



**8 BOLT EXAMPLE**

NO OF BOLTS	NOMINAL FLG SIZE	BOLT NUT TIGHTENING SEQUENCE
8	4", 6", 8"	1, 5, 3, 7, 2, 6, 4, 8
12	10", 12"	1, 7, 4, 10, 2, 8, 5, 11, 3, 9, 6, 12

**NOTES:**

1. BOLTS AND NUTS SHALL BE CLEAN AND DRY (UNLUBRICATED).
  - HAND TIGHTEN ALL NUTS.
  - CONSECUTIVELY NUMBER THE BOLTS AROUND THE FLANGE.
2. TIGHTEN BOLTS AND NUTS IN THE SEQUENCE GIVEN IN THE TABLE ABOVE.
  - FIRST: TIGHTEN BOLTS AND NUTS TO ONE-THIRD OF MANUFACTURER'S RECOMMENDED TARGET TORQUE.
  - SECOND: TIGHTEN BOLTS AND NUTS TO TWO-THIRDS OF MANUFACTURER'S RECOMMENDED TARGET TORQUE.
  - LAST: TIGHTEN BOLTS AND NUTS TO FULL MANUFACTURER'S RECOMMENDED TARGET TORQUE.
3. SEQUENCE GIVEN IS FOR AWWA C110, AND ANSI CLASS 125 AND 150 FLANGES.

**BOLT TIGHTENING SEQUENCE**

NOT TO SCALE

**DETAIL APPROVALS**  
**EDITOR** TMC  
**MANAGER** SJD

**NORTHSHORE UTILITY DISTRICT**  
 2024 STANDARD WATER DETAILS

**19**

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