

## Multi-CF™ External Mounting System

### Multi-CF™ External Brackets: 2.75", 4.50", 6.00", 8.00" CF and Selected Vacuum Chambers

#### APPLICATIONS:

- Mounting Vacuum Chambers and Fittings to Optical Tables Easily and Securely
- Mount Vacuum Pumps and Other Apparatus

#### FEATURES / OPTIONS:

- Clamps to Kimball Physics Outside Diameter OD Channels in Mounting Flanges, Flange Adapters, Flange Multiplexers
- Rigid and Mates with Standard Imperial Optical Table Hardware
- Bracket Attaches to External Mounting Holes of Specified Vacuum Chambers
- Sized to fit Conflat CF of 2.75", 4.50", 6.00" and 8.00"



*External Mounting System Clamps and Brackets*

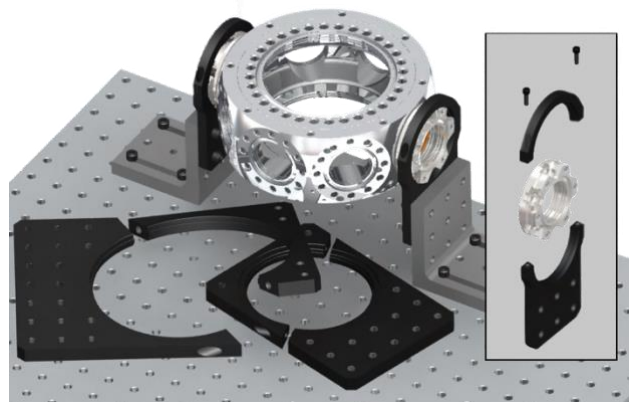
### Multi-CF™ External Mounting Components: 2.75", 4.50", 6.00" and 8.00" CF Mounting

The External Mounting System Brackets are designed to secure experimental apparatus quickly and easily. The clamps include a ridge which fits into the external diameter circumferential grooves cut into Kimball Physics Multi-CF™ fittings (Mounting Flanges, Flange Adapters, Flange Multiplexers, and Chambers (MCF275-SphOct-C2A8) with integrated external mounting grooves). They are all fabricated from black anodized aluminum.

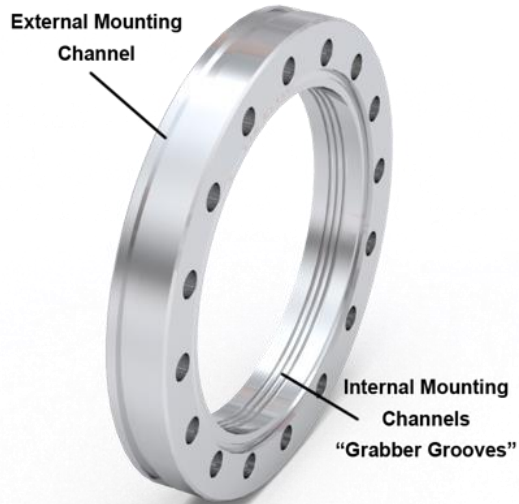
The lower section of the bracket is positioned under the flange and mounted to the optical table using standard L-shaped brackets (not included). The upper portion of the bracket positioned over the flange and then securely clamped with a bolt on each side.

The brackets can mount and secure to CF Flanges of sizes 2.75", 4.50", 6.00" and 8.00" inches.

Another version of the External Mounting Bracket is designed to engage external mounting holes of the 6.00" Spherical Octagon MCF Chambers (MCF600-SphOct-F2C8).



