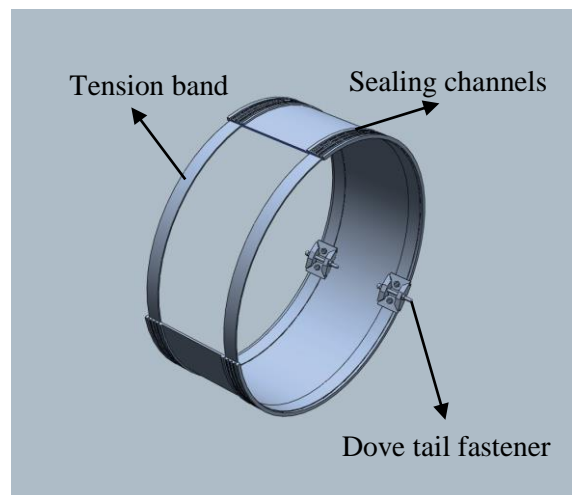


## BORINLINE INSTALLATION INFORMATION

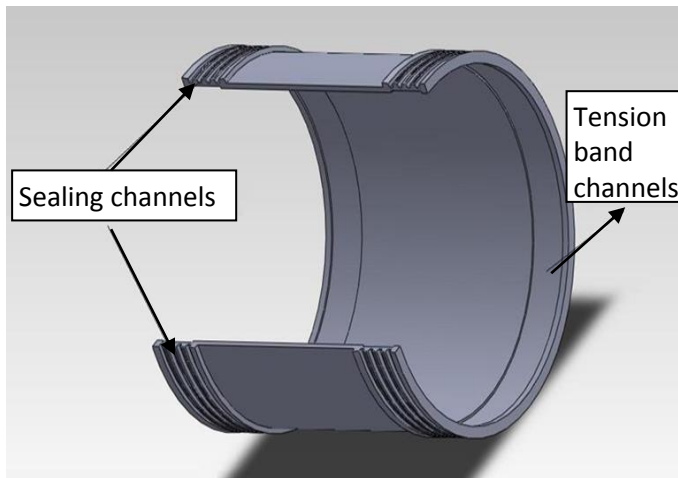
- **BORINLINE INTERNAL REPAIR APPARATUS;**
  - 1-ONE-PIECE GASKET (EPDM) WIDE BAND
  - 2-TENSION STEELS BELTS ( 2 PCS )
  - 3-TIGHTENING KEYS ( 2 PCS ) AND SET CONNECTION PARTS ( 2 PCS ).
- **INSTALLATION IS SO SIMPLE AND, CARRYING AND TRANSPORTATION IN PIPE ARE EASY. EVEN THE CHANGES INSIDE THE DIAMETER OF PIPE, THE CONNECTION IS MADE BY SPECIAL MECANICAL BOLTS, SIZE SETTING IS MADE VERY EASILY WITH SET SYSTEM. INSTALLATION TIME DOES NOT EXCEED 20 MINUTES EXCEPT FOR SPECIAL CASES.**

### **BORINLINE INTERNAL PIPE APPRATUS;**

**AS YOU SEE THE NEAR PICTURE, INSTALLATION IS MADE BY BRINGING PIPE INTO JOINT OR ON DAMAGED AREA. IN ORDER TO WRAP TIGHTLY THE GASKET SEALING BANDS TO THE PIPE, STEEL TENSION BAND IS MADE STRAINED BY MEANS OF THE BOLTS WHICH ARE IN TIGHTENING KEYS. AND GASKET BAND IS COMPRESSED ON PIPE. STEEL BAND NEEDS TO BE HAMMERED AT EVERY POINT VIGOROUSLY WHILE COMPRESSION TIME INTERVALS IN ORDER TO APPLY THIS COMPRESSION EQUALLY IN EVERY POINT OF THE GASKET BAND AND AND IT PROVIDES THE COMPRESSION SPREADS HOMOGENEOUSLY.**

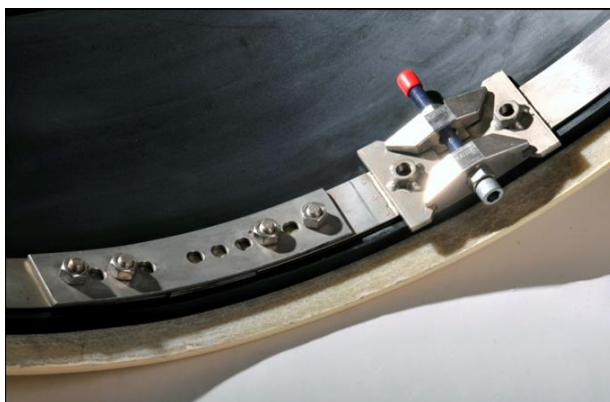


**BORINLINE GASKET SEALING BAND IS ONE-PIECES. IT IS PRODUCED SPECIALLY ACCORDING TO INSIDE DIAMETER OF EACH PIPES. SEALING IS PROVIDED BY MEANS OF FOREX SYMMETRICAL IN BOTH SIDES ( 4 PCS SEQUENTIAL CHANNELS ) CHANNELS. TENSION BAND SLOTS ARE LOCATED AT THE RIGHT BACK OF THE CHANNELS, THIS HELPS STEEL BAND TO SIT ON BEHIND GASKET AND SLIP.**

