



KOA

Sanitary Fittings™

By Kuriyama



Kuriyama of America, Inc.



EDITION 0218

Quality Assurance and 3A 3

Sanitary Fittings

Brewery Hose Adapter Tri-Clamp x Long Hose Shank.....	6
Female Bevel Seat x Hose Shank Crimp Fitting.....	4
Female I-Line x Hose Shank Crimp Fitting.....	5
Rubber Hose Adapter Tri-Clamp x Short Hose Shank.....	6
Tube End x Hose Shank Crimp Fitting.....	5
Tri-Clamp x Hose Shank Crimp Fitting.....	4

Sanitary Accessories

Bolted Clamp (for Tri-Clamp).....	7
Double Pin Clamp (for Tri-Clamp).....	7
Double Side Hex Wrench (for Bevel Seat).....	8
Hex Nuts (for Bevel Seat).....	8
Hose Bumpers.....	9
Hose Risers.....	9
Single Side Hex Wrench (for Bevel Seat).....	8
Single Pin Clamp (for Tri-Clamp).....	7
Single Pin Clamp (for I-Line).....	8
Tri-Clamp End Cap.....	9

Sanitary Tri-Clamp Gaskets

Buna-N Tri-Clamp Gasket Black.....	12
Buna-N Tri-Clamp Gasket White.....	12
EPDM Tri-Clamp Gasket Black.....	12
FKM Tri-Clamp Gasket Black.....	12
FKM Tri-Clamp Gasket White.....	13
PTFE Tri-Clamp Gasket White.....	13
Silicone Tri-Clamp Gasket White.....	13

Sanitary Tri-Clamp Screen Gaskets

Buna-N Tri-Clamp 10 Mesh Screen Gasket Black.....	14
Buna-N Tri-Clamp 20 Mesh Screen Gasket Black.....	14
Buna-N Tri-Clamp 40 Mesh Screen Gasket Black.....	14
Buna-N Tri-Clamp 60 Mesh Screen Gasket Black.....	15
Buna-N Tri-Clamp 80 Mesh Screen Gasket Black.....	15
Buna-N Tri-Clamp 100 Mesh Screen Gasket Black.....	15
EPDM Tri-Clamp 10 Mesh Screen Gasket Black.....	16
EPDM Tri-Clamp 20 Mesh Screen Gasket Black.....	16
EPDM Tri-Clamp 40 Mesh Screen Gasket Black.....	16
EPDM Tri-Clamp 60 Mesh Screen Gasket Black.....	17
EPDM Tri-Clamp 80 Mesh Screen Gasket Black.....	17
EPDM Tri-Clamp 100 Mesh Screen Gasket Black.....	17

Sanitary I-Line Gaskets

Buna-N I-Line Gasket Black.....	18
EPDM I-Line Gasket Black.....	18
FKM I-Line Gasket Black.....	18
PTFE I-Line Gasket White.....	18

Sanitary Bevel Seat Gaskets

Buna-N Bevel Seat Gasket Black.....	19
EPDM Bevel Seat Gasket Black.....	19
PTFE Bevel Seat Gasket White.....	19

Ferrules

Kuri Krimp™ 304 Stainless Steel Crimp Ferrules.....	11
Sanitary 304 Stainless Steel Crimp Ferrules.....	10

Sanitary Fitting Information 20, 21

Sanitary Clamp Information 22

Sizing Guide 23

Sanitary Gasket Information 24, 25

Bumpers & Risers 26

Crimp Procedure 27

SERIES INDEX

BHAS-SS.....	6	CRF-SS.....	11	EPDM-40MPSE-100.....	17	SCF-SS.....	10
BUNA-40BS.....	19	DBS.....	7	FBS-SS.....	4	SHB.....	9
BUNA-40IH.....	18	DPHDS.....	7	FKM-40IV.....	18	SHR.....	9
BUNA-40MPSU-10.....	14	EPDM-40IE.....	18	FKM-40MPSFY.....	12	SIL-40MPX.....	13
BUNA-40MPSU-20.....	14	EPDM-40BSE.....	19	FKM-40MPSFYW.....	13	SPHDS.....	7
BUNA-40MPSU-40.....	14	EPDM-40MPE.....	12	FILS-SS.....	5	SPILC.....	8
BUNA-40MPSU-60.....	15	EPDM-40MPSE-10.....	16	HNS.....	8	SSHW.....	8
BUNA-40MPSU-80.....	15	EPDM-40MPSE-20.....	16	PTFE-40BSS.....	19	TCS-SS.....	4
BUNA-40MPSU-100.....	15	EPDM-40MPSE-40.....	16	PTFE-40IT.....	18	TCSC-SS.....	9
BUNA-40MPU.....	12	EPDM-40MPSE-60.....	17	PTFE-40MPG.....	13	TES-SS.....	5
BUNA-40MPUW.....	12	EPDM-40MPSE-80.....	17	RHAS-SS.....	6		

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

A SYMBOL OF QUALITY

Kuriyama is proud to introduce KOA Sanitary Fittings, a line of high-quality, hygienically designed hose fittings, clamps, gaskets and accessories for use in the food, beverage, dairy, cosmetics and pharmaceutical industries.

Every KOA Sanitary Fitting, Hose Assembly and Rubber Gasket is certified to meet the stringent criteria of the 3-A® Sanitary Standards, ensuring the safety and purity of the transferred materials.



Every KOA Sanitary Fitting is certified to meet the 3-A Sanitary Standard for Sanitary Fittings.






Every KOA Sanitary Rubber Gasket is certified to meet the 3-A Sanitary Standard for Multiple-Use Rubber Materials Used as Product Contact Surfaces.



Kuriyama is certified to provide complete sanitary hose assemblies compliant with the 3-A Sanitary Standard for Hose Assemblies.

Custom, 3A certified, sanitary hose assemblies can be purchased through the Kuriyama Value Added Services program, KVAS, using KOA Sanitary Fittings with Kuriyama's wide variety of 3A compliant Tigerflex™, Kuri Tec®, & Alfagomma® industrial hoses.

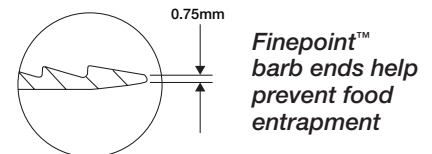
CONTACT KURIYAMA FOR YOUR CUSTOM MADE 3A CERTIFIED SANITARY HOSE ASSEMBLY!

By Fax		Fax to 1-800-800-0320 Attn: KVAS
By Phone		Call us at 1-847-755-0360. Ask to speak with a KVAS Customer Service Specialist.
By Email		Contact a KVAS Customer Service Specialist at kvas@kuriyama.com .

THE KOA SANITARY ADVANTAGE

Material Safety – Every KOA Sanitary Fitting is made from 316L stainless steel, and can be traced back to its original Material Test Report (MTR) by the heat number imprinted on each individual fitting. Individual Material Test Reports are available upon request.

Food Safety – Sanitary fittings are manufactured with a smooth (32 Ra) polish on food contact surfaces, and without any pockets or tight radii where food could become trapped. Additionally, KOA Sanitary Fittings are designed with Finepoint™ barb ends, virtually eliminating areas where food or other transferred materials can become trapped at the fitting to hose transition area.



Quality Control – In addition to the quality assurance inspections performed during manufacturing, KOA Sanitary Fittings are independently lab tested after their manufacture to ensure conformance of their physical properties using an Olympus Innov-X Alloys and Metals Analyzer.

Cleaning & Packaging – After manufacturing, KOA Sanitary Fittings undergo an ultrasonic cleaning process, and are individually bubble and shrink-wrapped to ensure they arrive in pristine condition.



