

OPW[®] Fluid Transfer Group
Europe B.V. A **DOVER[™]** COMPANY

KAMLOK[®] **AUTOLOK[™]**

QUICK COUPLER SYSTEMS



KAMLOK® Twin-Kam™ Quick Couplings

OPW Kamlok® quick-disconnect couplings are the industry standard in cam and groove couplers for safety and ease of use.

All OPW Kamlok® couplers feature the exclusive Twin-Kam™ arm design to help prevent unintentional arm release as well as Spring-Ring™ to ensure proper positioning of finger-rings for ease of operation.

Arm Locked



One Arm Fully Released



Both Arms Released



Features and Benefits

- **The Only Original**
- **Long-life reliability** specifically designed and manufactured with the highest alloys and gasket materials to endure the harshest environments
- **Twin-Kam™** arms, prevent unintentional arm release beyond 45°
- **Added protection**, Twin-Kam™ arm special detent secure arms in position to prevent accidental uncoupling
- **GFL™** Guaranteed For Life cam arms
- **Cam and Groove design** provides reliable smooth operation in 360° orientation
- **Ease of use** Cam and Groove design offers smooth coupling and uncoupling
- **Resistant** to vibrations
- **Spring-Ring™ finger-rings**, rings will not get trapped under the arms so opening and closing is quick and easy
- **Heavy-duty** construction
- **Available** in Aluminium; Bronze; Polypropylene and 316 Stainless Steel
- **Arm pins** standard in corrosion resistant stainless steel
- **Best value**, built to the highest quality standards with unique ease of use and safety features makes OPW Kamlok® the best overall value in the market

Specifications

ARM LOCKED

With one arm locked down firmly and the other arm in the unique 45° detent position, adaptor remains secure in coupler.

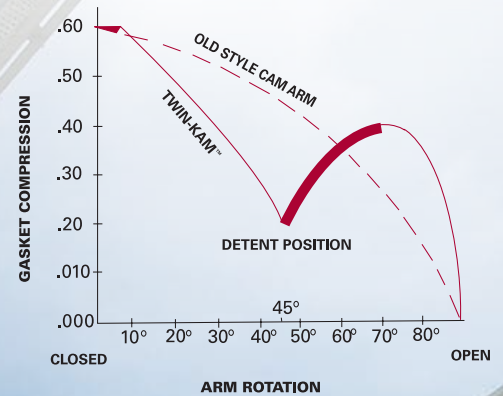
ONE ARM FULLY RELEASED

with one arm fully released and the other arm in the detent position, slight leakage may occur at full pressure.

BOTH ARMS RELEASED

with both arms in the detent position the adaptor remains secure in coupler.

The line pressure increases resistance to open arms beyond this point, in fact it pushes the cam arms to close again.



KAMLOK® standard configuration

**633ABS Adaptor (BSPP)
633A (NPT)**



**633DBS Coupler (BSPP)
633D (NPT)**



**633ABSF Adaptor (BSPP)
with Thread Gasket (DIN2828)**



**633DBSF Coupler (BSPP)
with Thread Gasket (DIN2828)**



**633FB Adaptor (BSPT)
633F (NPT)**



**633BB Coupler (BSPT)
633B (NPT)**



- finger rings are standard on sizes from 25mm / 1 inch and up
- DIN SS Kamlok® equipped with finger rings on all sizes

AL = aluminium **BR** = bronze **SS** = 316 Stainless Steel
PP = polypropylene

mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	•	•	•	•	•	•	•	•	•	•	•	•
BR	•	•	•	•	•	•	•	•	•	•	•	•
SS	•	•	•	•	•	•	•	•	•	-	-	-
PP	-	•	•	-	•	•	-	•	-	-	-	-

mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	•	•	•	•	•	•	•	•	•	•	•	•
BR	•	•	•	•	•	•	•	•	•	•	•	•
SS	•	•	•	•	•	•	•	•	•	-	-	-
PP	-	•	•	-	-	•	-	•	-	-	-	-

mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	-	-	-	-	-	-	-	-	-	-	-	-
BR	-	-	-	-	-	-	-	-	-	-	-	-
SS	-	•	•	•	•	•	-	•	-	-	-	-
PP	-	-	-	-	-	-	-	-	-	-	-	-

mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	-	-	-	-	-	-	-	-	-	-	-	-
BR	-	-	-	-	-	-	-	-	-	-	-	-
SS	-	•	•	•	•	•	-	•	-	-	-	-
PP	-	-	-	-	-	-	-	-	-	-	-	-

mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	•	•	•	•	•	•	•	•	•	•	•	-
BR	•	•	•	•	•	•	•	•	•	•	•	-
SS	•	•	•	•	•	•	•	•	•	-	-	-
PP	-	•	•	-	•	•	-	•	-	-	-	-

mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	•	•	•	•	•	•	•	•	•	•	•	-
BR	•	•	•	•	•	•	•	•	•	•	•	-
SS	•	•	•	•	•	•	•	•	•	-	-	-
PP	-	•	•	-	•	•	-	•	-	-	-	-

633E Adaptor



mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	-	•	•	•	•	•	•	•	•	•	•	-
BR	-	•	•	•	•	•	•	•	•	•	•	-
SS	-	•	•	•	•	•	•	•	•	-	-	-
PP	-	•	•	-	•	•	-	•	-	-	-	-

633C Coupler



mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	-	•	•	•	•	•	•	•	•	•	•	-
BR	-	•	•	•	•	•	•	•	•	•	•	-
SS	-	•	•	•	•	•	•	•	•	-	-	-
PP	-	•	•	-	•	•	-	•	-	-	-	-

633EC Adaptor

with hose shank to VG-85328-3
for use with reusable hoseclamps
to DIN2817



mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	-	-	-	-	-	-	-	-	-	-	-	-
BR	-	-	-	-	-	-	-	-	-	-	-	-
SS	-	-	•	-	•	•	-	•	-	-	-	-
PP	-	-	-	-	-	-	-	-	-	-	-	-

633CC Coupler

with hose shank to VG-85328-3
for use with reusable hoseclamps
to DIN2817



mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	-	-	-	-	-	-	-	-	-	-	-	-
BR	-	-	-	-	-	-	-	-	-	-	-	-
SS	-	-	•	-	•	•	-	•	-	-	-	-
PP	-	-	-	-	-	-	-	-	-	-	-	-

634A Plug



mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	•	•	•	•	•	•	•	•	•	•	•	•
BR	•	•	•	•	•	•	•	•	•	•	•	•
SS	•	•	•	•	•	•	•	•	•	-	-	-
PP	-	-	•	-	•	•	-	•	-	-	-	-

634B Cap



mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	•	•	•	•	•	•	•	•	•	•	•	•
BR	•	•	•	•	•	•	•	•	•	•	•	•
SS	•	•	•	•	•	•	•	•	•	-	-	-
PP	-	-	•	-	•	•	-	•	-	-	-	-

634BK Cap

with messing cam arms
lockable



mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	-	-	-	-	•	•	•	•	•	-	-	-
BR	-	-	-	-	•	•	•	•	•	-	-	-
SS	-	-	-	-	•	•	•	•	•	-	-	-
PP	-	-	-	-	•	•	-	•	-	-	-	-

• finger rings are standard on sizes from 25mm / 1 inch and up

AL = aluminium BR = bronze SS = 316 Stainless Steel
PP = polypropylene

mm	inch	A	B	Ø C	D	Ø E	F
15	0.50	116	54	41	1.6	21.3	7
20	0.75	116	54	41	1.6	26.9	7
25	1	125	61	47	2.0	33.7	7
32	1.25	181	83	58	2.0	42.4	7
40	1.50	189	91	65	2.0	48.3	7
50	2	199	101	75	2.0	60.3	8
65	2.50	210	112	90	2.3	76.1	10
80	3	254	138	108	2.3	88.9	10
100	4	282	166	140	2.6	114.3	12
125	5	-	-	-	-	-	-
150	6	-	-	-	-	-	-
200	8	-	-	-	-	-	-

Stainless Steel Only ◀ Dimensions in mm ▶

mm	inch	D1	S	D2	L	A
15	0.50	21.3	1.6	32.1	57	7
20	0.75	26.9	1.6	32.1	57	7
25	1	33.7	2.0	36.7	71	7
32	1.25	42.4	2.0	45.5	75	7
40	1.50	48.3	2.0	53.4	78	7
50	2	60.3	2.0	63.0	90	8
65	2.50	76.1	2.3	75.8	101	10
80	3	88.9	2.3	91.5	103	10
100	4	114.3	2.6	119.5	117	12
125	5	-	-	-	-	-
150	6	-	-	-	-	-
200	8	-	-	-	-	-

