Gaskets

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*We didn't set out to design the best **U**ltra**P**ure **W**ater sealing system . . .*

. . . but we did.

KC Multi-Ring® UltraPure Gaskets

A line of expanded PTFE and elastomeric gaskets engineered using our patented design to fit your piping. Our gaskets are an integral part of the KC Sealing System of gaskets and flange backing rings.

KC Multi-Ring Products, Inc. gives the UPW user the most comprehensive and best-designed system for sealing and installing critical flanged joints.

Great care has been taken to provide a leak-free seal and laminar flow at piping and valve manufacturer's recommended bolt load torque. Our gasket design also provides nearly equal gasket compression around the entire flange face.

Gaskets are cleaned at our factory, and shipped in individually sealed bags for cleanliness until installation. Each bag is clearly marked with part number and description.

The patented KC Multi-Ring® design provides a positive seal at up to 50% lower bolt load than conventional gaskets of like material. Our gasket is engineered to provide an equal clamping force around the entire flange face.

KC Multi-Ring® UltraPure gaskets are available in full-face "universal" and ring styles. Since the universal gasket can be used with both socket fusion and butt-weld flange adapters, you only have to manage one inventory. The ring style design is available for either socket fusion or butt-weld flange adapters.

KC Multi-Ring® gaskets are available (also cleaned and bagged) for Schedule 10 piping frequently found in water conditioning systems. The KC Multi-Ring® design is available for Old ANSI and New ANSI styles for all of your gasketing needs.

The same torque value (per pipe size) is used for universal and ring-style and New ANSI raised-face gaskets.

UltraPure gaskets are available in expanded PTFE and elastomeric materials. Non-UltraPure gaskets can be manufactured from any other gasket material, including FPM, EPDM and many others.

Competitive Advantages:

- Seals at a lower bolt load torque.
- Seals evenly around the entire flange face. Does not just seal at the outside of the flange face.
- Does not introduce any "coloring" contamination into your system.
- Does not protrude into the stream flow after bolt-up.
- Manage only one inventory with universal.
- Use one torque value for the entire job site.
- Optimal results are achieved when used with KC Multi-Ring®'s flange rings.

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The following part number designation is to be specified when ordering or referring to KC Multi-Ring® [1] gaskets.
The information in the brackets is detailed below and describes the part number format:

[1] [2] [3] [4]
KC-. _____ _____ _____ . _____

Example: KC-.AG8.208 = old ANSI dimension, 1/8" expanded PTFE, UltraPure, 3", 150#, full face gasket
KC.GG9.110=DIN Standard dimension, 1/8" expanded PTFE, UltraPure, densified, 4", 150#, universal ring gasket

[1] GASKET DIMENSIONS

'A' = Old Standard ANSI nominal ID in inches
'B' = DIN Standard pipe size designation in MM - Ring gasket for IR/BCF Flange
'D' = Fiberglass Reinforced Plastic Ducting per NBSPS 15-69
'E' = DIN Standard pipe size designation in MM - DIN PN 16 bolt pattern
'F' = DIN Standard pipe size designation in MM - DIN PN 10 bolt pattern
'G' = DIN Standard pipe size designation in MM - Universal gasket - ANSI 150# Bolt Pattern
'K' = JIS Standard pipe size designation in MM - JIS 10K Bolt Pattern
'L' = JIS Standard pipe size designation in MM - JIS 5K Bolt Pattern
'N' = New Standard ANSI for all schedule of metallic slip-on flanges - gasket ID = OD of IPS
'S' = DIN Standard pipe size designation in MM - Ring gasket for Socket Fusion Flange
'T' = Schedule 10 - for Sch. 10 weld neck flanges and stub ends - gasket ID = ID of Sch. 10 IPS

[2] GASKET MATERIAL

'E' = 1/8" EPDM
'G' = 1/8" Expanded PTFE
'K' = 1/8" KRYSTLE-CLEAR
'V' = 1/8" Viton® [2]
many others available

[3] SERVICE / APPLICATION

'0' = General Service
'8' = UltraPure - cleaned and bagged
'9' = UltraPure densified and embossed cleaned and bagged (DIN and Schedule 10)

[4] GASKET SIZE AND PRESSURE RATING

		150 lb. Rated		300 lb. Rated[3]	
ANSI	Metric	Ring	Full Face[4]	Ring	Full Face[4]
1/2"	20MM	101	201	301	401
3/4"	25MM	102	202	302	402
1"	32MM	103	203	303	403
1 1/4"	40MM	104	204	304	404
1 1/2"	50MM	105	205	305	405
2"	63MM	106	206	306	406
2 1/2"	75MM	107	207	307	407
3"	90MM	108	208	308	408
3 1/2"	——	109	209	309	409
4"	110MM	110	210	310	410
5"	140MM	111	211	311	411
6"	160MM	112	212	312	412
8"	200MM	113	213	313	413
9"	225MM	114	214	—	—
10"	250MM	115	215	315	415
12"	315MM	116	216	316	416
14"	355MM	117	217	317	417
16"	400MM	118	218	318	418
18"	450MM	119	219	319	419
20"	500MM	120	220	320	420
22"	———	121	221	321	421
24"	———	122	222	322	422
26"	———	123	223	323	423
28"	———	124	224	324	424
30"	———	125	225	325	425

NOTES:
[1] KC Multi-Ring® is the trademark of KC Multi-Ring Products, Inc.
[2] Viton® is the registered trademark of the DuPont Corp.
[3] DIN Standard gaskets not available in 300 lb. ring.
[4] Full Face - Material encompasses flange bolts.

Contact KC Multi-Ring Products, Inc. for sizes and materials not listed.

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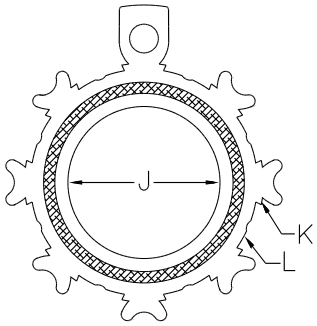
ANSI - Pre-Densified Expanded PTFE Universal UltraPure Gasket

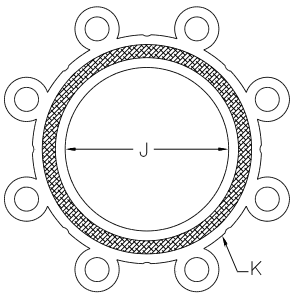


For use with non-metallic Metric piping (PVDF, polypropylene, etc.) IR Butt-Weld and Socket Fusion Type Flange Adapter.

Bolt holes in accordance with ANSI B16.5 class 150 pattern.

Pipe Size inch	mm	Part #	J I.D. inch	K O.D. inch	L inch	Thickness inch	Bolt Circle Diameter	Bolt Hole #	Bolt Hole Diameter
½	20	KC-.GG9.101	0.638	1.730	1.339	.125	2.375	4	5/8
¾	25	KC-.GG9.102	0.835	2.130	1.614	.125	2.750	4	5/8
1	32	KC-.GG9.103	1.189	2.480	1.969	.125	3.125	4	5/8
1 ¼	40	KC-.GG9.104	1.386	2.870	2.402	.125	3.500	4	5/8
1 ½	50	KC-.GG9.105	1.732	3.230	2.874	.125	3.875	4	5/8
2	63	KC-.GG9.106	2.244	4.020	3.543	.125	4.750	4	3/4
2 ½	75	KC-.GG9.107	2.670	4.760	4.173	.125	5.500	4	3/4
3	90	KC-.GG9.108	3.205	5.240	4.921	.125	6.000	4	3/4
4	110	KC-.GG9.110	3.913	6.220	5.906	.125	7.500	8	3/4

ANSI - Pre-Densified Expanded PTFE Universal UltraPure Gasket

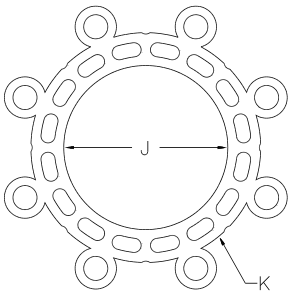


For use with non-metallic Metric piping (PVDF, polypropylene, etc.) IR Butt-Weld and Socket Fusion Type Flange Adapter.

