



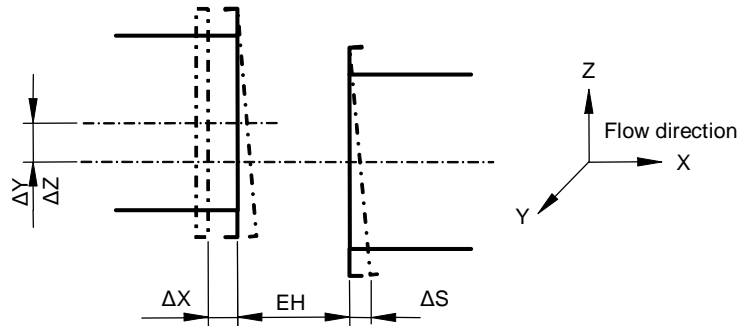
# Technical Information

## Tolerances for connection flanges and installation dimensions for Fabric Expansion Joints

Imperial units

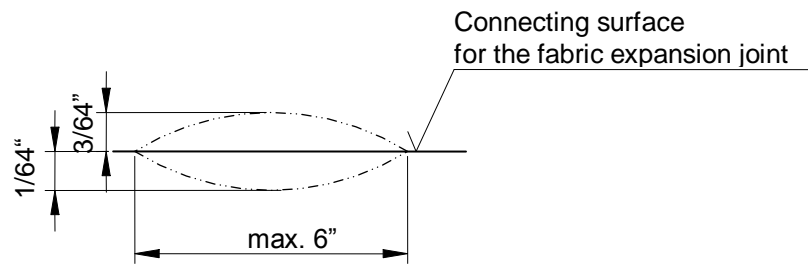
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### 1. Max. allowable tolerances for the connection flanges of fabric expansion joints



Installation length [EH]	$\Delta X = -3/8", +3/16"$
Lateral offset both direction	$\Delta Z, \Delta Y = \pm 3/8"$
Misalignment of flanges	$\Delta S = \pm 1/4"$
Accumulated tolerances	$\Sigma = \sqrt{\max. (\Delta Z^2; \Delta Y^2) + \Delta S^2} + \Delta X = < 3/8"$

### 2. Max. allowable tolerances for the connecting surface of fabric expansion joints



Between measured distance of max. 6" may be either a smooth deepening of 1/64" or a smooth superelevation of 3/64" compared with the theoretical shape.  
 Waviness of the duct flange max.  $\pm 3/64"$  over a distance of 40".  
 Max. roughness of flanges  $R_t = 6000\mu\text{in}$  (150 $\mu\text{m}$ ) acc. to ASME B46.1.  
 Offset is not allowed at the splicing part of the flange area.  
 The connecting surface must be free of ridge, groove, notch, weld splatter.

Edited by the Quality Committee of the Quality Association for Fabric Expansion Joints



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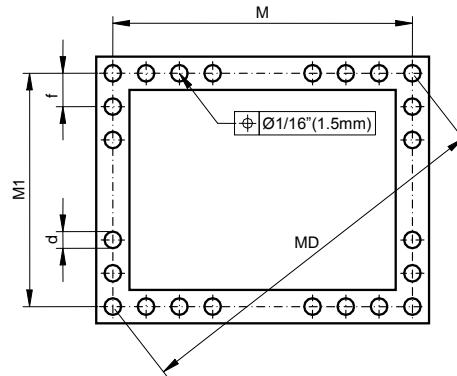
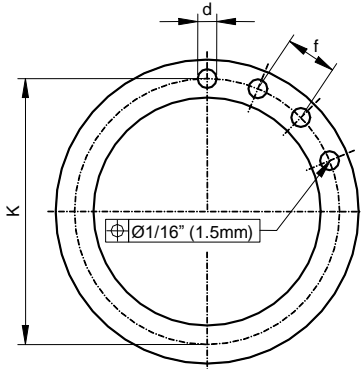
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### 3. Max. allowable tolerances for the hole pattern of fabric expansion joints

Based on ANSI/ASTM B4.3, similar to ISO 2768 and EN 22768.



- Pitch circle diameter <157-5/8" (4000mm)
  - Pitch circle diameter >157-5/8" (4000mm)
  - Center distance <157-5/8" (4000mm)
  - Center distance >157-5/8" (4000mm)
  - Diagonal distance <157-5/8" (4000mm)
  - Diagonal distance >157-5/8" (4000mm)
  - Pitch
  - Hole diameter
- All holes in the connecting flanges must be deburred on both sides.

- K = ANSI/ASTM B4.3 tolerance class m
- K = ANSI/ASTM B4.3 tolerance class c
- M, M1 = ANSI/ASTM B4.3 tolerance class m
- M, M1 = ANSI/ASTM B4.3 tolerance class c
- MD = ANSI/ASTM B4.3 tolerance class m
- MD = ANSI/ASTM B4.3 tolerance class c
- f = ANSI/ASTM B4.3 tolerance class c
- d = EN 20273 tolerance class g

### 4. General tolerances

Tolerances for length dimensions (based on ANSI/ASTM B4.3)

Tolerance class	>1/4" <1"	>1" <5"	>5" <16"	>16" <40"	>40" <80"	>80" <13'	>13' <26'	>26' <40'	>40' <52'	>52' <65'
m	±1/128"	±1/64"	±1/32"	±1/32"	±1/16"	±3/32"	±1/8"	±3/16"	±3/16"	±1/4"
c	±1/32"	±1/32"	±1/16"	±3/32"	±1/8"	±3/16"	±3/16"	±1/4"	±1/4"	±5/16"

#### Tolerances in mm

Tolerance class	>6 <30	>30 <120	>120 <400	>400 <1000	>1000 <2000	>2000 <4000	>4000 <8000	>8000 <12000	>12000 <16000	>16000 <20000
m	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	±4	±5	±6
c	±0.5	±0.8	±1.2	±2	±3	±4	±5	±6	±7	±8

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