

Technical Data CTS Copper System



The Gruvlok® CTS Copper System offers an installer of large diameter copper tubing an alternative to the conventional soldering and brazing.

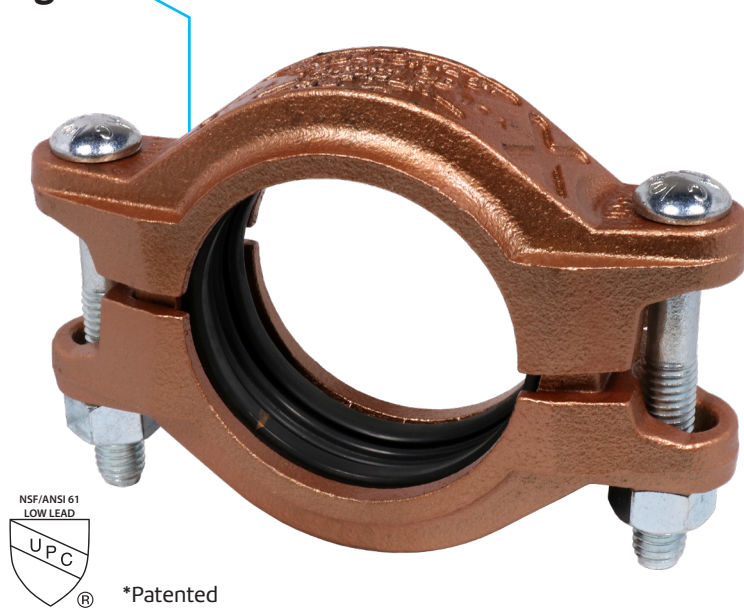
This new grooved copper system is faster and easier to install. Temperature and weather conditions are no longer a factor when planning installations. There is no sweating or brazing as this system requires only a wrench for assembly on grooved end pipe.

The copper system is "flame free". Essentially you save time and enjoy a very reliable system that is both versatile and economical. Safety is a factor as there is no fire hazard, especially in a retrofit installation. The ease of assembly is a great benefit in new construction and ease of disassembly is ideal for renovation, retrofit or expansion.

Benefits

- Fast and easy to assemble.
- No flame, no sweat
- Each joint has a union.
- Provides rigidity
- Easily roll grooved
- Proven joint reliability
- Accepted and approved.
- Economical and reliable

CTS SlideLOK® Ready for Installation Coupling Fig. 64



The CTS SlideLOK coupling is a ready for installation coupling designed to reduce installation time. The slide action allows for a smooth trouble free installation. The patented gasket provides four separate sealing surfaces for added protection. The engineered predictive gap is a quick and easy indication of proper assembly.

The CTS SlideLOK is designed to be used with copper tube sizes 2" - 8" and produces a secure, rigid joint connection.

The CTS SlideLOK coupling allows for a maximum working pressure of 300 psi for Type K or L. Contact an ASC Engineered Solutions™ Representative for other copper tube pressure ratings.

*Patent: D680629, D680630, D696751

For Listings/Approval Details and Limitations, visit our website at www.asc-es.com or contact an ASC Engineered Solutions Sales Representative

Material Specifications

Bolts

SAE J429, Grade 5, Zinc Electroplated

Heavy Hex Nuts

ASTM A563, Grade A, Zinc Electroplated

Housing

Ductile Iron conforming to ASTM A536, Grade 65-45-12

Coatings

Rust inhibiting paint
Color: Copper (standard)

Gaskets

Properties as designated in accordance with ASTM D2000

Grade "EP" EPDM (Copper color code)

-40°F to 250°F (Service Temperature Range)
(-40°C to 121°C)

Recommended for water service, diluted acids, alkalies solutions, oil-free air and many other chemical services.

NOT FOR USE IN PETROLEUM APPLICATIONS.

Gasket Type

SlideLOK (2" - 8")

