
ELIMINATE CORROSION AT PIPE SUPPORTS

I-ROD[®]

PRODUCT CATALOGUE



Deepwater EU Ltd.

i-rod.com

I-ROD®

ENDS CORROSION AT PIPE SUPPORTS

Corrosion at pipe supports is one of the leading causes of process piping failures, which can have potentially catastrophic results. All styles of pipe supports – including beam supports and pipe saddles – create crevices where water is trapped near the pipe’s surface.

Corrosion can quickly undercut the paint film causing wall loss. If these conditions are not addressed, entire sections of pipe can fail and require replacement. Deepwater developed the I-Rod® pipe-support system to ensure longer, safer lives for pipes by eliminating the crevices between pipes and supports.

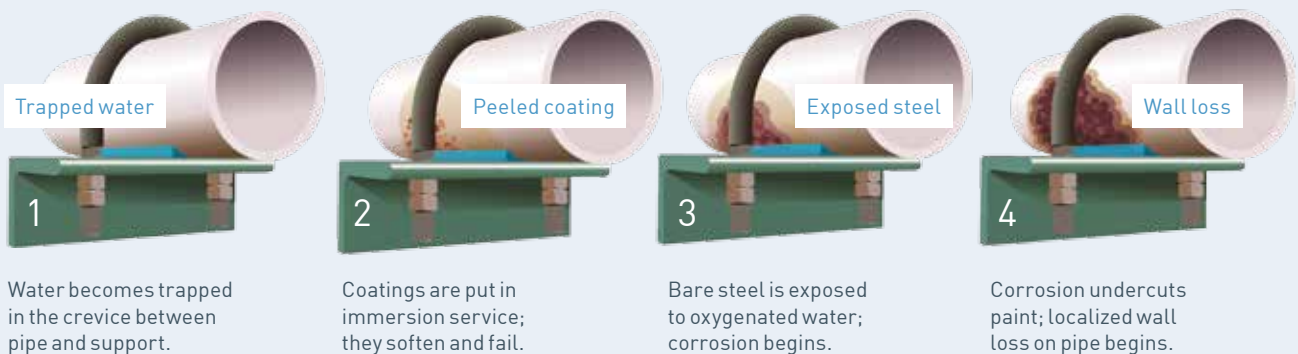


Above, the result of crevice corrosion on a pipe. Trapped moisture has caused substantial wall loss that could result in catastrophic failure.



I-Rod® eliminates the crevice by minimizing the contact area and allowing any moisture to evaporate. It’s also much easier to inspect.

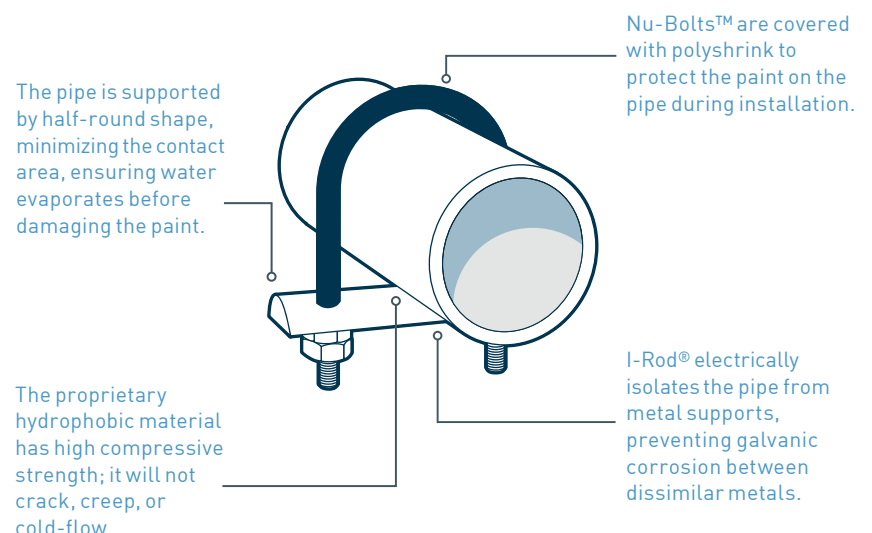
WHAT CAUSES CREVICE CORROSION?



INDEX

- 3 How to order I-Rod®
- 4 Galvanized Nu-Bolts™
- 5 Nu-Bolts with high-temperature polyshrink™
- 6 Cut and drilled I-Rod®
- 7 316 SS and Sermagard™ Nu-Bolts™
- 8 Non-gripping I-Rod® and Nu-Bolts™
- 9 I-Rod® strips
- 9 Nu-Bolt™ torque values
- 10 U-bolts with polyshrink
- 11 U-bolts with high-temperature polyshrink
- 12 I-Rod® Clips for 360° clamps
- 13 I-Rod® Clips for 120° clamps
- 13 Notched I-Rod®
- 14 Nuts, washers, tape, adhesive
- 15 Authenticity
- 16 I-Rod® installation tips

HOW DOES I-ROD® PREVENT CREVICE CORROSION?



HOW TO ORDER

I-ROD®

Using the list at the right, determine the pipe size, maximum operating temperature, U-bolt finish and weight load for each I-Rod® application.

To place an order, contact us at:
+44 (0) 1483 600 482

between 8 A.M. and 5 P.M.

Central Standard Time, or e-mail us:
sales@stoprust.co.uk



I-Rod® ends corrosion at pipe supports.

Pipe size

Measure the outer diameter of the pipe. Nu-Bolts™ are available in standard sizes that fit 1/2" to 36" diameters. Custom sizes are available. Pipes 8" and smaller use 1" I-Rod®; those 10" and larger require 1 1/2" I-Rod®.



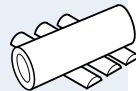
DETERMINING I-ROD® LOAD VALUES

The table shows conservative estimates of the total weight of a foot of pipe filled with water. Multiply this number by your support spacing to get total weight loading, then select number of I-Rods® you'll need. Use 1-inch I-Rods® if pipe diameter is 8" or less; 1 1/2 -inch I-Rod® is for piping 10" or greater in diameter. Do not mix rod sizes.

Maximum loading for each I-Rod®:

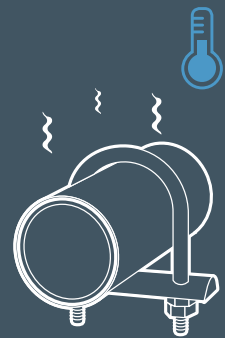
- 1 inch I-Rod®: **8,000 lb**
- 1 1/2 inch I-Rod®: **10,000 lb**

Use up to three rods to support desired weight.



Temperature

Determine your pipe's maximum operating temperature. Use standard I-Rod® up to 83° C (181° F), I-Rod® HT up to 171° C (340° F), and for temperatures up to 249° C (480° F), specify PEEK™. Use high-temperature polyshrink for U-Bolts with service temperatures over 110° C (230° F).