Stainless Steel Only ◀ Dimensions in mm ▶

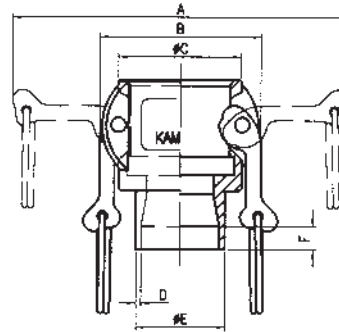
mm	inch	A	B	Ø C	D	Ø E
15	0.50	116	54	41	2.3	21.3
20	0.75	116	54	41	2.3	26.9
25	1	125	61	47	2.6	33.7
32	1.25	181	83	58	2.6	42.4
40	1.50	189	91	65	2.6	48.3
50	2	199	101	75	2.9	60.3
65	2.50	210	112	90	2.9	76.1
80	3	254	138	108	3.2	88.9
100	4	282	166	140	3.6	114.3
125	5	-	-	-	-	-
150	6	-	-	-	-	-
200	8	-	-	-	-	-

Stainless Steel Only ◀ Dimensions in mm ▶

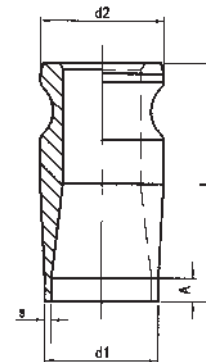
mm	inch	Ø H	L1	L2	A	B
15	0.50	32.1	59	30	2.3	21.3
20	0.75	32.1	59	30	2.3	26.9
25	1	36.7	72	35	2.6	33.7
32	1.25	45.5	80	40	2.6	42.4
40	1.50	53.4	79	42	2.6	48.3
50	2	63	94	48	2.9	60.3
65	2.50	75.8	102	50	2.9	76.1
80	3	91.5	103	52	3.2	88.9
100	4	119.5	119	53	3.6	114.3
125	5	-	-	-	-	-
150	6	-	-	-	-	-
200	8	-	-	-	-	-

Stainless Steel Only ◀ Dimensions in mm ▶

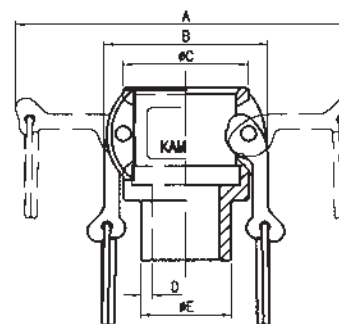
**SS BUTT-WELD KAMLOK® COUPLER
TYPE 633BWH-SS**



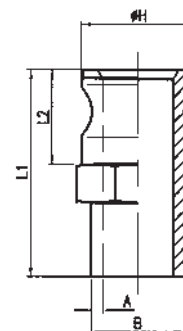
**SS BUTT-WELD KAMLOK® ADAPTOR
TYPE 633FWH-SS**



**SS BUTT-WELD DIN2828 KAMLOK® COUPLER
TYPE 633BWD-SS**



**SS BUTT-WELD DIN2828 KAMLOK® ADAPTOR
TYPE 633FWD-SS**



mm	inch	Ø k	Ø D	h	n	Ø d
15	0.50	65	95	14	4	14
20	0.75	75	105	16	4	14
25	1	85	115	16	4	14
32	1.25	100	140	16	4	18
40	1.50	110	150	16	4	18
50	2	125	165	18	4	18
65	2.50	145	185	18	4	18
80	3	160	200	20	8	18
100	4	180	220	20	8	19
125	-	-	-	-	-	-
150	-	-	-	-	-	-
200	-	-	-	-	-	-

Stainless Steel Only ◀ Dimensions in mm ▶

mm	inch	Ø k	Ø D	h	n	Ø d
15	0.50	65	95	14	4	14
20	0.75	75	105	16	4	14
25	1	85	115	16	4	14
32	1.25	100	140	16	4	18
40	1.50	110	150	16	4	18
50	2	125	165	18	4	18
65	2.50	145	185	18	4	18
80	3	160	200	20	8	18
100	4	180	220	20	8	19
125	-	-	-	-	-	-
150	-	-	-	-	-	-
200	-	-	-	-	-	-

