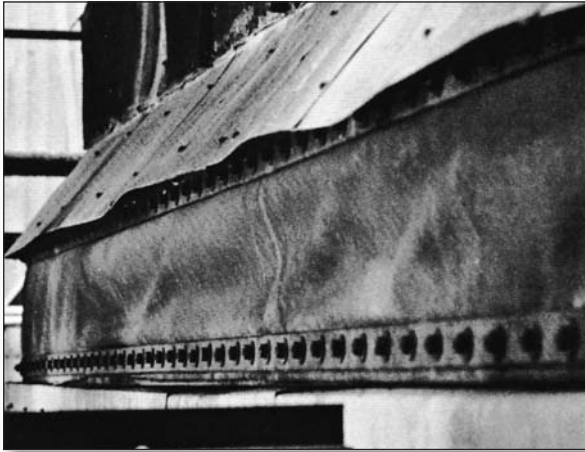


501-HT

Flat Belt Design



Insulated for Constant Operating Temperatures Above 400°F to 2000°F



HOLZ STYLE 501-HT-BELT INSULATED EXPANSION JOINTS are designed for applications with constant operating temperatures above 400°F to 2000°F. A TFE/glass heat-sealed gas and chemical barrier provide a completely gas-tight, leakproof construction.

The composite-type, multi-layered construction consists of a fluoropolymer/glass outer cover, fabric retainer piles, insulation thermal barrier, TFE/glass gas and chemical barrier, and a fiberglass protective inner layer mechanically locked to the protective outer cover.

Belt type joints eliminate the need for gaskets since they are designed to include seal welding of the angle frames to the ducting flanges. The fully radiused corner design of the angle frames provides the low stress and high movement capabilities of the 501-HT-Belt expansion joint.

Benefits of Style 501-HT-Belt

- **Prevents Gas/Condensate Penetration—**

Heat sealed TFE/glass barrier prevents leakage.

- **Greater Protection Against Leakage to Atmosphere—**

The heat sealed/vulcanized fluoropolymer/glass cover adds to the gas seal protection.

- **Margin of Safety—**

Each composite expansion joint is built with individual material layers strategically placed to provide the best heat resistance and reduction of condensate.

- **Easily Spliced—**

The Holz Style 501-HT-Belt Joint is easy to splice in the field if desired.

- **Adaptability—**

Available in round or rectangular configurations with variable face-to-face dimensions, the expansion joint may be made to fit existing ductwork very easily.

- **Weld-In Design or Bolt-In Design Frames/Baffles are Available—**

The 501-HT-Belt offers optional attachment methods.

MATERIAL & TEMPERATURE SELECTION CHART

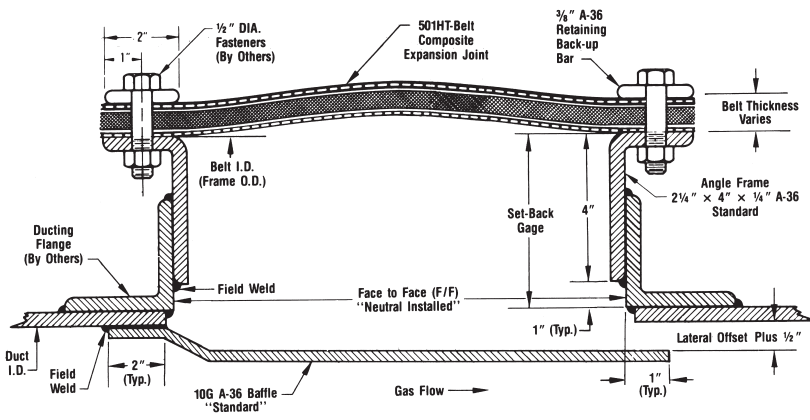
Holz Material Code	Max. Continuous Operating Temperature ^①	Max. Allowable Excursion Temperature ^②	Cover Material ^③
700	700°F	800°F	Fluoropolymer/Glass
1000	1000°F	1100°F	Fluoropolymer/Glass
1200	1200°F	1300°F	Fluoropolymer/Glass
1400	1400°F	1500°F	Fluoropolymer/Glass
1600	1600°F	1700°F	Fluoropolymer/Glass
1800	1800°F	1900°F	Fluoropolymer/Glass
2000	2000°F	2100°F	Fluoropolymer/Glass

① Internal metal baffle required. ② Excursion temperature period is two hours. ③ External insulation not allowed.