Bolt holes in accordance with ANSI B16.5 class 150 pattern.

Pipe Size inch	mm	Part #	J I.D. inch	K O.D. inch	Thickness inch	Bolt Circle Diameter	Bolt Hole #	Bolt Hole Diameter
5	125	KC-.GG9.211	4.614	7.250	.125	8.500	8	3/4
6	160	KC-.GG9.212	5.913	8.500	.125	9.500	8	7/8
8	200	KC-.GG9.213	7.386	10.630	.125	11.750	8	7/8
9	225	KC-.GG9.214	8.307	10.630	.125	11.750	8	7/8
10	250	KC-.GG9.215	9.234	13.250	.125	14.250	12	1

ANSI - Expanded PTFE Universal UltraPure Gasket



For use with non-metallic Metric piping (PVDF, polypropylene, etc.) IR Butt-Weld and Socket Fusion Type Flange Adapter.

Bolt holes in accordance with ANSI B16.5 class 150 pattern.

Pipe Size inch	mm	Part #	J I.D. inch	K O.D. inch	Thickness inch	Bolt Circle Diameter	Bolt Hole #	Bolt Hole Diameter
12	315	KC-.GG8.216	12.75	16.125	.125	17.00	12	1
14	355	KC-.GG8.217	14.00	17.750	.125	18.75	12	1.125
16	400	KC-.GG8.218	16.00	20.250	.125	21.25	16	1.125
18	450	KC-.GG8.219	18.00	20.675	.125	22.75	16	1.25
20	500	KC-.GG8.220	20.00	23.875	.125	25.00	20	1.25

Our gaskets are covered under US Patent #5,362,115 and Others Pending.

SAMPLE SPECIFICATION

Patented KC Multi-Ring® low torque design UltraPure expanded PTFE gasket, KC Multi-Ring Products, Inc., sole source. To ensure proper laminar flow, geometrically align gasket and flange faces. Install using zinc-plated fasteners, no thread lubricants. Tighten fasteners in a star pattern, using progressive 4-pass tightening, to proper torque values.

Contact KC Multi-Ring Products, Inc. for sizes and materials not listed.

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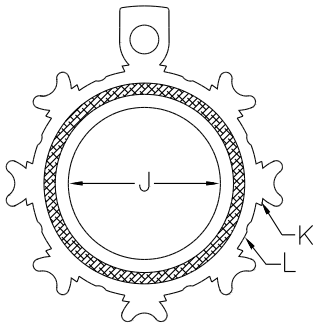
DIN - Pre-Densified Expanded PTFE Universal UltraPure Gasket

For use with non-metallic Metric piping (PVDF, polypropylene, etc.) IR Butt-Weld and Socket Fusion Type Flange Adapter.

Bolt holes in accordance with DIN PN 10 and 16 bolt pattern.

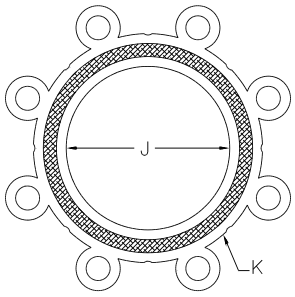


Pipe Size mm	PN	Part #	J I.D. mm	K O.D. mm	L mm	Bolt Circle Diameter	Thickness mm	Bolt Hole #	Bolt Hole Diameter
20	16	KC-.EG9.101	16	45	34	65	3	4	14
25	16	KC-.EG9.102	21	58	41	75	3	4	14
32	16	KC-.EG9.103	27	68	50	85	3	4	14
40	16	KC-.EG9.104	35	78	61	100	3	4	18
50	16	KC-.EG9.105	44	88	73	110	3	4	18
63	16	KC-.EG9.106	57	102	90	125	3	4	18
75	16	KC-.EG9.107	67	122	106	145	3	4	18
90	16	KC-.EG9.108	81	138	125	160	3	8	18
110	16	KC-.EG9.110	99	158	150	180	3	8	18

DIN - Pre-Densified Expanded PTFE Universal UltraPure Gasket

For use with non-metallic Metric piping (PVDF, polypropylene, etc.) IR Butt-Weld and Socket Fusion Type Flange Adapter.

Bolt holes in accordance with DIN PN 10 and 16 bolt pattern.



Pipe Size mm	PN	Part #	J I.D. mm	K O.D. mm	Bolt Circle Diameter	Thickness mm	Bolt Hole #	Bolt Hole Diameter
125	10	KC-.FG9.211	117	158	180	3	8	18
140	10	KC-.FG9.211a	131	188	210	3	8	18
160	16	KC-.EG9.212	144	212	240	3	8	22
160	10	KC-.FG9.212	150	212	240	3	8	22
200	10	KC-.FG9.213	188	268	295	3	8	22
225	16	KC-.EG9.214	203	268	295	3	12	22
225	10	KC-.FG9.214	211	268	295	3	8	22
250	10	KC-.FG9.215	234	336	350	3	12	22

Our gaskets are covered under US Patent #5,362,115 and Others Pending.

SAMPLE SPECIFICATION

Patented KC Multi-Ring® low torque design UltraPure expanded PTFE gasket, KC Multi-Ring Products, Inc., sole source. To ensure proper laminar flow, geometrically align gasket and flange faces. Install using zinc-plated fasteners, no thread lubricants. Tighten fasteners in a star pattern, using progressive 4-pass tightening, to proper torque values.

Contact KC Multi-Ring Products, Inc. for sizes and materials not listed.

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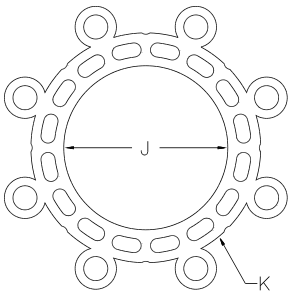
DIN - Expanded PTFE Universal UltraPure Gasket

For use with non-metallic Metric piping (PVDF, polypropylene, etc.) IR Butt-Weld and Socket Fusion Type Flange Adapter.

Bolt holes in accordance with DIN PN 10 and 16 bolt pattern.



Pipe Size mm	PN	Part #	J I.D. mm	K O.D. mm	Bolt Circle Diameter	Thickness mm	Bolt Hole #	Bolt Hole Diameter
250	10	KC-.FG8.215	234	336	355	3	12	26
315	10	KC-.FG8.216	295	370	410	3	12	26
355	10	KC-.FG8.217	333	436	470	3	16	26
400	10	KC-.FG8.218	376	482	525	3	16	30
450	10	KC-.FG8.219	430	530	585	3	20	30
500	10	KC-.FG8.220	500	585	650	3	20	32

Our gaskets are covered under US Patent #5,362,115 and Others Pending.

SAMPLE SPECIFICATION

Patented KC Multi-Ring® low torque design UltraPure expanded PTFE gasket, KC Multi-Ring Products, Inc., sole source. To ensure proper laminar flow, geometrically align gasket and flange faces. Install using zinc-plated fasteners, no thread lubricants. Tighten fasteners in a star pattern, using progressive 4-pass tightening, to proper torque values.

