GPT®

an EnPro Industries company

ElectroSeal™

Monolithic Isolation Joints

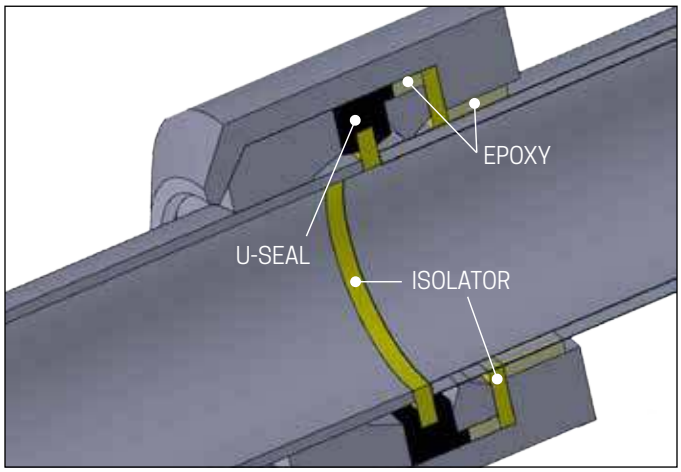
INNOVATIVE ENGINEERING FOR CORROSION PROTECTION

ElectroSeal™ Monolithic Isolation Joints

ELECTROSEAL™ MONOLITHIC ISOLATION JOINTS

ElectroSeal™ Monolithic Isolation Joints (MIJs) are a leak proof, maintenance-free and long lasting barrier against the flow of electric current in all piping systems. ElectroSeal™ MIJs eliminate short-circuits, field assembly, and are protected from corrosion by internal and external coatings. The ElectroSeal™ MIJs come with a unique U-Sealing design, which provides a dynamic sealing structure to protect it from potential leakage due to pressure fluctuation within the pipeline.

All ElectroSeal™ MIJs are manufactured under an ISO Quality Management System. These joints are manufactured to that specification which utilizes the U Seal technology. With a major manufacturing hub based in Langfang, south of Beijing. GPT is well placed to meet the ever increasing market demands for quick response and speedy delivery.



FEATURES AND BENEFITS:

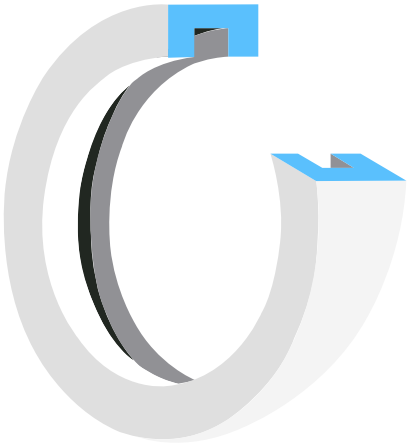
- Eliminates short circuit, field assembly, and maintenance
- Prevents corrosion with internal and external coatings
- Competitively priced
- Manufactured and delivered with a competitive lead time
- Uniquely designed with U-Sealing Structure (see Function of U-Sealing)
- Verified with a variety of standard tests and customizable tests (see List of Standard Tests)
- Available for witness of tests by 3rd party inspector (EN 10204 type 3.2 certificate)
- Manufactured under an ISO Quality Management System

AVAILABLE SIZES:

- Available in any diameter up to DN2000 (NPS 80)
- Design pressure: up to 1,000 bar (14,500 psi)

U-SEAL DESIGN

The ElectoSeal™ Monolithic Isolation Joint utilizes a U-seal design providing resistance to high pressure as well as extending the service life of the joint. The proven U shaped self-tight sealing system provides exceptional sealing capabilities, typically outperforming the traditional O-shaped sealing systems. This U type sealing system is constructed by two symmetric U shape sealing ring. The sealing ring is assembled with the rigid insulating ring together and then the assembled sealing system is pressed into the reserved room between two flanges to form a unique U style sealing ring. This system is usually called “DSGS” (Double Seal Gasket System) - Dual sealing gasket system.

