# **Dielectric unions R.I.D.**



- Removable fittings.

- Corrosion protection.
  Against stray currents.
  On all installations of heating, air conditioning, sanitary hot water circuits, but also on the circuits of water, mineral or vegetable oils, natural gas, propane.



A Division of Watts Water Technologies Inc.





# **Application:**

These unions are designed to be installed between pipe made from dissimilar metals to prevent accelerated corrosion and deterioration in the piping system due to stray current discharges.

### **Article numbers - Dimensions:**

Diameter			Art. number		Art. number				
Ø Copper to weld	St	eel		Ø Steel to screw	Bra	SS	width (mm)	height (mm)	
14	F 1/2"	15x21	24301	F 1/2"	F 1/2"	15x21	32	48	24311
16	F 1/2"	15x21	24302	F 3/4"	F 3/4"	20x27	41	54	24312
16	F 3/4"	20x27	24303	F 1"	F 1"	26x34	48	64	24313
18	F 3/4"	20x27	24324	F 1"1/4	F 1"1/4	33x42	57	76	24314
22	F 3/4"	20x27	24304	F 1"1/2	F 1"1/2	40x49	70	76	24315
28	F 1"	26x34	24305	F 2"	F 2"	50x60	89	76	24316
32	F 1"1/4	33x42	24306						
35	F 1"1/2	40x49	24307						
				F 1/2"	M 3/4"	20x27			24347
				F 1/2"	M 1/2"	15x21			24331
				F 3/4"	M 3/4"	20x27			24332
16	M 1/2"	15x21	24321						Gnecial for
22	M 3/4"	20x27	24322						electric hot water
		F 3/4" M 3/4" 20x27 under hull x 2 self-service			24433				
				F 3/4"	F 3/4" fr	ee nut 20	x27		24371









## **Conception:**

Union fitting removable facilitating all connections, its <u>EXCLUSIVE</u> insulation protects the faulty grounding connection.

#### **Function:**

Connect two metal pipes of different natures and prevent corrosion between them. (example: copper and steel)

### **Utilisations:**

On all installations of heating, air conditioning, sanitary hot water circuits, but also on the circuits of water, mineral or vegetable oils, natural gas, propane.

# **Operating limits:**

Maximum pressure : 16 bar. Electric insulation : up to 600 volts. Maximum temperature: 110°C at 10 bar.

#### Dissimilar metals... beware to mixtures

The copper which is always present in heating installations is a metal that dissolves very easily.

Waterborne copper particles thus circulate in heating network and come into contact with other metals forming thus an electric pile phenomenon.

More the difference between the 2 metals, more corrosion will be important. A heating installation is therefore a closed circuit, absolutely ideal for corrosion.

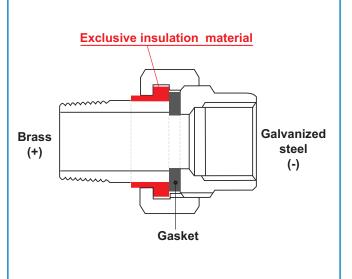
To minimize this natural phenomenon, it is important to know the difference of electrical potential between metals and thus from the conception of the installation to reduce the risk of electrolytic corrosion ; the use of insulating dielectric connections WATTS INDUSTRIES allows you to conform to the requirements of many local standards for protection against corrosion of some pipes with elements in steel and copper materials.

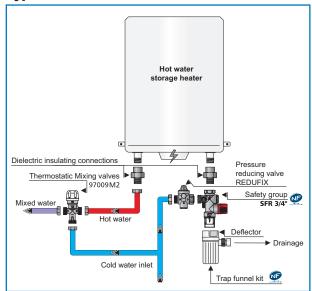
## Difference of potentials between 2 metals\*

Metals in contact	Copper	Copper-Alu	Brass	Cast iron
Lead	270	240	240	70
Cast iron	380	350	350	180
Aluminium	520	490	490	320
Steel	525	495	495	325
Cadmium	530	500	500	330
Chrome	630	600	600	430
Zinc	830	800	800	630
Magnesium	1380	1350	1350	1180

\* in milli-Volt

## **Typical installation:**





## **Product range Watts Industries**

- System disconnectors
- Backflow protection devices
- Check valves
- Safety units
- Safety relief valves
- Pressure reducing valves
- Automatic control valves
- Butterfly valves
- Shut off valves
- Measuring gauges

- Temperature control
- Expansion vessels
- Process switches
- Fuel products
- Gas products
- Electronic controls
- Installation protection products
- Radiator valves
- System products
- Manifolds and fittings



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