Dielectric Union

Isolation fitting for dissimilar metal piping connections

Product Brochure



GALVANIC ISOLATION

THREADED UNION CONNECTION

EPDM GASKET & ABS INSERT

Designed for installation between dissimilar metal piping to help prevent galvanic corrosion and deterioration caused by stray current. The insulated union construction provides reliable separation between metallic components and is suitable for hot water, chilled water, steam, gas, FCU, AHU, and general water piping applications.

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Engineered Piping Components

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DIELECTRIC UNION

Series DUFM

Steel Female BSPT x Brass Male BSPT



YTMPipe Dielectric Unions are designed to be installed between pipes made from dissimilar metals to prevent accelerated corrosion and deterioration in the piping system due to galvanic and stray current. It consists of a union nut, two tail-pieces, a gasket and a sleeve that separates the tail-pieces to prevent electrical current transfer This series is ideal for hot water storage tanks, chilled water processing tanks, steam, gas, FCUs, AHUs and other water piping applications.

- Max. Working Pressure: 250 psi (17.2 bar)
- Max. Working Temperature: 180°F (82°C)

GALVANIC ISOLATION

Helps reduce galvanic corrosion and stray current deterioration between dissimilar metals.

THREADED UNION CONNECTION

Steel Female BSPT x Brass Male BSPT design for practical installation and maintenance.

EPDM GASKET & ABS INSERT

Provides reliable sealing and electrical isolation in piping systems.

TECHNICAL SPECIFICATION

Parameter	Specification
Product Type	Dielectric Union
Series	DUFM
Size Range	1/2" - 2" (15 - 50 mm)
Connection Type	Steel Female BSPT x Brass Male BSPT
Max. Working Pressure	250 psi (17.2 bar)
Max. Working Temperature	180°F (82°C)
Steel Connection	FPT Connection – Forged Steel (Electro Plated)
Brass Connection	MPT Connection – Brass / Copper
Union Nut	Forged Steel (Electro Plated)
Gasket	EPDM
Insert	ABS

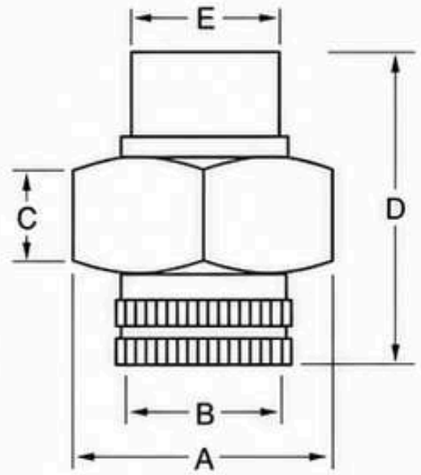
KEY FEATURES

- Designed for installation between dissimilar metal piping systems
- Helps prevent galvanic corrosion and deterioration caused by stray current
- Steel Female BSPT x Brass Male BSPT threaded connection
- Union nut and two tail-pieces construction
- EPDM gasket and ABS insulating insert
- Suitable for hot water, chilled water, steam, gas, FCU, AHU and other water piping applications

DIMENSIONS

Size (in.)	A	B	C	D	E
½"	1.84	0.83	0.77	2.79	1.01
¾"	2.16	1.04	0.79	2.85	1.27
1"	2.60	1.31	0.88	3.42	1.52
1 ¼"	2.93	1.65	0.84	3.68	1.82
1 ½"	3.72	1.88	0.86	3.80	2.13
2"	4.44	2.33	1.11	4.22	2.59

