

# C306

Reducing Coupling for Copper Tubing



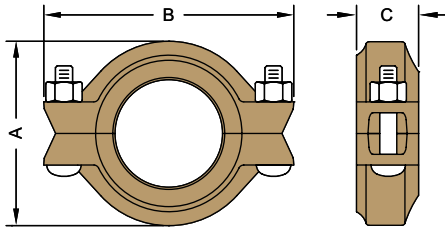
Ensure coupling bolt pads  
make metal-to-metal contact.



### ROLL SET

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

Job Name:	
Job Location:	
Engineer:	
Contractor:	
Tag:	
PO#:	
Rep:	
Wholesale Dist.:	



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:

- ASTM B-88 Type K, Type L, and Type M Seamless Copper Water Tube
- ASTM B306 Copper Drainage Tuber (DWV)

## DIMENSIONS

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 mm	in mm	PSI Bar	lb kN	in mm	(°)	in / ft mm / m	in mm	in mm	in mm	in	lb kg
2-1/2 x 2 65 x 50	2.625 x 2.215 66.7 x 54.0	300 20	1622 6.98	0.06 1.6	1° - 22'	0.29 24.0	3.70 94	5.55 141	1.77 45	1/2 x 3	2.9 1.3
3 x 2 80 x 50	3.125 x 2.125 79.4 x 54.0	300 20	2300 9.89	0.06 1.6	1° - 09'	0.24 20.0	4.21 107	5.98 152	1.77 45	1/2 x 3	3.3 1.5
3 x 2-1/2 80 x 65	3.125 x 2.625 79.4 x 66.7	300 20	2300 9.89	0.06 1.6	1° - 09'	0.24 20.0	4.21 107	5.98 152	1.77 45	1/2 x 3	3.0 1.4
4 x 2-1/2 100 x 65	4.125 x 2.625 104.8 x 66.7	300 20	4007 17.23	0.06 1.6	0° - 53'	0.18 15.0	5.20 132	7.20 183	1.77 45	1/2 x 3	4.2 1.9
4 x 3 100 x 80	4.125 x 3.125 104.8 x 79.4	300 20	4007 17.23	0.06 1.6	0° - 53'	0.18 15.0	5.20 132	7.20 183	1.77 45	1/2 x 3	4.0 1.8
5 x 4 125 x 100	5.125 x 4.125 130.2 x 104.8	300 20	6186 26.60	0.06 1.6	0° - 42'	0.15 12.0	6.30 160	8.82 224	1.77 45	5/8 x 3-1/2	5.5 2.5
6 x 4 150 x 100	6.125 x 4.125 155.6 x 104.8	300 20	8835 37.99	0.06 1.6	0° - 36'	0.13 10.3	7.28 185	9.88 251	1.77 45	5/8 x 3-1/2	7.3 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.

## 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).N

### COATING:

- Epoxy coated in copper color

### RUBBER GASKET:

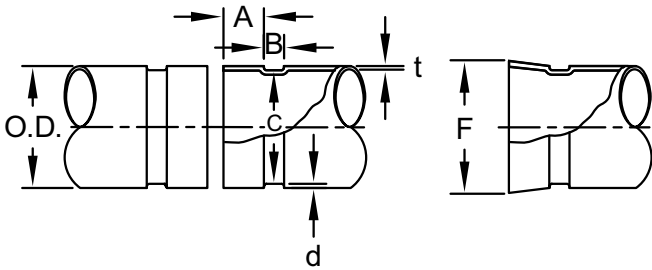
#### Gr. "E-pw" EPDM (Color code: Double Green Stripes)

- Good for cold +86°F (+30°C) and hot +180°F (+82°C) potable water services. EPDM is UL classified per NSF/ANSI 61 & NSF/ANSI 372.

### 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.

## COPPER TUBING ROLL GROOVE SPECIFICATIONS



1	2	3	4	5	6	7	8
NOMINAL SIZE	PIPE O.D. BASIC SIZE	A GASKET SEAT	B GROOVE WIDTH	C GROOVE DIA.	D GROOVE DEPTH (REF.)	T MIN. ALLOWED WALL THICKNESS	MAX. ALLOWED FLARE DIA.
in mm	in mm	in ±0.79 mm ±0.03	in ±0.79 mm ±0.03	in ±0.79 mm ±0.03	in mm	in mm	in mm
2	2.125	0.61	0.3	2.029	0.048	0.064	2.22
50	54	15.5	7.6	51.5	1.2	1.6	56.4
2-1/2	2.625	0.61	0.3	2.525	0.05	0.065	2.72
65	66.7	15.5	7.6	64.1	1.3	1.7	69.1
3	3.125	0.61	0.3	3.025	0.05	DWV	3.22
80	79.4	15.5	7.6	76.8	1.3		81.8
4	4.125	0.61	0.3	4.019	0.053	DWV	4.22
100	104.8	15.5	7.6	102.1	1.4		107.2
5	5.125	0.61	0.3	4.999	0.053	DWV	5.22
125	130.2	15.5	7.6	127	1.4		132.6
6	6.125	0.61	0.3	5.999	0.063	DWV	6.22
150	155.6	15.5	7.6	152.3	1.6		158

- Nominal Size (Column 1): Nominal drawn copper tubing size.
- Pipe O.D. (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 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.

### 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- or cut-grooved standard wall carbon steel pipe. For other pipe schedules or pipe materials, contact Shurjoint for additional information.
- 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 1.5 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.