

# Dismantling Joints

## Ductile Iron Pipeline Systems

Dismantling joints are designed to facilitate the removal of flanged valves from pipelines.  
DN 100 – DN 750

- Ductile Iron components for high strength and impact resistance
- Fasteners are grade 316 Stainless Steel for long life operation
- Thrust type available to provide longitudinal restraint
- Non-Thrust type available where restraint is separately provided
- Thermal bonded polymeric coating for long life corrosion protection
- Studs are fully threaded



### General application

Dismantling Joints are used in pipelines where valves may need to be removed for future maintenance or replacement.

### Technical data

**Size Range:**

DN 100 – DN 750

**Allowable Operating Pressure:**

1600 or 3500 kPa

**End Connections:**

Flanged to AS 4087 Fig B5

Flanged to AS 4087 Fig B6

## Thrust Type Dismantling Joint for pressure pipe – installation

- 1 Pipes are to be axially aligned to ensure zero bending moment in the Dismantling Joint during assembly.
- 2 Remove nut (1) and washer.
- 3 Place dismantling joint into position and attach fixed end of dismantling joint to pipeline.
- 4 Wind nut (5) back to 15mm from end of stud.
- 5 Slide whole assembly along by tightening nut (4) against thrust flange. Wind nut (3) back towards nut (4) about 20-30mm. Keep tightening nut (4) against thrust flange until enough thread is protruding from existing flange for nut (1) to go on.
- 6 Screw nut (1) and washer on.

- 7 Tighten nuts (4) & (5) together so that the stud is locked in position.
- 8 Tighten nut (1).
- 9 Tighten nut (2) so that flange 'Y' is tight against existing flange.
- 10 Tighten nut (3) ensuring there is a uniform circumferential gap between the inner and outer rings when compressing the rubber ring, so that the rubber ring gives appropriate seal.
- 11 Check to make sure joint is secure and the dismantling joint and pipeline remains axially aligned after installation to ensure leak tight performance.

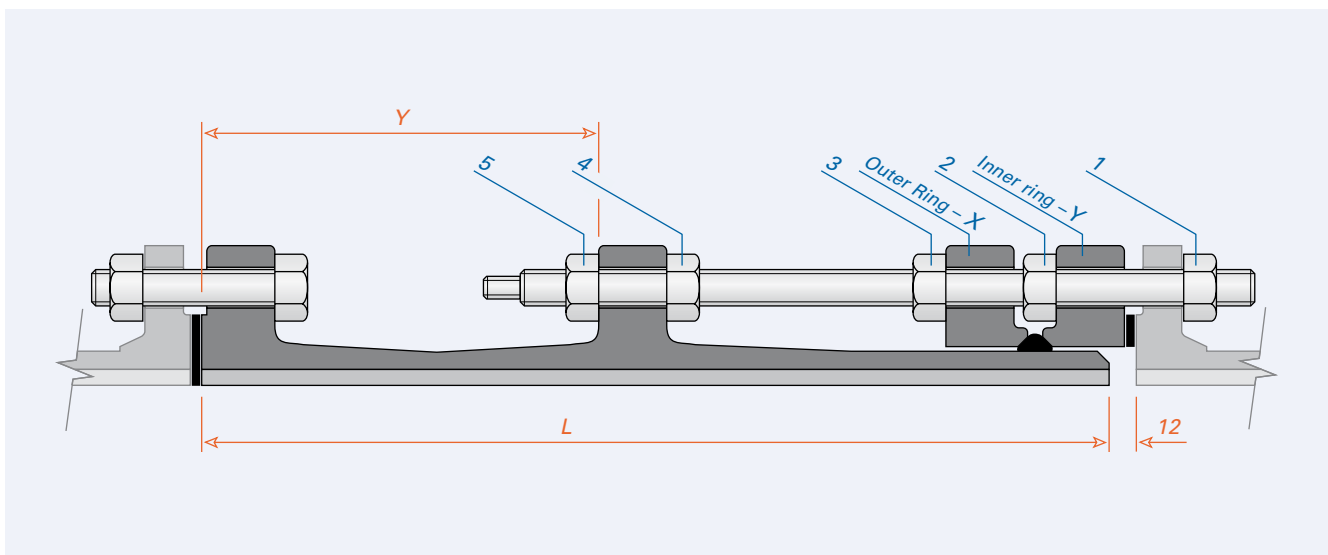
**Note.** Always tighten nuts progressively in a star pattern as per normal for flange joints.

