

## 2.75", 1.33" Multi-CF UHV Vacuum Spherical Triple Octagon MCF275-SphTrpOct-C18, MCF133-SphTriOct-Cr2A16

### FOR USE IN:

- Compact UHV vacuum chambers
- Cold physics experiments
- Portable low-cost UHV systems
- High-complexity UHV subsystems
- UHV vacuum manipulator systems
- UHV specimen transfer systems

### FEATURES / OPTIONS:

- Easy access / High port accessibility
- 2.75" and 1.33" CF sealing surfaces cut on a hollow sphere
- Annular Grabber Grooves for internal mounting at all 2.75" ports.
- Stainless steel 316L construction. Titanium option also available.
- Only two welded ports, no inside corners, highly polished
- Rotatable 2.75" port flanges on the Cr2A16 design
- High Precision CNC fabrication



*Spherical Triple Octagon MCF275-SphTrpOct-Cr2A16*

The Kimball Physics **MCF275-SphTriOct-Cr2A16** 2.75"CF triple spherical octagon is a UHV chamber that has two rotatable 2.75" (C) sealing surface ports and sixteen (16) 1.33" (A) port generally arranged in three intersecting octagonal planes. The 2.75" CF ports have Grabber Grooves for attaching your various components, the 1.33" CF ports do not have Grabber Grooves.

The Kimball Physics **MCF275-SphTriOct-C18** is a 2.75"CF triple spherical octagon is a UHV chamber that has eighteen (18) 2.75" sealing surface ports arranged in three intersecting octagonal planes.

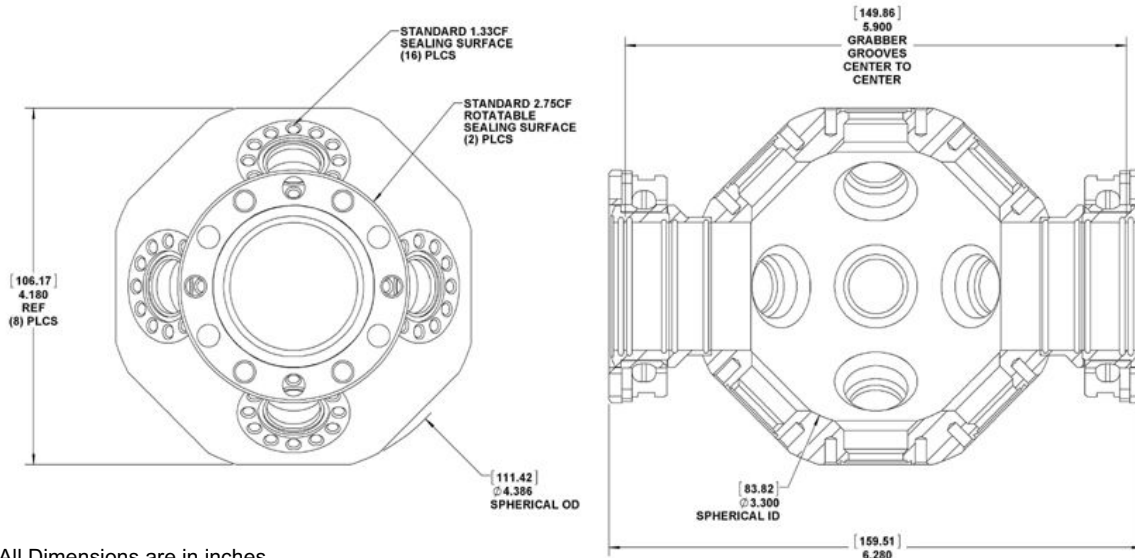
All 2.75" CF ports have annular Grabber Groove internal channels for stable internal mounting of fixtures, devices and apparatus. Please see Groove Grabber mounting clamps and eV Parts on the Kimball Physics website to see the various options to attach you're your various components.

Please reach out to Kimball Physics to engage our specialists if you need a custom system for your specific application.



