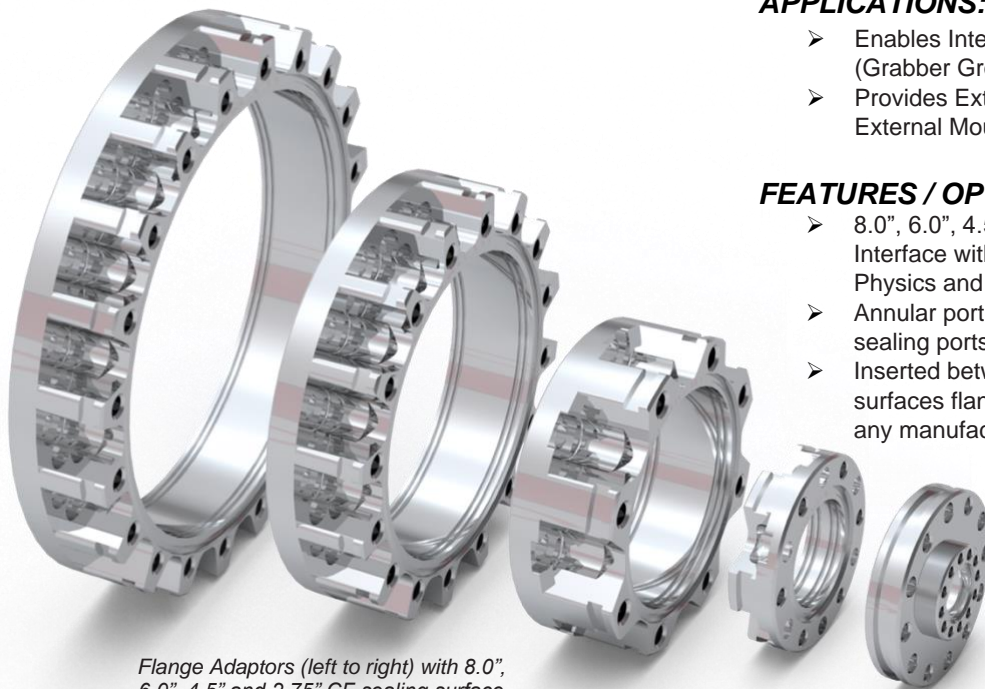


## Multi-CF™ UHV Flange Adapters: 8.0", 6.0" 4.5" and 2.75" CF Ports



*Flange Adaptors (left to right) with 8.0", 6.0", 4.5" and 2.75" CF sealing surface ports. 2.75" CF to 1.33" CF Adapter shown far right.*

### APPLICATIONS:

- Enables Internal Mounting Capability (Grabber Grooves) to Existing Systems
- Provides External Diameter Channel for External Mounting Brackets

### FEATURES / OPTIONS:

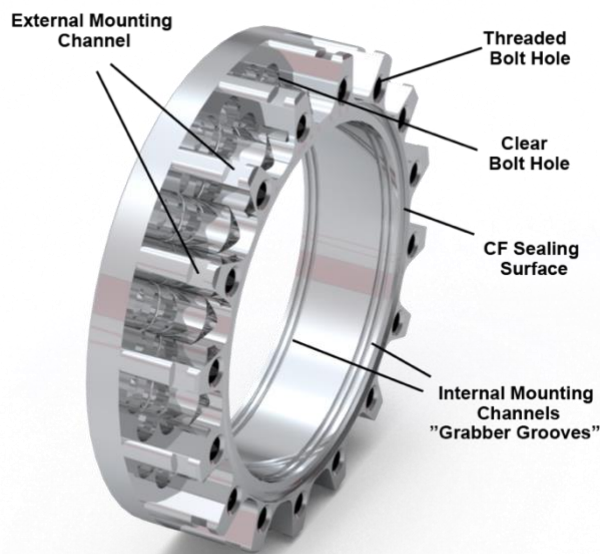
- 8.0", 6.0", 4.5" and 2.75" Sealing Surfaces Interface with CF Fittings from Kimball Physics and most manufacturers
- Annular port Grabber Grooves on all CF sealing ports (except 1.33")
- Inserted between common CF sealing surfaces flange components from almost any manufacturer

### Multi-CF™ Flange Adapters

Flange Adapters (or Adaptors) interface with CF (Conflat®) fittings from Kimball Physics and other manufactures to provide additional options including: 1) internal mounting capabilities (Grabber Grooves), 2) external mounting capabilities, and 3) reduction in the port aperture diameter.