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

TCS-SS Series

Sanitary Crimp Hose Fitting SS316 Tri-Clamp x Hose Shank



Features and Advantages:

- Durable 316 stainless steel
- Smooth 32 Ra food contact surface finish
- Meets 3A 63-03 sanitary standard for sanitary fittings
- Designed for use with KOA sanitary and standard Kuri-Krimp Ferrules (pgs. 10, 11)
- Uses SPHDS, DPHDS or DBS series clamps (pg. 7)
- Uses Tri-Clamp gaskets (pgs. 12-17)

Part Number	Fitting End Size (in.)	Hose Shank Size (in.)	Weight Each (lbs.)	Standard Carton
TCS-SS100	1	1	0.46	70
TCS-SS150	1 1/2	1 1/2	0.63	35
TCS-SS200	2	2	1.20	24
TCS-SS300	3	3	2.34	12
TCS-SS400	4	4	3.79	6



FBS-SS Series

Sanitary Crimp Hose Fitting SS316 Female Bevel Seat x Hose Shank



Features and Advantages:

- Durable 316 stainless steel
- Smooth 32 Ra food contact surface finish
- Meets 3A 63-03 sanitary standard for sanitary fittings
- Designed for use with KOA sanitary and standard Kuri-Krimp Ferrules (pgs. 10, 11)
- Uses HNS series hex nuts (pg. 8)
- Uses Bevel Seat gaskets (pg. 19)

Part Number	Fitting End Size (in.)	Hose Shank Size (in.)	Weight Each (lbs.)	Standard Carton
FBS-SS100	1	1	0.33	108
FBS-SS150	1 1/2	1 1/2	0.60	48
FBS-SS200	2	2	0.95	48
FBS-SS300	3	3	2.38	12
FBS-SS400	4	4	3.95	6



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

FILS-SS Series

Sanitary Crimp Hose Fitting 316SS Female I-Line x Hose Shank



Features and Advantages:

- Durable 316 stainless steel
- Smooth 32 Ra food contact surface finish
- Meets 3A 63-03 sanitary standard for sanitary fittings
- Designed for use with KOA sanitary and standard Kuri-Krimp Ferrules (pgs. 10, 11)
- Uses SPILC series clamps (pg. 8)
- Uses I-Line gaskets (pg. 18)

Part Number	Fitting End Size (in.)	Hose Shank Size (in.)	Weight Each (lbs.)	Standard Carton
FILS-SS150	1 1/2	1 1/2	1.01	35
FILS-SS200	2	2	1.21	40
FILS-SS300	3	3	2.62	12
FILS-SS400	4	4	4.17	6



TES-SS Series

Sanitary Crimp Hose Fitting 316SS Tube End x Hose Shank



Features and Advantages:

- Schedule 40 pipe size
- Durable 316 stainless steel
- Smooth 32 Ra food contact surface finish
- Meets 3A 63-03 sanitary standard for sanitary fittings
- Designed for use with KOA sanitary and standard Kuri-Krimp Ferrules (pgs. 10, 11)
- Welds onto sanitary weld fittings or tubing

Part Number	Fitting End Size (in.)	Hose Shank Size (in.)	Weight Each (lbs.)	Standard Carton
TES-SS150	1 1/2	1 1/2	0.53	48
TES-SS200	2	2	0.75	35
TES-SS300	3	3	2.09	12
TES-SS400	4	4	3.46	7



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

BHAS-SS Series

Sanitary Brewery Hose Adapter SS316 Tri-Clamp x Long Hose Shank



Features and Advantages:

- Durable 316 stainless steel
- Smooth 32 Ra food contact surface finish
- Meets 3A 63-03 sanitary standard for sanitary fittings
- Uses SPHDS, DPHDS or DBS series clamps (pg. 7)
- Uses Tri-Clamp gaskets (pgs. 12-17)

Part Number	Fitting End Size (in.)	Hose Shank Size (in.)	Weight Each (lbs.)	Standard Carton
BHAS-SS100	1	1	0.35	80
BHAS-SS150	1 1/2	1 1/2	0.62	40
BHAS-SS200	2	2	0.86	24
BHAS-SS300	3	3	1.90	12
BHAS-SS400	4	4	3.00	6



RHAS-SS Series

Sanitary Rubber Hose Adapter SS316 Tri-Clamp x Short Hose Shank



Features and Advantages:

- Durable 316 stainless steel
- Smooth 32 Ra food contact surface finish
- Meets 3A 63-03 sanitary standard for sanitary fittings
- Uses SPHDS, DPHDS or DBS series clamps (pg. 7)
- Uses Tri-Clamp gaskets (pgs. 12-17)

Part Number	Fitting End Size (in.)	Hose Shank Size (in.)	Weight Each (lbs.)	Standard Carton
RHAS-SS100038	1	3/8	0.18	210
RHAS-SS100050	1	1/2	0.20	210
RHAS-SS100075	1	3/4	0.22	168
RHAS-SS100	1	1	0.24	168
RHAS-SS150050	1 1/2	1/2	0.18	210
RHAS-SS150062	1 1/2	5/8	0.22	210
RHAS-SS150075	1 1/2	3/4	0.18	210
RHAS-SS150100	1 1/2	1	0.22	168
RHAS-SS150	1 1/2	1 1/2	0.26	168
RHAS-SS200150	2	1 1/2	0.37	72
RHAS-SS200	2	2	0.40	96
RHAS-SS300	3	3	1.12	24
RHAS-SS400	4	4	1.94	12



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

SPHDS Series

Sanitary Single Pin Clamp (for Tri-clamp)

- Durable 304 stainless steel
- For use with TCS-SS, RHAS-SS or BHAS-SS series fittings

Part Number	Fitting End Size (in.)	Clamp Size (in.)	Weight Each (lbs.)	Standard Carton
SPHDS150	1 & 1 1/2	1 1/2	0.37	100
SPHDS200	2	2	0.60	80
SPHDS300	3	3	0.77	50
SPHDS400	4	4	0.94	40



DPHDS Series

Sanitary Double Pin Clamp (for Tri-clamp)

- Durable 304 stainless steel
- Double pin design for more even sealing pressure
- For use with TCS-SS, RHAS-SS or BHAS-SS series fittings

Part Number	Fitting End Size (in.)	Clamp Size (in.)	Weight Each (lbs.)	Standard Carton
DPHDS150	1 & 1 1/2	1 1/2	0.51	50
DPHDS200	2	2	0.60	40
DPHDS300	3	3	0.74	20
DPHDS400	4	4	1.02	20



DBS Series

Sanitary Bolted Clamp (for Tri-clamp)

- Durable 304 stainless steel
- Double bolt design for higher pressures
- For use with TCS-SS, RHAS-SS or BHAS-SS series fittings

Part Number	Fitting End Size (in.)	Clamp Size (in.)	Weight Each (lbs.)	Standard Carton
DBS150	1 & 1 1/2	1 1/2	0.55	40
DBS200	2	2	0.95	40
DBS300	3	3	1.21	30
DBS400	4	4	1.81	25



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

SPILC Series

Sanitary Single Pin Clamp (for I-line)

- Durable 304 stainless steel
- For use with FILS series fittings

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
SPILC150	1 1/2	0.64	48
SPILC200	2	0.77	36
SPILC300	3	1.34	12
SPILC400	4	1.74	12



HNS Series

Sanitary Hex Nuts (for Bevel Seat)

- Durable 304 stainless steel
- Acme 8TPI thread (1" – 3"), Acme 6TPI thread (4")
- For use with FBS-SS series fittings

