



GROOVE GRABBERS

Multi-CF™ FITTING

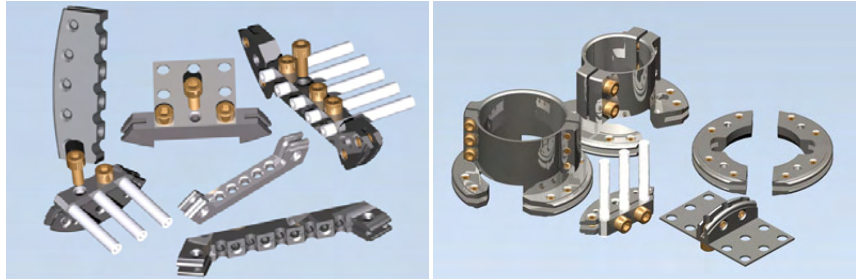
ELECTRON GUNS

UHV INTERNAL MOUNTING APPARATUS ATTACHMENT SYSTEM

HEAVY DUTY MOUNTING, TRANSVERSE MOUNTING, AND SPLIT AXIAL CLAMPING

APPLICATIONS:

SECURING ELECTRON GUNS, ION SOURCES, OR SPECIMENS WITHIN A VACUUM CHAMBER PARALLEL OR PERPENDICULAR TO THE CF FLANGE AXIS
MOUNTING PLATES, RODS, TUBES, AND OTHER TEST EQUIPMENT WITHIN A VACUUM CHAMBER OR Multi-CF FITTING



2 3/4 CF Groove Grabbers: Different Styles

2 3/4 Multi-CF Groove Grabbers MCF275-GG

FEATURES / OPTIONS:

HEAVY DUTY AXIAL MOUNTING
TRANSVERSE TAPPED MOUNTING
SPLIT AXIAL CLAMPING
COMPATIBLE WITH eV Parts®
STAINLESS STEEL 316L CONSTRUCTION

THE GROOVE-GRABBER / GRABBER-GROOVE SYSTEM

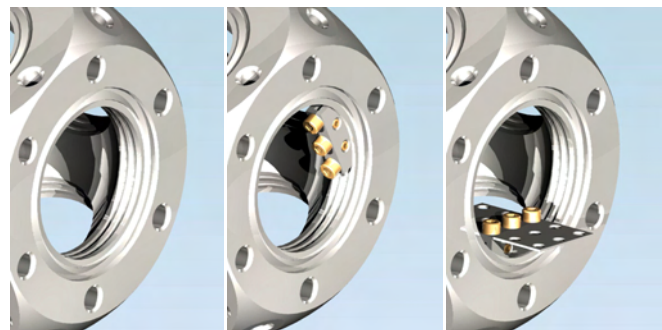
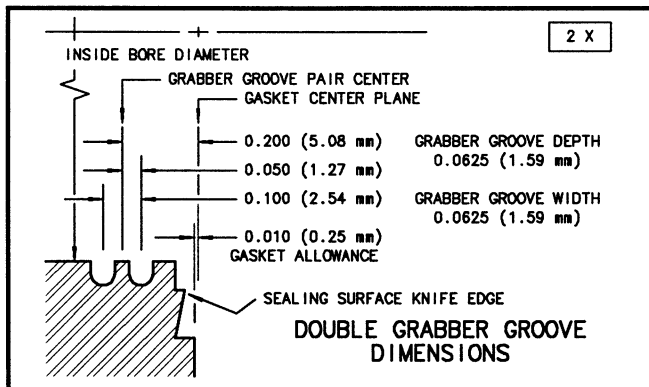
The Groove-Grabber/Grabber-Groove internal apparatus attachment system greatly increases the flexibility of the Multi-CF Fittings. Each 2 3/4 CF and larger sealing surface includes at least one pair of Grabber Grooves, into which Groove Grabbers fit. Due to the axial symmetry of the grooves, apparatus can be mounted at any angular orientation about the CF axis. Most Groove Grabbers expand to lock in place by the tightening of easily accessible axial set screws. Others utilize radially expanding springs which snap into place. The locking types can support heavy loads; the spring types are quite compact. Numerous Groove-Grabber types and styles are possible. Many types are compatible with Kimball Physics eV Parts.