Stainless Steel Only ◀ Dimensions in mm ▶

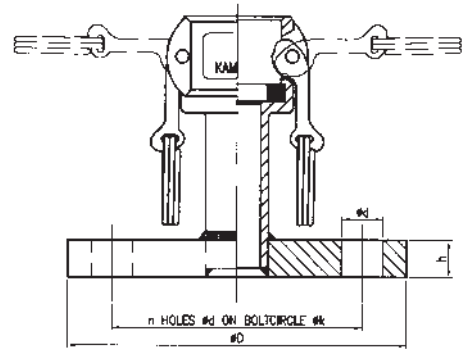
mm	inch	Ø k	Ø D	h	n	Ø d
15	0.50	60.5	88.9	11.2	4	15.7
20	0.75	69.9	98.6	12.7	4	15.7
25	1	79.2	108.0	14.2	4	15.7
32	1.25	88.9	117.3	15.7	4	15.7
40	1.50	98.6	127.0	17.5	4	15.7
50	2	102.7	152.4	19.1	4	19.1
65	2.50	-	-	-	-	-
80	3	152.4	190.5	20.6	4	19.1
100	4	190.5	228.6	23.9	8	19.1
125	-	-	-	-	-	-
150	-	-	-	-	-	-
200	-	-	-	-	-	-

Stainless Steel Only ◀ Dimensions in mm ▶

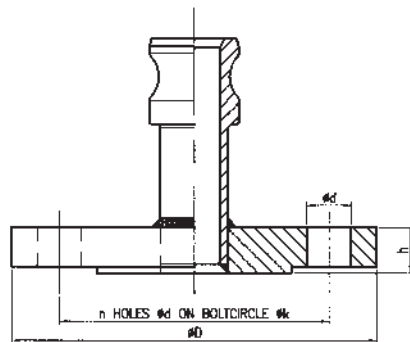
mm	inch	Ø k	Ø D	h	n	Ø d
15	0.50	60.5	88.9	11.2	4	15.7
20	0.75	69.9	98.6	12.7	4	15.7
25	1	79.2	108.0	14.2	4	15.7
32	1.25	88.9	117.3	15.7	4	15.7
40	1.50	98.6	127.0	17.5	4	15.7
50	2	102.7	152.4	19.1	4	19.1
65	2.50	-	-	-	-	-
80	3	152.4	190.5	20.6	4	19.1
100	4	190.5	228.6	23.9	8	19.1
125	-	-	-	-	-	-
150	-	-	-	-	-	-
200	-	-	-	-	-	-

Stainless Steel Only ◀ Dimensions in mm ▶

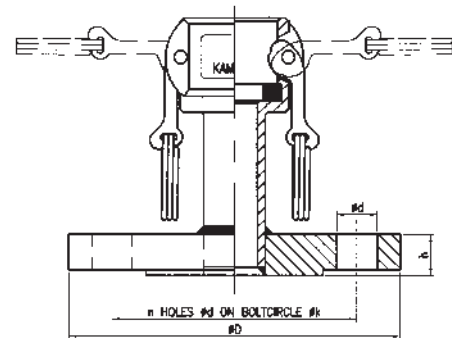
**DIN PN 10/16 FLANGED SS KAMLOK® COUPLER
TYPE 633LBS-SS DIN (PN 25 on request)**



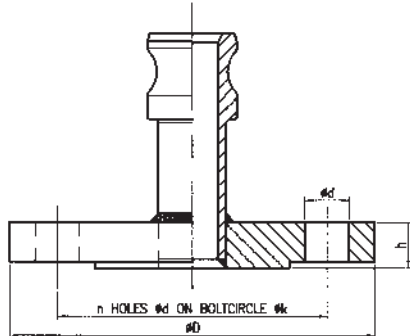
**DIN PN 10/16 FLANGED SS KAMLOK® ADAPTOR
TYPE 633LAS-SS DIN (PN 25 on request)**



**150 lbs ANSI FLANGED SS KAMLOK® COUPLER
TYPE 633LBS-SS ANSI**



**150 lbs ANSI FLANGED SS KAMLOK® ADAPTOR
TYPE 633LAS-SS ANSI**



AUTOLOK™ self locking Quick Couplings

Autolok™ by OPW represents the most significant development in quick-disconnect cam and groove coupling design. It utilizes a patented locking arm design that ensures the arms are locked automatically when closed. Opening is a simple matter of tugging the finger rings™, eliminating the use of clips, pins or buttons.