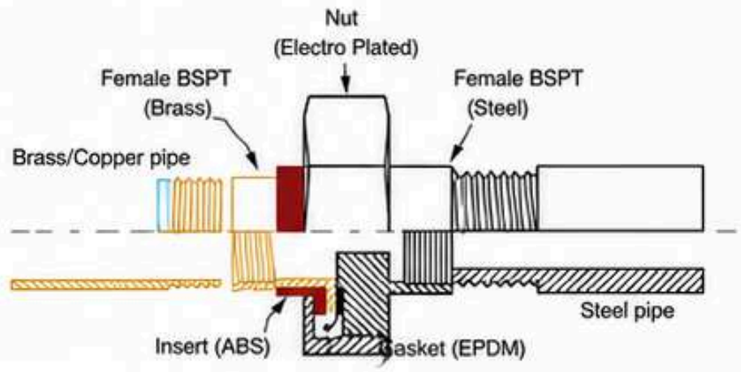
Dimensions in Inches



MATERIALS

No.	Part	Material
1	FPT Connection	Forged Steel (Electro Plated)
2	Nut	Forged Steel (Electro Plated)
3	MPT Connection	Brass / Copper
4	Gasket	EPDM
5	Insert	ABS

INSTALLATION EXAMPLE



SERIES DUFM

Steel Female BSPT x Brass Male BSPT



1 OVERVIEW

Series DUFM Dielectric Unions feature a female steel pipe thread to male brass pipe thread connection. These unions are designed to be installed between pipes made from dissimilar metals to prevent accelerated corrosion and deterioration in the piping system due to galvanic and stray current. It consists of a union nut, two tail-pieces, a gasket & a sleeve that separates the tail-pieces to prevent an electric current from occurring. This series is ideal in applications such as commercial and residential hot water storage tanks, chilled water processing tanks, steam, gas, FCU's, AHU's and other water piping applications.

2 PRESSURE & TEMPERATURE

- Max. Working Pressure: 250 psi (17.2 bar)
- Max. Working Temperature: 180°F (82°C)

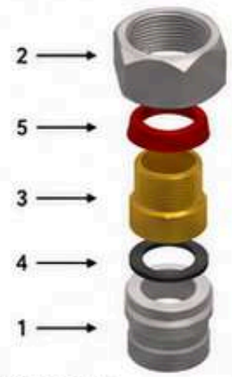
3 CONNECTION TYPE

Steel Female BSPT x Brass Male BSPT

4 MATERIALS

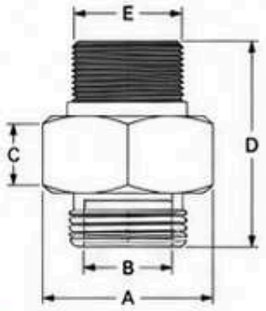
No.	Part	Material
1	FPT Connection	Forged Steel (Electro Plated)
2	Nut	Forged Steel (Electro Plated)
3	MPT Connection	Brass / Copper
4	Gasket	EPDM
5	Insert	ABS

6 EXPLODED VIEW



1 FPT Connection
2 Nut
3 MPT Connection
4 Gasket
5 Insert

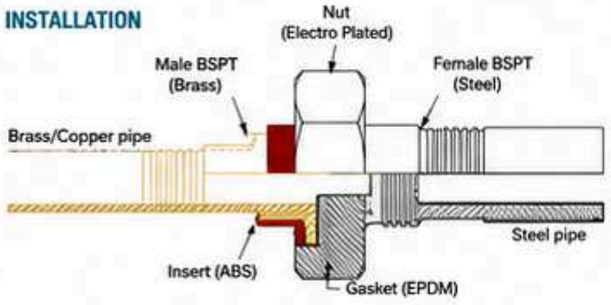
5 DIMENSIONS



Dimensions in Inches

Size	A	B	C	D	E
1/2"	1.84	0.83	0.77	2.79	1.01
3/4"	2.16	1.04	0.79	2.85	1.27
1"	2.60	1.31	0.88	3.42	1.52
1 1/4"	2.93	1.65	0.84	3.68	1.82
1 1/2"	3.72	1.88	0.86	3.80	2.13
2"	4.44	2.33	1.11	4.22	2.59

7 INSTALLATION



8 KEY FEATURES

- Electrical isolation between dissimilar metals
- Helps reduce galvanic corrosion and stray current deterioration
- Steel female BSPT x brass male BSPT threaded connection
- EPDM gasket and ABS insulating insert
- Suitable for hot water, chilled water, steam, gas, FCU, AHU and water piping applications

SERIES DUFC

Female Steel BSPT x Brass Solder



1 OVERVIEW

Series DUFC Dielectric Unions feature a female steel pipe thread to solder brass / copper connection. These unions are designed to be installed between pipes made from dissimilar metals to prevent accelerated corrosion and deterioration in the piping system due to galvanic and stray current. It consists of a union nut, two tail-pieces, a gasket & a sleeve that separates the tail-pieces to prevent an electric current from occurring. This series is ideal in applications such as commercial and residential hot water storage tanks, chilled water processing tanks, steam, gas, FCU's, AHU's and other water piping applications.

