

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

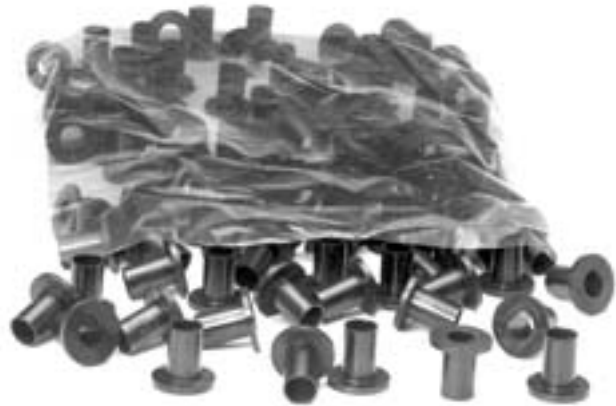
Bolt insulators

- **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)

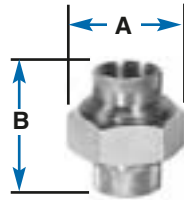


Dielectric Bolt Insulators

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

Dimensions/Weights



Model	Size (DN)		DIMENSIONS (approx.)				WEIGHT	
	in.	mm	A		B		lbs.	kgs.
3001A	1/2	15	1 1/2	32	1 7/8	48	0.4	0.2
3001A	3/4	20	1 5/8	41	2 1/8	54	0.4	0.2
3001A	1	25	1 7/8	48	2 1/2	64	0.6	0.3
3001A	1 1/4	32	2 1/4	57	3	76	0.8	0.4
3001A	1 1/2	40	2 3/4	70	3	76	0.8	0.4
3001A	2	50	3 1/2	89	3	76	2.2	1.0
3002	1/2 x 3/8	15x10	1 1/2	38	1 7/8	48	0.4	0.2
3002	3/4 x 1/2	20x15	1 5/8	41	1 7/8	48	0.4	0.2
3002	1 x 3/4	25x20	1 7/8	48	2 1/2	64	0.7	0.3
3003	1/2	15	1 5/8	41	2 1/4	57	0.4	0.2
3003	3/4	20	1 7/8	48	2 1/4	57	0.9	0.4
3003	1	25	2 1/4	57	2 1/2	64	1.3	0.6
3003	1 1/4	32	2 3/4	70	2 3/4	70	1.7	0.8
3003	1 1/2	40	3 1/2	89	2 3/4	70	3.0	1.4
3003	2	50	4 1/8	105	3 1/8	79	4.3	2.0
3004	1/2	15	1 5/8	41	2 1/4	57	0.4	0.2
3004	3/4	20	1 7/8	48	2 1/4	57	0.9	0.4
3004	1	25	2 1/4	57	2 1/2	64	1.3	0.6
3004	1 1/4	32	2 3/4	70	2 3/4	70	1.7	0.8
3004	1 1/2	40	3 1/2	89	2 3/4	70	2.8	1.3
3004	2	50	4 1/8	105	3 1/8	79	4.0	1.8
3005A	1/2	15	1 1/2	38	2 5/8	67	0.5	0.2
3005A	3/4	20	1 5/8	41	3	76	0.8	0.4
3006	1/2	15	1 5/8	41	2 1/4	57	0.4	0.2
3006	3/4	20	1 7/8	48	2 1/4	57	0.9	0.4
3006	1	25	2 1/4	58	2 1/2	64	1.3	0.6
3006	1 1/4	32	2 3/4	70	2 3/4	70	1.7	0.8
3006	1 1/2	40	3 1/2	89	2 3/4	70	2.8	1.3
3006	2	50	4 1/8	105	3 1/8	79	4.0	1.8
3007	1/2 x 3/8	15x10	1 1/2	38	2 5/8	67	0.4	0.2
3007	3/4 x 1/2	20x15	1 5/8	41	3	76	0.4	0.2
3008	1/2	15	1 1/2	38	1 7/8	48	0.4	0.2
3008	3/4	20	1 5/8	41	2 1/8	54	0.7	0.3
3008	1	25	1 7/8	48	2 1/2	64	0.9	0.4

