

BOLT SELECTION GUIDE

DIAPHRAGM SEALS

BOLT SELECTION					
Code	Material	Specifications	Description	Common Applications	Cost
8	Grade 8 Steel	ASTM A354 Gr. BD or Gr. 8 Zinc Chromate Coating	General purpose use bolt offered as our standard. Contains the highest strength and pressure rating of all other fasteners. Highest susceptibility to corrosive atmospheric conditions.	Standard applications of non-corrosive processes where possible outgassing through the gasket is minimal and atmospheric conditions are suitable. petroleum and derivatives	-
S	316SS	ASTM A193 Gr. B8M CL.1 or ASTM F593G/H 316	Contains the lowest strength and pressure rating of all other fasteners. Exhibits excellent resistance to corrosive atmospheres.	Used most often in low process pressure applications where corrosive elements are present in the surrounding air and process outgassing is possible.	\$
N	NACE B7M	ASTM A193 Gr. B7M NACE Electroless Nickel Coating	This fastener conforms to NACE MR0175/ MR0103 standards. Contains good strength and retains an acceptable pressure rating.	Specialty bolt offered for sour gas H2S service where sulfide corrosion cracking can occur. Recommended for use in raw petroleum and gas extraction.	\$\$
7	316SS B8M SH	ASTM 193 Gr. B8M CL.2 Strain Hardened (SH)	Combines high strength and a good pressure rating in one. Primarily used when upgrading bolts prevents jumping to a new pressure seal class and corrosive elements are present in the air.	High pressure applications where process outgassing through gaskets is expected, and fastener resistance to corrosive environments is critical.	\$\$

Max Working Pressure: Fastener selection does impact the maximum working pressure of the assembly. See pressure rating tables to verify process suitability.
Process Compatibility: Compatibility of fastener material with process outgassing and atmospheric conditions is the responsibility of the user.