WEIGHT (LB) PER FOOT OF PIPING FULL OF WATER

Nominal pipe size	Outside diameter	Std	Sch 40	X-Strong	Sch 80	Sch 120	Sch 140	Sch 160	X-Strong
2"	2.375"	6	6	7	7			9	11
3	3.5	12	12	14	14			18	23
4	4.5	18	18	22	22	26		29	34
6	6.625	33	34	44	44	51		60	68
8	8.625	51	54	69	69	86	93	100	98
10	10.75	76	80	94	104	129	143	155	143
12	12.75	104	110	121	144	181	195	215	181
14	14	122	131	140	173	217	237	255	
16	16	151	171	171	224	280	310	332	
18	18	183	216	205	282	354	384	418	
20	20	217	261	242	346	432	447	514	
24	24	294	370	325	494	625	678	737	
26	26	337		370					
28	28	383		419					
30	30	431		470					
36	36	593	731	639					
42	42	780		834					

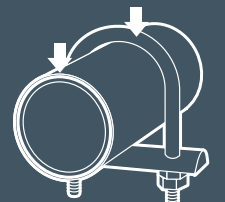
U-Bolt finish

Standard Nu-Bolts™ come with a long-lasting, hot-dip-galvanized finish. Alternate options include 316 SS or an ultra-durable Sermagard™ aluminum-ceramic coating for the harshest environments.



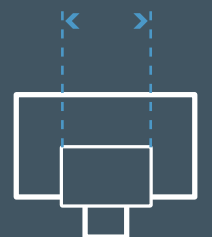
Weight load

Use the table to estimate the weight on the I-Rod® at each pipe support. Use up to three strips of I-Rod® to meet load requirements. Pipes 8" and smaller use 1" I-Rod®, 10" and larger require 1 1/2" I-Rod®.

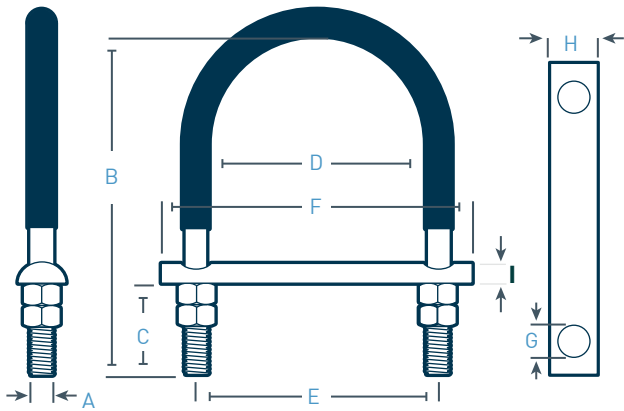


I-Rod® Clips

Measure the width of your saddle clamp, pipe hanger or support cradle; the I-Clip™ snaps over these edges.



GALVANIZED NU-BOLT™



Includes:

- U-Bolt with polyshrink
- Four nuts
- Cut and drilled I-Rod®

Note: Maximum operating temp for polyshrink is 110° C.

Note: Nu-Bolts™ are shipped unassembled; pre-assembled Nu-Bolts™ are available for an additional charge.



With I-Rod® (white)

Max temp: 83° C

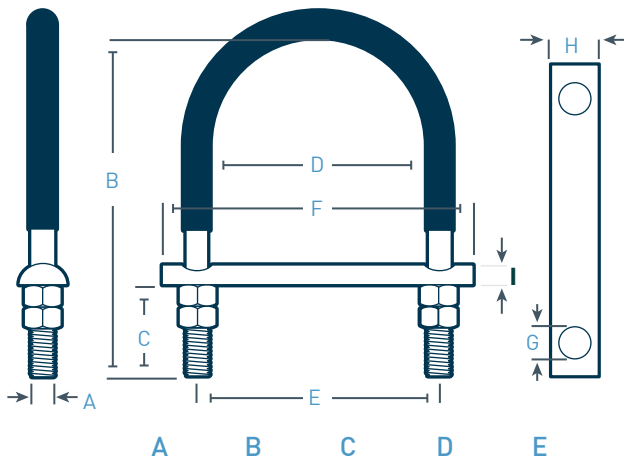


With I-Rod® HT (amber)

Max temp: 171° C

	A	B	C	D	E	F	G	H	I		
Nominal pipe size	Bolt diameter	U-bolt height	Thread length	Inside gap	Leg centre	I-Rod length	I-Rod hole diameter	I-Rod size	I-Rod height	Part number	Part number
1/2"	1/4"	3 1/4"	2 3/8"	3/4"	1 3/16"	2 1/2"	3/8"	3/4"	5/16"	NUB0045	NUB0431
1/2	3/8	3 1/4	2 3/8	13/16	1 3/16	2 1/2	1/2	1	7/16	NUB0046	NUB0193
3/4	1/4	3 5/16	2 3/8	15/16	1 3/8	3	3/8	3/4	5/16	NUB0071	NUB0408
3/4	3/8	3 5/16	2 3/8	1	1 1/2	3	1/2	1	7/16	NUB0074	NUB0398
1	1/4	3 7/16	2 3/8	1 1/4	1 5/8	3	3/8	3/4	5/16	NUB0047	NUB0198
1	3/8	3 7/16	2 3/8	1 7/8	1 3/4	3	1/2	1	7/16	NUB0001	NUB0194
1 1/4	3/8	3 3/4	2 1/2	1 9/16	2 1/16	3 1/2	1/2	1	7/16	NUB0013	NUB0409
1 1/2	3/8	4	2 1/2	1 14/16	2 3/8	4	1/2	1	7/16	NUB0052	NUB0196
2	3/8	4 1/2	2 1/2	2 5/16	2 13/16	4 1/2	1/2	1	7/16	NUB0009	NUB0199
2 1/2	1/2	5 1/4	3	2 13/16	3 7/16	5	5/8	1	7/16	NUB0017	NUB0432
3	1/2	5 13/16	3	3 9/16	4 1/16	6	5/8	1	7/16	NUB0057	NUB0200
4	1/2	6 13/16	3	4 1/2	5 1/16	7	5/8	1	7/16	NUB0060	NUB0195
5	1/2	7 13/16	3	5 1/2	6 1/8	8	5/8	1	7/16	NUB0063	NUB0433
6	5/8	9 1/2	3 3/4	6 3/4	7 3/8	9	11/16	1	7/16	NUB0064	NUB0067
8	5/8	11 1/2	3 3/4	8 9/16	9 3/8	11	11/16	1	7/16	NUB0077	NUB0079
10	3/4	13 13/16	4	10 13/16	11 5/8	13 1/2	7/8	1 1/2	11/16	NUB0003	NUB0224
12	7/8	16 1/16	4 1/4	12 3/4	13 3/4	16	1	1 1/2	11/16	NUB0085	NUB0225
14	7/8	17 5/16	4 1/4	14	15	17	1	1 1/2	11/16	NUB0091	NUB0434
16	7/8	19 5/16	4 1/4	16	17	19	1	1 1/2	11/16	NUB0005	NUB0435
18	1	21 11/16	4 3/4	18	19 1/8	21 1/2	1 1/8	1 1/2	11/16	NUB0098	NUB0226
20	1	23 11/16	4 3/4	20	21 1/8	23 1/2	1 1/8	1 1/2	11/16	NUB0101	NUB0436
24	1	27 11/16	4 3/4	24	25 1/8	27 1/2	1 1/8	1 1/2	11/16	NUB0011	NUB0227
28	1	31 11/16	4 3/4	28	29 1/8	31 1/2	1 1/8	1 1/2	11/16	NUB0106	NUB0602
30	1	33 11/16	4 3/4	30	31 1/8	33 1/2	1 1/8	1 1/2	11/16	NUB0107	NUB0437
36	1	39 11/16	4 3/4	36	37 1/8	39 1/2	1 1/8	1 1/2	11/16	NUB0109	NUB0438