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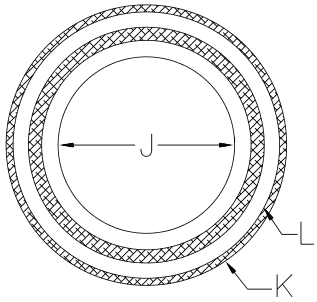
Pre-Densified Expanded PTFE Butt-Weld UltraPure Gasket

For use with non-metallic Metric piping (PVDF, polypropylene, etc.) IR Butt-Weld and Socket Fusion Type Flange Adapter.

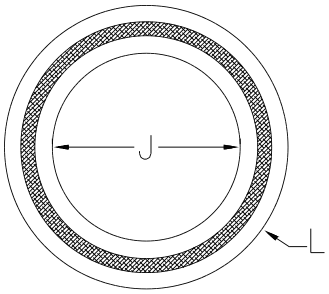


PN	Pipe Size mm	Part #	J mm	K mm	L mm	Thickness mm
16	20	KC-.BG9.101	16	45	34	3
16	25	KC-.BG9.102	21	58	41	3
16	32	KC-.BG9.103	27	68	50	3
16	40	KC-.BG9.104	35	78	61	3
16	50	KC-.BG9.105	44	88	73	3
16	63	KC-.BG9.106	57	102	90	3
16	75	KC-.BG9.107	67	122	106	3
16	90	KC-.BG9.108	81	138	125	3
16	110	KC-.BG9.110	99	158	150	3
10	125	KC-.BG9.111	117	158	150	3
10	140	KC-.BG9.111a	131	188	*	3
16	160	KC-.BG9.212	150	212	*	3
10	200	KC-.BG9.213	187	268	*	3
10	225	KC-.BG9.214	211	268	*	3
10	250	KC-.BG9.215	234	336	*	3

* Not used with these sizes

Pre-Densified Expanded PTFE Socket Fusion UltraPure Gasket

For use with non-metallic Metric piping (PVDF, polypropylene, etc.) Socket Fusion Type Flange Adapter.



PN	Pipe Size mm	Part #	J mm	L mm	Thickness mm
16	20	KC-.SG9.101	16	34	3
16	25	KC-.SG9.102	21	41	3
16	32	KC-.SG9.103	27	50	3
16	40	KC-.SG9.104	35	61	3
16	50	KC-.SG9.105	44	73	3
16	63	KC-.SG9.106	57	90	3
16	75	KC-.SG9.107	67	106	3
16	90	KC-.SG9.108	81	125	3
16	110	KC-.SG9.110	99	150	3

Our gaskets are covered under US Patent #5,362,115 and Others Pending.

SAMPLE SPECIFICATION

Patented KC Multi-Ring® low torque design UltraPure expanded PTFE gasket, KC Multi-Ring Products, Inc., sole source. To ensure proper laminar flow, geometrically align gasket and flange faces. Install using zinc-plated fasteners, no thread lubricants. Tighten fasteners in a star pattern, using progressive 4-pass tightening, to proper torque values.

Contact KC Multi-Ring Products, Inc. for sizes and materials not listed.

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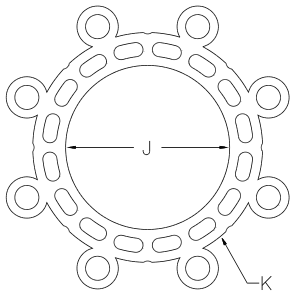
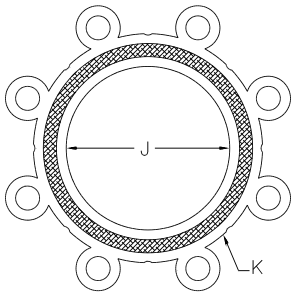


Expanded PTFE Schedule 10 UltraPure Gasket

For use with Stainless Steel Weldneck Type Flange Adapters.
Bolt holes in accordance with ANSI B16.5 class 150 pattern.

Pipe Size inch	Part #	J I.D. inch	K O.D. inch	Bolt Circle Diameter	Thickness inch	Bolt Hole #	Bolt Hole Diameter
¾	KC-.TG8.202	0.884	1.688	2.375	.125	4	.625
1 ¼	KC-.TG8.204	1.442	2.500	3.500	.125	4	.625
14	KC-.TG8.217	13.624	16.250	18.750	.125	12	1.125
16	KC-.TG8.218	15.624	18.500	21.250	.125	16	1.125
18	KC-.TG8.219	17.624	21.000	22.750	.125	16	1.250
20	KC-.TG8.220	19.564	23.000	25.000	.125	20	1.250
24	KC-.TG8.222	23.500	27.250	29.500	.125	20	1.375



Pre-Densified Expanded PTFE Schedule 10 UltraPure Gasket

For use with Stainless Steel Weldneck Type Flange Adapters.
Bolt holes in accordance with ANSI B16.5 class 150 pattern.

Pipe Size inch	Part #	J I.D. inch	K O.D. inch	Bolt Circle Diameter	Thickness inch	Bolt Hole #	Bolt Hole Diameter
½	KC-.TG9.201	0.674	1.375	2.375	.125	4	.625
1	KC-.TG9.203	1.092	2.000	3.125	.125	4	.625
1 ½	KC-.TG9.205	1.682	2.875	3.875	.125	4	.625
2	KC-.TG9.206	2.157	3.625	4.750	.125	4	.750
2 ½	KC-.TG9.207	2.635	4.125	5.500	.125	4	.750
3	KC-.TG9.208	3.260	5.000	6.000	.125	4	.750
4	KC-.TG9.210	4.260	6.188	7.500	.125	8	.750
6	KC-.TG9.212	6.357	8.500	9.500	.125	8	.875
8	KC-.TG9.213	8.329	10.625	11.750	.125	8	.875
10	KC-.TG9.215	10.420	12.750	14.250	.125	12	1.000
12	KC-.TG9.216	12.390	15.000	17.000	.125	12	1.000

Our gaskets are covered under US Patent #5,362,115 and Others Pending.

SAMPLE SPECIFICATION

Patented KC Multi-Ring® low torque design UltraPure expanded PTFE gasket, KC Multi-Ring Products, Inc., sole source. To ensure proper laminar flow, geometrically align gasket and flange faces. Install using zinc-plated fasteners, no thread lubricants. Tighten fasteners in a star pattern, using progressive 4-pass tightening, to proper torque values.

Contact KC Multi-Ring Products, Inc. for sizes and materials not listed.

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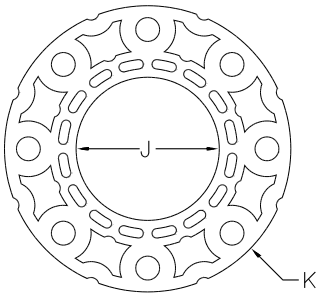
Expanded PTFE New ANSI UltraPure Full Face Gasket

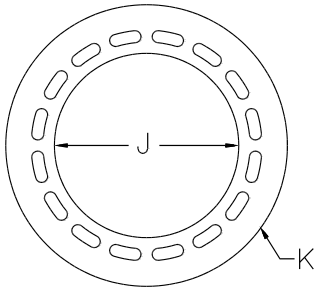
Bolt holes in accordance with ANSI B16.5 class 150 pattern.
Gasket dimensions per ANSI B16.21.



