Canadian International Trade Tribunal
Tribunal canadien du commerce extérieur

**CANADIAN INTERNATIONAL TRADE TRIBUNAL**

# Dumping and Subsidizing

## DETERMINATION AND REASONS

Preliminary Injury Inquiry
No. PI-2006-001

Copper Pipe Fittings

*Determination issued*
*Tuesday, August 8, 2006*

*Reasons issued*
*Wednesday, August 23, 2006*

Canada

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IN THE MATTER OF a preliminary injury inquiry, under subsection 34(2) of the *Special Import Measures Act*, respecting:

**THE DUMPING OF CERTAIN COPPER PIPE FITTINGS ORIGINATING IN OR EXPORTED FROM THE UNITED STATES OF AMERICA, THE REPUBLIC OF KOREA AND THE PEOPLE'S REPUBLIC OF CHINA AND THE SUBSIDIZING OF CERTAIN COPPER PIPE FITTINGS ORIGINATING IN OR EXPORTED FROM THE PEOPLE'S REPUBLIC OF CHINA**

# PRELIMINARY DETERMINATION OF INJURY

The Canadian International Trade Tribunal, under the provisions of subsection 34(2) of the *Special Import Measures Act*, has conducted a preliminary injury inquiry into whether the evidence discloses a reasonable indication that the dumping of certain solder joint pressure pipe fittings and solder joint drainage, waste and vent pipe fittings, made of cast copper alloy, wrought copper alloy or wrought copper, for use in heating, plumbing, air conditioning and refrigeration applications (certain copper pipe fittings), originating in or exported from the United States of America, the Republic of Korea and the People's Republic of China and the subsidizing of certain copper pipe fittings originating in or exported from the People's Republic of China, restricted to the products enumerated in the Appendix, have caused injury or retardation or are threatening to cause injury to the domestic industry.

This preliminary injury inquiry is pursuant to the notification, on June 8, 2006, that the President of the Canada Border Services Agency had initiated an investigation into the alleged injurious dumping and subsidizing of the above-mentioned goods.

Pursuant to subsection 37.1(1) of the *Special Import Measures Act*, the Canadian International Trade Tribunal hereby determines that there is evidence that discloses a reasonable indication that the dumping and subsidizing of the above-mentioned goods have caused injury to the domestic industry.

Serge Fréchette
Serge Fréchette
Presiding Member

Pierre Gosselin
Pierre Gosselin
Member

Ellen Fry
Ellen Fry
Member

Susanne Grimes
Susanne Grimes
Acting Secretary

The statement of reasons will be issued within 15 days.

# APPENDIX

The following information is to be taken into consideration in identifying copper pipe fittings (subject goods) being investigated by the Canada Border Services Agency (CBSA):

1. The subject goods are identified in terms of imperial measurement, i.e. inches. The CBSA is also investigating subject goods that encompass the metric equivalents of the imperial measurement. The term metric equivalent refers to those fittings that are soft converted equivalents of the imperial sized fittings and does not include fittings made specifically in metric dimensions.

2. The subject goods are identified either as a wrought product or as a cast product. Where a subject good contains an asterisk ("*") the CBSA is investigating both the wrought product and the cast product.

3. The subject goods are identified in terms of nominal size. Plumbing and heating fittings are marked according to nominal sizes that correspond to the inside diameters, while fittings for air conditioning and refrigeration are based on actual outer diameter sizes. The CBSA is also investigating subject goods that are described in terms of their outside diameter size. To determine the nominal size of a fitting that is measured in terms of it's outside diameter size, always subtract ⅛" from the outside diameter size.

4. The subject goods are identified using abbreviated terms provided by the complainant (Cello Products Inc.)**.** The following is a list of the terms:

| **Abbreviation Chart** | | | |
|---|---|---|---|
| WP | Wrought Pressure | FTG | Fitting End (Street End) |
| WD | Wrought Drainage | LT | Long Turn |
| CP | Cast Pressure | MJ | Mechanical Joint |
| CD | Cast Drainage | DE | Drop Ear |
| C | Copper Tube Cupped End or Sweat End | DWV | Drainage Waste, Vent |
| M | Male NPT Thread | TY | 90˚ Drainage Tee |
| FE | Female NPT Thread | Y | 45˚ Drainage Tee |
| SJ | Slip Joint End | | |

## Subject Copper Pipe Fittings—Female Adapters

| | |
|---|---|
| 1-1/4 CXFE CD ADAPTER* | 1-1/2 FTGXFE CD ADAPTER* |
| 1-1/2 CXFE CD ADAPTER* | 1-1/2 X 1-1/4 CXFE CD ADAPTER* |
| 3 FTGXFE CD ADAPTER* | 2 CXFE CD ADAPTER* |
| 3 CXFE CD ADAPTER* | 4 CXFE CD ADAPTER* |
| 1/2 CXFE CP ADAPTER* | 1/2 X 3/8 CXFE CP ADAPTER* |
| 1/2 X 3/4 CXFE CP ADAPTER* | 3/4 CXFE CP ADAPTER* |
| 3/4 X 1/2 CXFE CP ADAPTER* | 3/4 X 1 CXFE CP ADAPTER* |
| 3/4 X 1-1/4 CXFE CP ADAPTER* | 3/4 X 1-1/2 CXFE CP ADAPTER* |
| 1 C X FE CP ADAPTER* | 1 X 1/2 CXFE CP ADAPTER* |
| 1 X 3/4 C X FE CP ADAPTER* | 1 X 1-1/4 CXFE CP ADAPTER* |
| 1-1/4 CXFE CP ADAPTER* | 1-1/4 X 1/2 CXFE CP ADAPTER* |
| 1-1/4 X 3/4 CXFE CP ADAPTER* | 1-1/4 X 1 CXFE CP ADAPTER* |
| 3/4 X 1/2 FTGXFE CP ADAPTER* | 1 FTGXFE CP ADAPTER* |
| 1-1/2 CXFE CP ADAPTER* | 1-1/2 X 3/4 CXFE CP ADAPTER* |
| 1-1/2 X 1 CXFE CP ADAPTER* | 1-1/2 X 2 CXFE CP ADAPTER* |
| 2 CXFE CP ADAPTER* | 2-1/2 C X FE CP ADAPTER* |
| 3 CXFE CP ADAPTER* | 1/2 CXFE CP DROP EAR ADAPTER |
| 3/4 CXFE CP DROP EAR ADAPTER | 1/2 CXFE CP HIGH EAR ADAPTER* |
| 4 CXFE CP ADAPTER* | 5 C X FE CP ADAPTER* |
| 6 C X FE CP ADAPTER* | 1-1/4 CXFE WD ADAPTER* |
| 1-1/4 X 1-1/2 CXFE WD ADAPTER* | 1-1/4 FTGXFE WD ADAPTER* |
| 1-1/2 FTGXFE WD ADAPTER* | 2 FTGXFE WD ADAPTER* |
| 1-1/2 CXFE WD ADAPTER* | 1-1/2 X 1-1/4 CXFE WD ADAPTER* |
| 1-1/2 X 2 CXFE WD ADAPTER* | 3 FTGXFE WD ADAPTER* |
| 2 C X FE WD ADAPTER* | 2 X 1-1/2 CXFE WD ADAPTER* |
| 3 C X FE WD ADAPTER* | 1/4 C X FE WP ADAPTER* |
| 3/8 C X FE WP ADAPTER* | 3/8 X 1/4 CXFE WP ADAPTER* |
| 3/8 X 1/2 CXFE WP ADAPTER* | 1/2 C X FE WP ADAPTER* |
| 1/2 X 1/4 CXFE WP ADAPTER* | 1/2 X 3/8 CXFE WP ADAPTER* |
| 1/2 X 3/4 CXFE WP ADAPTER* | 1/2 X 1 CXFE WP ADAPTER* |
| 5/8 X 1/2 CXFE WP ADAPTER* | 5/8 X 3/4 CXFE WP ADAPTER* |
| 3/4 C X FE WP ADAPTER* | 3/4 X 1/2 CXFE WP ADAPTER* |
| 3/4 X 1 CXFE WP ADAPTER* | 3/4 X 1-1/4 CXFE WP ADAPTER* |
| 3/4 X 1-1/2 CXFE WP ADAPTER* | 1 C X FE WP ADAPTER* |
| 1 X 1/2 CXFE WP ADAPTER* | 1 X 3/4 CXFE WP ADAPTER* |
| 1 X 1-1/4 CXFE WP ADAPTER* | 1 X 1-1/2 CXFE WP ADAPTER* |
| 1-1/4 C X FE WP ADAPTER* | 1-1/4 C X 3/4 FE WP ADAPTER* |
| 1-1/4 X 1 CXFE WP ADAPTER* | 1-1/4 X 1-1/2 CXFE WP ADAPTER* |
| 1-1/4 X 2 CXFE WP ADAPTER* | 1/4 FTGXFE WP ADAPTER* |
| 3/8 FTGXFE WP ADAPTER* | 3/8 X 1/4 FTGXFE WP ADAPTER* |
| 1/2 FTGXFE WP ADAPTER* | 1/2 X 1/4 FTGXFE WP ADAPTER* |
| 1/2 X 3/8 FTG X FE ADAPTER* | 1/2 FTG X 3/4 FE WP ADAPTER* |
| 3/4 FTGXFE WP ADAPTER* | 3/4 FTG X 1/2 FE WP ADAPTER* |
| 1 FTGXFE WP ADAPTER* | 1 FTG X 3/4 FE WP ADAPTER* |
| 1-1/4 FTGXFE WP ADAPTER* | 1-1/2 FTGXFE WP ADAPTER* |
| 2 FTGXFE WP ADAPTER* | 1-1/2 C X FE WP ADAPTER* |
| 2-1/2 FTGXFE WP ADAPTER* | 1-1/2 C X 1 FE WP ADAPTER* |
| 1-1/2 X 1-1/4 CXFE WP ADAPTER* | 1-1/2 X 2 CXFE WP ADAPTER* |
| 3 FTGXFE WP ADAPTER* | 2 C X FE WP ADAPTER* |
| 2 X 1 C X FE WP ADAPTER* | 2 X 1-1/4 CXFE WP ADAPTER* |
| 2 X 1-1/2 CXFE WP ADAPTER* | 2-1/2 C X FE WP ADAPTER* |
| 3 C X FE WP ADAPTER* | |