ION GUNS

EMITTERS

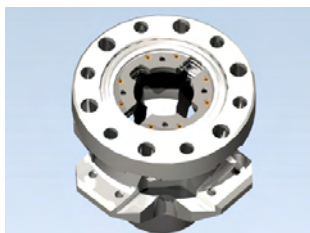
	MCF275-GG-CA01	MCF275-GG-CT02	MCF275-GG-CS03
Multi-CF FITTING	Groove Grabber for 2 3/4 CF		
COMMON APPLICATIONS	Heavy Duty Axial Mounting	Transverse Tapped Mounting	Split Axial Clamping
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L	Unitary Stainless Steel 316L	Two piece Stainless Steel 316L
LOCKING MECHANISM	Four axial set screws	Two axial set screws	Two axial set screws
MOST COMMON USE	Rigid mounting of large objects guns, ion sources, etc.	Mounting plates or brackets	Mounting 0.125 inch diameter electron rods, tubes, etc.
SPECIAL FEATURES	Compatible with Kimball Physics eV Parts		
NOTES	Usually used in pairs		

DETECTORS



Grabber Grooves; with a Groove Grabber; with an eV Part® plate

COMPONENTS



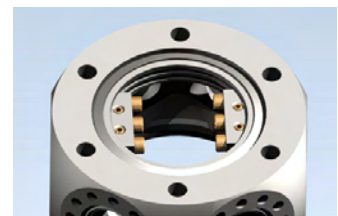
Flange Multiplexer with Groove Grabbers



Split Axial Groove Grabber and Ceramic Rods



Heavy Duty Axial Mounting

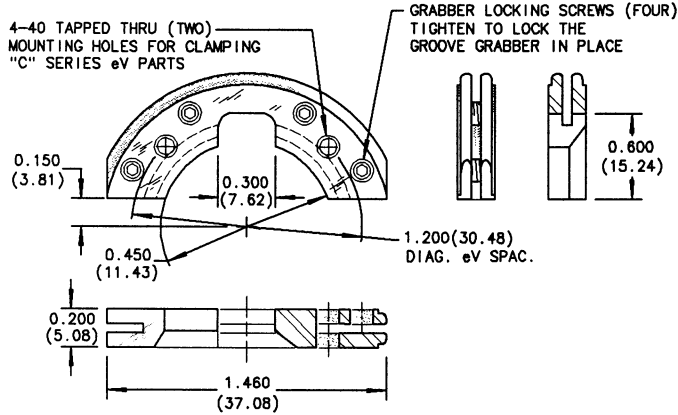


Transverse Tapped Mounting

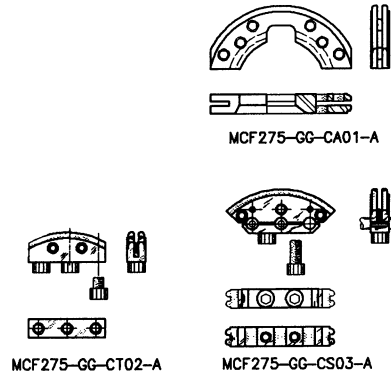
INDEX / INFORMATION

MCF275-GG-CA01-A HEAVY DUTY GROOVE GRABBER

SUITABLE FOR LARGE LOAD-CARRYING CAPABILITIES AND
LARGE MOMENT-ARM APPLICATIONS



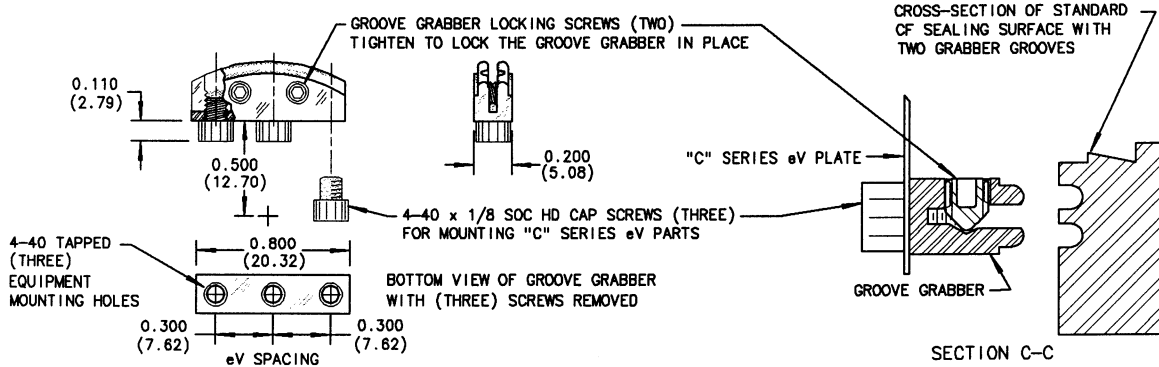
MCF275 AVAILABLE TYPES:



0.5 X

MCF275-GG-CT02-A TRANSVERSE TAPPED MOUNTING GROOVE GRABBER

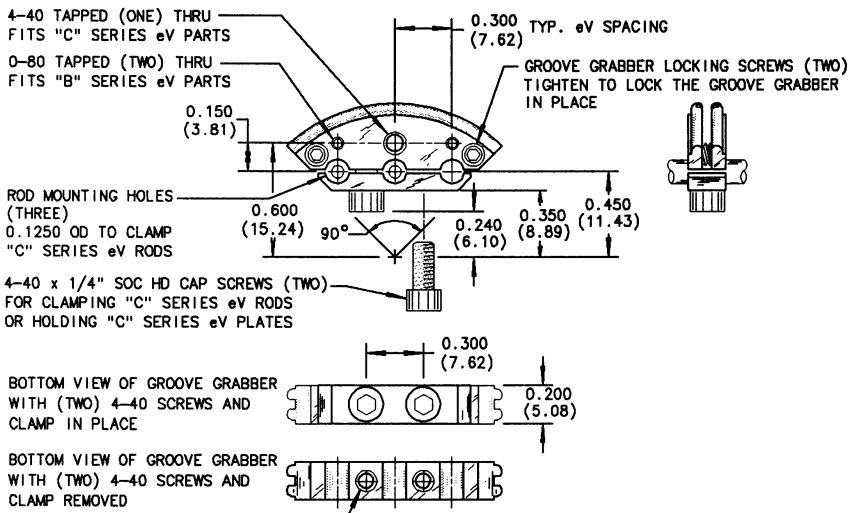
MOUNTS "C" SERIES eV PARTS PARALLEL TO FLANGE AXIS



2.0 X

MCF275-GG-CS03-A SPLIT AXIAL CLAMPING GROOVE GRABBER

MOUNTS "C" SERIES eV PARTS PARALLEL OR PERPENDICULAR TO FLANGE AXIS
MOUNTS "B" SERIES eV PARTS PERPENDICULAR TO FLANGE AXIS



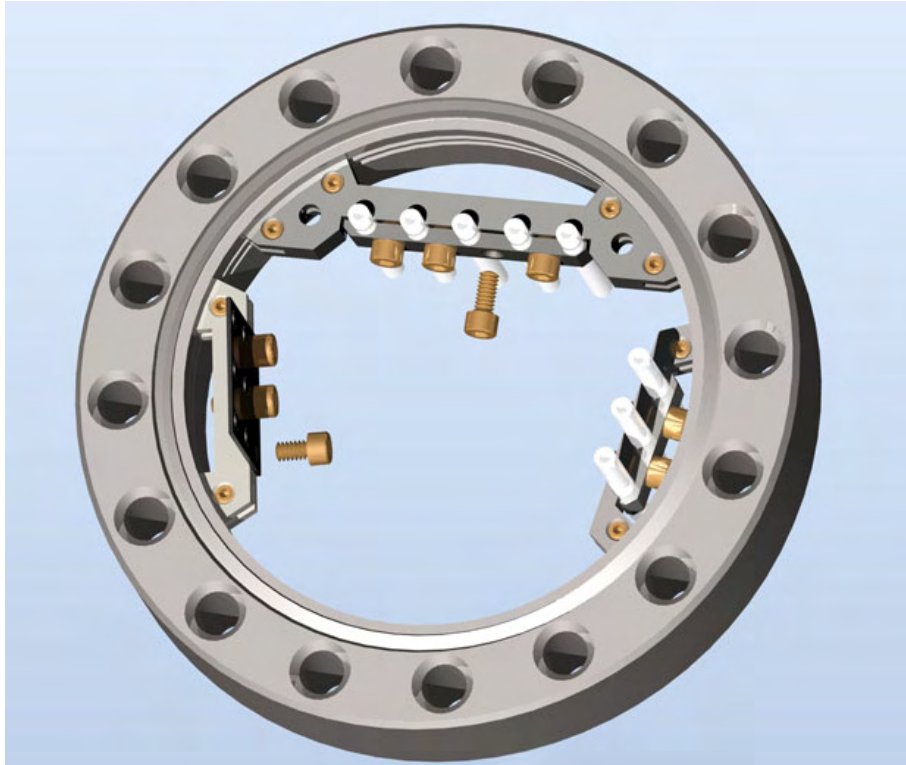
ALL DIMENSIONS ARE IN INCHES
(MILLIMETERS IN PARENTHESES)

