





MATERIAL SELECTION GUIDELINE

MATERIAL 	STANDARD LEAK RATE 	TYPICAL APPLICATIONS 	TEMPERATURE 	STRENGTHS & WEAKNESSES 
AM350	1×10^{-9}	Industrial, High Vacuum and other liquids and gases with low corrosive properties	-100 to 800° F	Highest strength/cycle life with low leak rate
300 Series SS	1×10^{-9}	Industrial, High Vacuum and other liquids and gases with mild corrosive properties	-420 to 800° F	Lowest cost materials with low leak rate
Inconel 718 625 600	1×10^{-5}	High temperature and corrosive applications such as exhaust, seawater, hydrogen sulfide, and heavy oil	-420 to 1500° F	Good corrosion resistance, yet limited leak rate
Hastelloy 276 C Haynes 242	1×10^{-5}	Highly corrosive media such as petrochemical processing equipment	-420 to 1500° F (Haynes 242 up to 1300° F)	Excellent compatibility; high price point
Titanium Grades 1 through 4 (ASTM-B265)	1×10^{-9}	Light-weight aerospace and invasive medical equipment	-420 to 800° F	Extremely light-weight and capable of being implanted; highest price performance ratio

BellowsTech offers a wide variety of materials with a range of media compatibilities. Consult factory for additional information.