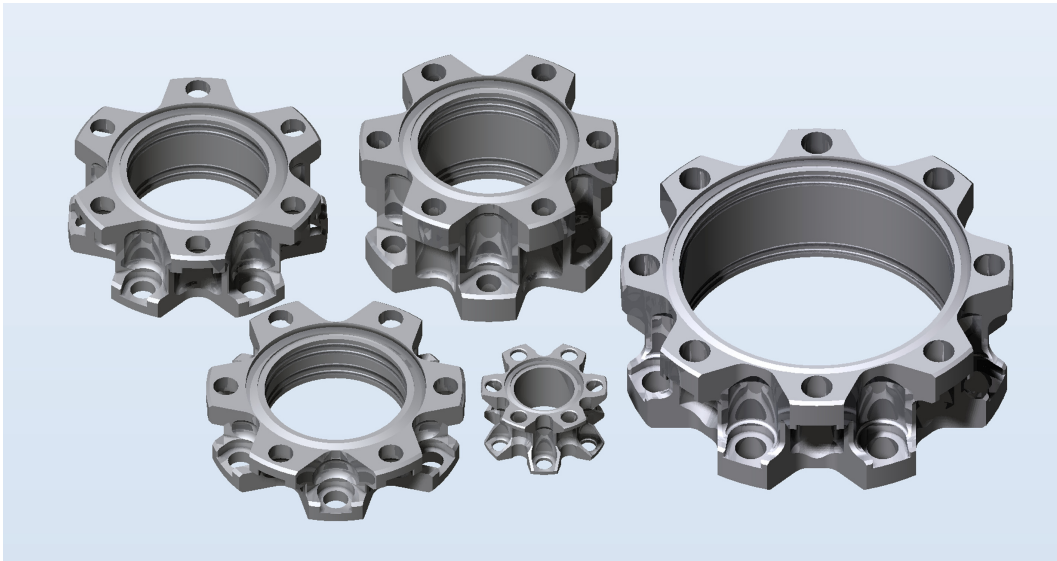




CLOSE COUPLER

Multi-CF™ FITTING

BOLT-REVERSING 8 CF, 6 CF, 4½ CF, 2¾ CF, AND 1⅓ CF UHV COUPLERS JOIN TWO TAPPED-HOLE COMPONENTS CLOSE TOGETHER



1⅓ CF, 2¾ CF, and 4½ CF non-rotatable close couplers

APPLICATIONS:

JOINING TWO COMPONENTS WITH MINIMAL LENGTH
 ATTACHING VALVES, PUMPS, FEEDTHROUGHS, ETC. TO UHV CHAMBERS, KEEPING OVERALL SIZE TO A MINIMUM

THE CLOSE COUPLER

Close Couplers are two-port Multi-CF Fittings, consisting of machined thick-wall cylinders, with opposing same-sized CF sealing surfaces (1⅓, 2¾, or 4½ for the non-rotatable couplers). The Close Coupler minimizes overall length in joining two tapped-hole components, resulting in the shortest possible distance between them. Under the bolt heads, flange thickness has been decreased, while adequate rigidity has been maintained through the use of an appropriately machined thick-wall cylinder. Each 2¾ CF or larger sealing surface has at least one pair of Grabber Grooves. Care is needed to use the correct bolt lengths. Note that opposing bolt sets are offset one from the other by one half of the angular bolt spacing. Rotatable close couplers are available in 2¾ CF, 4½ CF, 6 CF and 8 CF sizes for increased flexibility.

FEATURES / OPTIONS:

THREE LENGTHS AVAILABLE FOR THE 2¾ MCF
 0.700, 1.000, 1.400 INCH
 ROTATABLE STYLES IN 2¾, 4½, 6 AND 8 CF SIZES
 EACH 2¾, 4½, 6 AND 8 CF SEALING SURFACE HAS ONE PAIR OR TRIPLET OF GRABBER GROOVES
 THE 1⅓ CF USES SOCKET HEAD 8-32 x 1/4 BOLTS
 THE 2¾ CF USES 12-POINT-HEAD 1/4-28 x 1/2 SHORT BOLTS OR 12-POINT-HEAD 1/4-28 x 7/8 STANDARD BOLTS
 THE 4½ CF, 6 CF AND 8 CF USE 12-POINT-HEAD 5/16-24 x 3/4 STANDARD BOLTS
 UNITARY STAINLESS STEEL 316L CONSTRUCTION

