

Product Specification for Z – 20000

Document No : ZQK-331(EX4)

1. Applications and Features

Purpose	Absorption of expansion and contraction					
Location	Low pressure piping such as exhaust gas piping					
	Construction incorporates bellows without welding.					
	The flexible bellows absorbs expansion and contraction even with					
Features	short product length.					
	It also has excellent durability against vibration from engines and					
	other sources.					

2. Structure and Parts

Figure 1 shows the structure, and Table 1 shows the part names and materials.

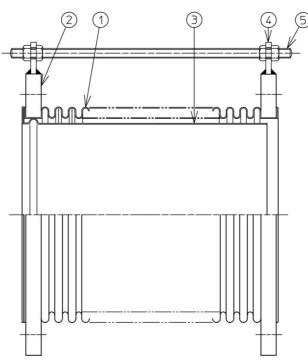


Figure 1. Structure

Table1. Parts List

No.	Name	Material		
1	Bellows	Stainless steel 304		
2	Flange	Carbon steel		
3	Inner sleeve	Stainless steel 304		
4	Holder	Carbon steel		
5	Set bolt	Carbon steel		

%Flange rating : JIS 5K, 10K, JPI %Product size : $50A\sim1500A$

%Other materials are also available on request.



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3. Dimensions and allowable expansion/contraction
Table 2 shows dimensions and allowable expansion/contraction

Size Height Pitch Thickness Axial movement movement convolution No. of convolution convolution Length 50A 7.4 8.5 0.35 ±5 6 90 65A 9.6 9.5 0.4 ±15 18 195 65A 9.6 9.5 0.4 ±5 4 80 80A 10.6 10.5 0.4 ±10 8 115 4 10.6 10.5 0.4 ±10 7 115 100A 10.6 10.5 0.4 ±10 7 115 100A 10.6 10.5 0.4 ±10 7 115 125A 11 12 0.5 ±15 8 130 125A 11 12 0.5 ±15 8 130 125A 11 12 0.5 ±15 11 175 ±20 13 15 0.5 ±15 8 170 <th colspan="9">Table2. Dimensions and allowable expansion/contraction Unit: mm</th>	Table2. Dimensions and allowable expansion/contraction Unit: mm								
SOA	Size	Height	Pitch	Thickness			Length		
50A 7.4 8.5 0.35 \(\pm\) 10 12 140 \(\pm\) 65A 9.6 9.5 0.4 \(\pm\) 10 8 115 \(\pm\) 80A 10.6 10.5 0.4 \(\pm\) 10 7 115 \(\pm\) 100A 10.6 10.5 0.4 \(\pm\) 10 7 115 \(\pm\) 100A 10.6 10.5 0.4 \(\pm\) 10 7 115 \(\pm\) 100A 10.6 10.5 0.4 \(\pm\) 10 6 105 \(\pm\) 125A 11 12 0.5 \(\pm\) 15 8 130 \(\pm\) 125A 11 12 0.5 \(\pm\) 15 11 175 \(\pm\) 150A 13 15 0.5 \(\pm\) 15 8 170 \(\pm\) 150A 13 15 0.5 \(\pm\) 15 8 170 \(\pm\) 200A 13 15 0.5 \(\pm\) 15 8 170 \(\pm\) 200A 13 15 0.5 \(\pm\) 15 8 170 \(\pm\) 250A 16 18 0.5 \(\pm\) 10 4 130 \(\pm\) 15 16 18 0.5 \(\pm\) 10 0 0					movement	convolution			
#15	50A	7.4	8.5	0.35	±5	6	90		
### ### ### ### ### ### ### ### ### ##					±10	12	140		
65A 9.6 9.5 0.4 ±10 8 115 80A 10.6 10.5 0.4 ±15 4 80 80A 10.6 10.5 0.4 ±10 7 115 ±15 10 145 ±15 4 85 100A 10.6 10.5 0.4 ±10 6 105 ±15 8 130 ±10 7 130 125A 11 12 0.5 ±15 11 175 ±20 14 210 ±10 7 130 150A 13 15 0.5 ±15 8 170 ±20 10 20 ±15 8 170 ±20 10 20 ±25 12 230 ±25 12 230 ±15 5 145 ±20 7 180 ±25 9 220 ±15 4 135 ±25 9 220 ±15 4 135 ±					±15	18	195		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	65A	9.6	9.6 9.5	0.4	±5	4	80		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					±10	8	115		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					±15	12	155		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		10.6		0.4	±5	4	80		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	80A		10.5		±10	7	115		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					±15	10	145		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				0.4	±5	4	85		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	100A	10.6	10.5		±10	6	105		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					±15	8	130		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		11			±10	7	130		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	125A		12	0.5	±15	11	175		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						±20	14	210	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		13	13 15	0.5	±10	5	125		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	150A				±15	8	170		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					±20	10	200		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	200A	13	13	15	0.5	±10	5	125	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						±15	8	170	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						±20	10	200	
250A 16 18 0.5 $\begin{array}{c ccccccccccccccccccccccccccccccccccc$						±25	12	230	
250A 16 18 0.5 ±20 7 180 ±25 9 220 ±15 4 135 ±20 6 175	250A	16	16 18	0.5	±10	4	130		
#20 / 180 #25					±15	5	145		
300A 18 20 0.5 ±15 4 135 ±20 6 175					±20	7	180		
300A 18 20 0.5 ±20 6 175					±25	9	220		
300A 18 20 0.5	300A	18	20	0.5	±15	4	135		
300A 18 20 0.5					±20	6	175		
					±25	7	195		
±30 8 215					±30	8	215		

※Allowable expansion and contraction is based on a pressure of 0.1 MPa at normal temperature.



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4. Applicable temperature range

Pressure : $0\sim0.1$ MPa (Normal temperature) Temperature : $0\sim300$ °C (Standard material)

5. Inspection

Inspection items: Visual inspection, Dimensional inspection (Overall length),

Leak inspection (airtight or penetrant testing)

Frequency: ALL

6. Notes

- Set expansion joint according to the direction of the seal which indicates fluid direction in case of the product with inner sleeve.
- Take away the set bolt after installation.
- Please refer to the "Installation Instructions" for installation procedures.