*Spherical Octagon Vacuum Chamber (8.00" Main CF Ports-MCF800-SphOct-G2C8) being mounted on an optical table using 2.75" CF Flange Adapters (MCF275-FlgAdptr-C2-A) and External Mounting Brackets (MCF275-ExtBrkt-R). Also shown are 4.50" and 6.00" CF External Mounting Brackets. Note holes in the mounting clamps match those in optical tables and optical table hardware (1" spacing with 1/4-20 tapped holes).*



*6.00" Mounting Flange illustrating the Outside Diameter External Mounting Channels used with External Mounting Brackets. Internal Mounting Channels "Grabber Grooves" are also shown and used for internal mounting.*









*Various Mounting Flanges (Blank, Double Sided, Double Sides with Grabber Grooves, and Viewport) available with Outside Diameter External Mounting Channels.*



*Various Sized Mounting Flanges (2.75", 4.50", 6.00" and 8.00") available with Outside Diameter External Mounting Channels.*

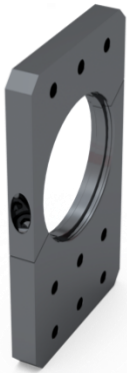
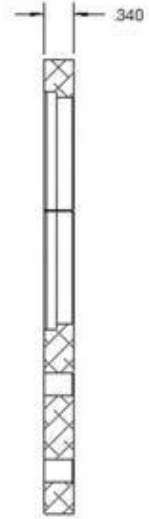
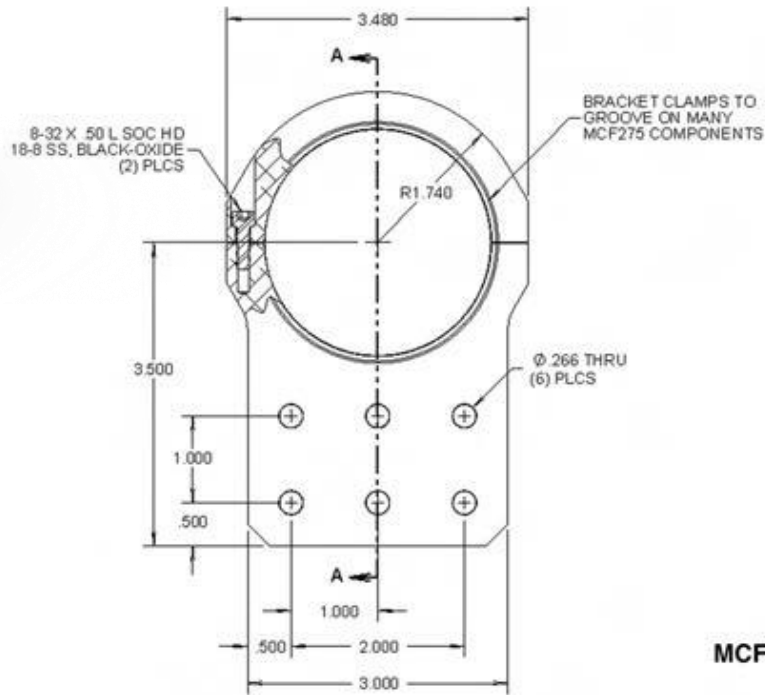


*Flange Adapters in various sizes (2.75", 4.50", 6.00" and 8.00") with Outside Diameter External Mounting Channels.*