Pipe Size inch	Part #	I.D. inch J	O.D. inch K	Bolt Circle Diameter	Thickness inch	Bolt Hole #	Diameter
½	KC-.NG8.201	0.843	3.500	2.375	.125	4	0.625
¾	KC-.NG8.202	1.063	3.875	2.750	.125	4	0.625
1	KC-.NG8.203	1.313	4.250	3.125	.125	4	0.625
1 ¼	KC-.NG8.204	1.656	4.625	3.500	.125	4	0.625
1 ½	KC-.NG8.205	1.906	5.000	3.875	.125	4	0.625
2	KC-.NG8.206	2.375	6.000	4.750	.125	4	0.750
2 ½	KC-.NG8.207	2.875	7.000	5.500	.125	4	0.750
3	KC-.NG8.208	3.500	7.500	6.000	.125	4	0.750
4	KC-.NG8.210	4.500	9.000	7.500	.125	8	0.750
6	KC-.NG8.212	6.625	11.000	9.500	.125	8	0.875
8	KC-.NG8.213	8.625	13.500	11.750	.125	8	0.875
10	KC-.NG8.215	10.750	16.000	14.250	.125	12	1.000
12	KC-.NG8.216	12.750	19.000	17.000	.125	12	1.000
14	KC-.NG8.217	14.000	21.000	18.750	.125	12	1.125
16	KC-.NG8.218	16.000	23.500	21.250	.125	16	1.125
18	KC-.NG8.219	18.000	25.000	22.750	.125	16	1.250
20	KC-.NG8.220	20.000	27.500	25.000	.125	20	1.250
24	KC-.NG8.222	24.000	32.000	29.500	.125	20	1.375

Expanded PTFE New ANSI UltraPure Ring Gasket

Gasket dimensions per ANSI B16.21.



Pipe Size inch	Part #	I.D. inch J	O.D. inch K	Thickness inch
½	KC-.NG8.101	0.844	1.875	.125
¾	KC-.NG8.102	1.063	2.250	.125
1	KC-.NG8.103	1.313	2.625	.125
1 ¼	KC-.NG8.104	1.656	3.000	.125
1 ½	KC-.NG8.105	1.906	3.375	.125
2	KC-.NG8.106	2.375	4.125	.125
2 ½	KC-.NG8.107	2.875	4.875	.125
3	KC-.NG8.108	3.500	5.375	.125
4	KC-.NG8.110	4.500	6.875	.125
6	KC-.NG8.112	6.625	8.750	.125
8	KC-.NG8.113	8.625	11.000	.125
10	KC-.NG8.115	10.750	13.375	.125
12	KC-.NG8.116	12.750	16.125	.125
14	KC-.NG8.117	14.000	17.750	.125
16	KC-.NG8.118	16.000	20.250	.125
18	KC-.NG8.119	18.000	21.625	.125
20	KC-.NG8.120	20.000	23.875	.125
24	KC-.NG8.122	24.000	28.250	.125

Our gaskets are covered under US Patent #5,362,115 and Others Pending.

SAMPLE SPECIFICATION

Patented KC Multi-Ring® low torque design UltraPure expanded PTFE gasket, KC Multi-Ring Products, Inc., sole source. To ensure proper laminar flow, geometrically align gasket and flange faces. Install using zinc-plated fasteners, no thread lubricants. Tighten fasteners in a star pattern, using progressive 4-pass tightening, to proper torque values.

Contact KC Multi-Ring Products, Inc. for sizes and materials not listed.

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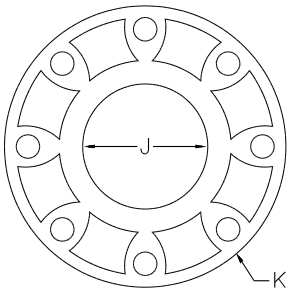
Expanded PTFE Old ANSI UltraPure Full Face Gasket

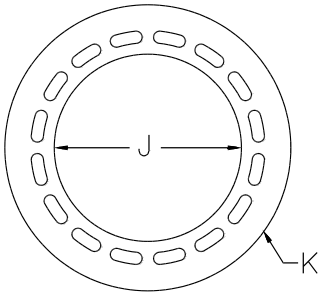
Bolt holes in accordance with ANSI B16.5 class 150 pattern.
Gasket dimensions per ANSI B16.21.



Pipe Size inch	Part #	I.D. inch J	O.D. inch K	Bolt Circle Diameter	Thickness inch	Bolt Hole #	Hole Diameter
½	KC-.AG8.201	½	3.500	2.375	.125	4	0.625
¾	KC-.AG8.202	¾	3.875	2.750	.125	4	0.625
1	KC-.AG8.203	1	4.250	3.125	.125	4	0.625
1 ¼	KC-.AG8.204	1 ¼	4.625	3.500	.125	4	0.625
1 ½	KC-.AG8.205	1 ½	5.000	3.875	.125	4	0.625
2	KC-.AG8.206	2	6.000	4.750	.125	4	0.750
2 ½	KC-.AG8.207	2 ½	7.000	5.500	.125	4	0.750
3	KC-.AG8.208	3	7.500	6.000	.125	4	0.750
4	KC-.AG8.210	4	9.000	7.500	.125	8	0.750
6	KC-.AG8.212	6	11.000	9.500	.125	8	0.875
8	KC-.AG8.213	8	13.500	11.750	.125	8	0.875
10	KC-.AG8.215	10	16.000	14.250	.125	12	1.000
12	KC-.AG8.216	12	19.000	17.000	.125	12	1.000
14	KC-.AG8.217	14	21.000	18.750	.125	12	1.125
16	KC-.AG8.218	16	23.500	21.250	.125	16	1.125
18	KC-.AG8.219	18	25.000	22.750	.125	16	1.250
20	KC-.AG8.220	20	27.500	25.000	.125	20	1.250
24	KC-.AG8.222	24	32.000	29.500	.125	20	1.375

Expanded PTFE Old ANSI UltraPure Ring Gasket

Gasket dimensions per ANSI B16.21.



Pipe Size inch	Part #	I.D. inch J	O.D. inch K	Thickness inch
½	KC-.AG8.101	½	1.875	.125
¾	KC-.AG8.102	¾	2.250	.125
1	KC-.AG8.103	1	2.625	.125
1 ¼	KC-.AG8.104	1 ¼	3.000	.125
1 ½	KC-.AG8.105	1 ½	3.375	.125
2	KC-.AG8.106	2	4.125	.125
2 ½	KC-.AG8.107	2 ½	4.875	.125
3	KC-.AG8.108	3	5.375	.125
4	KC-.AG8.110	4	6.875	.125
6	KC-.AG8.112	6	8.750	.125
8	KC-.AG8.113	8	11.000	.125
10	KC-.AG8.115	10	13.375	.125
12	KC-.AG8.116	12	16.125	.125
14	KC-.AG8.117	14	17.750	.125
16	KC-.AG8.118	16	20.250	.125
18	KC-.AG8.119	18	21.625	.125
20	KC-.AG8.120	20	23.875	.125
24	KC-.AG8.122	24	28.250	.125

Our gaskets are covered under US Patent #5,362,115 and Others Pending.

SAMPLE SPECIFICATION

Patented KC Multi-Ring® low torque design UltraPure expanded PTFE gasket, KC Multi-Ring Products, Inc., sole source. To ensure proper laminar flow, geometrically align gasket and flange faces. Install using zinc-plated fasteners, no thread lubricants. Tighten fasteners in a star pattern, using progressive 4-pass tightening, to proper torque values.

Contact KC Multi-Ring Products, Inc. for sizes and materials not listed.