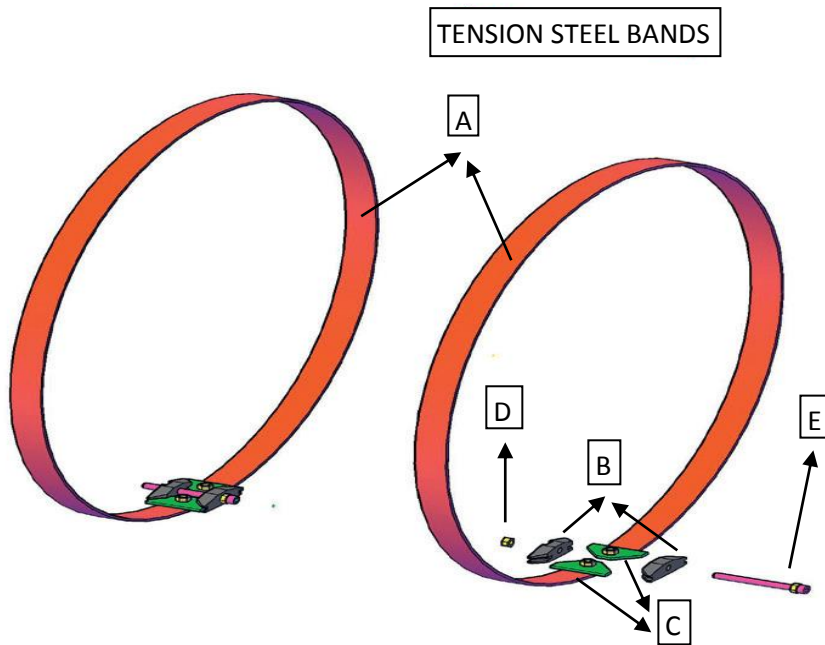


FOREX LOCATED IN BOTH SIDES "SEALING CHANNELS" PREVENTS THE FLUID INSIDE PIPE GO OUT UNDER PRESSURE. GASKET BAND AND OTHER PARTS ARE DESIGNED ACCORDING TO INSIDE PRESSURE PN16.

BORINLINE GASKET SEALING BAND IS ONE-PIECES. IT IS PRODUCED ACCORDING TO INSIDE DIAMETER SPECIALLY OF EACH PIPE. SEALING IS PROVIDED BY MEANS OF FOREX SYMMETRICAL WITH BOTH SIDES (4 SEQUENTIAL NUMBER OF CHANNELS) CHANNELS. TENSION BAND SLOTS ARE LOCATED AT THE RIGHT BACK OF THE CHANNELS, THIS HELPS STEEL BAND TO SIT ON BEHIND GASKET AND SLIP.



"TIGHTENING KEYS" WITHOUT USING ANY HYDROLIC POWER SUPPLY ARE STRAINED BY SCREWING THE BOLTS WITH ONLY ONE SCREW-WRENCH. THE DIAMETER ENLARGEMENT OF ON STEEL BANDS, WHICH APPEARS BECAUSE OF TENSION, MAKES THE PRESS ON GASKET BAND DIRECTLY AND SEALING IS OCCURED. SET PART, WHICH IS JUST NEAR IT, IS HELPER FOR SETTING INSUFFICIENT DIAMETER ENLARGEMENTS.