Part Number	Fitting End Size (in.)	Weight Each (lbs.)	Standard Carton
HNS100	1	0.33	144
HNS150	1 1/2	0.57	72
HNS200	2	0.84	60
HNS300	3	1.96	18
HNS400	4	3.70	12



SSHW Series

Sanitary Single Side Hex Wrench (for Bevel Seat Hex Nut)

- Durable plated carbon steel
- Soft-touch, food grade, silicone handle
- For use with HNS Series hex nut

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
SSHW100	1	0.60	1
SSHW150	1 1/2	0.82	1
SSHW200	2	1.52	1
SSHW300	3	3.13	1
SSHW400	4	3.73	1



TSHW Series

Sanitary Double Side Hex Wrench (for Bevel Seat Hex Nut)

- Durable plated carbon steel
- Soft-touch, food grade, silicone handle
- For use with HNS Series hex nut

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
TSHW100150	1 X 1 1/2	1.08	1
TSHW200300	2 x 3	3.48	1



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

TCSC-SS Series Sanitary Tri-clamp End Cap



- Durable 316 stainless steel
- Smooth 32 Ra food contact surface finish
- Meets 3A 63-03 sanitary standard for sanitary fittings
- For use with TCS-SS, RHAS-SS or BHAS-SS series fittings

Part Number	Fitting End Size (in.)	Cap End Size (in.)	Weight Each (lbs.)	Standard Carton
TCSC-SS100150	1 & 1 1/2	1 1/2	0.17	250
TCSC-SS200	2	2	0.30	144
TCSC-SS300	3	3	0.64	60
TCSC-SS400	4	4	1.32	36



SHB Series Sanitary Hose Bumpers

- Slides easily and securely over crimp ferrules
- Helps protect fittings from damage if dropped
- Durable, heat resistant, non-marking silicone
- Meets FDA CFR 21



Part Number	Size (in.)	ID (in.)	OD (in.)	Standard Carton
SHB150	1 1/2	2.00	3.00	20
SHB200	2	2.58	3.55	16
SHB300	3	3.60	4.72	16



SHR Series Sanitary Hose Risers

- Helps protect hose cover from abrasion
- Allows for easier hose dragging
- Easily attached by two stainless steel screws
- Durable, heat resistant polyethylene
- Meets FDA CFR 21



Part Number	Size (in.)	OD (in.)	Fit Hose (in)	Standard Carton
SHR150	1 1/2	3.00	1.80 - 2.15	10
SHR150200	1 1/2 & 2	3.55	2.10 - 2.35	10
SHR200	2	4.72	2.39 - 2.69	10
SHR200300	2 & 3	4.72	3.30 - 3.75	10
SHR400	4	4.72	4.55 - 5.31	10



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

SCF-SS Series

Sanitary 304 Stainless Steel Crimp Ferrules

- Smooth 64RA surface finish
- Designed for use with TCS-SS, FBS-SS, FILS-SS and TES-SS series fittings



Part Number	Hose ID (in.)	Ferrule ID (in.)	Wall Thickness (in.)	Length (in.)	Weight Each (lbs.)	Standard Carton
SCF-SS10146	1	1.46	0.108	2.28	0.29	126
SCF-SS10153	1	1.53	0.108	2.28	0.31	144
SCF-SS10157	1	1.57	0.108	2.28	0.33	144
SCF-SS10161	1	1.61	0.108	2.28	0.35	144
SCF-SS10165	1	1.65	0.108	2.28	0.36	144
SCF-SS10173	1	1.73	0.108	2.28	0.37	96
SCF-SS15201	1 1/2	2.01	0.118	2.36	0.46	105
SCF-SS15206	1 1/2	2.06	0.118	2.36	0.49	90
SCF-SS15210	1 1/2	2.10	0.118	2.36	0.49	90
SCF-SS15215	1 1/2	2.15	0.118	2.36	0.51	72
SCF-SS15220	1 1/2	2.20	0.118	2.36	0.53	72
SCF-SS15228	1 1/2	2.28	0.118	2.36	0.55	72
SCF-SS15236	1 1/2	2.36	0.118	2.36	0.60	72
SCF-SS20248	2	2.48	0.128	2.80	0.68	60
SCF-SS20256	2	2.56	0.128	2.80	0.68	60
SCF-SS20264	2	2.64	0.128	2.80	0.73	60
SCF-SS20268	2	2.68	0.128	2.80	0.75	60
SCF-SS20273	2	2.73	0.128	2.80	0.77	45
SCF-SS20279	2	2.79	0.128	2.80	0.80	45
SCF-SS20287	2	2.87	0.128	2.80	0.84	45
SCF-SS20295	2	2.95	0.128	2.80	0.88	36
SCF-SS30354	3	3.54	0.138	3.94	1.23	24
SCF-SS30360	3	3.60	0.138	3.94	1.30	24
SCF-SS30368	3	3.68	0.138	3.94	1.43	12
SCF-SS30374	3	3.74	0.138	3.94	1.54	12
SCF-SS30382	3	3.82	0.138	3.94	1.70	12
SCF-SS30390	3	3.90	0.138	3.94	1.81	12
SCF-SS30398	3	3.98	0.138	3.94	1.96	12
SCF-SS30409	3	4.09	0.138	3.94	2.07	12
SCF-SS40457	4	4.57	0.158	4.19	2.20	12
SCF-SS40465	4	4.65	0.158	4.19	2.36	12
SCF-SS40472	4	4.72	1.580	4.19	2.51	12
SCF-SS40480	4	4.80	0.158	4.19	2.71	12
SCF-SS40488	4	4.88	0.158	4.19	2.91	12
SCF-SS40496	4	4.96	0.158	4.19	3.09	8
SCF-SS40508	4	5.08	0.158	4.19	3.26	8
SCF-SS40520	4	5.20	0.158	4.19	3.46	8
SCF-SS40531	4	5.31	0.158	4.19	3.64	8

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

CRF-SS Series

Kuri-Krimp™ 304 Stainless Steel Crimp Ferrules

- Designed for use with TCS-SS, FBS-SS, FILS-SS and TES-SS series fittings



Part Number	Hose ID (in.)	Ferrule ID (in.)	Wall Thickness (in.)	Length (in.)	Weight Each (lbs.)	Standard Carton
CRF-SS10108	1	1.50	0.059	2.29	0.20	200
CRF-SS10109	1	1.56	0.059	2.29	0.21	200
CRF-SS10110	1	1.63	0.059	2.29	0.21	200
CRF-SS10111	1	1.69	0.059	2.29	0.23	200
CRF-SS10112	1	1.75	0.059	2.29	0.23	200
CRF-SS10113	1	1.81	0.059	2.29	0.24	200
CRF-SS15200	1 1/2	2.00	0.059	2.36	0.27	128
CRF-SS15202	1 1/2	2.12	0.059	2.36	0.29	128
CRF-SS15204	1 1/2	2.25	0.059	2.36	0.29	80
CRF-SS15206	1 1/2	2.39	0.059	2.36	0.30	80
CRF-SS15208	1 1/2	2.50	0.059	2.36	0.35	80
CRF-SS20209	2	2.56	0.059	2.79	0.40	80
CRF-SS20210	2	2.62	0.059	2.79	0.43	80
CRF-SS20211	2	2.68	0.059	2.79	0.43	80
CRF-SS20213	2	2.81	0.059	2.79	0.44	80
CRF-SS20215	2	2.94	0.059	2.79	0.46	80
CRF-SS25302	2 1/2	3.12	0.059	3.11	0.56	60
CRF-SS25304	2 1/2	3.25	0.059	3.11	0.58	60
CRF-SS25306	2 1/2	3.39	0.059	3.11	0.60	60
CRF-SS25308	2 1/2	3.50	0.059	3.11	0.62	60
CRF-SS30309	3	3.56	0.098	3.94	1.27	40
CRF-SS30310	3	3.62	0.098	3.94	1.29	40
CRF-SS30312	3	3.75	0.098	3.94	1.31	40
CRF-SS30313	3	3.81	0.098	3.94	1.33	40
CRF-SS30315	3	3.94	0.098	3.94	1.36	40
CRF-SS30400	3	4.00	0.098	3.94	1.40	40
CRF-SS40409	4	4.56	0.098	4.19	1.57	30
CRF-SS40410	4	4.63	0.098	4.19	1.59	30
CRF-SS40411	4	4.68	0.098	4.19	1.74	30
CRF-SS40412	4	4.75	0.098	4.19	1.76	30
CRF-SS40413	4	4.81	0.098	4.19	1.78	30
CRF-SS40414	4	4.88	0.098	4.19	1.82	30
CRF-SS40500	4	5.00	0.098	4.19	1.86	30
CRF-SS40501	4	5.06	0.098	4.19	1.89	30