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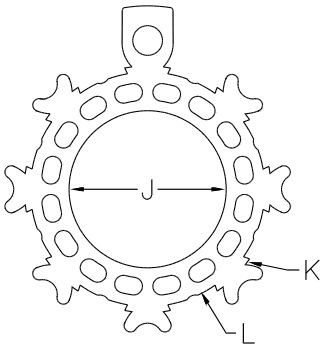
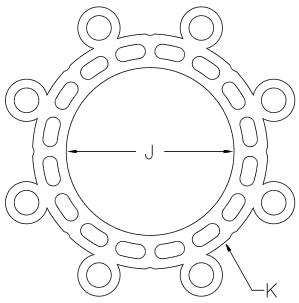


Universal UltraPure KRYSTLE-CLEAR Gasket

For use with non-metallic Metric piping (PVDF, polypropylene, etc.) IR Butt-Weld and Socket Fusion Type Flange Adapter.

Bolt holes in accordance with ANSI B16.5 class 150 pattern.

Pipe Size inch	mm	Part #	I.D. inch J	O.D. inch K	L inch	Thickness inch	Bolt Circle Diameter	Bolt Hole #	Bolt Hole Diameter
½	20	KC-.GK8.101	0.638	1.730	1.339	.100	2.375	4	5/8
¾	25	KC-.GK8.102	0.835	2.130	1.614	.100	2.750	4	5/8
1	32	KC-.GK8.103	1.189	2.480	1.969	.100	3.125	4	5/8
1 ¼	40	KC-.GK8.104	1.386	2.870	2.402	.100	3.500	4	5/8
1 ½	50	KC-.GK8.105	1.732	3.230	2.874	.100	3.875	4	5/8
2	63	KC-.GK8.106	2.244	4.020	3.543	.100	4.750	4	3/4
2 ½	75	KC-.GK8.107	2.670	4.760	4.173	.100	5.500	4	3/4
3	90	KC-.GK8.108	3.205	5.240	4.921	.100	6.000	4	3/4
4	110	KC-.GK8.110	3.913	6.220	5.906	.100	7.500	8	3/4



Universal UltraPure KRYSTLE-CLEAR Gasket

For use with non-metallic Metric piping (PVDF, polypropylene, etc.) IR Butt-Weld and Socket Fusion Type Flange Adapter.

Bolt holes in accordance with ANSI B16.5 class 150 pattern.

Pipe Size inch	mm	Part #	I.D. inch J	O.D. inch K	Thickness inch	Bolt Circle Diameter	Bolt Hole #	Bolt Hole Diameter
6	160	KC-.GK8.212	5.913	8.350	.100	9.500	8	7/8
8	200	KC-.GK8.213	7.386	10.550	.100	11.750	8	7/8
9	225	KC-.GK8.214	8.307	10.550	.100	11.750	8	7/8
10	250	KC-.GK8.215	9.234	13.250	.100	14.250	12	1
12	315	KC-.GK8.216	12.750	16.125	.100	17.000	12	1
14	355	KC-.GK8.217	14.000	17.750	.100	18.750	12	1.125
16	400	KC-.GK8.218	16.000	20.250	.100	21.250	16	1.125
18	450	KC-.GK8.219	18.000	20.675	.100	22.750	16	1.25
20	500	KC-.GK8.220	20.000	23.875	.100	25.000	20	1.25

Our gaskets are covered under US Patent #5,362,115 and Others Pending.

SAMPLE SPECIFICATION

Patented KC Multi-Ring® low torque design UltraPure KRYSTLE-CLEAR (elastomeric) gasket, KC Multi-Ring Products, Inc., sole source. To ensure proper laminar flow, geometrically align gasket and flange faces. Install using zinc-plated fasteners, no thread lubricants. Tighten fasteners in a star pattern, using progressive 4-pass tightening, to proper torque values.

Contact KC Multi-Ring Products, Inc. for sizes and materials not listed.

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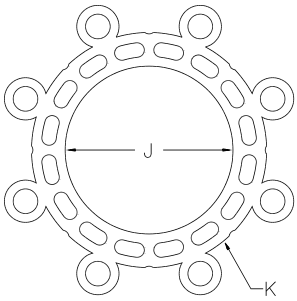
Schedule 10 UltraPure KRYSTLE-CLEAR Gasket

For use with Stainless Steel Weldneck Type Flange Adapter.
Bolt holes in accordance with ANSI B16.5 class 150 pattern.



Pipe Size inch	Part #	I.D. inch J	O.D. inch K	Thickness inch	Bolt Circle Diameter	Bolt Hole #	Bolt Hole Diameter
½	KC-.TK8.201	0.674	1.375	.100	2.375	4	5/8
¾	KC-.TK8.202	0.884	1.688	.100	2.750	4	5/8
1	KC-.TK8.203	1.092	2.000	.100	3.125	4	5/8
1 ¼	KC-.TK8.204	1.442	2.500	.100	3.500	4	5/8
1 ½	KC-.TK8.205	1.682	2.875	.100	3.875	4	5/8
2	KC-.TK8.206	2.157	3.625	.100	4.750	4	3/4
2 ½	KC-.TK8.207	2.635	4.125	.100	5.500	4	3/4
3	KC-.TK8.208	3.260	5.000	.100	6.000	4	3/4
4	KC-.TK8.210	4.260	6.188	.100	7.500	8	3/4
6	KC-.TK8.212	6.375	8.500	.100	9.500	8	7/8
8	KC-.TK8.213	8.329	10.625	.100	11.750	8	7/8
10	KC-.TK8.215	10.420	12.750	.100	14.250	12	1
12	KC-.TK8.216	12.390	15.000	.100	17.000	12	1
14	KC-.TK8.217	13.624	16.250	.100	18.750	12	1 1/8
16	KC-.TK8.218	15.624	18.500	.100	21.250	16	1 1/8
18	KC-.TK8.219	17.624	21.000	.100	22.750	16	1 1/4
20	KC-.TK8.220	19.564	23.000	.100	25.000	20	1 1/4
24	KC-.TK8.222	23.500	27.250	.100	29.500	20	1 3/8

Our gaskets are covered under US Patent #5,362,115 and Others Pending.

SAMPLE SPECIFICATION

Patented KC Multi-Ring® low torque design UltraPure KRYSTLE-CLEAR (elastomeric) gasket, KC Multi-Ring Products, Inc., sole source. To ensure proper laminar flow, geometrically align gasket and flange faces. Install using zinc-plated fasteners, no thread lubricants. Tighten fasteners in a star pattern, using progressive 4-pass tightening, to proper torque values.

Contact KC Multi-Ring Products, Inc. for sizes and materials not listed.

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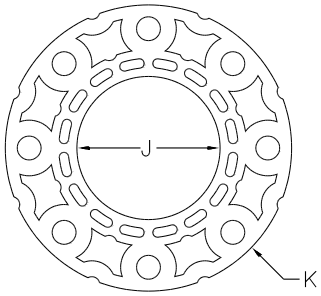
New ANSI UltraPure Full Face KRYSTLE-CLEAR Gasket

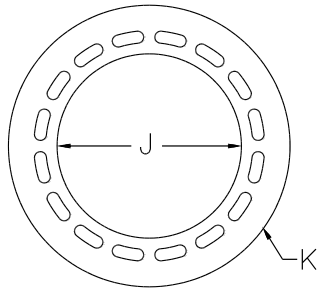
Bolt holes in accordance with ANSI B16.5 class 150 pattern.
Gasket dimensions per ANSI B16.21.



