

UHV Vacuum Chambers with 10, 8, 6, 4½, 2¾ OR 1⅓ CF ports Internal 8.90", 6.65", 6.15", 3.20", or 2.90" diameter spherical workspace

APPLICATIONS:

- ▶ Compact miniature UHV vacuum chamber
- ▶ Cold physics experiments
- ▶ Portable low-cost UHV systems
- ▶ High-complexity UHV subsystems
- ▶ UHV vacuum manipulator systems
- ▶ UHV specimen transfer systems
- ▶ General UHV vacuum plumbing

FEATURES / OPTIONS:

- ▶ Easy access / High port accessibility
- ▶ Grabber grooves on all sealing surfaces (except 1⅓ CF)
- ▶ Sealing surfaces cut on a hollow sphere
- ▶ Unitary stainless steel 316L construction
- ▶ No welds, no inside corners, highly polished
- ▶ Precise port alignment of <0.1 degree



Spherical Octagons

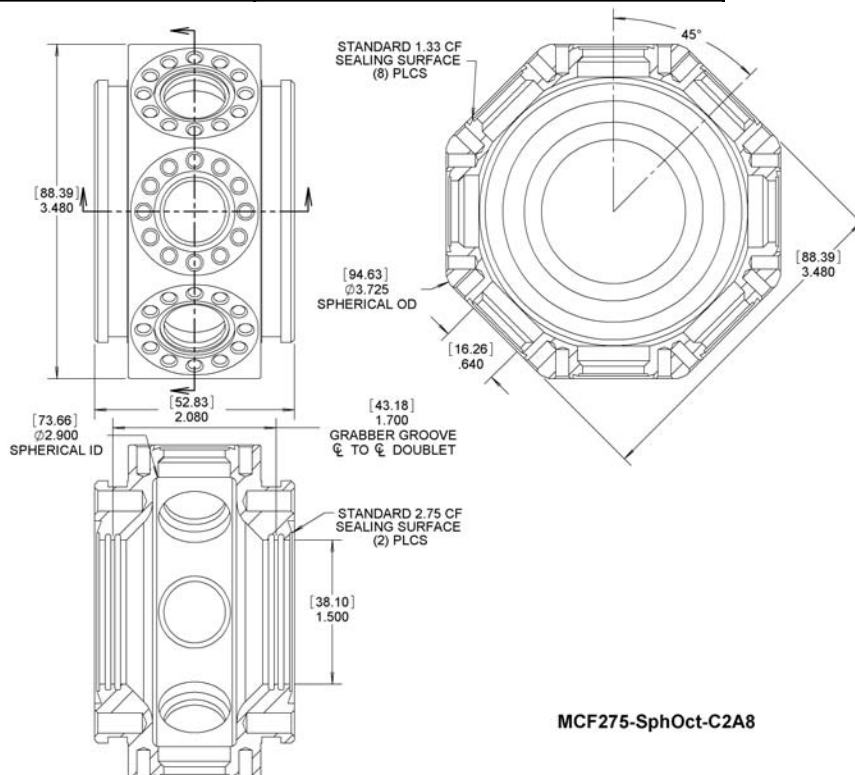
MCF275-SphOct-C2A8	
Multi-CF FITTING	Spherical Octagon
COMMON APPLICATION	Miniature UHV Vacuum Chamber
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
1⅓ CF SEALING SURFACES	Eight with (12) 8-32 tapped bolt holes per sealing surface
2¾ CF SEALING SURFACES	Two with (12) 1/4-28 tapped bolt holes, plus one pair of grabber grooves per sealing surface
INTERNAL WORK SPACE	2.900 inch Spherical I.D. Internal volume 9.3 in ³
EXTERNAL MOUNTING	Two 2¾ ports have built in OD grooves which accept Kimball Physics external mounting brackets. See External Mounting in Multi CF hardware section elsewhere on the website

2¾ Multi-CF Spherical Octagon: MCF275-SphOct-C2A8

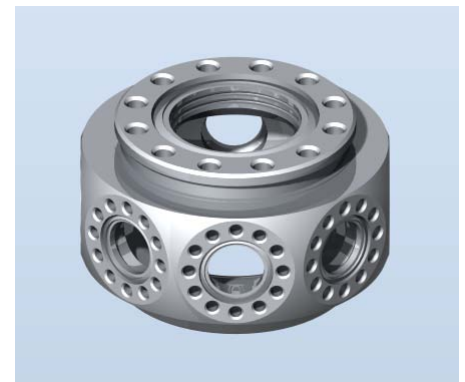
THE SPHERICAL OCTAGON

2¾ MULTI-CF SIZE

The 2¾ Multi-CF Spherical Octagon is a ten-port Multi-CF Vacuum Chamber, consisting of a hollow sphere intersected by two 2¾ CF sealing surfaces and eight 1⅓ CF sealing surfaces. The bolt holes on the 2¾ CF sealing surfaces are tapped. The 2¾ CF ports have OD grooves which accept Kimball Physics External Mounting Brackets.