NU-BOLT WITH HIGH-TEMPERATURE POLYSHRINK™



Includes:

- U-bolt with polyshrink
- Four nuts
- Cut and drilled I-Rod®

Note: Maximum operating temp for HT polyshrink is 220° C

Note: Nu-Bolts™ are shipped unassembled; pre-assembled Nu-Bolts™ are available for an additional charge.



Galvanized with I-Rod® HT (amber)

Max temp: 171° C

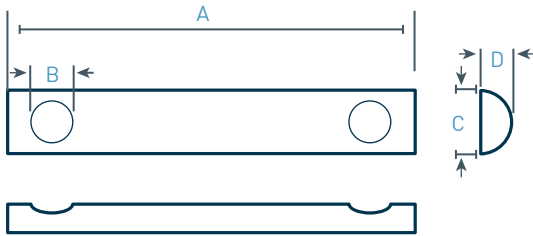


316 Stainless with I-Rod® HT (amber)

Max temp: 171° C

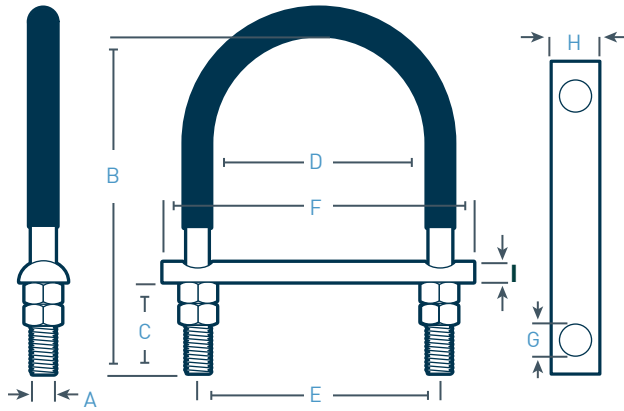
Nominal pipe size	Bolt diameter	U-bolt height	Thread length	Inside gap	Leg centre	I-Rod length	I-Rod hole diameter	I-Rod size	I-Rod height	Part number	Part number
1/2"	1/4"	3 1/4"	2 3/8"	3/4"	1 3/16"	2 1/2"	3/8"	3/4"	5/16"	NUB0895	NUB0925
1/2	3/8	3 1/4	2 3/8	13/16	1 3/16	2 1/2	1/2	1	7/16	NUB0896	NUB0926
3/4	1/4	3 5/16	2 3/8	15/16	1 3/8	3	3/8	3/4	5/16	NUB0897	NUB0927
3/4	3/8	3 5/16	2 3/8	1	1 1/2	3	1/2	1	7/16	NUB0898	NUB0928
1	1/4	3 7/16	2 3/8	1 1/4	1 5/8	3	3/8	3/4	5/16	NUB0899	NUB0929
1	3/8	3 7/16	2 3/8	1 7/8	1 3/4	3	1/2	1	7/16	NUB0900	NUB0930
1 1/4	3/8	3 3/4	2 1/2	1 9/16	2 1/16	3 1/2	1/2	1	7/16	NUB0901	NUB0931
1 1/2	3/8	4	2 1/2	1 14/16	2 3/8	4	1/2	1	7/16	NUB0902	NUB0932
2	3/8	4 1/2	2 1/2	2 5/16	2 13/16	4 1/2	1/2	1	7/16	NUB0903	NUB0933
2 1/2	1/2	5 1/4	3	2 13/16	3 7/16	5	5/8	1	7/16	NUB0905	NUB0935
3	1/2	5 13/16	3	3 9/16	4 1/16	6	5/8	1	7/16	NUB0906	NUB0937
4	1/2	6 13/16	3	4 1/2	5 1/16	7	5/8	1	7/16	NUB0908	NUB0938
5	1/2	7 13/16	3	5 1/2	6 1/8	8	5/8	1	7/16	NUB0909	NUB0939
6	5/8	9 1/2	3 3/4	6 3/4	7 3/8	9	11/16	1	7/16	NUB0910	NUB0940
8	5/8	11 1/2	3 3/4	8 9/16	9 3/8	11	11/16	1	7/16	NUB0911	NUB0941
10	3/4	13 13/16	4	10 13/16	11 5/8	13 1/2	7/8	1 1/2	11/16	NUB0912	NUB0942
12	7/8	16 1/16	4 1/4	12 3/4	13 3/4	16	1	1 1/2	11/16	NUB0913	NUB0943
14	7/8	17 5/16	4 1/4	14	15	17	1	1 1/2	11/16	NUB0914	NUB0944
16	7/8	19 5/16	4 1/4	16	17	19	1	1 1/2	11/16	NUB0915	NUB0945
18	1	21 11/16	4 3/4	18	19 1/8	21 1/2	1 1/8	1 1/2	11/16	NUB0916	NUB0946
20	1	23 11/16	4 3/4	20	21 1/8	23 1/2	1 1/8	1 1/2	11/16	NUB0917	NUB0947
24	1	27 11/16	4 3/4	24	25 1/8	27 1/2	1 1/8	1 1/2	11/16	NUB0918	NUB0948
28	1	31 11/16	4 3/4	28	29 1/8	31 1/2	1 1/8	1 1/2	11/16	NUB0920	NUB0950
30	1	33 11/16	4 3/4	30	31 1/8	33 1/2	1 1/8	1 1/2	11/16	NUB0921	NUB0951
36	1	39 11/16	4 3/4	36	37 1/8	39 1/2	1 1/8	1 1/2	11/16	NUB0922	NUB0952

