

**Multi-CF™ UHV Vacuum Mounting Flanges with  
 8.0", 6.0", 4.5", and 2.75" CF Ports**



*Family of Multi-CF™ Mounting Flange Sizes, including (left to right) 8.00", 6.00", 4.5", and 2.75" CF ports.*

**APPLICATIONS:**

- Enables External Mounting Options
- Add Internal Mounting Capability (Grabber Grooves) to Existing Systems

**FEATURES / OPTIONS:**

- Open or Closed Bore Options
- Annular port Grabber Grooves as option on all open bore sealing ports
- Inserted between common CF sealing surfaces flange components from almost any manufacturer
- Available with Viewport

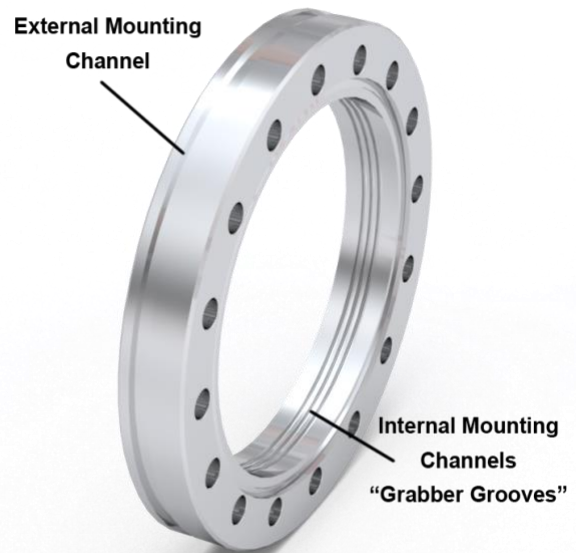
**Multi-CF™ Mounting Flanges**

The Mounting Flange is a UHV CF (Conflat®) flange primarily designed to provide an outside diameter (OD) channel or groove to enable external mounting. The open bore design is fabricated from Stainless Steel and typically has sealing surfaces on both sides, with the component inserted between two common CF style flanges from almost any manufacturer.

The Mounting Flange component, with 2.75", 4.5", 6.0" or 8.00" CF sealing surfaces is available in open bore or close bore (blank) designs. The open bore designs have the option to include internal mounting channels (Groove Grabbers). This feature enables welcomed internal mounting flexibility with numerous options for secure mounting of devices, apparatus, and prototyped concepts using Kimball Physics eV Parts.

The closed bore or blank design has one sealing surface and an external mounting channel. No Grabber Grooves are provided with this design. The external channel is used to engage an external mounting bracket. The blank flange also functions to close or seal the CF port.

Mounting Flanges with Corning type 7056 glass Viewports are also available. They have an external mounting groove for external mounting brackets, one sealing surface and do not include Grabber Grooves.



*Mounting Flange illustrating position of external mounting channel (groove) and internal mounting channels (Grabber Grooves).*



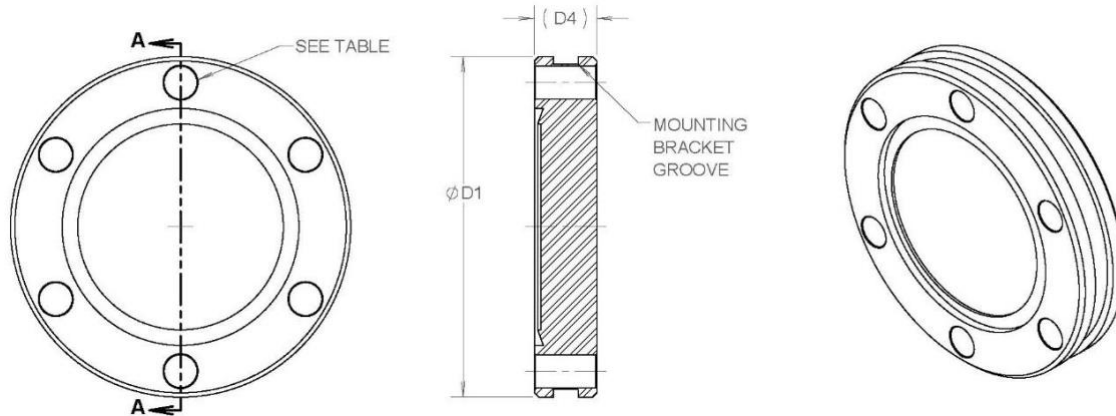
*Examples of Mountings Flange Options:  
6.00" Mounting Flanges with closed  
bore(blank), open bore, open bore with  
Grabber Grooves, and Viewport (left to right).*