## Subject Copper Pipe Fittings—Male Adapters

| | |
|---|---|
| 1-1/4 CXM CD ADAPTER* | 1-1/4X1-1/2 CXM CD ADAPTER* |
| 1-1/2 FTGXM CD ADAPTER* | 1-1/2 CXM CD ADAPTER* |
| 1-1/2X1-1/4 CXM CD ADAPTER* | 2 CXM CD ADAPTER* |
| 2 X 1-1/2 CXM CD ADAPTER* | 3 CXM CD ADAPTER* |
| 4 CXM CD ADAPTER* | 1/2 CXM CP ADAPTER* |
| 1/2 X 3/4 CXM CP ADAPTER* | 3/4 CXM CP ADAPTER* |
| 3/4 X 1/2 CXM CP ADAPTER* | 3/4 X 1-1/4 CXM CP ADAPTER* |
| 1 CXM CP ADAPTER* | 1 X 1/2 CXM CP ADAPTER* |
| 1 X 1-1/4 CXM CP ADAPTER* | 1 X 1-1/2 CXM CP ADAPTER* |
| 1-1/4 CXM CP ADAPTER* | 1-1/4 X 1/2 CXM CP ADAPTER* |
| 1-1/4 X 1 CXM CP ADAPTER* | 1-1/2 CXM CP ADAPTER* |
| 1-1/2 X 3/4 CXM CP ADAPTER* | 2 CXM CP ADAPTER* |
| 2 X 1-1/2 C X M CP ADAPTER* | 2-1/2 CXM CP ADAPTER* |
| 3 CXM CP ADAPTER* | 4 CXM CP ADAPTER* |
| 5 CXM CP ADAPTER | 6 CXM CP ADAPTER |
| 1-1/2 M X 1-1/2 OD WD ADAPTER* | 1-1/4 CXM WD ADAPTER* |
| 1-1/4X1-1/2 CXM WD ADAPTER* | 1-1/2 FTGXM WD ADAPTER* |
| 2 FTGXM WD ADAPTER* | 1-1/2 CXM WD ADAPTER* |
| 1-1/2 X 1-1/4 CXM WD ADAPTER* | 1-1/2 X 2 CXM WD ADAPTER* |
| 2 CXM WD ADAPTER* | 2 X 1-1/2 CXM WD ADAPTER* |
| 3 CXM WD ADAPTER* | 4 CXM WD ADAPTER* |
| 1-1/4 CXM WD FLUSH TRAP ADAPTER* | 1-1/2 CXM WD FLUSH TRAP ADAPTER* |
| 2 CXM WD FL TRAP ADAPTER* | 1-1/2 CXM WD SCULLY BUSHING* |
| 2 CXM WD SCULLY BUSHING* | 1/4 CXM WP ADAPTER* |
| 1/4 X 3/8 CXM WP ADAPTER* | 1/4 X 1/2 CXM WP ADAPTER* |
| 3/8 CXM WP ADAPTER* | 3/8 X 1/4 CXM WP ADAPTER* |
| 3/8 X 1/2 CXM WP ADAPTER* | 1/2 CXM WP ADAPTER* |
| 1/2 X 1/4 CXM WP ADAPTER* | 1/2 X 3/8 CXM WP ADAPTER* |
| 1/2 X 3/4 CXM WP ADAPTER* | 1/2 X 1 CXM WP ADAPTER* |
| 5/8 X 1/2 CXM WP ADAPTER* | 5/8 X 3/4 CXM WP ADAPTER* |
| 3/4 CXM WP ADAPTER* | 3/4 C X 3/8 WP M ADAPTER* |
| 3/4 X 1/2 CXM WP ADAPTER* | 3/4 X 1 CXM WP ADAPTER* |
| 3/4 X 1-1/4 CXM WP ADAPTER* | 3/4 X 1-1/2 CXM WP ADAPTER* |
| 1 CXM WP ADAPTER* | 1 X 1/2 CXM WP ADAPTER* |
| 1 X 3/4 CXM WP ADAPTER* | 1 X 1-1/4 CXM WP ADAPTER* |
| 1 X 1-1/2 CXM WP ADAPTER* | 1 X 2 CXM WP ADAPTER* |
| 1-1/4 CXM WP ADAPTER* | 1-1/4 X 3/4 CXM WP ADAPTER* |
| 1-1/4 X 1 CXM WP ADAPTER* | 1-1/4 X 1-1/2 CXM WP ADAPTER* |
| 1-1/4 X 2 CXM WP ADAPTER* | 1/4 FTGXM WP ADAPTER* |
| 3/8 FTGXM WP ADAPTER* | 1/2 FTGXM WP ADAPTER* |
| 1/2 X 3/8 FTGXM WP ADAPTER* | 1/2 X 3/4 FTGXM WP ADAPTER* |
| 3/4 FTGXM WP ADAPTER* | 3/4 X 1/2 FTGXM WP ADAPTER* |
| 1 FTGXM WP ADAPTER* | 1 X 3/4 FTGXM WP ADAPTER* |
| 1-1/4 FTGXM WP ADAPTER* | 1-1/2 FTGXM WP ADAPTER* |
| 2 FTGXM WP ADAPTER* | 1-1/2 CXM WP ADAPTER* |
| 2-1/2 FTGXM WP ADAPTER* | 1-1/2 X 1 CXM WP ADAPTER* |
| 1-1/2 X 1-1/4 CXM WP ADAPTER* | 1-1/2 X 2 CXM WP ADAPTER* |
| 3 FTG X M WP ADAPTER* | 2 CXM WP ADAPTER* |
| 2 X 1-1/4 CXM WP ADAPTER* | 2 X 1-1/2 CXM WP ADAPTER* |
| 2 X 2-1/2 C X M WP ADAPTER* | 2-1/2 CXM WP ADAPTER* |
| 2-1/2 X 2 CXM WP ADAPTER* | 3 CXM WP ADAPTER* |
| 4 CXM WP ADAPTER* | 1/2 X 3/4 C X HOSE WP ADAPTER* |

## Subject Copper Pipe Fittings—Other Adapters

| | |
|---|---|
| 1-1/4 X 2 CXSP CD FERRULE* | 1-1/2 X 2 CXSP CD FERRULE* |
| 1-1/2 X 3 CXSP CD FERRULE* | 2 CXSP CD FERRULE* |
| 2 X 3 CXSP CD FERRULE* | 2 X 4 CXSP CD FERRULE* |
| 3 CXSP CD FERRULE* | 3 X 4 CXSP CD FERRULE* |
| 4 CXSP CD FERRULE* | 3 X 4 CXSP CD ECCENTRIC FERRULE* |
| 1-1/4 X 2 CXMJ CD ADAPTER* | 1-1/4 X 3 CXMJ CD ADAPTER* |
| 1-1/2 X 2 CXMJ CD ADAPTER* | 1-1/2 X 3 CXMJ CD ADAPTER* |
| 1-1/2 X 4 CXMJ CD ADAPTER* | 2 X 3 CXMJ CD ADAPTER* |
| 2 X 4 CXMJ CD ADAPTER* | 3 CXMJ CD ADAPTER* |
| 3 X 4 CXMJ CD ADAPTER* | 4 CXMJ CD ADAPTER* |
| 6 C X M J CD ADAPTER* | 1-1/4 FTGXSJ CD ADAPTER* |
| 4 ACT(3S)X1-1/2C-30 CD ROOF ADAPTER* | 4 ACT(3S) X 2C-30 CD ROOF ADAPTER* |
| 4 SOIL(5A)X 1-1/2 C CD ROOF ADAPTER* | 4 SOIL(5A)X 2 C CD ROOF ADAPTER* |
| 5ACT 4SX 3C CD ROOF ADAPT CALGARY* | 5S X 3C CD ROOF ADAPT REGINA* |
| 1-1/2 SJXODX3/4M/1/2FE CD CONDENSATE TEE | 2 C X SJ CD ADAPTER* |
| 2 C X MJ WD ADAPTER* | 1-1/4 FE X SJ WD ADAPTER* |
| 1-1/2 FE X SJ WD ADAPTER* | 1-1/2 X1-1/4 FE X SJ WD ADAPTER* |
| 1-1/4 FTG X SJ WD ADAPTER* | 1-1/2 FTG X SJ WD ADAPTER* |
| 1-1/2 X 1-1/4 FTG X SJ ADAPTER* | 1-1/4 M X SJ WD ADAPTER* |
| 1-1/2 M X SJ WD ADAPTER* | 1-1/2 X 1-1/4 M X SJ WD ADAPTER* |
| 1-1/4 C X SJ WD ADAPTER* | 1-1/4 X 1-1/2 CXSJ WD ADAPTER* |
| 1-1/2 C X SJ WD ADAPTER* | 1-1/2 X 1-1/4 CXSJ WD ADAPTER* |
| 2 C X SJ WD ADAPTER* | 1/2 CXM WP FLUSH VALVE ADAPTER* |
| 3/4 CXM WP FLUSH VALVE ADAPTER* | |

## Subject Copper Pipe Fittings—Bushings

| | |
|---|---|
| 3 X 1-1/2 FTGXC CD BUSHING* | 5 X 4 FTGXC CP BUSHING* |
| 6 X 2 FTGXC CP BUSHING* | 6 X 3 FTGXC CP BUSHING* |
| 6 X 4 FTGXC CP BUSHING* | 6 X 5 FTGXC CP BUSHING* |
| 1 X 1/2 FTGXFE CP FLUSH BUSHING* | 1-1/4 X 1 FTGXFE CP FLUSH ADAPTER* |
| 1 1/2 FTG X 1 FE C CP FLUSH BUSHING* | 1-1/2X1-1/4 FTGXC W WD BUSHING* |
| 2 X 1-1/4 FTGXC WD BUSHING* | 2 X 1-1/2 FTGXC WD BUSHING* |
| 3 X 1-1/4 FTGXC WD BUSHING* | 3 X 1-1/2 FTGXC WD BUSHING* |
| 3 X 2 FTGXC WD BUSHING* | 4 X 2 FTGXC WD BUSHING* |
| 4 X 3 FTGXC WD BUSHING* | 1-1/4 CXM WD TRAP BUSHING* |
| 1-1/2 CXM WD TRAP BUSHING* | 2 CXM WD TRAP BUSHING* |
| 3/8 X 1/8 FTGXC WP BUSHING* | 3/8 X 1/4 FTGXC WP BUSHING* |
| 1/2 X 1/4 FTGXC WP BUSHING* | 1/2 X 3/8 FTGXC WP BUSHING* |
| 5/8 X 1/4 FTGXC WP BUSHING* | 5/8 X 3/8 FTGXC WP BUSHING* |
| 5/8 X 1/2 FTGXC WP BUSHING* | 3/4 X 1/4 FTGXC WP BUSHING* |
| 3/4 X 3/8 FTGXC WP BUSHING* | 3/4 X 1/2 FTGXC WP BUSHING* |
| 3/4 X 5/8 FTGXC WP BUSHING* | 1 X 3/8 FTGXC WP BUSHING* |
| 1 X 1/2 FTGXC WP BUSHING* | 1 X 5/8 FTGXC WP BUSHING* |
| 1 X 3/4 FTGXC WP BUSHING* | 1-1/4 X 1/2 FTGXC WP BUSHING* |
| 1-1/4 X 3/4 FTGXC WP BUSHING* | 1-1/4 X 1 FTGXC WP BUSHING* |
| 1-1/2 X 1/2 FTGXC WP BUSHING* | 1-1/2 X 3/4 FTGXC WP BUSHING* |
| 1-1/2 X 1 FTGXC WP BUSHING* | 1-1/2 X1-1/4 FTGXC WP BUSHING* |
| 2 X 1/2 FTGXC WP BUSHING* | 2 X 3/4 FTGXC WP BUSHING* |
| 2 X 1 FTGXC WP BUSHING* | 2 X 1-1/4 FTGXC WP BUSHING* |
| 2 X 1-1/2 FTGXC WP BUSHING* | 2-1/2 X 1 FTGXC WP BUSHING* |
| 2-1/2 X 1-1/4 FTGXC WP BUSHING* | 2-1/2 X 1-1/2 FTGXC WP BUSHING* |
| 2-1/2 X 2 FTGXC WP BUSHING* | 3 X 1/2 FTGXC WP BUSHING* |
| 3 X 3/4 FTGXC WP BUSHING* | 3 X 1 FTGXC WP BUSHING* |
| 3 X 1-1/4 FTGXC WP BUSHING* | 3 X 1-1/2 FTGXC WP BUSHING* |
| 3 X 2 FTGXC WP BUSHING* | 3 X 2-1/2 FTGXC WP BUSHING* |
| 3-1/2 X 2 FTGXC WP BUSHING* | 3-1/2 X 2-1/2 FTGXC WP BUSHING* |
| 3-1/2 X 3 FTGXC WP BUSHING* | 4 X 1-1/4 FTGXC WP BUSHING* |
| 4 X 1-1/2 FTGXC WP BUSHING* | 4 X 2 FTGXC WP BUSHING* |
| 4 X 2-1/2 FTGXC WP BUSHING* | 4 X 3 FTGXC WP BUSHING* |
| 4 X 3-1/2 FTGXC WP BUSHING* | 1/2 X 1/4 FTGXC WP FLUSH BUSHING* |
| 1/2 X 3/8 FTGXC WP FLUSH BUSHING* | 5/8 X 3/8 FTGXC WP FLUSH BUSHING* |
| 3/4 X 1/2 FTGXC WP FLUSH BUSHING* | 1 X 1/2 FTGXC WP FLUSH BUSHING* |
| 1 X 3/4 FTGXC WP FLUSH BUSHING* | 1-1/4X3/4 FTGXC W FL BUSHING* |
| 1-1/4 X 1 FTGXC WP FLUSH BUSHING* | 1-1/2 X 1 FTGXC WP FLUSH BUSHING* |
| 1-1/2 X 1-1/4 FTGXC WP FLUSH BUSHING* | 2 X 1-1/2 FTGXC WP FLUSH BUSHING* |
| 1 X 1/2 FE WP FLUSH BUSHING* | 1-1/4 X 3/4 FE WP FLUSH BUSHING* |
| 1-1/4 X 1 FTGXFE WP FLUSH BUSHING* | 1-1/2 X 1 FTGXFE WP FLUSH BUSHING* |

