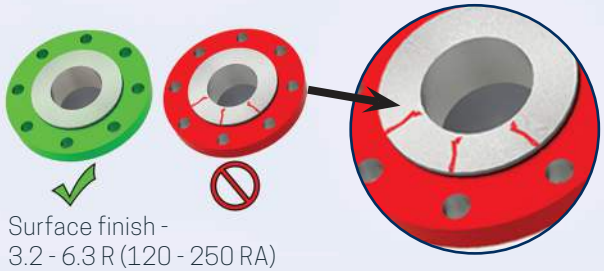
GPT Isolation Gasket Installation Instructions

1. CLEAN & INSPECT FLANGE FACE - Ensure flange face finish is in accordance with ASME PCC-1 guidelines



Surface finish -
3.2 - 6.3 R (120 - 250 RA)

RTJ & RF OK

2. Ensure wide enough flange gap and alignment is created BEFORE installing gasket 1/8" (3mm) larger than gasket thickness

DO NOT ATTEMPT TO INSTALL GASKET PRIOR TO ALIGNING FLANGES

3.

Apply PIKO-LUBE®
DO NOT use metallic based lubricants

Steel washers first

G10 washer against flange face

Install sleeve on stud putting it through washers

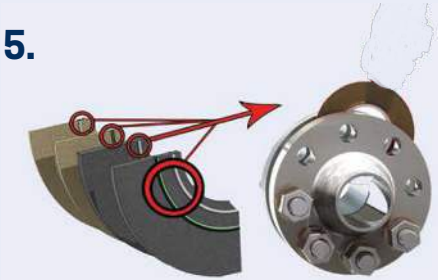
NOTE: For HCS coated washers use 2 washers per side

NOTE: ALWAYS USE NEW BOLTS, NEVER RE-USE WASHERS, SLEEVES OR GASKETS ONCE INSTALLED

4.

Install sleeves and washers on bottom half of flange assembly for easy alignment of type-F gaskets.

5.



SUGGESTION

For isolation gaskets - use the cardboard included in the packaging during installation to help protect the seals and isolating materials from damage.
(Additional flange gap may be required)

CAUTION: DO NOT DAMAGE GRE, COATING, OR SEAL

6.

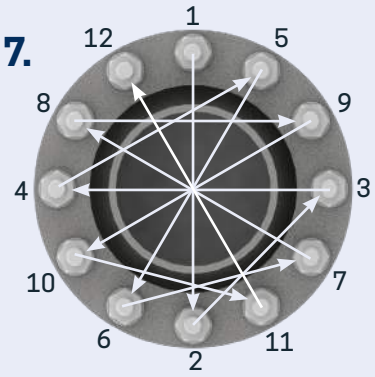
NOTE: Locate handle between 2 bolt holes before tightening

Install remaining studs with washers and sleeves

Always use a torque wrench or appropriate tensioning equipment

Never use impact drivers or hammer wrenches! This can cause damage to the isolation washers, sleeves, and gaskets.

7.



TORQUE IN LEGACY STAR PATTERN

1. Snug each stud to 10-20 [ft-lb] (14-27 Nm)
2. Tighten to 30% of target torque
3. Tighten to 70% of target torque
4. Tighten to 100% of target torque
5. Final torque to 100% in circular pattern

Installation guidance video can be found at:
www.gptindustries.com/installer

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NOTES:

1. All values are calculated assuming a 0.11 coefficient of friction and new nuts and studs using non-metallic lubrication.
2. "M" maintenance factor = 0 "Y" minimum design seating stress = 7500 [psi]. For EVOLUTION™ isolating gasket "Y" = 0.
3. Recommended values are based on 30,000 psi bolt stress. Max values are based on 50,000 psi bolt stress**
4. If using both lubricated and coated studs or uncoated bolts with no lubricant, contact GPT for recommended torque values.

NOTE: On isolating testing - any isolation testing should be completed prior to hydro testing in order to prevent media in line from causing false readings. It's suggested that isolation be checked with the use of an RF meter as per NACE SP0288-2007 standard practice.

It should be noted that humidity and other environmental effects can cause false isolation readings.

For additional assistance please contact our engineering office at GPT.engineering@gptindustries.com

GPT Industries
303.988.1242
www.gptindustries.com

FOR METRIC TORQUE VALUES - divide ft-lb value by 0.73756

$$Nm = \frac{ft\text{-}lb}{0.73756}$$

* For fire risk service please consider using max values

**Please note that Recommemed and Max torque values are based on bolt stresses of B7, or equivalent studs, Grade 2H hex nuts, and A105 or equivalent flange material. For lower strength flanges or bolts contact GPT Engineering for torque recommendations.