MCF275-SphOct-C2A8



Spherical Octagon MCF275-SphOct-C2A8

ALL DIMENSIONS ARE IN INCHES
(MILLIMETERS IN PARENTHESES)

CAUTIONS:
(1) SILVER PLATED BOLTS OR
EQUIVALENT LUBRICATION
MUST BE USED
(2) USE CORRECT BOLT LENGTH

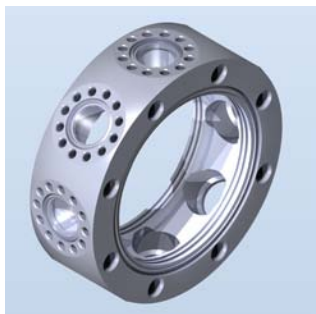
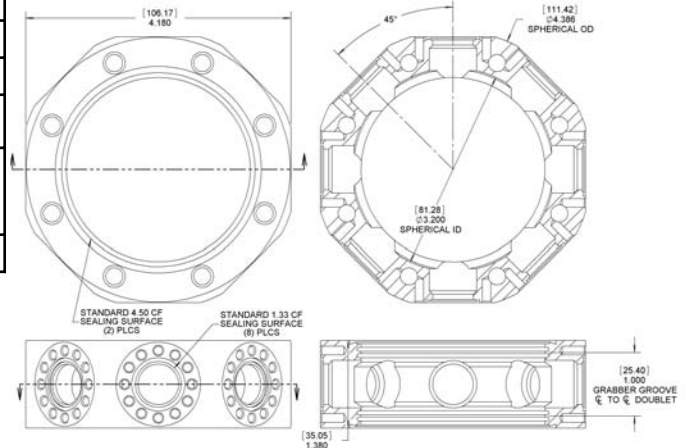
4½ Multi-CF Spherical Octagon: MCF450-SphOct-E2A8 / MCF450-SphOct-Ec2A8

THE SPHERICAL OCTAGON

4½ MULTI-CF SIZE

The 4½ Multi-CF Spherical Octagon is a ten-port Multi-CF Vacuum Chamber, consisting of a hollow sphere intersected by two 4½ CF sealing surfaces and eight 1⅓ CF sealing surfaces. The bolt holes on the 4½ CF sealing surfaces may be either tapped or clear.

MCF450-SphOct-E2A8 / MCF450-SphOct-Ec2A8	
Multi-CF FITTING	Spherical Octagon
COMMON APPLICATION	UHV Vacuum Chamber
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
1⅓ CF SEALING SURFACES	Eight with (12) 8-32 tapped bolt holes per sealing surface
4½ CF SEALING SURFACES	Two with (8) 5/16-24 tapped (or clear) bolt holes, plus one pair of Grabber Grooves per sealing surface.
INTERNAL WORK SPACE	3.200 inch Spherical I.D. Internal volume 12.0 in ³



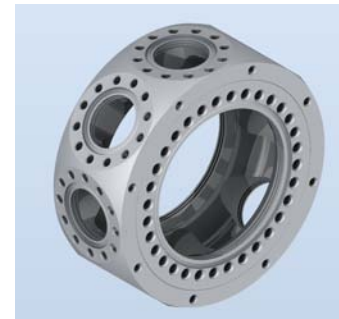
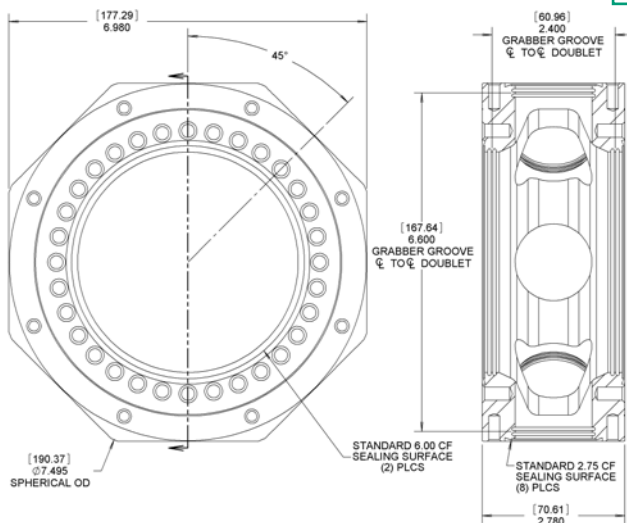
Spherical Octagon
MCF450-SphOct-E2A8
MCF450-SphOct-Ec2A8