Flange Adapters enable the Grabber Groove internal attachment system and external mounting channels to be added to sizes 2.75", 4.5", 6.0", 8.0" on systems from Kimball Physics and other manufacturers that utilize CF sealing surfaces. Using Kimball Physics Groove Grabber mounting clamps, the grabber grooves enable a versatile and stable means to mount devices, apparatus and prototype concepts (created with eV Parts) within the vacuum space.

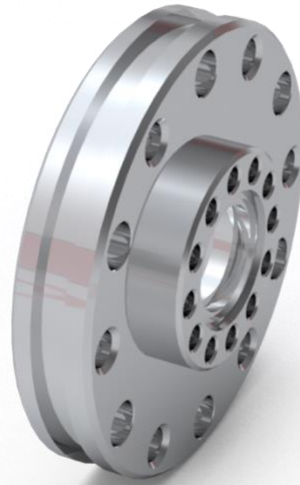
The flange adapter components also provides an outside diameter mounting channel that can be used with Kimball Physics' external mounting brackets.



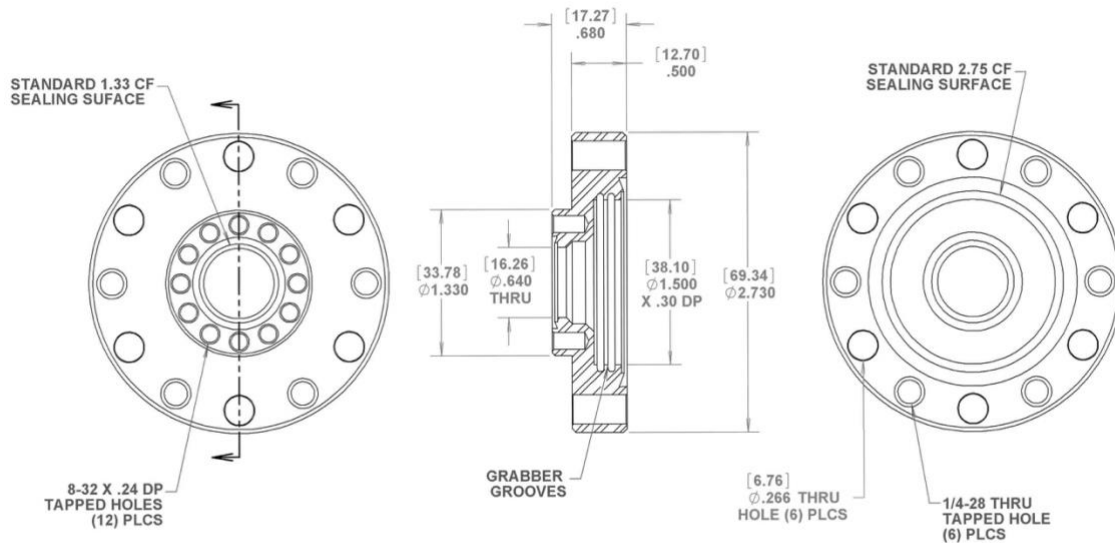
*6.00" Flange Adapter MCF600-FlgAdptr-F2 calling out positions of internal mounting channels "Grabber Grooves" and External Mounting Channel*

The **MCF275-FlgAdptr-C1A1** is a Flange Adapter with one (1) 2.75" (C) CF sealing surfaces and one (1) 1.33" CF sealing surface. The adapter reduces a 2.75" CF port to 1.33" CF while also providing an external mounting channel and internal mounting channels (Grabber Grooves) associated with the 2.75" port. It has alternating clear and tapped holes for the 2.75" CF flange and tapped holes for the 1.33" CF port.