2 PRESSURE & TEMPERATURE

- Max. Working Pressure: 250 psi (17.2 bar)
- Max. Working Temperature: 180°F (82°C)

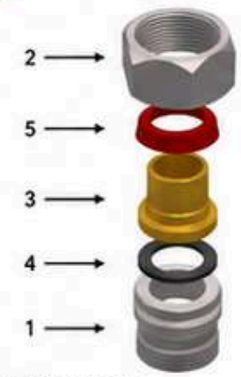
3 CONNECTION TYPE

Female Steel BSPT x Brass Solder

4 MATERIALS

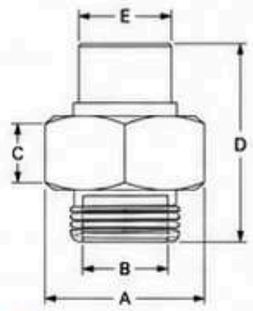
No.	Part	Material
1	FPT Connection	Forged Steel (Electro Plated)
2	Nut	Forged Steel (Electro Plated)
3	Solder Connection	Brass / Copper
4	Gasket	EPDM
5	Insert	ABS

6 EXPLODED VIEW



1 FPT Connection
2 Nut
3 Solder Connection
4 Gasket
5 Insert

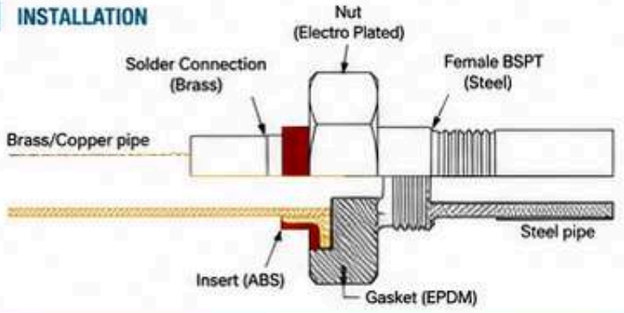
5 DIMENSIONS



Dimensions in Inches

Size	A	B	C	D	E
1/2"	1.41	1.04	0.74	1.85	0.82
3/4"	1.60	1.26	0.72	2.11	1.07
1"	1.88	1.54	0.86	2.33	1.29
1 1/4"	2.26	1.81	0.91	2.66	1.57
1 1/2"	2.74	2.12	0.99	2.74	1.83
2"	3.49	2.59	1.09	3.11	2.35

7 INSTALLATION



8 KEY FEATURES

- Electrical isolation between dissimilar metals
- Helps reduce galvanic corrosion and stray current deterioration
- Female steel BSPT x brass solder connection
- EPDM gasket and ABS insulating insert
- Suitable for hot water, chilled water, steam, gas, FCU, AHU and water piping applications

SERIES DUFF-SS

Female Steel BSPT x Stainless Steel BSPT



Series DUFF-SS Dielectric Unions features a female steel pipe thread connection. These unions are designed to be installed between pipes made from dissimilar metals to prevent accelerated corrosion and deterioration in the piping system due to galvanic and stray current. It consists of a union nut, two tail-pieces, a gasket & a sleeve that separates the tail- pieces to prevent an electric current from occurring. This series is ideal in applications such commercial and residential as hot water storage tanks, chilled water processing tanks, steam, gas, FCU's, AHU's and other water piping applications.

