

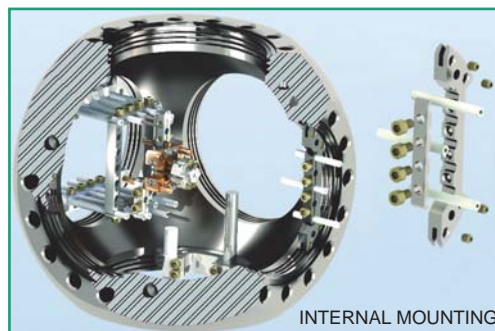
MULTI-CF™ UHV CONFLAT* FITTINGS / CHAMBERS / ELECTRON AND ION LENSES / SOURCES / EV PARTS®

ConFlat* Fittings Not Seen Before

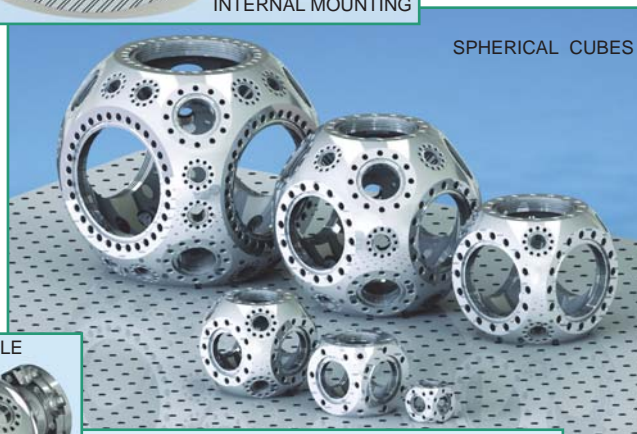
M2013a
MULTI-CF PRODUCT GUIDE
www.kimballphysics.com



SPHERICAL OCTAGONS



INTERNAL MOUNTING

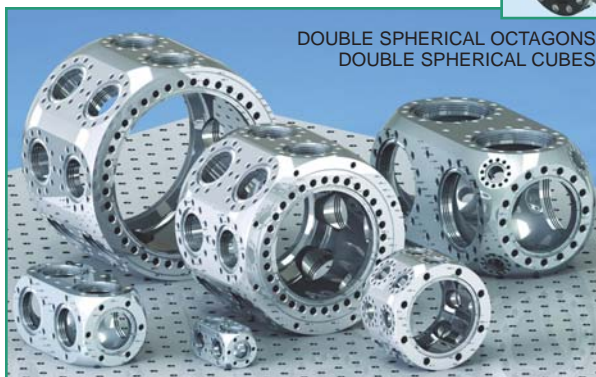


SPHERICAL CUBES

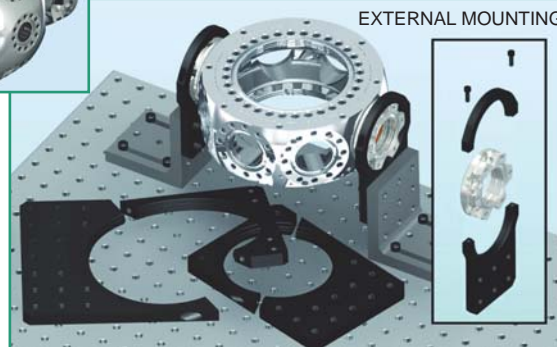
- Extreme Ultra High Vacuum
- Compact, versatile chambers
- Large number of ports
- Superior vacuum performance
 - Minimum welds / internal corners
- Rigid with precise dimensions
- Precise and stable external mounting brackets
- Internal mounting Groove Grabbers
- Modular. Easily reconfigured
- 316L Stainless (Titanium available)
- Mates with standard ConFlats*
- Metric and custom available



SPHERICAL TRIPLE OCTAGON



DOUBLE SPHERICAL OCTAGONS
 DOUBLE SPHERICAL CUBES



EXTERNAL MOUNTING

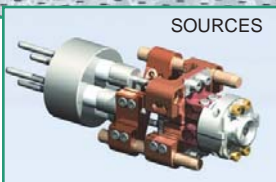


FLANGE MULTIPLEXERS

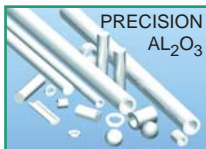


CLOSE COUPLERS
 join fittings with minimum distance

UHV CHAMBERS:
 Cold Physics
 Instrument Housings
 Apparatus Mounts
 Surface Physics
 Space Physics
 Flanges