	MCF275-FlgAdptr-C1A1
Multi-CF™ Fitting	Flange Adapter
COMMON APPLICATION	External and Internal Mounting
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
1.33" CF SEALING SURFACE	One (1) 1.33" sealing surface with twelve (12) #8-32 tapped holes
2.75" CF SEALING SURFACE	-One (1) 2.75" sealing surface with six (6) tapped and six (6) clear 1/4-28 bolt holes -Grabber Grooves (internal annular mounting grooves) are present.
EXTERNAL MOUNTING	Yes, external mounting channel.
WEIGHT	Weight 0.59 lbs (0.27 kg)



*Flange Adapter MCF275-FlgAdptr-C1A1 with (1) 2.75" CF (C) and one (1) 1.33" CF (A) sealing surface.*



### MCF275-FlgAdptr-C1A1

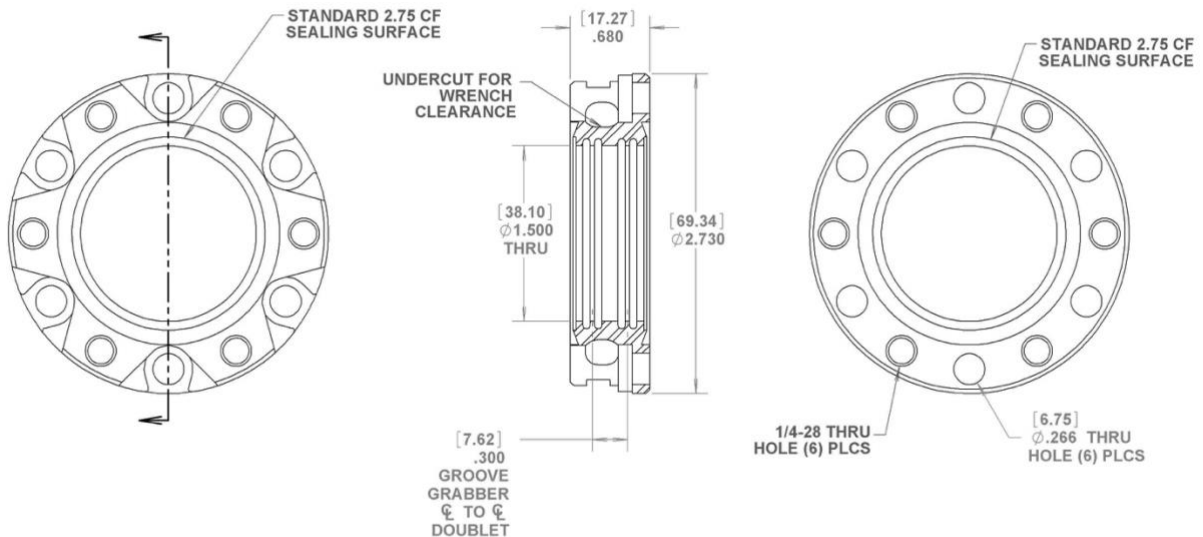
All Dimensions are in inches.  
(Millimeters are in parentheses)

The **MCF275-FlgAdptr-C2** is a Flange Adapter with two (2) 2.75" (C) CF sealing surfaces. It provides an external mounting channel the interfaces Kimball Physics External Mounting Brackets. The component also includes internal mounting channels (Grabber Grooves) on both ports that enable several mounting options for internally mounting apparatus. One sealing surface has tapped holes with the other sealing surface using clear holes.

	MCF275-FlgAdptr-C2
Multi-CF™ Fitting	Flange Adapter
COMMON APPLICATION	External and Internal Mounting
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
2.75" CF SEALING SURFACE	-Two (2) 2.75" (C) sealing surfaces with six (6) tapped and six (6) clear bolt holes -Grabber Grooves (internal annular mounting grooves) are present each port.
EXTERNAL MOUNTING	Yes, external mounting channel.
WEIGHT	Weight 0.49 lbs (0.22 kg)



