A-FLEX Rubber Flexible Tube

A-FLEX

Large displacement absorption type for protecting pipes against uneven cave-in caused by earthquake or soft ground, or against themal expansion and contraction caused by temperature change.

Feature

■High pressure resistance

The main unit is reinforced with durable synthetic fibers and steel wires.

■Large eccentricity

The internal arch structure is effective for absorbing uneven settlement that occurs in situations, such as connecting pipes between buildings with different foundations.
High freedom in design due to the short face-to-face dimension.

Usage

Pipes for tap water and sewer | Pipes for general factory facilities | Pipes in pump stations | Pipes in sewage treatment plants

Kind

■For 100mm eccentricity (Ground & Under-ground) 3-mound
■For 200mm eccentricity (Ground & Under-ground) 4-mound
■For low & middle 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℃~60℃
■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 avaibable 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.)

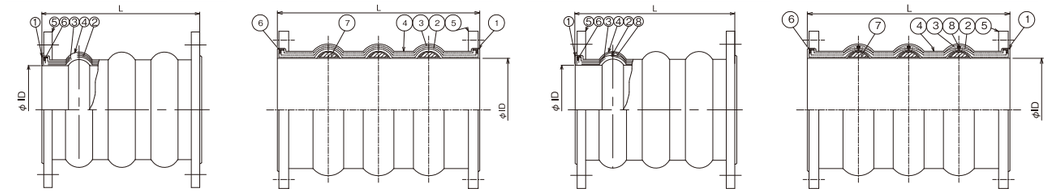
(1) This product cannot be used in areas with repeated and frequent pressure changes, such as the delivery side of pressurizing or pressure boosting water pumps.
(2) This product cannot be used with fluids or areas of installation that might lower the elasticity of rubber.
Please contact us because use 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

Ground use(cavity type) | Ground use(solid type) | Under-ground use(cavity type) | Under-ground use(solid type)



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]	For 100mm eccentricity(3-mound)			For 200mm eccentricity(4-mound)			Max. operating pressure		
								inner pressure [Mpa]		vacuum pressure [kPa]
		L [mm]	expansion [mm]	contraction [mm]	L [mm]	expansion [mm]	contraction [mm]	low·mid pressure	high pressure	under-ground
20A	19	350	24	30	450	24	30	0.50	1.00	-90
25A	25	350	24	30	450	24	30	0.50	1.00	-90
32A	32	350	24	30	450	24	30	0.50	1.00	-90
40A	38	350	40	60	450	40	60	0.50	1.00	-90
50A	51	350	40	60	450	40	60	0.50	1.00	-90
65A	64	350	40	60	450	40	60	0.50	1.00	-90
80A	76	350	40	60	450	40	60	0.50	1.00	-90
100A	102	350	40	60	450	40	60	0.50	1.00	-90
125A	127	350	40	60	450	40	60	0.50	1.00	-90
150A	152	500	40	60	600	40	60	0.50	1.00	-90
200A	203	500	40	60	600	40	60	0.50	1.00	-90
250A	254	500	40	60	600	40	60	0.50	1.00	-90
300A	305	550	40	60	650	40	60	0.50	1.00	-90
350A	356	550	50	70	650	50	70	0.50	1.00	-90
400A	406	550	50	70	650	50	70	0.50	1.00	-90
450A	457	550	50	70	650	50	70	0.50	1.00	-90
500A	508	550	50	70	650	50	70	0.50	1.00	-90
550A	559	550	50	70	650	50	70	0.25	0.75	-90
600A	610	550	50	70	650	50	70	0.25	0.75	-90
650A	660	650	50	70	750	50	70	0.25	0.75	-90
700A	711	650	50	70	750	50	70	0.25	0.75	-90
800A	813	650	50	70	750	50	70	0.25	0.50	-90
900A	914	650	50	70	750	50	70	0.25	0.50	-90
1000A	1016	700	50	70	800	50	70	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.