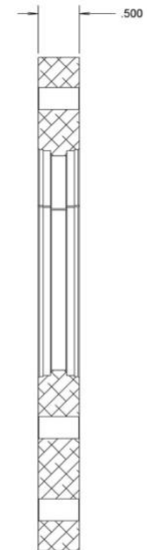
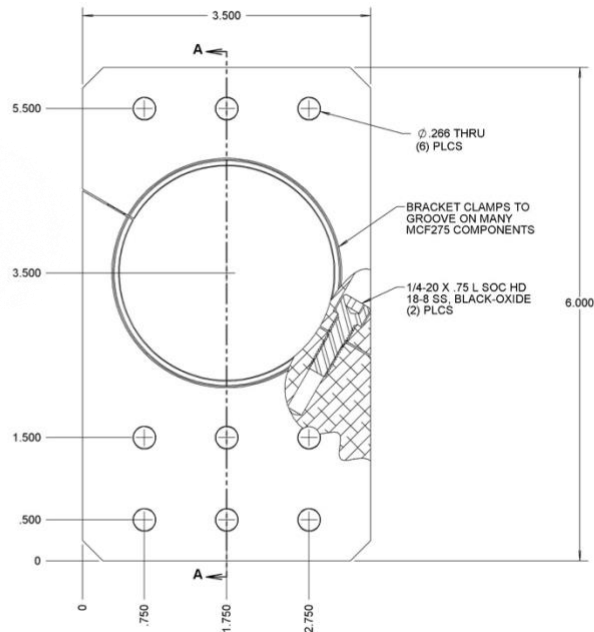
External Mounting Bracket Size / Model	Part Examples (Not to scale)	Mates With:	Notes
2.75" CF MCF275-MtgBrkt-R		<b>Mounting Flanges</b> MCF275-MtgFig-C2 MCF275-MtgFig-C1Blk MCF275-MtgFig-C1VP  <b>Adaptor Flanges</b> MCF275-FlgAdptr-C2  <b>Flange Multiplexers</b> MCF275-FlgMplx-C3r1A4 MCF275-FlgMplx-C1r1A4  <b>Chambers</b> MCF275-SphOct-C2A8-A	-Mounts to 2.75" CF Kimball Physics Fittings (Flanges and Chambers as noted) -Anodized Aluminum -Rounded upper contour -Mates with standard optical table hardware -Weight 0.31 lbs. (0.14 kg)
2.75" CF MCF275-MtgBrkt-LS		<b>Mounting Flanges</b> MCF275-MtgFig-C2 MCF275-MtgFig-C1Blk MCF275-MtgFig-C1VP  <b>Adaptor Flanges</b> MCF275-FlgAdptr-C2  <b>Flange Multiplexers</b> MCF275-FlgMplx-C3r1A4 MCF275-FlgMplx-C1r1A4	-Mounts to 2.75" CF Kimball Physics Fittings/Flanges -Anodized Aluminum -Rectangular contour -Mates with standard optical table hardware -Weight 0.69 lbs. (0.31 kg)
4.50" CF MCF450-MtgBrkt-LS		<b>Mounting Flanges</b> MCF450-MtgFig-E2 MCF450-MtgFig-E1Blk MCF450-MtgFig-E1VP  <b>Adaptor Flanges</b> MCF450-FlgAdptr-E2	-Mounts to 4.50" CF Kimball Physics Fittings/Flanges -Anodized Aluminum -Rectangular contour -Mates with standard optical table hardware -Weight 0.97 lbs. (0.44 kg)
6.00" CF MCF600-MtgBrkt-LS		<b>Mounting Flanges</b> MCF600-MtgFig-F2 MCF600-MtgFig-F1Blk MCF600-MtgFig-F1VP	-Mounts to 6.00" CF Kimball Physics Fittings/Flanges -Anodized Aluminum -Rectangular contour -Mates with standard optical table hardware -Weight 1.63 lbs. (0.74 kg)
6.00" CF MCF450-MtgBrkt-SM		<b>Chambers</b> MCF600-SphOct-F2C8	-Anodized Aluminum -Engages (4) external mounting holes of Vacuum Chamber MCF600-SphOct-F2C8 -Mates with standard optical table hardware -Weight 1.74 lbs. (0.79 kg)
8.00" CF MCF800-MtgBrkt-LS		<b>Mounting Flanges</b> MCF800-MtgFig-G2 MCF800-MtgFig-G1Blk	-Mounts to 8.00" CF Kimball Physics Fittings/Flanges -Anodized Aluminum -Rectangular contour -Mates with standard optical table hardware -Weight 2.31 lbs. (1.05 kg)
Notes	<i>Holes in the mounting clamps match those in optical tables and optical table hardware (1" inch spacing with 1/4-20 tapped holes).</i>		