If operator safety and fluid integrity are important to your business: specify authentic OPW AUTOLOK™ quick couplings, recognized as the industry's safest and sturdiest cam and groove coupling system.



Only the original Autolok™ quick couplers come with the patented smooth-action arms to ensure hassle free operation. Always specify authentic OPW Autolok™ to ensure safety, cleanliness and reliability.

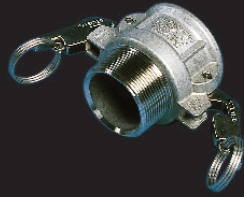
Features and Benefits

- **The Only Original**
- **Not affected** by process vibrations
- **Twin-Kam™** arms, prevent unintentional arm release beyond 45°
- **Added protection**, exclusive Twin-Kam arm design with special detent provide extra protection against accidental release or uncoupling.
- **GFL™** Guaranteed For Life cam arms
- **316 Stainless Steel**, EN10204-3.1 material certification available
- **Cam and Groove design** provides reliable smooth operation in 360° orientation
- **Ease of use** Arms lock automatically. No clips to insert or remove, no spring-loaded button to push.
- **Spring-Ring™ finger-rings**, rings will not get trapped under the arms so opening and closing is quick and easy
- **Heavy-duty** construction
- **Best value**, built to the highest quality standards with unique ease of use and safety features makes OPW Autolok the best overall value in the market



AUTOLOK™ standard configuration

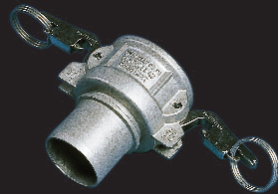
733BBL Coupler (BSPT)
with male thread



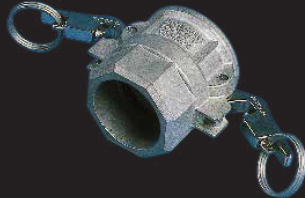
733CL Coupler
with hose shank



733CCL Coupler
with hose shank for use with
reusable hoseclamps to DIN2817



733DBSL Coupler (BSPP)
with female thread



733DBSFL Coupler (BSPP)
with Thread Gasket (DIN2828)



733DCL dustcap



• finger rings are standard on all sizes

AL = aluminium **BR** = bronze **SS** = 316 Stainless Steel
PP = polypropylene

mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	•	•	•	•	•	•	•	•	•	•	•	•
BR	•	•	•	•	•	•	•	•	•	•	•	•
SS	•	•	•	•	•	•	•	•	•	-	-	-
PP	-	•	•	-	•	•	-	•	-	-	-	-

mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	-	-	-	-	-	-	-	-	-	-	-	-
BR	-	-	-	-	-	-	-	-	-	-	-	-
SS	-	•	•	•	•	•	•	•	•	-	-	-
PP	-	-	-	-	-	-	-	-	-	-	-	-

mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	-	-	-	-	-	-	-	-	-	-	-	-
BR	-	-	-	-	-	-	-	-	-	-	-	-
SS	-	•	•	•	•	•	•	•	•	-	-	-
PP	-	-	-	-	-	-	-	-	-	-	-	-

mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	-	-	-	-	-	-	-	-	-	-	-	-
BR	-	-	-	-	-	-	-	-	-	-	-	-
SS	•	•	•	•	•	•	•	•	•	-	-	-
PP	-	-	-	-	-	-	-	-	-	-	-	-

mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	-	-	-	-	-	-	-	-	-	-	-	-
BR	-	-	-	-	-	-	-	-	-	-	-	-
SS	•	•	•	•	•	•	•	•	-	-	-	-
PP	-	-	-	-	-	-	-	-	-	-	-	-

mm	15	20	25	32	40	50	65	80	100	125	150	200
inch	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
AL	-	-	-	-	-	-	-	-	-	-	-	-
BR	-	-	-	-	-	-	-	-	-	-	-	-
SS	-*	•	•	•	•	•	•	•	•	-	-	-
PP	-	-	-	-	-	-	-	-	-	-	-	-