PRESSURE & TEMPERATURE

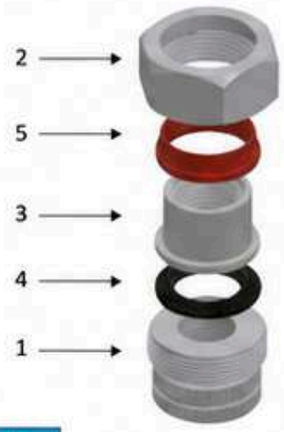
- Max. Working Pressure: 250 psi (17,2 bar)
- Max. Working Temperature: 180°F (82° C)

CONNECTION TYPE

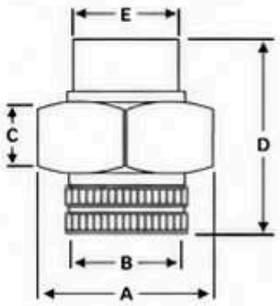
- Female Steel BSPT x Stainless Steel BSPT

MATERIALS

NO.	PART	MATERIAL
1	FPT Connection	Forged Steel (Electro Plated)
2	Nut	Forged Steel (Electro Plated)
3	FPT Connection	Stainless Steel
4	Gasket	EPDM
5	Insert	ABS

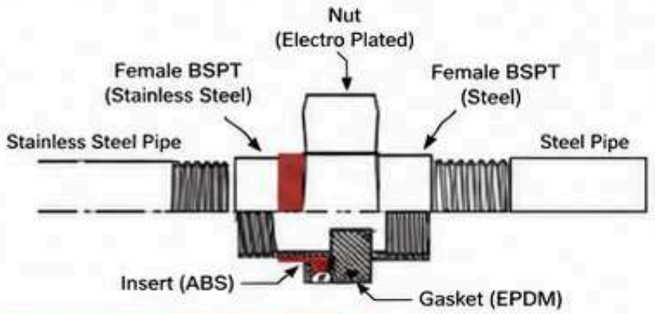


DIMENSIONS



SIZE	A	B	C	D	E
1/2"	1,84	0,83	0,77	2,79	1,01
3/4"	2,16	1,04	0,79	2,85	1,27
1"	2,60	1,31	0,88	3,42	1,52
1¼"	2,93	1,65	0,84	3,68	1,82
1½"	3,72	1,88	0,86	3,80	2,13
2"	4,44	2,33	1,11	4,22	2,59

INSTALLATION



SERIES DUMC

Male Steel BSPT x Brass Solder



Series DUMC Dielectric Unions features a male steel pipe thread to solder brass connections. These unions are designed to be installed between pipes made from dissimilar metals to prevent accelerated corrosion and deterioration in the piping system due to galvanic and stray current. It consists of a union nut, two tail- pieces, a gasket & a sleeve that separates the tail pieces to prevent an electric current from occurring. This series is ideal in application such commercial and residential as hot water storage tanks, chilled water processing tanks, steam, gas, FCU's, AHU's and other water piping applications.

PRESSURE & TEMPERATURE

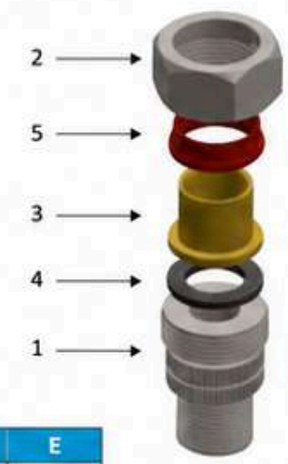
- Max. Working Pressure: 250 psi (17,2 bar)
- Max. Working Temperature: 180°F (82° C)

CONNECTION TYPE

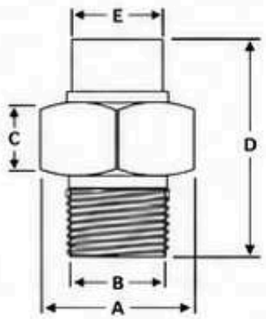
- Male Steel BSPT x Brass Solder

MATERIALS

NO.	PART	MATERIAL
1	MPT Connection	Forged Steel (Electro Plated)
2	Nut	Forged Steel (Electro Plated)
3	Solder Connection	Brass/ Copper
4	Gasket	EPDM
5	Insert	ABS