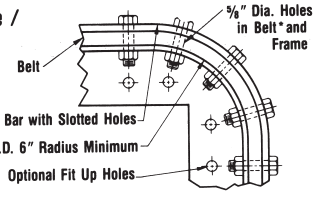
RECTANGULAR CORNER



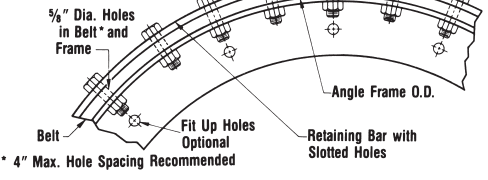
TYPICAL INSTALLATION ARRANGEMENT



Rectangular Flange / Corner Detail



Round Flange Detail



Maximum Movement Capabilities (Inches)

MOVEMENT AT SHOWN FACE TO FACE	6" F/F			9" F/F			12" F/F			16" F/F		
	Axial Compression	② Axial Extension	① Lateral Offset	Axial Compression	② Axial Extension	① Lateral Offset	Axial Compression	② Axial Extension	① Lateral Offset	Axial Compression	② Axial Extension	① Lateral Offset
	1.5	.75	.75	2.5	.75	1.5	3.5	.75	3.0	5.0	.75	3.5

NOTES:

- ① Lateral offset figures are based on the assumption that all lateral movement occurs prior to compression movements. In practice, movements may occur simultaneously thus the allowable lateral offset may increase. Contact **Holz Rubber** for information.
- ② Extension may be increased by precompression during installation. However, the amount of pre-compression will correspondingly reduce the compression rating.
- ③ Anchors should be located so rated movement is not exceeded.

501-HT-Belt	PRESSURE/VACUUM RATINGS			PRODUCT WEIGHT		
	Pressure/Vacuum			Pounds per square foot	Pounds per linear foot of periphery	
	PSIG	In. H ₂ O	kPa	Expansion Joint	Retaining Bars	Angle Frames and Baffle
501-HT-Belt	±3	±83	±20.7	0.75	5.0	20.3

Vacuum Applications: For constant vacuum, an additional set-back may be required to ensure the joint does not come in contact with the baffle.

Retaining Bars: Standard Material - 3/8" x 2" Chamfered or Rounded Edge A-36 Steel.
Angle Frames: Standard Material - 4" x 2-1/4" x 1/4" A-36.
Baffle: Standard Material - 10 Gage A-36 Steel.

Simplified 501-HT-Belt Specification

- 1.0 Furnish a composite, multi-layered, insulated, fluoropolymer/glass covered belt expansion joint for a hot gas duct system.
- 2.0 Expansion Joint
 - 2.1 The expansion joint shall be manufactured in a belt configuration consisting of multi-ply of materials.
 - 2.2 The outside layer shall be fluoropolymer/glass. The internal layers shall consist of fabric retainer plies, TFE/glass chemical and gas barrier and thermal insulation as necessary. The inside layer shall be fiberglass.
 - 2.3 All corners on rectangular angle frames shall be designed with minimum radius of 6 inches on frame O.D.
 - 2.4 All materials shall be 100% asbestos free.
 - 2.5 The expansion joint will be designed for _____ psi and to operate at a continuous temperature of _____ °F.
 - 2.6 The expansion joint shall be designed to accept the system movements without imposing any significant forces on the ductwork.
 - 2.7 Insulation over the outside of the expansion joint shall not be permitted.
 - 2.8 The expansion joint shall be Style 501-HT-Belt as manufactured by **Holz Rubber Co., Inc.**
- 3.0 Metalwork
 - 3.1 The retaining bars shall be made of 3/8" x 2" A-36 chamfered or rounded edge bar stock.
 - 3.2 The angle frames shall be segmented and made of 1/4" A-36 designed for welding to duct flanges.
 - 3.3 A baffle is required. The baffle shall be segmented and designed for welding to the ductwork and to accommodate the system movements. The baffle shall be made of 10 gage A-36 steel.

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