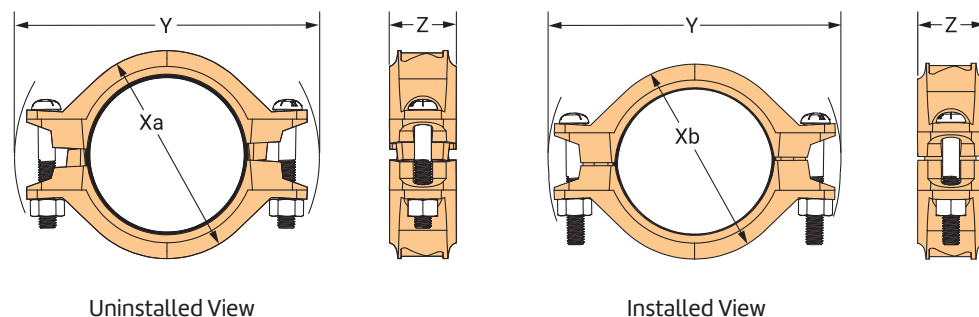
Lubrication

Standard
Gruvlok Xtreme



SlideLOK Pressure Responsive Gasket

CTS SlideLOK® Ready for Installation Coupling Fig. 64



Nominal Size	O.D.	Max. Working Pressure	Max. End Load	Range of Pipe End Separation	Coupling Dimensions				Coupling Bolts		Approx. Wt. Ea.
					Xa	Xb	Y	Z	Qty.	Size	
In./DN(mm)	In./mm	PSI/bar	Lbs./kN	In./mm	In./mm	In./mm	In./mm	In./mm		In./mm	Lbs./kg
2 50	2.125 54.0	300 20.7	1,064 4.73	0-0.08 0-2.0	3½ 89	3¼ 83	5½ 140	1⅝ 49	2	½ x 2¾ M12 x 70	2.4 1.1
2½ 65	2.625 66.7	300 20.7	1,624 7.22	0-0.08 0-2.0	4 102	3¾ 95	6 152	1⅝ 49	2	½ x 2¾ M12 x 70	2.6 1.2
3 80	3.125 79.4	300 20.7	2,301 10.24	0-0.08 0-2.0	4⅝ 117	4¼ 108	6¾ 171	1⅝ 49	2	½ x 3½ M12 x 89	3.5 1.6
4 100	4.125 104.8	300 20.7	4,009 17.83	0-0.13 0-3.3	5½ 140	5⅝ 130	8 203	2 51	2	½ x 3½ M12 x 89	4.0 1.8
5 125	5.125 130.2	300 20.7	6,189 27.53	0-0.13 0-3.3	6⅝ 168	6¼ 159	9¼ 235	2 51	2	⅝ x 3½ M16 x 89	5.0 2.3
6 150	6.125 155.6	300 20.7	8,839 39.32	0-0.13 0-3.3	7¾ 197	7¼ 184	10¼ 260	2 51	2	⅝ x 3½ M16 x 89	5.8 2.6
8 200	8.125 206.4	300 20.7	15,555 69.19	0.07-0.13 0-3.3	9¾ 248	9¼ 235	12¼ 311	2 51	2	⅝ x 4¼ M16 x 110	8.0 3.6

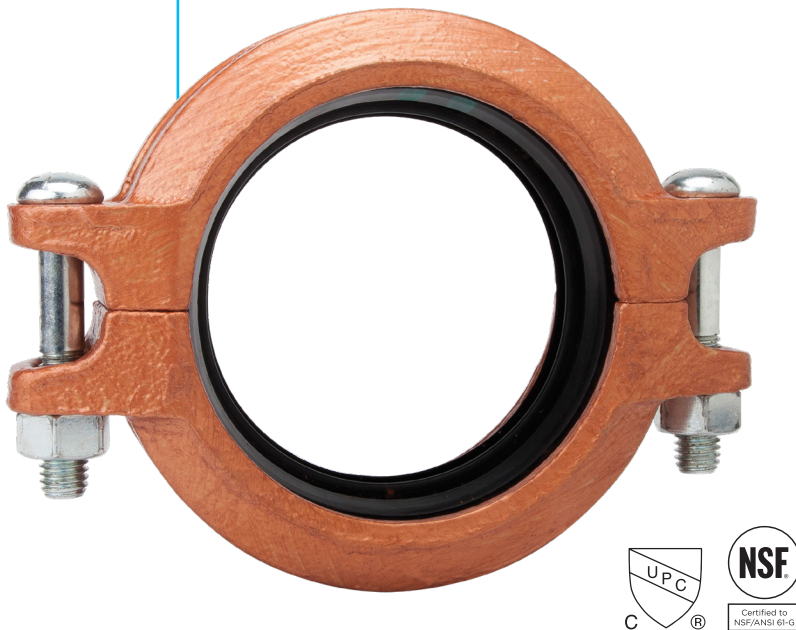
Notes:

For additional details see "Coupling Data Chart Notes" in the Introduction Section of the Gruvlok Catalog.

See Installation & Assembly directions in the Technical Data Section of the Gruvlok Catalog.

Transition Coupling for Joining Stainless Steel IPS to Copper Tubing Systems

Fig. 617



The Gruvlok Figure 617 Transition Coupling provides a direct connection between like-sized grooved-end IPS Stainless Steel pipe and fittings and grooved-end CTS Copper Tubing and fittings. The coupling is comprised of two ductile iron housings, a specially designed pressure-responsive rubber transition gasket, and track bolts and nuts.

Material Specifications

ANSI Bolts/Nuts

SAE J429, Grade 5,
Zinc Electroplated (standard)

Heavy Hex Nuts

SAE A563, Grade A,
Zinc Electroplated (standard)

Hardware Kits

304 Stainless Steel
(available in sizes up to ¾")

Kit includes:

- (2) Bolts per ASTM A193, GradeB8 and
- (2) Heavy Hex Nuts per ASTM A194, Grade 8.

EcoGuard (available in sizes up to ¾")

Kit includes:

- (2) Bolts per SAE J429, Grade 5, with EcoGuard corrosion-resistant zinc flake coating and (2) Heavy Hex Nuts per ASTM A563, Grade A, EcoGuard corrosion-resistant zinc flake coating.

Housing

Ductile Iron conforming to ASTM A 536,
Grade 65-45-12.

Coatings

- Rust inhibiting paint –
- Color: Copper (standard)
- Hot Dipped Zinc Galvanized (optional)

Gasket Materials

Properties as designated in accordance
with ASTM D 2000

- Grade "EP" EPDM (Copper)
- 40°F to 250°F (Service Temperature Range) (-40°C to 121°C) Recommended for water service, diluted acids, alkalis solutions, oil-free air and many other chemical services.
- NOT FOR USE IN PETROLEUM APPLICATIONS.

