

Niigata Chiksan Swivel Joints

for Floating Roof Tank Drainage Systems

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High Reliability with Over 50 Years of Experience in the Field

Niigata Chiksan Swivel Joints are used worldwide mostly in Asia and Middle East for steel rainwater drain piping systems in floating roof tanks (FRTs). Our swivel joints hold a nearly 100% share in the Japanese market for FRTs, with our high reputation for products based on more than half-century of experience in the field.

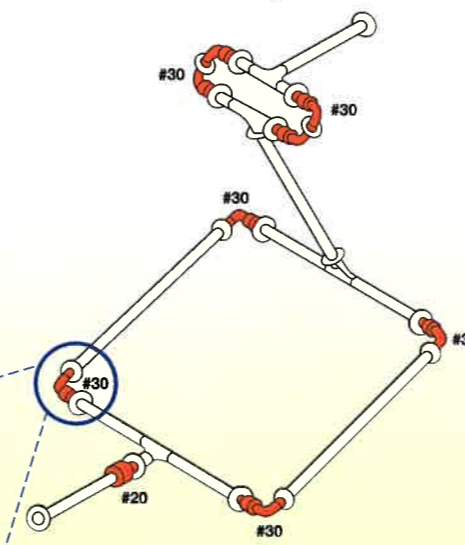
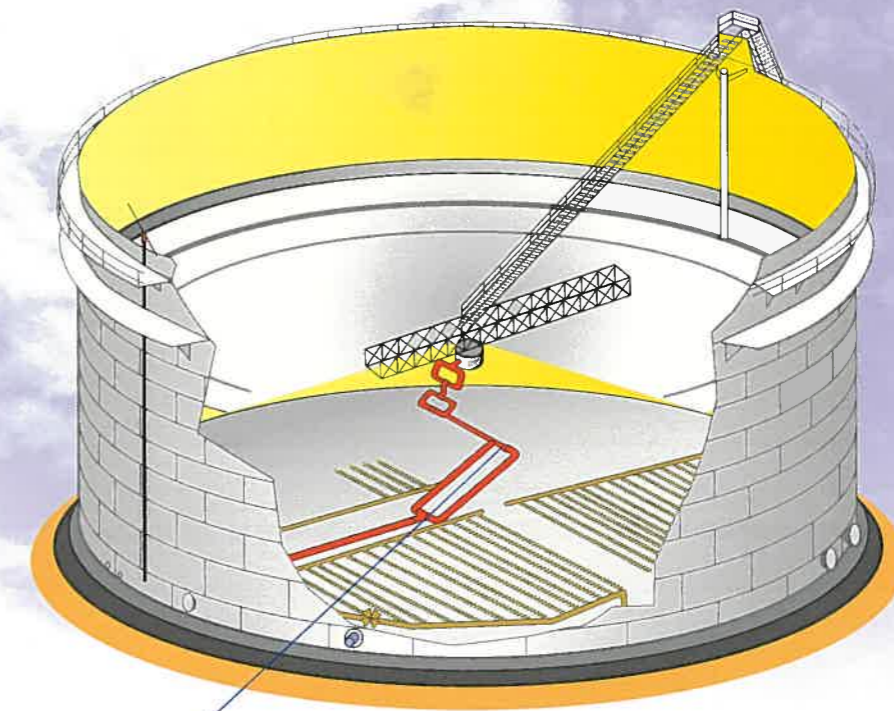
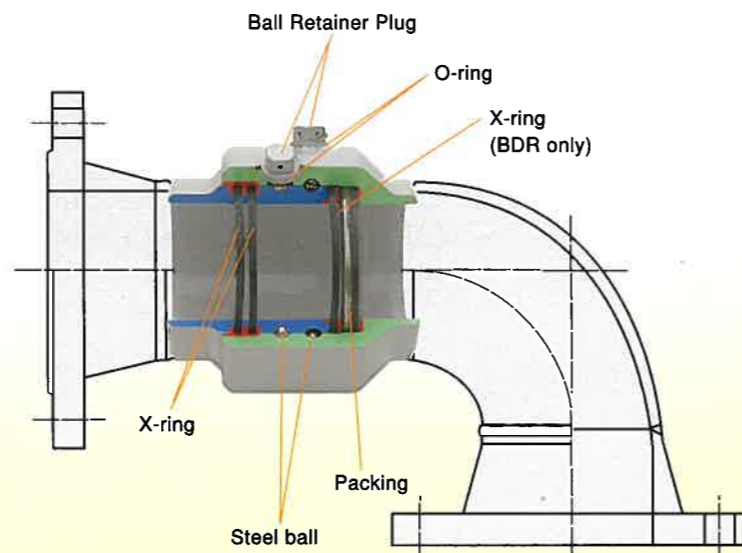
Unlike flexible tubes and hoses, swivel joints have a unique structure that prevents major leakage of fluid (crude oil, gasoline, etc) in the event of a failure.

Our swivel joints are highly durable and reliable, and field use has shown them to be free from leakage even following major earthquakes and other natural disasters.

Structure:

- ① Universal 360-degree rotary pipe joint with double row ball bearings.
- ② Each rotating part has high mechanical strength against load (including thrust and distortion) during use.
- ③ BD type has been developed specifically for floating roof tanks. It has a special double-seal structure, which enable it to withstand external pressure with long service life. X-rings are adopted to ensure strong resistance to external pressure.

BDR type is an upgraded version of BD type with a prolonged lifetime through a triple-seal structure of X-rings, and extended stainless-steel cladding.
- ④ Stainless-steel cladding (see right figure below, with red color)
Sealing surfaces with stainless-steel cladding make them highly resistant to corrosion.



Characteristics:

- ① Easy to install
- ② Fire-resistant
- ③ High pressure durability
- ④ Stress-concentration avoiding structure
- ⑤ Allows partial replacement of pipe system
- ⑥ Not affected by flow and buoyancy when using mixing machines, etc.
- ⑦ Allows wider flexibility of installation due to fixed movement.

Our Swivel Joints are used in the following applications:

- Float suction (figure at right)
- Hose necks and other applications
- Loading arms (picture at left)

<Basic Styles>