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

4½ Multi-CF Groove Grabbers MCF450-GG

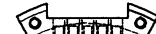
FEATURES / OPTIONS:

FOR 4½ Multi-CF PARTS
 COMPATIBLE WITH eV Parts®
 STAINLESS STEEL 316L CONSTRUCTION



Groove grabbers mounted in grabber grooves of a 4½ CF flange

MCF450 AVAILABLE TYPES:



MCF450-GG-CT02-A



MCF450-GG-CA03-A



MCF450-GG-CR04-A

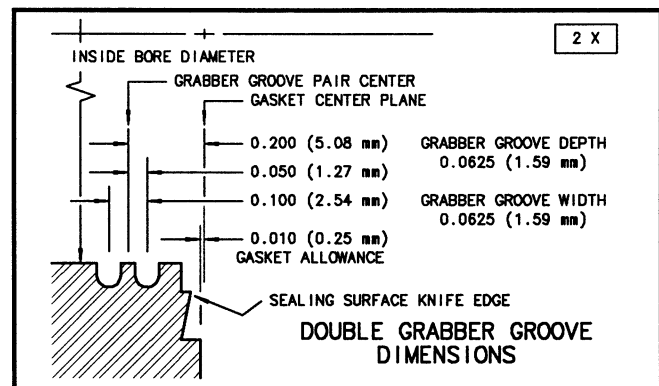
0.5 X

(FOUR)

	MCF450-GG-CT02	MCF450-GG-CA03	MCF450-GG-CR04
Multi-CF FITTING	Groove Grabber for 4½ CF		
COMMON APPLICATIONS	Transverse Tapped Mounting	Split Axial Mounting	Reverse Split Axial Clamping
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L	Two piece Stainless Steel 316L	Two piece Stainless Steel 316L
LOCKING MECHANISM	Two axial set screws	Four axial set screws	Two axial set screws
MOST COMMON USE	Mounting plates or brackets	Mounting of 0.125 inch diameter rods, tubes, etc. or rigid mounting of large objects	Mounting 0.125 inch diameter rods, tubes, etc.
SPECIAL FEATURES	Compatible with Kimball Physics eV Parts		
NOTES			

4½ GROOVE GRABBERS

These Groove Grabbers expand to lock in place by the tightening of easily accessible axial set screws and can support heavy loads. Numerous Groove-Grabber types and styles are possible. Many types are compatible with Kimball Physics eV Parts; some types can use radially expanding springs which snap into place. Except for the bore diameter, Grabber-Groove dimensions are the same for different size flanges.

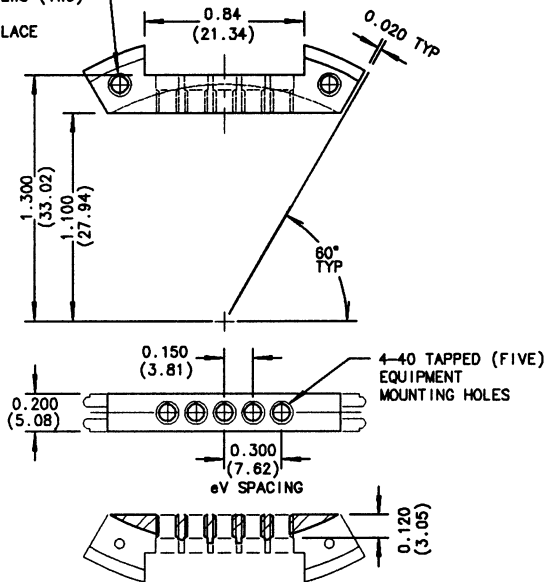


ALL DIMENSIONS ARE IN INCHES
 (MILLIMETERS IN PARENTHESES)