6 Multi-CF Spherical Octagon: MCF600-SphOct-F2C8

THE SPHERICAL OCTAGON 6 MULTI-CF SIZE

The 6 Multi-CF Spherical Octagon is a ten-port Multi-CF Vacuum Chamber, consisting of a hollow sphere intersected by two 6 CF sealing surfaces and eight 2¾ CF sealing surfaces. Each 2¾ CF and 6 CF sealing surface has one pair of Grabber Grooves.

MCF600-SphOct-F2C8	
Multi-CF FITTING	Spherical Octagon
COMMON APPLICATION	UHV Vacuum Chamber
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
2¾ CF SEALING SURFACES	Eight with (12) 1/4-28 tapped bolt holes, plus one pair of Grabber Grooves per sealing surface
6 CF SEALING SURFACES	Two with (32) 5/16-24 tapped bolt holes, plus one pair of Grabber Grooves per sealing surface
INTERNAL WORK SPACE	4.80 Spherical I.D. Internal volume 77.1 in ³



Spherical Octagon:
MCF600-SphOct-F2C8

ALL DIMENSIONS ARE IN INCHES
(MILLIMETERS IN PARENTHESES)

CAUTIONS:
(1) SILVER PLATED BOLTS OR
EQUIVALENT LUBRICATION
MUST BE USED
(2) USE CORRECT BOLT LENGTH

6 Multi-CF Spherical Octagon: MCF600-SphOct-F2A8

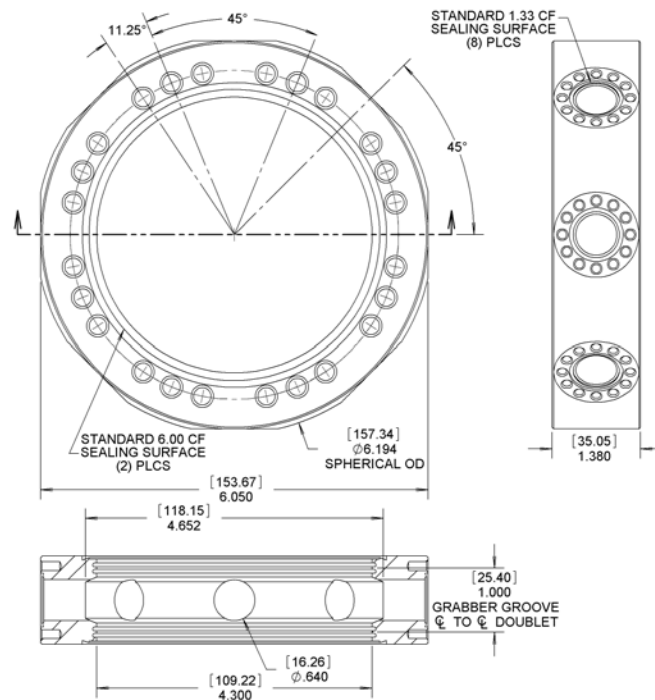
THE SPHERICAL OCTAGON 6 MULTI-CF SIZE

The 6 Multi-CF Spherical Octagon has two 6 CF sealing surfaces and eight 1 1/3 CF sealing surfaces. Each 6 CF has one pair of Grabber Grooves.



MCF600-SphOct-F2A8

MCF600-SphOct-F2A8	
Multi-CF FITTING	Spherical Octagon
COMMON APPLICATION	UHV Vacuum Chamber
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
1 1/3 CF SEALING SURFACES	Eight with (12) 8-32 tapped bolt holes, per sealing surface
6 CF SEALING SURFACES	Two with (24) 5/16-24 tapped bolt holes plus one pair of Grabber Grooves per sealing surface.
INTERNAL WORK SPACE	4.695 inch Spherical I.D. Internal Volume 20.4 in ³