*Flange Adapter MCF275-FlgAdptr-C2 with (2) 2.75" CF (C) sealing surfaces.*



## MCF275-FlgAdptr-C2

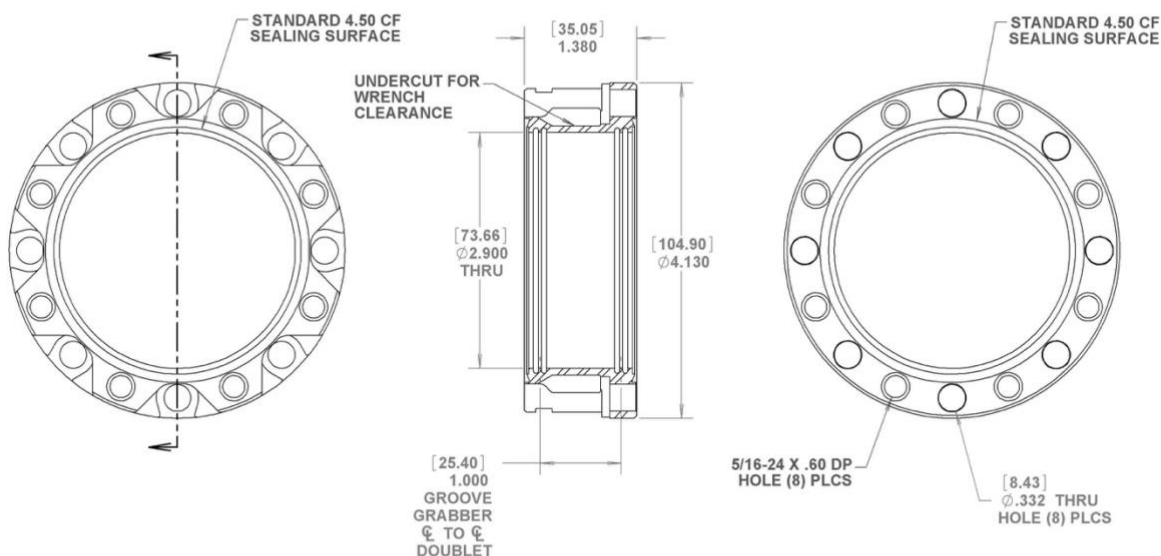
All Dimensions are in inches.  
(Millimeters are in parentheses)

The **MCF450-FlgAdptr-E2** is a Flange Adapter with two (2) 4.50" (E) CF sealing surfaces. It provides an external mounting channel the interfaces Kimball Physics External Mounting Brackets. The component also includes internal mounting channels (Grabber Grooves) on both ports that enable several mounting options for internally mounting apparatus. One sealing surface has tapped holes with the other sealing surface using clear holes.

	MCF450-FlgAdptr-E2
Multi-CF™ Fitting	Flange Adapter
COMMON APPLICATION	External and Internal Mounting
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
4.50" CF SEALING SURFACE	-Two (2) 4.50" CF sealing surfaces with eight (8) tapped and eight (8) clear bolt holes -Grabber Grooves (internal annular mounting grooves) are present each port.
EXTERNAL MOUNTING	Yes, external mounting channel.
WEIGHT	Weight 1.60 lbs (0.73 kg)



*MCF450-FlgAdptr-E2 with two (2) 4.50" CF (E) sealing surface ports.*



## MCF450-FlgAdptr-E2

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



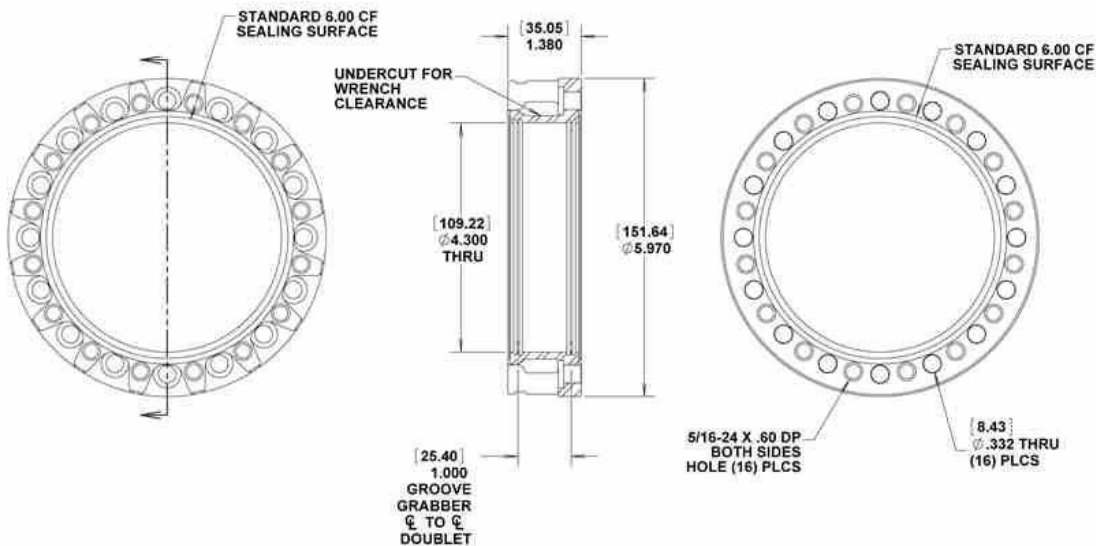
The **MCF600-FlgAdptr-F2** is a Flange Adapter with two (2) 6.00" (C) CF sealing surfaces. It provides an external mounting channel the interfaces Kimball Physics External Mounting Brackets. The component also includes internal mounting channels (Grabber Grooves) on both ports that enable several mounting options for internally mounting apparatus. One sealing surface has tapped holes with the other sealing surface using clear holes.

