

**Multi-CF™ UHV Vacuum Tilt Adapter with
 2.75" CF Port with 2- and 4-Degree Tilt**



*Top and Cross-sectional view of 4 degree
 2.75" CF Tilt Adapter Flange*

APPLICATIONS:

- Laser Applications to Avoid Damage from Reflected Beam

FEATURES / OPTIONS:

- Enables Laser Viewport or Other Instruments to be Tilted off-Axis
- Annular port Grabber Grooves base CF Sealing Surface
- Inserted between common CF sealing surfaces flange components from almost any manufacturer
- Non-Rotatable

Multi-CF™ Tilt Adapters

The Tilt Adapter Flange is a UHV CF (Conflat®) flange initially created for Laser Applications where it can be advantageous to have the viewport tilted off-axis to avoid damage due to the reflected beam. The component joins two (2) 2.75" CF components, with tapped threaded holes on the tilted side, and clear holes on the base side.

The component is available with the tilted face at either 2 degrees or 4 degrees off-axis. It is CNC

precision fabricated from 316L Stainless Steel, with internal mounting channels (Grabber Grooves) present at the base sealing surface to enable a versatile and stable means to mount devices, apparatus and prototype concepts (created with eV Parts) within the vacuum space.

Please reach out to Kimball Physics if you need a custom design for application. Custom angles up to 10 degrees are available upon request.

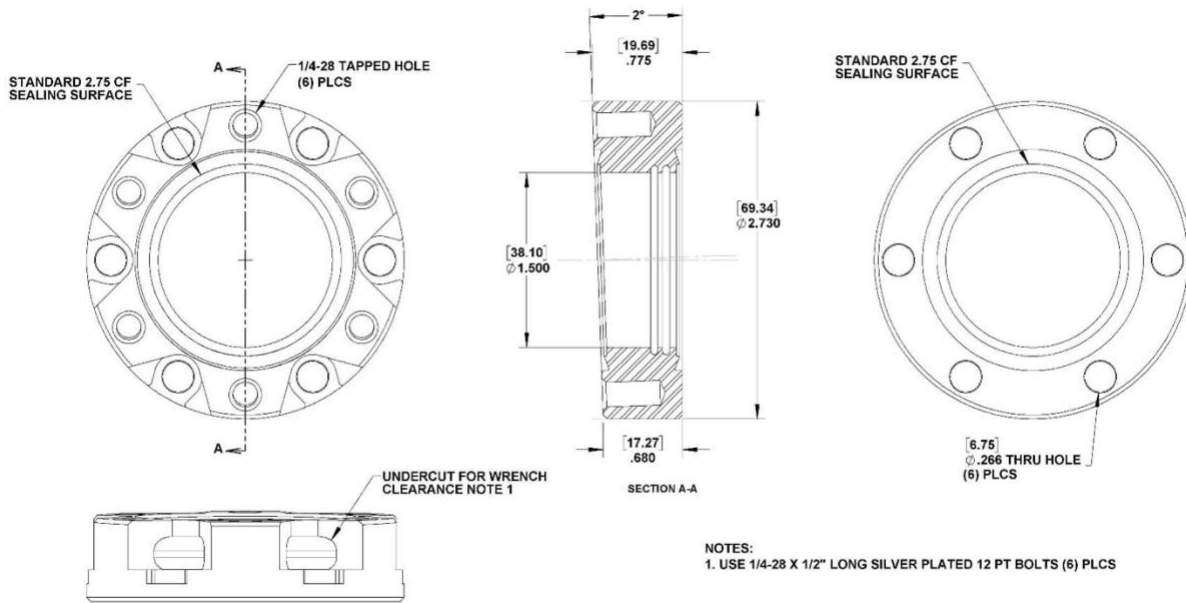
The **MCF275-TiltAdptr-C2-2Deg** is a Tilt Adapter with two (2) 2.75" (C) CF sealing surfaces. The adapter creates a 2-Degree angle between the upper surface and the base. Internal mounting channels (Grabber Grooves) are associated with the base 2.75" port. It has six (6) tapped threaded holes on the upper tilted surface and six (6) clear bolt holes for attaching the 2.75" CF flange base.



Tilt Adapter MCF275-TiltAdptr-C2-2Deg with two (2) 2.75" CF (C) sealing surfaces with base surface to right and 2-degree tilt surface behind and to the left. Note internal mounting channels (Grabber Grooves) associated with base flange.