4½ Multi-CF Groove Grabbers MCF450-GG

MCF450-GG-CT02-

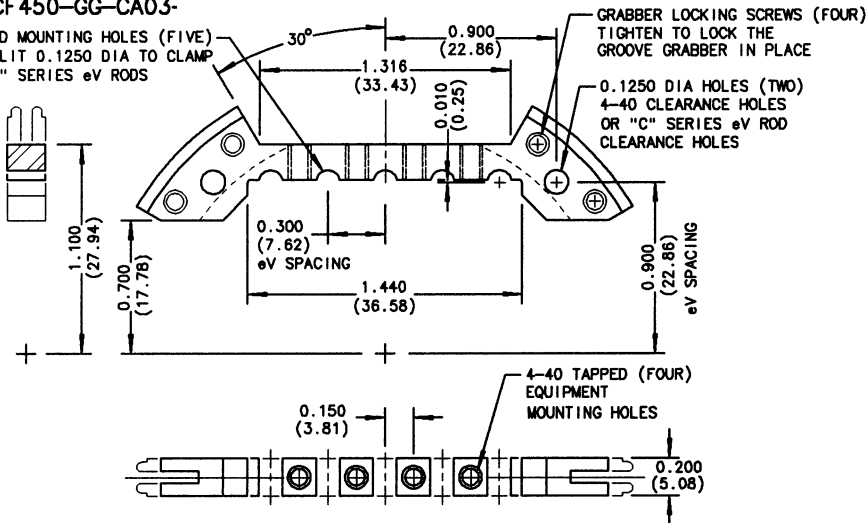
GRABBER LOCKING SCREWS (TWO)
TIGHTEN TO LOCK THE
GROOVE GRABBER IN PLACE



MCF450-GG-CT02

MCF450-GG-CA03-

ROD MOUNTING HOLES (FIVE)
SPLIT 0.1250 DIA TO CLAMP
"C" SERIES eV RODS

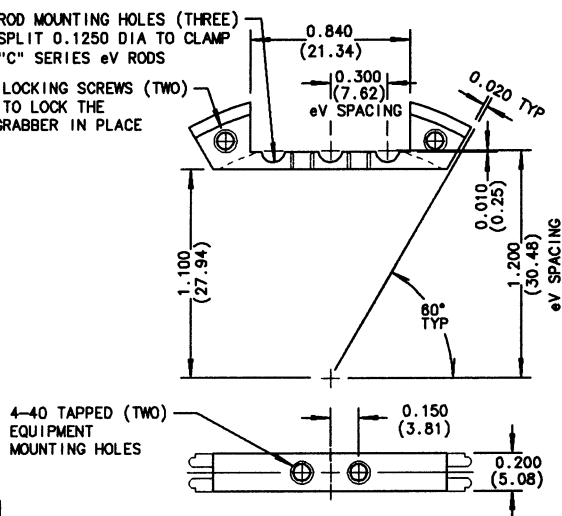


MCF450-GG-CA03

MCF450-GG-CR04-

ROD MOUNTING HOLES (THREE)
SPLIT 0.1250 DIA TO CLAMP
"C" SERIES eV RODS

GRABBER LOCKING SCREWS (TWO)
TIGHTEN TO LOCK THE
GROOVE GRABBER IN PLACE

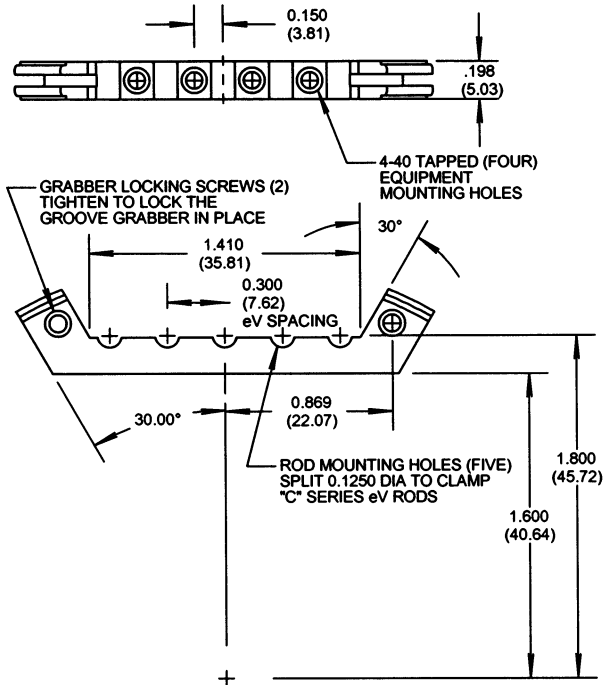


MCF450-GG-CR04

1.0 X

ALL DIMENSIONS ARE IN INCHES
(MILLIMETERS IN PARENTHESES)