## Thrust Type Dismantling Joint for pressure pipe – removal

- 1 Remove nut (1) and washer.
- 2 Loosen nut (4) until it meets up with nut (3).
- 3 Slide flange "X" back towards thrust flange, which in turn will pull studs back as well.
- 4 There is no need to move nuts (2), (3) and (5).

**Note.** For reinstallation after removal, reverse the removal procedure.

Always tighten nuts progressively in a star pattern as per normal for flange joints.



## Thrust Type Dismantling Joint for pressure pipe – dimensions

Dimensions	Nominal size – DN										
	100	150	200	225	250	300	375	450	500	600	750
<b>PN 16</b>											
L	400	400	400	400	400	400	600	600	600	600	600
Y	175	175	175	175	175	175	260	260	260	260	260
<b>PN 35</b>											
L	400	400	400	500	500	500	600	600	600	700	700
Y	175	175	175	220	220	220	260	260	260	300	300

## Non-thrust Type Dismantling Joint for pressure pipe – installation

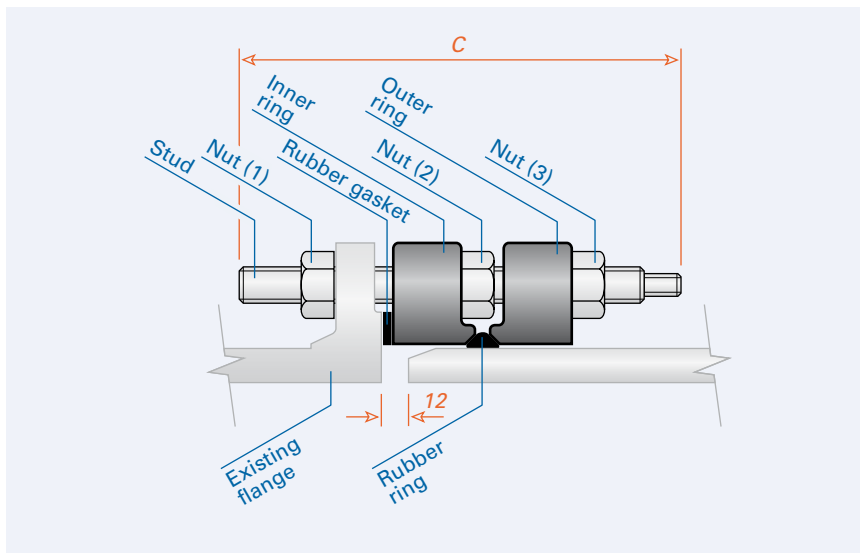
- 1 Pipes are to be axially aligned to ensure zero bending moment in the Dismantling Joint during assembly.
- 2 Remove nut (1) and washer.
- 3 Attach fixed end of dismantling joint to pipeline.
- 4 Screw nut (1) and washer on.
- 5 Tighten nut (2) so that inner ring flange is tight against existing flange.
- 6 Tighten nut (3) ensuring there is a uniform circumferential gap between the inner and outer rings when compressing the rubber ring, so that the rubber ring gives appropriate seal.

- 7 Check to make sure joint is secure and the dismantling joint and pipeline remains axially aligned after installation to ensure leak tight performance.

**Note.** Always tighten nuts progressively in a star pattern as per normal for flange joints

## Non-thrust Type Dismantling Joint for pressure pipe – removal

- 1 Remove nut (1) and washer.
- 2 Loosen nut (3) and wind nut (2) against opposing flange.
- 3 Slide flange back, which in turn will pull studs back as well.
- 4 There is no need to move nuts (2) and (3).