## Subject Copper Pipe Fittings—Couplings

| | |
|---|---|
| 3/4 CXC CP COUPLING* | 1-1/4 CXC CP COUPLING* |
| 4 CXC CP COUPLING* | 5 X 3 CXC CP COUPLING* |
| 5 X 4 CXC CP COUPLING* | 6 X 2 CXC CP COUPLING* |
| 6 X 3 CXC CP COUPLING* | 6 X 4 CXC CP COUPLING* |
| 6 X 5 CXC CP COUPLING* | 1/2 CXC CP JET DRAIN COUPLING |
| 3/4 CXC CP JET DRAIN COUPLING | 1 CXC CP JET DRAIN COUPLING |
| 3/4 X 1/2 CXC CP ECCENTRIC COUPLING* | 1 X 1/2 CP ECCENTRIC COUPLING* |
| 1 X 3/4 CXC CP ECCENTRIC COUPLING* | 1-1/4 X 1/2 CP ECCENTRIC COUPLING* |
| 1-1/2 X 1 CXC CP ECCENTRIC COUPLING* | 1-1/2 X 1-1/4 CXC CP ECCENTRIC COUPLING* |
| 2 X 1-1/4 CXC CP ECCENTRIC COUPLING* | 2 X 1-1/2 CXC CP ECCENTRIC COUPLING* |
| 3 X 2 CXC CP ECCENTRIC COUPLING* | 3/4 CXC CP CROSSOVER COUPLING* |
| 1/2C X 1M X 1/2 FE CP BOILER COUPLING | 1/2 X 1 X 1/2 CXMXFE CP BOILER COUPLING |
| 1-1/4 CXC WD COUPLING* | 1-1/2 CXC WD COUPLING* |
| 1-1/2X 1-1/4 CXC WD COUPLING* | 2 CXC WD COUPLING* |
| 2 X 1-1/4 CXC WD COUPLING* | 2 X 1-1/2 CXC WD COUPLING* |
| 3 CXC WD COUPLING* | 3 X 1-1/4 CXC WD COUPLING* |
| 3 X 1-1/2 CXC WD COUPLING* | 3 X 2 CXC WD COUPLING* |
| 4 CXC WD COUPLING* | 4 X 1-1/2 CXC WD COUPLING* |
| 4 X 2 CXC WD COUPLING* | 4 X 3 CXC WD COUPLING* |
| 4 X 1-1/2 CXC CD COUPLING* | 4 X 3 CXC CD COUPLING* |
| 6 CXC WD COUPLING* | 1-1/4 CXC WD COUPLING NO STOP* |
| 1-1/2 CXC WD COUPLING NO STOP* | 2 CXC WD COUPLING NO STOP* |
| 3 CXC WD COUPLING NO STOP* | 4 CXC WD COUPLING NO STOP* |
| 1/8 CXC WP COUPLING* | 1/4 CXC WP COUPLING* |
| 1/4 X 1/8 CXC WP COUPLING* | 3/8 CXC WP COUPLING* |
| 3/8 X 1/4 CXC WP COUPLING* | 1/2 CXC WP COUPLING* |
| 1/2 X 1/8 CXC WP COUPLING* | 1/2 X 1/4 CXC WP COUPLING* |
| 1/2 X 3/8 CXC WP COUPLING* | 5/8 CXC WP COUPLING* |
| 5/8 X 1/4 CXC WP COUPLING* | 5/8 X 3/8 CXC WP COUPLING* |
| 5/8 X 1/2 CXC WP COUPLING* | 3/4 CXC WP COUPLING* |
| 3/4 X 1/4 CXC WP COUPLING* | 3/4 X 3/8 CXC WP COUPLING* |
| 3/4 X 1/2 CXC WP COUPLING* | 3/4 X 5/8 CXC WP COUPLING* |
| 1 CXC WP COUPLING* | 1 X 3/8 CXC WP COUPLING* |
| 1 X 1/2 CXC WP COUPLING* | 1 X 5/8 CXC WP COUPLING* |
| 1 X 3/4 CXC WP COUPLING* | 1-1/4 CXC WP COUPLING* |
| 1-1/4 X 1/2 CXC WP COUPLING* | 1-1/4 X 3/4 CXC WP COUPLING* |
| 1-1/4 X 1 CXC WP COUPLING* | 1-1/2 CXC WP COUPLING* |
| 1-1/2 X 1/2 CXC WP COUPLING* | 1-1/2 X 3/4 CXC WP COUPLING* |
| 1-1/2 X 1 CXC WP COUPLING* | 1-1/2 X 1-1/4 CXC WP COUPLING* |
| 2 CXC WP COUPLING* | 2 X 1/2 CXC WP COUPLING* |
| 2 X 3/4 CXC WP COUPLING* | 2 X 1 CXC WP COUPLING* |
| 2 X 1-1/4 CXC WP COUPLING* | 2 X 1-1/2 CXC WP COUPLING* |
| 2-1/2 CXC WP COUPLING* | 2-1/2 X 3/4 CXC WP COUPLING* |
| 2-1/2 X 1 CXC WP COUPLING* | 2-1/2 X 1-1/4 CXC WP COUPLING* |
| 2-1/2 X 1-1/2 CXC WP COUPLING* | 2-1/2 X 2 CXC WP COUPLING* |
| 3 CXC WP COUPLING* | 3 X 3/4 CXC WP COUPLING* |
| 3 X 1 CXC WP COUPLING* | 3 X 1-1/4 CXC WP COUPLING* |
| 3 X 1-1/2 CXC WP COUPLING* | 3 X 2 CXC WP COUPLING* |
| 3 X 2-1/2 CXC WP COUPLING* | 3-1/2 CXC WP COUPLING* |

| | |
|---|---|
| 3-1/2 X 3 CXC WP COUPLING* | 4 CXC WP COUPLING* |
| 4 X 1-1/2 CXC WP COUPLING* | 4 X 2 CXC WP COUPLING* |
| 4 X 2-1/2 CXC WP COUPLING* | 4 X 3 CXC WP COUPLING* |
| 4 X 3-1/2 CXC WP COUPLING* | 5 CXC WP COUPLING* |
| 6 CXC WP COUPLING* | 6 X 2-1/2 WP COUPLINGS* |
| 1-1/4 X 3/4 CXC WP ECCENTRIC COUPLING* | 1-1/4 X 1 CXC WP ECCENTRIC COUPLING* |
| 1/8 CXC WP COUPLING NO STOP* | 1/4 CXC WP COUPLING NO STOP* |
| 3/8 CXC WP COUPLING NO STOP* | 1/2 CXC WP COUPLING NO STOP* |
| 5/8 CXC WP COUPLING NO STOP* | 3/4 CXC WP COUPLING NO STOP* |
| 1 CXC WP COUPLING NO STOP* | 1-1/4 CXC WP COUPLING NO STOP* |
| 1-1/2 CXC WP COUPLING NO STOP* | 2 CXC WP COUPLING NO STOP* |
| 2-1/2 CXC WP COUPLING NO STOP* | 3 CXC WP COUPLING NO STOP* |
| 4 CXC WP COUPLING NO STOP* | 5 CXC WP COUPLING NO STOP* |
| 6 CXC WP COUPLING NO STOP* | 1/2 X 3 CXC WP REPAIR COUPLING |
| 1/2 X 6 C X C WP REPAIR COUPLING | 3/4 X 3 C X C WP REPAIR COUPLING |
| 1/8 CXC WP RING COUPLING* | 1/4 CXC WP RING COUPLING* |
| 3/8 CXC WP RING COUPLING* | 1/2 CXC WP RING COUPLING* |
| 5/8 CXC WP RING COUPLING* | 3/4 CXC WP RING COUPLING* |
| 1 CXC WP RING COUPLING* | 1-1/4 CXC WP RING COUPLING* |
| 1-1/2 CXC WP RING COUPLING* | 2 CXC WP RING COUPLING* |
| 2-1/2 CXC WP RING COUPLING* | 3 CXC WP RING COUPLING* |
| 4 CXC WP RING COUPLING* | 1/2 X 3-1/4 FTGXC WP SLIDE COUPLING |
| 3/4 X 5 FTGXC WP SLIDE COUPLING | 1/2 CXC WP CROSSOVER COUPLING* |
| 3/4 CXC WP CROSSOVER COUPLING* | |

## Subject Copper Pipe Fittings—Elbows

| | |
|---|---|
| 1-1/4 CXC 11-1/4 CD ELBOW* | 1-1/2 CXC 11-1/4 CD ELBOW* |
| 2 CXC 11-1/4 CD ELBOW* | 3 CXC 11-1/4 CD ELBOW* |
| 4 C X C 11-1/4 CD ELBOW* | 1-1/4 CXC 22-1/2 CD ELBOW* |
| 1-1/2 CXC 22-1/2 CD ELBOW* | 2 CXC 22-1/2 CD ELBOW* |
| 3 CXC 22-1/2 CD ELBOW* | 4 CXC 22-1/2 CD ELBOW* |
| 3 FTGXC 45 CD ELBOW* | 4 FTGXC 45 CD ELBOW* |
| 2 CXM CD 45 ELBOW* | 1-1/4 CXC 45 CD ELBOW* |
| 1-1/2 CXC 45 CD ELBOW* | 2 CXC 45 CD ELBOW* |
| 3 CXC 45 CD ELBOW* | 4 CXC 45 CD ELBOW* |
| 1-1/4 CXC 60 CD ELBOW* | 1-1/2 CXC 60 CD ELBOW* |
| 2 CXC 60 CD ELBOW* | 3 CXC 60 CD ELBOW* |
| 4 CXC 60 CD ELBOW* | 1-1/4 CXC CD 90 ELBOW* |
| 1-1/4 FTGXC CD 90 ELBOW* | 1-1/2 FTGXC CD 90 ELBOW* |
| 2 FTGXC CD 90 ELBOW* | 1-1/2 CXC CD 90 ELBOW* |
| 1-1/2 X 1-1/4 CXC CD 90 ELBOW* | 3 CD FTGXC 90 ELBOW* |
| 4 FTGXC CD 90 ELBOW* | 2 CXC CD 90 ELBOW* |
| 2X 1-1/4 CXC CD 90 ELBOW* | 2 X 1-1/2 CXC CD 90 ELBOW* |
| 1-1/2 CXFE CD 90 ELBOW* | 2 CXFE CD 90 ELBOW* |
| 1-1/2 CXM CD 90 ELBOW | 2 CXM CD 90 ELBOW |
| 3 CXC CD 90 ELBOW | 4 CXC CD 90 ELBOW |
| 1-1/2 CXSJ CD 90 ELBOW | 1/2 X 1 CXC CP CLOSE RETURN BEND |
| 3/4 1-3/8 CXC CP CLOSE RETURN BEND | 1 X 1-3/4 CXC CP CLOSE RETURN BEND |
| 1/2 C X M CP 45 ELBOW | 3/4 C X M CP 45 ELBOW |
| 1-1/4 C X M CP 45 ELBOW | 4 CXC CP 45 ELBOW |
| 6 CXC CP 45 ELBOW | 1/2 C X C CP 90 ELBOW |
| 1-1/4 CXC CP 90 ELBOW | 1-1/4 X 1/2 CXC CP 90 ELBOW |
| 1-1/4 X 3/4 CP 90 ELBOW | 1-1/4 X 1 CP 90 ELBOW |
| 1-1/2 X 1/2 CP 90 ELBOW | 1-1/2 X 3/4 CXC CP 90 ELBOW |
| 1-1/2 X 1 CXC CP 90 ELBOW | 1/4 C X FE CP 90 ELBOW |
| 1/2 CXFE CP 90 ELBOW | 1/2 X 3/8 CXFE CP 90 ELBOW |
| 1/2 X 3/4 CXFE CP 90 ELBOW | 1/2 X 1 CXFE CP 90 ELBOW |
| 3/4 CXFE CP 90 ELBOW | 3/4 X 1/2 CXFE CP 90 ELBOW |
| 3/4 X 1 CXFE CP 90 ELBOW | 1 CXFE CP 90 ELBOW |
| 1 X 1/2 C X FE CP 90 ELBOW | 1 X 3/4 CXFE CP 90 ELBOW |
| 1-1/4 CXFE CP 90 ELBOW | 1-1/4 X 1/2 CXFE CP 90 ELBOW |
| 1-1/4 X 3/4 CXFE CP 90 ELBOW | 1-1/4 X 1 CXFE CP 90 ELBOW |
| 2 X 3/4 CXC CP 90 ELBOW | 2 X 1 CXC CP 90 ELBOW |
| 2 X 1-1/4 CXC CP 90 ELBOW | 1-1/2 CXFE CP 90 ELBOW |
| 1-1/2 X 1 C X FE CP 90 ELBOW | 2 CXFE CP 90 ELBOW |
| 3 C X FE CP 90 ELBOW | 1/2 CXFE CP 90 DROP EAR ELBOW |
| 1/2C X 3/8FE CP 90 DROP EAR ELBOW | 1/2 X 3/4 CXFE CP 90 DROP EAR ELBOW |
| 3/4 CXFE CP 90 DROP EAR ELBOW | 3/4C X 1/2FE CP 90 DROP EAR ELBOW |
| 1 CXFE CP 90 DROP EAR ELBOW | 1/2 CXFE CP DROP EAR IMPORT 90 ELBOW |
| 1/2 CXFE CP HIGH EAR 90 ELBOW | 3/4 CXFE CP HIGH EAR 90 ELBOW |
| 1/2 CXFE CP FLANGE SINK 90 ELBOW | 1/2 CXM CP 90 ELBOW |
| 1/2 X 3/8 CXM CP 90 ELBOW | 1/2 X 3/4 CXM CP 90 ELBOW |
| 3/4 CXM CP 90 ELBOW | 3/4 X 1/2 CXM CP 90 ELBOW |
| 3/4 C X 1 M CP 90 ELBOW | 1 CXM CP 90 ELBOW |
| 1 X 3/4 CXM CP 90 ELBOW | 1-1/4 CXM CP P 90 ELBOW |
| 1-1/4 X 1 CXM CP 90 ELBOW | 1-1/2 CXM CP 90 ELBOW |
| 2 CXM CP 90 ELBOW | 1/2 CXC CP DROP EAR 90 ELBOW |
| 3/4 CXC CP 90 DROP EAR ELBOW | 1 CXC CP 90 DROP EAR ELBOW |
| 1/2 CXC CP HIGH EAR 90 ELBOW | 3/4 CXC CP HIGH EAR 90 ELBOW |
| 6 CXC CP 90 ELBOW | 1/2C X 1/8FE X 1/2C CP BASE TEE* |

