MODEL C306 REDUCING COUPLING

The Model C306 Reducing Coupling allows direct reduction on a piping run and eliminates the need for a concentric reducer and couplings. The epoxy coated ductile iron coupling housings help to eliminate galvanic local cell and stray current problems. The specially designed rubber gasket prevents the smaller pipe from telescoping into the larger pipe during vertical installation.

Applicable copper tubing:

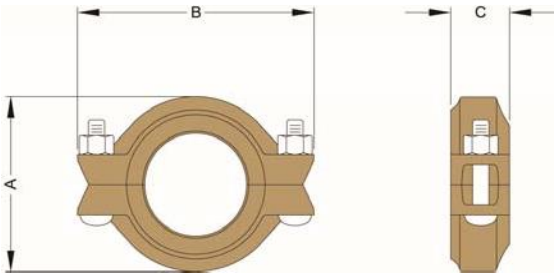
1) ASTM B-88 Type K, Type L, and Type M Seamless copper water tube.
2) ASTM B306 Copper Drainage Tuber (DWV).

C306 couplings should always be installed so that the coupling bolt pads make metal to metal contact.

CAUTION

Roll Set

As copper tubing is thinner than carbon steel pipe, always use a roll set specifically designed for use on copper tubing.



10 YEAR LIMITED WARRANTY

Full warranty terms can be found on www.shurjoint.com

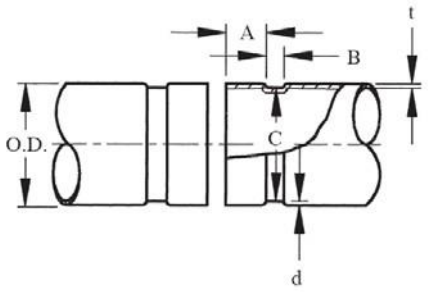
Model C306 Reducing Coupling

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max. End Load (CWP)	Pipe End Separation	Deflection		Dimensions			Bolt Size	Weight
					Deg. Per Coupling	Pipe	A	B	C		
in	in	PSI	Lbs	in	(°)	in/ft	in	in	in	in	Lbs
mm	*mm*	*Bar*	*kN*	*mm*		*mm/m*	*mm*	*mm*	*mm*		*Kgs*
2½ x 2	2.625 x 2.215	300	1622	0.06	1° – 22'	0.29	3.70	5.55	1.77	½ x 3	2.9
65 x 50	*66.7 x 54.0*	*20*	*6.98*	*1.6*		*24.0*	*94*	*141*	*45*		*1.3*
3 x 2	3.125 x 2.125	300	2300	0.06	1° – 09'	0.24	4.21	5.98	1.77	½ x 3	3.3
80 x 50	*79.4 x 54.0*	*20*	*9.89*	*1.6*		*20.0*	*107*	*152*	*45*		*1.5*
3 x 2½	3.125 x 2.625	300	2300	0.06	1° – 09'	0.24	4.21	5.98	1.77	½ x 3	3.0
80 x 65	*79.4 x 66.7*	*20*	*9.89*	*1.6*		*20.0*	*107*	*152*	*45*		*1.4*
4 x 2½	4.125 x 2.625	300	4007	0.06	0° – 53'	0.18	5.20	7.20	1.77	½ x 3	4.2
100 x 65	*104.8 x 66.7*	*20*	*17.23*	*1.6*		*15.0*	*132*	*183*	*45*		*1.9*
4 x 3	4.125 x 3.125	300	4007	0.06	0° – 53'	0.18	5.20	7.20	1.77	½ x 3	4.0
100 x 80	*104.8 x 79.4*	*20*	*17.23*	*1.6*		*15.0*	*132*	*183*	*45*		*1.8*
5 x 4	5.125 x 4.125	300	6186	0.06	0° – 42'	0.15	6.30	8.82	1.77	⅝ x 3½	5.5
125 x 100	*130.2 x 104.8*	*20*	*26.60*	*1.6*		*12.0*	*160*	*224*	*45*		*2.5*
6 x 4	6.125 x 4.125	300	8835	0.06	0° – 36'	0.13	7.28	9.88	1.77	⅝ x 3½	7.3
150 x 100	*155.6 x 104.8*	*20*	*37.99*	*1.6*		*10.3*	*185*	*251*	*45*		*3.3*

*Working pressure is for connection with roll-grooved Type K copper tubing.

Notes / Options: Couplings with rubber gaskets are likely to function as an insulator. Where electrical continuity is required, the ***Shurjoint*** Model 96 Continuity Clip will restore electrical continuity to the system. The continuity clip satisfies IEE Wiring Regulations.