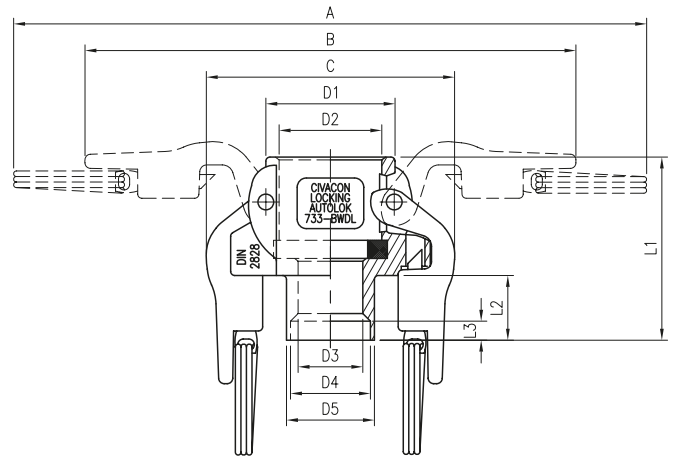
* 3/4 is suitable for 1/2

AUTOLOK™

SS BUTT-WELD 733BWDL-SS

dim.	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	4"
A	210	220	235	245	255	265	295	320
B	168	178	197	205	214	226	252	280
C	85	91	105	113	122	134	154	182
D1	42	46	58	66	79	89	110	141
D2	33	37	46	54	64	77	92	120
D3	19	24	32	38	48	60	76	100
D4	22.3	28.5	37.2	43.1	54.5	70.3	82.5	107.1
D5	26.9	33.7	42.4	48.3	60.3	76.1	88.9	114.3
L1	56	62	71	72	78	79	90	98
L2	20	20	22	22	26	22	33	39
L3	6	6.5	6.5	6.5	7.5	7.5	8	9

Dimensions in mm.

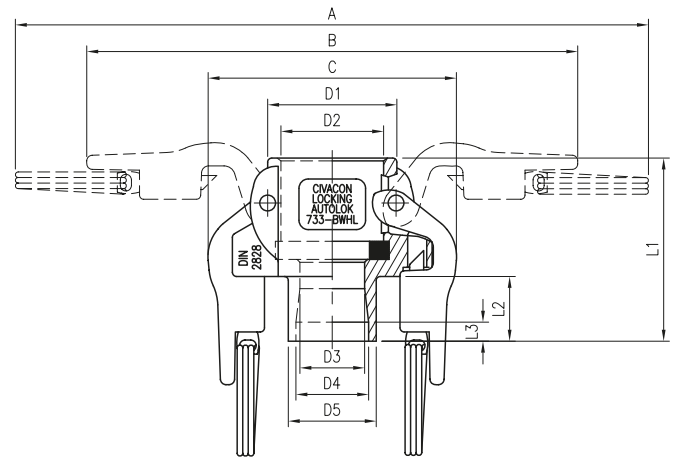


AUTOLOK™

SS BUTT-WELD 733BWHL-SS

dim.	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	4"
A	210	210	220	235	245	255	265	295	320
B	168	168	178	197	205	214	226	252	280
C	85	85	91	105	113	122	134	154	182
D1	42	42	46	58	66	79	89	110	141
D2	33	33	37	46	54	64	77	92	120
D3	14	19	24	32	38	48	60	76	100
D4	18.1	23.7	29.7	38.4	44.3	56.3	71.5	84.3	109.1
D5	21.3	26.9	33.7	42.4	48.3	60.3	76.1	88.9	114.3
L1	48	48	62	71	72	78	79	90	98
L2	12	12	21	22	22	26	22	33	39
L3	5	5	5	5	5	5	5	5	5

