



# MAGDEBURG HEMISPHERE™

## Multi-CF™ FITTING

### UNIQUE SMALL HEMISPHERICAL UHV VACUUM CHAMBERS USED SINGLY OR IN PAIRS

#### APPLICATIONS:

SMALL UHV VACUUM CHAMBERS  
UNUSUAL UHV PLUMBING

#### FEATURES / OPTIONS:

HIGH PORT DENSITY AND EXCEPTIONAL ACCESS  
GRABBER GROOVES ON ALL SEALING SURFACES (EXCEPT 1 1/8 CF)  
LARGE 3.600 INCH SPHERICAL I.D.  
EXPANDED BORES  
UNUSUAL ANGULAR RELATIONSHIPS BETWEEN PORTS  
POSSIBILITY OF MANY VERSIONS  
MCF450-MH10204/20-A USED IN PAIRS  
MAKE SPHERICAL CHAMBERS



Magdeburg Hemisphere MCF450-MH10204/20-A

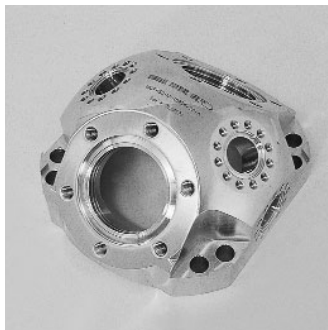
Two views of a chamber made with a pair of Magdeburg Hemispheres bolted together

#### MAGDEBURG HEMISPHERE

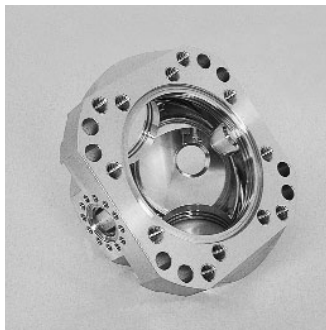
The Multi-CF Magdeburg Hemispheres are CNC-machined unitary multi-port fittings. They consist of thick-walled hollow hemispheres, which may be used singly or in pairs. Tapped bolt holes are interleaved to provide close port spacing. The initial offerings in the MCF450-MH series have a single 4 1/2 CF sealing surface at the great circle position, two 2 3/4 CF sealing surfaces, and four 1 1/8 CF sealing surfaces. Each of the larger sealing surfaces has one pair of Grabber Grooves.

The MCF450-MH10204/20-A Magdeburg Hemisphere can be mated with an identical hemisphere to form a sphere. In the obvious orientation, the 2 3/4 CF bores line up. Due to the provisions of extra 5/16-24 bolt holes on the outer bolt circle, a second 90°-rotated orientation is possible. The MCF450-MH10204/8-A must be used singly. A particularly useful small chamber can be made by combining a MCF450-MH10204/8-A with a standard 4 1/2 CF window

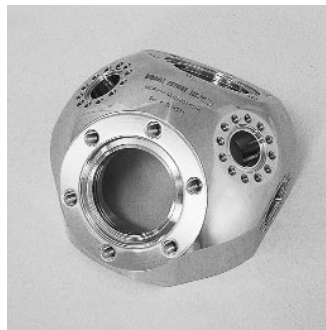
	MCF450-MH10204/20-A	MCF450-MH10204/8-A
Multi-CF FITTING	Magdeburg Hemisphere	
COMMON APPLICATION	Small UHV Chamber	
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316	
1 1/8 CF SEALING SURFACES	Four with (12) 8-32 tapped bolt holes per sealing surface	
2 3/4 CF SEALING SURFACES	Two with (6) 1/4-28 tapped bolt holes plus one pair of Grabber Grooves per sealing surface	
4 1/2 CF SEALING SURFACE	One with (12) 5/16-24 tapped bolt holes and (8) 5/16-24 clear bolt holes plus one pair of Grabber Grooves	One with (8) 5/16-24 tapped bolt holes plus one pair of Grabber Grooves
INTERNAL WORK SPACE	3.600 inch Spherical I.D.	3.600 inch Spherical I.D.
NOTES	Can be used in pairs	Must be used singly