| | |
|---|---|
| 1/2C X 1/8FE X 3/4C CP BASE TEE* | 3/4C X 1/8FE X 3/4C CP BASE TEE* |
| 1C X 1/8FE X 1 C CP BASE TEE* | 1-1/4C X 1/8FEX1-1/4C CP BASE TEE* |
| 3/4FE X 1/8FE X 3/4C CP BASE TEE | 1-1/4 CXFTG WD 45 ELBOW* |
| 1-1/2 FTGXC WD 45 ELBOW* | 2 FTGXC WD 45 ELBOW* |
| 3 C X FTG WD 45 ELBOW* | 1-1/4 CXC WD 45 ELBOW* |
| 1-1/2 CXC WD 45 ELBOW* | 2 CXC WD 45 ELBOW* |
| 3 CXC WD 45 ELBOW* | 1-1/4 CXC WD 90 ELBOW* |
| 1-1/4 FTGXC WD 90 ELBOW* | 1-1/2 FTGXC WD 90 ELBOW* |
| 2 FTGXC WD 90 ELBOW* | 1-1/2 CXC WD 90 ELBOW* |
| 2 CXC WD 90 ELBOW* | 3 CXC WD 90 ELBOW* |
| 1-1/2 CXC WD 90 LT ELBOW* | 2 CXC WD 90 LT ELBOW* |
| 1/4 CXC WP 45 ELBOW* | 3/8 CXC WP 45 ELBOW* |
| 1/2 CXC WP 45 ELBOW* | 5/8 CXC WP 45 ELBOW* |
| 3/4 CXC WP 45 ELBOW* | 1 CXC WP 45 ELBOW* |
| 1-1/4 CXC WP 45 ELBOW* | 1/4 FTG X C WP 45 ELBOW* |
| 3/8 FTGXC WP 45 ELBOW* | 1/2 FTGXC WP 45 ELBOW* |
| 5/8 FTGXC WP 45 ELBOW* | 3/4 FTGXC WP 45 ELBOW* |
| 1 FTGXC WP 45 ELBOW* | 1-1/4 FTGXC WP 45 ELBOW* |
| 1-1/2 FTGXC WP 45 ELBOW* | 2 FTGXC WP 45 ELBOW* |
| 1-1/2 CXC WP 45 ELBOW* | 2-1/2 FTGXC WP 45 ELBOW* |
| 2 CXC WP 45 ELBOW* | 2-1/2 CXC WP 45 ELBOW* |
| 3 CXC WP 45 ELBOW* | 4 CXC WP 45 ELBOW* |
| 1/4 CXC WP 90 ELBOW* | 3/8 CXC WP 90 ELBOW* |
| 1/2 CXC WP 90 ELBOW* | 5/8 CXC WP 90 ELBOW* |
| 3/4 CXC WP 90 ELBOW* | 3/4 X 1/2 CXC WP 90 ELBOW* |
| 1 CXC WP 90 ELBOW* | 1 X 1/2 CXC WP 90 ELBOW* |
| 1 X 3/4 CXC WP 90 ELBOW* | 1-1/4 CXC WP 90 ELBOW* |
| 1-1/4 X 1 CXC WP 90 ELBOW* | 1/4 FTGXC WP 90 ELBOW* |
| 3/8 FTGXC WP 90 ELBOW* | 1/2 FTGXC WP 90 ELBOW* |
| 5/8 FTGXC WP 90 ELBOW* | 3/4 FTGXC WP 90 ELBOW* |
| 1 FTGXC WP 90 ELBOW* | 1-1/4 FTGXC WP 90 ELBOW* |
| 1/2 FTGXFTG WP 90 ELBOW* | 3/4 FTG X FTG WP 90 ELBOW* |
| 1-1/2 FTGXC WP 90 ELBOW* | 2 FTGXC WP 90 ELBOW* |
| 1-1/2 CXC WP 90 ELBOW* | 2-1/2 FTGXC WP 90 ELBOW* |
| 1-1/2CX 1-1/4C WP 90 ELBOW* | 2 CXC WP 90 ELBOW* |
| 2-1/2 CXC WP 90 ELBOW* | 3 CXC WP 90 ELBOW* |
| 4 CXC WP 90 ELBOW* | 1/2 CXC WP 90 VENT ELBOW* |
| 3/4 CXC WP 90 VENT ELBOW* | 1 CXC WP 90 VENT ELBOW* |
| 1/4 CXC LT WP 90 ELBOW | 3/8 CXC LT WP 90 ELBOW |
| 1/2 CXC LT WP 90 ELBOW | 5/8 CXC LT WP 90 ELBOW |
| 3/4 CXC LT WP 90 ELBOW | 1 CXC LT WP 90 ELBOW |
| 1-1/4 CXC LT WP 90 ELBOW | 1/4 CXFTG LT WP 90 ELBOW |
| 3/8 C X FTG LT WP 90 ELBOW | 1/2 C X FTG LT WP 90 ELBOW |
| 5/8 CXFTG LT WP 90 ELBOW | 3/4 CXFTG LT WP 90 ELBOW |
| 1 CXFTG LT WP 90 ELBOW | 1-1/4 CXFTG LT WP 90 ELBOW |
| 1-1/2 CXFTG LT WP 90 ELBOW | 2 CXFTG LT WP 90 ELBOW |
| 1-1/2 CXC LT WP 90 ELBOW | 2 CXC LT WP 90 ELBOW |

## Subject Copper Pipe Fittings—Flanges

| | |
|---|---|
| 3 X 4 CXC CD CLOSET FLANGE* | 4 X 4 CXC CD CLOSET FLANGE* |
| 4 CD CAULKING FLOOR FLANGE* | 3 X 4 CD ECCENTRIC CLOSET FLANGE* |
| 3 X 4 FITTING CD CLOSET FLANGE | 4 CD LEAD 8 OZ CLOSET FLANGE |
| 3 X 4 CD M J CLOSET FLANGE* | 4 CD 14OZ LEAD CLOSET FLANGE |
| 1/2 CP COMPANION FLANGE - 125# | 3/4 CP COMPANION FLANGE - 125# |
| 1 CP COMPANION FLANGE - 125# | 1-1/4 CP COMPANION FLANGE - 125# |
| 1-1/2 CP COMPANION FLANGE - 125# | 2 CP COMPANION FLANGE - 125# |
| 2-1/2 CP COMPANION FLANGE - 125# | 3 CP COMPANION FLANGE - 125# |
| 3-1/2 CP COMPANION FLANGE #125 | 4 CP COMPANION FLANGE - 125# |
| 5 CP COMPANION FLANGE - 125# | 6 CP COMPANION FLANGE - 125# |
| 8 CP COMPANION FLANGE - 125# | 1/2 CP COMPANION FLANGE - 150# |
| 3/4 CP COMPANION FLANGE - 150# | 1 CP COMPANION FLANGE - 150# |
| 1-1/4 CP COMPANION FLANGE - 150# | 1-1/2 CP COMPANION FLANGE - 150# |
| 2 CP COMPANION FLANGE - 150# | 2-1/2 CP COMPANION FLANGE - 150# |
| 3 CP COMPANION FLANGE - 150# | 3-1/2 CP COMPANION FLANGE #150 |
| 4 X 9 CP COMPANION FLANGE - 150# | 5 CP COMPANION FLANGE - 150# |
| 6 CP COMPANION FLANGE -150# | 8 CP COMPANION FLANGE - 150# |
| 1/2 CP COMPANION FLANGE - 300# | 1 X 5 CP COMPANION FLANGE - 300# |
| 1-1/4 CP COMPANION FLANGE - 300# | 1-1/2 X 6-1/2 CP COMPANION FLANGE-300# |
| 2 CP COMPANION FLANGE - 300# | 2-1/2 CP COMPANION FLANGE - 300# |
| 3 X 8-1/4 CP COMPANION FLANGE - 300# | 4 CP COMPANION FLANGE - 300# |
| 1-1/2 CP BLIND COMPANION FLANGE | 2 X 6 CP BLIND COMPANION FLANGE |
| 3 X 7-1/2 CP BLIND COMPANION FLANGE | 13-1/2 X 8 CP BLIND COMPANION FLANGE |
| 8 COMP CP FLANGE 125# SILVER BRZD | 3 COMP CP FLANGE 150# SILVER BRZD |
| 8 COMP CP FLANGE 150# SILVER BRZD | |