SOURCES



PRECISION
 AL₂O₃

For detailed descriptions, specifications, and prices see:

www.kimballphysics.com email: info@kimphys.com



VACUUM CHAMBERS

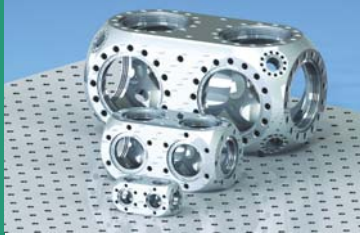
Spherical Cubes



MCF133-SphCube-A6 - (6) 1.33 ports
MCF275-SphCube-C6 - (6) 2.75 ports
MCF275-SphCube-C5A4
 (5) 2.75 and (4) 1.33 ports
MCF275-SphCube-C4A8
 (4) 2.75 and (8) 1.33 ports
MCF275-SphCube-C6A8
 (6) 2.75 and (8) 1.33 ports
MCF450-SphCube-E6 - (6) 4.50 ports
MCF450-SphCube-E6A8
 (6) 6.00 and (8) 1.33 ports

MCF450-SphCube-E6C8
 (6) 4.50 and (8) 2.75 ports
MCF450-SphCube-E6C8A12
 (6) 4.50, (8) 2.75, (12) 1.33 ports
MCF600-SphCube-F6
 (6) 6.00 ports
MCF600-SphCube-F6C8
 (6) 6.00 and (8) 2.75 ports
MCF600-SphCube-F6C8A24
 (6) 6.00, (8) 2.75, (24) 1.33 ports

Double Spherical Cubes



MCF133-DbISphCube-A10
 (10) 1.33 ports
MCF275-DbISphCube-C10
 (10) 2.75 ports
MCF450-DbISphCube-E10A8
 (10) 4.50 and (8) 1.33 ports

All spherical cubes available in metric

Spherical Octagons



MCF275-SphOct-C2A8
 (2) 2.75 and (8) 1.33 ports
MCF450-SphOct-E2A8
 (2) 4.50 and (8) 1.33 ports
 (clear or tapped holes)
MCF600-SphOct-F2A8
 (2) 6.00 and (8) 1.33 ports

MCF600-SphOct-F2C8
 (2) 6.00 and (8) 2.75 ports
MCF800-SphOct-G2C8
 (2) 8.00 and (8) 2.75 ports
MCF800-SphOct-G2C8A16
 (2) 8.00, (8) 2.75, (16) 1.33 ports
MCF1000-SphOct-H2C8
 (2) 10.00 and (8) 2.75 ports

Double Spherical Octagons



MCF275-DbISphOct-C2A16
 (2) 2.75 and (16) 1.33 ports
MCF450-DbISphOct-E2C16
 (2) 4.50 and (16) 2.75 ports
MCF600-DbISphOct-F2C16
 (2) 6.00 and (16) 2.75 ports



MCF275-SphTrpOct-Cr2A16
 (2) rotatable 2.75 and (16) 1.33 ports

All spherical octagons available in metric

Spherical Squares



MCF450-SphSq-E2C4 (2) 4.50 and (4) 2.75 ports
MCF450-SphSq-E2C3r1A4 (2) 4.50, (4) 2.75, (4) 1.33 ports
 (One 2.75 port is rotatable)
MCF600-SphSq-F2C4A8 (2) 6.00, (4) 2.75, (8) 1.33 ports
MCF600-SphSq-F2E4A8 (2) 6.00, (4) 4.50, (8) 1.33 ports
MCF800-SphSq-G2E4 (2) 8.00 and (4) 4.50 ports
MCF800-SphSq-G2E4C4 (2) 8.00, (4) 4.50, (4) 2.75 ports
MCF800-SphSq-G2E4C4A16 (2) 8.00, (4) 4.50, (4) 2.75,
 and (16) 1.33 ports

All spherical squares available in metric

Spherical Triangles



MCF133-SphTri-A5
 (5) 1.33 ports
MCF275-SphTri-C5
 (5) 2.75 ports

Spherical Pentagons



MCF600-SphPent-F2C5
 (2) 6.00 and (5) 2.75 ports
MCF600-SphPent-F2C5A2
 (2) 6.00, (5) 2.75 and (2)
 1.33 ports

Spherical Hexagons



MCF275-SphHex-C2A6
 (2) 2.75 and (6) 1.33 ports
 (clear or tapped holes)
MCF800-SphHex-G2E6
 (2) 8.00 and (6) 4.50 ports

