

Flexonics Corporation

EXPANSION JOINT DIVISION

1329 S. Third Ave.

Maywood, Illinois

DISTRICT OFFICES

ATLANTA BOSTON 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 STEAM AND HOT WATER HEATING SYSTEMS

Model L for pressures to 40 psig

The Flexon Model L 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 $\frac{5}{8}$ in. ($\frac{1}{2}$ in. compression, $\frac{1}{8}$ in. extension). Available with all commonly used fittings.

Model H for pressures to 150 psig

The Flexon Model H Expansion Compensator is used primarily on vertical risers for high pressure steam and hot water lines. However it may also be used on horizontal runs. The Model H consists of a corrosion resistant Flexon Bellows enclosed in an all-welded steel housing. The unit is provided with a positive anti-torque device to prevent possible bellows damage during installation.

Sizes from $\frac{3}{4}$ in. through 3 in. Suitable for temperatures from -60 F to 750 F. A single unit will handle motion up to $1\frac{1}{4}$ in. ($1\frac{1}{2}$ in. compression, $\frac{1}{4}$ in. extension). Mild steel male NPT pipe nipples on both ends are standard. Ground joint unions or weld ends are optional.

FLEXON EXPANSION JOINTS FOR POWER AND PROCESS PIPING

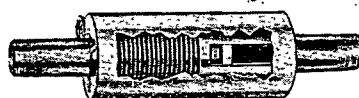
For medium and high pressure piping, Flexonics offers a complete line of corrugated expansion joints in free-flexing and controlled flexing types. Free-flexing units are available in standard sizes from 3 in. to 48 in. ID, for pressures to 30 psi, temperatures to 850 F. Designed for expansion travel up to $3\frac{3}{4}$ in. per unit.

Controlled-flexing units are available in standard sizes from 3 in. to 48 in. ID, for pressures to 300 psi, temperatures to 850 F. Designed for expansion travel up to $7\frac{1}{2}$ in. per unit. Both free-flexing and controlled flexing types are available with flanged or welding ends.



Sizes and Dimensions

Pipe Size (in.)	Overall Length, in.		Max. O.D., in.	
	Sweat Ends	Female Threaded Ends	Sweat Ends	Female Threaded Ends
$\frac{3}{4}$	$5\frac{1}{8}$	$7\frac{1}{16}$	$1\frac{1}{2}$	$1\frac{1}{2}$
1	$6\frac{1}{4}$	$8\frac{3}{4}$	$1\frac{7}{8}$	$1\frac{7}{8}$
$1\frac{1}{4}$	$7\frac{1}{4}$	$9\frac{7}{8}$	$2\frac{1}{4}$	$2\frac{1}{4}$
2		$10\frac{3}{8}$		$3\frac{1}{16}$



Sizes and Dimensions

Pipe Size (in.)	O/A Length (in.)	Max. O.D. (in.)	Working Press (psi)	Unit Wt. (lb.)
$\frac{3}{4}$	$9\frac{5}{8}$	$2\frac{3}{8}$	150	2.6
1	$9\frac{3}{4}$	$2\frac{3}{8}$	150	2.8
$1\frac{1}{4}$	$13\frac{1}{2}$	$3\frac{1}{4}$	100	7.7
$1\frac{1}{2}$	$13\frac{1}{2}$	$3\frac{1}{4}$	100	8.0
2	$12\frac{3}{4}$	$4\frac{1}{4}$	100	10.3
$2\frac{1}{2}$	$13\frac{3}{4}$	5	100	13.7
3	$14\frac{1}{2}$	$5\frac{1}{2}$	100	17.4



The Babcock & Wilcox Co.

Tubular Products Division-Fittings Department

3839 West Burnham St. Milwaukee 46, Wisconsin

SEAMLESS WELDING FITTINGS AND FORGED STEEL FLANGES

DISTRICT OFFICES

BEAVER FALLS, PA. 712 Eleventh St.
BOSTON 16, MASS. 250 Boylston St.
CHICAGO 3, ILL. 105 S. LaSalle St.
CINCINNATI 6, OHIO 2330 Victory Pkwy.
CLEVELAND 14, OHIO 629 Euclid Ave.
DETROIT 26, MICH. 615 Griswold St.
HOUSTON 19, TEXAS 2134 Welch St.
TULSA 3, OKLA. 427 S. Boston St.

