

Vacuum Specification / Operating Temperatures

All UHV components are specified for a maximum differential pressure of 1 bar and for use in vacuum better than $1 \cdot 10^{-10}$ mbar. UHV components are leak tested for a leak rate less than $5 \cdot 10^{-10}$ mbar-l/s Helium. Almost all components are bakeable to 200°C, unless otherwise specified in the description.

KF and ISO-K Components are specified for use to 10^{-8} mbar. The usable temperature range is mainly defined by the sealing material. Viton is suitable for 150°C continuous and 200°C for short periods. The maximum differential pressure is 1 bar. With Aluminium metal seals and adequate clamps, cryo-applications, UHV leak tightness and over pressure are possible. Please ask for detailed specification.

EVAC Components are specified for over-pressure as well as for vacuum. Depending on flange type and size, pressures up to 300 bars are possible. Please ask for EVAC specifications.

Feedthroughs, some of which contain Kovar (a NiFe alloy which has a good match to the thermal extension of Glass and Ceramic) can be used down to -50°C. At lower temperatures, a phase transition occurs which can damage the feedthrough. Special cryogenic feedthroughs are available, please ask the Sales Office for details.