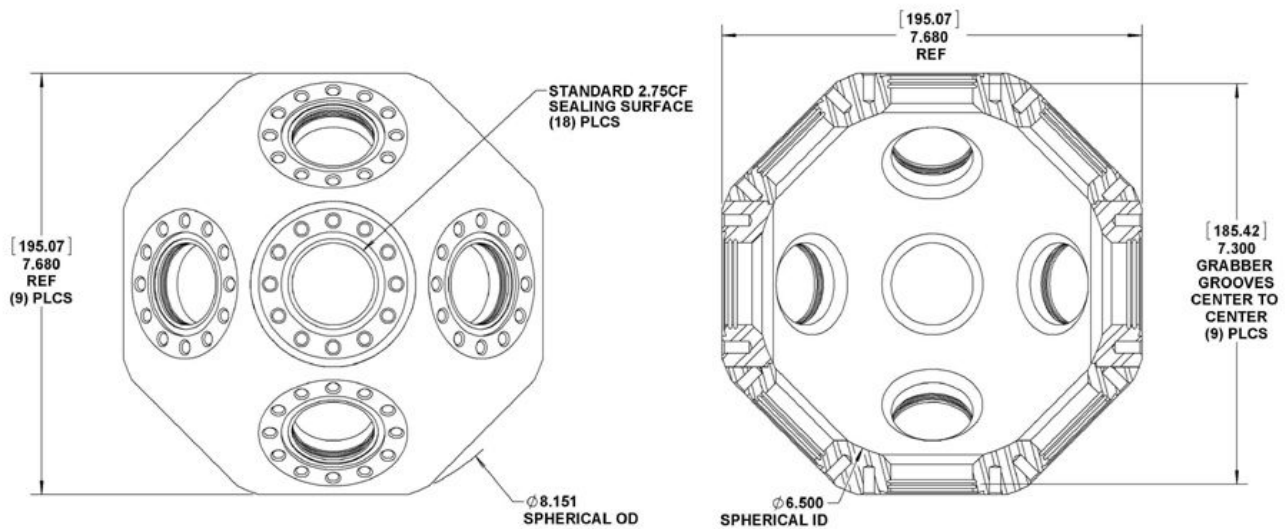
*Spherical Triple Octagon MCF275-SphTrpOct-C18*

	MCF275-SphTrpOct-Cr2A16	MCF275-SphTrpOct-C18
Multi-CF™ FITTING	Spherical Triple Octagon	
COMMON APPLICATION	Miniature UHV Vacuum Chamber	
CONSTRUCTION / MATERIAL	Stainless Steel 316L, various grades of Titanium available for custom fabrication.	
1.33" CF SEALING SURFACES	Sixteen (16) 1.33" (A) CF Sealing Surfaces with (12) #8-32 tapped bolt holes. No grabber grooves are available on 1.33" ports.	None
2.75" CF SEALING SURFACES	Two (2) 2.75" (C) CF Rotatable Sealing Surfaces with (12) bolt holes, plus one pair of Grabber Grooves (internal annular grooves) per sealing surface	Eighteen (18) 2.75" (C) CF Sealing Surfaces with (12) 1/4-28 tapped bolt holes, plus one pair of Grabber Grooves (internal annular grooves) per sealing surface
INTERNAL WORKSPACE	Spherical I.D. 3.3 inch (83.82 mm) Internal volume 27.2 in <sup>3</sup> (445.7 cc)	Spherical I.D. 6.500 inch (165.1 mm) Internal volume 163.7 in <sup>3</sup> (2682.6 cc)
EXTERNAL MOUNTING	External Mounting options are available utilizing 2.75" CF ports. Please see Flange Adapters on Kimball Physics website.	External Mounting options are available utilizing 2.75" CF ports. Please see Flange Adapters on Kimball Physics website.
WEIGHT	Weight: 6.36.1 lbs (2.88 kg)	Weight: 29.1 lbs (13.2 kg)



All Dimensions are in inches.  
(Millimeters are in parentheses)

MCF275-SphTrpOct-Cr2A16



All Dimensions are in inches.  
(Millimeters are in parentheses)

**MCF275-SphTrpOct-C18**

## References

For more information about Multi-Port CF (MCF™) Vacuum Chambers and Accessories, visit our website at: [MCF™ Vacuum Chambers](https://www.kimballphysics.com/mcf-vacuum-chambers)

## Other References

*Multi-CF™ UHV Vacuum Chambers OVERVIEW (pending)*

[Spherical Octagon- Multi-CF Hardware](#)

[Spherical Cube- Multi-CF Hardware](#)

[Spherical Hexagon- Multi-CF Hardware](#)

[Thin Flange- Multi-CF Hardware](#)

[Close Coupler \(non-rotatable\)- Multi-CF Hardware](#)

### Notes:

#### 1. **Cautions:**

- Silver Plated Bolts or Equivalent Lubrication must be used.
- Please measure the hole depth and other flange / copper ring / part thicknesses
- Choose a correct bolt length such that the bolt doesn't bottom in the tapped hole prior to tightening the structure.

2. Specifications Subject to Change Without Notice.

3. DE Altobelli 12/07/2021

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