Other Spherical Chambers



MCF600-SphHexadecagon-F2A16
 (2) 6.00 and (16) 1.33 ports
MCF800-SphDec-G2C10
 (2) 8.00 and (10) 2.75 ports

All spherical chambers above available in metric



CUSTOM CHAMBERS AND FITTINGS

- Custom ports up to 14.00"
- Spheres and hemispheres
- Custom Titanium chambers



For specifications, drawings and pricing: www.kimballphysics.com

Tel: 1 603 878-1616 Fax: 1 603 878-3700
www.kimballphysics.com e-mail: info@kimphys.com

SPECIALTY FITTINGS / FLANGES

Flange Crosses



MCF275-FigCross-C2A4
MCF275-FigCross-C2A2
 (2) 2.75 with (4) 1.33 ports
 (2) 2.75 with (2) 1.33 ports

Non-Rotatable Close Couplers



MCF450-ClsCplr-E2
 1.400" long 4.50 port
MCF275-ClsCplr-C2-1400
 1.400" long 2.75 Port
MCF275-ClsCplr-C2-700
 0.700" long 2.75 Port
MCF133-ClsCplr-A2
 0.700" long 1.33 Port

Rotatable Close Couplers



MCF800-ClsCplr-G1r1
 1.750" long 8.00 Port
MCF275-ClsCplr-C1r1
 1.400" long 2.75 Port
MCF600-ClsCplr-F1r1
 1.75" long 6.00 Port
MCF450-ClsCplr-E1r1
 1.400" long 4.50 Port

Flange Multiplexers - Instrument Housings



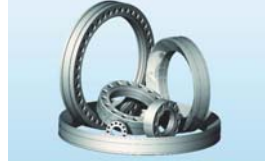
MCF275-FigMplxr-Cr1A3 (1) rotatable 2.75, (3) 1.33 ports
MCF275-FigMplxr-Cr1A5 (1) rotatable 2.75, (5) 1.33 ports
MCF275-FigMplxr-C1r1A4 (1) 2.75, (1) rotatable 2.75, (4) 1.33 ports
MCF275-TestFigMplxr-C2A4 (2) 2.75 and (4) 1.33 ports
MCF275-FigMplxr-C1r2A4 (1) rotatable 2.75, (2) 2.75, (4) 1.33 ports



MOUNTING FLANGES
 Used with external brackets for mounting systems



FLANGE ADAPTORS
 Multiple configurations with 4.50, 2.75, and 1.33 CF ports (2.75" available in metric)



PERIMETER WELD FLANGES
 1.33 to 8.00 CF port sizes



THIN FLANGES
 Various dimensions available. 1.33 to 8.00 port sizes



WELDABLE CLUSTERS
 (1) 6.00 weldable port with (1) 4.50 and (2) or (4) 2.75 ports
 Other types available

EXTERNAL BRACKETS

For 8.00 CF ports:

MCF800-ExtBrkt-LS

For 6.00 CF ports

MCF600-ExtBrkt-LS

For 4.50 CF ports:

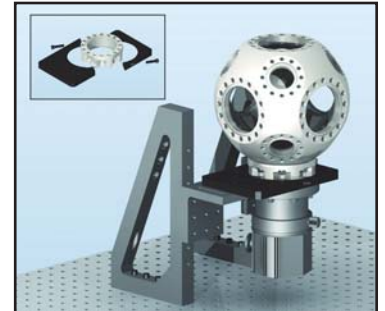
MCF450-ExtBrkt-LS

For 2.75 CF ports:

MCF275-ExtBrkt-LS
MCF275-ExtBrkt-R

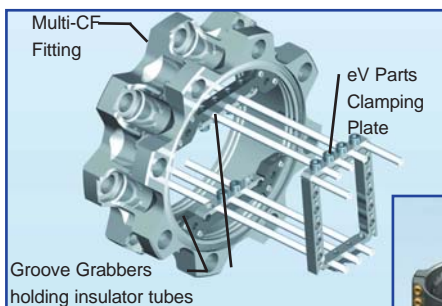
Side-Mounted Bracket
MCF600-ExtBrkt-SM

For the following chambers:
 MCF600-SphOct-F2C8
 MCF600-DblSphOct-F2C16



GROOVE GRABBERS

An internal mounting system that locks into vacuum fittings. Compatible with eV parts to hold apparatus securely in place.



