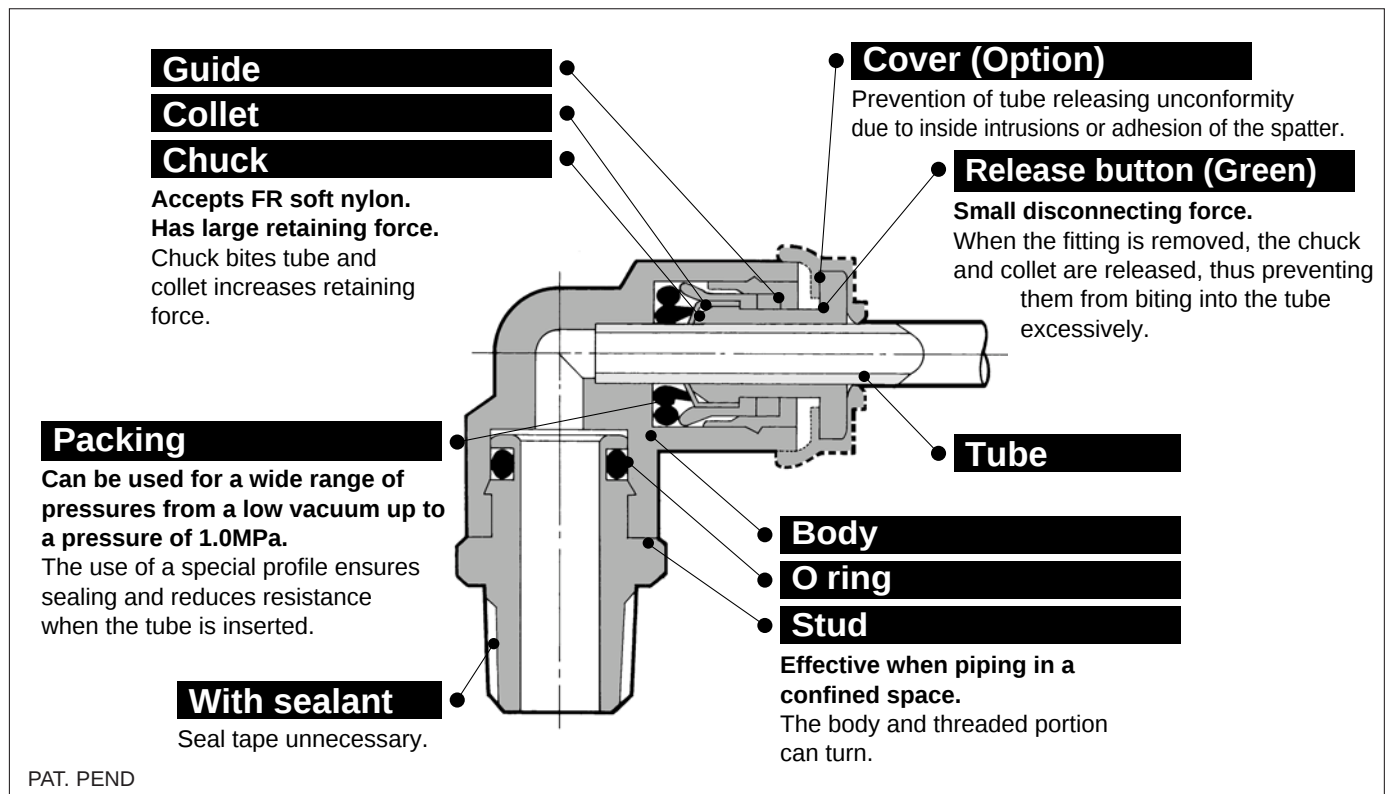


Flame Resistance (Equivalent to UL-94 Standard V-0)

FR One-touch Fittings

Series *KR*



Applicable Tubing

Tube material	FR soft nylon
Tube O.D.	ø6, ø8, ø10, ø12

Specifications

Fluid	Air, Water ⁽¹⁾	
Max. operating pressure	1.0MPa	
Proof pressure	3.0MPa	
Ambient and fluid temperature	-5 to 60°C (Water: 0 to 40°C) (No freezing)	
Thread	Thread portion	JIS B 0203 (Taper pipe thread)
	Nut	JIS B 0211 Class 2 (Metric fine thread)
Sealant (Thread portion)	With sealant (Standard)	



Note1) Applicable for general industry water. Consult SMC if using for other kind of fluid.
Surge pressure must be under the max. operating pressure.

Component Materials

Body	C3604BD, Flame resistance PBT (UL-94 Standard V-0)
Stud (Thread)	C3604BD
Chuck	Stainless steel (SUS304)
Guide	SUS304, C3604BD, Flame resistance PBT (UL-94 Standard V-0)
Collet	Polyacetal (POM)
Release button	Flame resistance PBT (UL-94 Standard V-0)
Packing, O ring	NBR
Cover (Option)	Flame resistance CR (UL-94 Standard V-0)

FR One-touch Fittings *Series KR*

Model

Male connector

KRH P.2.3-2



Used to pipe in the same direction from female threaded portion.
Most common style.