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.



Sanitary Buna-N Tri-Clamp Gasket Black

Color Code: ● (1 Red Dot)

Certification: 3A 18-03 sanitary standard

Temperature Range: -65°F (-54°C) to +210°F (+99°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
BUNA-40MPU100	1	0.012	25
BUNA-40MPU150	1 1/2	0.013	25
BUNA-40MPU200	2	0.014	25
BUNA-40MPU300	3	0.020	25
BUNA-40MPU400	4	0.030	25



Sanitary Buna-N Tri-Clamp Gasket White

Color Code: ● (1 Red Dot)

Certification: 3A 18-03 sanitary standard

Temperature Range: -65°F (-54°C) to +210°F (+99°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
BUNA-40MPUW100	1	0.012	25
BUNA-40MPUW150	1 1/2	0.013	25
BUNA-40MPUW200	2	0.014	25
BUNA-40MPUW300	3	0.022	25
BUNA-40MPUW400	4	0.034	25



Sanitary EPDM Tri-Clamp Gasket Black

Color Code: ● ● ● (3 Green Dots)

Certification: 3A 18-03 sanitary standard

Temperature Range: -60°F (-51°C) to +300°F (+149°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
EPDM-40MPE100	1	0.012	25
EPDM-40MPE150	1 1/2	0.013	25
EPDM-40MPE200	2	0.014	25
EPDM-40MPE300	3	0.020	25
EPDM-40MPE400	4	0.030	25



Sanitary FKM Tri-Clamp Gasket Black

Color Code: ○ ● (1 White/1 Yellow Dot)

Certification: 3A 18-03 sanitary standards

Temperature Range: -20°F (-29°C) to +350°F (+177°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
FKM-40MPSFY100	1	0.013	25
FKM-40MPSFY150	1 1/2	0.014	25
FKM-40MPSFY200	2	0.018	25
FKM-40MPSFY300	3	0.030	25
FKM-40MPSFY400	4	0.046	25



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.



Sanitary FKM Tri-Clamp Gasket White

Color Code: ○ ● (1 White/1 Yellow Dot)

Certification: 3A 18-03 sanitary standard

Temperature Range: -20°F (-29°C) to +350°F (+177°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
FKM-40MPSFYW100	1	0.013	25
FKM-40MPSFYW150	1 1/2	0.014	25
FKM-40MPSFYW200	2	0.018	25
FKM-40MPSFYW300	3	0.030	25
FKM-40MPSFYW400	4	0.046	25



Sanitary PTFE Tri-Clamp Gasket White

Color Code: None

Certification: USP Class VI standard

Temperature Range: -40°F (-40°C) to +450°F (+232°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
PTFE-40MPG100	1	0.013	25
PTFE-40MPG150	1 1/2	0.014	25
PTFE-40MPG200	2	0.018	25
PTFE-40MPG300	3	0.028	25
PTFE-40MPG400	4	0.040	25



Sanitary Silicone Tri-Clamp Gasket White

Color Code: ● (1 Pink Dot)

Certification: 3A 18-03 sanitary standard

Temperature Range: -80°F (-62°C) to +450°F (+232°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
SIL-40MPX100	1	0.012	25
SIL-40MPX150	1 1/2	0.013	25
SIL-40MPX200	2	0.014	25
SIL-40MPX300	3	0.018	25
SIL-40MPX400	4	0.030	25



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

Sanitary Buna-N Tri-Clamp 10 Mesh Screen Gasket Black

Color Code: ● (1 Red Dot)

Certification: 3A 18-03 sanitary standard

Temperature Range: -65°F (-54°C) to +210°F (+99°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
BUNA-40MPSU100-10	1	0.014	25
BUNA-40MPSU150-10	1 1/2	0.016	25
BUNA-40MPSU200-10	2	0.022	25
BUNA-40MPSU300-10	3	0.040	25
BUNA-40MPSU400-10	4	0.063	25



Sanitary Buna-N Tri-Clamp 20 Mesh Screen Gasket Black

Color Code: ● (1 Red Dot)

Certification: 3A 18-03 sanitary standard

Temperature Range: -65°F (-54°C) to +210°F (+99°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
BUNA-40MPSU100-20	1	0.014	25
BUNA-40MPSU150-20	1 1/2	0.016	25
BUNA-40MPSU200-20	2	0.022	25
BUNA-40MPSU300-20	3	0.040	25
BUNA-40MPSU400-20	4	0.063	25



Sanitary Buna-N Tri-Clamp 40 Mesh Screen Gasket Black

Color Code: ● (1 Red Dot)

Certification: 3A 18-03 sanitary standard

Temperature Range: -65°F (-54°C) to +210°F (+99°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
BUNA-40MPSU100-40	1	0.014	25
BUNA-40MPSU150-40	1 1/2	0.016	25
BUNA-40MPSU200-40	2	0.022	25
BUNA-40MPSU300-40	3	0.040	25
BUNA-40MPSU400-40	4	0.063	25



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

Sanitary Buna-N Tri-Clamp 60 Mesh Screen Gasket Black

Color Code: ● (1 Red Dot)

Certification: 3A 18-03 sanitary standard

Temperature Range: -65°F (-54°C) to +210°F (+99°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
BUNA-40MPSU100-60	1	0.014	25
BUNA-40MPSU150-60	1 1/2	0.016	25
BUNA-40MPSU200-60	2	0.022	25
BUNA-40MPSU300-60	3	0.040	25
BUNA-40MPSU400-60	4	0.063	25



Sanitary Buna-N Tri-Clamp 80 Mesh Screen Gasket Black

Color Code: ● (1 Red Dot)

Certification: 3A 18-03 sanitary standard

Temperature Range: -65°F (-54°C) to +210°F (+99°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
BUNA-40MPSU100-80	1	0.014	25
BUNA-40MPSU150-80	1 1/2	0.016	25
BUNA-40MPSU200-80	2	0.022	25
BUNA-40MPSU300-80	3	0.040	25
BUNA-40MPSU400-80	4	0.063	25



Sanitary Buna-N Tri-Clamp 100 Mesh Screen Gasket Black

Color Code: ● (1 Red Dot)

Certification: 3A 18-03 sanitary standards

Temperature Range: -65°F (-54°C) to +210°F (+99°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
BUNA-40MPSU100-100	1	0.014	25
BUNA-40MPSU150-100	1 1/2	0.016	25
BUNA-40MPSU200-100	2	0.022	25
BUNA-40MPSU300-100	3	0.040	25
BUNA-40MPSU400-100	4	0.063	25



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.



