

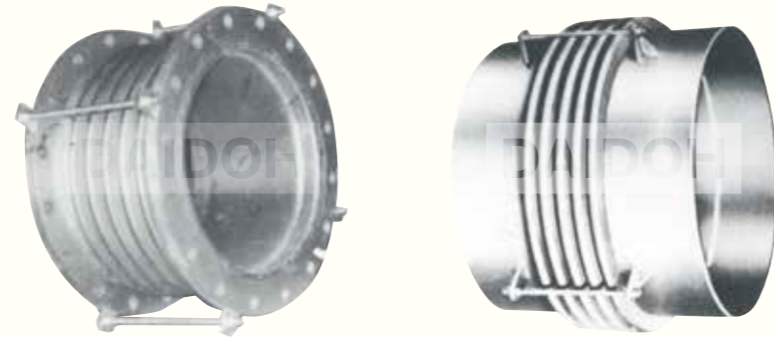
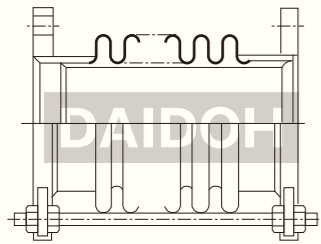
**DS-J**

## Free type expansion joint

Flanges or pipes of various types are welded on both sides of bellows. This product is used for low-pressure pipes. The structure includes a single type and a double type to be used for different purposes.

**Application** For low pressure

**Main Fluid** Gas, air, water, etc.

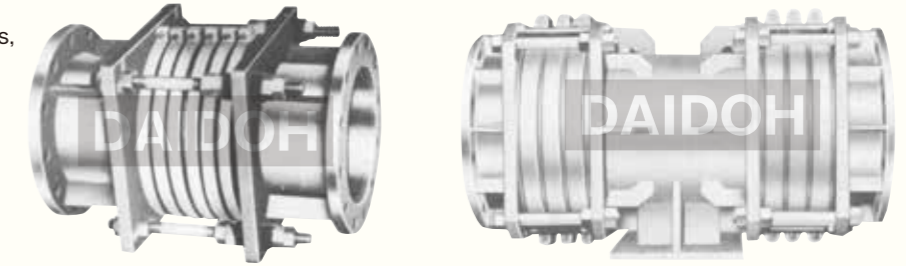
**DR**

## Ring type expansion joint

Control rings are attached to the groove of the bellows. The rings provide reinforcement against the internal pressure and unify elasticity at each peak of the bellows to maintain the durability of the expansion joint. The structure includes a single type and double type to be used for different purposes.

**Application** For high pressure

**Main Fluid** Steam, oil, chemicals, gas, air, water, etc.



Single type

Double type

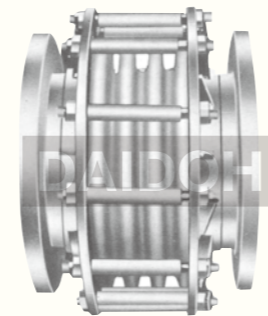
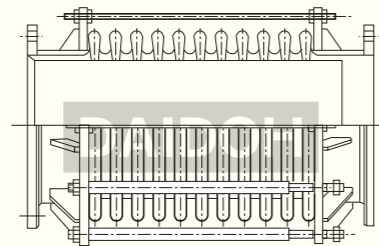
**DS-R**

## Rod type expansion joint

A guide ring, guide rod, and guide stopper are attached to the free type to enable the adjustment of the amount of elasticity. This type is used in a pipeline with relatively mid-level pressure. When you want to use a joint for a large amount of elasticity, please apply the double type joint. The structure includes a single type and double type to be used for different purposes.

**Application** For low & middle pressure

**Main Fluid** Steam, oil, chemicals, gas, air, water, etc.

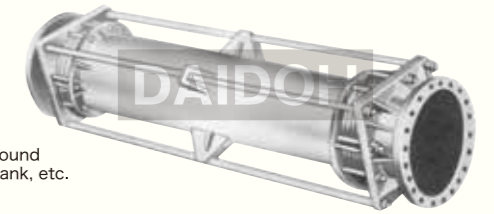
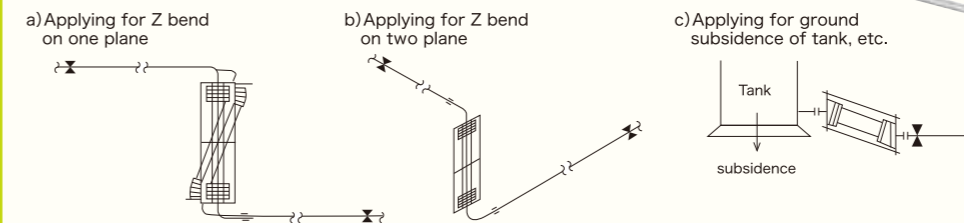
**DU**

## Universal type expansion joint

The universal type is designed mainly to absorb lateral deflection. The amount of lateral deflection is determined based on the combination of the angular rotation of the two bellows and the length of the intermediate pipe. The tie rod is designed to create smooth movement of the intermediate pipe and produce even movement of the two bellows.

**Application** For middle & high pressure

**Main Fluid** Steam, oil, chemicals, gas, air, etc.

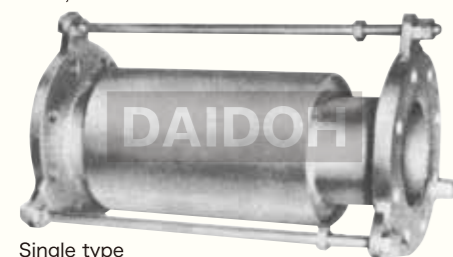
**DS-G**

## External sleeve type expansion joint

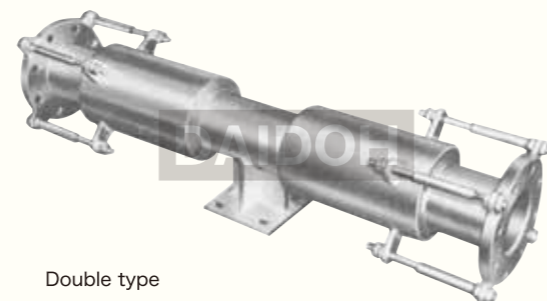
A protective external sleeve is attached to the outside of bellows. The adjustment ring attached to the joint allows smooth movement along the shaft core during expansion and contraction. Also, the external sleeve controls the movement so that the pressure will not cause buckling of the bellows. These mechanisms ensure safety. The structure includes a single type and double type to be used for different purposes.

**Application** For low & middle pressure

**Main Fluid** Steam, oil, chemicals, gas, air, water, etc.



Single type



Double type

**DZ-H**

## Hinge type expansion joint

The hinge type is designed to absorb the angular rotation on one plane. The hinge arm and pin attached to the side of the bellows restrict the plane thrust.

**Application** For middle & high pressure

**Main Fluid** Steam, oil, chemicals, gas, air, etc.

1. The longer the intermediate pipe, the more it absorbs lateral deflection (for double type) because the bending movement absorbs the lateral deflection.
2. No load is applied to a fixed point because the plane thrust is restricted by the hinge pin.
3. Deflections in two directions can be absorbed at the same time (when three units of the single type are used).