CUT AND DRILLED I-ROD® WITHOUT U-BOLT



		A	B	C	D			
Nominal pipe size	Bolt diameter	I-Rod length	I-Rod hole diameter	I-Rod size	I-Rod height	Part number	Part number	Part number
1/2"	1/4"	2 1/2"	3/8"	3/4"	5/16"	ROD0105	ROD0141	ROD0332
1/2	3/8	2 1/2	1/2	1	7/16	ROD0003	ROD0159	ROD0333
3/4	1/4	3	3/8	3/4	5/16	ROD0013	ROD0148	ROD0334
3/4	3/8	3	1/2	1	7/16	ROD0107	ROD0298	ROD0335
1	1/4	3	3/8	3/4	5/16	ROD0002	ROD0160	ROD0336
1	3/8	3	1/2	1	7/16	ROD0001	ROD0106	ROD0295
1 1/4	3/8	3 1/2	1/2	1	7/16	ROD0076	ROD0232	ROD0337
1 1/2	3/8	4	1/2	1	7/16	ROD0005	ROD0149	ROD0338
2	3/8	4 1/2	1/2	1	7/16	ROD0009	ROD0087	ROD0303
2 1/2	1/2	5	5/8	1	7/16	ROD0022	ROD0233	ROD0339
3	1/2	6	5/8	1	7/16	ROD0012	ROD0090	ROD0340
4	1/2	7	5/8	1	7/16	ROD0014	ROD0096	ROD0341
5	1/2	8	5/8	1	7/16	ROD0015	ROD0299	ROD0342
6	5/8	9	11/16	1	7/16	ROD0074	ROD0101	ROD0343
8	5/8	11	11/16	1	7/16	ROD0017	ROD0104	ROD0344
10	3/4	13 1/2	7/8	1 1/2	11/16	ROD0004	ROD0079	ROD0345
12	7/8	16	1	1 1/2	11/16	ROD0006	ROD0081	ROD0346
14	7/8	17	1	1 1/2	11/16	ROD0007	ROD0243	ROD0347
16	7/8	19	1	1 1/2	11/16	ROD0008	ROD0300	ROD0296
18	1	21 1/2	1 1/8	1 1/2	11/16	ROD0083	ROD0171	ROD0348
20	1	23 1/2	1 1/8	1 1/2	11/16	ROD0010	ROD0140	ROD0349
24	1	27 1/2	1 1/8	1 1/2	11/16	ROD0011	ROD0172	ROD0350
28	1	31 1/2	1 1/8	1 1/2	11/16	ROD0088	ROD0382	ROD0383
30	1	33 1/2	1 1/8	1 1/2	11/16	ROD0092	ROD0301	ROD0351
36	1	39 1/2	1 1/8	1 1/2	11/16	ROD0093	ROD0302	ROD0352

STAINLESS STEEL AND SERMAGARD™ NU-BOLTS™



316 Stainless Nu-Bolt™ with I-Rod® (white)

- Stainless U-bolt
- Standard I-Rod®
- 83° C max temp
- Polyshrink
- Four nuts



316 Stainless Nu-Bolt™ with I-Rod® HT (amber)

- Stainless U-bolt
- I-Rod® HT
- 171° C max temp
- Polyshrink
- Four nuts



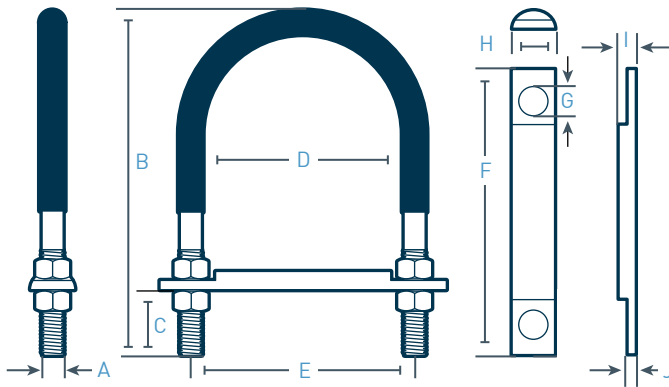
Sermagard® Nu-Bolt™ with I-Rod® (white)

- Carbon steel U-bolt with Sermagard™
- Standard I-Rod®
- 83° C max temp
- Polyshrink
- Four nuts

A B C D E F G H I

Nominal pipe size	Bolt Ø	U-bolt height	Thread length	Inside gap	Leg centre	I-Rod length	I-Rod hole Ø	I-Rod size	I-Rod height	Part number	Part number	Part number
1/2"	1/4"	3 1/4"	2 3/8"	3/4"	1 3/16"	2 1/2"	3/8"	3/4"	5/16"	NUB0113	NUB0447	NUB0415
1/2	3/8	3 1/4	2 3/8	13/16	1 5/16	2 1/2	1/2	1	7/16	NUB0609	NUB0448	NUB0132
3/4	1/4	3 5/16	2 3/8	15/16	1 3/8	3	3/8	3/4	5/16	NUB0123	NUB0449	NUB0149
3/4	3/8	3 5/16	2 3/8	1	1 1/2	3	1/2	1	7/16	NUB0610	NUB0450	NUB0650
1	1/4	3 7/16	2 3/8	1 1/4	1 5/8	3	3/8	3/4	5/16	NUB0114	NUB0451	NUB0491
1	3/8	3 7/16	2 3/8	1 7/8	1 3/4	3	1/2	1	7/16	NUB0038	NUB0197	NUB0133
1 1/2	3/8	4	2 1/2	1 14/16	2 3/8	4	1/2	1	7/16	NUB0116	NUB0417	NUB0135
2	3/8	4 1/2	2 1/2	2 5/16	2 13/16	4 1/2	1/2	1	7/16	NUB0018	NUB0418	NUB0137
2 1/2	1/2	5 1/4	3	2 13/16	3 7/16	5	5/8	1	7/16	NUB0442	NUB0622	NUB0440
3	1/2	5 13/16	3	3 9/16	4 1/16	6	5/8	1	7/16	NUB0119	NUB0452	NUB0012
4	1/2	6 13/16	3	4 1/2	5 1/16	7	5/8	1	7/16	NUB0120	NUB0419	NUB0144
5	1/2	7 13/16	3	5 1/2	6 1/8	8	5/8	1	7/16	NUB0277	NUB0453	NUB0441
6	5/8	9 1/2	3 3/4	6 3/4	7 3/8	9	11/16	1	7/16	NUB0121	NUB0454	NUB0147
8	5/8	11 1/2	3 3/4	8 9/16	9 3/8	11	11/16	1	7/16	NUB0125	NUB0455	NUB0150
10	3/4	13 13/16	4	10 13/16	11 5/8	13 1/2	7/8	1 1/2	11/16	NUB0127	NUB0456	NUB0152
12	7/8	16 1/16	4 1/4	12 3/4	13 3/4	16	1	1 1/2	11/16	NUB0128	NUB0457	NUB0155
14	7/8	17 5/16	4 1/4	14	15	17	1	1 1/2	11/16	NUB0390	NUB0458	NUB0157
16	7/8	19 5/16	4 1/4	16	17	19	1	1 1/2	11/16	NUB0129	NUB0459	NUB0006
18	1	21 11/16	4 3/4	18	19 1/8	21 1/2	1 1/8	1 1/2	11/16	NUB0232	NUB0460	NUB0159
20	1	23 11/16	4 3/4	20	21 1/8	23 1/2	1 1/8	1 1/2	11/16	NUB0130	NUB0462	NUB0160
24	1	27 11/16	4 3/4	24	25 1/8	27 1/2	1 1/8	1 1/2	11/16	NUB0131	NUB0624	NUB0161
30	1	33 11/16	4 3/4	30	31 1/8	33 1/2	1 1/8	1 1/2	11/16	NUB0616	NUB0627	NUB0559