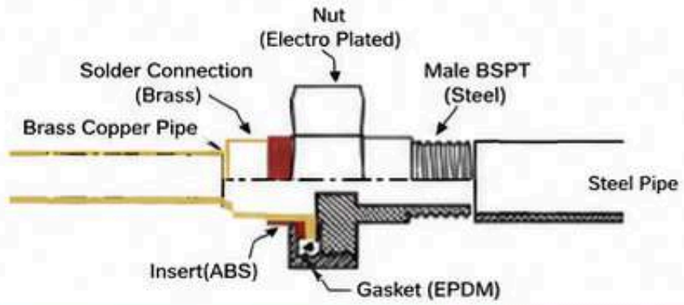


DIMENSIONS



SIZE	A	B	C	D	E
1/2"	1,41	1,04	0,72	1,85	0,82
3/4"	1,60	1,25	0,72	2,11	1,07
1"	1,88	1,54	0,86	2,33	1,29
1¼"	2,26	1,81	0,91	2,66	1,57
1½"	2,74	2,12	0,99	2,74	1,83
2"	3,49	2,59	1,09	3,11	2,35

INSTALLATION



DATA SHEET

DIELECTRIC UNIONS, DUMM
SIZES: ½”-2”(15-50MM)



Series DUMM Dielectric Unions features a male steel pipe thread to a male brass pipe thread connection. These unions are designed to be installed between pipes made from dissimilar metals to prevent accelerated corrosion and deterioration in the piping system due to galvanic and stray current. It consists of a union nut, two tail- pieces, a gasket & a sleeve that separates the tail- pieces to prevent an electric current from occurring. This series is ideal in application such commercial and residential as hot water storage tanks, Chilled water processing tanks, Steam, gas, FCU's, AHU's and other water piping applications.

PRESSURE & TEMPERATURE

- Max. Working Temperature: 180°F (82°C)
- Max. Working Pressure: 250 psi (17,2 bar)

CONNECTION TYPE

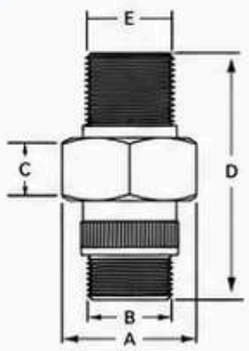
- Male Steel BSPT x Male Brass BSPT

MATERIALS

NO.	PART	MATERIAL
1	MPT Connection	Forged Steel (Electro Plated)
2	Nut	Forged Steel (Electro Plated)
3	MPT Connection	Brass /Copper
4	Gasket	EPDM
5	Insert	ABS

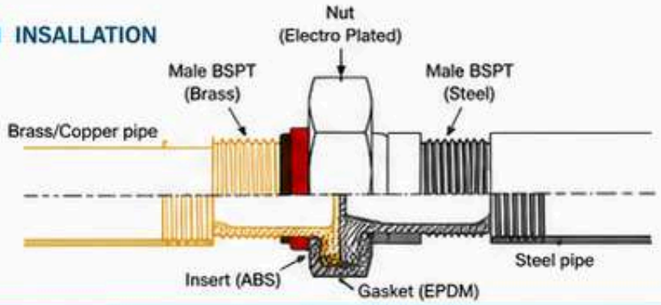


DIMENSIONS



SIZE	A	B	C	D	E
1/2"	1,40	0,85	0,76	3,30	0,83
3/4"	1,62	1,07	0,78	3,35	1,06
1"	1,88	1,30	0,86	3,72	1,30
1¼"	2,28	1,68	0,93	4,13	1,65
1½"	3,48	1,91	1,06	4,30	1,89
2"	3,48	2,40	1,06	4,45	2,36

INSALLATION



KEY FEATURES

- Electrical isolation between dissimilar metals
- Helps reduce galvanic corrosion and stray current deterioration
- Male steel BSPT x male brass BSPT threaded connection
- EPDM gasket and ABS insulating insert
- Suitable for hot water, chilled water, steam, gas, FCU, AHU and water piping applications

ELECTRICAL ISOLATION

CORROSION PROTECTION

DURABLE CONNECTION



BUILT TO PROTECT.
ENGINEERED TO LAST.

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