Pipe Size	Part #	J inch	K inch	L inch	Thickness inch	Bolt Holes Number	Bolt Holes Dia.
1/2	KC-.NK8.201	0.843	3.500	1.375	.100	4	5/8
3/4	KC-.NK8.202	1.063	3.875	1.688	.100	4	5/8
1	KC-.NK8.203	1.313	4.250	2.000	.100	4	5/8
1 ¼	KC-.NK8.204	1.656	4.625	2.500	.100	4	5/8
1 ½	KC-.NK8.205	1.906	5.000	2.875	.100	4	5/8
2	KC-.NK8.206	2.375	6.000	3.625	.100	4	3/4
2 ½	KC-.NK8.207	2.875	7.000	4.125	.100	4	3/4
3	KC-.NK8.208	3.500	7.500	5.000	.100	4	3/4
4	KC-.NK8.210	4.500	9.000	6.188	.100	8	3/4
6	KC-.NK8.212	6.625	11.000	8.500	.100	8	7/8
8	KC-.NK8.213	8.625	13.500	10.625	.100	8	7/8
10	KC-.NK8.215	10.750	16.000	12.750	.100	12	1
12	KC-.NK8.216	12.750	19.000	15.000	.100	12	1
14	KC-.AK8.217	14.000	21.000	16.250	.100	12	1 1/8
16	KC-.AK8.218	16.000	23.500	18.500	.100	16	1 1/8
18	KC-.AK8.219	18.000	25.000	21.000	.100	16	1 1/4
20	KC-.AK8.220	20.000	27.500	23.000	.100	20	1 1/4
24	KC-.AK8.222	24.000	32.000	27.250	.100	20	1 3/8

New ANSI Ring UltraPure KRYSTLE-CLEAR Gasket

Gasket dimensions per ANSI B16.21.



Pipe Size	Part #	J inch	K inch	Thickness inch
1/2	KC-.NK8.101	0.844	1.875	.100
3/4	KC-.NK8.102	1.063	2.250	.100
1	KC-.NK8.103	1.313	2.625	.100
1 ¼	KC-.NK8.104	1.656	3.000	.100
1 ½	KC-.NK8.105	1.906	3.375	.100
2	KC-.NK8.106	2.375	4.125	.100
2 ½	KC-.NK8.107	2.875	4.875	.100
3	KC-.NK8.108	3.500	5.375	.100
4	KC-.NK8.110	4.500	6.875	.100
6	KC-.NK8.112	6.625	8.750	.100
8	KC-.NK8.113	8.625	11.000	.100
10	KC-.NK8.115	10.750	13.375	.100
12	KC-.NK8.116	12.750	16.125	.100
14	KC-.AK8.117	14.000	17.750	.100
16	KC-.AK8.118	16.000	20.250	.100
18	KC-.AK8.119	18.000	21.625	.100
20	KC-.AK8.120	20.000	23.875	.100
24	KC-.AK8.122	24.000	28.250	.100

Our gaskets are covered under US Patent #5,362,115 and Others Pending.

SAMPLE SPECIFICATION

Patented KC Multi-Ring® low torque design UltraPure KRYSTLE-CLEAR (elastomeric) gasket, KC Multi-Ring Products, Inc., sole source. To ensure proper laminar flow, geometrically align gasket and flange faces. Install using zinc-plated fasteners, no thread lubricants. Tighten fasteners in a star pattern, using progressive 4-pass tightening, to proper torque values.

Contact KC Multi-Ring Products, Inc. for sizes and materials not listed.

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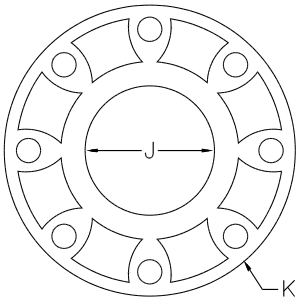
Old ANSI UltraPure Full Face KRYSTLE-CLEAR Gasket

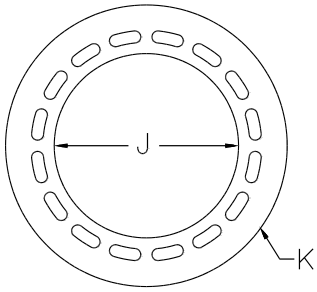
Bolt holes in accordance with ANSI B16.5 class 150 pattern.
Gasket dimesions per ANSI B16.21.



Pipe Size	Part #	J inch	K inch	Thickness inch	Bolt Holes Number	Bolt Holes Dia.
1/2	KC-.AK8.201	1/2	3.500	.100	4	5/8
3/4	KC-.AK8.202	3/4	3.875	.100	4	5/8
1	KC-.AK8.203	1	4.250	.100	4	5/8
1 ¼	KC-.AK8.204	1 ¼	4.625	.100	4	5/8
1 ½	KC-.AK8.205	1 ½	5.000	.100	4	5/8
2	KC-.AK8.206	2	6.000	.100	4	3/4
2 ½	KC-.AK8.207	2 ½	7.000	.100	4	3/4
3	KC-.AK8.208	3	7.500	.100	4	3/4
4	KC-.AK8.210	4	9.000	.100	8	3/4
6	KC-.AK8.212	6	11.000	.100	8	7/8
8	KC-.AK8.213	8	13.500	.100	8	7/8
10	KC-.AK8.215	10	16.000	.100	12	1
12	KC-.AK8.216	12	19.000	.100	12	1
14	KC-.AK8.217	14	21.000	.100	12	1 1/8
16	KC-.AK8.218	16	23.500	.100	16	1 1/8
18	KC-.AK8.219	18	25.000	.100	16	1 1/4
20	KC-.AK8.220	20	27.500	.100	20	1 1/4
24	KC-.AK8.222	24	32.000	.100	20	1 3/8

Old ANSI UltraPure KRYSTLE-CLEAR Ring Gasket

Gasket dimensions per ANSI B16.21.



Pipe Size	Part #	J inch	K inch	Thickness inch
1/2	KC-.AK8.101	1/2	1.875	.100
3/4	KC-.AK8.102	3/4	2.250	.100
1	KC-.AK8.103	1	2.625	.100
1 ¼	KC-.AK8.104	1 ¼	3.000	.100
1 ½	KC-.AK8.105	1½	3.375	.100
2	KC-.AK8.106	2	4.125	.100
2 ½	KC-.AK8.107	2 ½	4.875	.100
3	KC-.AK8.108	3	5.375	.100
4	KC-.AK8.110	4	6.875	.100
6	KC-.AK8.112	6	8.750	.100
8	KC-.AK8.113	8	11.000	.100
10	KC-.AK8.115	10	13.375	.100
12	KC-.AK8.116	12	16.125	.100
14	KC-.AK8.117	14	17.750	.100
16	KC-.AK8.118	16	20.250	.100
18	KC-.AK8.119	18	21.625	.100
20	KC-.AK8.120	20	23.875	.100
24	KC-.AK8.122	24	28.250	.100

Our gaskets are covered under US Patent #5,362,115 and Others Pending.

SAMPLE SPECIFICATION

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INSTALLATION PROCEDURE FOR KC MULTI-RING ULTRAPURE GASKET

The gaskets will arrive cleaned and individually packaged in sealed bags. Each bag will be labeled with a part number which will correlate with pipe type(s) and dimension. Gaskets of similar size and type will be aggregated and packaged in a larger sealed bag, typically in groups of ten (10).

Installation

1. When installation is required, verify that the gasket is the proper size and flange type. When installing the gasket, installer shall wear appropriate garments to meet the appropriate clean zone protocol in effect at the time. Specifically, clean room gloves are to be worn at all times while handling gaskets.