Sanitary EPDM Tri-Clamp 10 Mesh Screen Gasket Black

Color Code: ● ● ● (3 Green Dots)

Certification: 3A 18-03 sanitary standard

Temperature Range: -60°F (-51°C) to +300°F (+149°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
EPDM-40MPSE100-10	1	0.014	25
EPDM-40MPSE150-10	1 1/2	0.016	25
EPDM-40MPSE200-10	2	0.022	25
EPDM-40MPSE300-10	3	0.040	25
EPDM-40MPSE400-10	4	0.063	25



Sanitary EPDM Tri-Clamp 20 Mesh Screen Gasket Black

Color Code: ● ● ● (3 Green Dots)

Certification: 3A 18-03 sanitary standard

Temperature Range: -60°F (-51°C) to +300°F (+149°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
EPDM-40MPSE150-20	1 1/2	0.016	25
EPDM-40MPSE200-20	2	0.022	25
EPDM-40MPSE300-20	3	0.040	25
EPDM-40MPSE400-20	4	0.063	25



Sanitary EPDM Tri-Clamp 40 Mesh Screen Gasket Black

Color Code: ● ● ● (3 Green Dots)

Certification: 3A 18-03 sanitary standard

Temperature Range: -60°F (-51°C) to +300°F (+149°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
EPDM-40MPSE150-40	1 1/2	0.016	25
EPDM-40MPSE200-40	2	0.022	25
EPDM-40MPSE300-40	3	0.040	25
EPDM-40MPSE400-40	4	0.063	25



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.



Sanitary EPDM Tri-Clamp 60 Mesh Screen Gasket Black

Color Code: ● ● ● (3 Green Dots)

Certification: 3A 18-03 sanitary standard

Temperature Range: -60°F (-51°C) to +300°F (+149°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
EPDM-40MPSE150-60	1 1/2	0.016	25
EPDM-40MPSE200-60	2	0.022	25
EPDM-40MPSE300-60	3	0.040	25
EPDM-40MPSE400-60	4	0.063	25



Sanitary EPDM Tri-Clamp 80 Mesh Screen Gasket Black

Color Code: ● ● ● (3 Green Dots)

Certification: 3A 18-03 sanitary standard

Temperature Range: -60°F (-51°C) to +300°F (+149°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
EPDM-40MPSE150-80	1 1/2	0.016	25
EPDM-40MPSE200-80	2	0.022	25
EPDM-40MPSE300-80	3	0.040	25
EPDM-40MPSE400-80	4	0.063	25



Sanitary EPDM Tri-Clamp 100 Mesh Screen Gasket Black

Color Code: ● ● ● (3 Green Dots)

Certification: 3A 18-03 sanitary standard

Temperature Range: -60°F (-51°C) to +300°F (+149°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
EPDM-40MPSE150-100	1 1/2	0.016	25
EPDM-40MPSE200-100	2	0.022	25
EPDM-40MPSE300-100	3	0.040	25
EPDM-40MPSE400-100	4	0.063	25



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.



Sanitary Buna-N I-Line Gasket Black

Color Code: ● (1 Red Dot)

Certification: 3A 18-03 sanitary standard

Temperature Range: -65°F (-54°C) to +210°F (+99°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
BUNA-40IH150	1 1/2	0.006	25
BUNA-40IH200	2	0.007	25
BUNA-40IH300	3	0.012	25
BUNA-40IH400	4	0.016	25



Sanitary EPDM I-Line Gasket Black

Color Code: ● ● ● (3 Green Dots)

Certification: 3A 18-03 sanitary standard

Temperature Range: -60°F (-51°C) to +300°F (+149°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
EPDM-40IE150	1 1/2	0.006	25
EPDM-40IE200	2	0.008	25
EPDM-40IE300	3	0.014	25
EPDM-40IE400	4	0.018	25



Sanitary PTFE I-Line Gasket White

Color Code: None

Certification: USP class VI standard

Temperature Range: -40°F (-40°C) to +450°F (+232°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
PTFE-40IT150	1 1/2	0.006	25
PTFE-40IT200	2	0.008	25
PTFE-40IT300	3	0.014	25
PTFE-40IT400	4	0.018	25



Sanitary FKM I-Line Gasket Black

Color Code: ○ ● (1 White/1 Yellow Dot)

Certification: 3A 18-03 sanitary standard

Temperature Range: -20°F (-29°C) to +350°F (+177°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
FKM-40IV150	1 1/2	0.006	25
FKM-40IV200	2	0.008	25
FKM-40IV300	3	0.014	25
FKM-40IV400	4	0.018	25



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.



Sanitary Buna-N Bevel Seat Gasket Black

Color Code: ● (1 Red Dot)

Certification: 3A 18-03 sanitary standard

Temperature Range: -65°F (-54°C) to +210°F (+99°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
BUNA-40BS0100	1	0.008	25
BUNA-40BS0150	1 1/2	0.014	25
BUNA-40BS0200	2	0.018	25
BUNA-40BS0300	3	0.034	25
BUNA-40BS0400	4	0.038	25



Sanitary EPDM Bevel Seat Gasket Black

Color Code: ● ● ● (3 Green Dots)

Certification: 3A 18-03 sanitary standard

Temperature Range: -60°F (-51°C) to +300°F (+149°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
EPDM-40BSE100	1	0.008	25
EPDM-40BSE150	1 1/2	0.014	25
EPDM-40BSE200	2	0.018	25
EPDM-40BSE300	3	0.034	25
EPDM-40BSE400	4	0.038	25



Sanitary PTFE Bevel Seat Gasket White

Color Code: None

Certification: USP Class VI standard

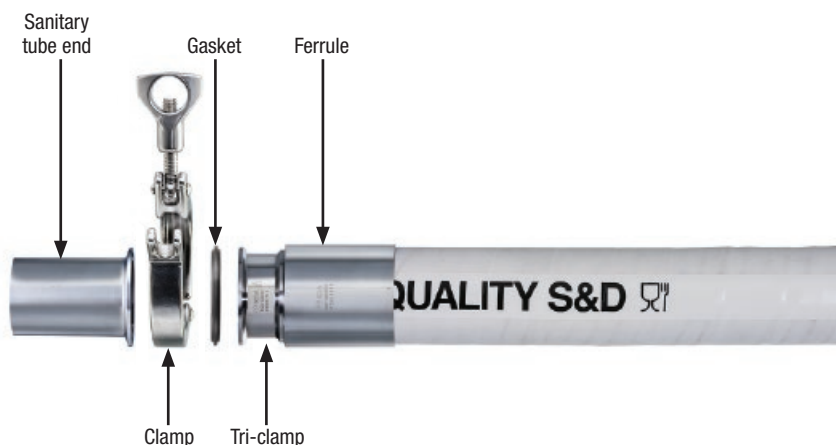
Temperature Range: -40°F (-40°C) to +450°F (+232°C)

Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
PTFE-40BSS100	1	0.012	25
PTFE-40BSS150	1 1/2	0.016	25
PTFE-40BSS200	2	0.024	25
PTFE-40BSS300	3	0.036	25
PTFE-40BSS400	4	0.038	25



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

SANITARY FITTING TYPES (CLAMPED)

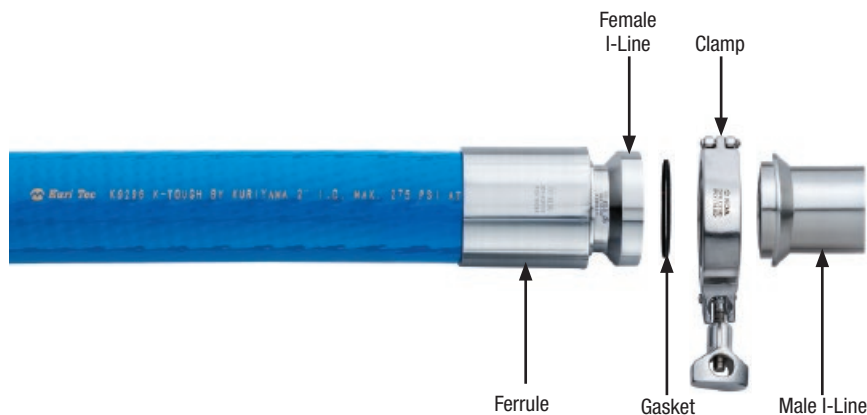


Tri-Clamp

Tri-Clamp fittings are the industry standard. The connection consists of two identical, flat-faced flanges, connected by use of a clamp. A gasket is placed into the grooves on the faces to prevent leakage.