MCF600-SphOct-F2A8

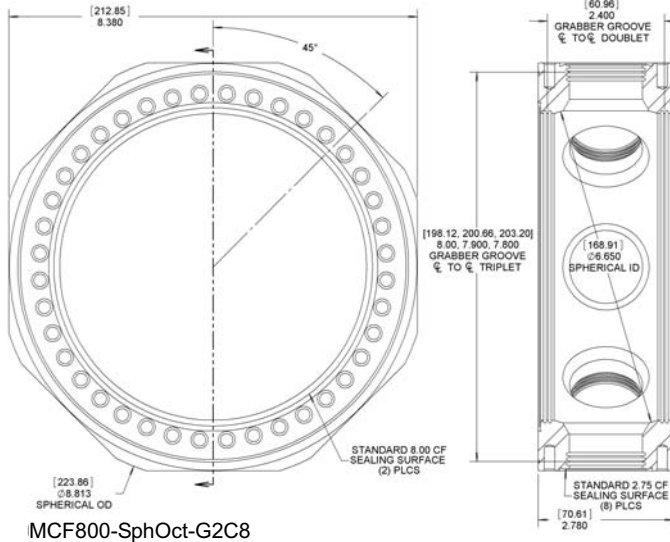
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CAUTIONS:
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(2) USE CORRECT BOLT LENGTH

8 Multi-CF Spherical Octagon: MCF800-SphOct-G2C8

THE SPHERICAL OCTAGON 8 MULTI-CF SIZE

The 8 Multi-CF Spherical Octagon has two 8 CF sealing surfaces and eight 2¼ CF sealing surfaces. Each 2¼ CF sealing surface has one pair of Grabber Grooves, and each 8 CF has one triplet of Grabber Grooves.



MCF800-SphOct-G2C8

Multi-CF FITTING	Spherical Octagon
COMMON APPLICATION	UHV Vacuum Chamber
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
2¼ CF SEALING SURFACES	Eight with (12) 1/4-28 tapped bolt holes, plus one triplet of Grabber Grooves per sealing surface
8 CF SEALING SURFACES	Two with (40) 5/16-24 tapped bolt holes plus one pair of Grabber Grooves per sealing surface
INTERNAL WORK SPACE	6.65 in Spherical I.D. Internal Volume 106.6 in ³

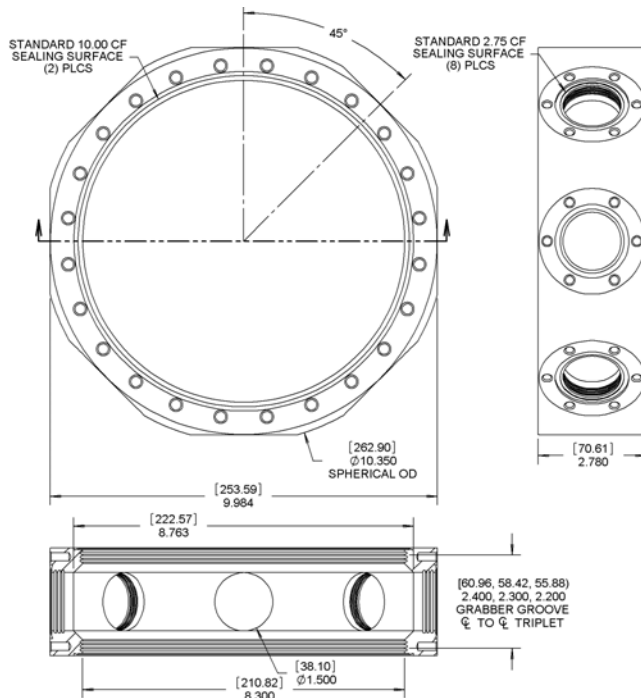


Spherical Octagon MCF800-SphOct-G2C8

10 Multi-CF Spherical Octagon: MCF1000-SphOct-H2C8

THE SPHERICAL OCTAGON: 10 MULTI-CF SIZE

The 10 Multi-CF Spherical Octagon has two 10 CF sealing surfaces and eight 2¼ CF sealing surfaces. Each 2¼ CF sealing surface has one pair of Grabber Grooves, and each 10 CF has one triplet of Grabber Grooves.



MCF1000-SphOct-H2C8

Multi-CF FITTING	Spherical Octagon
COMMON APPLICATION	UHV Vacuum Chamber
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
2¼ CF SEALING SURFACES	Eight with (12) 1/4-28 tapped bolt holes, plus one triplet of Grabber Grooves per sealing surface
10 CF SEALING SURFACES	Two with (40) 5/16-24 tapped bolt holes plus one pair of Grabber Grooves per sealing surface
INTERNAL WORK SPACE	8.90 inch Spherical I.D. Internal Volume 202.3 in ³



Spherical Octagon MCF1000-SphOct-H2C8

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(MILLIMETERS IN PARENTHESES)

CAUTIONS:
(1) SILVER PLATED BOLTS OR
EQUIVALENT LUBRICATION
MUST BE USED
(2) USE CORRECT BOLT LENGTH