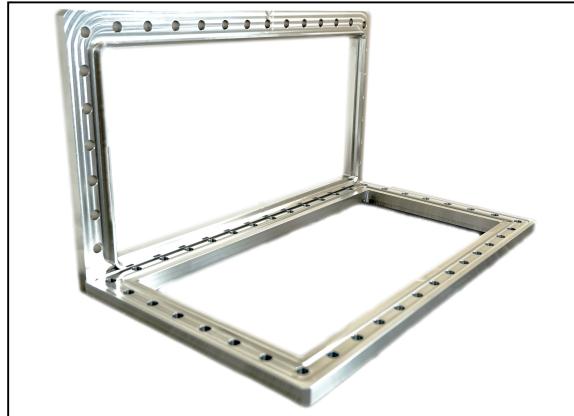


## XHV PyraFlat™

The reliable sealing performance of PyraFlat and ConFlat® flanges is due to the geometry which "captures" the gasket material. When the sealing edge of the flange is pressed into the OFE copper gasket, a lateral cold flow of the gasket material upon the slope occurs. This cold flow is limited by the vertical flange wall. Further material flow away from the seal area is severely limited and high interface pressures are developed. These pressures cause gasket material to fill surface imperfections and produce a highly reliable seal. At high temperatures, the "capturing" geometry maintains high pressures despite softening of the gasket.



### Features

- Large selection of standard sizes
- Identical mating flanges-no male and female
- Mate with all other PyraFlat and ConFlat type flanges of same dimension
- Easy repeated sealing
- Leak-tight even with minor gasket nicks and scratches
- Offered in both rotatable and nonrotatable versions
- Components can be welded or brazed to flanges

XHV PyraFlat™ flanges are manufactured and protected under one or more of the following patents: 5,640,751; 4,685,193

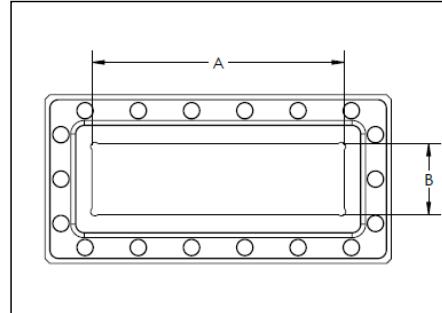
### Specifications

- All flanges made of 304 stainless steel
- Guaranteed and certified leak-free to  $10^{-13}$  Torr\*
- Temperature operating range:  
-  $196^{\circ}\text{C}$  to  $+ 500^{\circ}\text{C}$
- Based upon the 10" Torr ion gauge x-ray limit and  $5 \times 10^{-13}$  Torr l/sec/cm<sup>2</sup> outgassing rate of 304 SST.

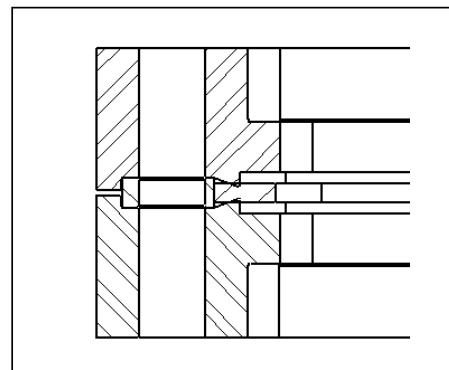
### PyraFlat Flanges

- Rectangular and odd shapes
- Certified leak-free to  $10^{-13}$  Torr
- Ideal for metal sealed valve bonnets!
- Special geometries-we've tested: squares, ovals, trapezoids, and triangles

The XHV PyraFlat™ is the ideal metal seal for any rectangular vacuum connection. It is based on the same knife edge and captured flat copper gasket sealing principle used by the ConFlat flange and is equally reliable. Assembly, even with flange face vertical, is easy and fast. Your service people and technicians will welcome its use. PyraFlats™ can be used for valve flange seals, too. A 2" by 10" rectangular gate valve is 8" more compact than the equivalent 10" circular gate valve. XHV PyraFlat™ is available in virtually any custom shape or size you may need in a bakeable, reliable, non-circular UHV flange.



PyraFlat flange – dimensional layout



PyraFlat flange – section detail