

Watts

Series 3000

Dielectric Pipe Fittings, Unions, Bolt Insulators

Description

Series 3000 Dielectric Pipe Fittings and Unions are durable, corrosion resistant fittings and unions that consist of a union nut and two tailpieces. A gasket separates the two tailpieces preventing an electric current from passing. For flanged fittings (Models 3100, 3110, and 3200), a bolt insulator is required to insulate each bolt in the flange. Watts also offers bolt insulators in a range of sizes.

Dielectric fittings/unions are designed to install between pipes made from dissimilar metals. They prevent accelerated corrosion and deterioration in the piping system due to galvanic and stray current.

Features

- Designed and manufactured to the highest quality standards.
- Unions individually factory certified to withstand a minimum of 600 volts on a dry line with no flashover.
- Unions rated to 180°F (82°C) at 250psi (17.2 bar).
- Flanged fittings rated at 175psi (12.1 bar).
- Standard Gasket A (GA) suitable for water, air, oil, natural gas, propane, gasoline, kerosene, mineral oil, vegetable oil, and alkalines in 180°F (82°C) at 250psi.

Applications

Dielectric fittings/unions are for use in residential, commercial, and industrial applications. Specific applications include the connections of piping of dissimilar metals on hot water storage tanks, water and air con-



ditioners, processing tanks, steam, gas, and water piping. These fittings/unions prevent the flow of galvanic current (an electric current) and stray current (DC current) passing from one dissimilar metal to another. Galvanic current accelerates corrosion in the piping system leading to premature deterioration of the system. Stray current produces extraordinary anodes and cathodes that can inadvertently enter an alternate (but unintended) path and create corrosion in the piping system. Using dielectric fittings/unions prevents this

type of corrosion from occurring.

Note: For applications of gaskets other than specified above, contact your local authorized Watts representative.

Materials

Dielectric fittings/unions consist of one or more of the following materials used in accordance with American Society for Testing and Materials (ASTM):

Gray iron	ASTM A48
Malleable iron parts	ASTM A-197
Steel parts	ASTM A108
Brass parts	ASTM B-16
Bronze parts	ASTM B-584
Zinc Coatings	ASTM B633
Bolt insulators (required)	Polysulfone
Standard Gasket A	Buna-N
Optional GB Gasket	EPDM

Standards

- All models meet federal specifications for tensile strength and thread end connections
- Thread end connections in accordance with ANSI B2.1
- Solder joints meet national plumbing standards
- Unions are rated at 250psi and conform to ANSI B16.39, including hydrostatic strength, air pressure testing
- Flange fittings are rated at 175psi and conform to ANSI B16.42 (iron) and ANSI B16.24 (bronze)

Models

Unions

- **3001A** – Sizes 1/2" - 2" (15-50mm) Female iron pipe thread to solder connection
- **3002** – Sizes 1/2" x 3/8", 3/4" x 1/2", 1" x 3/4" (15x10mm, 20x15mm, 25x20mm) Female iron pipe thread to reduced solder connection
- **3003** – Sizes 1/2" - 2" (15-50mm) Female iron pipe thread to female brass pipe
- **3004** – Sizes 1/2" - 2" (15-50mm) Female iron pipe thread to female iron pipe thread (galvanized)
- **3005A** – Sizes 1/2" - 3/4" (15-20mm) Male iron pipe thread to solder connection
- **3006** – Sizes 1/2" - 2" (15-50mm) Female iron pipe thread to female iron pipe thread (black)
- **3007** – Sizes 1/2" x 3/8" - 3/4" x 1/2" (15x10mm - 20x15mm) Male iron pipe thread to female solder connection
- **3008** – Sizes 1/2" x 1" (15-25mm) Female brass pipe thread to female solder connection

Flanged Fittings

- **3100** – Sizes 2" - 4" (15-100mm) Iron pipe thread

to copper solder joint

- **3110** – Sizes 2 1/2" - 4" (65-100mm) Solder copper fitting, bronze (125 class flange)
- **3110LF** – Sizes 2 1/2" - 4" (65-100mm) solder copper fitting only. Less fittings and gasket.
- **3200** – Sizes 2" - 4" (50-100mm) Iron pipe thread to iron pipe thread

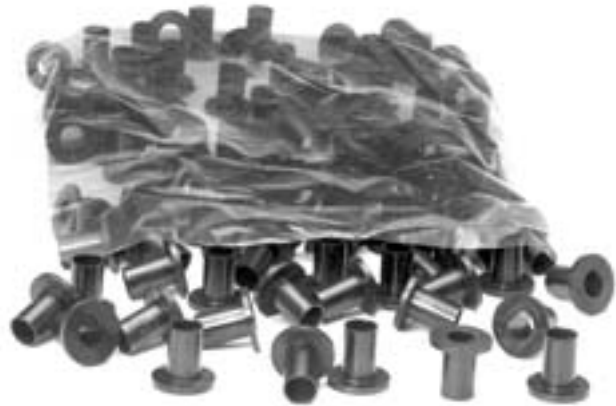
Bolt insulators

- **Watts Insulator Kit** – One insulator required for each bolt in a flange. One kit contains 100 insulators

Gasket Options

GA – Standard Buna gasket for use in hot water applications up to 180°F (82°C) at 250psi (17.2 bar)

GB – Optional EPDM gasket for use in steam or hot water applications up to 300°F (149°C) at 50psi (3.4 bar)



Dielectric Bolt Insulators

Bolt Insulators

Description	Nominal Pipe Size		No. of Bolt Holes Per Flange	Diameter of Bolts		Qty. per Kit
	(inches)	(mm)		(inches)	(mm)	
Insulator kit	1 1/2	40	4	1/2	15	100
Insulator kit	2	50	4	5/8	16	100
Insulator kit	2 1/2	65	4	5/8	16	100
Insulator kit	3	80	4	5/8	16	100
Insulator kit	3 1/2	90	8	5/8	16	100
Insulator kit	4	100	8	5/8	16	100
Insulator kit	5	125	8	3/4	20	100
Insulator kit	6	150	8	3/4	20	100
Insulator kit	8	200	8	3/4	20	100
Insulator kit	10	250	12	7/8	22	100
Insulator kit	12	300	12	7/8	22	100