CREVET® DUCTILE IRON FITTINGS

DISMANTLING JOINT TYPE 'B' (THRUST TYPE)

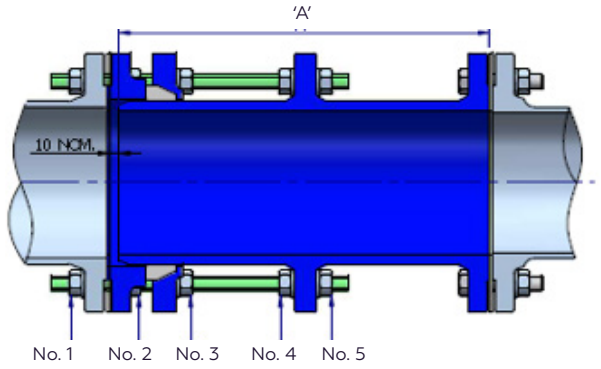
ASSEMBLY GUIDELINES

Purpose

Dismantling joints are installed in pipelines to facilitate removal and replacement of valves, pipes or fittings in the line. By removing and adjusting certain stud nuts, the stud and the loosened flanges can be retracted sufficiently to allow for the removal and replacement of the joint and associated pipe or fittings in the pipeline.

Installation Guidelines

All dismantling joints are supplied loosely assembled & should be installed in the following sequence.



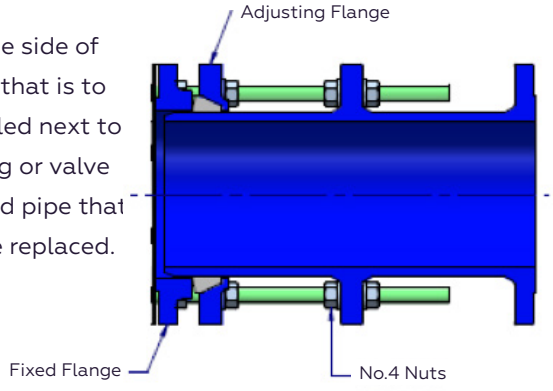
Note

For Type 'B' joints ensure that the flange to flange gap in line is as shown (The joint assembly shall be supplied to drop directly into the gap).

STEP 1

Remove the No.1 nuts and associated washers, then place the joint assembly into the gap. Loosen the No.4 nuts to allow the studs to be moved.

This is the side of the joint that is to be installed next to the fitting or valve or flanged pipe that would be replaced.

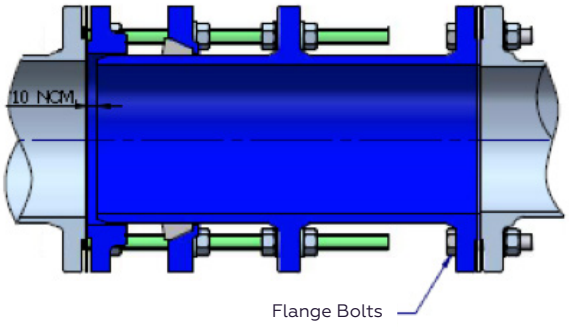


STEP 2

Install the standard flange bolts and tighten as per the standard flange bolt tightening practice.

Note

Ensure that the flange to flange gap in line is as shown below.



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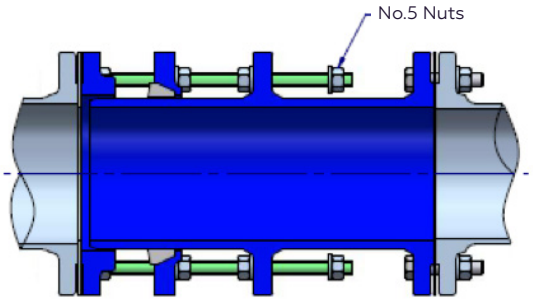
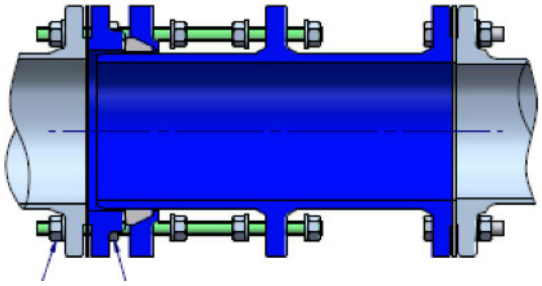
STEP 3

Turn the No.5 nuts until they are only a couple of turns from the end of the studs.



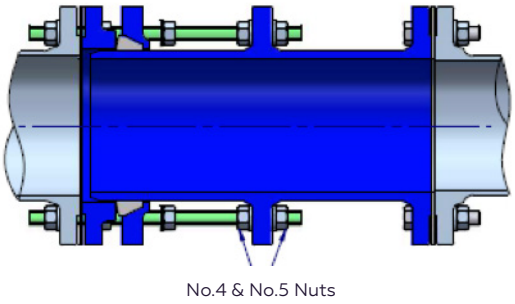
STEP 4

Slide the fixed flange, seal, adjusting flange & studs along the spigot of the dismantling joint body until the fixed flange mates evenly to the adjoining pipe/fitting. (Note: The No.3 nuts will have to be backed off during this operation). Tighten the No.1 and No.2 nuts as per standard flange bolt tightening practice.