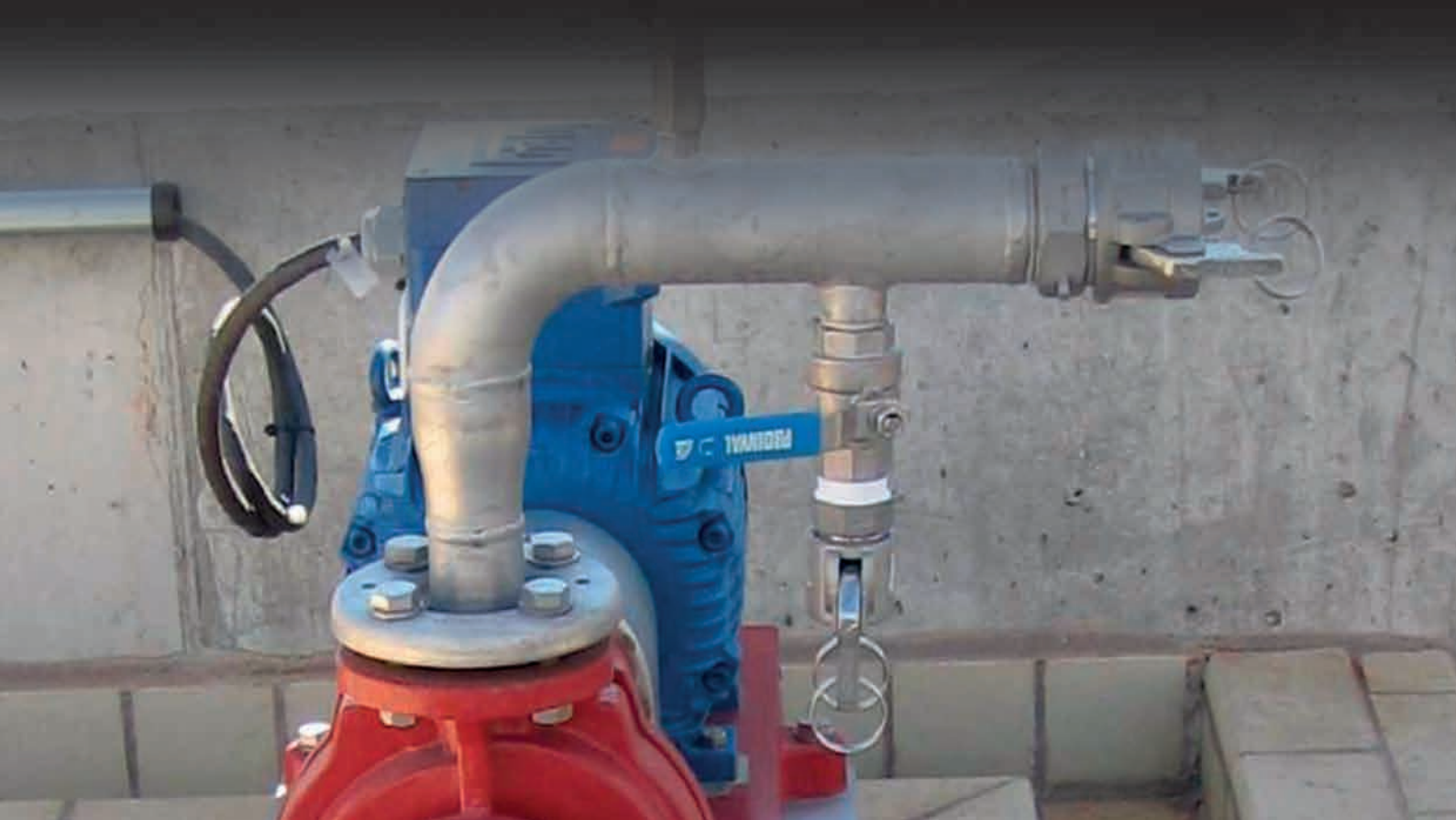
Dimensions in mm.



