

FMH EXPANSION JOINTS



Universal Expansion Joints



How to Generate a Universal Expansion Joint Part Number

NOM SIZE	UNIT TYPE	UNIT STYLE	DESIGN PRESS.	*LATERAL MOVEMENT	END FITTINGS			LINER W/ MAT'L	COVER W/ MAT'L	**OVERALL LENGTH	SPECIAL MATERIALS	
											BELLOWS	END
											MAT'L	MAT'L
3	- U	O	- 150	- 4.21	- FR	- FR	-	L3	C3	- 20 ³ / ₈ "	- B3	E3

3-UO-150-4.21-FR-FR-L3C3-20³/₈"-B3E3

UNIT TYPE

CODE	DESCRIPTION
U	UNIVERSAL
*D	DUAL

UNIT STYLE

CODE	DESCRIPTION
O	UNRESTRAINED
T	TIE RODS/LIMIT RODS/ CONTROL RODS
H	HINGE
G	GIMBAL

END FITTINGS

CODE	DESCRIPTION
BB	BANDED BELLOWS
FA	FIXED ANGLE FLANGE
FP	FIXED PLATE FLANGE
FR	FIXED RFSO/FFSO FORGED FLANGE
VP	VANSTONE PLATE FLANGE
VR	VANSTONE RFSO/FFSO FORGED FLG.
WS	WELD END STD. WT. PIPE
WH	WELD END SCH. E.H. or 80s PIPE
EL	ELBOW STD. WT. 90° L.R.

LINER MATERIAL LISTING

CODE	DESCRIPTION
L1	T304 (STANDARD)
L2	T304L
L3	T316
L4	T316L
L5	T321
L15	A-36
L20	OTHER

Note:
Specific movements must be provided to properly size liner.
Flow direction should be specified on combination ends.
Add 1/8" to unit overall length for vanstone liner.

This expansion joint is a universal unrestrained unit with a 3" NOM. DIA; A240 T316 bellows; 20³/₈" overall length
Unrestrained; 150 psig design pressure.
4.21" Lateral Movement (see Lateral Column).
A182 F316 Fixed RFSO Flanges, T316 Liner & T316 Cover.

COVER MATERIAL LISTING

CODE	DESCRIPTION
C1	T304
C2	T304L
C3	T316
C4	T316L
C5	T321
C15	A-36 (STANDARD)
C20	OTHER

BELLOWS MATERIAL LISTING

CODE	DESCRIPTION
B1	A240 / T304
B2	A240 / T304L
B3	A240 / T316
B4	A240 / T316L
B5	A240 / T321 (STANDARD)
B6	B162 / (NICKEL) ALLOY 200
B7	B127 / (MONEL) ALLOY 400
B8	B168 / ALLOY 600
B9	B443 / ALLOY 625
B20	OTHER

END MATERIAL LISTING

CODE	DESCRIPTION
E1	304 (A240 T / A182 F / A312 TP)
E2	304L (A240 T / A182 F / A312 TP)
E3	316 (A240 T / A182 F / A312 TP)
E4	316L (A240 T / A182 F / A312 TP)
E5	321 (A240 T / A182 F / A312 TP)
E10	A105 (STANDARD FORGED FLG.)
E11	A53 - GR.B (STANDARD PIPE)
E12	A106 - GR.B
E13	A285 - GR.C
E14	A516 - 70
E15	A - 36 (STANDARD PLATE FLG. & BANDS)
E20	OTHER

*For dual units with centerspool fixed, total axial compression should be listed instead of lateral movement. Lateral movement for dual design should be based on a single bellows.
**Overall Lengths in this catalog are shown as decimals but should be specified as fractions in the part number.

Standard Bellows Material is A240 T321. Other materials are available but may have different movement and spring rate values than those listed. Please consult the factory.

Banded Bellows are I.D. Attached to the bands. Add 2 1/2" to Universal Length to obtain Banded Bellows overall length.

Standard Angle Flange Material is carbon steel. Please consult factory for dimensions. The maximum design pressure for Angle Flange Units is 5 psig.