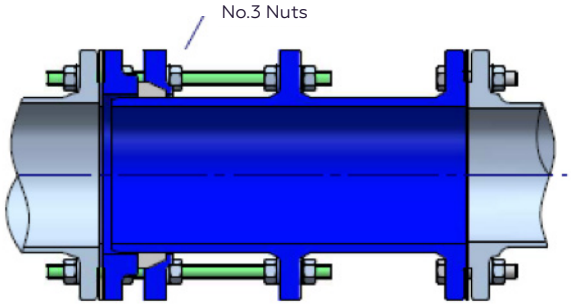
STEP 5

Tighten the No.4 and No.5 nuts as per standard flange bolt tightening practice (refer sheet 4 & 5 for torque values).

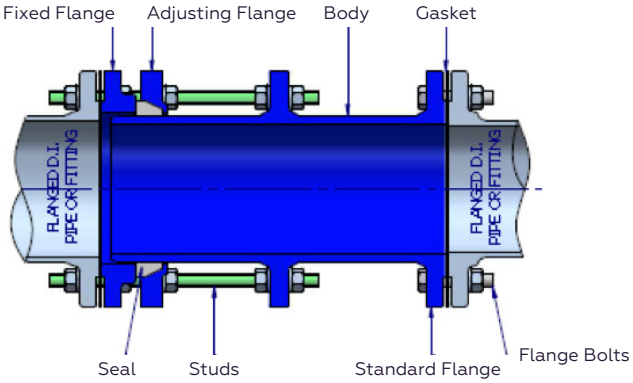


STEP 6

Slide the adjusting flange and seal into position and finger tighten the No.3 nuts. Fully tighten the No.3 nuts in the correct sequence as per standard practice to the approximate tightening torques.



TYPE 'B' DISMANTLING JOINT COMPONENTS (THRUST TYPE)



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DISMANTLING JOINT TYPE 'B' (THRUST TYPE)

TABLE 1.1 DETAILS OF STUD AND TIGHTENING TORQUES FOR (NO.3 NUTS) PN16

NOM SIZE (DN)	TYPE 'D'	
	STUD DETAILS	STUD TIGHTENING TORQUE (Nm)
80	4/M16X160	70
100	4/M16X160	70
150	8/M16X160	70
200	8/M16X160	70
225	8/M16X160	70
250	8/M20X180	100
300	12/M20X180	100
375	12/M24X220	130
450	12/M24X220	130
500	16/M24X220	160
600	16/M27X245	160
750	20/M30X280	190

TABLE 1.2 DETAILS OF STUD AND TIGHTENING TORQUES FOR (NO.3 NUTS) PN35

NOM SIZE (DN)	TYPE 'D'	
	STUD DETAILS	STUD TIGHTENING TORQUE (Nm)
80	8/M16X160	70
100	8/M16X160	70
150	12/M20X180	100
200	12/M20X180	100
225	12/M24X220	130
250	12/M24X220	130
300	16/M24X220	130
375	16/M27X245	160
450	20/M30X280	190
500	24/M30X280	190
600	24/M33X300	220
750	28/M33X300	220

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DISMANTLING JOINT TYPE 'B' (THRUST TYPE)

TABLE 1.3 ESTIMATED TIGHTENING TORQUE VALUES

Standard pressure flanges AS 4087 Figure B5, PN16 Grade 4.6 galvanised steel bolts & nuts or Grade 316 class 50 stainless steel bolts & nuts with full face gasket – 3mm gasket rubber

NOM. SIZE (DN)	BOLT SIZE	NO. OF BOLTS	SUGGESTED LENGTH OF BOLTS (mm)	BOLT TENSION (kN)	LIGHTLY OILED (Nm)	WELL LUBRICATED (Nm)
80	M16	4	65	16	60	40
100	M16	4	75	22	80	55
150	M16	8	75	17	60	40
200	M16	8	75	22	80	55
225	M16	8	75	24	85	60
250	M20	8	90	35	155	105
300	M20	12	100	28	125	85
375	M24	12	100	42	220	150
450	M24	12	120	53	280	190
500	M24	16	120	52	275	185
600	M27	16	130	67	400	270
750	M30	20	140	80	530	360

Notes

- For lightly oiled μ=0.22 & for well lubricated μ=0.15
- Lightly oiled (basic lubricant)
- Well lubricated (lubricant such as Molybond)
- Recommended tightening in three steps 30%, 60% & 100%

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TABLE 1.4 ESTIMATED TIGHTENING TORQUE VALUES

High pressure flanges AS 4087 Figure B6, PN35 Grade 8.8 galvanised steel studs & nuts or Grade 316 class 70 stainless steel studs & nuts with full face gasket – 1.5mm fibre gasket

