLEXON CONTROLLED-FLEXING EXPANSION JOINTS

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 7½ 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

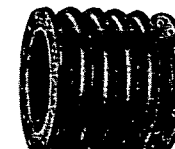
FLEXON Free-Flexing Expansion Joints are made with single or multiple corrugations. Designed for expansion travel up to 3½ in. per unit. Used in low to moderate pressure systems to compensate

for expansion and for correcting piping misalignment.

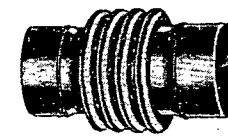
Standard sizes from 3 in. to 48 in. I.D. in either stainless steel or copper. Available with or without stainless steel internal sleeves.



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.

FLEXONIFLEX EXPANSION JOINTS

For pressures to 5500 psi . . . temperatures to 1600°F

FLEXONIFLEX units make it possible to utilize the expansion joint's advantages of compactness and simplicity of installation at pressures far beyond those which had previously been considered safe. Dependent upon size and temperature these units will handle pressures up to 5500 psi.

Standard FLEXONIFLEX units have stainless steel pressure carriers of the bellows type formed within integral control rings and end sections. They are available in single or multiple ply, lined or unlined. Sizes range from ½ in. pipe through 6 in. pipe.