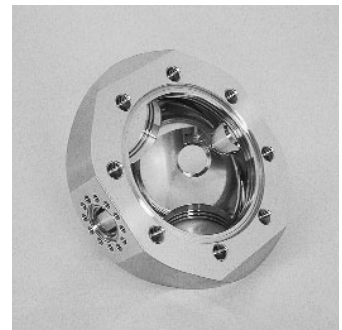
Magdeburg Hemisphere  
MCF450-MH10204/20-A



Magdeburg Hemisphere  
MCF450-MH10204/20-A



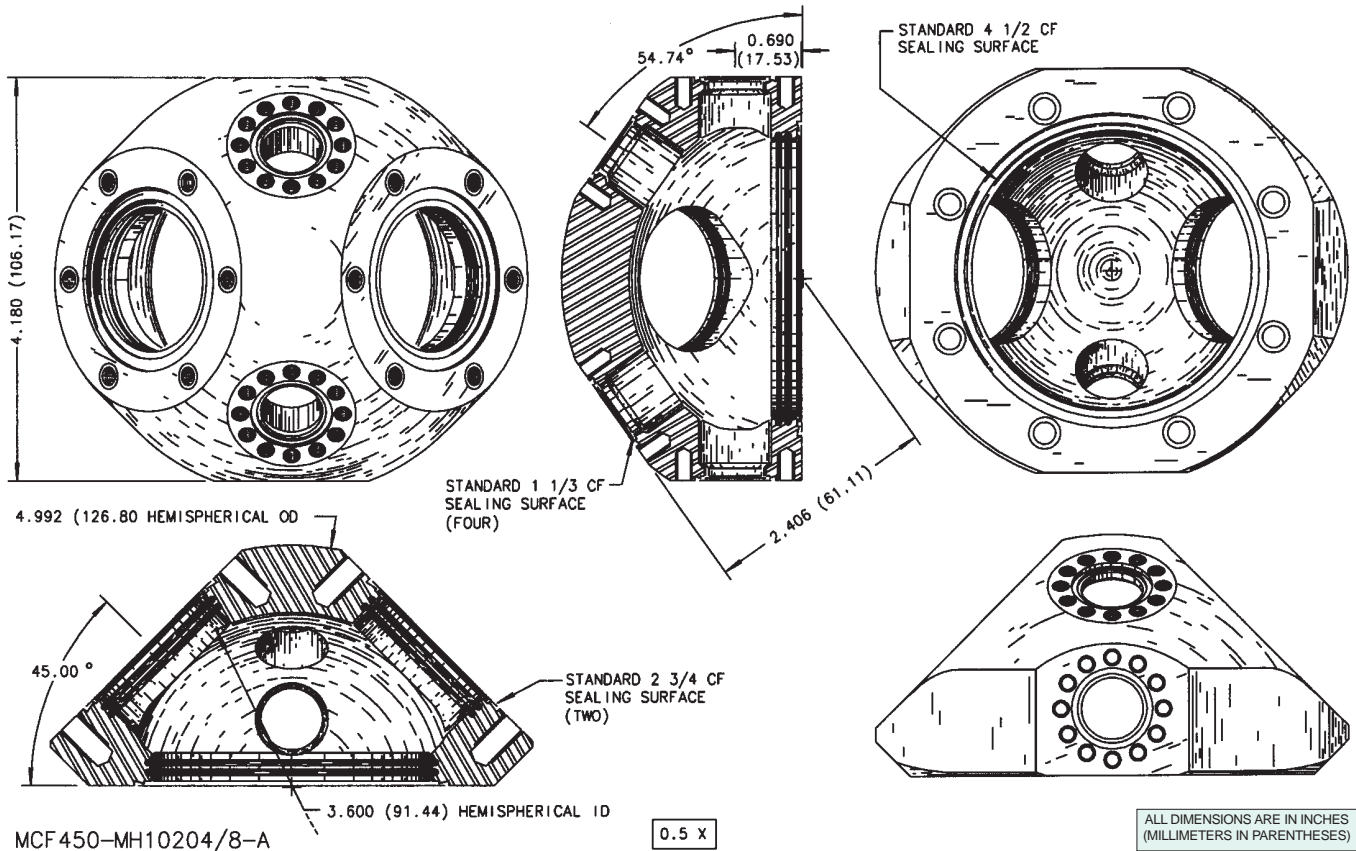
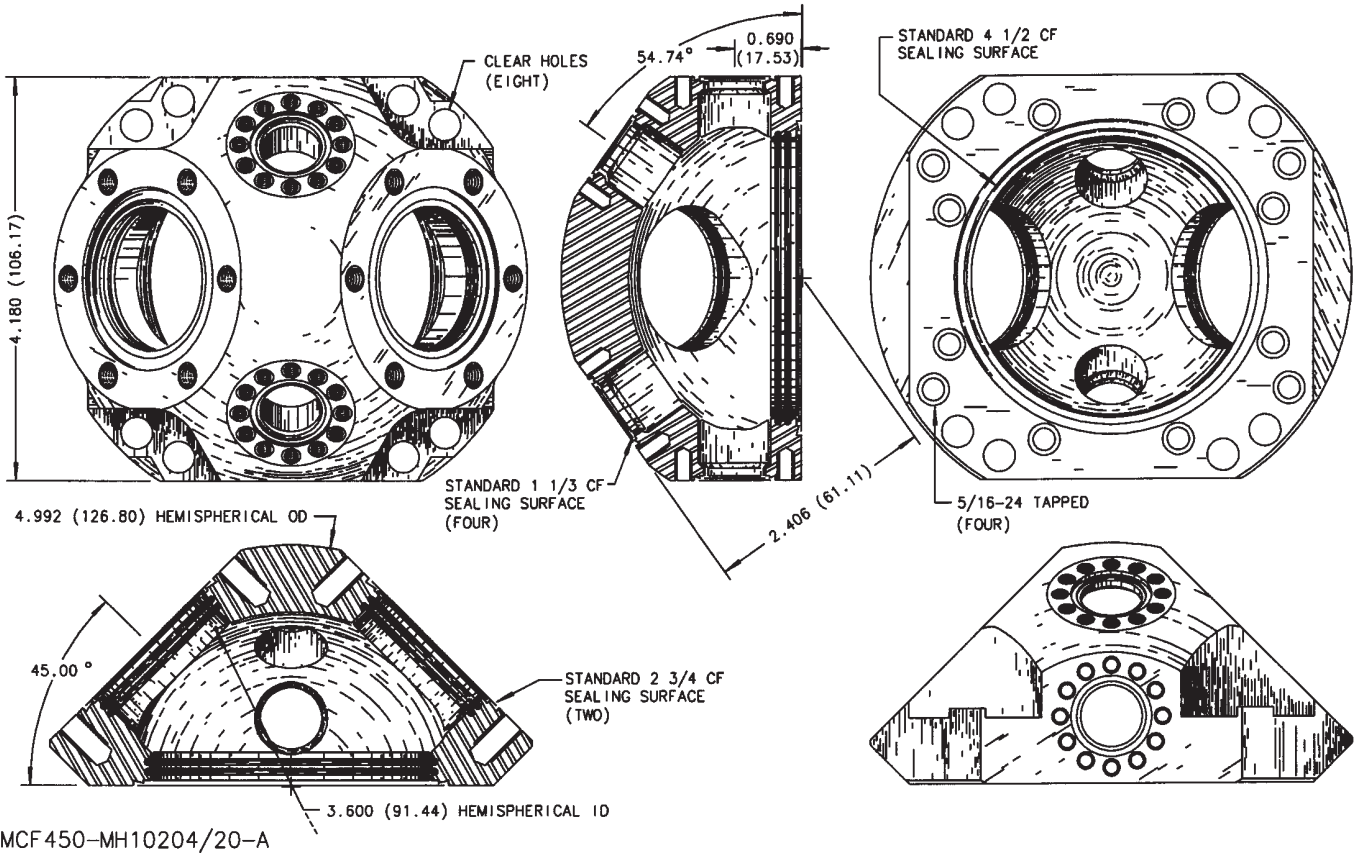
Magdeburg Hemisphere  
MCF450-MH10204/8-A



Magdeburg Hemisphere  
MCF450-MH10204/8-A

ALL DIMENSIONS ARE IN INCHES  
(MILLIMETERS IN PARENTHESES)

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



0.5 X

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