For 2.75 CF ports:

MCF275-GrvGrb-C01
MCF275-GrvGrb-C02
MCF275-GrvGrb-CB03
MCF275-GrvGrb-CB04
MCF275-GrvGrb-CYL0750
MCF275-GrvGrb-CYL1000

For 4.50 CF ports:

MCF450-GrvGrb-C01
MCF450-GrvGrb-C02
MCF450-GrvGrb-C03
MCF450-GrvGrb-C04
MCF450-GrvGrb-CYL1750

For 6.00 CF ports:

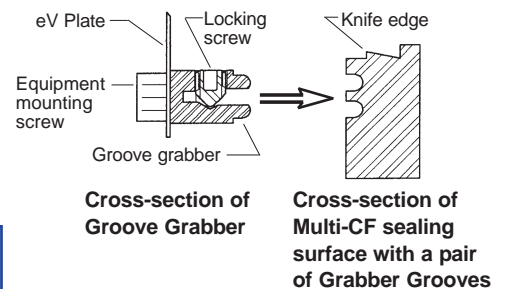
MCF600-GrvGrb-C01

For 8.00 CF ports

MCF800-GrvGrb-C01

For 10.00 CF ports:

MCF1000-GrvGrb-C01



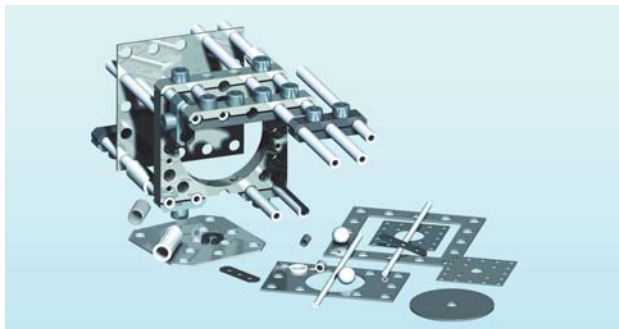
For specifications, drawings and pricing: www.kimballphysics.com





EV PARTS[®]

Customize experimental set-ups with off-the-shelf parts



eV Parts[®] SYSTEMS

eV 3500 - Series B&C Parts System: over 3000 parts, 225 types
 eV 1200 - Series B Parts System: approx 355 parts (1/16" series)
 eV 1400 - Series C Parts System: approx 480 parts (1/8" series)

eV Parts[®] Types:

Balls	Round Plates
Brackets	Screw Clamps
Clamp. Plates	Sheets
Cylinders	Spacers
Fasteners	Springs
Grids	Split Tubes
Insulators	Threaded Rods
Insl. Protectors	Tubes
Lens Elements	Triple Nuts
Lock Rings	Wire
Machine Nuts	Wire Rings
Mach. Screws	Wound Wires
Plates	Wirenuts
Rods	

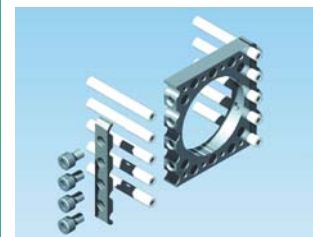


HIGH RIGIDITY SCREW CLAMP ASSEMBLIES

SS-SCA-C2
 SS-SCA-C3
 SS-SCA-C4
 SS-SCA-C5
 SS-SCA-C7



SMALL CLAMPS INSULATOR PROTECTORS CATHODE MOUNTING CLAMPS



FASTENERS

Clamping plates and
 Screw clamp assemblies
 Also: Nuts, Screws, Wirenuts,
 and Lock rings



PLATES

Stainless steel 304:
 Squares: 0.7" to 2.0"
 Rectangles: to 6.0" length
 Round plates: 0.06" to 1.5" dia



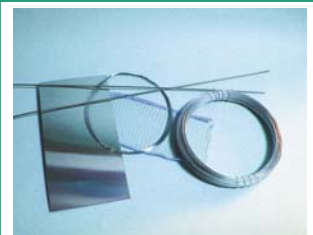
INSULATORS

Alumina (Al₂O₃) ceramic:
 Tubes, Rods, Split tubes,
 Spacers, and Balls



CYLINDERS

Stainless steel 304:
 0.25" to 1.5" diameters,
 and 0.1" to 3.0" lengths



RAW MATERIALS

Stainless steel 304,
 tungsten, molybdenum,
 and tantalum:
 Sheets, Wire, and Grid material



Multi-CF[™] PATENTS

The Multi-CF[™] line is covered by patents:
 5,593,123; 5,625,947; 5,660,418; 5,671,956; 6,270,045
 Additional patents pending

Also see the
**Kimball Physics
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For specifications and prices, see:

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KIMBALL PHYSICS



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