6 Multi-CF Groove Grabbers MCF600-GG

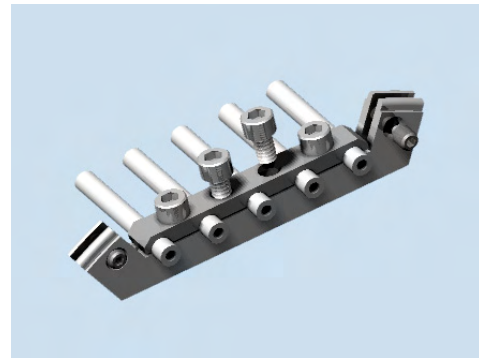


MCF600-GG-CR04

FEATURES / OPTIONS:

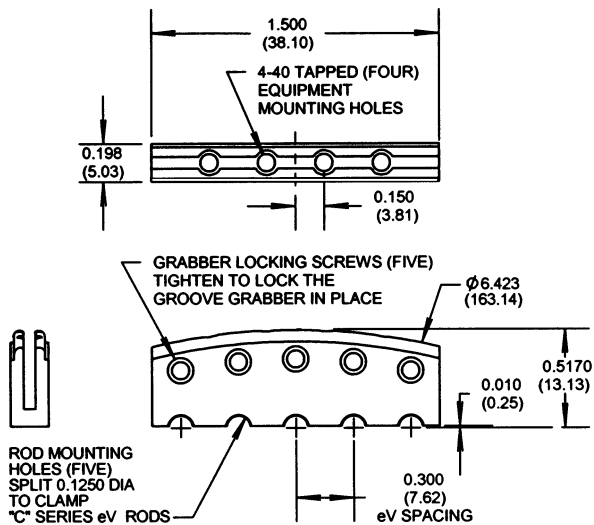
- MOUNT IN NEW LARGER CHAMBERS
- SPLIT AXIAL CLAMPING
- COMPATIBLE WITH eV Parts®
- STAINLESS STEEL 316L CONSTRUCTION

CF600-GG-CR04	
Multi-CF FITTING	Groove Grabber for 6 CF
COMMON APPLICATIONS	Reverse Split Axial Clamping
CONSTRUCTION / MATERIAL	Two piece Stainless Steel 316L
LOCKING MECHANISM	Four axial set screws
MOST COMMON USE	Mounting 0.125 inch dia. rods . tubes, plates, brackets, etc.
SPECIAL FEATURES	Compatible with eV Parts
NOTES	



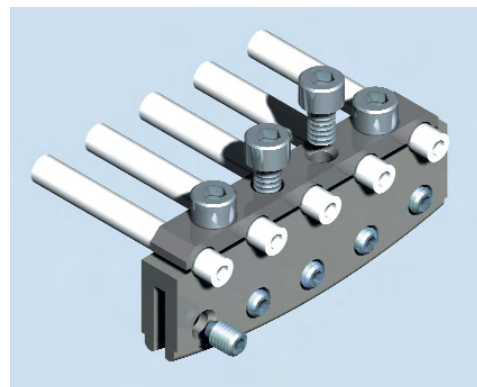
MCF600-GG-CR04

8 Multi-CF Groove Grabbers MCF800-GG



MCF800-GG-CA07

MCF800-GG-CA07	
Multi-CF FITTING	Groove Grabber for 8 CF
COMMON APPLICATIONS	Split Axial Clamping
CONSTRUCTION / MATERIAL	Two piece Stainless Steel 316L
LOCKING MECHANISM	Four axial set screws
MOST COMMON USE	Mounting 0.125 inch dia. rods, tubes, plates, brackets, etc.
SPECIAL FEATURES	Compatible with eV Parts
NOTES	



MCF800-GG-CA07

ALL DIMENSIONS ARE IN INCHES
(MILLIMETERS IN PARENTHESES)