The GPT gasket torque calculator is available at www.gasketcalculator.gptindustries.com

RECOMMENDED BOLT TORQUE VALUES

Torque Table for GPT Isolating Gaskets

NPS	150#		300#		400#		600#		900#		1500#		2500#		NPS
	REC	MAX*	REC	MAX*	REC	MAX*	REC	MAX*	REC	MAX*	REC	MAX*	REC	MAX*	
	ASME B16.5 Recommended Values in [ft-lb]														
½	30	45	30	45	30	45	30	45	95	120	95	120	95	120	½
¾	30	45	55	90	55	90	55	90	95	140	95	140	95	140	¾
1	30	45	55	90	55	90	55	90	155	220	155	220	155	220	1
1¼	30	45	55	90	55	90	55	90	155	255	155	255	230	350	1¼
1½	30	45	95	160	95	160	95	160	230	380	230	380	335	530	1½
2	55	90	55	90	55	90	55	90	155	255	150	245	230	380	2
2½	55	90	95	160	95	160	95	160	230	380	230	380	335	530	2½
3	55	90	95	160	95	160	95	160	155	255	335	560	470	785	3
3½	55	90	95	160	155	255	155	255	N/A	N/A	N/A	N/A	N/A	N/A	3½
4	55	90	95	160	155	255	155	255	335	560	470	785	840	1400	4
5	95	160	95	160	155	255	230	380	470	785	840	1400	1370	2170	5
6	95	160	95	160	155	255	230	380	335	560	640	1065	2080	2995	6
8	95	160	155	255	230	380	335	560	640	1065	1085	1805	2080	3155	8
10	155	255	230	380	335	560	470	785	640	1065	1700	2830	4165	6005	10
12	155	255	335	560	470	785	470	785	640	1065	2080	3465	5595	8090	12
14	230	380	335	560	470	785	640	1065	840	1400	3005	4390	N/A	N/A	14
16	230	380	470	785	640	1065	840	1400	1085	1805	4165	6105	N/A	N/A	16
18	335	560	470	785	640	1065	1085	1805	1700	2830	5595	8900	N/A	N/A	18
20	335	560	470	785	840	1400	1085	1805	2080	3465	7320	10730	N/A	N/A	20
22	470	785	840	1400	1085	1805	1370	2280	N/A	N/A	N/A	N/A	N/A	N/A	22
24	470	785	840	1400	1370	2280	1700	2830	4165	6945	11765	18060	N/A	N/A	24
	ASME B16.47 Series A														
26	470	785	1085	1805	1370	2280	1700	2830	5595	9325	N/A	N/A	N/A	N/A	26
28	470	785	1085	1805	1700	2830	2080	3465	7320	12200	N/A	N/A	N/A	N/A	28
30	470	785	1370	2280	2080	3465	2080	3465	7320	12200	N/A	N/A	N/A	N/A	30
32	840	1400	1700	2830	2080	3465	3005	5005	9370	15615	N/A	N/A	N/A	N/A	32
34	840	1400	1700	2830	2080	3465	3005	5055	11765	19610	N/A	N/A	N/A	N/A	34
36	840	1400	2080	3465	2080	3465	4165	6945	11765	19610	N/A	N/A	N/A	N/A	36
38	840	1400	840	1400	1370	2280	3005	5005	11765	19610	N/A	N/A	N/A	N/A	38
40	840	1400	1085	1805	1700	2830	3005	5005	11765	19610	N/A	N/A	N/A	N/A	40
42	840	1400	1085	1805	1700	2830	4165	6945	11765	19610	N/A	N/A	N/A	N/A	42
44	840	1400	1370	2280	2080	3465	4165	6945	14540	24235	N/A	N/A	N/A	N/A	44
46	840	1400	1700	2830	2080	3465	4165	6945	17720	29535	N/A	N/A	N/A	N/A	46
48	840	1400	1700	2830	3005	5005	5595	9325	17720	29535	N/A	N/A	N/A	N/A	48
50	1370	2280	2080	3465	3005	5005	7320	12200	N/A	N/A	N/A	N/A	N/A	N/A	50
52	1370	2280	2080	3465	3005	5005	7320	12200	N/A	N/A	N/A	N/A	N/A	N/A	52
54	1370	2280	3005	5005	4165	6945	7320	12200	N/A	N/A	N/A	N/A	N/A	N/A	54
56	1370	2280	3005	5005	4165	6945	9370	15615	N/A	N/A	N/A	N/A	N/A	N/A	56
58	1370	2280	3005	5005	4165	6945	9370	15615	N/A	N/A	N/A	N/A	N/A	N/A	58
60	1370	2280	3005	5005	5595	9325	11765	19610	N/A	N/A	N/A	N/A	N/A	N/A	60