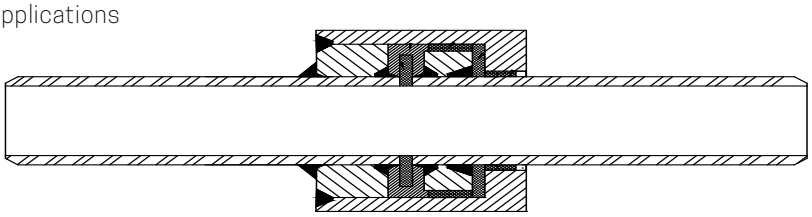


FUNCTION OF U-SEALING STRUCTURE

- Symmetrically balanced dual sealing structure
- Provides reliable sealing especially against bending forces
- Pressure energized sealing design
- Prevents non-uniform stress loading even in extreme conditions
- Anti-Explosive Decompression sealing design

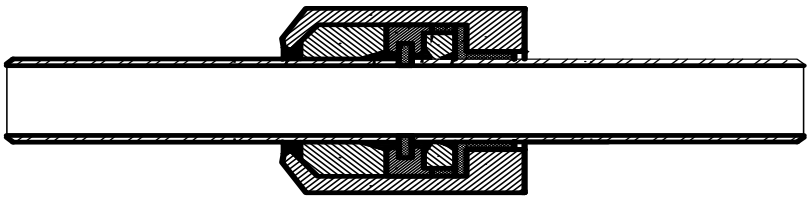
ELECTROSEAL™ 7/B - SQUARE TYPE SEALING

- Square type sealing – Used for medium pressure applications
- Designed for use up to ASME 1500 Class



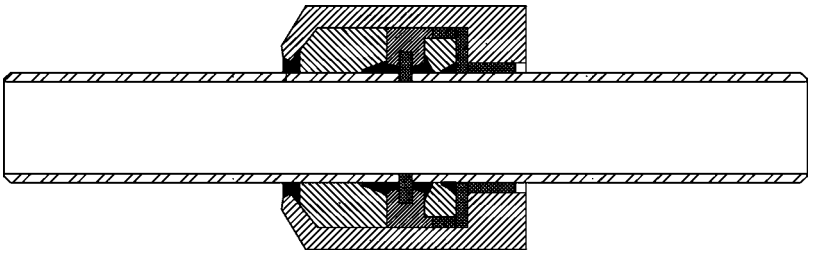
ELECTROSEAL™ 5/B - O TYPE SEALING

- O type sealing – Used for Low pressure applications.
- Used for joints without bend, tensile, torque and press load power
- Designed for use up to ASME 300 Class



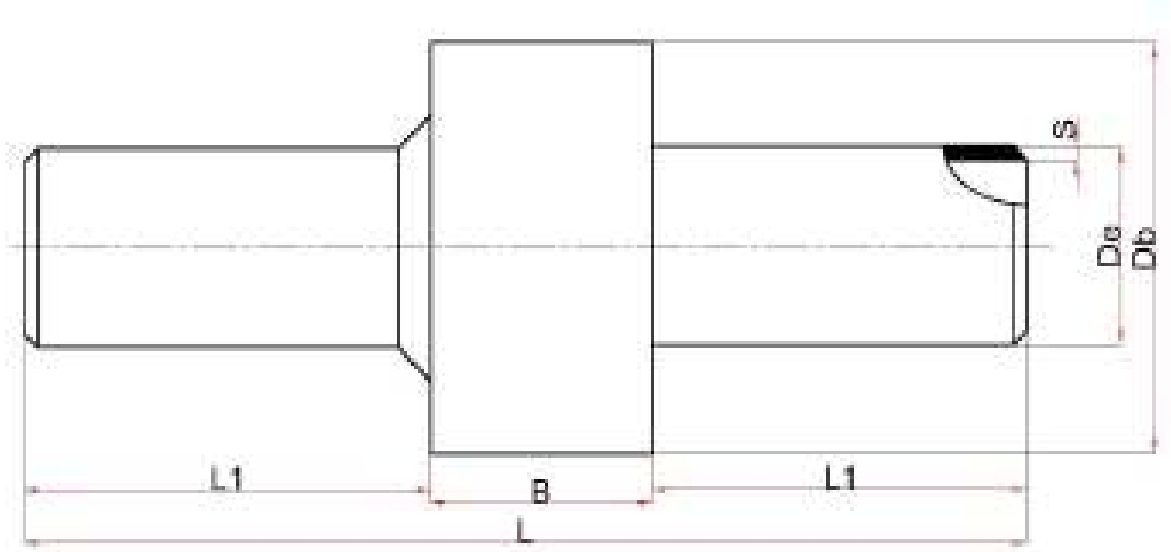
ELECTROSEAL™ 4/B - U TYPE SEALING

- U type sealing – Can be used for pressure class starting from low to as high as 1000 bar, API 10K
- Tested to Bending, Torsional and Compression test up to a limit of 50% of yield strength.
- Can withstand high stress environments such as bend, tensile, torque and press power.
- Designed for use up to ASME 2500 Class and API 10K