Flanged fittings

3100/3200



3110



3100	2	50	5 1/8	130	3 1/4	83	8.0	3.6
3100	2 1/2	65	5 7/8	149	3 1/2	89	12.0	5.4
3100	3	80	6 3/4	171	3 3/4	95	14.0	6.4
3100	4	100	9 1/8	232	4 3/8	111	30.0	13.6
3110	2 1/2	65	5 7/8	149	3 1/2	89	12.0	5.4
3110	3	80	6 3/4	171	3 3/4	95	15.0	6.8
3110	4	100	9 1/8	232	4 3/8	111	18.0	8.2
3110LF	2 1/2	65	5 7/8	149	3 1/2	89	6.0	2.7
3110LF	3	80	6 3/4	171	3 1/2	89	7.5	3.4
3110LF	4	100	9 1/8	232	4 3/8	111	9.0	4.1
3200	2	50	5 1/8	130	2 1/8	54	8.0	3.6
3200	2 1/2	65	5 7/8	149	2 3/4	70	12.0	5.4
3200	3	80	6 3/4	171	2 3/4	70	15.0	6.8
3200	4	100	9 1/8	232	3	76	31.0	14.1

Note: Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

For Technical Assistance Call Your Authorized Watts Agent.

			Telephone #	Fax #
	HEADQUARTERS: Watts Regulator Company	815 Chestnut St., North Andover, MA 01845-6098 U.S.A.	978 688-1811	978 794-1848
North East	Edwards, Platt & Deely, Inc.	271 Royal Ave., Hawthorne, NJ 07506	973 427-2898	973 427-4246
	Edwards, Platt & Deely, Inc.	368 Wyandanch Ave., North Babylon, NY 11703	631 253-0600	631 253-0303
	W. P. Haney Co., Inc.	51 Norfolk Ave., South Easton, MA 02375	508 238-2030	508 238-8353
	WMS Sales, Inc. (Main office)	9580 County Rd., Clarence Center, NY 14032	716 741-9575	716 741-4810
Mid Atlantic	J. B. O'Connor Company, Inc.	P.O. Box 12927, Pittsburgh, PA 15241	724 745-5300	724 745-7420
	RMI	Glenfield Bus. Ctr., 2535 Mechanicsville Tpk., Richmond, VA 23223	804 643-7355	804 643-7380
	The Joyce Agency, Inc.	8442 Alban Rd., Springfield, VA 22150	703 866-3111	703 866-2332
	Vernon Bitzer Associates, Inc.	980 Thomas Drive, Warminster, PA 18974	215 443-7500	215 443-7573
South East	Billingsley & Associates, Inc.	2728 Crestview Ave., Kenner, LA 70062-4829	504 602-8100	504 602-8106
	Billingsley & Associates, Inc.	478 Cheyenne Lane, Madison, MS 39110	601 856-7565	601 856-8390
	Francisco J. Ortiz & Co., Inc.	Charlyn Industrial Pk., Road 190 KM1.9 - Lot #8, Carolina, Puerto Rico 00983	787 769-0085	787 750-5120
	Mid-America Marketing, Inc.	203 Industrial Drive, Birmingham, AL 35211	205 879-3469	205 870-5027
	Mid-America Marketing, Inc.	1364 Foster Avenue, Nashville, TN 37210	615 259-9944	615 259-5111
	Mid-America Marketing, Inc.	5466 Old Hwy. 78, Memphis, TN 38118	901 795-0045	901 795-0394
	Smith & Stevenson Co., Inc.	4935 Chastain Ave., Charlotte, NC 28217	704 525-3388	704 525-6749
	Harry Warren, Inc.	1400 North Orange Blossom Trail, Orlando, FL 32804	407 841-9237	407 841-9246
	Watts Georgia	2861-B Bankers Industrial Drive, Atlanta, GA 30360	770 209-3310	770 447-4583
	North Central	Dave Watson Associates	1325 West Beecher, Adrian, MI 49221	517 263-8988
Disney McLane & Associates		428 McGregor Ave., Cincinnati, OH 45206	800 542-1682	877 476-1682
BWA Company		17610 S. Waterloo Rd., Cleveland, OH 44119	216 486-1010	216 486-2860
Mid-Continent Marketing Services Ltd.		1724 Armitage Ct., Addison, IL 60101	630 953-1211	630 953-1067
Soderholm & Associates, Inc.		7150 143rd Ave. N.W., Anoka, MN 55303	763 427-9635	763 427-5665
Stickler & Associates		333 North 121 St., Milwaukee, WI 53226	414 771-0400	414 771-3607
South Central	Hugh M. Cunningham, Inc.	13755 Benchmark, Dallas, TX 75234	972 888-3808	972 888-3838