## Subject Copper Pipe Fittings—Pressure Tees

| | |
|---|---|
| 1/2 CXCXC CP DROP EAR TEE | 1/2 CXCXFE CP TEE |
| 1/2 X 1/2 X 1/4 CXCXFE CP TEE | 1/2C X 1/2C X 3/8FE CP TEE |
| 1/2 X 1/2 X 3/4 CXCXFE CP TEE | 3/4 CXCXFE CP TEE |
| 3/4C X 1/2C X 1/2FE CP TEE | 3/4 X 1/2 X 3/4 CXCXFE CP TEE |
| 3/4 X 3/4 X 3/8 CCFE CP TEE | 3/4C X 3/4C X 1/2FE CP TEE |
| 3/4 X 3/4 X 1 CXCXFE CP TEE | 1 CXCXFE CP CP TEE |
| 1 X 1 X 1/2 CXCXFE CP TEE | 1 X 1 X 3/4 CXCXFE CP TEE |
| 1-1/4 CXCXFE CP TEE | 1-1/4 X 1-1/4 X 1/2 CCFE CP TEE |
| 1-1/4 X 1-1/4 X 3/4 CCFE CP TEE | 1-1/4X1-1/4X1 CCFE CP TEE |
| 1-1/2 CXCXFE CP TEE | 1-1/2X1-1/2X1/2 CCFE CP TEE |
| 1-1/2 X 1-1/2 X 3/4 CCFE CP TEE | 1-1/2 X 1-1/2 X 1 CCFE CP TEE |
| 1/2 CXFEXFE CP TEE | 1/2C X 3/4FE X 1/2FE CP TEE |
| 3/4 C X FE X FE CP TEE | 3/4 C X 3/4 FE X 1/2 FE CP TEE |
| 2 CXCXFE CP TEE | 2 X 2 X 1/2 CXCXFE CP TEE |
| 2 X 2 X 3/4 CXCXFE CP TEE | 2 X 2 X 1 CXCXFE CP TEE |
| 1/2 CXCXFE CP DROP EAR TEE | 3/4 CXCXFE CP DROP EAR TEE |
| 3/4C X 3/4C X 1/2FE W/B CP TEE | 3/8 C X FE X C CP TEE |
| 1/2 CXFEXC CP TEE | 1/2C X 1/2FE X 3/4C CP TEE |
| 1/2C X 3/4FE X 1/2C CP TEE | 3/4 CXFEXC CP TEE |
| 3/4 X 1/2 X 1/2 CXFEXC CP TEE | 3/4C X 1/2FE X 3/4C CP TEE |
| 3/4C X 3/4FE X 1/2C CP TEE | 1 CXFEXC CP TEE |
| 1C X 1/2FE X 1C CP TEE | 1 X 3/4 X 1 CXFEXC CP TEE |
| 1-1/4 CXFEXC CP TEE | 1-1/4 X 1/2 X 1-1/4 CXFEXC CP TEE |
| 1-1/4 X 3/4 X 1-1/4 CXFEXC CP TEE | 1-1/2 C X FE X C CP TEE |
| 1-1/2X1/2X1-1/2 CXFEXC CP TEE | 1-1/2X3/4X1-1/2 CXFEXC CP TEE |
| 1/2 FEXFEXC CP TEE | 3/4 FEXFEXC CP TEE |
| 3/4FE X 1/2FE X 1/2C CP TEE | 3/4FE X 1/2FE X 3/4C CP TEE |
| 3/4FE X 3/4FE X 1/2C CP TEE | 2 C X FE X C CP TEE |
| 2 X 1/2 X 2 CXFEXC CP TEE | 2 X 3/4 X 2 CXFEXC CP TEE |
| 1/2FE X 3/4M X 1/2C CP TEE | 1/2 CXCXCXC CP CROSS* |
| 3/4 CXCXCXC CP CROSS* | 1 CXCXCXC CP CROSS* |
| 1-1/2 CXCXCXC CP CROSSES* | 2 CXCXCXC CP CROSS* |
| 3/4 CXFTGXC CP TEE* | 2 X 2 X 3 CXCXC CP TEE* |
| 2-1/2 X 1/2 X 2-1/2 CP TEE* | 2-1/2 X 1-1/2 X 1-1/2 CP TEE* |
| 5 CXCXC CP TEE* | 5 X 5 X 3 CXCXC CP TEE* |
| 6 CXCXC CP TEE* | 3/4FE X 1/8 FE X 3/4C WP BASEBOARD TEE* |
| 1/8 CXCXC WP TEE* | 1/4 CXCXC WP TEE* |
| 3/8 CXCXC WP TEE* | 1/2 CXCXC WP TEE* |
| 1/2 X 1/2 X 3/4 CXCXC WP TEE* | 3/4 CXCXC WP TEE* |
| 3/4 X 1/2 X 1/2 CXCXC WP TEE* | 3/4 X 1/2 X 3/4 CXCXC WP TEE* |
| 3/4 X 3/4 X 1/4 CXCXC WP TEE* | 3/4C X 3/4C X 3/8C CXCXC WP TEE* |
| 3/4 X 3/4 X 1/2 CXCXC WP TEE* | 1 CXCXC WP TEE* |
| 1 X 1/2 X 1/2 CXCXC WP TEE* | 1 X 1/2 X 3/4 CXCXC WP TEE* |
| 1 X 1/2 X 1 CXCXC WP TEE* | 1 X 3/4 X 1/2 CXCXC WP TEE* |
| 1 X 3/4 X 3/4 CXCXC WP TEE* | 1 X 3/4 X 1 CXCXC WP TEE* |
| 1 X 1 X 3/8 CXCXC WP TEE* | 1 X 1 X 1/2 CXCXC WP TEE* |
| 1 X 1 X 3/4 CXCXC WP TEE* | 1-1/4 CXCXC WP TEE* |
| 1-1/4 X 1/2 X 1/2 CXCXC WP TEE* | 1-1/4 X 1/2 X 3/4 CXCXC WP TEE* |
| 1-1/4 X 1/2 X 1 CXCXC WP TEE* | 1-1/4 X 1/2 X 1-1/4 CXCXC WP TEE* |

| | |
|---|---|
| 1-1/4 X 3/4 X 1/2 CXCXC WP TEE* | 1-1/4 X 3/4 X 3/4 CXCXC WP TEE* |
| 1-1/4 X 3/4 X 1 CXCXC WP TEE* | 1-1/4 X 3/4 X 1-1/4 CXCXC WP TEE* |
| 1-1/4 X 1 X 1/2 CXCXC WP TEE* | 1-1/4 X 1 X 3/4 CXCXC WP TEE* |
| 1-1/4 X 1 X 1 CXCXC WP TEE* | 1-1/4 X 1 X 1-1/4 CXCXC WP TEE* |
| 1-1/4 X 1-1/4 X 1/2 CXCXC WP TEE* | 1-1/4 X 1-1/4 X 3/4 CXCXC WP TEE* |
| 1-1/4C X 1-1/4C X 1C CXCXC WP TEE* | 1-1/2 CXCXC CXCXC WP TEE* |
| 1-1/2 X 1/2 X 1/2 CXCXC WP TEE* | 1-1/2 X 1/2 X 3/4 CXCXC WP TEE* |
| 1-1/2 X 1/2 X 1 CXCXC WP TEE* | 1-1/2 X 1/2 X 1-1/4 CXCXC WP TEE* |
| 1-1/2 X 1/2 X 1-1/2 CXCXC WP TEE* | 1-1/2 X 3/4 X 1/2 CXCXC WP TEE* |
| 1-1/2 X 3/4 X 3/4 CXCXC WP TEE* | 1-1/2 X 3/4 X 1 CXCXC WP TEE* |
| 1-1/2 X 3/4 X 1-1/4 CXCXC WP TEE* | 1-1/2 X 3/4 X 1-1/2 CXCXC WP TEE* |
| 1-1/2 X 1 X 1/2 CXCXC WP TEE* | 1-1/2 X 1 X 3/4 CXCXC WP TEE* |
| 1-1/2 X 1 X 1 CXCXC WP TEE* | 1-1/2 X 1 X 1-1/4 CXCXC WP TEE* |
| 1-1/2 X 1 X 1-1/2 CXCXC WP TEE* | 1-1/2 X 1-1/4 X 1/2 CXCXC WP TEE* |
| 1-1/2 X 1-1/4 X 3/4 CXCXC WP TEE* | 1-1/2 X 1-1/4 X 1 CXCXC WP TEE* |
| 1-1/2 X 1-1/4 X 1-1/4 CXCXC WP TEE* | 1-1/2 X 1-1/4 X 1-1/2 CXCXC WP TEE* |
| 1-1/2 X 1-1/2 X 1/2 CXCXC WP TEE* | 1-1/2 X 1-1/2 X 3/4 CXCXC WP TEE* |
| 1-1/2 X 1-1/2 X 1 CXCXC WP TEE* | 1-1/2 X 1-1/2 X 1-1/4 CXCXC WP TEE* |
| 2 CXCXC CXCXC WP TEE* | 2 X 1/2 X 2 CXCXC WP TEE* |
| 2 X 3/4 X 2 CXCXC WP TEE* | 2 X 1 X 3/4 CXCXC WP TEE* |
| 2 X 1 X 1 CXCXC WP TEE* | 2C X 1C X 1-1/4C CXCXC WP TEE* |
| 2 X 1 X 1-1/2 CXCXC WP TEE* | 2 X 1 X 2 CXCXC WP TEE* |
| 2 X 1-1/4 X 1/2 CXCXC WP TEE* | 2 X 1-1/4 X 3/4 CXCXC WP TEE* |
| 2 X 1-1/4 X 1 CXCXC WP TEE* | 2 X 1-1/4 X 1-1/4 CXCXC WP TEE* |
| 2 X 1-1/4 X 1-1/2 CXCXC WP TEE* | 2 X 1-1/4 X 2 CXCXC WP TEE* |
| 2 X 1-1/2 X 1/2 CXCXC WP TEE* | 2 X 1-1/2 X 3/4 CXCXC WP TEE* |
| 2 X 1-1/2 X 1 CXCXC WP TEE* | 2 X 1-1/2 X 1-1/4 CXCXC WP TEE* |
| 2 X 1-1/2 X 1-1/2 CXCXC WP TEE* | 2 X 1-1/2 X 2 CXCXC WP TEE* |
| 2 X 2 X 1/2 CXCXC WP TEE* | 2 X 2 X 3/4 CXCXC WP TEE* |
| 2 X 2 X 1 CXCXC WP TEE* | 2 X 2 X 1-1/4 CXCXC WP TEE* |
| 2 X 2 X 1-1/2 CXCXC WP TEE* | 2-1/2 CXCXC WP TEE* |
| 2-1/2 X 1/2 X 2-1/2 CXCXC WP TEE* | 2-1/2 X 3/4 X 1-1/2 CXCXC WP TEE* |
| 2-1/2 X 3/4 X 2-1/2 CXCXC WP TEE* | 2-1/2 X 1 X 1-1/4 CXCXC WP TEE* |
| 2-1/2 X 1 X 1-1/2 CXCXC WP TEE* | 2-1/2 X 1 X 2 CXCXC WP TEE* |
| 2-1/2 X 1 X 2-1/2 CXCXC WP TEE* | 2-1/2 X 1-1/4 X 1-1/4CXCXC WP TEE* |
| 2-1/2 X 1-1/4 X 1-1/2 CXCXC WP TEE* | 2-1/2 X 1-1/4 X 2 CXCXC WP TEE* |
| 2-1/2 X 1-1/4 X 2-1/2 CXCXC WP TEE* | 2-1/2 X 1-1/2 X 1 CXCXC WP TEE* |
| 2-1/2 X 1-1/2 X 1-1/4 CXCXC WP TEE* | 2-1/2 X 1-1/2 X 1-1/2 CXCXC WP TEE* |
| 2-1/2 X 1-1/2 X 2 CXCXC WP TEE* | 2-1/2 X 1-1/2 X 2-1/2 CXCXC WP TEE* |
| 2-1/2 X 2 X 1/2 CXCXC WP TEE* | 2-1/2 X 2 X 3/4 CXCXC WP TEE* |
| 2-1/2 X 2 X 1 CXCXC WP TEE* | 2-1/2 X 2 X 1-1/4 CXCXC WP TEE* |
| 2-1/2 X 2 X 1-1/2 CXCXC WP TEE* | 2-1/2 X 2 X 2 CXCXC WP TEE* |
| 2-1/2 X 2 X 2-1/2 CXCXC WP TEE* | 2-1/2 X 2-1/2 X 1/2 CXCXC WP TEE* |
| 2-1/2 X 2-1/2 X 3/4 CXCXC WP TEE* | 2-1/2 X 2-1/2 X 1 CXCXC WP TEE* |
| 2-1/2 X 2-1/2 X 1-1/4 CXCXC WP TEE* | 2-1/2 X 2-1/2 X 1-1/2 CXCXC WP TEE* |
| 2-1/2 X 2-1/2 X 2 CXCXC WP TEE* | 3 CXCXC WP TEE* |
| 3 X 3/4 X 3 CXCXC WP TEE* | 3 X 1 X 3 CXCXC WP TEE* |
| 3 X 1-1/4 X 3 CXCXC WP TEE* | 3 X 1-1/2 X 1-1/4 CXCXC WP TEE* |
| 3 X 1-1/2 X 1-1/2 CXCXC WP TEE* | 3 X 1-1/2 X 2-1/2 CXCXC WP TEE* |
| 3 X 1-1/2 X 3 CXCXC WP TEE* | 3 X 2 X 1/2 CXCXC WP TEE* |
| 3 X 2 X 1 CXCXC WP TEE* | 3 X 2 X 1-1/4 CXCXC WP TEE* |

| | |
|---|---|
| 3 X 2 X 1-1/2 CXCXC WP TEE* | 3 X 2 X 2 CXCXC WP TEE* |
| 3 X 2 X 2-1/2 CXCXC WP TEE* | 3 X 2 X 3 CXCXC WP TEE* |
| 3 X 2-1/2 X 3/4 CXCXC WP TEE* | 3 X 2-1/2 X 1 CXCXC WP TEE* |
| 3 X 2-1/2 X 1-1/4 CXCXC WP TEE* | 3 X 2-1/2 X 1-1/2 CXCXC WP TEE* |
| 3 X 2-1/2 X 2 CXCXC WP TEE* | 3 X 2-1/2 X 2-1/2 CXCXC WP TEE* |
| 3 X 2-1/2 X 3 CXCXC WP TEE* | 3 X 3 X 1/2 CXCXC WP TEE* |
| 3 X 3 X 3/4 CXCXC WP TEE* | 3 X 3 X 1 CXCXC WP TEE* |
| 3 X 3 X 1-1/4 CXCXC WP TEE* | 3 X 3 X 1-1/2 CXCXC WP TEE* |
| 3 X 3 X 2 CXCXC WP TEE* | 3 X 3 X 2-1/2 CXCXC WP TEE* |
| 4 CXCXC WP TEE* | 4 X 1-1/2 X 3 CXCXC WP TEE* |
| 4 X 2 X 2 CXCXC WP TEE* | 4 X 2 X 3 CXCXC WP TEE* |
| 4 X 2-1/2 X 2-1/2 CXCXC WP TEE* | 4 X 2-1/2 X 3 CXCXC WP TEE* |
| 4 X 3 X 2 CXCXC WP TEE* | 4 X 3 X 2-1/2 CXCXC WP TEE* |
| 4 X 3 X 3 CXCXC WP TEE* | 4 X 4 X 1/2 CXCXC WP TEE* |
| 4 X 4 X 3/4 CXCXC WP TEE* | 4 X 4 X 1 CXCXC WP TEE* |
| 4 X 4 X 1-1/4 CXCXC WP TEE* | 4 X 4 X 1-1/2 CXCXC WP TEE* |
| 4 X 4 X 2 CXCXC WP TEE* | 4 X 4 X 2-1/2 CXCXC WP TEE* |
| 4 X 4 X 3 CXCXC WP TEE* | 5 X 5 X 2 CXCXC WP TEE* |