Mounting Flange Model (2.75")	CF Sealing Surface	Thickness	Holes	Notes
MCF275-MtgFlg-C2	2.75"	0.500"	Six (6) 1/4-28 Clear bolt holes	-Open Bore -OD Groove -Two (2) sealing surfaces
MCF275-MtgFlg-C2GG	2.75"	0.500"	Six (6) 1/4-28 Clear bolt holes	-Open Bore -OD Groove -Grabber Groove internal mounting channels -Two (2) sealing surfaces
MCF275-MtgFlg-C2-Blk	2.75"	0.500"	Six (6) 1/4-28 Clear bolt holes	-Solid Blank (Closed Bore) -OD Groove -Close, seal CF port -One sealing surface
MCF275-MtgFlg-C2-VP	2.75"	0.500"	Six (6) 1/4-28 Clear bolt holes	-View Port -OD Groove -One sealing surface

Mounting Flange Model (4.50")	CF Sealing Surface	Thickness	Holes	Notes
MCF450-MtgFlg-E2	4.50"	0.680"	Eight (8) 5/16-24 Clear bolt holes	-Open Bore -OD Groove -Two (2) sealing surfaces
MCF450-MtgFlg-E2GG	4.50"	0.680"	Eight (8) 5/16-24 Clear bolt holes	-Open Bore -OD Groove -Grabber Groove internal mounting channels -Two (2) sealing surfaces
MCF450-ThnFlg-E2-Blk	4.50"	0.680"	Eight (8) 5/16-24 Clear bolt holes	-Solid Blank (Closed Bore) -OD Groove -Close, seal CF port -One sealing surface
MCF450-ThnFlg-E2-VP	4.50"	0.680"	Eight (8) 5/16-24 Clear bolt holes	-View Port -OD Groove -One sealing surface

Mounting Flange Model (6.00")	CF Sealing Surface	Thickness	Holes	Notes
MCF600-MtgFlg-F2	6.00"	0.780"	Sixteen (16) 5/16-24 Clear bolt holes	-Open Bore -OD Groove -Two (2) sealing surfaces
MCF600-MtgFlg-F2GG	6.00"	0.780"	Sixteen (16) 5/16-24 Clear bolt holes	-Open Bore -OD Groove -Grabber Groove internal mounting channels -Two (2) sealing surfaces
MCF600-MtgFlg-F2-Blk	6.00"	0.780"	Sixteen (16) 5/16-24 Clear bolt holes	-Solid Blank (Closed Bore) -OD Groove -Close, seal CF port -One sealing surface
MCF600-MtgFlg-F2-VP	6.00"	0.780"	Sixteen (16) 5/16-24 Clear bolt holes	-View Port -OD Groove -One sealing surface

Mounting Flange Model (8.00")	CF Sealing Surface	Thickness	Holes	Notes
MCF800-MtgFlg-G2	8.00"	0.880"	(20) 5/16-24 Clear bolt holes	-Open Bore -OD Groove -Two (2) sealing surfaces
MCF800-MtgFlg-G2GG	8.00"	0.880"	(20) 5/16-24 Clear bolt holes	-Open Bore -OD Groove -Grabber Groove internal mounting channels -Two (2) sealing surfaces
MCF800-MtgFlg-G2-Blk	8.00"	0.880"	(20) 5/16-24 Clear bolt holes	-Solid Blank (Closed Bore) -OD Groove -Close, seal CF port -One sealing surface



**SECTION A-A**  
**Mounting Flange (Blank)**

PART #	D1	D4	HOLES	DESCRIPTION	MATERIAL
53-620000	2.730	0.500	6	Flange, 2.75CF, Blank, With OD Groove	304 S.S.
53-620010	4.130	0.680	8	Flange, 4.50CF, Blank, With OD Groove	304 S.S.
53-620020	5.970	0.780	16	Flange, 6.00CF, Blank, With OD Groove	304 S.S.
53-620030	7.970	0.880	20	Flange, 8.00CF, Blank, With OD Groove	304 S.S.
53-620040	9.970	0.970	24	Flange, 10.00CF, Blank, With OD Groove	304 S.S.
53-620050	3.360	0.625	8	Flange, 3.38CF, Blank, With OD Groove	304 S.S.

## References

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

### Other References

Multi-CF™ (MCF) Vacuum Hardware Overview.  
Groove Grabbers (Internal Mounting System)  
External Brackets (External Mounting System)

#### Notes:

1. **Cautions:**

- Silver Plated Bolts or Equivalent Lubrication must be used.
- Please carefully 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. 3D Solid Models of all parts shown are available as STEP files.

They can be downloaded from Kimball Physics Website for interactive visualization and measurements in your CAD software environment.

3. Specifications Subject to Change Without Notice.

4. Images are not to scale

5. DE Altobelli, DT Taylor 3/20/2023

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