COPPER TUBING ROLL GROOVE SPECIFICATIONS



1	2	3	4	5	6	7	8
Nominal Size	**Pipe O.D. Basic Size**	**Gasket Seat A ±0.79 / *±0.03***	**Groove Width B ±0.79 / *±0.03***	**Groove Dia. C +0/-0.51 / *+0/-0.02***	**Groove Depth (ref.) d**	**Min. Allowed Wall Thick. t**	**Max. Allowed Flare Dia.**
in *mm*	in *mm*	in *mm*	in *mm*	in *mm*	in *mm*	in *mm*	in *mm*
2 *50*	2.125 *54.0*	0.610 *15.5*	0.300 *7.6*	2.029 *51.5*	0.048 *1.2*	0.064 *1.6*	2.220 *56.4*
2½ *65*	2.625 *66.7*	0.610 *15.5*	0.300 *7.6*	2.525 *64.1*	0.050 *1.3*	0.065 *1.7*	2.720 *69.1*
3 *80*	3.125 *79.4*	0.610 *15.5*	0.300 *7.6*	3.025 *76.8*	0.050 *1.3*	DWV	3.220 *81.8*
4 *100*	4.125 *104.8*	0.610 *15.5*	0.300 *7.6*	4.019 *102.1*	0.053 *1.4*	DWV	4.220 *107.2*
5 *125*	5.125 *130.2*	0.610 *15.5*	0.300 *7.6*	4.999 *127.0*	0.053 *1.4*	DWV	5.220 *132.6*
6 *150*	6.125 *155.6*	0.610 *15.5*	0.300 *7.6*	5.999 *152.3*	0.063 *1.6*	DWV	6.220 *158.0*

Nominal Size (Column 1):
Nominal drawn copper tubing size to ASTM B-88.

Pipe OD (Column 2):
Maximum allowable tolerances from square cut ends is 0.03" for 2" thru 3"; 0.045" for 4" thru 6"; and 0.060" for sizes 8".

Gasket Seating Surface (Column 3):
The gasket seating surface shall be free from deep scores, marks, or ridges that would prevent a positive seal.

Groove Width (Column 4):
Groove width is to be measured between vertical flanks of the groove side walls.

Groove Diameter (Column 5):
The 'C' diameters are average values. The groove must be of uniform depth around the entire pipe circumference.

Groove Depth (Column 6):
The 'd' is for reference use only. The groove dimension shall be determined by the groove diameter 'C'.

Minimum Wall Thickness (Column 7):
The DWV pipe (ASTM B-306) is minimum wall thickness that may be roll grooved.

Flare Diameter (Column 8):
The pipe end that may flare when the groove is rolled shall be within this limit when measured at the extreme end of the pipe.

MATERIAL SPECIFICATIONS

• Housing:

Ductile Iron to ASTM A536, Gr. 65-45-12 and or to ASTM A395, Gr. 65-45-15, min. tensile strength 65,000 psi (448 MPa).

• Surface Finish:

Epoxy coated in copper color.

• Rubber Gasket:

Grade E-pw EPDM (Color code: Double Green stripe) certified under NSF/ANSI 61 and NSF/ANSI 372 for potable water service to+180°F (+82°C). Also good for services for water with acid, water with chlorine or chloramines, deionized water, seawater and waste water, dilute acids, oil-free air and many chemicals.

For additional details contact ***Shurjoint***.

• Bolts & Nuts:

Heat treated carbon manganese steel track bolts to ASTM A449-83a (or A183 Gr. 2), minimum tensile strength 110,000 psi (758 MPa), Zinc electroplated, with heavy-duty hexagonal nuts to ASTM A563.

General Notes:

- ***Maximum Working Pressure (CWP)*** listed is the maximum cold water pressure for general piping services tested to ASTM F1476 and or AWWA C606 methods. Figures listed are based on roll-grooved Type K-ASTM B-88 copper tubing. For more information on other types contact ***Shurjoint.***
- **Max. End Load** is calculated based on the maximum working pressure (CWP).
- ***Field Joint Test:*** For one time only the system may be tested hydrostatically at 1½ times the maximum working pressure listed (AWWA C606 5.2.3).
- ***Warning:*** Piping systems must always be depressurized and drained before attempting disassembly and or removal of any components.
- ***The 10 Year Limited Warranty*** applies to manufacturing defects only and does not cover severe service/temperature applications or wear parts.
- ***Shurjoint*** reserves the right to change specifications, designs and or standard without notice and without incurring any obligations.