## Subject Copper Pipe Fittings—Unions

| | |
|---|---|
| 2-1/2 CXFE CP UNION* | 2-1/2 CXC CP UNION* |
| 2 CXM CP UNION* | 2-1/2 C X M CP UNION* |
| 3 CXC CP UNION* | 3/4 CXM CP UNION ELBOW |
| 3/4 CXC WP UNION* | 1 CXC WP UNION* |
| 1-1/4 CXC WP UNION* | 1-1/2 C X C WP UNION* |
| 1/2 C X FE WP UNION* | 3/4 C X FE WP UNION* |
| 1 C X FE WP UNION* | 2 CXC WP UNION* |
| 1-1/4 C X FE WP UNION* | 1-1/2 C X FE WP UNION* |
| 2 C X FE WP UNION* | 1/2 C X M WP UNION* |
| 3/4 C X M WP UNION* | 1 C X M WP UNION* |
| 1-1/4 C X M WP UNION* | 1-1/2 C X M WP UNION* |
| 2 C X M WP UNION* | |

## Subject Copper Pipe Fittings—P-Traps

| | |
|---|---|
| 1-1/4 CXC CD P-TRAP BODY N/CO | 1-1/2 C X C CD P-TRAP BODYN/CO |
| 2 C X C CD P-TRAP BODYN/CO | 3 C X C CD P-TRAP BODY N/CO |
| 1-1/4 CD P TRAP - N/CO | 1-1/4 CD P TRAP-N/CO- ELBOW |
| 1-1/2 P TRAP - N/CO- | 1-1/2 CD P TRAP-N/CO-ELBOW |
| 2 CD P TRAP - N/CO | 2 CD P TRAP-N/CO-ELBOW |
| 3 CD P TRAP - N/CO | 3 CD P TRAPS-N/CO-ELBOW |
| 1 1/4 CD S TRAP N/CO | 1 1/2 CD S TRAP N/CO |
| 1-1/4 CD S TRAP - W/CO | 1-1/2 CD S TRAP - W/CO |
| 2 CD S TRAP W/CO | 1-1/2 C X C CD P-TRAP BODY - W/CO |
| 2 C X C CD P-TRAP BODY - W/CO | 1-1/4 CD P TRAP - W/CO |
| 1-1/4 CD P TRAP-W/CO-ELBOW | 1-1/2 CD P TRAP W/CO |
| 1-1/2 CD P TRAP-W/CO-ELBOW | 2 CD P TRAP - W/CO |
| 2 CD P TRAP-W/CO-ELBOW | 3 CD P TRAP - W/CO |
| 3 CD P TRAP-W/CO-ELBOW | 3 X 6 X 1-1/2 X 1-1/2 CD DRUM TRAP |
| 1-1/2 CD P TRAP L/CO GROUND SWIVEL | 1-1/2 CD P TRAP W/CO GROUND SWIVEL |

## Subject Copper Pipe Fittings—DWV TY's

| | |
|---|---|
| 1-1/4 CXCXCXC CD DOUBLE WASTE FTG | 1-1/2 CXCXCXC CD DOUBLE WASTE FTG |
| 1-1/2 1-1/4 1-1/4 1-1/4 CXCXCXC CD DOUBLE WASTE FTG | 1-1/2 1-1/4 1-1/2 1-1/2 CXCXCXC CD DOUBLE WASTE FTG |
| 1-1/2 1-1/2 1-1/4 1-1/4 CXCXCXC CD DOUBLE WASTE FTG | 2 1-1/2-1-1/4-1-1/4 CXCXCXC CD DOUBLE WASTE FTG |
| 2 1-1/2 1-1/2 1-1/2 CXCXCXC CD DOUBLE WASTE FTG | 1-1/4 CXCXC CD TY* |
| 1-1/2 CXCXC CD TY* | 1-1/2 X 1-1/4 X 1-1/4 CXCXC CD TY* |
| 1-1/2 X 1-1/4 X 1-1/2 CXCXC CD TY* | 1-1/2 X 1-1/2 X 1-1/4 CXCXC CD TY* |
| 3 FTG X C X C CD TY* | 3 X 3 X 1-1/4 FTGXCXC CD TY* |
| 3 X 3 X 1-1/2 FTGXCXC CD TY* | 3 X 3 X 2 FTGXCXC CD TY* |
| 2 CXCXC CD TY* | 2 X 1-1/4 X 1-1/4 CXCXC CD TY* |
| 2 X 1-1/4 X 1-1/2 CXCXC CD TY* | 2 X 1-1/4 X 2 CXCXC CD TY* |
| 2 X 1-1/2 X 1-1/4 CXCXC CD TY* | 2 X 1-1/2 X 1-1/2 CXCXC CD TY* |
| 2 X 1-1/2 X 2 CXCXC CD TY* | 2 X 2 X 1-1/4 CXCXC CD TY* |
| 2 X 2 X 1-1/2 CXCXC CD TY* | 1-1/2 CXCXFE CD TY* |
| 2 CXCXFE CD TY | 2 X 1-1/2 X 1-1/2 CXCXF CD TY |
| 3 CXCXC CD TY* | 3 X 1-1/2 X 1-1/4 CXCXC CD TY* |
| 3 X 2 X 1-1/2 CXCXC CD TY* | 3 X 3 X 1-1/4 CXCXC CD TY* |
| 3 X 3 X 1-1/2 CXCXC CD TY* | 3 X 3 X 2 CXCXC CD TY* |
| 4 CXCXC CD TY* | 4 X 4 X 1-1/2 CXCXC CD TY* |
| 4 X 4 X 2 CXCXC CD TY* | 4 X 4 X 3 CXCXC CD TY* |
| 1-1/4 CXCXCXC CD DOUBLETY | 1-1/2 CXCXCXC CD DOUBLETY |
| 1-1/2 1-1/2 1-1/4 1-1/4 CXCXCXC CD DOUBLETY | 1-1/2 1-1/4 1-1/4 1-1/4 CXCXCXC CD DOUBLETY |
| 2 CXCXCXC CD DOUBLETY | 2 X 2 X 1-1/4 X 1-1/4 CXCXCXC CD DOUBLETY |
| 2 X 2 X 1-1/2 X 1-1/2 CXCXCXC CD DOUBLETY | 3 CXCXCXC CD DOUBLETY |
| 3 X 3 X 1-1/4 X 1-1/4 CXCXCXC CD DOUBLETY | 3 X 3 X 1-1/2 X 1-1/2 CXCXCXC CD DOUBLETY |
| 3 X 3 X 2 X 2 CXCXCXC CD DOUBLETY | 4 CXCXCXC CD DOUBLETY |
| 4 X 4 X 2 X 2 CXCXCXC CD DOUBLETY | 4 X 4X 3 X 3 CXCXCXC CD DOUBLETY |
| 1-1/4 CXCXCXC CD DOUBLE LONG TURNTY | 1-1/2 CXCXCXC CD DOUBLE LONG TURNTY |
| 1-1/2 1-1/2 1-1/4 1-1/4 CXCXCXCCD DLT TY | 2 CXCXCXC CD DOUBLE LONG TURNTY |
| 2 X 2 X 1-1/4 X 1-1/4CXCXCXC CD DLT TY | 2 X 2 X 1-1/2 X 1-1/2 CXCXCXC CD DLT TY |
| 1-1/2 CXCXC LONG TURN CD TY | 2 CXCXC LONG TURN CD TY |
| 3X3X3X1-1/2 CXCXCXC SIDEOUT RH CD TY | 3X3X3X1-1/2 CXCXCXC SIDEOUT LH CD TY |

## Subject Copper Pipe Fittings—DWV Y's

| | |
|---|---|
| 1-1/4 CXCXC CD 45 Y* | 1-1/2 CXCXC CD 45 Y* |
| 1-1/2CX 1-1/4CX 1-1/4C CD 45 Y* | 1-1/2CX 1-1/4CX 1-1/2C CD 45 Y* |
| 1-1/2CX 1-1/2CX 1-1/4C CD 45 Y* | 2 CXCXC 45 CD Y* |
| 2CX 1-1/4CX 1-1/4C CD 45 Y* | 2CX 1-1/4CX 1-1/2C CD 45 Y* |
| 2CX 1-1/4CX 2C CD 45 Y* | 2CX 1-1/2CX 1-1/4C CD 45 Y* |
| 2CX 1-1/2CX 1-1/2C CD 45 Y* | 2CX 1-1/2CX 2C CD 45 Y* |
| 2CX 2CX 1-1/4C CD 45 Y* | 2CX 2CX 1-1/2C CD 45 Y* |
| 3 CXCXC CD 45 Y* | 3C X 2C X 2C CD 45 Y* |
| 3CX 3CX 1-1/4C CD 45 Y* | 3CX 3CX 1-1/2C CD 45 Y* |
| 3CX 3CX 2C CD 45 Y* | 4 CXCXC CD 45 Y* |
| 4CX 4CX 2C CD 45 Y* | 4CX 4CX 3C CD 45 Y* |
| 1-1/4 CXCXCXC CD 45DOUBLE Y | 1-1/2 CXCXCXC CD 45DOUBLE Y |
| 1-1/2 1-1/2 1-1/4 1-1/4CXCXCXC CD DOUBLE Y | 2 CXCXCXC CD 45DOUBLE Y |
| 2 X 2 X 1-1/4 X 1-1/4 CXCXCXC CD DOUBLE Y | 2 X 2 X 1-1/2 X 1-1/2 CXCXCXC CD DOUBLE Y |
| 3 CXCXCXC CD 45DOUBLE Y | 3 X 3 X 1-1/2 X 1-1/2 CXCXCXC CD DOUBLE Y |