NON-GRIPPING I-ROD® WITH FLATS AND NU-BOLT™



Non-gripping I-Rod® (white)

Max temp: 83° C



Non-gripping Nu-Bolt™ (white)

- Galvanized U-bolt
- Standard I-Rod®
- 83° C max temp
- Polyshrink
- Four nuts

	A	B	C	D	E	F	G	H	I	J		
Nominal pipesize	Bolt Ø	U-bolt height	Thread length	Inside gap	Leg centre	I-Rod length	I-Rod hole Ø	I-Rod size	I-Rod height	Tab thickness	Part number	Part number
1/2"	1/4"	3 1/4"	2 3/8"	13/16	1 3/16"	2 1/2"	3/8"	3/4"	5/16"	3/16"	ROD0391	NUB0563
3/4	1/4	3 5/16	2 3/8	1	1 3/8	3	3/8	3/4	5/16	3/16	ROD0392	NUB0564
3/4	3/8	3 5/16	2 3/8	1	1 1/2	3	1/2	1	7/16	1/4	ROD0425	NUB0565
1	1/4	3 7/16	2 3/8	1 1/4	1 5/8	3	3/8	3/4	5/16	3/16	ROD0393	NUB0566
1	3/8	3 7/16	2 3/8	1 1/4	1 3/4	3	1/2	1	7/16	1/4	ROD0394	NUB0567
1 1/2	3/8	4	2 1/2	1 15/16	2 3/8	4	1/2	1	7/16	1/4	ROD0396	NUB0568
2	3/8	4 1/2	2 1/2	2 5/16	2 13/16	4 1/2	1/2	1	7/16	1/4	ROD0397	NUB0569
2 1/2	1/2	5 1/4	3	2 13/16	3 7/16	5	5/8	1	7/16	1/4	ROD0398	NUB0570
3	1/2	5 13/16	3	3 1/2	4 1/16	6	5/8	1	7/16	1/4	ROD0399	NUB0571
4	1/2	6 13/16	3	4 9/16	5 1/16	7	5/8	1	7/16	1/4	ROD0400	NUB0572
5	1/2	7 13/16	3	5 1/2	6 1/8	8	5/8	1	7/16	1/4	ROD0401	NUB0573
6	5/8	9 1/2	3 3/4	6 11/16	7 3/8	9	11/16	1	7/16	1/4	ROD0402	NUB0560
8	5/8	11 1/2	3 3/4	8 11/16	9 3/8	11	11/16	1	7/16	1/4	ROD0403	NUB0574
10	3/4	13 13/16	4	10 13/16	11 5/8	13 1/2	7/8	1 1/2	11/16	3/8	ROD0404	NUB0575
12	7/8	16 1/16	4 1/4	12 3/4	13 3/4	16	1	1 1/2	11/16	3/8	ROD0405	NUB0576
14	7/8	17 5/16	4 1/4	14	15	17	1	1 1/2	11/16	3/8	ROD0406	NUB0577
16	7/8	19 5/16	4 1/4	16	17	19	1	1 1/2	11/16	3/8	ROD0407	NUB0561
18	1	21 11/16	4 3/4	18	19 1/8	21 1/2	1 1/8	1 1/2	11/16	3/8	ROD0408	NUB0578
20	1	23 11/16	4 3/4	20	21 1/8	23 1/2	1 1/8	1 1/2	11/16	3/8	ROD0409	NUB0579
24	1	27 11/16	4 3/4	24	25 1/8	27 1/2	1 1/8	1 1/2	11/16	3/8	ROD0410	NUB0562
28	1	31 11/16	4 3/4	28	29 1/8	31 1/2	1 1/8	1 1/2	11/16	3/8	ROD0412	NUB0722
30	1	33 11/16	4 3/4	30	31 1/8	33 1/2	1 1/8	1 1/2	11/16	3/8	ROD0413	NUB0580
36	1	39 11/16	4 3/4	36	37 1/8	39 1/2	1 1/8	1 1/2	11/16	3/8	ROD0414	NUB0581

I-ROD® STRIPS

I-Rod® by the foot is available in lengths of five feet, ten feet or one meter (3.28').



Rod width	Height inches	Length in feet	Part number	Part number	Part number
3/4"	5/16"	5'	IRD0056	IRD0357	IRD0360
1	7/16	5'	IRD0034	IRD0233	IRD0344
1 1/2	11/16	5'	IRD0045	IRD0234	IRD0354
3/4	5/16	10'	IRD0220	IRD0228	IRD0361
1	7/16	10'	IRD0156	IRD0358	IRD0362
1 1/2	11/16	10'	IRD0371	IRD0359	IRD0363
3/4	5/16	3.28'	IRD0055	IRD0364	IRD0365
1	7/16	3.28'	IRD0030	IRD0337	IRD0338
1 1/2	11/16	3.28'	IRD0043	IRD0336	IRD0366

RECOMMENDED TORQUE FOR GENUINE I-ROD® PIPE SUPPORT MATERIAL

Note: It is assumed that the U-Bolts are not greased. The torque values on this sheet are general recommendations. For more specific calculations, contact us.

Assumed coefficients of friction vs dry steel:

I-Rod®:	0.25
I-Rod® HT:	0.42
PEEK:	0.4

Assumed coefficients of friction on threads:

HDG:	0.15
316SS:	0.17
Sermaguard:	0.12

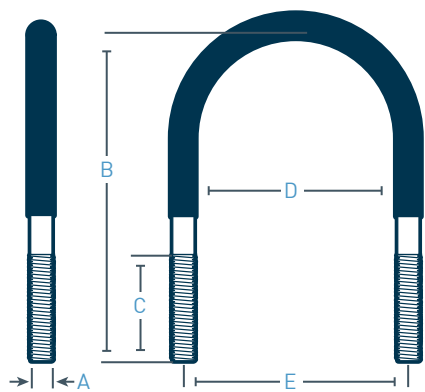
Imperial Torque Values (lb-ft):

Thread size	HDG I-Rod	HDG I-Rod HT	HDG PEEK	316SS I-Rod	316SS I-Rod HT	316SS PEEK	Sermaguard I-Rod	Sermaguard I-Rod HT	Sermaguard PEEK
1/4"	3	5	5	3	5	5	3	5	5
3/8"	6	9	9	7	9	9	6	9	8
1/2"	15	21	21	15	22	21	14	21	20
5/8"	29	42	40	30	43	41	27	40	38
3/4"	50	72	69	51	73	71	47	69	66
7/8"	79	114	109	82	116	112	74	109	105
1"	117	170	163	122	174	168	111	163	157

Metric Torque Values (N m):