## 2.75" External Mounting Bracket-Round

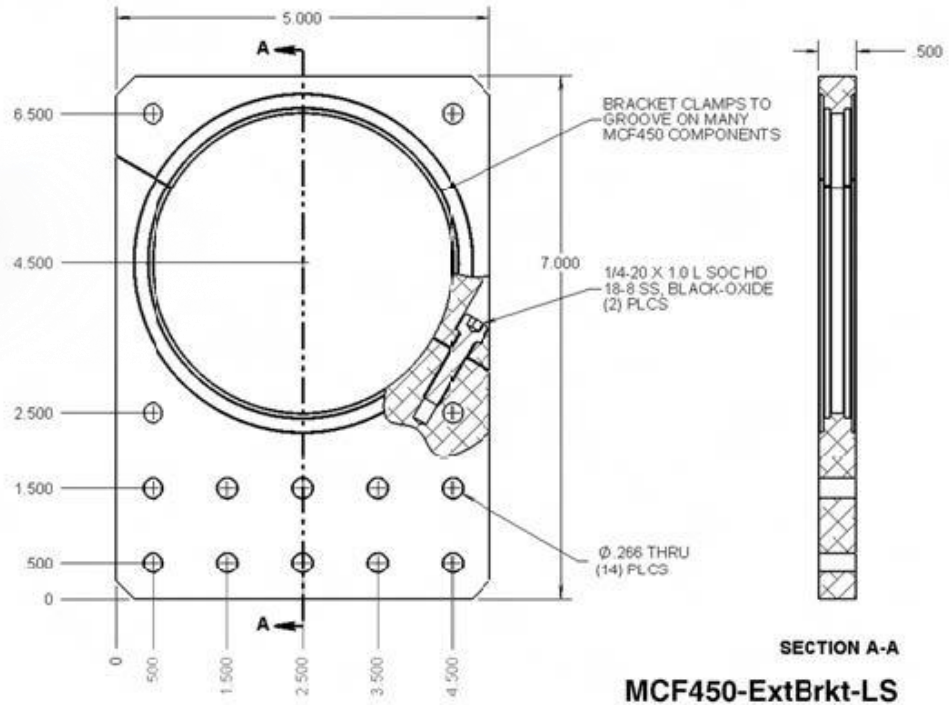
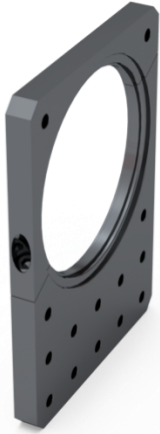


## 2.75" External Mounting Bracket-Rectangular

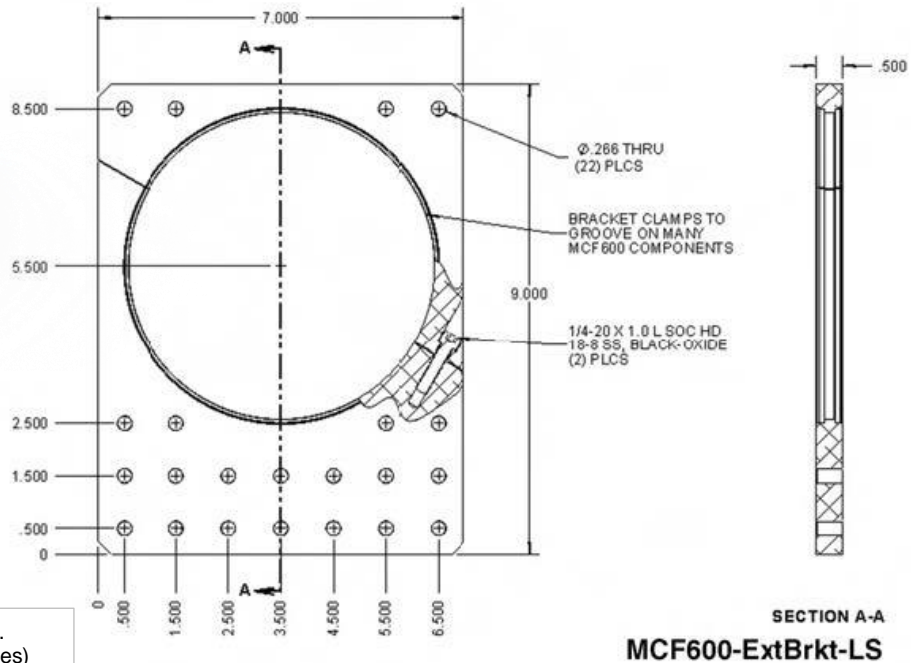


All Dimensions are in inches.  
(Millimeters are in parentheses)