Material Specifications (Continued)

Gasket Materials (Continued)

For hot water applications the use of Gruvlok Xtreme™ Temperature lubricant is recommended. NSF-61.

Grade "T" Nitrile (Orange color code)

NOT FOR USE IN DRINKING WATER
-20°F to 180°F (Service Temperature Range)
(-29°C to 82°C) Recommended for petroleum applications. air with oil vapors and vegetable and mineral oils.

NOT FOR USE IN HOT WATER OR HOT AIR

Grade "O" Fluoro-Elastomer (Blue color code)

NOT FOR USE IN DRINKING WATER
Size Range: 1" - 12" (C style only)
20°F to 300°F (Service Temperature Range)
(-29°C to 149°C)

Recommended for high temperature resistance to oxidizing acids, petroleum oils, hydraulic fluids, halogenated hydrocarbons and lubricants.

Grade "L" Silicone (Red color code)

NOT FOR USE IN DRINKING WATER
Size Range: 1" - 12" (C style only)
-40°F to 350°F (Service Temperature Range)
(-40°C to 177°C)

Recommended for dry, hot air and some high temperature chemical services. Contact an ASC Engineered Solutions™ Representative for availability.

Gasket Type

- C Style (1" - 24")
- Flush Gap (2" - 4")

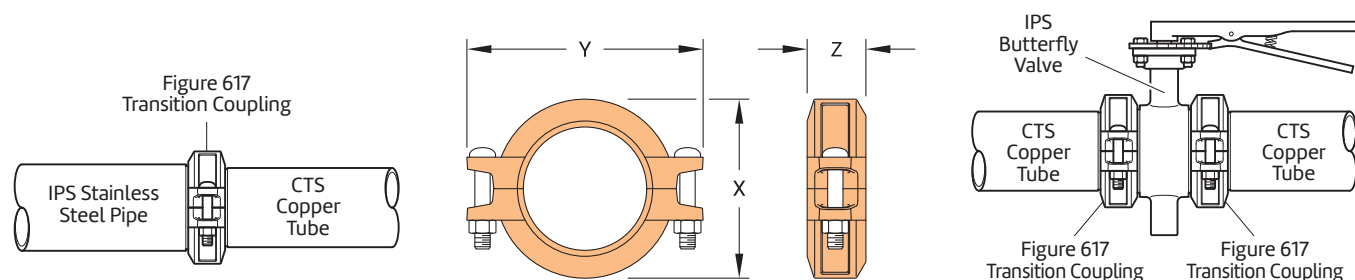
Lubrication

- Standard
- Gruvlok Xtreme (Do not use with Grade "L")

For Listings/Approval Details and Limitations, visit our website at www.asc-es.com or contact an ASC Engineered Solutions™ Sales Representative.

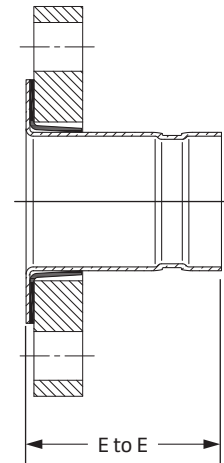
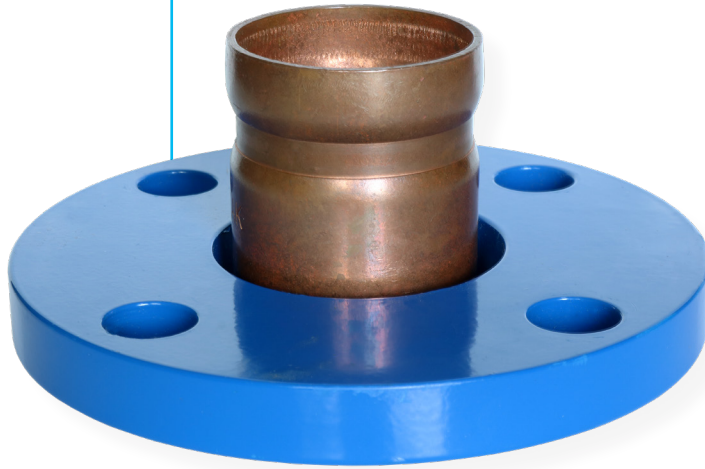
Transition Coupling for Joining Stainless Steel IPS to Copper Tubing Systems

Fig. 617



Nominal Size	O.D. IPS x CTS	Max. Working Pressure (CWP)	Axial Displacement	Deflection from ϕ	Coupling Dimensions			Coupling Bolt Size	Approx. Wt. Ea.
				Per Coupling	X	Y	Z		
In./DN(mm)	In./mm	PSI/bar	In./mm	Deg.(°)-Min (')	In./mm	In./mm	In./mm	In./mm	Lbs./kg
2 50	2.375 x 2.125 60.3 x 54.0	300 20.0	0-0.06 0-1.6	1° 31'	3.31 84	5.08 129	1.89 48	1/2 x 2 1/8	2.0 0.9
2 1/2 65	2.875 x 2.625 73.0 x 66.7	300 20.0	0-0.06 0-1.6	1° 15'	3.9 99	5.59 142	1.89 48	3/8 x 2 1/8	2.2 1.0
3 80	3.500 x 3.125 88.9 x 79.4	300 20.0	0-0.06 0-1.6	1° 02'	4.57 116	6.65 169	1.89 48	1/2 x 3	3.0 1.4
4 100	4.500 x 4.125 114.3 x 104.8	300 20.0	0-0.06 0-1.6	1° 36'	7.76 197	7.76 197	2.05 52	1/2 x 3	4.2 1.9