### Notes : Thrust and Non-thrust Type Dismantling Joints.

- 1 Pipes are to be axially aligned to ensure zero bending moment in the DJ and uniform circumferential assembly gaps and tolerances.
- 2 Ensure there is a uniform circumferential gap between the inner and outer rings when compressing the rubber ring during installation.
- 3 The DJ and pipes are to remain axially aligned after installation to ensure leak tight performance.
- 4 To satisfy 3., it is recommended that where DJ's are used for buried installations, that they be inspected under pressure conditions prior to backfill.
- 5 Always tighten nuts progressively in a star pattern as per normal for flanged joints
- 6 For reinstallation after removal, reverse the removal

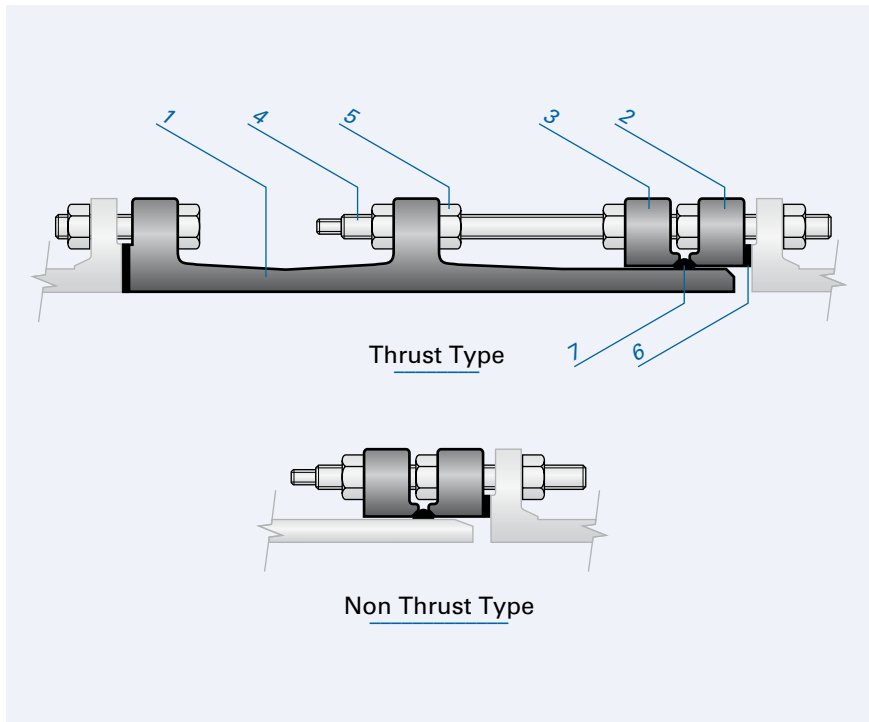
## Non-thrust Type Dismantling Joint for pressure pipe – dimensions

Dimensions	Nominal size – DN										
	100	150	200	225	250	300	375	450	500	600	750
<b>PN 16</b>											
C	195	195	195	195	195	195	275	275	275	275	275
<b>PN 35</b>											
C	195	195	195	275	275	275	275	275	275	330	330

When high pressure non thrust dismantling joints are used on non machined pipe spigots the allowable operating pressure is reduced to 2100kPa.

## Dismantling Joint parts list

No	Description Material / Standard
1	Body (Thrust type only) Ductile Iron/AS 1831-400/15
2	Thrust Ring Inner Ductile Iron / AS 1831-400/15
3	Thrust Ring Outer Ductile Iron / AS 1831-400/15
4	Stud Stainless steel / ASTM A276 316
5	Nut Stainless steel / ASTM A276 316
6	Gasket EPDM Rubber (Class 16) / AS 1646 Teadit NA1000 (Class 35)
7	Rubber Ring EPDM Rubber / AS 1646



## Dismantling Joint typical specifying sequence

Specifying a non-thrust type DN 300 Class 16 dismantling joint.

Example	300	DISJNT	N-THRUST	S/S	TC	FC
Nominal Size	DN 100 – DN 750					
Name						
Type	Thrust / Non-thrust					
Fastener Type	SS – stainless steel					
End Type	TC – Flanged AS 4087 Figure B5 HP – Flanged AS 4087 Figure B6					
Extra Information	FC – Fusion Coated / DI – Ductile Iron					