KOA Sanitary Fittings offers both crimpable Tri-Clamps for clean in place (CIP), and also clampable, rubber hose and brewery hose Tri-Clamp fittings, for clean out of place (COP) operations.

Note: Most tri-clamp fitting sizes match the size of their corresponding clamp. However, to increase clamp interchangeability (thereby reducing the variety of clamps which must be stocked) the 1-1/2" clamp is used with the 1" tri-clamp fitting. Please refer to the tri-clamp sizing chart on page 23 to determine the correct clamp required based on fitting size.

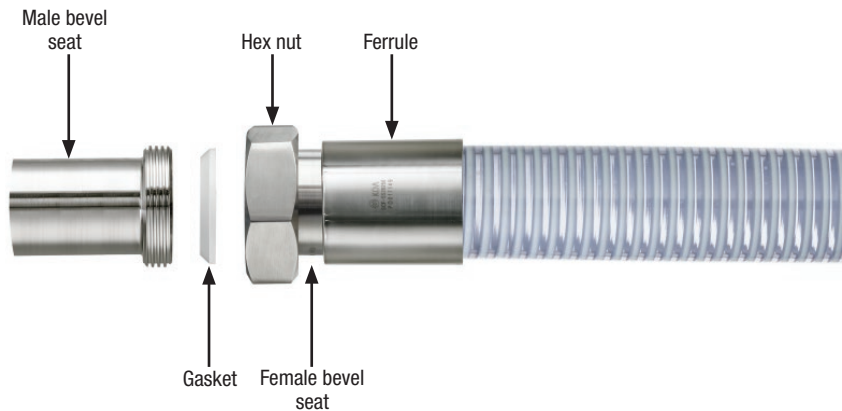


I-Line

I-Line fittings are heavier duty for use in more demanding applications. The connection consists of male and female versions, nested together and secured with a gasket and clamp. They're able to withstand greater temperatures, vibrations and pressures than standard tri-clamp fittings. Also, the design helps eliminate over compression of the gasket. They're popular in the wine and tomato processing industries.

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

SANITARY FITTING TYPES (NON-CLAMPED)



Bevel Seat

Bevel Seat fittings, also referred to as Acme threads, are generally used in lower pressure applications such as milk transfer. The connection consists of a male and a female end, the faces of which are angled 45° to create a metal on metal sealing surface. The male bevel seat is threaded, and the two are joined together by use of a nut. The metal on metal seal is sometimes considered sufficient to prevent leakage at lower pressures, however, a gasket can be used for higher pressure applications. Special Bevel Seat Hex Wrenches are available to assist with nut tightening and untightening.



Tube End

Tube end fittings, also referred to as butt-weld fittings, are used for welding onto sanitary tube fittings. The connection consists of a schedule 40 tube end which is welded directly onto the sanitary tubing, giving the versatility to create any type of sanitary fitting hose end connection.

SANITARY CLAMP TYPES

SINGLE PIN

Single pin, or single hinge, clamps are available for both Tri-Clamp and I-Line fittings, and are the industry standard. They consist of two segments connected by a single pin and wing nut, allowing for easy hand tightening.

DOUBLE PIN

Double pin clamps are available for the Tri-Clamp fitting. They have an additional pin, which helps provide more evenly distributed sealing pressure.

DOUBLE BOLT

Double bolts are also available for the Tri-Clamp fittings. They're a heavier duty construction, connected by tightening two bolts. They're popular in more permanent applications and have higher pressure ratings than the single and double pin clamps.

SANITARY CLAMP TORQUE AND PRESSURE RATINGS

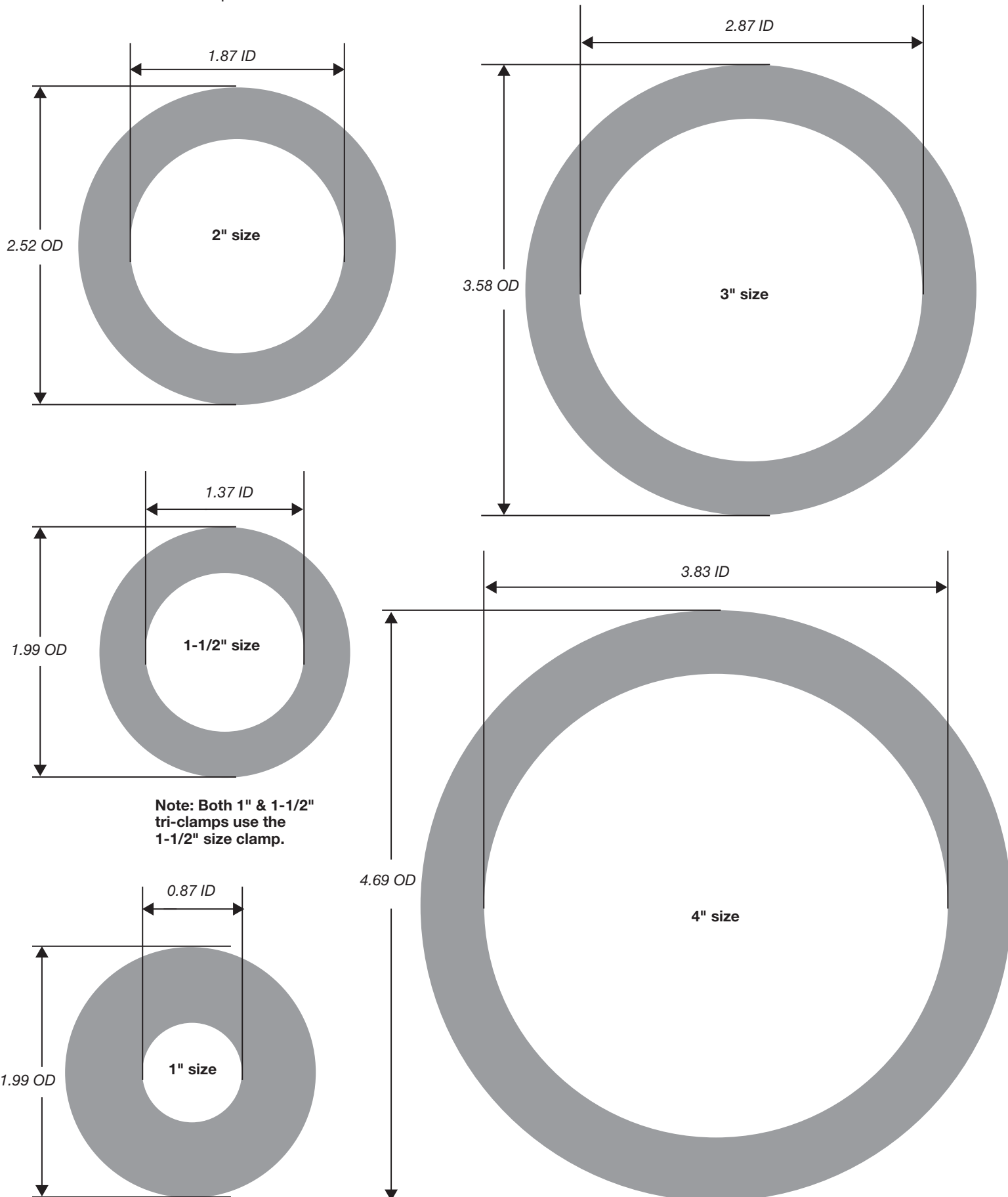
Part Number	Pressure Rating*		Torque Rating (In. lbs.)
	@ 70°F (21°C)	@ 250°F (121°C)	
SPHDS150	500	250	25
SPHDS200	450	250	25
SPHDS300	350	150	25
SPHDS400	200	125	25
DPHDS150	500	250	25
DPHDS200	450	250	25
DPHDS300	350	150	25
DPHDS400	200	125	25
DBS150	1500	1200	30
DBS200	1000	800	30
DBS300	1000	800	30
DBS400	800	800	30
SPILC150	500	250	25
SPILC200	450	250	25
SPILC300	350	150	25
SPILC400	200	125	25