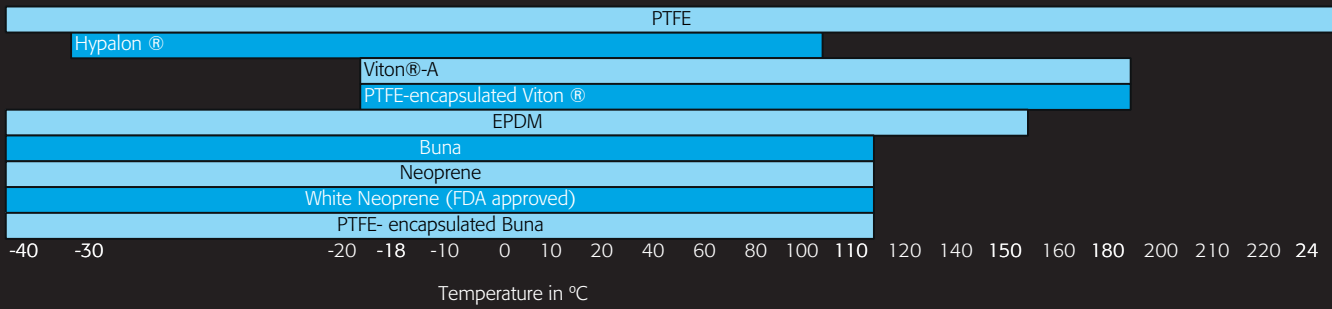
Material Specifications

Material	KAMLOK®						
	Body	316SS	Aluminium	Bronze	Polypropylene		
	Arms/pins	316SS	316SS	316SS	316SS		
	Finger Rings	316SS	316SS	316SS	316SS		
Material	AUTOLOK™						
	Body	316SS					
	Arms/pins	316SS					
	Finger Rings	316SS					
Sizes	DN15 - DN200						
Connections	BSPT	Hose shank					
	BSP	DIN or ANSI flanged					
	NPT	Welding ends					
		Unmachined					
KAMLOK®	Material	Aluminium	Polypropylene	Polypropylene	316 SS & Bronze		
	MAWP	15-100	20-50	80	15-100	125	150
	Pressure (Bar)	10	7	4	16	10	10
AUTOLOK™	Material						316SS
	MAWP						15-100
	Pressure (Bar)						16

Material Test Certificate to EN10204 3.1 for 316 Stainless Steel available upon request
 Kamlok & Autlok conform to DIN2828 and are interchangeable with EN14420



Seal temperature rating



Ordering guide

733 C L - SS 20 HY

733
633

AUTOLOK™
KAMLOK®

Body Style

- ABS BSPP female Adaptor
- ABSF BSPP Adaptor, flat gasket
- BWH (D) Butt Weld Coupler
- FWH(D) Butt Weld Adaptor
- BB BSPT female Coupler
- C Coupler with Hose shank
- CC Coupler with Hose shank
- DBS BSPP Coupler
- DBSF BSPP Coupler, flatgasket
- E Hose shank adaptor
- EC Hose shank adaptor
- FB BSPT male adaptor
- LAS Flange adaptor
- LBS Flange coupler

Locking Arm
(Autolok™ only)

Construction

- Materials**
- AL Aluminium
 - BR Bronze
 - SS 316 Stainless Steel
 - PP Polypropylene

Size

- 05 1/2"
- 07 3/4"
- 10 1"
- 12 1 1/4"
- 15 1 1/2"
- 20 2"
- 25 2 1/2"
- 30 3"
- 40 4"
- 50 5"
- 60 6"
- 80 8"

Seals

- BU Buna
- VI Viton®-A
- EP EPDM/EPT
- PT PTFE
- NE Neoprene
- HY Hypalon
- TB PTFE encapsulated buna
- TV PTFE encapsulated Viton®





OPW Fluid Transfer Group: One Company, Five Brands

From the European Head office near Amsterdam The Netherlands, these 5 OPW Fluid Transfer Group brands are supported. In addition Loading Arms, Tank Truck equipment and its related accessories are designed and manufactured here to serve the OPW FTG Europe BV territory.

www.opw-ftg.nl

Dedicated engineered and patented solutions for pipe, tube and hose connections used for extreme applications high/low temperature & pressure and nuclear. Examples: RapidLOK™ for flange replacement; save vents and drains; locking quick connect; product recovery systems; cryogenic couplings; autoclave check valves.

www.opw-es.com

Mechanical and electronic components and systems for the safe loading, transportation and offloading of hazardous fluids on road tankers. Examples: flat bottom API's; bottom valves; vapour recover valves; overfill prevention system; sealed parcel delivery system; onboard monitoring system; crossover prevention system.

Components for pneumatic tank trailers, rail cars, chemical and pharmaceutical plants, and any application requiring the processing, movement and storage of dry bulk or liquid materials. Example: butterfly valves; ball valves; sample systems; actuators; aeration systems; swing check valves.

www.civacon.com

Mechanical and electronic components and systems for the safe storage, transfer and loading of hazardous fluids at chemical plants, refineries and terminals. Examples: loading arms for fuels, chemicals, bitumen; rack monitoring system; quick disconnects (kamlok®, autolok™); dry disconnects (epsilon™, drylok™, kamvalok®); floating suction assemblies.

www.opw-es.com

Components and systems for the safe loading, transportation and offloading of hazardous fluids and dry bulk on pressure & non-pressure railroad tank cars and dry bulk road tankers.

Examples: pressure & vacuum relief valves; needle valves; top transfer valves; valve actuator systems; overfill prevention systems.

www.midlandmfg.com