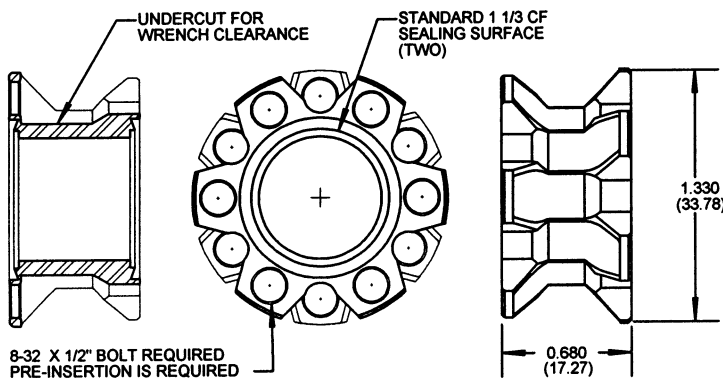
1⅓ Multi-CF Close Coupler

MCF133-CC2-700



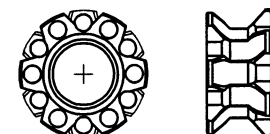
MCF133-CC2-700

MCF133-CC2-700	
Multi-CF FITTING	Non-rotatable Close Coupler
COMMON APPLICATION	Bolt Reversing Coupler
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
1⅓ CF SEALING SURFACES	Two with (6) 8-32 x 1/4 clear bolt holes
LENGTH, GASKET PLANE TO GASKET PLANE	0.700 inch
BOLT TYPE	Socket head 8-32 x 1/4 bolts



MCF133-CC2-700-

1.0 X



MCF133-CC2-700-A

0.5 X

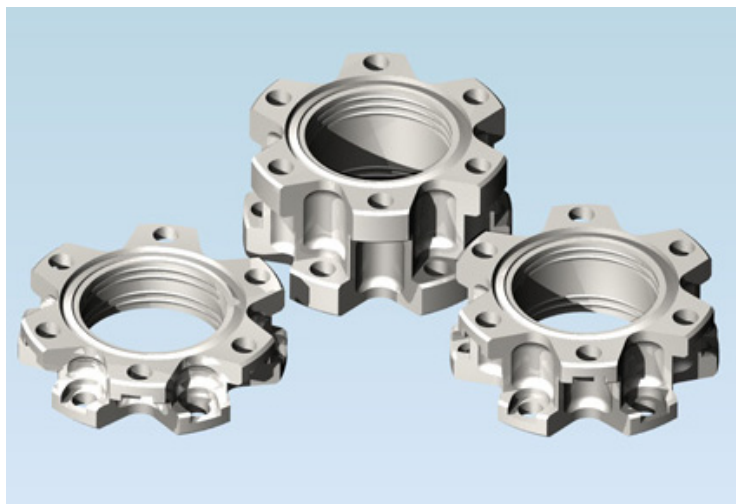
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS IN PARENTHESES)

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

2³/₄ Multi-CF Close Couplers: MCF275-CC200-700 MCF275-CC200-1400

THE 2³/₄ Multi-CF CLOSE COUPLER

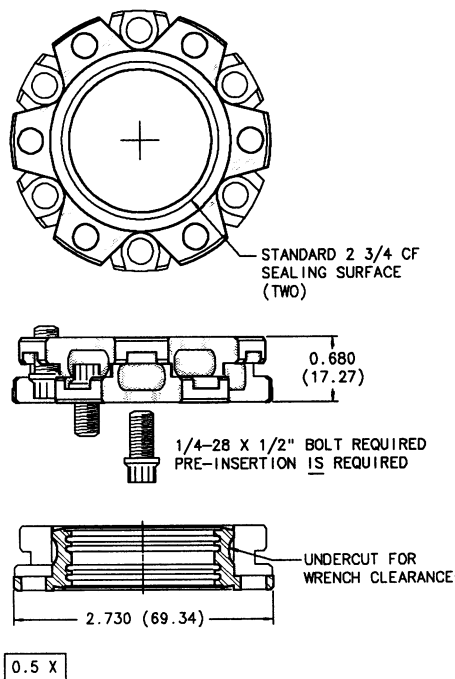
The MCF275 Close Couplers are two-port Multi-CF Fittings, consisting of machined thick-wall cylinders, with opposing 2³/₄ CF sealing surfaces. The two non-rotatable Close Couplers differ in their length as indicated at the end of the part number: the MCF275-CC200-700 being 0.700 inch, and the MCF275-CC200-1400 being 1.400 inch in length.



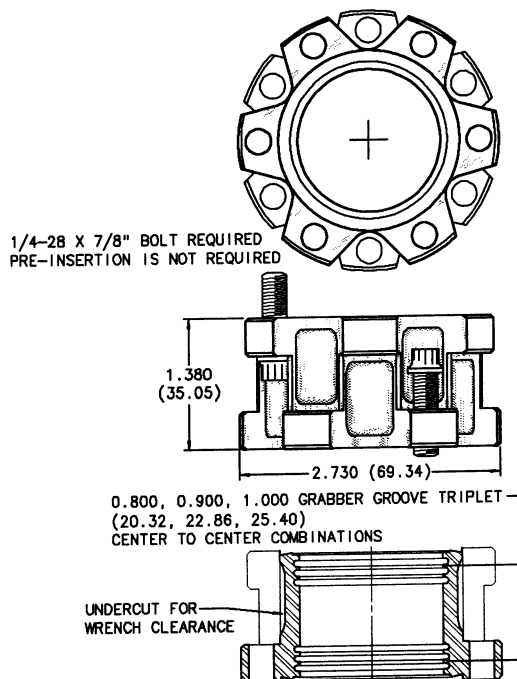
2³/₄ CF Close Couplers MCF 275-CC200, various lengths