2. While gasket is in the individually sealed bag, inspect for any surface deformations such as tears, rips, or non-uniform cuts. Any material defect of the inner surface is cause for rejection.

3. If a gasket is rejected due to a surface deformation, place aside for return and specify reason for rejection.

4. **Great care should be taken to protect the gasket surface from exposure to oil or other contaminants.**

5. Remove gasket from bag.

6. Immediately prior to installing, pay particular attention to the inner surface. **Do not wipe the surface with or expose the surface to IPA (Isopropyl Alcohol).**

7. Pay particular attention to keeping the gasket and flange adapters on the same axis (that is, geometrically centered).

8. Install all flanges using a calibrated torque wrench. Whenever possible, apply the torque to the nut. Tighten the flanges in a star pattern to the following torque values using progressive 4-pass tightening. Following the star pattern, torque each nut to 33% of the desired torque value. Then re-torque to 66% of the desired torque value. Re-torque to 100% of the desired torque value. **Wait two minutes and re-torque to 100% value.**

9. Using a clean feeler gauge select a pair of blades that add up to 54 or 55 1/1000's. If you can get the feeler gauge into the notch then the seal is not certain and you will need to make another pass. If after that it is still not compressed to <54/1000's then up the force by 2% and make another pass. The use of the feeler gauge to measure compression is the only certain way to measure if the KCMR expanded PTFE gasket is sealed.

Note: Optimal results are obtained when KC Multi-Ring® gaskets are used in conjunction with KC Multi-Ring® AC backing flanges.

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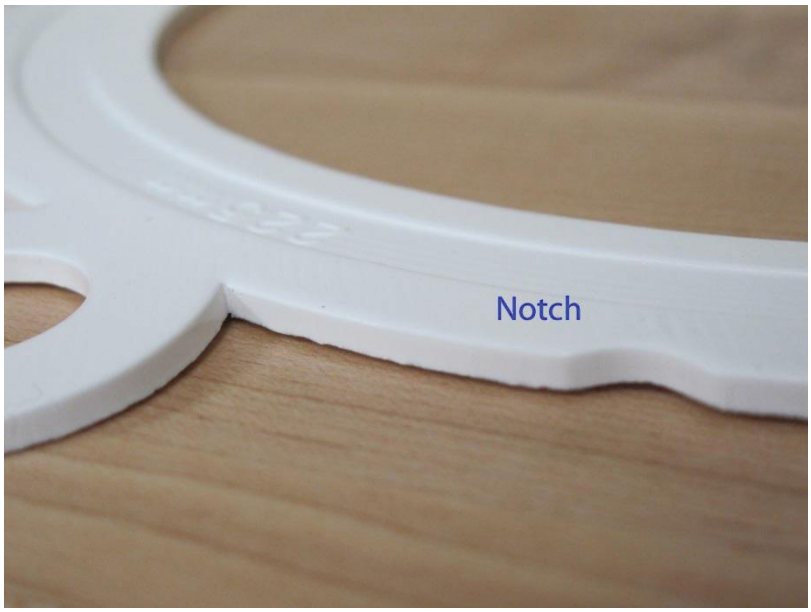
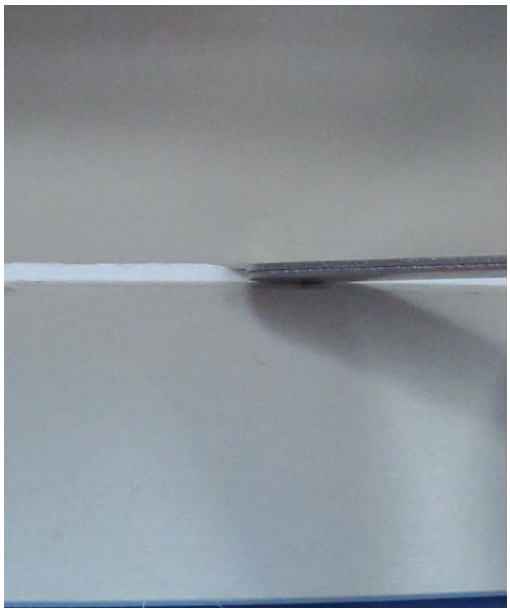
Relying on torque alone does not allow for all the variations that can happen in the field. Torque alone does not measure the force that is applied to the gasket. Variations in nuts and bolts, ability to access the flange fittings, tension due to slight misalignment all compromise being able to rely on torque alone as the measure of gasket compression. Using a feeler gauge on the KCMR Patented notch assures there has been enough force to cause the gasket to seal. A .125" ePTFE gasket needs to be compressed to less than .055/1000's to assure seal. Using the feeler gauge will avoid leaks at hydro-testing which are much harder to seal later.





Install procedure for KCMR gasket

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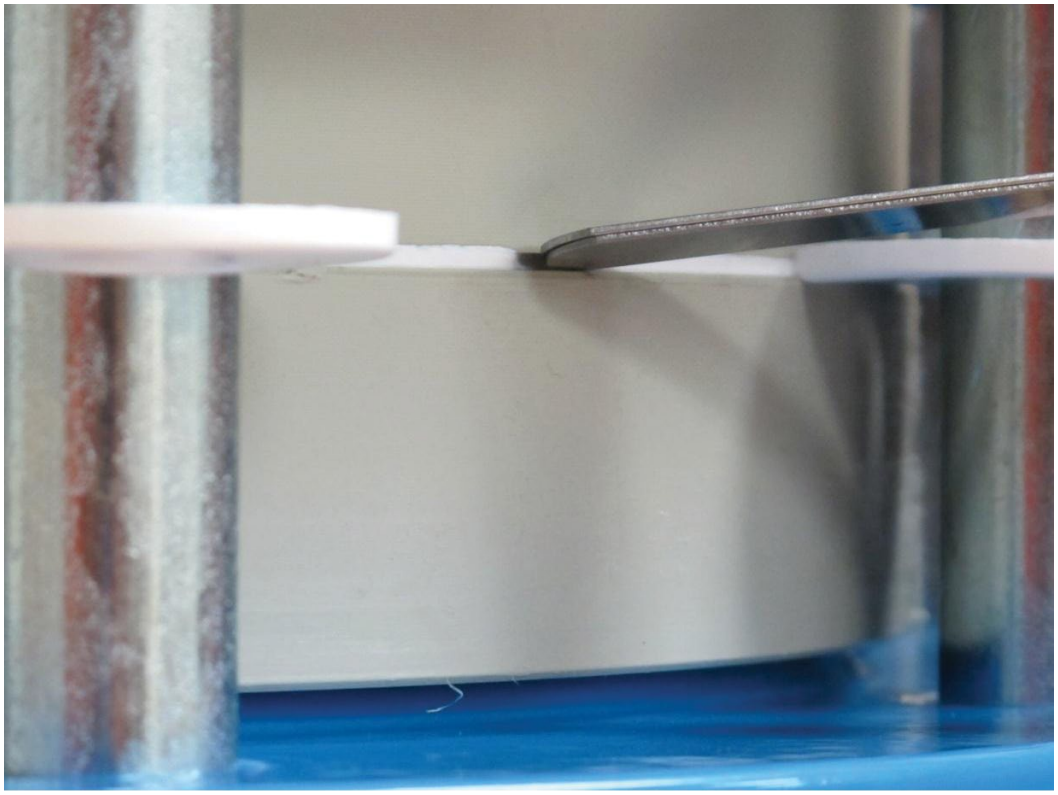

