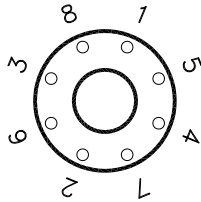
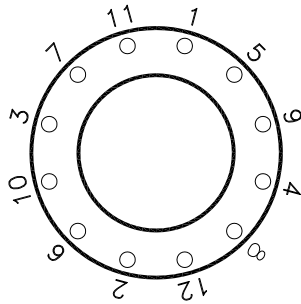


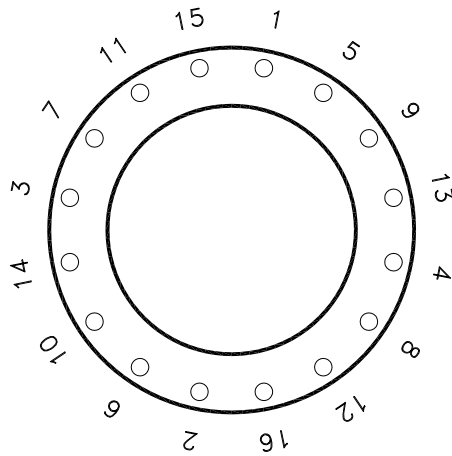
TYP. FOR 1" - 3"



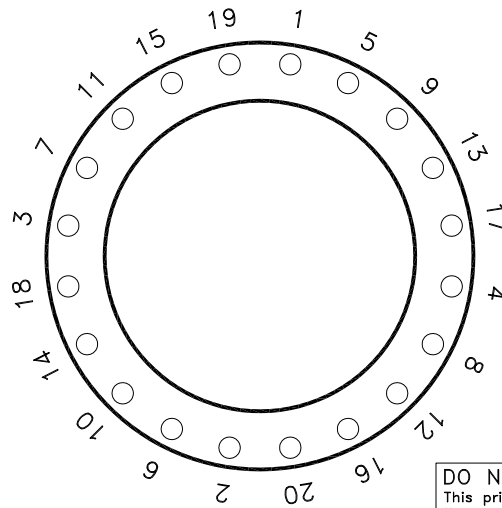
TYP. FOR 4" - 8"



TYP. FOR 10" - 14"



TYP. FOR 16" - 18"



TYP. FOR 20" - 24"

Bolt Size	Hvy Hex Socket Size
1/2"	7/8"
1/2"	7/8"
5/8"	1 1/16"
5/8"	1 1/16"
5/8"	1 1/16"
3/4"	1 1/4"
3/4"	1 1/4"
7/8"	1 7/16"
7/8"	1 7/16"
1"	1 5/8"
1"	1 5/8"
1 1/8"	1 3/4"
1 1/8"	1 3/4"
1 1/4"	2"

Bolt Torque (ft-lbs) - FLAT GASKETS				
Size	Hydrotest Pressure (psig)			
	225	300	348	435
1"Ø	35-53	37-56	37-56	39-59
1.5"Ø	37-56	39-59	40-60	43-65
2"Ø	74-111	78-117	79-119	84-126
3"Ø	79-119	84-126	86-129	94-141
4"Ø	44-66	48-72	50-75	56-84
6"Ø	79-119	98-147	90-135	100-150
8"Ø	88-132	98-147	103-155	117-176
10"Ø	98-147	110-165	115-173	132-198
12"Ø	113-170	129-194	137-206	160-240
14"Ø	157-236	178-267	189-284	
16"Ø	133-200	153-230	162-243	
18"Ø	175-263	200-300	211-317	
20"Ø	175-263	200-300	210-315	
24"Ø	224-336	255-383	270-405	

Example of reading these tables:
 For a 2" flange connection with a flat rubber gasket hydrotested to 225psig, it is recommended to apply 74 to 111 ft-lbs of torque.

Bolt Torque (ft-lbs) - O-RING GASKETS				
Size	Hydrotest Pressure (psig)			
	225	300	348	435
1"Ø	32-48	32-48	32-48	33-50
1.5"Ø	33-50	33-50	33-50	33-50
2"Ø	65-98	65-98	65-98	66-99
3"Ø	66-99	67-101	67-101	68-102
4"Ø	34-51	34-51	35-53	35-53
6"Ø	61-92	62-93	63-94	65-98
8"Ø	64-96	66-99	67-101	70-105
10"Ø	69-104	72-108	73-110	77-116
12"Ø	73-110	76-114	78-117	84-126
14"Ø	109-164	115-173	118-177	
16"Ø	86-129	91-137	94-141	
18"Ø	121-182	129-194	132-198	
20"Ø	123-185	131-197	135-203	
24"Ø	147-221	151-227	165-248	

- NOTE:
1. Typical sizes are based on ANSI B16.5 150# and B16.1 125# drilling.
 2. Hydrotest pressure is 1.5 times the design pressure.
 3. If torque values higher than these published values are required, it is recommended that the connection should be unbolted and resealed with a new gasket.
 4. When bolting to raised-face (RF) flanges, do not exceed the torque for o-ring gaskets.
 5. 1ft-lb = 1.356N-m.
 6. Values based on a "K" torque coefficient of 0.2.
 7. For Garlock's Stress Saver gasket, it is recommended to use the values for the o-ring gaskets.

FIBERBOND®

FIBERGLASS AND ADVANCED COMPOSITE PIPING SYSTEMS

Manufactured by Specialty Plastics

Baton Rouge, LA, U.S.A.

www.fiberbond.com

DO NOT DUPLICATE
 This print and its contents are the property of IIT Corporation. Use of print or its contents is prohibited unless authorized in writing.

DRAWING: Torque Sequences #1

FILENAME: IS-E10-TRQ1

REV: R4 - APR-30-2010