Thread size	HDG I-Rod	HDG I-Rod HT	HDG PEEK	316SS I-Rod	316SS I-Rod HT	316SS PEEK	Sermaguard I-Rod	Sermaguard I-Rod HT	Sermaguard PEEK
1/4"	5	7	6	5	7	7	4	7	6
3/8"	9	12	12	9	13	12	8	12	11
1/2"	20	29	28	21	30	29	19	28	27
5/8"	39	56	54	41	58	56	37	54	52
3/4"	67	97	94	70	100	96	64	93	90
7/8"	107	154	148	111	158	152	101	148	142
1"	159	230	222	165	236	228	150	221	213

U-BOLTS WITH POLYSHRINK



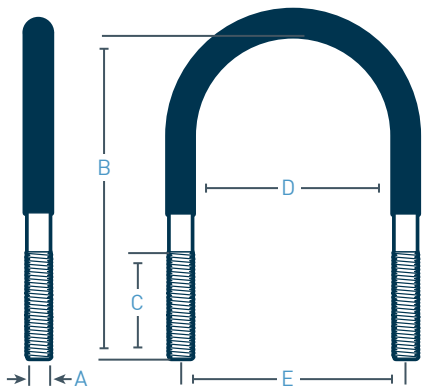
Note: Please see page eight to order nuts.

Note: Maximum operating temp for polyshrink is 110° C.



	A	B	C	D	E	Galvanized	316 SS	Sermagard™
Nominal pipe size	Bolt diameter	U-bolt height	Thread length	Inside gap	Leg centre	Part number	Part number	Part number
1/2"	1/4"	3 1/4"	2 3/8"	3/4"	1 3/16"	UBT0040	UBT0438	UBT0321
1/2	3/8	3 1/4	2 3/8	13/16	1 5/16	UBT0168	UBT0464	UBT0140
3/4	1/4	3 5/16	2 3/8	15/16	1 3/8	UBT0023	UBT0422	UBT0149
3/4	3/8	3 5/16	2 3/8	1	1 1/2	UBT0198	UBT0465	UBT0256
1	1/4	3 7/16	2 3/8	1 1/4	1 5/8	UBT0033	UBT0423	UBT0035
1	3/8	3 7/16	2 3/8	1 7/8	1 3/4	UBT0036	UBT0249	UBT0039
1 1/4	3/8	3 3/4	2 1/2	1 9/16	2 1/8	UBT0004	UBT0487	UBT0461
1 1/2	3/8	4	2 1/2	1 14/16	2 3/8	UBT0002	UBT0250	UBT0003
2	3/8	4 1/2	2 1/2	2 5/16	2 13/16	UBT0015	UBT0012	UBT0013
2 1/2	1/2	5 1/4	3	2 13/16	3 7/16	UBT0019	UBT0496	UBT0482
3	1/2	5 13/16	3	3 9/16	4 1/16	UBT0020	UBT0424	UBT0021
4	1/2	6 13/16	3	4 1/2	5 1/16	UBT0026	UBT0381	UBT0025
5	1/2	7 13/16	3	5 1/2	6 1/8	UBT0027	UBT0509	UBT0261
6	5/8	9 1/2	3 3/4	6 3/4	7 3/8	UBT0029	UBT0425	UBT0030
8	5/8	11 1/2	3 3/4	8 9/16	9 3/8	UBT0032	UBT0447	UBT0263
10	3/4	13 13/16	4	10 13/16	11 5/8	UBT0205	UBT0426	UBT0001
12	7/8	16 1/16	4 1/4	12 3/4	13 3/4	UBT0208	UBT0448	UBT0006
14	7/8	17 5/16	4 1/4	14	15	UBT0007	UBT0449	UBT0486
16	7/8	19 5/16	4 1/4	16	17	UBT0216	UBT0451	UBT0008
18	1	21 11/16	4 3/4	18	19 1/8	UBT0221	UBT0489	UBT0011
20	1	23 11/16	4 3/4	20	21 1/8	UBT0017	UBT0252	UBT0018
24	1	27 11/16	4 3/4	24	25 1/8	UBT0228	UBT0253	UBT0267
28	1	31 11/16	4 3/4	28	29 1/8	UBT0458	UBT0512	UBT0544
30	1	33 11/16	4 3/4	30	31 1/8	UBT0233	UBT0513	UBT0483
36	1	39 11/16	4 3/4	36	37 1/8	UBT0236	UBT0514	UBT0545

U-BOLTS WITH HIGH-TEMPERATURE POLYSHRINK



Note: Please see page eight to order nuts.

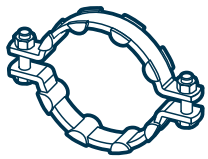
Note: Maximum operating temp for HT polyshrink is 220° C.



Galvanized

316 SS

Nominal pipe size	Bolt diameter	U-bolt height	Thread length	Inside gap	Leg centre	Part number	Part number
1/2"	1/4"	3 1/4"	2 3/8"	3/4"	1 3/16"	UBT0752	UBT0722
1/2	3/8	3 1/4	2 3/8	13/16	1 5/16	UBT0753	UBT0723
3/4	1/4	3 5/16	2 3/8	15/16	1 3/8	UBT0754	UBT0724
3/4	3/8	3 5/16	2 3/8	1	1 1/2	UBT0755	UBT0725
1	1/4	3 7/16	2 3/8	1 1/4	1 5/8	UBT0756	UBT0726
1	3/8	3 7/16	2 3/8	1 7/8	1 3/4	UBT0757	UBT0727
1 1/4	3/8	3 3/4	2 1/2	1 9/16	2 1/8	UBT0758	UBT0728
1 1/2	3/8	4	2 1/2	1 14/16	2 3/8	UBT0759	UBT0729
2	3/8	4 1/2	2 1/2	2 5/16	2 13/16	UBT0760	UBT0730
2 1/2	1/2	5 1/4	3	2 13/16	3 7/16	UBT0762	UBT0732
3	1/2	5 13/16	3	3 9/16	4 1/16	UBT0763	UBT0733
4	1/2	6 13/16	3	4 1/2	5 1/16	UBT0765	UBT0735
5	1/2	7 13/16	3	5 1/2	6 1/8	UBT0766	UBT0736
6	5/8	9 1/2	3 3/4	6 3/4	7 3/8	UBT0767	UBT0737
8	5/8	11 1/2	3 3/4	8 9/16	9 3/8	UBT0768	UBT0738
10	3/4	13 13/16	4	10 13/16	11 5/8	UBT0769	UBT0739
12	7/8	16 1/16	4 1/4	12 3/4	13 3/4	UBT0770	UBT0740
14	7/8	17 5/16	4 1/4	14	15	UBT0771	UBT0741
16	7/8	19 5/16	4 1/4	16	17	UBT0772	UBT0742
18	1	21 11/16	4 3/4	18	19 1/8	UBT0773	UBT0743
20	1	23 11/16	4 3/4	20	21 1/8	UBT0774	UBT0744
24	1	27 11/16	4 3/4	24	25 1/8	UBT0775	UBT0745
28	1	31 11/16	4 3/4	28	29 1/8	UBT0776	UBT0747
30	1	33 11/16	4 3/4	30	31 1/8	UBT0778	UBT0748
36	1	39 11/16	4 3/4	36	37 1/8	UBT0779	UBT0749



