# **Pyrotek**.

EXPANSION JOINT ORDER FORM

STYLE













Customer name		Reference number
Telephone	Contact	
Delivery requirements		

	Joint number		
	Quantity	Style	
SERVICE	Location		
	Flow		
	Flow media		
	Cycles/Year Start ups and shut downs		
SIZE	Duct inside dimension		
	Duct thickness		
	Duct opening (face to face)		
RES	Design		
	Operating		
TEMP	Operating		
	Excursion	Duration	
	Ambient max	Ambient min	
MOVEMENT	Axial compression		
	Axial extension		
	Lateral parallel to long side 'X'		
	Lateral parallel to short side 'Y'		
	Material		
FLE	Thickness		
BAF	Flange height		

OTHER COMMENTS

SUBMIT FORM

## **Pyrotek**

## **EXPANSION JOINTS DESIGN GUIDELINES**

## **EXPANSION JOINTS PROFILES**

#### **BELT TYPE**

This expansion joint profile is mounted parallel to the plane of the duct.



#### 'U' DESIGN - INTEGRALLY FLANGE TYPE

This expansion joint profile incorporates its own flanges which are perpendicular to the plane of the duct.



#### SINGLE FLOW LINER

In positive flue gas systems with flush mount composite designs, baffles are recommended to extend the life of the expansion joint. In negative systems, a single flow liner is used lo prevent the joint from being pulled into the flow causing the joint to fail prematurely from flutter and erosion.



### **MOVEMENTS**



#### Axial compression

The dimensional shortening of the expansion joint face-to-face gap parallel to its longitudinal axis.



#### Axial extension

The dimensional lengthening of the expansion joint face-to-face gap parallel to its longitudinal axis.



Lateral

The dimensional displacement of the inlet and the outlet flanges of the expansion joint perpendicular to its longitudinal axis



Torsional rotation

The twisting of one end of the expansion joint with respect to the other end about its longitudinal axis.



Angular rotation

That movement which occurs when one flange of the expansion joint is moved to an out-to-parallel position with the opposite flange.

#### DOUBLE FLOW LINER

The double flow liner is used in systems with large duct movements and elevated temperatures.



#### **INSULATION PILLOW**

Recommended for all composite joints continuously operating at temperatures 800°F (426°C) and above. The insulation pillow keeps belt temperatures down and increases the service life of the joint. The pillow consists of fiberglass or ceramic fiber ( determined by flue gas temperature) encased in high temperature fabric and/or stainless steel mesh. An insulation pillow is also supplied in heavy fly ash environments to prevent ash buildup between the flow liner and the expansion joint.