LOS ANGELES 17, CALIF. 1111 Wilshire Blvd.
MILWAUKEE 15, WIS. 2430 S. 28th St.
NEW YORK 16, N. Y. 22 East 40th St.
PHILADELPHIA 2, PA. 111 S. 15th St.
ST. LOUIS 8, MO. 3615 Olive St.
SAN FRANCISCO 3, CALIF. 785 Market St.
SYRACUSE 2, N. Y. 205 Harrison St.



90° Long Radius Elbow



180° Long Radius Return



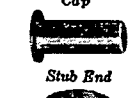
Straight Tee



Concentric Reducer



Cap



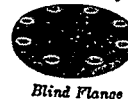
Stub End



Welding Neck Flange



Slip-on Flange



Blind Flange

B&W Welding Fittings are available in carbon, alloy and stainless steels in a wide range of sizes. Typical types and size ranges are listed below. For information on the complete line of B&W Seamless Welding Fittings and Flanges, write for B&W's Welding Fittings Catalog FB-76.

Type of fitting	Carbon and Alloy Steel				Stainless Steel			
	Standard Weight	Extra Strong	Schedule 160	Double Extra Strong	Schedule 5S	Light Weight Schedule 10S	Standard Weight Schedule 40S	Extra Strong Schedule 80S
45° Elbows—Long Radius	$\frac{1}{4}$ -36	$\frac{1}{4}$ -36	1-12	$\frac{1}{4}$ -8	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12
90° Elbows—Long Radius	$\frac{1}{4}$ -36	$\frac{1}{4}$ -36	1-12	$\frac{1}{4}$ -8	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12
90° Elbows—Reducing—Long Radius	2x1 to 12x10	2x1 to 12x10	—	—	—	—	—	—
90° Elbows—Short Radius	1-30	$\frac{1}{4}$ -30	—	—	—	—	—	—
180° Returns—Long Radius	$\frac{1}{4}$ -30	$\frac{1}{4}$ -30	1-12	2-8	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12
180° Returns—Short Radius	1-30	$\frac{1}{4}$ -30	—	—	—	—	—	—
Tees—Straight	$\frac{1}{4}$ -36	$\frac{1}{4}$ -36	$\frac{1}{4}$ -12	$\frac{1}{4}$ -8	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12
Tees—Reducing Outlet	$\frac{1}{4}$ -30	$\frac{1}{4}$ -30	$\frac{1}{4}$ -12	$\frac{1}{4}$ -8	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12
Reducers—Concentric and Eccentric	$\frac{1}{4}$ x $\frac{1}{4}$ to 36x30	$\frac{1}{4}$ x $\frac{1}{4}$ to 36x30	$\frac{1}{4}$ x $\frac{1}{4}$ to 12x10	$\frac{1}{4}$ x $\frac{1}{4}$ to 12x10	$\frac{1}{4}$ x $\frac{1}{4}$ to 12x10	$\frac{1}{4}$ x $\frac{1}{4}$ to 12x10	$\frac{1}{4}$ x $\frac{1}{4}$ to 12x10	$\frac{1}{4}$ x $\frac{1}{4}$ to 12x10
Caps	1-36	1-36	1-12	1-8	1-12	1-12	1-12	1-12
Stub Ends—Lap Joint	1-24	1-24	—	—	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12	$\frac{1}{4}$ -12
Reducers—Straight and Reducing	1-24	1-24	—	—	On Application	On Application	On Application	On Application
Crosses—Straight and Reducing	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	—	—	On Application	On Application	On Application	On Application
Swaged Nipples	On Application	On Application	—	—	—	—	—	—
Bull Plugs	On Application	On Application	—	—	—	—	—	—
Shaped Nipples 90°-45°	2-12	2-12	—	—	—	—	—	—
Saddles—Sleeves	1-30	—	—	—	—	—	—	—

Type of flange	150 lb	300 lb	400 lb	600 lb	900 lb	1500 lb	2500 lb
Welding Neck	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -12
Slip-on	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -12
Lap Joint	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -12
Threaded	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -12
Blind	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -12
Socket Welding	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -24	$\frac{1}{4}$ -12
Reducing . . . Slip-on and Threaded	$\frac{1}{4}$ x $\frac{1}{4}$ to 24x4	$\frac{1}{4}$ x $\frac{1}{4}$ to 24x4	$\frac{1}{4}$ x $\frac{1}{4}$ to 24x4	$\frac{1}{4}$ x $\frac{1}{4}$ to 24x4	$\frac{1}{4}$ x $\frac{1}{4}$ to 24x4	$\frac{1}{4}$ x $\frac{1}{4}$ to 12x3 $\frac{1}{2}$	$\frac{1}{4}$ x $\frac{1}{4}$ to 12x3 $\frac{1}{2}$