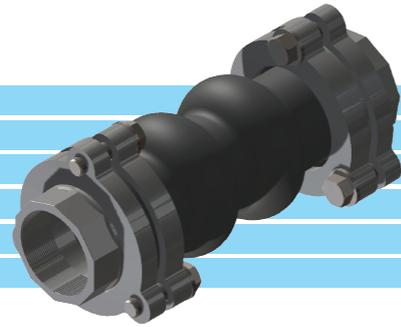


TWINFLEX-S20

FLEXIBLE RUBBER JOINT



Along with the development of HVAC system in high rise buildings and other industrial factories, the demand of high caliber flexible connection is evolved. Easy installation, high-pressure resistance, large displacement, durable and reliable are essential features of rubber flexible joints. With 50 years of experience, TOZEN has developed Twinflex-S20 to meet your requirement.

FEATURES

- **High Efficiency for Vibration and Noise Isolation**

Low spring rate of twin-sphere design is easy to flex, and low natural frequency of Twinflex-S20 increases the efficiency of vibration absorption.

- **High Working Pressure Withstanding Ability**

Maximum working pressure of 20 bar and minimum bursting pressure of 70 bar is the best performance in the market. It is achieved with precise arrangement of high-quality rubber compound & synthetic reinforcing fabrics.

- **Outstanding Lateral, Axial and Angular Displacement**

Large allowable displacement protects pipeline from damage during earthquake and ground subsidence.

- **Convenient in installations**

Union socket is accessible by open-end wrenches. Dismantle of bolts & nuts is not necessary for new installation. In narrow space installations, the union type sockets are removed from the joint and attach to the pipe before connecting with the joint again.

- **Applicable for both Suction and Delivery**

Resistance up to -600mmHg (0.086MPa) is sufficient for the most of vacuum applications.

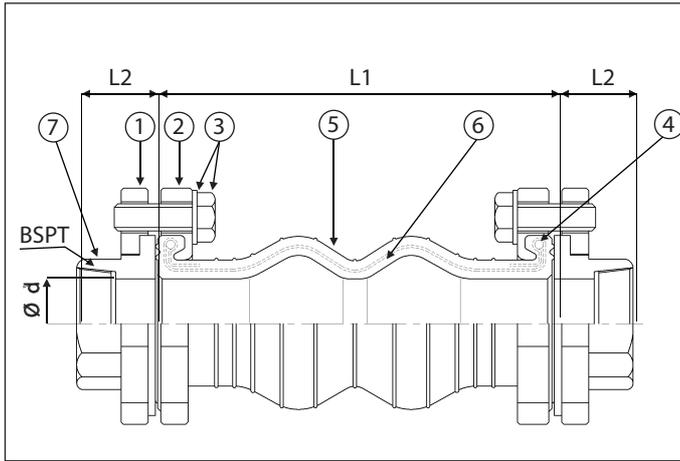
- **Highly Reliable & long-life durability**

The packing parts are reinforced with steel rope rings to prevent the rubber body from slipping out of the fitting sides of flanges. Durability is verified by proprietary life cycle tests.

APPLICATIONS

- Ideal for vibration isolation with pumps, air handling units and other moving equipment.
- Compensation for other pipe expansion or displacements

● STRUCTURE



No.	Parts	Materials
1	Flange-A	FCD450
2	Flange-B	FCD450
3	Bolt & Washer	Carbon Steel
4	Reinforcing Ring	Carbon Steel(SWRH)
5	Shell Rubber	Synthetic Rubber
6	Reinforcing Fiber	Synthetic Fiber
7	Socket	FCD450

- Standard union socket threaded to BSPT (ISO 7-1 / JIS B0203).
- Standard shell rubber material is Neoprene. EPDM and other rubber materials are available upon request.

Operating Condition

- **Max. Working Pressure** : 300 psi.
 - **Bursting Pressure** : Min. 3.5 times of Working Pressure
 - **Working Temperature** : -10 to 70 °C.
- * For high temp. application, please consult us.*

● Dimension and Allowable Movement

Nominal Bore	Size (mm)			Bolt (M)	Allowable Movement (mm)				Installation Allowance (mm)			
	Ød	L1	L2		TM	AE	AC	AM (°)	TM	AE	AC	AM (°)
15mm (1/2")	25	120	30	M10	15	10	15	15	6	3	4	7.5
20mm (3/4")	25	120	30	M10	15	10	15	15	6	3	4	7.5
25mm (1")	25	120	30	M10	15	10	15	15	6	3	4	7.5
32mm (1 1/4")	40	175	35	M12	20	10	20	20	8	3	6	7.5
40mm (1 1/2")	40	175	35	M12	20	10	20	20	8	3	6	7.5
50mm (2")	50	175	40	M12	20	10	20	20	8	3	6	7.5

● Notes

1. Allowable movement above is non-concurrent application. Please follow the calculation below for concurrent movement applications.

$$CAE(\text{or } CAC) = AE(\text{or } AC) \times 1 - \left(\frac{TM - ATM}{TM} \times \frac{AM - AAM}{AM} \right)$$

CAE = Corrected Axial Elongation
 CAC = Corrected Axial Compression
 TM = Allowable Transverse Movement
 AE = Allowable Axial Elongation

AC = Allowable Axial Compression
 AM = Allowable Angular Movement
 ATM = Actual Transverse Movement
 AAM = Actual Angular Movement

2. Install the flexible joint in displacement within the installation allowance.