***Note:** Pressure ratings shown represent those of the clamp alone and are generally higher than those of a full union, including a gasket, which will fail before the clamp.

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

SIZING GUIDE FOR TRI-CLAMP FITTINGS & GASKETS

Place the face of the tri-clamp over the following, actual-size drawings, to determine the size of the fitting or corresponding clamp needed. Note: the clamp and fitting sizes are determined by the ID of the hose, not the ID or OD of the tri-clamp.



SANITARY GASKET TYPES

Sanitary gaskets are available in a variety of materials, each possessing unique performance characteristics, and should be selected based on the specific demands of the application in which they will be used. Please refer to the following sanitary gasket elastomer characteristics to assist with proper gasket selection.

Buna (Nitrile) gaskets are the most popular and economic, and are common in food and beverage applications. They have good resistance to oils and animal fats, and good resistance to moderately aggressive chemicals.

EPDM gaskets are also very popular, economic gaskets, and are common in food and beverage, pharmaceutical and cosmetic/personal care applications. They exhibit higher chemical and heat resistance than Buna, but are acceptable for steam only intermittently and at lower pressures. They can experience swelling and deformation when exposed to certain oils and animal fats.

FKM (Viton®) gaskets exhibit good all-around characteristics, with good oil, alcohol and acid resistance, and a slightly higher heat and steam tolerance than EPDM.

PTFE (Teflon®) gaskets exhibit exceptional chemical resistance, and extremely high tolerances to heat and steam. However, they're a plastic as opposed to an elastomer, and therefore not as compressible as other gasket materials, which can lead to difficulty in sealing if misaligned. They can experience cold flow, especially if clamps are misaligned or overtightened, resulting in a reduction in sealing pressure.

Silicone gaskets exhibit the widest temperature range from -80°F to 350°F. They're often used in place of PTFE gaskets in fluid or steam applications when greater compressibility and leak resistance is required.

Elastomer Characteristics

Characteristic	Buna-N (Nitrile)	EPDM	FKM (Viton®)	PTFE (Teflon®)	Silicone
Identification Dot Code	1 red	3 green	1 white and 1 yellow	None	1 pink
Industry Designation	U	E	SFY	G	X
Temperature Range	-65°F (-54°C) to 210°F (99°C)	-60°F (-51°C) to 300°F (149°C)	-20°F (-29°C) to 350°F (177°C)	-40°F (-40°C) to 450°F (232°C)*	-80°F (-62°C) to 450°F (232°C)
Fats & Oils Resistance	Good to Excellent	Poor	Good to Excellent	Excellent	Fair
Acid Resistance	Good	Good to Excellent	Good to Excellent	Good to Excellent	Fair
Alkali Resistance	Good	Good to Excellent	Fair	Excellent	Poor to Fair
Abrasion Resistance	Excellent	Good	Good	Fair	Good
Compression Set Resistance	Good	Fair	Good to Excellent	Cold Flows*	Good to Excellent
FDA CFR 21 Compliant	Yes	Yes	Yes	Yes	Yes
Certification	3A	3A	3A	USP Class VI	3A

*PTFE can experience cold flow over time, especially when subjected to temperature fluctuations, resulting in reduction of sealing pressure.
Note: the performance of sanitary gaskets depends on many factors that are governed by the application. This chart cannot be construed as an approval of the gasket for any particular purpose, use, or application.

Note: Viton® and Teflon® are registered trademarks of DuPont Dow Elastomers.



Gasket Identification

The particular type of gasket material can be identified by the dot pattern printed on the side of each gasket.

Material	Identification Dot Code	Example
Buna-N (Nitrile)	1 red dot	●
EPDM	3 green dots	● ● ●
FKM (Viton®)	1 white and 1 yellow dot	○ ●
PTFE (Teflon®)	None	
Silicone	1 pink dot	●

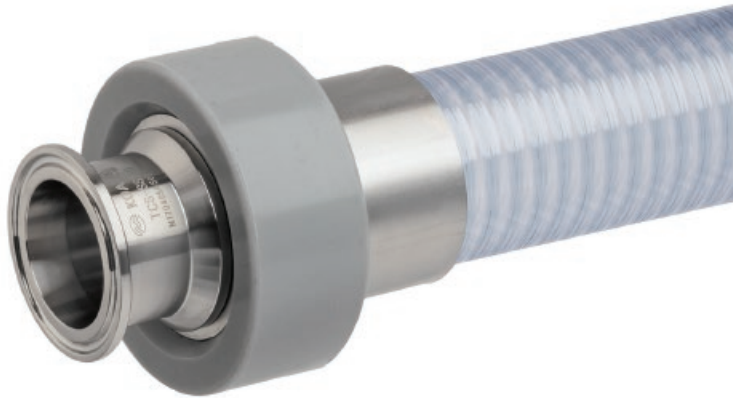


Mesh Gaskets

Gaskets with a mesh screen are available to help filter particulates from the material stream, protecting tanks and pumps from clogging or foreign particle contamination. They come in a variety of mesh sizes, generally ranging from 10 mesh to 100 mesh, with higher values correlating to a higher mesh density.

Mesh	Micron Equivalent	Wire Diameter (in.)	Opening Width (in.)	Openings Per in. ²
10	1887	0.0230	0.075	100
20	855	0.0160	0.034	400
40	377	0.0100	0.015	1600
60	226	0.0075	0.009	3600
80	176	0.0055	0.007	6400
100	151	0.0045	0.006	10000

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.



Hose Bumpers

Hose bumpers are installed near the hose ends to help protect the fittings from damage if the hose is accidentally dropped, and to keep the hose ends clean by elevating them off the floor. Each bumper is made from chemical and heat resistant, shock absorbing silicone. The bumpers slide easily and securely over the end of the ferrule after crimping.



Hose Risers

Hose risers elevate the hose off the floor, helping it slide easily when being moved from place to place, keeping it clean and protecting the outside from damage. They also allow for better floor drainage by preventing damming and pooling of liquids near the hose during wash down. The risers are made from durable, chemical resistant polyethylene, and are easily attached throughout the hose with two stainless steel screws.