Flange Adapter Fig. 6084



The Gruvlok Fig. 6084 Flange Adapter allows for direct connection of Class 125 or Class 150 flanged components to the CTS Copper System. The CTS Copper Flange Adapter (Sizes 2" thru 6") conforms to ANSI class 125/150 bolt patterns and is rated at 300 PSIG (20.7 bar). The flange adapter is a dielectric union, utilizing the epoxy coating as a suitable replacement for flange dielectric insulation kits.

Nominal Size	Copper Tube Diameter	E to E	Approx. Wt. Ea.
In.	In./mm	In./mm	Lbs./kg
2	2.125 54.0	2.63 66.8	0.85 0.39
2½	2.625 66.7	2.00 50.8	1.34 0.61
3	3.125 79.4	2.44 62.0	1.73 0.78
4	4.125 104.8	2.88 73.2	2.43 1.10
5	5.125 130.2	3.94 100.1	3.27 1.48
6	6.125 155.6	4.31 109.5	4.78 2.17

CTS Fittings

Fig. 601, 610, 618, 619, 621, 650, 652, 660



Gruvlok Full-Flow Grooved Fittings for Copper Piping Systems provide an economical and efficient method of changing direction. These copper fittings are available in sizes 2" to 8" (50 – 200mm).

Cast fittings in 90° and 45° elbows, tees, caps, concentric reducers, and reducing tees are cast with a copper alloy conforming to CDA C89833. Cast fittings are stronger and more durable than wrought copper fittings and are less susceptible to damage in transit or during installation. Reducing fittings are available with Groove x Groove or Groove x Cup End configurations.

Fittings are standard radius, full flow, designed for installation with Gruvlok Copper System products.

For additional listings or approvals, visit our website at www.asc-es.com.

Material Specifications

Cast Copper Alloy Fittings

Copper Alloy conforming to CDA C89833 or C83470

Wrought Copper Fittings

(For Figure 652 Groove by Copper Fittings Only)
ASTM B 75 C12200; wall thickness per ASTM B 88 Type L.

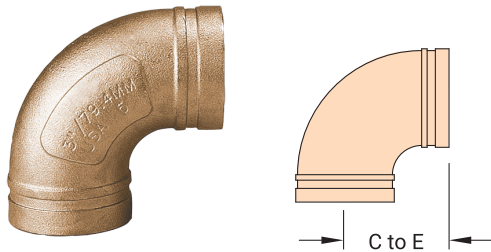
Maximum Working Pressure

Fittings are rated at the pressure rating of the Gruvlok Coupling or Adapter in use.



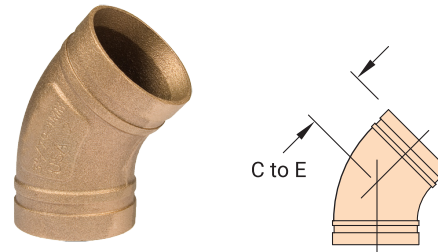
GRUVLOK
An ASC Engineered Solution

Fig. 610
90° CTS Elbow



Nominal Size	Copper Tubing O.D.	Center to End	Approx. Wt. Ea.
In./DN(mm)	In./mm	In./mm	Lbs./kg
2	2.125	2.91	1.9
50	54.0	73.9	0.9
2½	2.625	3.31	2.7
65	66.7	84.1	1.2
3	3.125	3.81	3.6
80	79.4	96.8	1.6
4	4.125	4.75	7.1
100	104.8	120.7	3.2
5	5.125	5.94	11.9
125	130.2	150.9	5.4
6	6.125	6.94	16.7
150	155.6	176.7	7.6
8	8.125	7.75	25.3
200	206.4	196.9	11.5

Fig. 601
45° CTS Elbow



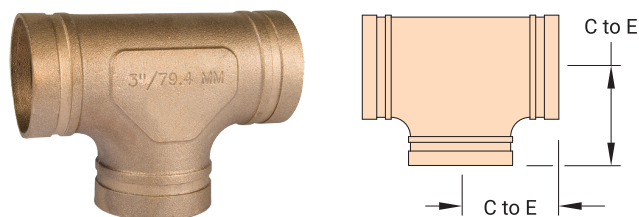
Nominal Size	Copper Tubing O.D.	Center to End	Approx. Wt. Ea.
In./DN(mm)	In./mm	In./mm	Lbs./kg
2	2.125	2.19	1.6
50	54.0	55.6	0.7
2½	2.625	2.31	2.1
65	66.7	58.7	1.0
3	3.125	2.59	2.7
80	79.4	65.8	1.2
4	4.125	3.19	5.5
100	104.8	81.0	2.5
5	5.125	3.25	7.7
125	130.2	82.6	3.5
6	6.125	3.50	10.1
150	155.6	88.9	4.6
8	8.125	4.25	16.6
200	206.4	108.0	7.5

Note:

For information on larger sizes, contact an ASC Engineered Solutions™ Sales Representative.