## 4.50" External Mounting Bracket-Rectangular



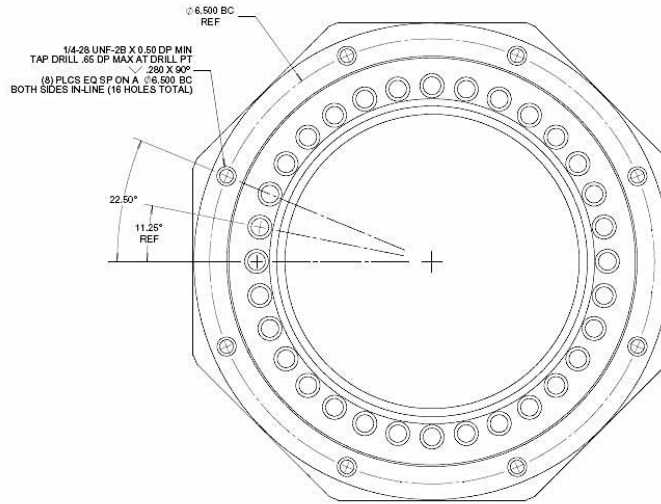
## 6.00" External Mounting Bracket-Rectangular



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



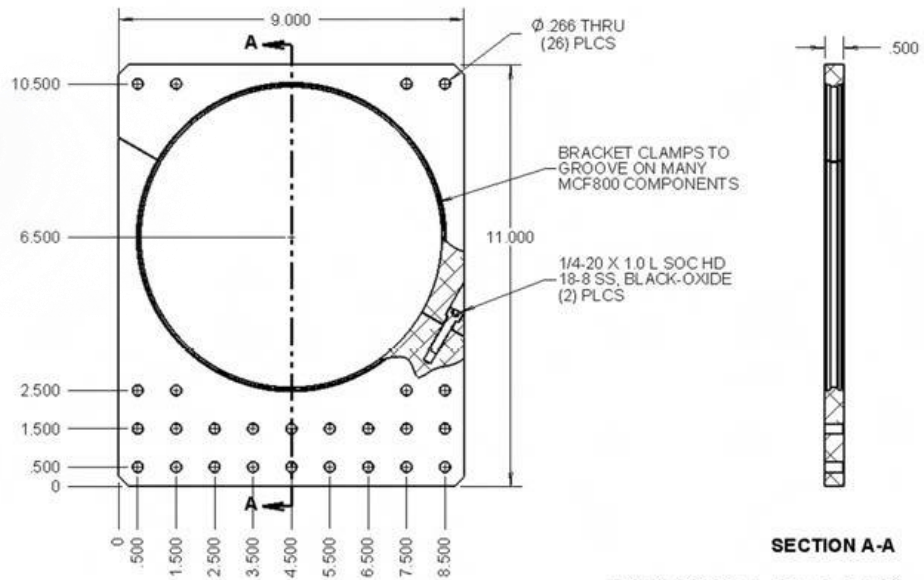
## 6.00" External Mounting Bracket- Side Mount



**MCF600-SphOct-F2C8**

Showing 8 Mounting Holes for External Mounting Brackets

## 8.00" External Mounting Bracket- Rectangular



**MCF800-ExtBrkt-LS**

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

---

## 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*

*Multi-CF (MCF) External Mounting System*

*Mounting Flanges*

*Flange Adapters*

*Flange Multiplexers*

#### Notes:

1. **Cautions when directly attaching to MCF Chambers:**

- 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, DT Taylor 3/14/2023

Document MCF\_External\_Mounting\_System\_Overview\_2023\_0314  
COPYRIGHT KIMBALL PHYSICS 2023, ALL RIGHTS RESERVED