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

CRIMP PROCEDURE

Needed Measurements

- Measured Hose ID
- Measured Hose OD
- Fitting Shank OD
- Ferrule Wall Thickness
- Compression Percentage

Suggested Compression Percentages

- Industrial Rubber Hose -22%
- Industrial PVC/Urethane Hose -15%

KOA Sanitary Fittings are designed for use with either sanitary or non-sanitary KOA crimp ferrules, and use the same crimp calculation as our standard KOA Couplings.

Crimp Diameter Formula

Crimp Diameter Formula = Hose OD - Hose ID + Shank OD + (2 x Ferrule/Sleeve Wall Thickness) + [(- Compression Percentage) x (Hose OD - Hose ID) /100]

Crimping Calculator

An easy-to-use, electronic version of this crimp calculator is available online in the products section of the Kuriyama website located at:

www.kuriyama.com/products/crimp-diameter-calculator.php

Note: Crimp diameter calculation instructions and compression percentages are only to be used as a guide. Hydrostatic pressure testing of all assemblies is highly recommended to assure maximum performance.



KuriKrimp™ Crimping Equipment

Check out our full line of KuriKrimp™ crimping equipment at www.kuriyama.com



KD4-60



KD4-650

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.



Cautionary Statement

All Products sold and distributed by Kuriyama of America, Inc. are in the nature of commodities and they are sold by published specifications and not for particular purposes, uses or applications. Purchaser shall first determine their suitability for the intended purposes, uses or applications and shall either conduct its own engineering studies or tests, or retain qualified engineers, consultants or testing laboratories and consult with them before determining the proper use, suitability or propriety of the merchandise or Products for the intended purposes, uses or applications.

Kuriyama of America, Inc. ("Seller") does not recommend the Products for any particular purpose, use or application, and the Purchaser or user thereof shall assume full responsibility for the suitability, propriety, use and application of the Products. Purchaser shall follow all instructions contained in Seller's catalogs, brochures, technical bulletins and other documents regarding the Products. The Products, including but not limited to, hose, tubing or couplings, may fail due to the use or conveyance of substances at elevated or lowered temperatures or at excessive pressure, the conveyance of abrasive, injurious, flammable, explosive or damaging substances.

Hose or tubing used in bent configurations will be subjected to increased abrasion. Hose clamps or couplings may loosen after initial installation and all sections of hose and tubing including connections, couplings, clamps, conductivity and bonding should be inspected frequently, regularly and consistently, and should be replaced, adjusted or re-tightened for the avoidance of leakage, for the prevention of injuries or damages, and for general safety purposes. Except as indicated in its Limited Warranty, Seller shall not be liable or responsible for direct or indirect injuries or damages caused by or attributed to the failure or malfunction of any Products sold or distributed by it.

Purchasers or users of the Products should frequently and consistently undertake inspections and protective measures with respect to the use and application of Products, which should include the examination of tube and cover, conditions of the hose or tubing, and the identification, repair or replacement of sections showing cracking, blistering, separations, internal and external abrasions, leaking or slipped couplings or connections and make proper proof tests.

Limited Warranty

The Products sold or distributed by Seller are warranted to its customers to be free from defects in material and workmanship at the time of shipment by us, subject to the following provisions. ALL WARRANTY CLAIMS SHALL BE MADE WITHIN SIX (6) MONTHS AFTER SELLER SHIPPED THE PRODUCTS. SELLER'S LIABILITY HEREUNDER IS LIMITED AT SELLER'S EXCLUSIVE DISCRETION, TO 1) THE PURCHASE PRICE OF ANY PRODUCTS PROVING DEFECTIVE; 2) REPAIR OF ANY DEFECTIVE PRODUCT OR PART THEREOF; OR 3) REPLACEMENT OF ANY DEFECTIVE PRODUCT OR PART UPON ITS AUTHORIZED RETURN TO SELLER.

THIS WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESSED, IMPLIED, STATUTORY, OR OTHERWISE CREATED UNDER APPLICABLE LAW INCLUDING, BUT NOT LIMITED TO, THE WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL SELLER OR THE MANUFACTURER OF THE PRODUCT BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING LOSS OF PROFITS, WHETHER OR NOT CAUSED BY OR RESULTING FROM THE NEGLIGENCE OF SELLER AND/OR THE MANUFACTURER OF THE PRODUCT, UNLESS SPECIFICALLY PROVIDED HEREIN. IN ADDITION, THIS WARRANTY SHALL NOT APPLY TO ANY PRODUCTS OR PORTIONS THEREOF WHICH HAVE BEEN SUBJECTED TO ABUSE, MISUSE, IMPROPER INSTALLATION, MAINTENANCE, OR OPERATION, ELECTRICAL FAILURE OR ABNORMAL CONDITIONS, AND TO PRODUCTS WHICH HAVE BEEN TAMPERED WITH, ALTERED, MODIFIED, REPAIRED, REWORKED BY ANYONE NOT APPROVED BY SELLER, OR USED IN ANY MANNER INCONSISTENT WITH THE PROVISIONS OF THE "CAUTIONARY STATEMENT" ABOVE OR ANY INSTRUCTIONS OR SPECIFICATIONS PROVIDED WITH OR FOR THE PRODUCT.

09/2005

Distributed by:



PH: (989)248-3249 FX:(888)306-4553 EM:sales@alllinecomponents.com



Kuriyama of America, Inc.



www.kuriyama.com
on the Web!

CONTACT OUR SALES/WAREHOUSE LOCATIONS BELOW WHICH SERVE YOUR AREA

SOUTHWEST WAREHOUSE
KURIYAMA OF AMERICA, INC.
HOUSTON
200 PORTWALL STREET, SUITE 100
HOUSTON, TX 77029
Phone: (713) 674-8212
Toll Free Phone: (800) 501-6808
FAX: (713) 674-5214
Toll Free FAX: (800) 800-5214

WESTERN WAREHOUSE
KURIYAMA OF AMERICA, INC.
SANTA FE SPRINGS
10749 SHOEMAKER AVENUE
SANTA FE SPRINGS, CA 90670-4039
Phone: (562) 941-4507
FAX: (562) 941-8940
Toll-Free FAX: (800) 326-8940

SOUTHEAST WAREHOUSE
FORTNEY SALES CO., INC.
4221 CANTRELL ROAD NW
ACWORTH, GA 30101
Phone: (770) 427-6528
FAX: (770) 423-9249
Toll Free FAX: (800) 423-9249
Web Site: www.fortneysales.com
E-Mail: sales@fortneysales.com

EASTERN WAREHOUSE
EASTERN RUBBER & PLASTICS CO., INC.
100 GOLDMAN DR.
PLUMSTED INDUSTRIAL PARK
CREAM RIDGE, NJ 08514
Phone: (609) 758-0100
FAX: (609) 758-0102
Toll Free FAX: (800) 445-7138
Web Site: www.easternrubber.com
E-Mail: sales@easternrubber.com

IN CANADA:
KURI TEC CORPORATION
140 ROY BOULEVARD
BRANTFORD, ONT, CANADA N3R 7K2
Phone: (519) 753-6717
FAX: (519) 753-7737
Web Site: <http://www.kuritec.com>
E-Mail: sales@kuritec.com

IN MEXICO:
KURIYAMA DE MÉXICO S DE RL DE CV
AV JOSE PALOMO MARTINEZ NO 520-20
BODEGA 5
PARQUE INDUSTRIAL OMOLAP
APODACA, N.L. CP:66633, MÉXICO
Telefonos: (81) 1086-1870 O 71
Lada sin Costo 01 800 822 52 00
FAX: (81) 1086-1869
Internet: www.kuriyama.com
Correo Electronico: ventas@kuriyama.com



kuriyama.com/50years