See page 281 for CTS Fitting Specifications.

Fig. 619
CTS Tee



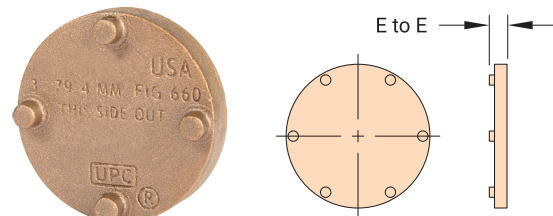
Nominal Size	Copper Tubing O.D.	Center to End	Approx. Wt. Ea.
In./DN(mm)	In./mm	In./mm	Lbs./kg
2	2.125	2.69	2.5
50	54.0	68.3	1.1
2½	2.625	3.20	3.8
65	66.7	81.3	1.7
3	3.125	3.52	4.7
80	79.4	89.4	2.1
4	4.125	4.25	9.0
100	104.8	108.0	4.1
5	5.125	5.94	17.7
125	130.2	150.9	8.0
6	6.125	6.94	24.8
150	155.6	176.3	11.3
8	8.125	7.75	46.2
200	206.4	196.9	21.0

Note:

For information on larger sizes, contact an ASC Engineered Solutions Sales Representative.

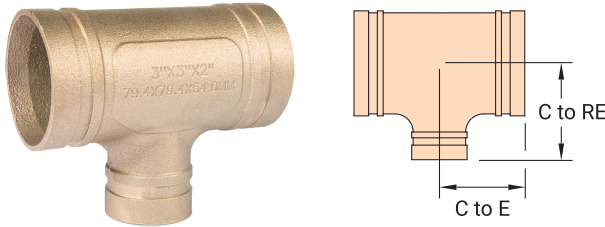
See page 309 for CTS Fitting Specifications.

Fig. 660
CTS Cap



Nominal Size	Copper Tubing O.D.	Center to End	Approx. Wt. Ea.
In./DN(mm)	In./mm	In./mm	Lbs./kg
2	2.125	0.92	0.6
50	54.0	23.4	0.3
2½	2.625	0.92	1.0
65	66.7	23.4	0.4
3	3.125	0.92	1.3
80	79.4	23.4	0.6
4	4.125	0.92	2.2
100	104.8	23.4	1.0
5	5.125	0.92	5.8
125	130.2	23.4	2.6
6	6.125	0.92	8.1
150	155.6	23.4	3.7
8	8.125	1.03	14.1
200	206.4	26.2	6.4

Fig. 621
CTS Reducing Tee

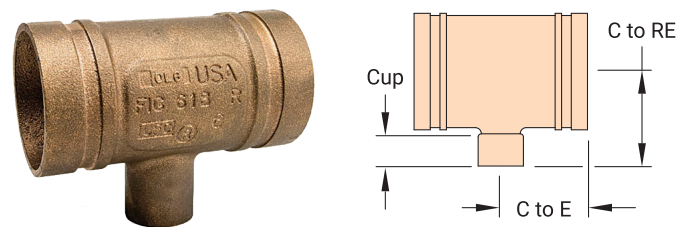


Nominal Size	Copper Tubing O.D.	C to E	C to RE	Approx. Wt. Ea.
In./DN(mm)	In./mm	In./mm	In./mm	Lbs./kg
2½ x 2½ x 2 65 x 65 x 50	2.625 x 2.625 x 2.125 66.7 x 66.7 x 54.0	3.28 83.3	3.38 85.9	3.5 1.6
3 x 3 x 2 80 x 80 x 50	3.125 x 3.125 x 2.125 79.4 x 79.4 x 54.0	3.00 76.2	3.38 85.9	3.7 1.7
3 x 3 x 2½ 80 x 80 x 65	3.125 x 3.125 x 2.625 79.4 x 79.4 x 66.7	3.35 82.6	3.50 88.9	4.1 1.9
4 x 4 x 2 100 x 100 x 50	4.125 x 4.125 x 2.125 104.8 x 104.8 x 54.0	3.66 93.0	4.13 104.9	6.8 3.1
4 x 4 x 2½ 100 x 100 x 65	4.125 x 4.125 x 2.625 104.8 x 104.8 x 66.7	3.94 100.1	4.06 103.1	7.3 3.3
4 x 4 x 3 100 x 100 x 80	4.125 x 4.125 x 3.125 104.8 x 104.8 x 79.4	4.19 106.4	4.16 105.7	7.8 3.6
5 x 5 x 3 125 x 125 x 80	5.125 x 5.125 x 3.125 130.2 x 130.2 x 79.4	3.75 95.3	4.63 117.6	9.4 4.2
5 x 5 x 4 125 x 125 x 100	5.125 x 5.125 x 4.125 130.2 x 130.2 x 104.8	4.25 108.0	4.56 115.8	11.0 5.0
6 x 6 x 2½ 150 x 150 x 65	6.125 x 6.125 x 2.625 155.6 x 155.6 x 66.7	3.63 92.2	5.13 130.3	10.8 4.9
6 x 6 x 3 150 x 150 x 80	6.125 x 6.125 x 3.125 155.6 x 155.6 x 79.4	3.69 93.7	5.19 131.8	11.1 5.0
6 x 6 x 4 150 x 150 x 100	6.125 x 6.125 x 4.125 155.6 x 155.6 x 104.8	4.19 106.4	5.13 130.3	12.9 5.8
6 x 6 x 5 150 x 150 x 125	6.125 x 6.125 x 5.125 155.6 x 155.6 x 130.2	4.69 119.1	5.19 131.8	14.8 6.7