	MCF275-CC200-700	MCF275-CC200-1400
Multi-CF FITTING	Non-rotatable Close Coupler	
COMMON APPLICATION	Bolt Reversing Coupler	
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L	
2 ³ / ₄ CF SEALING SURFACES	Two with (6) 1/4-28 clear bolt holes, plus one pair of Grabber Grooves per sealing surface	Two with (6) 1/4-28 clear bolt holes, plus one triplet of Grabber Grooves per sealing surface
LENGTH, GASKET PLANE TO GASKET PLANE	0.700 inch	1.400 inch
BOLT TYPE	12-point-head 1/4-28x1/2 short bolts	12-point-head 1/4-28x7/8 short bolts

MCF275-CC200-700-

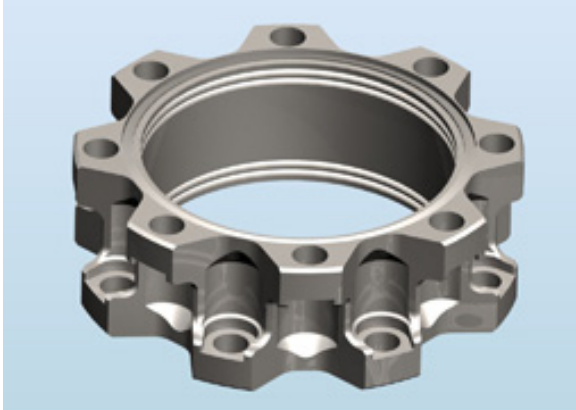


MCF275-CC200-1400



ALL DIMENSIONS ARE IN INCHES (MILLIMETERS IN PARENTHESES)

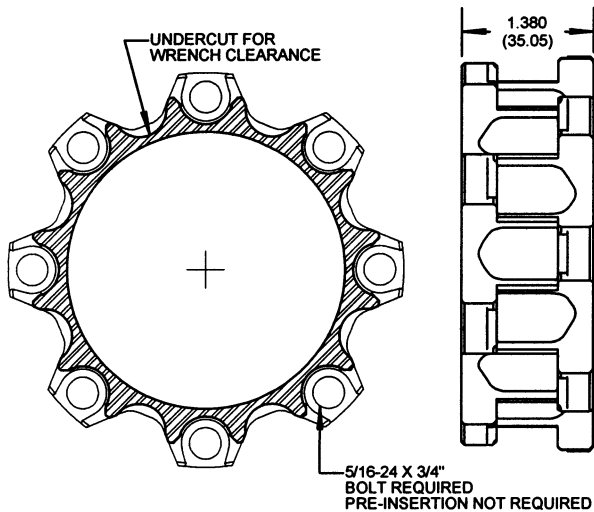
CAUTIONS:
(1) SILVER PLATED BOLTS OR EQUIVALENT LUBRICATION MUST BE USED
(2) USE CORRECT BOLT LENGTH



Close Coupler MCF450CC-20000-1400

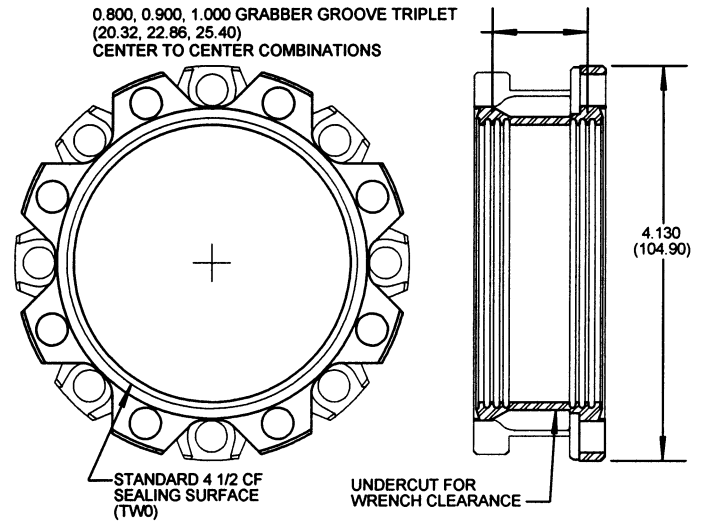
4½ Multi-CF Close Coupler: MCF450-CC20000-1400

MCF450-CC20000-1400	
Multi-CF FITTING	Non-rotatable Close Coupler
COMMON APPLICATION	Bolt Reversing Coupler
CONSTRUCTION / MATERIAL	Unitary Stainless Steel 316L
4½ CF SEALING SURFACES	Two with (8) 5/16-24 clear bolt holes, plus one triplet of Grabber Grooves per sealing surface
LENGTH, GASKET PLANE TO GASKET PLANE	1.400 inch
BOLT TYPE	12-point-head 5/16-24 x 3/4 bolts



MCF450-CC20000-1400

0.5 X



ALL DIMENSIONS ARE IN INCHES (MILLIMETERS IN PARENTHESES)

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