MCF275-TiltAdptr-C2-2Deg	
Multi-CF™ Fitting	Tilt Adapter
COMMON APPLICATION	Laser Applications – Tilt viewport off-axis.
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
2.75" CF SEALING SURFACE	-One (1) 2-Degree tilted 2.75" sealing surface with six (6) tapped 1/4-28 bolt holes -One (1) 2.75" base sealing surface with six (6) clear 1/4-28 bolt holes -Grabber Grooves (internal annular mounting grooves) are present base flange.
WEIGHT	Weight 0.57 lbs (0.26 kg)

Tilt Adapter MCF275-TiltAdptr-C2-2Deg



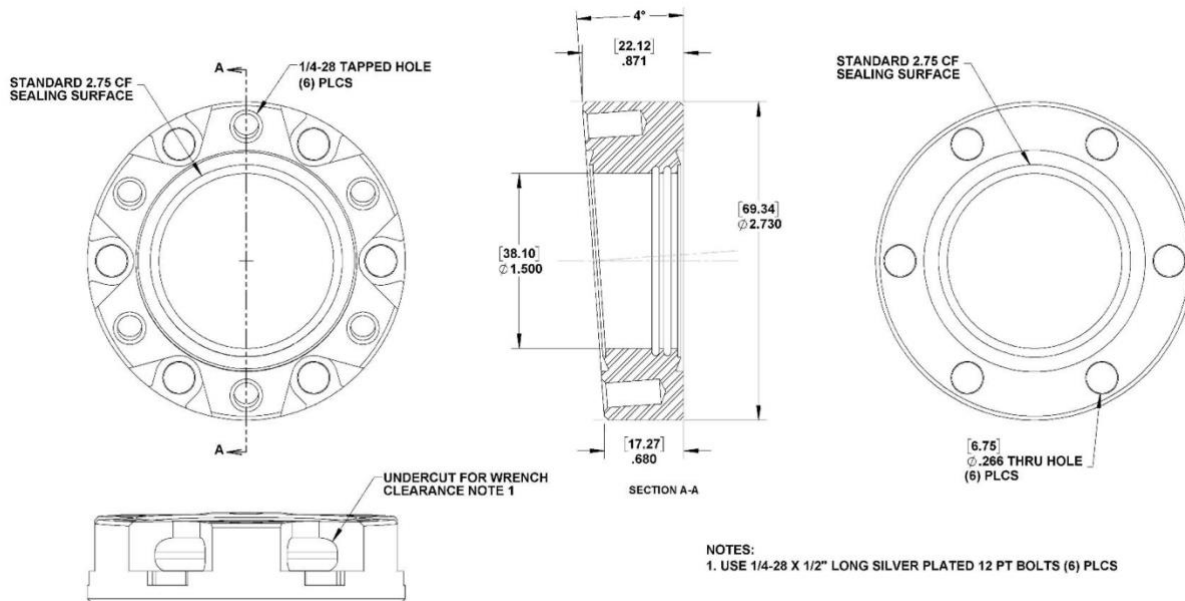
The **MCF275-TiltAdptr-C2-4Deg** is a Tilt Adapter with two (2) 2.75" (C) CF sealing surfaces. The adapter creates a 4-Degree angle between the upper surface and the base. Internal mounting channels (Grabber Grooves) are associated with the base 2.75" port. It has six (6) tapped threaded holes on the upper tilted surface and six (6) clear bolt holes for attaching the 2.75" CF flange base.



Tilt Adapter MCF275-TiltAdptr-C2-4Deg with two (2) 2.75" CF (C) sealing surfaces: base CF surface to right and 4- degree tilt surface behind and to the left. Note internal mounting channels (Grabber Grooves) associated with base flange.

MCF275-TiltAdptr-C2-4Deg	
Multi-CF™ Fitting	Tilt Adapter
COMMON APPLICATION	Laser Applications – Tilt viewport off-axis.
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
2.75" CF SEALING SURFACE	<ul style="list-style-type: none"> -One (1) 4-Degree tilted 2.75" sealing surface with six (6) tapped 1/4-28 bolt holes -One (1) 2.75" base sealing surface with six (6) clear 1/4-28 bolt holes -Grabber Grooves (internal annular mounting grooves) are present base flange.
WEIGHT	Weight 0.57 lbs (0.26 kg)

Tilt Adapter MCF275-TiltAdptr-C2-4Deg



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](#)

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 3/21/2023

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