

PG Monolithic Isolating Joint

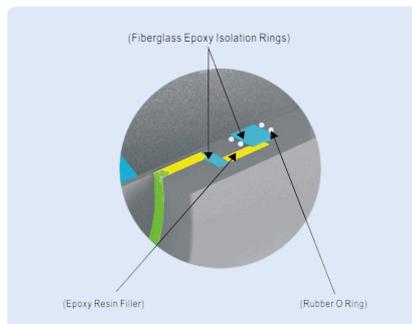
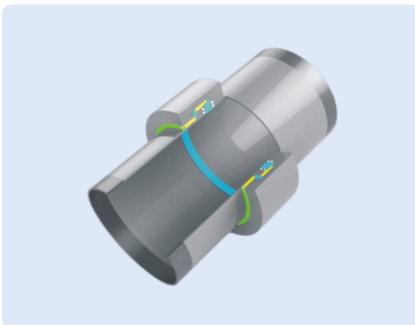
PRODUCT

PG Monolithic Isolating Joint



Pg Sealing MIJ is a monolithic isolating joint which effectively and efficiently stops short circuit and stray currents from damaging pipelines and equipment. It employs one or more, preassembled pressure seals and isolating ring. Unlike isolating gasket kits, MIJ does not depend on an installer fitting gasket, sleeves and washers into flange on location. Any one of these parts could be damaged causing complete break down of the isolation flange, thus losing cathodic isolation. Because MIJ are welded into place as one piece units, field problems are virtually non-existent and the integrity of the isolation is kept intact. Furthermore, once installed, MIJ can be buried and forgotten ending your maintenance worries. In contrast, inspection pits and vaults must be used to monitor below ground isolation gaskets, and constant visual inspections of above ground isolation gaskets are necessary to check for shorts in the gaskets. This requires a continuing maintenance program during the entire life of pipelines.

Isolating joints of Pg Sealing are mainly applied to cathodic protection and corrosion prevention of pipes that carry petroleum, natural gas, hydrocarbon, water, vapor, corrosive liquid, ect. The isolating joints, used on the ground and under the ground, are also widely applied to the gas transmission and distribution system, gas regulator stations, underground drinking water pipelines, ect. to protect the facilities from corrosion by electrochemistry and thus their life is prolonged.

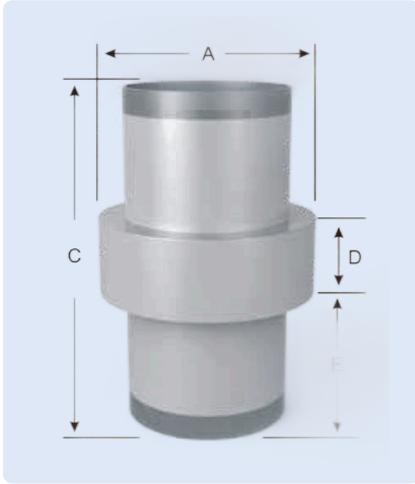


BENEFITS & ADVANTAGES

- No loss of integrity due to thermal expansion or ground stress as is common with flange insulation gasket kits.
- 100% tested hydrostatically and electrically, to 1-1/2 times working pressure. Non-destructive testing is also available.
- Maintenance-free, reliable cathodic isolation of equipment in required isolation applications such as compressor stations.
- No labor intensive, complicated installation procedure required as with isolation gasket kits.
- No inspection pits, vaults or maintenance needed - weld into place and direct bury - reliable, worry-free cathodic isolation.
- Non-conductive epoxy coatings help prevent shorts, both externally and internally.
- Isolates stray currents impressed on the pipe from exterior forces such as electrical transmission systems, earth currents and currents flowing from point to point.
- Excellent bending and torsional resistance.

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Basic Parameters Of Insulating Joints



Unit	Parameters	ANSI 150 (PN 25)	ANSI 300 (PN 65)	ANSI 600 (PN 100)
Operating Pressure	Bar (Maximum)	25.0	63.0	100.0
Hydrostatic Test	Bar	37.5	94.5	150.0
Working Temperature	°C	-20 To 100	-20 To 80	-20 To 80
Dielectric Strength Test	@50Hz In 1 Min. Time (In Dry Condition)	5KV To 15KV	5KV To 15KV	5KV To 15KV
Insulation Resistance Test	@Voltage DC 1kV (In Dry Condition)	5.0 MΩ	5.0 MΩ	5.0 MΩ

150# ANSI CLASS (PN 25)