	MCF600-FlgAdptr-F2
Multi-CF™ Fitting	Flange Adapter
COMMON APPLICATION	External and Internal Mounting
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
6.00" CF SEALING SURFACE	-Two (2) 6.00" CF (F) sealing surfaces with sixteen (16) tapped (5/16-24) and sixteen (16) clear bolt holes -Grabber Grooves (internal annular mounting grooves) are present each port.
EXTERNAL MOUNTING	Yes, external mounting channel.
WEIGHT	Weight 2.80 lbs (1.27 kg)



*MCF600-FlgAdptr-F2 with (2) 6.00" CF (F) sealing surface ports.*

#### MCF600-FlgAdptr-F2



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

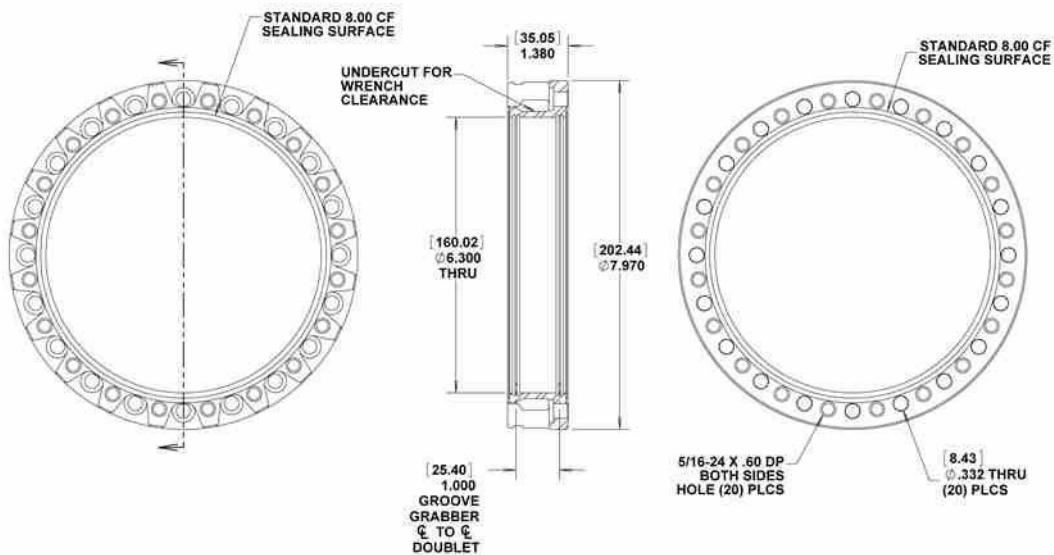
The **MCF800-FlgAdptr-G2** is a Flange Adapter with two (2) 8.00" (G) CF sealing surfaces. It provides an external mounting channel the interfaces Kimball Physics External Mounting Brackets. The component also includes internal mounting channels (Grabber Grooves) on both ports that enable several mounting options for internally mounting apparatus. One sealing surface has tapped holes with the other sealing surface using clear holes.

	MCF800-FlgAdptr-G2
Multi-CF™ Fitting	Flange Adapter
COMMON APPLICATION	External and Internal Mounting
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
8.00" CF SEALING SURFACE	-Two (2) 8.00" CF (G) sealing surfaces with twenty (20) tapped (5/16-24) and twenty (20) clear bolt holes -Grabber Grooves (internal annular mounting grooves) are present each port.
EXTERNAL MOUNTING	Yes, external mounting channel.
WEIGHT	Weight 4.20 lbs (1.90 kg)



*Flange Adapter MCF800-FlgAdptr-G2 with (2) 8.0" CF (G) sealing surface ports.*

#### MCF800-FlgAdptr-G2



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

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## References

For more information about Multi-Port CF (MCF™) Vacuum Chambers and Accessories, visit our website at: Multi-CF Hardware

### 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 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

Document MCF\_Flange\_Adapter\_2023\_0320  
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