# **(2023Apr FPD300.docx)**

# **RECOMMENDED ENGINEERING SPECIFICATION FOR FlexPress™ 300 PSI DUAL**

# **Externally Pressurized Expansion Joints WITH FLANGED ENDS or WELD ENDS**

## PART 1 GENERAL

1.01 SECTION INCLUDES

1. FlexPress dual, model FPD300FXFxx8 (8") axial, FPD300FXFxx12 (12" axial) or FPD300FXFxx16 (16” axial), with flanged ends, or FlexPress, model FPD300WXWxx8 (8") axial, FPSD300WXWxx12 (12" axial) or FPS300WXWxx16 (16” axial), with weld ends

1.02 MANUFACTURES

A. FlexPress dual externally pressurized expansion joint(s) shall be manufactured by Flex-Hose Co. or pre-approved equal.

PART 2 PRODUCTS

2.01 Externally Pressurized expansion joints

1. Externally pressurized expansion joints must be manufactured in the USA

## The design shall incorporate a totally enclosed, externally pressurized 321 stainless steel bellows that is protected from external damage by a heavy-walled shroud designed for full line pressure.

1. The bellows shall be isolated from flow impingement by an internal standard wall carbon steel sleeve.

## Standard 300 PSIG (2068 kPa) design operating pressure and 650 degrees F (343° C).

## As a result of externally pressurized design, the operating pressure shall be transferred to the outside bellows through a gap in the internal guide flange and the housing (shroud).

1. End fittings shall be raised face forged carbon steel flanges with 300# ANSI drilling for flanged models and carbon steel standard wall beveled weld ends for weld end models.
2. The bellows may be of single-ply, or laminated (multi-ply) construction to provide a low spring rate with minimal stresses that assure extended life.
3. A center anchor base shall be shall be integral to the external case to absorb designed motion half each side of center anchor base.
4. A drain port, with plug, shall be provided for convenient location of steam trap, or used to drain liquids when pipeline is shut down.
5. Design shall be “packless” to eliminate need for routine maintenance.
6. The externally pressurized design will eliminate the need for one set of pipe guides on each side of the expansion joint (4 pipe diameters from the expansion joint) thus permitting the first set of guides to be at up to 14 pipe diameters from the expansion joint.
7. For the Canadian market they must be CSA standard B51 certified, inspected and tested by the Technical Standards and Safety Authority of Canada.
8. Vent ports may be provided as an available option
9. Alternate construction materials may be provided as required for suitability to application
10. Dual models with integral center anchor base may be provided for greater motion applications.
11. Alternate end fittings may be provided based on application to mating piping.
    1. WARRANTY

FlexPress dual externally pressurized expansion joint(s) must have a 5-year full product replacement warranty when installed in accordance with all specifications and installation instructions as described by Flex-Hose Co.