Note:

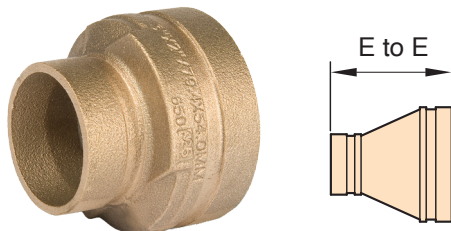
Dimensional information in this chart is for cast fittings

Fig. 618
CTS Reducing Tee (Groove x Groove x Cup)



Nominal Size	Copper Tubing O.D.	C to E	C to RE	Cup	Approx. Wt. Ea.
In./DN(mm)	In./mm	In./mm	In./mm	In./mm	Lbs./kg
2 x 2 x ¾ 50 x 50 x 20	2.125 x 2.125 x 0.825 54.0 x 54.0 x 21.0	2.20 55.9	2.04 51.8	0.75 19.0	1.6 0.7
2 x 2 x 1 50 x 50 x 25	2.125 x 2.125 x 1.125 54.0 x 54.0 x 25.4	2.33 59.1	2.26 57.4	0.91 23.1	1.8 0.8
2 x 2 x 1¼ 50 x 50 x 32	2.125 x 2.125 x 1.375 54.0 x 54.0 x 34.9	2.48 63.0	2.41 61.2	0.97 24.6	2.0 0.9
2 x 2 x 1½ 50 x 50 x 40	2.125 x 2.125 x 1.625 54.0 x 54.0 x 38.1	2.55 64.7	2.34 59.4	1.09 27.7	2.0 0.9
2½ x 2½ x ¾ 65 x 65 x 20	2.625 x 2.625 x 0.875 66.7 x 66.7 x 21.0	2.27 57.7	2.24 57.0	0.75 19.0	2.2 1.0
2½ x 2½ x 1 65 x 65 x 25	2.625 x 2.625 x 1.125 66.7 x 66.7 x 25.4	2.40 61.0	2.46 62.5	0.91 23.1	2.3 1.0
2½ x 2½ x 1¼ 65 x 65 x 32	2.625 x 2.625 x 1.375 66.7 x 66.7 x 34.9	2.52 64.0	2.63 66.8	0.97 24.6	2.5 1.1
2½ x 2½ x 1½ 65 x 65 x 40	2.625 x 2.625 x 1.625 66.7 x 66.7 x 38.1	2.70 68.6	2.74 69.6	1.09 27.7	2.7 1.2
3 x 3 x ¾ 80 x 80 x 20	3.125 x 3.125 x 0.875 79.4 x 79.4 x 21.0	2.45 62.2	2.64 67.1	0.75 19.0	2.9 1.3
3 x 3 x 1 80 x 80 x 25	3.125 x 3.125 x 1.125 79.4 x 79.4 x 25.4	2.54 64.5	2.85 72.4	0.91 23.1	3.0 1.4
3 x 3 x 1¼ 80 x 80 x 32	3.125 x 3.125 x 1.375 79.4 x 79.4 x 34.9	2.63 66.8	2.95 74.9	0.97 24.6	3.1 1.4
3 x 3 x 1½ 80 x 80 x 40	3.125 x 3.125 x 1.625 79.4 x 79.4 x 38.1	2.85 72.4	3.06 77.7	1.09 27.7	3.4 1.5
4 x 4 x ¾ 100 x 100 x 20	4.125 x 4.125 x 0.875 104.8 x 104.8 x 21.0	2.95 74.9	3.06 77.7	0.75 19.0	5.2 2.4
4 x 4 x 1 100 x 100 x 25	4.125 x 4.125 x 1.125 104.8 x 104.8 x 25.4	3.10 78.7	3.28 83.3	0.91 23.1	5.5 2.6
4 x 4 x 1¼ 100 x 100 x 32	4.125 x 4.125 x 1.375 104.8 x 104.8 x 34.9	3.25 82.5	3.53 89.7	0.97 24.6	5.7 2.6
4 x 4 x 1½ 100 x 100 x 40	4.125 x 4.125 x 1.625 104.8 x 104.8 x 38.1	3.35 85.1	3.71 94.2	1.09 27.7	6.1 2.8