GPT will recommend the suitable version as per your application and operating conditions

ElectroSeal™ Monolithic Isolation Joints



150# ANSI CLASS (PN OR DP 25)

NOMINAL DIAMETER		WALL THICKNESS		MATERIAL	S	L	B	Db	L1	WEIGHT	
INCH	MM	INCH	MM							LBS.	KG
2	50	2	60.3	GrB/L245	3.9	350	60	88	145	9	4
2-1/2	65	3	76.1	GrB/L245	4.8	350	65	113	143	18	8
3	80	3.5	88.9	GrB/L245	4.8	400	65	125	168	22	10
4	100	4.5	114.3	GrB/L245	4.8	400	75	150	163	33	15
5	125	6	141.3	GrB/L245	4.8	500	92	191	204	60	27
6	150	7	168.3	X52/L360	5.6	500	97	215	202	82	37
8	200	9	219.1	X52/L360	6.4	500	106	273	197	137	62
10	250	11	273	X52/L360	6.4	700	116	323	292	216	98
12	300	13	323.8	X52/L360	6.4	700	154	382	273	362	164
14	350	14	355.6	X52/L360	7.1	900	180	426	360	534	242
16	400	16	406.4	X60/L415	7.1	900	175	470	363	626	284
18	450	18	457.2	X60/L415	7.1	900	200	518	350	836	379
20	500	20	508	X60/L415	7.1	1000	230	605	385	1263	573
22	550	22	558.8	X60/L415	8	1000	234	660	383	1534	696
24	600	24	609.6	X60/L415	8.8	1000	255	726	373	1995	905
26	650	26	660.4	X60/L415	8.8	1000	255	766	373	2213	1004
28	700	28	711.2	X60/L415	8.8	1200	280	830	460	2855	1295
30	750	30	762	X60/L415	8.8	1200	280	870	460	3128	1419

300# ANSI CLASS (PN OR DP 25)

NOMINAL DIAMETER		WALL THICKNESS		MATERIAL	S	L	B	Db	L1	WEIGHT	
INCH	MM	INCH	MM							LBS.	KG
2	50	2	60.3	GrB/L245	3.9	350	90	97	130	15	7
2-1/2	65	3	76.1	GrB/L245	5.5	350	110	120	120	26	12
3	80	3.5	88.9	GrB/L245	5.5	500	115	140	193	40	18
4	100	4.5	114.3	GrB/L245	6	500	120	170	190	62	28
5	125	6	141.3	GrB/L245	6.5	600	130	200	235	95	43
6	150	7	168.3	X52/L360	7.1	600	145	230	228	134	61
8	200	9	219.1	X52/L360	8.2	600	160	270	220	203	92
10	250	11	273	X52/L360	9.3	800	180	350	310	384	174
12	300	13	323.8	X52/L360	9.5	800	210	410	295	575	261
14	350	14	355.6	X52/L360	12.7	1000	210	450	395	769	349
16	400	16	406.4	X60/L415	12.7	1000	250	510	375	1091	495
18	450	18	457.2	X60/L415	14.3	1000	260	560	370	1371	622
20	500	20	508	X60/L415	15.9	1200	280	640	460	1953	886
22	550	22	558.8	X60/L415	17.5	1200	300	690	450	2416	1096
24	600	24	609.6	X60/L415	19	1200	330	760	435	3137	1423
26	650	26	660.4	X60/L415	19	1200	360	800	420	3706	1681
28	700	28	711.2	X60/L415	19	1300	375	850	463	4354	1975
30	750	30	762	X60/L415	19	1300	380	900	460	4892	2219

600# ANSI CLASS (PN OR DP 25)