I-ROD® CLIPS FOR 360° CLAMPS

[Contact us for pricing on custom I-Rod® Clips]



A

B



I-Rod® (white)

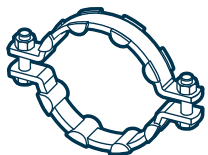
Max temp: 83° C



I-Rod® HT (amber)

Max temp: 171° C

Nominal pipe size	Inside gap	Internal radius	Clips per clamp	Part number	Part number
3"	1"	2"	4	IRD0190	IRD0280
4	1 1/4	2 1/2	4	IRD0191	IRD0281
6	1 1/2	3 9/16	6	IRD0192	IRD0169
8	1 1/2	4 9/16	8	IRD0193	IRD0282
10	2	5 5/8	8	IRD0194	IRD0283
12	2	None	8	IRD0195	IRD0284
14	2 1/2	None	8	IRD0196	IRD0285
16-20	2 1/2	None	10	IRD0196	IRD0285
24	3	None	12	IRD0200	IRD0170
26-28	3	None	14	IRD0200	IRD0170
30-36	4	None	16	IRD0202	IRD0224



METRIC CLIPS FOR 360° CLAMPS

[Fits Carpenter & Patterson 360° clamps]



A



I-Rod® (white)

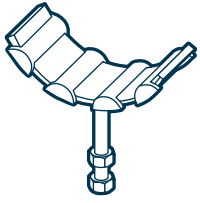
Max temp: 83° C



I-Rod® HT (amber)

Max temp: 171° C

Nominal pipe size	Inside gap	Clips per clamp	Part number	Part number
80 mm	40 mm	4	IRD0259	IRD0298
100	50	4	IRD0260	IRD0299
150	65	6	IRD0261	IRD0300
200	65	8	IRD0262	IRD0271
250	65	8	IRD0263	IRD0301
300	80	8	IRD0264	IRD0302
350	90	8	IRD0265	IRD0303
400-500	90	10	IRD0265	IRD0303
550, 600	90	12	IRD0265	IRD0303
650, 700	110	14	IRD0266	IRD0306
750, 800	110	16	IRD0266	IRD0306



I-ROD® CLIPS FOR 120° CRADLES



A

B



I-Rod® Clips

Max temp: 83° C

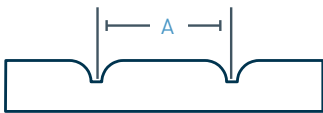
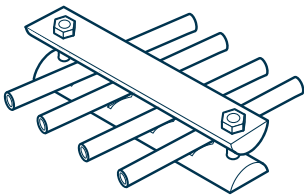


I-Rod® HT Clips

Max temp: 171° C

Nominal pipe size	Inside gap	Internal radius	Clips per cradle	Part number	Part number
3"	4"	2"	2	IRD0204	IRD0274
4	4	2 1/2	2	IRD0205	IRD0275
6	4	3 9/16	4	IRD0206	IRD0276
6	6	3 9/16	N/A	IRD0314	IRD0276
8	4	4 9/16	4	IRD0207	IRD0277
10	4	5 5/8	4	IRD0208	IRD0278
12-14	4	None	4	IRD0202	IRD0224
16-18	4	None	6	IRD0202	IRD0224
20-24	6	None	6	IRD0213	IRD0279
26-36	6	None	8	IRD0213	IRD0279
12-30	8	None	N/A	IRD0312	

NOTCHED I-ROD® BY THE FOOT



A



I-Rod® (white)

Max temp: 83° C

Rod width	Notch space	Part number
3/4"	1/2"	NRD0012
3/4	5/8	NRD0013
3/4	3/4	NRD0014
3/4	7/8	NRD0015

Note: The maximum length for a strip of notched I-Rod® is three feet.

DEEPWATER LOCATIONS

I-Rod® products are manufactured at Deepwater's headquarters in Houston and can be ordered online at sales@stoprust.co.uk and through any of our offices worldwide:

United Kingdom

+44 (0) 1483 600482

Scotland

+44 (0) 1224 443523

United States

+1 713 983 7117

Norway

+47 907 58 956

Australia

+61 8 6298 7396

Brazil

+55 021 2252 2172

HEAVY HEX NUTS



	Galvanized	316 SS	Sermagard™
Bolt diameter	Part number	Part number	Part number
1/4"	FAS0044	FAS0051	FAS0056
3/8	FAS0045	FAS0052	FAS0058
1/2	FAS0046	FAS0053	FAS0055
5/8	FAS0047	FAS0353	FAS0060
3/4	FAS0048	FAS0231	FAS0057
7/8	FAS0049	FAS0232	FAS0061
1	FAS0050	FAS0225	FAS0059

WASHERS



	Galvanized	316 SS	Sermagard™
Bolt diameter	Part number	Part number	Part number
1/4"	FAS0155	FAS0142	FAS0130
3/8	FAS0159	FAS0145	FAS0233
1/2	FAS0154	FAS0307	FAS0129
5/8	FAS0162	FAS0410	FAS0133
3/4	FAS0157	FAS0411	FAS0132
7/8	FAS0164	FAS0412	FAS0134
1	FAS0153	FAS0149	FAS0128

I-ROD® ADHESIVE

Permanently installs I-Rod® strips.

Note: Linear feet per 13.5 oz / 400 ml dual cartridge with 1:1 adhesive mix ratio.



Substrate	I-Rod® size			Bond thickness	Sq. in. per cartridge	Part number
	3/4"	1"	1 1/2"			
Concrete	21'	16'	10'	0.125"	195 sq. in.	IRD0407
Steel*	64'	50'	32'	0.04"	610 sq. in.	IRD0407

*Painted, galvanized, or bare finish

DOUBLE-SIDED TAPE

For keeping I-Rod® in place during installation.



Tape width	Length per roll	Part no. (one roll)
1"	100'	MFR0008
1.5	100'	MFR0009

APPLICATOR GUNS

For dual cartridges.



Part number	
IRD0409 (shown)	Heavy duty
IRD0410	Light duty

NOZZLES

(Sold in bags of 10*)
Mixes cartridge contents.



Part number
IRD0408

*Two nozzles recommended per cartridge.