Fig. 650
CTS Concentric Reducer



Nominal Size	Copper Tubing O.D.	End to End	Approx. Wt. Ea.
In./DN(mm)	In./mm	In./mm	Lbs./kg
2½ x 2 65 x 50	2.625 x 2.125 66.7 x 54.0	3.29 83.6	1.4 0.6
3 x 2 80 x 50	3.125 x 2.125 79.4 x 54.0	2.50 63.5	1.4 0.6
3 x 2½ 80 x 65	3.125 x 2.625 79.4 x 66.7	2.50 63.5	1.4 0.6
4 x 2 100 x 50	4.125 x 2.125 104.8 x 54.0	4.75 120.7	3.0 1.4
4 x 2½ 100 x 65	4.125 x 2.625 104.8 x 66.7	3.00 76.2	2.3 1.1
4 x 3 100 x 80	4.125 x 3.125 104.8 x 79.4	3.00 76.2	2.3 1.1
5 x 3 125 x 80	5.125 x 3.125 130.2 x 79.4	3.88 98.6	3.7 1.7
5 x 4 125 x 100	5.125 x 4.125 130.2 x 104.8	3.38 85.9	3.7 1.7
6 x 3 150 x 80	6.125 x 3.125 155.6 x 79.4	4.38 111.3	5.1 2.3
6 x 4 150 x 100	6.125 x 4.125 155.6 x 104.8	3.88 98.6	5.2 2.4
6 x 5 150 x 125	6.125 x 5.125 155.6 x 130.2	3.38 85.9	4.8 2.2
8 x 6 200 x 150	8.125 x 6.125 206.4 x 155.6	5.00 127	9.7 4.4

Note:

For information on larger sizes, contact an ASC Engineered Solutions Sales Representative.

See page 309 for CTS Fitting Specifications.

Fig. 652
CTS Concentric Reducer (Groove x Cup)



Nominal Size	Copper Tubing O.D.	End to End	Cup	Approx. Wt. Ea.
In./DN(mm)	In./mm	In./mm		Lbs./kg
2 x 1 50 x 25	2.125 x 1.125 54.0 x 25.4	2.70 68.6	0.91 23.1	0.5 0.2
2 x 1¼ 50 x 32	2.125 x 1.375 54.0 x 34.9	3.00 76.2	0.97 24.6	0.4 0.2
2 x 1½ 50 x 40	2.125 x 1.625 54.0 x 38.1	2.94 74.7	1.09 27.7	0.4 0.2
2½ x 1 65 x 25	2.625 x 1.125 66.7 x 25.4	3.25 82.6	0.91 23.1	0.5 0.2
2½ x 1¼ 65 x 32	2.625 x 1.375 66.7 x 34.9	3.52 89.4	0.97 24.6	0.6 0.3
2½ x 1½ 65 x 40	2.625 x 1.625 66.7 x 38.1	3.45 87.6	1.09 27.7	0.6 0.3
2½ x 2 65 x 50	2.625 x 2.125 66.7 x 54.0	3.38 85.9	1.34 34.0	0.6 0.3
3 x 1½ 80 x 40	3.125 x 1.625 79.4 x 38.1	3.68 93.5	1.09 27.7	0.7 0.3
3 x 2 80 x 50	3.125 x 2.125 79.4 x 54.0	4.10 104.1	1.34 34.0	1.0 0.5
4 x 2 100 x 50	4.125 x 2.125 104.8 x 54.0	4.75 120.7	1.34 34.0	1.4 0.6

CTS Copper Butterfly Valve Series 6700



Material Specifications

Valve Body:

ASTM B584 C89836; Bronze, Low Lead

Disc:

ASTM A536 Gr. 65-45-12; Ductile Iron

Disc Encapsulation:

Grade "EP" EPDM Rubber: Service temperature range: -40°F to +250°F (-40°C to +121°C)

Recommended for water service, diluted acids, alkaline solutions, and oil-free air.

NOT RECOMMENDED FOR USE IN PETROLEUM APPLICATIONS.

Upper and Lower Shafts:

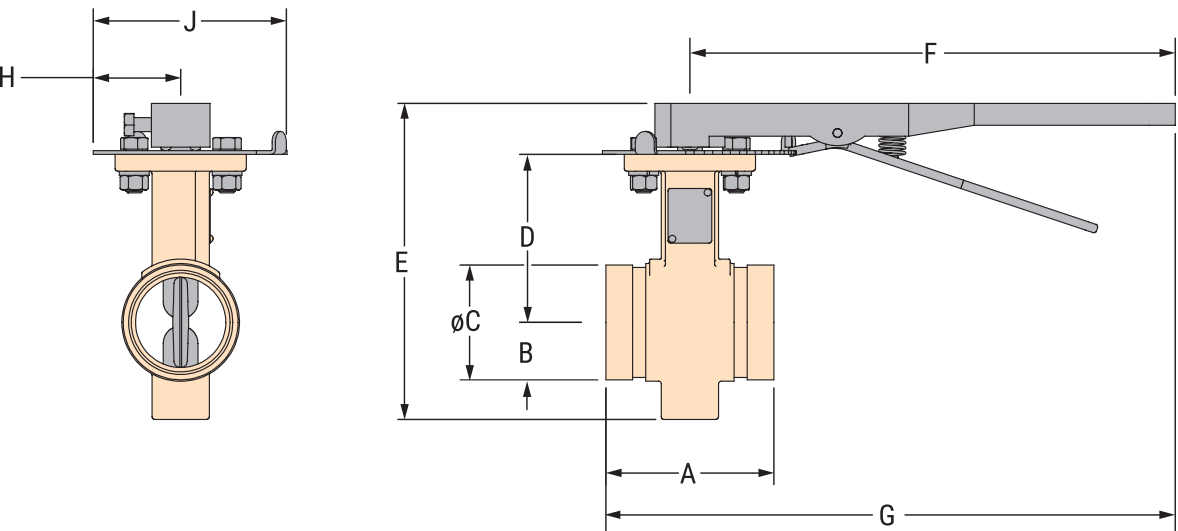
Stainless Steel Type 17-4PH; ASTM A564

Certifications:

ANSI/NSF61 for use in Cold +86F(+30C) and Hot +180F(+82C) potable water systems. Annex G. UPC.