Nominal Diameter	Wall Thickness	Pipe Grade	Size- MM				Net Weight
			A	C	D	E	
Inch (MM)	MM						KG
1 (25.4)	3.3	B	68.0	698.5	76.0	303.3	3.0
2 (50.8)	3.8	B	98.0	698.5	80.0	296.2	5.2
3 (76.2)	5.6	B	125.0	698.5	92.0	292.1	11.0
4 (101.6)	6.1	B	155.0	698.5	100.0	289.6	16.3
6 (152.4)	7.1	B	216.0	698.5	130.0	282.0	29.7
8 (203.2)	8.1	B	269.0	698.5	146.0	275.6	46.0
10 (254.0)	9.5	B	320.0	800.0	158.0	322.6	69.0
12 (304.8)	10.4	B	344.0	999.0	160.0	419.6	110.0
14 (355.6)	7.9	B	419.0	600.5	190.9	205.0	99.8
16 (406.4)	8.7	B	478.0	900.0	210.0	345.0	176.0
18 (457.2)	7.9	B	529.0	800.0	225.0	288.0	153.7
20 (508.0)	9.5	B	579.9	1000.0	234.0	383.0	233.4
24 (609.6)	9.5	B	695.0	1000.0	274.0	363.6	319.3
26 (660.4)	9.5	B	734.0	1000.0	286.0	356.9	326.3
28 (711.2)	9.5	B	784.0	1000.0	295.0	354.3	355.3
30 (762.0)	9.5	B	840.0	1000.0	304.0	348.8	390.2
32 (812.8)	9.5	B	890.0	1000.0	314.0	343.0	426.1
36 (914.4)	9.5	B	990.0	1199.9	330.0	434.8	532.9



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300-400# ANSI CLASS (PN 64)

Nominal Diameter	Wall Thickness	Pipe Grade	Size- MM				Net Weight
			Inch (MM)	MM	A	C	
1 (25.4)	3.3	B	75.9	698.5	92.0	303.3	4.2
2 (50.8)	3.8	B	96.0	698.5	92.0	295.4	6.0
3 (76.2)	5.5	B	127.0	698.5	100.0	292.1	11.6
4 (101.6)	6.1	B	156.0	698.5	112.0	289.6	16.9
6 (152.4)	7.1	B	216.0	698.5	140.0	279.4	31.0
8 (203.2)	8.1	X52	270.0	698.5	160.0	269.2	58.0
10 (254.0)	9.5	X52	352.0	800.0	180.0	309.9	92.0
12 (304.8)	10.4	X52	404.0	999.0	204.0	398.0	145.0
14 (355.6)	9.3	X52	448.0	800.0	214.9	293.0	153.7
16 (406.4)	11.2	X52	495.0	1000.0	234.0	383.0	238.0
18 (457.2)	12.0	X52	546.0	800.0	260.0	270.0	235.5
20 (508.0)	12.7	X52	605.9	1200.0	274.0	463.0	353.0
24 (609.6)	12.7	X52	705.0	1200.0	324.0	438.0	453.0
26 (660.4)	14.2	X52	756.0	1000.0	336.0	332.0	482.0
30 (762.0)	16.0	X52	879.0	1200.0	376.0	412.3	760.4
36 (914.4)	19.0	X52	1031.0	1300.0	440.0	429.8	1125.7

Tests/Inspections

- Hydrostatic Test (1.5 Times the Design Pressure)
- Electric Insulation Test (> 5 MΩ @ 1000 Volt DC)
- Dielectric Test (1.5 to 5 KV @ 1 minute AC 50 Hz)
- NDE Test (UT & MT)
- Dimensional Checks

To Order Please Indicate The Following:

- Nominal Pipe Size
- ANSI, DIN, API Pressure Class or Actual Working Pressure.
- Pipe Grade
- Wall Thickness
- Temperature Limits
- Product Conveyed

Size Range

From ½" to 150"

Other Test According To Clients' Specific Requirements Such As:

- Hydrostatic pressure and Bending Test
- Torsional Test
- Hydrostatic Fatigue Test
- Combined Hydro-Thermo-Bending Test

Testing & Inspection Agencies

Bureau Veritas, Lloyd Register, Det Norske Veritas, American Bureau of Shipping, RINA, Cipex, Socotec, EIL, Crown Agents, MMI, TUV, Germanischer Lloyd, etc...

Design & Material Codes

ASME – ANSI – ASTM – NACE – BS – UNI – DIN

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600# ANSI CLASS (PN 100)

Nominal Diameter	Wall Thickness	Pipe Grade	Size- MM				Net Weight
			A	C	D	E	
Inch (MM)	MM						KG
1 (25.4)	3.3	B	75.9	698.5	91.0	303.3	4.2
2 (50.8)	3.8	B	110.0	698.5	108.0	295.4	7.6
3 (76.2)	5.6	B	150.0	698.5	116.0	292.1	15.0
4 (101.6)	6.1	B	175.0	698.5	130.0	284.5	20.0
6 (152.4)	7.1	X52	240.0	698.5	150.0	279.3	37.0
8 (203.2)	8.1	X52	294.0	698.5	178.0	260.4	63.0
10 (254.0)	9.1	X52	352.0	800.0	204.0	297.2	100.0
12 (304.8)	10.4	X52	404.0	1000.0	224.0	387.4	165.0
14 (355.6)	9.4	X52	453.0	800.0	250.0	275.0	176.6
16 (406.4)	11.2	X52	502.0	1000.0	274.0	363.0	258.0
18 (457.2)	11.9	X52	552.0	800.0	300.0	250.0	266.4
20 (508.0)	12.7	X52	609.0	1200.0	322.0	438.0	392.0
24 (609.6)	12.7	X52	745.0	1200.0	357.0	421.0	585.0
26 (660.4)	14.2	X52	783.0	1200.0	386.0	407.0	665.6
30 (762.0)	16.0	X52	907.0	1300.0	426.0	437.0	976.0
36 (914.4)	19.0	X52	1072.0	1300.0	492.0	403.9	1500.0

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APPROVED BY