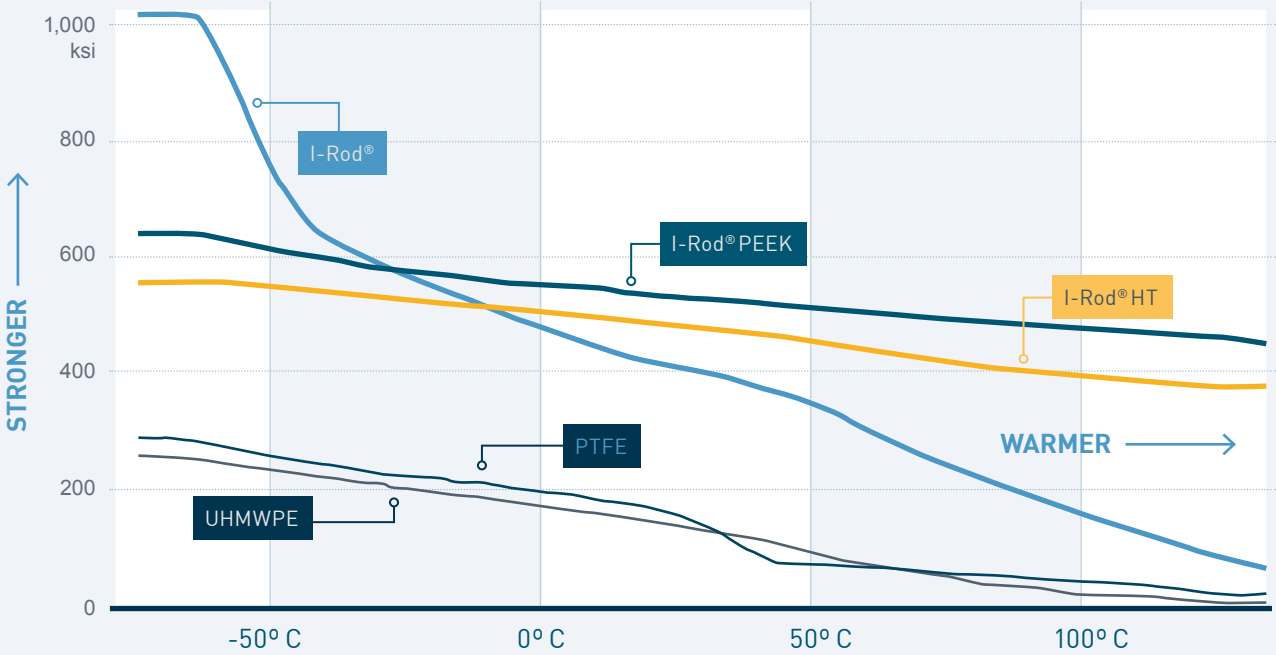
AUTHENTICITY

MAKE SURE YOUR I-ROD® IS AUTHENTIC

I-ROD® VS THE COMPETITION:

I-Rod® is stronger at any temperature

I-Rod® is superior to imitation materials throughout the entire range from extreme cold to extreme heat.



THE PROBLEM WITH CHEAP IMITATIONS

It's not a bargain if you have to replace it every few years.

THERE'S NO I-ROD® EQUIVALENT

- I-Rod® has a service life of 15 years or longer
- Imitations can fail immediately
- Contractors are liable if I-Rod® is specified and imitations are installed and fail
- Make sure supplier is selling genuine I-Rod®

MAKE SURE YOUR I-ROD® IS AUTHENTIC

How to tell if your I-Rod® is genuine:

- All I-Rod® has a brand name and batch number printed as shown
- I-Rod® comes with a certificate of authenticity



Failed I-Rod® imitations.



I-ROD® INSTALLATION

TIPS

Deepwater does not provide installation of I-Rod® assemblies. We also do not suggest that there's a certain correct I-Rod® installation process, as local codes, specifications and procedures for each operator and location should always be followed.

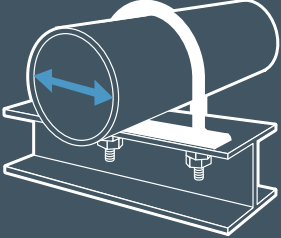
If piping has evidence of corrosion, a non-destructive evaluation of the pipe's integrity should be provided by a qualified piping engineer before attempting to lift it from the support.

Here are a few tips for installing I-Rod® to help maximize its utility and durability:

1

Use the correct size I-Rod® for the pipe you're supporting.

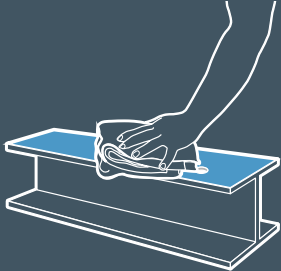
I-Rod® comes in three widths: ¾", 1" and 1½". Refer to load value specifications in the table on page 3.



5

Clean the surface if you're using double-sided tape or adhesive.

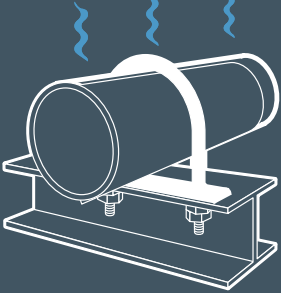
Clean the pipe support surface before applying tape or adhesive to hold I-Rod® in place. (Tape and adhesive are on page 14.)



2

Use the correct I-Rod® material for your operating temperature.

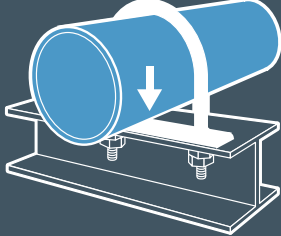
I-Rod® thermoplastic is rated for continuous temperatures up to 83° C, I-Rod® HT® is rated up to 171° C and PEEK is rated up to 249° C.



6

The rounded I-Rod® surface must be in contact with the pipe.

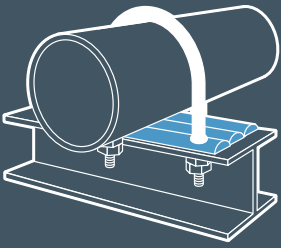
The rounded edge of I-Rod® minimizes the contact area, which prevents corrosion; pipe contact with the flat side cancels the main benefit of I-Rod®.



3

Use the correct number of I-Rod® strips.

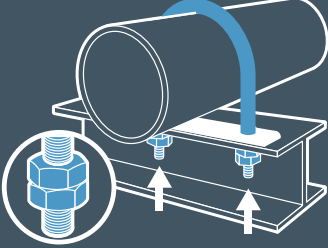
Up to three strips can be used to achieve proper weight loading. Refer to load value specifications in the table on page 3.



7

Lock the Nu-Bolts™.

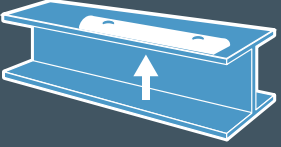
Secure Nu-Bolts™ using the two sets of nuts provided. After tightening the first nut, thread a second one onto the same shaft and tighten it down to lock the nuts.



4

Where possible, there should be metal beneath the I-Rod®.

I-Rod® should be installed with rigid metal backing instead of directly on concrete, where irregular surfaces can cause uneven weight loads.



8

Add nut on top for non-gripping applications.

Slide Nu-Bolt™ over pipe and thread a nut onto each shaft before placing through holes in I-Rod®. Adjust nut heights for desired clearance. Place nuts on bottom and tighten.