The lever handle bronze body butterfly valve is designed for use with grooved copper tubing (CTS), fittings and couplings. This valve features a 10 position lever handle, bronze body and EPDM rubber encapsulated disc. Both bronze valve body and the EPDM rubber disc obtained certification to ANSI/NSF 61 for use in potable water systems and is rated to 300 PSI.

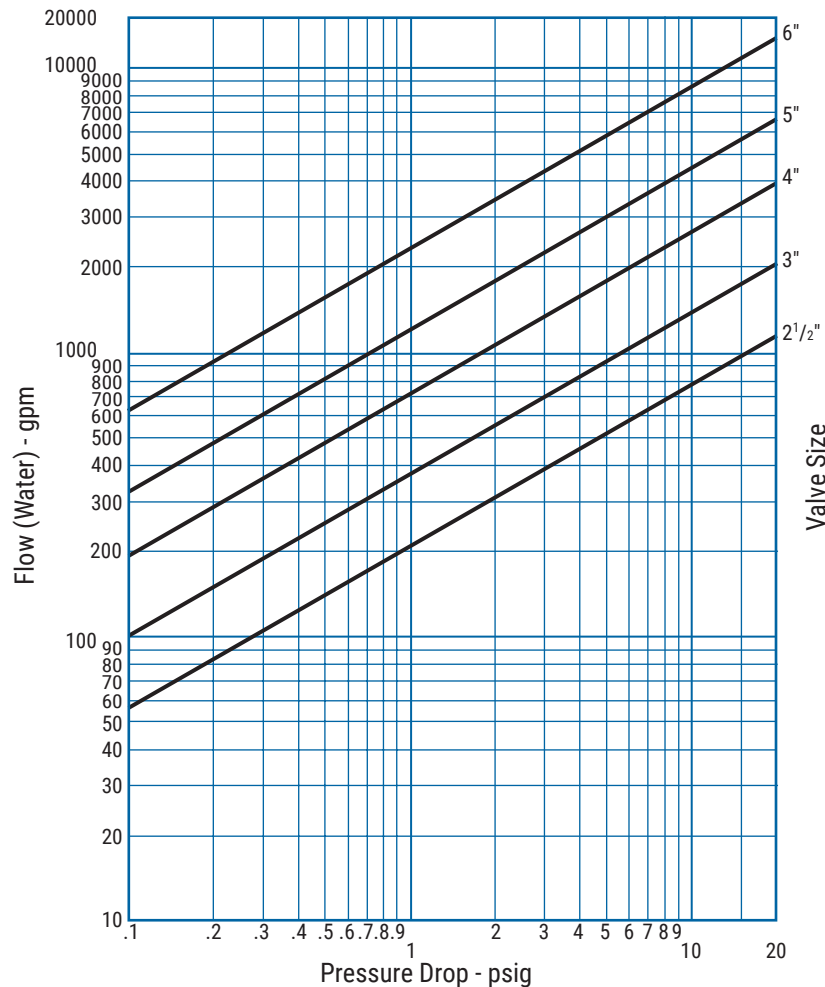
CTS Copper Butterfly Valve
 Fig. Series 6700



CTS Copper Butterfly Valve Dimensions

Nominal Size	Copper Tube Diameter	Dimensions									Weight
		A	B	C	D	E	F	G	H	J	
	In.	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	Lbs./kg
2½	2.625	3.77	2.22	2.63	3.83	7.20	10.50	12.39	2.00	4.43	4
	66.7	95.8	56.4	66.7	97.3	182.5	266.7	314.6	50.8	112.5	1.8
3	3.125	3.77	2.60	3.13	4.08	7.84	10.50	12.39	2.00	4.43	5
	79.4	95.8	65.9	79.4	130.5	198.2	266.7	314.6	50.8	112.5	2.3
4	4.125	4.63	3.10	4.13	4.72	8.97	10.50	12.81	2.00	4.43	8
	104.8	117.6	78.7	104.9	119.9	227.8	266.7	325.5	50.8	112.5	3.8
5	5.125	5.88	3.85	5.13	5.22	10.27	10.50	13.44	2.00	4.43	14
	130.2	149.4	97.8	130.2	132.6	260.9	266.7	341.4	50.8	112.5	6.4
6	6.125	5.88	4.36	6.13	5.75	11.31	10.50	13.44	2.00	4.43	18
	155.6	149.4	110.8	155.6	146.2	287.3	266.7	341.4	50.8	112.5	8.1

CTS Copper Butterfly Valve Series 6700



Values for flow of water at +60°F (+16°C)

$$C_v = \frac{Q}{\sqrt{\Delta P}}$$

Where: C_v = Flow coefficient

Q = Flow (GPM)

ΔP = Pressure drop (psi)

CTS Copper Butterfly (Ordering Information)

Sample Part Number 4" AN6721-3 --->	4"	A	N	67	2	1 -	3
	Size	Body Style	Body Type	Series	Disc Coating	Operator	Shaft
	2 1/2" - 6"	A	Bronze	6700	2 - EPDM (Grade EP)	1 - 10 Pos. Handlever	3 - Stainless Steel Type 17-4PH