	HMC Sandia Group	13755 Benchmark, Dallas, TX 75234	505 222-3134	800 339-0191
	Mack McClain & Associates	4407 Meramec Bottom, Suite G, St. Louis, MO 63129	314 894-8188	314 894-8388
	Mack McClain & Associates, Inc.	1450 NE 69th Place, Ste. 56 Ankeny, IA 50021	515 288-0184	515 288-5049
	Mack McClain & Associates, Inc.	15090 West 116th St., Olathe, KS 66062	913 339-6677	913 339-9518
OK! Sales, Inc.	214-A NE 12th., Moore, OK 73160	405 794-5200	405 794-5250	
Western	Delco Sales, Inc.	1930 Raymer Ave., Fullerton, CA 92833	714 888-2444	714 888-2448
	Delco Sales, Inc.	111 Sand Island Access Rd., Unit 1-10, Honolulu, HI 96819	808 842-7900	808 842-9625
	Fanning & Associates, Inc.	6765 Franklin St., Denver, CO 80229-7111	303 289-4191	303 286-9069
	Hollabaugh Brothers & Associates	6915 South 194th St., Kent, WA 98032	253 867-5040	253 867-5055
	Hollabaugh Brothers & Associates	3028 S.E. 17th Ave., Portland, OR 97202	503 238-0313	503 235-2824
	P I R Sales, Inc.	3050 North San Marcos Place, Chandler, AZ 85225	480 892-6000	480 892-6096
	Preferred Sales	31177 Wiegman Road, Hayward, CA 94544	510 887-9755	510 476-1595
	R. E. Fitzpatrick Sales, Inc.	4109 West Nike Dr. (8250 South), West Jordan, UT 84088	801 282-0700	801 282-0600
	Canada	Watts Industries (Canada) Inc. (Watts Regulator Co. Division)	5435 North Service Road, Burlington, Ontario L7L 5H7	905 332-4090
Con-Cur West Marketing, Inc.		71B Clipper Street, Coquitlam, British Columbia V3K 6X2	604 540-5088	604 540-5084
D.C. Sales Ltd.		#10-6130 4th St. S.E., Calgary, Alberta T2H 2B6	403 253-6808	403 259-8331
D.C. Sales Ltd.		16726 111 Ave, Edmonton, Alberta T5M 2S6	780 496-9495	780 496-9621
GTA Sales Team.		Greater Toronto Area	888 208-8927	888 479-2887
Hydro-Mechanical Sales, Ltd.		3700 Joseph Howe Drive, Suite 1, Halifax, Nova Scotia B3L 4H7	902 443-2274	902 443-2275
Hydro-Mechanical Sales, Ltd.		P.O. Box 1445 (Mailing), 297 Collishaw St., Suite 7 (shipping) Moncton, New Brunswick E1C 9R2	506 859-1107	506 859-2424
J.D.S. Sales Ltd.		4 Lancaster Street, St. John's, Newfoundland A1A 5P7	709 579-5771	709 579-1558
Les Ent. Roland Lajoie		6221 Marivaux, St-Leonard, QC H1P 3H6	514 328-6645	514 328-6131
Les Ent. Roland Lajoie		23 du Buisson, Pont Rouge, QC G3H 1X9	418 873-2500	418 873-2505
Mar-Win Agencies, Ltd.		1333 Clifton St., Winnipeg, Manitoba R3E 2V1	204 775-8194	204 786-8016
Northern Mechanical Sales		P.O. Box 280 (mailing) 163 Pine St. (shipping), Garson, Ontario P3L 1S6	705 693-2715	705 693-4394
Palser Enterprises, Ltd.		P.O. Box 28136 (mailing), 1885 Blue Heron Dr., #4, London, Ontario N6H 5L9	519 471-9382	519 471-1049
RAM Mechanical Marketing Inc.		1401 St. John Street, Regina, Saskatchewan S4R 1S5	306 525-1986	306 525-0809
RAM Mechanical Marketing Inc.	510 Ave M South, Saskatoon, Saskatchewan S7M 2K9	306 244-6622	306 244-0807	
Walmart Mechanical Sales	24 Gurdwara Rd., Nepean, Ontario K2E 8B5	613 225-9774	613 225-0673	
0804	EXPORT Hdqtrs.: Watts Regulator Co.	815 Chestnut St., North Andover, MA 01845-6098 U.S.A.	978 688-1811	978 794-1848



Water Safety & Flow Control Products

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