NOM. SIZE (DN)	STUD SIZE	NO. OF STUDS	SUGGESTED LENGTH OF STUDS (mm)	STUD TENSION (kN)	LIGHTLY OILED (Nm)	WELL LUBRICATED (Nm)
80	M16	8	110	41	140	100
100	M16	8	100	52	180	130
150	M20	12	130	66	290	200
200	M20	12	130	93	410	280
225	M24	12	150	108	570	390
250	M24	12	150	118	620	430
300	M24	16	150	110	580	400
375	M27	16	170	141	840	570
450	M30	20	190	150	990	680
500	M30	24	190	156	1030	700
600	M33	24	210	195	1420	970
750	M33	28	210	230	1670	1140

Notes

- For lightly oiled μ=0.22 & for well lubricated μ=0.15
- Lightly oiled (basic lubricant)
- Well lubricated (lubricant such as Molybond)
- Recommended tightening in three steps 30%, 60% & 100%

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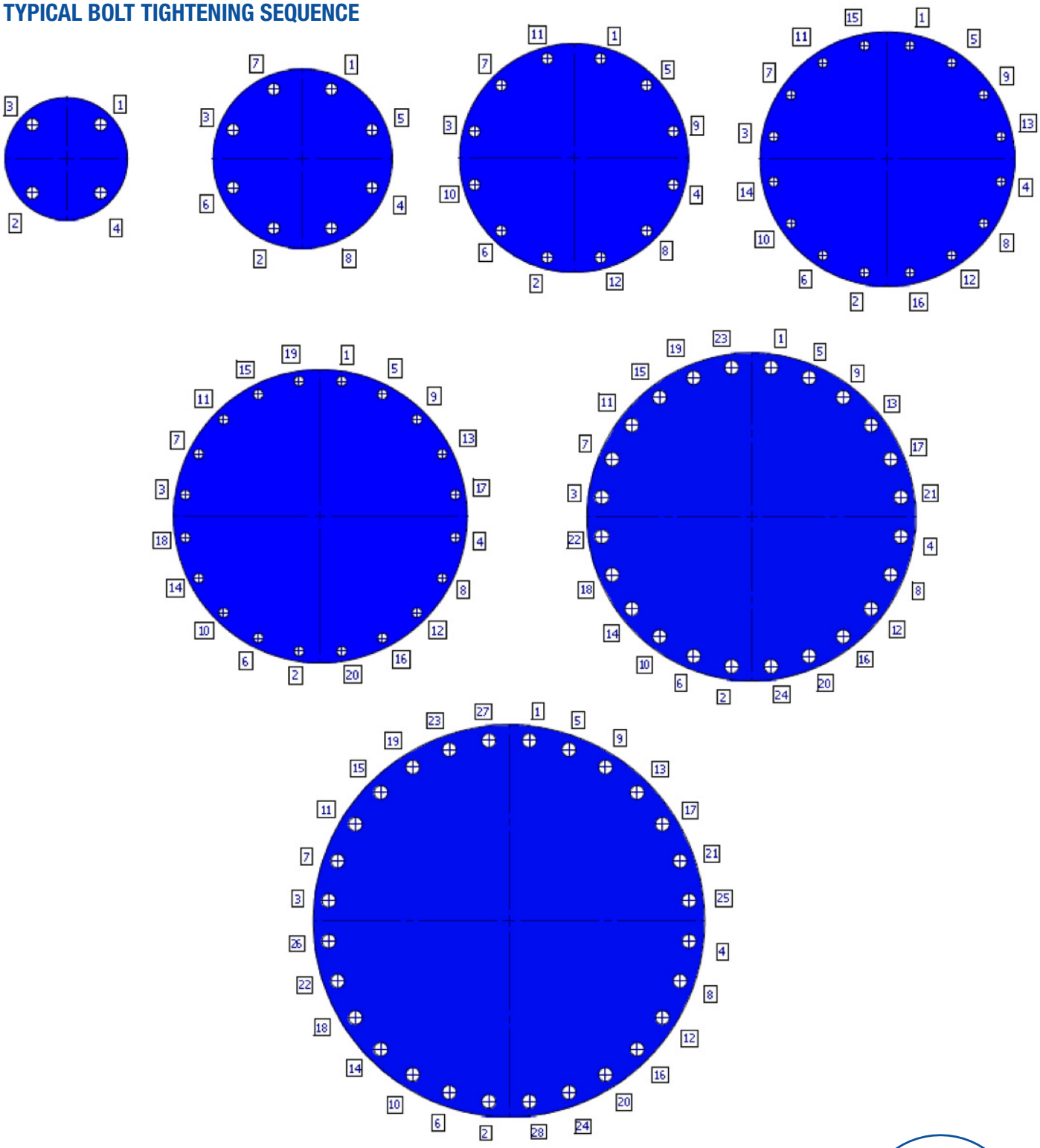
TYPICAL BOLT TIGHTENING SEQUENCE



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