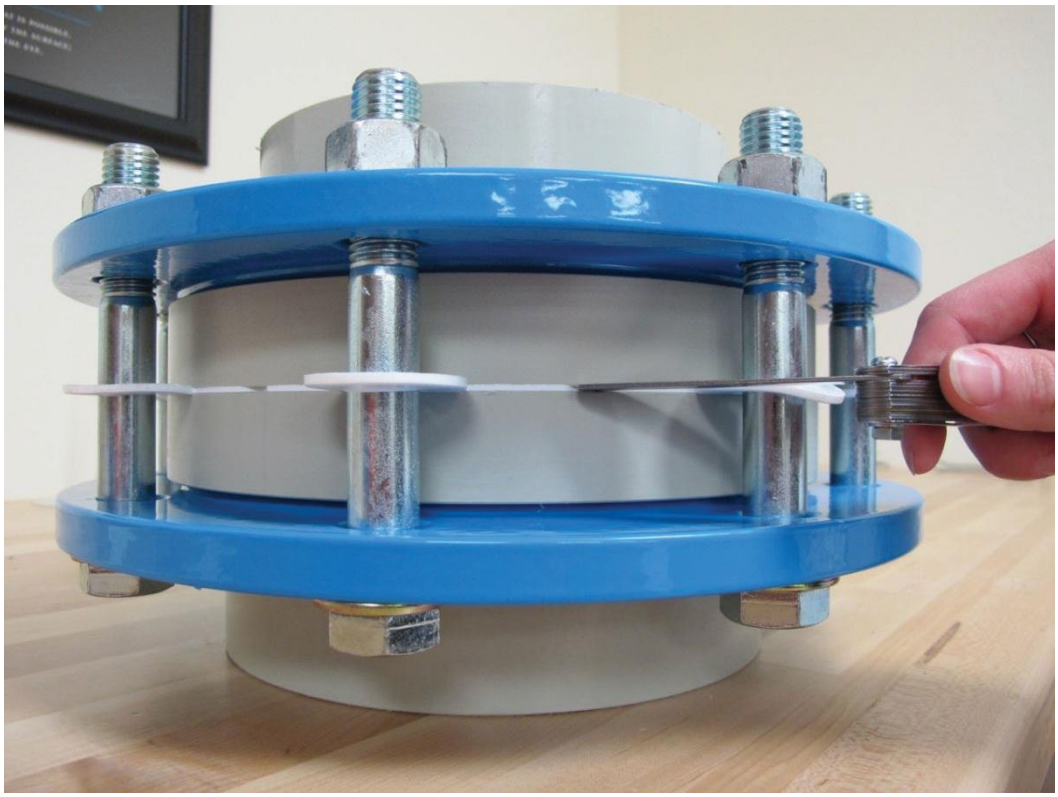

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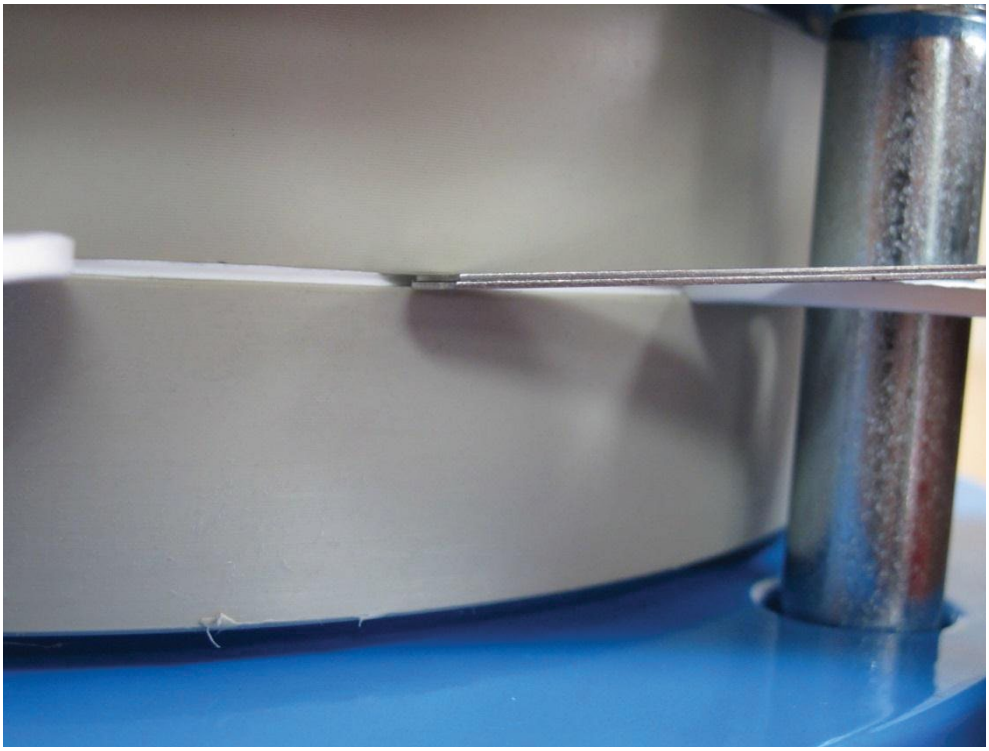

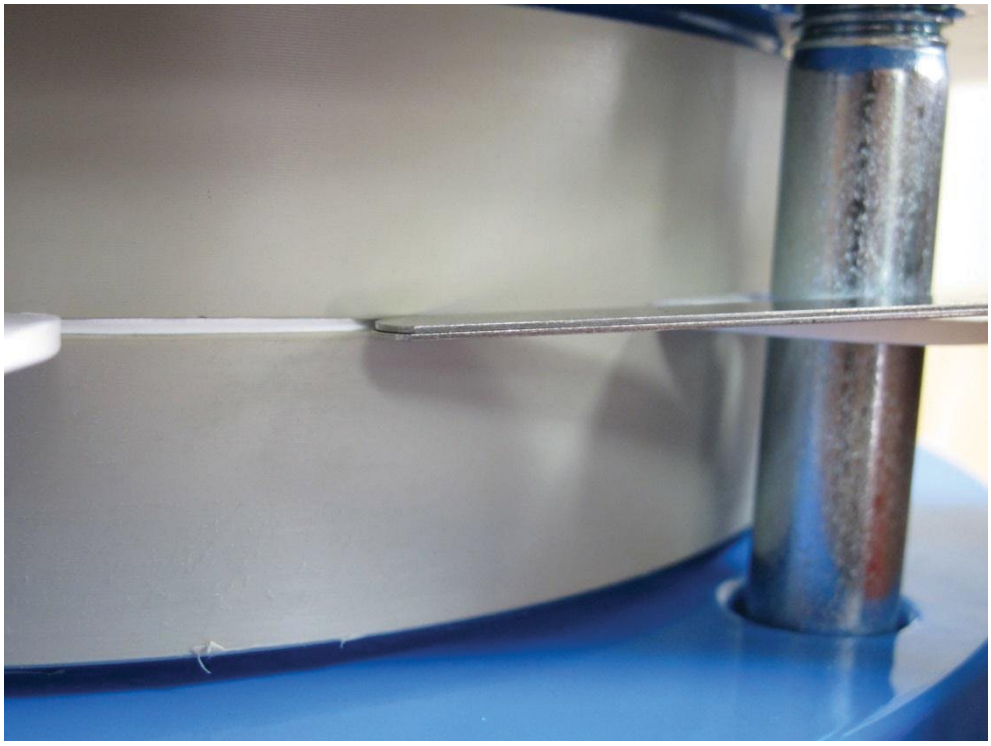

Install procedure for KCMR gasket

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