## Subject Copper Pipe Fittings—Caps and Cleanouts

| | |
|---|---|
| 5 CP TUBE END CAP* | 6 CP TUBE END CAP* |
| 1-1/2 CXC/O CD TUBE END CLEANOUT* | 3 CD CXC/O TUBE END CLEANOUT* |
| 3 FTGXC/O CD CLEANOUT - FLUSH TYPE* | 4 FTGXC/O CD CLEANOUT - FLUSH TYPE* |
| 1-1/4 FTGXC/O CD CLEANOUT - FULL PLUG* | 1-1/2 FTGXC/O CD CLEANOUT - FULL PLUG* |
| 2 FTGXC/O CD CLEANOUT - FULL PLUG* | 3 FTGXC/O CD CLEANOUT - FULL PLUG* |
| 4 FTGXC/O CD CLEANOUT - FULL PLUG* | 1-1/4 CXCXCO CD LINE CLEANOUT |
| 1-1/2 CXCXCO CD LINE CLEANOUT | 2 CXCXCO CD LINE CLEANOUT |
| 3 CXCXCO CD LINE CLEANOUT | 4 CXCXCO CD LINE CLEANOUT |
| 1-1/2 CXCXCO CLEANOUT-FULL PLUG | 2 CXCXCO CD CLEANOUT - FULL PLUG |
| 3 CXCXCO CD CLEANOUT - FULL PLUG | 1-1/4 CXCO WD TUBE END CLEANOUT* |
| 1-1/2 CXCO WD TUBE END CLEANOUT* | 2 CXCO WD TUBE END CLEANOUT* |
| 3 CXCO WD TUBE END CLEANOUT* | 1-1/4 WD FLUSH FTGXCO CLEANOUT* |
| 1-1/2 FTGXCO WD CLEANOUT-FLUSH TYPE* | 1-1/2 X 1 FTGXCO WD CLEANOUT - FLUSH* |
| 2 FTGXCO WD CLEANOUT-FLUSH TYPE* | 1-1/4 FTGXCO WD CLEANOUT FULL PLUG* |
| 1-1/2 FTGXCO WD CLEANOUT FULL PLUG* | 2 FTGXCO WD CLEANOUT FULL PLUG* |

| | |
|---|---|
| Tribunal Members: | Serge Fréchette, Presiding Member<br>Pierre Gosselin, Member<br>Ellen Fry, Member |
| Research Director: | Audrey Chapman |
| Lead Research Officer: | Manon Carpentier |
| Research Officers: | Joël Joyal<br>Mark Howell |
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| Counsel for the Tribunal: | Philippe Cellard |
| Assistant Registrar: | Marija Remic |
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**PARTICIPANTS:**

| | **Counsel** |
|---|---|
| Cello Products Inc.<br>Bow Plumbing Group | Victoria Bazan |
| BMI Canada Inc.<br>BMI West | Paul Lalonde<br>Cyndee Todgham Cherniak<br>Rajeev Sharma<br>Michelle Wong |
| United Refrigeration of Canada Ltd.<br>United Refrigeration Inc. | Paul Lalonde<br>Rajeev Sharma<br>Michelle Wong |
| Elkhart Products Ltd.<br>Elkhart Products Corporation | Richard G. Dearden<br>Wendy J. Wagner<br>Andrew A. Bradley |
| Streamline Copper & Brass Ltd.<br>Mueller Industries, Inc. and affiliated companies within the Mueller Group | Lawrence L. Herman<br>Craig S. Logie |
| NCI Marketing Inc. | Peter Clark<br>Gordon LaFortune<br>Wallis Stagg<br>Stella Karami |
| NDL Industries Inc. | William E. Knutson, Q.C. |

| | |
|---|---|
| Noble Trade Inc. | Jon Johnson<br>Glenn Ernst |
| Nibco Inc. | Riyaz Dattu<br>John W. Boscariol |
| D.A. Fehr Inc. | Cyndee Todgham Cherniak<br>Elliot J. Feldman<br>John J. Burke<br>Jessie M. Brooks<br>Bryan J. Brown |

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# STATEMENT OF REASONS

## BACKGROUND

1. On June 8, 2006, the President of the Canada Border Services Agency (CBSA) initiated an investigation into the alleged injurious dumping of solder joint pressure pipe fittings and solder joint drainage, waste and vent (DWV) pipe fittings, made of cast copper alloy, wrought copper alloy or wrought copper, for use in heating, plumbing, air conditioning and refrigeration (ACR) applications (copper pipe fittings), originating in or exported from the United States of America, the Republic of Korea (Korea) and the People's Republic of China (China) and the alleged injurious subsidizing of copper pipe fittings originating in or exported from China, restricted to the products enumerated in the Appendix (the subject goods), following a complaint filed on April 25, 2006, by Cello Products Inc. (Cello). Cello's complaint was supported by the only other known domestic producer, Bow Plumbing Group (Bow).

2. On June 9, 2006,[1] the Tribunal issued a notice of commencement of preliminary injury inquiry.

3. On August 8, 2006, pursuant to subsection 37.1(1) of the *Special Import Measures Act*,[2] the Canadian International Trade Tribunal (the Tribunal) determined that there was evidence that disclosed a reasonable indication that the dumping and subsidizing of the subject goods had caused injury to the domestic industry.

## CBSA'S DECISION

4. In its June 23, 2006, statement of reasons for the initiation of its investigation, the CBSA estimated margins of dumping for the period from January 1 to December 31, 2005. The estimated margins of dumping, expressed as a percentage of the export price, were 20.2 percent for the United States, 96.1 percent for Korea and 48.3 percent for China. The analysis conducted by the CBSA indicated that the estimated volume of dumped goods from each of the subject countries was not negligible and that the estimated overall weighted average margin of dumping for each subject country was not insignificant.

5. The CBSA also found that there was reason to believe that a number of export-oriented and domestic programs and grants provided by the Chinese Government might constitute actionable subsidies and that the weighted average margin of dumping for China might be at least partially attributable to the export-contingent subsidy. However, given the lack of available information, the CBSA was unable to determine the proportions of the estimated margin attributable to dumping and subsidizing. Consequently, it estimated that the overall weighted average margin of dumping and amount of export-contingent subsidy, expressed as a percentage of the export price, for the period from January 1 to December 31, 2005, were equal to the estimated margin of dumping for China, i.e. 48.3 percent. An additional amount for domestic subsidy was estimated at 17.4 percent, expressed as a percentage of the export price. The analysis conducted by the CBSA indicated that the estimated volume of subsidized goods from China was not negligible and that the estimated amounts of subsidies for China were not insignificant.

6. In summary, the CBSA was of the opinion that there was evidence that the subject goods had been dumped and subsidized. Further, it stated that there was evidence that disclosed a reasonable indication that the dumping and subsidizing had caused and were threatening to cause injury to the domestic industry.

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1. C. Gaz. 2006.I.1556.
2. R.S.C. 1985, c. S-15 [*SIMA*].

## SUBMISSIONS

### Domestic Industry

7. In its complaint, Cello submitted that the dumped and subsidized goods have caused and threaten to cause injury to the domestic industry. It claimed that the increasing presence of the subject imports sold at dumped and subsidized prices has exerted increasing pricing and volume pressure at its most important customer accounts. In support of its allegations, Cello provided evidence of lost sales, price erosion and suppression, declining employment, and deteriorating gross margins and operating income on its Canadian sales of copper pipe fittings.

8. In its submission supporting Cello's complaint, Bow stated that, since 1998, when the Tribunal rescinded its previous finding on copper pipe fittings,[3] it has observed a resurgence of injurious imports from the United States. It also submitted that it has witnessed an alarming increase in low-priced imports from China and Korea. It alleged that these imports have resulted in decreased production of copper pipe fittings and sales revenues, as well as a reduction in employment at its production facilities.

### Parties Opposed to the Complaint

9. The Tribunal received submissions from six parties opposed to the complaint: BMI Canada Inc. and BMI West (BMI); Streamline Copper & Brass Ltd., Mueller Industries, Inc. and affiliated companies within the Mueller group (Mueller); NCI Marketing Inc. (NCI); NDL Industries Inc. (NDL);[4] Noble Trade Inc. (Noble);[5] and D.A. Fehr, Inc.

10. Submissions were made on the following topics: standing, the scope of the Tribunal's inquiry, classes of goods, like goods, domestic industry, factors other than dumping and subsidizing that may have caused injury and exclusions. Generally, parties opposed to the complaint submitted that Cello and Bow failed to provide sufficient evidence to establish a reasonable indication that imports of the subject goods have caused injury or retardation or threaten to cause injury to the domestic industry. They submitted that the evidence filed by Cello and Bow was incomplete, in that it did not address all the factors set out in the *Special Import Measures Regulations*[6] concerning an injury determination.

## ANALYSIS

### Legislative Framework

11. The Tribunal's mandate at the preliminary stage of an injury inquiry is set out in subsection 34(2) of *SIMA*, which requires the Tribunal to determine whether the evidence discloses a reasonable indication that the dumping and subsidizing of the subject goods have caused injury or retardation or are threatening to cause injury. In making this determination, the Tribunal took into account the factors prescribed in section 37.1 of the *Regulations*.

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3. *Copper Pipe Fittings* (16 October 1998), RR-97-008 (CITT).
4. NDL only provided submissions on the question of classes of goods.
5. Noble only submitted that it reserved its right to file a submission in opposition to injury allegations if the Tribunal conducts a final injury inquiry.
6. S.O.R./84-927 [*Regulations*].

12. Subsection 2(1) of *SIMA* defines "injury" as "material injury to a domestic industry" and "retardation" as "material retardation of the establishment of a domestic industry". Before addressing the issue of injury, retardation or threat of injury, the Tribunal will consider two preliminary issues: the question of standing and the scope of the Tribunal's inquiry.

**Standing**

13. BMI requested that the Tribunal make a determination as to whether Cello and Bow have standing. Cello and Bow opposed that request. Pursuant to subsection 31(2) of *SIMA*, before initiating an investigation in this case, the CBSA must have determined that there existed the necessary support by domestic producers for the complaint. As the Tribunal recently decided in similar circumstances, it is without jurisdiction to reconsider the CBSA's determination.[7] Therefore, the Tribunal dismisses BMI's request.

**Scope of the Tribunal's Inquiry**

14. Mueller argued that, as Cello's complaint identified four specific U.S. producers, the Tribunal must determine whether the evidence provided in the complaint discloses a reasonable indication that the imports from each of the four U.S. producers have caused injury. Cello and Bow answered that the scope of the subject goods is a matter within the CBSA's jurisdiction.

15. The Tribunal is bound by *SIMA* to conduct its preliminary injury inquiry based on the product definition established by the CBSA. This results from the wording of subsection 34(2) of *SIMA* that describes the Tribunal's mandate in a preliminary injury inquiry and reads as follows:

> The Tribunal shall, without delay after receipt by the Secretary under subparagraph (1)(*a*)(i) of a notice of an initiation of an investigation [by the CBSA], make a preliminary inquiry (which need not include an oral hearing) into whether the evidence discloses a reasonable indication that the dumping or subsidizing of the goods has caused injury or retardation or is threatening to cause injury.

16. In the Tribunal's opinion, the "goods" that are referred to in subsection 34(2) of *SIMA* can only be the goods that are described in the notice of an initiation of an investigation mentioned at the beginning of the subsection. In this case, the notice of an initiation of an investigation received from the CBSA covered all the subject goods exported from the United States. Therefore, the Tribunal will not limit its preliminary injury inquiry to the exports of the four U.S. producers identified by Cello in its complaint, but will consider all the subject goods exported from the United States.

**Classes of Goods and Like Goods**

17. Subsection 2(1) of SIMA defines "domestic industry" as the domestic producers as a whole of the "like goods" or whose collective production constitutes a major proportion of the total domestic production of the like goods except that, where a domestic producer is related to an exporter or importer of dumped or subsidized goods, or is an importer of such goods, "domestic industry" may be interpreted as meaning the rest of those domestic producers. Therefore, the Tribunal must identify the like goods and the domestic industry that produces those goods before addressing the issue of injury, retardation or threat of injury.

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7. *Unprocessed Grain Corn* (18 April 2006), NQ-2005-001 (CITT) at paras. 68-70; *Grain Corn* (7 March 2001), NQ-2000-005 at 12-13.

18. The Tribunal will therefore first consider whether the dumped and subsidized goods that are subject to the preliminary injury inquiry constitute one or more classes of goods. Based on this analysis, the Tribunal will then determine whether the goods produced by the domestic industry are "like goods" to each class of dumped and subsidized goods. In determining whether there is more than one class of goods, the Tribunal will look at the factors that it generally considers in connection with the issue of like goods. Separate classes of goods are established only when goods that are alleged to be part of a class of goods do not constitute "like goods" in relation to other subject goods.

19. Subsection 2(1) of *SIMA* defines "like goods", in relation to any other goods, as follows:

> (*a*) goods that are identical in all respects to the other goods, or
>
> (*b*) in the absence of any goods described in paragraph (*a*), goods the uses and other characteristics of which closely resemble those of the other goods.

20. In considering the issues of both classes of goods and like goods, the Tribunal typically considers a number of factors, including the physical characteristics of the goods (such as appearance), their method of manufacture, their market characteristics (such as substitutability, pricing and distribution) and whether the domestic goods fulfill the same customer needs as the imported goods.[8]

21. Parties opposed to the complaint submitted that there is more than a single class of goods subject to the inquiry. NDL submitted that the copper pipe fittings used in ACR applications constitute a separate class of goods, notably because the accepted industry standard for ACR copper pipe fittings is for heavier copper pipe fittings with thicker walls. Cello and Bow submitted that ACR copper pipe fittings do not constitute a separate class of goods. Cello stated that ACR copper pipe fittings are used in either plumbing or ACR applications and that the packaging of the products provides the required information for both plumbing and ACR applications. It also indicated that there is no distinction in terms of pricing between ACR copper pressure pipe fittings and plumbing copper pressure pipe fittings.[9] On the basis of the evidence provided by Cello, the Tribunal finds that ACR copper pipe fittings do not constitute a separate class of goods.

22. In its brief, NCI submitted that there is more than a single class of goods.[10] It did not support its submission for additional classes of goods by reference to the criteria used by the Tribunal in a class of goods analysis. The Tribunal is not persuaded by the arguments put forth by NCI (which it has submitted as confidential material) and, therefore, does not find that NCI's submission warrants the creation of separate classes of goods.