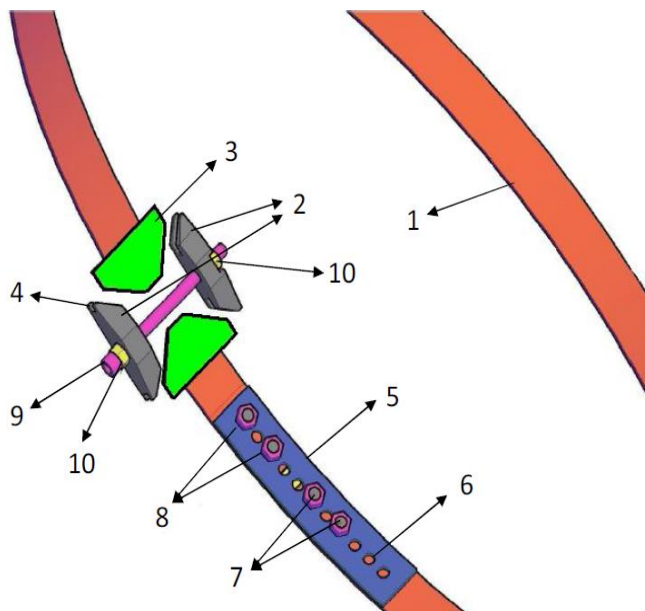
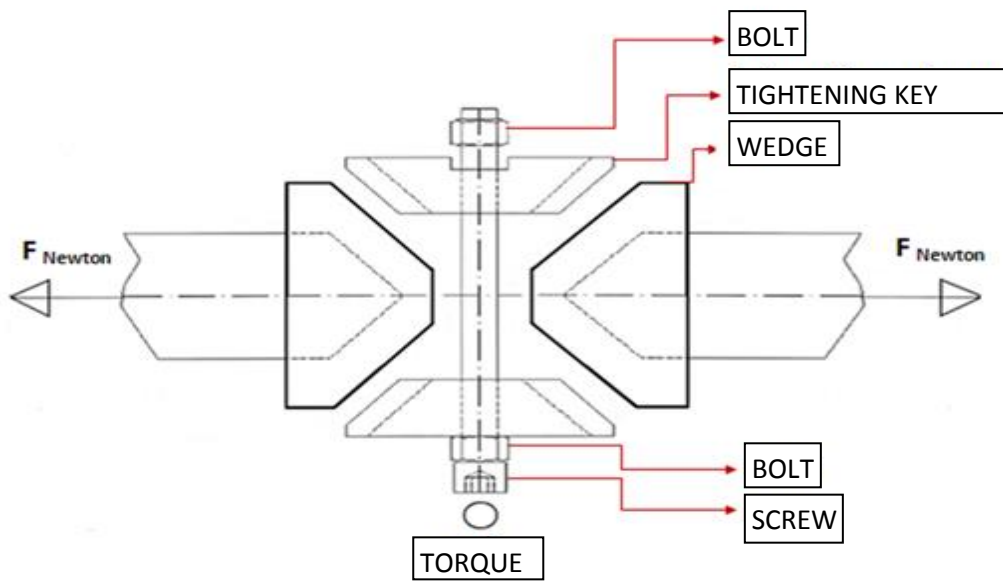


A - Tension band, B - Dove tail fastener, C - Expansion wedge, D - Fixing nut, E - Bolt with allen head

**BORINLINE STEEL TENSION BANDS ARE PRODUCED FROM AISI 304 MATERIAL AS STANDARD. EACH OF GASKET BANDS HAVE 2 PCS TENSION BANDS. THE TENSION OPERATION OF THESE BANDS IS MADE BY DOVETAIL TENSION BANDS WHICH ARE LOCATED JOINTS. THESE ARE MADE FROM PRECISION CAST AS STAINLESS STEEL AND IT APPLIES HIGH TENSION FORCE ON STEEL BAND IN HIGH TORQUE RATES.**

**BOLT – NUT TORQUE VALUES**

NOMINAL DIAMETER	STRIP THICKNESS	THREAD	TIGHTENING TORQUE	F (Newton)	LOCK UNIT	MATERIAL
800	5 mm	M14	45 Nm	27800	SMALL	AISI 316
900	5 mm	M14	50 Nm	29300	SMALL	AISI 316
1000	5 mm	M14	60 Nm	33600	SMALL	AISI 316
1200	5 mm	M14	80 Nm	40800	SMALL	AISI 316
1400	5 mm	M16	95 Nm	44800	MEDIUM	AISI 316
1600	5 mm	M16	120 Nm	52750	MEDIUM	AISI 316
1850	5 mm	M16	150 Nm	60500	MEDIUM	AISI 316
2000	5 mm	M16	160 Nm	63250	MEDIUM	AISI 316
3000	6 mm	M20	300 Nm	96830	HEAVY	AISI 316
3500	6 mm	M20	370 Nm	110350	HEAVY	AISI 316
4000	6 mm	M20	450 Nm	125400	HEAVY	AISI 316



- 1-STEEL TENSION BAND
- 2-TIGHTENING KEYS
- 3-TENSION BUTTERFLY SLOTS
- 4-SLOTTINGS
- 5-SIZE SET PART
- 6-SIZE SET SLOTS
- 7-LOCKING TAB BOLTS
- 8-LOCKING NUTS
- 9-ALLEN SCREW
- 10-HEXAGONAL TIGHTENING NUT