

MATERIAL SPECIFICATION SHEET

Brass Insert Fittings and Crimp Rings for CANPEX™ UVPlus™, CANPEX™ Ultra™, CANPEX™ OXY Barrier SDR-9 Cross-Linked Polyethylene (PEX), VIPERT™ Potable and VIPERT™ Radiant Oxy Barrier SDR-9 Polyethylene of Raised Temperature (PE-RT)

SCOPE:

This product specification designates the requirements for brass insert fittings and black copper crimp rings to be used as connections for CANPEX UV Plus, CANPEX Ultra, CANPEX OXY Barrier PEX tubing, VIPERT Potable and VIPERT Radiant Oxy Barrier PE-RT tubing. The connections are assembled with a full-circle crimp tool designed specifically for this purpose. These fittings are approved for use with ASTM Standard F876/F877 (PEX tubing/PEX Distribution Systems), ASTM F2769 Standard (PE-RT tubing) and ASTM F2623 Standard (PE-RT Tubing).

MATERIALS:

Brass insert fittings are manufactured from extruded or forged brass with some fittings supplied in copper. All fittings are precision made to tight tolerances for a consistent fit with PEX tubing. All fittings meet the rigorous requirements of NSF/ANSI 61 for Health Effects and NSF/ANSI 372 for lead extraction.

The black copper crimp rings are manufactured from UNS C10200 or UNS C12200 copper alloy. Rings are annealed to 35-45 Rockwell 15T scale for ease of crimping. The rings are marked with "CB" and "PEX" for easy identification for use with CTS SDR-9 PEX or CTS SDR-9 PE-RT Tubing.

MARKING & CERTIFICATION:

Brass insert fittings and rings are manufactured and certified to the requirements of ASTM F1807. All fittings and rings are marked with the F 1807 designation, PEX manufacturer's mark, and required mark(s) of third-party certification organizations. Fittings meet the requirements of NSF/ANSI 61 for health effects and are suitable for contact with potable water. NSF International and other certification organizations conduct random on-site inspections of manufacturing facilities and independently test fittings for compliance with physical, performance and toxicological specifications.

RECOMMENDED USES:

CB Supplies' brass insert fittings are designed to be used with CANPEX UV Plus, CANPEX Ultra, CANPEX OXY Barrier tubing, VIPERT Potable and VIPERT Radiant Oxy Barrier tubing for hot and cold-water conveyance systems operating up to 180°F @ 100 psi. Applications include, but are not limited to, potable water distribution and hydronic heating systems. Brass insert fitting system components are interchangeable with components and tubing from other PEX suppliers provided they are manufactured to the same ASTM specifications, and certified by a recognized third-party certifying organization. Because CB Supplies has no control over the quality of other manufacturers' products, it does not extend any warranty to those components that are not supplied by CB Supplies.

For information on other hot and cold applications not listed here, consult your CB Supplies representative.



Brass Insert Fittings and Crimp Rings for CANPEX™ UVPlus™, CANPEX™ ULTRA™, CANPEX™ OXY Barrier PEX Tubing, VIPERT™ Potable and VIPERT™ Radiant Oxy Barrier PE-RT Tubing

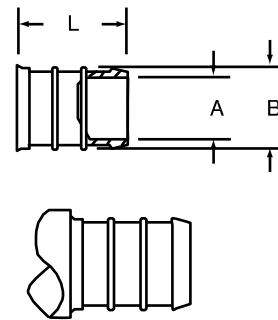
Quality Assurance: When the product is marked with the ASTM F 1807 designation, it affirms that the product was manufactured; inspected; sampled and tested in accordance with these specifications and has been found to meet the specified requirements.

BRASS INSERT FITTINGS

Typical Fitting Insert Dimensions

Size	A (Inner Diameter)	B (Outer Diameter)	L (Length)	Number of Ribs
3/8"	0.242	0.345 ± 0.004	0.630	2
1/2"	0.361	0.471 ± 0.004	0.630	2
5/8"	0.454	0.570 ± 0.003	0.630	2
3/4"	0.546	0.667 ± 0.004	0.630	2
1"	0.770	0.856 ± 0.004	0.795	3
1 1/4"	0.870	1.045 ± 0.004	0.940	3 Min
1 1/2"	1.020	1.233 ± 0.006	1.145	3 Min
2"	1.365	1.602 ± 0.005	1.500	3 Min

NOTE: Dimensions are in English units.



FRICITION LOSS

Equivalent Feet of SDR9 PEX/PE-RT Tubing

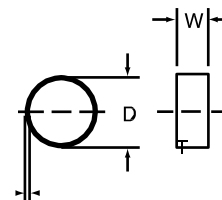
Size	Coupling	90° Elbow	Tee Run	Tee Branch
3/8"	2.9	9.2	2.9	9.4
1/2"	2.0	9.4	2.4	10.4
5/8"	2.5	9.4	2.2	10.0
3/4"	0.6	9.4	1.9	8.9
1"	1.3	10.0	2.3	11.0

This information is based on tubing nominal flow rate. (8 fps flow velocity)

COPPER CRIMP RING DIMENSIONS BEFORE CRIMPING

Size	D (Outer Diameter)	W (Width)	T (Wall Thickness)
3/8"	0.630 ± 0.003	0.058 ± 0.0035	0.325 ± 0.020
1/2"	0.750 ± 0.003	0.056 ± 0.0035	0.325 ± 0.020
5/8"	0.875 ± 0.003	0.054 ± 0.0035	0.325 ± 0.020
3/4"	1.000 ± 0.003	0.056 ± 0.0035	0.325 ± 0.020
1"	1.250 ± 0.003	0.049 ± 0.0035	0.365 ± 0.020
1 1/4"	1.500 ± 0.003	0.056 ± 0.0035	0.550 ± 0.020
1 1/2"	1.775 ± 0.003	0.065 ± 0.0035	0.650 ± 0.020
2"	2.300 ± 0.003	0.070 ± 0.004	0.750 ± 0.020

NOTE: Dimensions are in English units.



NSF-pw

NSF International
Performance and Health
Effects (Standards 14 14
& 61)

IAPMO
Certified

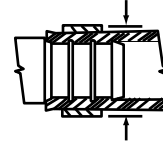
Warnock
Hersey
Certified to
CSA B137. 5

Note: All fittings
may not be listed
with each
organization shown.

CRIMP RING DIMENSIONS AFTER CRIMPING ON TUBE/FITTING ASSEMBLY

Final crimped outside diameters shall fall within these dimensions when measured with a micrometer or caliper.

Nominal Tube Size Insert End, in.	Final Crimped Outside	
	Diameter ^{A, B} Minimum, in. (mm)	Maximum, in. (mm)
3/8"	0.580 (14.7)	0.595 (15.1)
1/2"	0.700 (17.8)	0.715 (18.2)
5/8"	0.815 (20.7)	0.830 (21.1)
3/4"	0.945 (24.0)	0.960 (24.4)
1"	1.175 (29.8)	1.190 (30.2)
1 1/4"	1.430 (36.2)	1.445 (36.6)
1 1/2"	1.685 (36.2)	1.700 (43.2)
2"	...	2.203 (56.0)



^A For all diameters except for the area of scoring caused by the crimping tool.

^B The maximum out-of-roundness as measured by the difference between the minimum crimped outside diameter and the maximum crimped outside diameter shall not exceed 0.006 in. (0.150 mm).

GO/NO GO GAUGES

CB Supplies offers GO/NO GO gauges for easy testing of the finished crimp.

