

B-FLEX Rubber Flexible Joint

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Multi-purpose type with arch structure that absorbs the deflection and eccentricity of pipes that are caused by temperature changes



Feature

- The arch structure of the body produces large deflection.
- The low reactive force in the axial direction enables easy installation on pipes.

Usage

Pipes for general factory facilities	Chemical plants	Pipes of pumps and blowers	Pipes for ships and vessels	Sewage treatment plants
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Kind

- Single mound type(Ground & Under-ground) Two-mound type(Ground & Under-ground)
- For low pressure / for high pressure

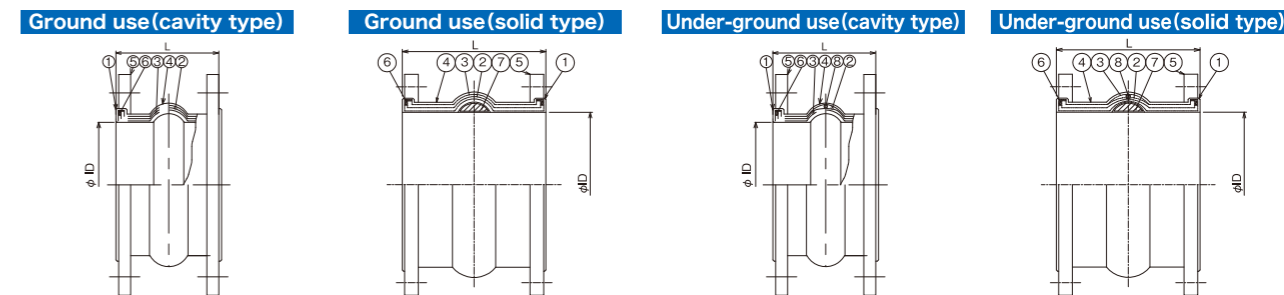
Standard issue

- Max. operating pressure : Please see the maximum operating pressure in the chart on the right.
The structure designed for underground installation is used for negative pressure. Please contact us when using this product under the pressure that exceeds the maximum operating pressure for individual examination of the structure.
 - Max. operating temperature : -10°C~60°C
 - When applying for under-ground use, please install the joint in depth of 1M ~ 3M. Maximum Car weight is 25 Ton.
 - Please contact us if gas is flowing through the pipe because the highest operating pressure becomes different.
 - Solid type tube with straight inner surface is also available to prevent fluids such as filthy water or powder from settling.
 - Please use a model with a control unit (tie rod bolt type) to regulate the thrust in the axial direction that is generated by the internal pressure and to prevent excessive deflection.
Also, please use a model with a control unit (set bolt type) to adjust the face-to-face dimension during installation. (Please see P25.)
- This product cannot be used in areas with repeated and frequent pressure changes, such as the delivery side of pressurizing or pressure boosting water pumps.
 - This product cannot be used with fluids or areas of installation that might lower the elasticity of rubber. Please contact us because use of this product in such conditions needs to be examined.

Handling instructions

- This product generates reactive force due to the load of the inner pressure. Thus, fixing points or supports are required for installed pipes. (Please see p. 26-28.)
- Please see p. 26-28 for other cautions.

Structure



No.	Name	Material	No.	Name	Material
1	Inner rubber	Synthetic rubber	5	Flange	SS400, SUS304 etc.
2	Reinforcement layer	Synthetic fiber	6	End-ring	SS400
3	Reinforcement layer	Synthetic fiber	7	Fill-up rubber	Synthetic rubber
4	Outer rubber	Synthetic rubber	8	Reinforcing ring	SS400

Please see "Rubber selection guide" in p.25 for selecting the material of inner rubber.

- The standard product uses the JIS10K flange. Flanges with other specification, such as JIS5K, JIS20K, tap water, JPI, ANSI can also be used.
- Besides the standard products SS400 and SUS304, acceptable materials of the flange include SUS316, SUS316L and S25C.
- Hot-dip galvanization (Zn plating) is the standard for SS400 flange to be used above the ground, and paint consisting of black epoxy resin for underground installation. Painted materials are also available.

Size

NB	φID [mm]	Single mound type				Two-mound type				Max. operating pressure		
		L [mm]	expansion [mm]	contraction [mm]	eccentricity [mm]	L [mm]	expansion [mm]	contraction [mm]	eccentricity [mm]	inner pressure [Mpa]		vacuum pressure [kPa]
										low-mid pressure	high pressure	under-ground
20A	19	150	9	10	20	250	18	23	50	0.50	1.00	-90
25A	25	150	9	10	20	250	18	23	50	0.50	1.00	-90
32A	32	150	9	10	20	250	18	23	50	0.50	1.00	-90
40A	38	150	15	20	20	250	30	45	50	0.50	1.00	-90
50A	51	150	15	20	20	250	30	45	50	0.50	1.00	-90
65A	64	150	15	20	20	250	30	45	50	0.50	1.00	-90
80A	76	150	20	20	20	300	30	45	50	0.50	1.00	-90
100A	102	150	20	20	20	300	30	45	50	0.50	1.00	-90
125A	127	150	20	20	20	300	30	45	50	0.50	1.00	-90
150A	152	200	20	20	20	300	30	45	50	0.50	1.00	-90
200A	203	200	20	20	20	300	30	45	50	0.50	1.00	-90
250A	254	200	20	20	20	300	30	45	50	0.50	1.00	-90
300A	305	200	20	20	20	300	30	45	50	0.50	1.00	-90
350A	356	200	25	25	20	350	40	50	50	0.50	1.00	-90
400A	406	200	25	25	20	350	40	50	50	0.50	1.00	-90
450A	457	200	25	25	20	350	40	50	50	0.50	1.00	-90
500A	508	250	25	25	20	350	40	50	50	0.50	1.00	-90
550A	559	250	25	25	20	400	40	50	50	0.25	0.75	-90
600A	610	250	25	25	20	400	40	50	50	0.25	0.75	-90
650A	660	250	25	25	20	400	40	50	50	0.25	0.75	-90
700A	711	250	25	25	20	400	40	50	50	0.25	0.75	-90
800A	813	300	25	25	20	400	40	50	50	0.25	0.75	-90
900A	914	300	25	25	20	400	40	50	50	0.25	0.50	-90
1000A	1016	300	25	25	20	450	40	50	50	0.25	0.50	-90

- Solid type is used for all arch structures with 32A or smaller. (Please see p. 25.)
- The deflection for 40A or larger is the value when the arch structure is the cavity type. Please obtain the deflection for the solid type by multiplying the value in the chart above by 0.5 for compression or 0.6 for extension. (The value of the eccentricity remains the same.)
- Please contact us for details of individual deflection when using diagonal pipes, since they differ from the above values.
- Please make sure that deflections remain within permissible deflections during operation.
- The deflections in the chart indicate individual deflections. Corrections are necessary for combined deflections. Please see p. 26 for the method of correction.