NOMINAL DIAMETER		WALL THICKNESS		MATERIAL	S	L	B	Db	L1	WEIGHT	
INCH	MM	INCH	MM							LBS.	KG
2	50	2	60.3	GrB/L245	3.9	350	104	114	123	22	10
2-1/2	65	3	76.1	GrB/L245	5.5	350	117	132	117	33	15
3	80	3.5	88.9	GrB/L245	5.5	500	123	155	189	51	23
4	100	4.5	114.3	GrB/L245	6	500	128	190	186	75	34
5	125	6	141.3	GrB/L245	6.5	600	148	217	226	117	53
6	150	7	168.3	X52/L360	7.1	600	161	248	220	163	74
8	200	9	219.1	X52/L360	8.2	600	183	297	209	260	118
10	250	11	273	X52/L360	9.3	800	211	368	295	467	212
12	300	13	323.8	X52/L360	9.5	800	232	440	284	699	317
14	350	14	355.6	X52/L360	12.7	1000	231	455	385	838	380
16	400	16	406.4	X60/L415	12.7	1000	280	540	360	1305	592
18	450	18	457.2	X60/L415	14.3	1000	290	600	355	1664	755
20	500	20	508	X60/L415	15.9	1200	308	684	446	2330	1057
22	550	22	558.8	X60/L415	17.5	1200	342	730	429	2921	1325
24	600	24	609.6	X60/L415	19	1200	388	810	406	3957	1795
26	650	26	660.4	X60/L415	19	1200	400	845	400	4416	2003
28	700	28	711.2	X60/L415	19	1300	405	890	448	4993	2265
30	750	30	762	X60/L415	19	1300	421	970	440	6025	2733

LIST OF STANDARD TESTS & ACCEPTABLE CRITERIA

TEST ITEM	TEST CONDITION	ACCEPTABLE CRITERIA
Hardness	Spec & data sheet from customer	Fulfill spec & data sheet
Hydro Static	1.5 times of design pressure, dewll time 30 minutes	No leaking or visual distortion
Hydro Fatigue	40 cycles from 0 to 80% of Hydro Static test pressure	No leaking or visual distortion
Air Leakage	Design Pressure	No leaking
Paint Holiday & Adherence	1.5KV	Zero pin hole
Electrical Resistance Test	1.0KV	>50M ohm
Dielectric Test	2.5KV @ 50Hz (5 minutes)	No leaking
Visual & Dimensional Check	Approved drawing	Dimensional Deviation ,5%
Dye Penetration Test	NB/T47013-2015	No defect found

LICENSES AND CERTIFICATES

ISO Quality Assurance

» ElectroSeal™ Monolithic Isolation

Health and Safety Management Assurance

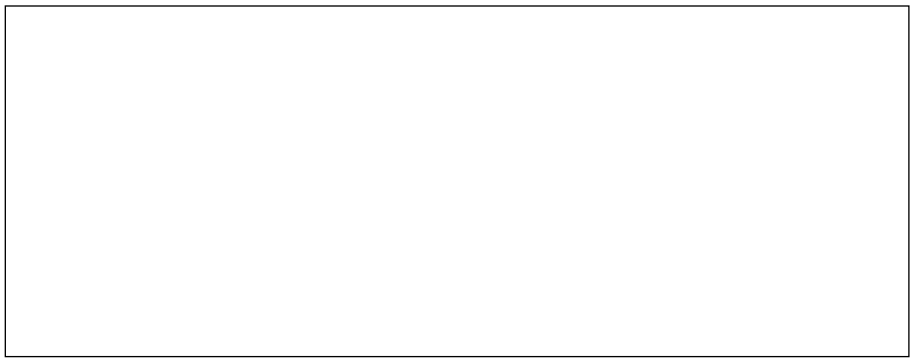
» ElectroSeal™ Monolithic Isolation Joint are manufactured and assembled in an OHSAS 18001:2007 , Q/SHS001.1 – 2001 & Y1002t-2013 health and safety management certified facility

GPT Quality Assurance

» ElectroSeal™ MIJ undergo rigorous and approved manufacturing and engineering processes by GPT Industries (USA). Each ElectroSeal™ joint is manufactured in accordance with GPT manufacturing, engineering and material standards.

OUR COMMITMENT TO YOU

GPT is dedicated to innovating and introducing the best products for sealing, connecting and protecting the world's pipelines. Our desire to be the supplier of choice for the pipeline industry is exhibited through our commitment to employing a technically proficient sales force, our large staff of R&D, process and application engineers, and our solid network of distributors.



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