23. BMI submitted that the following five separate classes of goods should be created: wrought copper pressure pipe fittings; forged copper pressure pipe fittings; cast copper pressure pipe fittings; other copper pressure pipe fittings; and DWV copper pressure pipe fittings. It submitted that the following differentiating factors justified the proposed separate classes of goods: the manufacturing processes for wrought, cast and forged copper pressure pipe fittings differ; those goods are manufactured using different equipment; they have different physical appearances; they are made in various internal diameters, outer diameters and thicknesses; they are used for different applications and serve different customer needs; and substitutability between these product classes is limited or non-existent.

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8. *Grain Corn* (15 November 2005), PI-2005-001 (CITT) at paras. 34-36.
9. Public Statement of Hans Rantz at paras. 3-4, Administrative Record, Vol. 3.
10. Confidential brief of NCI at paras. 19-28, Administrative Record, Vol. 4 (protected).

24. Cello and Bow opposed the creation of these five separate classes of goods. They relied on the following arguments to support their position: the description of product uses and the description of the manufacturing process demonstrate the similarities among various types of copper pipe fittings; the images of various types of copper pipe fittings demonstrate similar physical characteristics; the sales activity reports in Cello's complaint demonstrate that the full range of copper pipe fittings is sold to the same customers; in terms of pricing, all copper pipe fittings are sold from the same price list; and, according to Cello's product brochure, many items are offered in either cast or wrought form, and all copper pipe fittings are subject to the same warranties, return policies and packaging.

25. The Tribunal finds that the arguments made in support of more than one class of goods merit further consideration. It will require further evidence before being able to come to a definitive conclusion. Consequently, the Tribunal requests the CBSA to collect additional information on the dumping and subsidizing of the subject goods, as set out in the Tribunal's conclusion. However, for the purpose of this preliminary injury inquiry and given the evidence currently on the record, the Tribunal finds that, on the basis of similar physical characteristics, similar methods of marketing, pricing and distribution, and similar general end uses, there is a single class of goods.

26. With respect to the issue of like goods, the Tribunal finds that the copper pipe fittings produced in Canada that are of the same description as the subject goods are like goods because they closely resemble the subject goods in terms of physical characteristics, market characteristics and end uses.

**Domestic Industry**

27. According to the evidence at this stage, there are no known producers of copper pipe fittings in Canada apart from Cello and Bow. Therefore, the Tribunal finds that Cello and Bow constitute the domestic industry.

**Cumulation**

28. Subsection 42(3) of *SIMA* provides in part that, in making a final injury inquiry under section 42, the Tribunal shall make an assessment of the cumulative effect of the dumping or subsidizing of goods that are imported into Canada if the Tribunal is satisfied that certain conditions are met. Pursuant to this subsection, the Tribunal must be satisfied that, among other things, an assessment of the cumulative effect of the subject goods would be appropriate, taking into account the conditions of competition between the goods from any of the subject countries, the other dumped or subsidized goods and like goods. As stated in *Corrosion-resistant Steel Sheet*,[11] while this subsection deals with final injury inquiries and does not explicitly cover preliminary injury inquiries, it seems to the Tribunal that it would be inconsistent not to cumulate at this stage when the evidence to date appears to justify cumulation.

29. With respect to the conditions of competition in the cumulation context, the Tribunal is satisfied that, on the basis of the evidence on the record of this preliminary injury inquiry, the subject goods compete with each other and with the like goods. Therefore, it has conducted its injury analysis on the basis of a cumulative assessment of the impact of the subject goods from the United States, Korea and China.

11. (2 February 2001), PI-2000-005 at 5 (CITT).

## Tribunal's Period of Investigation

30. The Tribunal is conducting its preliminary analysis of injury based on the information on the record for the period from 2003 to 2005. The usual time frame examined by the Tribunal in dumping and subsidizing proceedings is the three most recent calendar years, plus recent quarterly data, when available. In this case, the Tribunal has not taken into account the data on the record for 2002, as there is no convincing reason to depart from its standard practice.

31. As for the information for the first quarter of 2006, the Tribunal considers that there is a significant risk that these data are not correct. First, the Tribunal notes that the domestic producers did not provide any data for production or sales for the first quarter of 2006. Second, the Tribunal found certain anomalies in the import data for the first quarter of 2006 for imports from the United States and Korea, which brought into question the reliability of these data.

32. Therefore, the Tribunal considers that, for this preliminary injury determination, the most appropriate information is that for the period from 2003 to 2005.

## Volume of Dumped and Subsidized Goods

33. Cello only provided value data for imports. Based on the values submitted in its complaint, Cello claimed that dumped and subsidized imports are increasingly displacing sales by domestic producers.[12] Bow made similar claims about the significant increase in imports of the subject goods.[13] Parties opposed to the complaint alleged that the volume of subject goods has not materially increased between 2003 and 2005, either in absolute terms or relative to the production or consumption of like goods, or relative to imports from non-subject countries.[14]

34. The Tribunal notes that the import data available at this stage of the proceedings show that the volume of imports from the subject countries has exceeded the volume of sales by domestic producers by a significant margin.[15] During the period from 2003 to 2005, imports of the subject goods increased by more than 500,000 lbs. or 5 percent.[16] The Tribunal notes that, relative to the production of like goods by domestic producers, this increase is important.

## Effect on the Price of Like Goods

35. As to the effect of the subject goods on the price of like goods, Cello submitted that, as a result of the increasing presence of low-priced subject goods in the Canadian market, it has experienced significant price erosion in the form of increasing discounts and rebates at its most important accounts. In support of its allegations, Cello provided examples of price erosion at specific accounts and on certain benchmark products.[17] With regard to price suppression, it provided evidence demonstrating that, because of the presence of dumped and subsidized imports, it was unable to increase its prices in order to cover the escalating world price of copper, the main raw material of copper pipe fittings.[18] Cello indicated that certain

12. Administrative Record, Vol. 2 (protected) at 31.
13. Administrative Record, Vol. 1 at 263; Protected Statement of Pat Chiasson at para. 3, Administrative Record, Vol. 4 (protected).
14. Administrative Record, Vol. 2A (protected) at 19.
15. *Ibid*.
16. Administrative Record, Vol. 1B at 80.
17. Administrative Record, Vol. 2 (protected) at 32-34, 36-39, 492-505.
18. *Ibid*. at 40.

price increases at some of its major accounts were only achieved in the context of significantly reduced sales volumes.[19] It also documented the injurious effect of the increasing competition from dumped and subsidized imports on the sales revenues of the domestic industry.[20]

36. BMI submitted that import-related price effects on like goods could not be determined with any degree of accuracy because of the issue of product mix.

37. The Tribunal acknowledges the point raised by BMI with respect to the issue of product mix. However, the price undercutting shown by an examination of average prices of the subject goods and like goods is supported by specific examples of price undercutting on certain benchmark products at specific accounts. Consequently, the Tribunal is of the view that, based on the evidence on the record, when a reasonable amount for freight and profit is added to the value-for-duty price, the average price of the subject goods is considerably below average domestic prices, which decreased over the period from 2003 to 2005.[21]

38. In addition, the Tribunal notes that the reduction in average domestic prices took place during a period when the price of copper was rapidly increasing.

39. The Tribunal notes that, given the very large volume of imports from the subject countries compared to the volume of domestic sales, it would appear that Canadian producers are price takers. Therefore, the Tribunal is of the view that the low-priced subject goods likely had a major influence on domestic prices and resulting sales revenues. This is supported by the import activity reports submitted by Cello.

**Impact on the Domestic Industry**

40. With respect to the impact of the subject goods on the state of the domestic industry, Cello indicated that, because the market for copper pipe fittings is a commodity market, it is driven almost entirely by price. As such, the pricing pressure from dumped and subsidized imports has had a direct impact on Cello's employment and financial results. Bow echoed this assertion, indicating that it saw a drastic reduction in its employment and sales revenues.[22]

41. Cello added that, during a period of escalating production and material costs, it was unable to increase prices because of the presence of dumped and subsidized imports. This, in turn, resulted in a decline of its financial performance. Cello provided financial data illustrating that its revenue, gross margin and operating income for its sales of copper pipe fittings in the Canadian market deteriorated significantly between fiscal years 2003 and 2005.[23]

42. Parties opposed to the complaint indicated that Cello failed to present compelling evidence to demonstrate that any of the alleged injury to the financial performance of the domestic industry was caused by the subject goods.

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19. *Ibid*. at 35.
20. *Ibid*. at 32.
21. The Tribunal used the information provided in the complaint and estimates provided by the CBSA on the volume and value of the Canadian apparent market to derive average unit prices. See Administrative Record, Vol. 2 (protected) at 24; Administrative Record, Vol. 2A (protected) at 18-19.
22. Administrative Record, Vol. 2 (protected) at 32, 42; Protected Statement of Pat Chiasson at paras. 3, 5, Administrative Record, Vol. 4 (protected).
23. Cello's fiscal year is from April to March. Administrative Record, Vol. 2 (protected) at 20, 40, 42, 556, 575, 596, 616.

43. As indicated above, the evidence on the record provides a reasonable indication that the price erosion and price suppression experienced by the domestic industry were caused by the significant and increasing presence of low-priced subject goods in the Canadian market. These price effects resulted in lost sales revenues for the domestic industry. The Tribunal notes that this occurred during a time when raw material costs increased substantially. As a result, throughout the period from fiscal years 2003 to 2005, Cello's cost of goods sold as a percentage of its domestic sales increased, while its gross margin and operating income continually decreased.[24] Overall, there was a significant degradation of the financial performance of the domestic industry.

**Other Factors**

44. Parties opposed to the complaint argued that various non-dumping and non-subsidizing factors could be causing injury to the domestic industry. These included intra-industry competition; imports of the subject goods by the domestic industry to satisfy Canadian demand; Cello's export activity; increasing demand for alternate products; competitive raw material cost of alternate products; and effects of the Canadian-U.S. exchange rate. However, little evidence was submitted in support of these allegations.

45. The Tribunal considered the arguments put forward by parties opposed to the complaint regarding the above-mentioned factors. However, at this stage of the proceedings, given the limited evidence on the record, it is difficult to assess the impact that these factors might have had on the domestic industry. Consequently, the Tribunal determines that this issue will best be resolved at the final injury inquiry stage.

**Requests for Product Exclusions**

46. The Tribunal acknowledges the requests for product exclusions made by parties opposed to the complaint on the basis that the domestic industry allegedly: (1) failed to provide either injury evidence or specific injury allegations on certain goods; (2) does not produce, or is not expected in the near term to produce, certain goods; (3) does not compete with certain imported goods; or (4) does not manufacture like goods to the subject goods.

47. Given that Cello and Bow submitted that all but 19 of the subject copper pipe fittings listed in the complaint are produced in Canada and that those 19 fittings could easily be produced with limited investment,[25] and given the lack of convincing evidence to the contrary filed by parties opposed to the complaint, the Tribunal is of the opinion that the evidence at this time does not warrant the granting of product exclusions.[26] It is of the view that the requests for product exclusions would be better addressed within the context of the final injury inquiry.

**CONCLUSION**

48. Based on the information on the record to date, the Tribunal is of the view that there is evidence that discloses a reasonable indication that the dumping and subsidizing of the subject goods have had a negative impact on the domestic industry in the form of price erosion and price suppression, lost sales revenues and resultant deteriorating financial performance on its domestic sales.

24. Administrative Record, Vol. 2 (protected) at 556, 575, 596, 616.
25. Public Statement of Hans Ratz at para. 7, Administrative Record, Vol. 3.
26. *Carbon Steel Plate* (12 August 2003), PI-2003-002 (CITT) at 4.

49. In light of the foregoing, pursuant to subsection 37.1(1) of *SIMA*, the Tribunal hereby determines that there is evidence that discloses a reasonable indication that the dumping and subsidizing of the subject goods have caused injury to the domestic industry.

50. The Tribunal finds that the question of whether there should be more than one class of goods merits further consideration. Therefore, the Tribunal requests that the CBSA provide it with separate information, for each of the subject countries, on the dumping and subsidizing of the following products: (1) wrought copper pipe fittings; (2) cast copper pipe fittings; (3) pressure copper pipe fittings; (4) DWV copper pipe fittings; and (5) total copper pipe fittings. It requests the information by both volume (in pounds) and value.

Serge Fréchette
Serge Fréchette
Presiding Member

Pierre Gosselin
Pierre Gosselin
Member

Ellen Fry
Ellen Fry
Member