Union elbow

KRL P.2.3-3



Used to connect tubes at right angles.

Plug-in reducer

KRR P.2.3-5



Used to change size of One-touch fittings.

Straight union

KRH P.2.3-2



Used to connect tubes in the same direction.

Extended male elbow

KRW P.2.3-3



For when the elbow extends over a standard elbow for easier of connection/disconnection of tubing.

Union "Y"

KRU P.2.3-4



Used to connect tubes in the same direction.

Male elbow

KRL P.2.3-3



Used to pipe in right angles to female threaded portion.
Most common style.

Branch tee

KRT P.2.3-4



Used to branch line from female thread in both 90° directions.

Plug-in "Y"

KRU P.2.3-4



Used to branch tubing in the same direction from One-touch fittings.

45° male elbow

KRK P.2.3-3



Used in applications where a 45° elbow or male connector stresses the tubing.

Union tee

KRT P.2.3-4



Used to branch connect tubes in both 90° directions.

Branch "Y"

KRU P.2.3-4



Used to branch line in the same direction from female thread.

Universal male union

KRV P.2.3-3



Universal male elbow allows thread connection by using a socket wrench for confined spaces.

Male run tee

KRY P.2.3-4



Used to connect tubes with size down in both 90° directions.

Bulkhead union

KRE P.2.3-5



Used for junction connection of two tubes for installation of a pael.

Spatter cover

KR P.2.3-5



Prevention of tube releasing unconformity due to an inside intrusion or adhesion of the spatter.

Spatter cover

KR-□C1 P.2.3-5



Prevention of tube releasing unconformity due to an inside intrusion or adhesion of the spatter.

Plug

KRP P.2.3-5



Used to shut unused One-touch fittings.

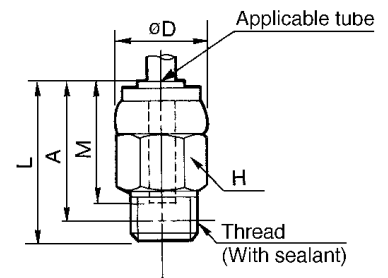
Dimensions

Male connector: KRH



Tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	L	A*	M	Eff. area (mm ²)		Weight (g)
							FR double layer	FR soft nylon	
6	1/8	KRH06-01S	12	22.5	18.5	17	10.4	5.6	16
	1/4	KRH06-02S	14	23	17				14
	3/8	KRH06-03S	17	22	15.5				27
8	1/8	KRH08-01S	14	28	24	18.5	26.1	18.0	21
	1/4	KRH08-02S		26.5	20.5				19
	3/8	KRH08-03S		22	15.5				26
10	1/8	KRH10-01S	17	30	26	21	26.1	26.1	19
	1/4	KRH10-02S		33.5	27.5				30
	3/8	KRH10-03S		29	22.5		41.5	29.5	53
	1/2	KRH10-04S		27	19				42
12	1/4	KRH12-02S	19	34.5	28.5	22	58.3	46.1	34
	3/8	KRH12-03S		30	23.5				51
	1/2	KRH12-04S		30	22				

* Reference dimensions after R(PT) thread installation.

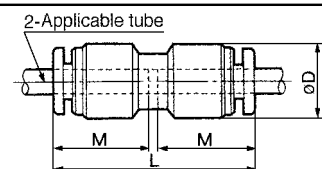


Straight union: KRH



Tube O.D. (mm)	Part No.	øD ⁽¹⁾	L	M	Eff. area (mm ²)		Weight (g)
					FR double layer	FR soft nylon	
6	KRH06-00	12.8	34.5	17	10.4	5.6	4
8	KRH08-00	15.2	38.5	18.5	26.1	18.0	6
10	KRH10-00	18.5	42.5	21	41.5	29.5	11
12	KRH12-00	20.9	44.5	22	58.3	46.1	14

Note1) øD: max. diameter



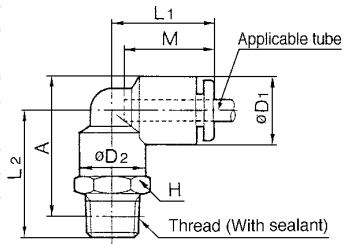
Series KR

Male elbow: KRL



Tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	$\phi D_1^{(1)}$	ϕD_2	L1	L2	A*	M	Eff. area (mm ²)		Weight (g)
6	1/8	KRL06-01S	10	12.8	10	20	23	25.5	19	9.0	4.2	12
	1/4	KRL06-02S	14				27	27.5				22
	3/8	KRL06-03S	17				29	29				33
8	1/8	KRL08-01S	12	15.2	12	23	24.5	28	20.5	21.6	14.9	13
	1/4	KRL08-02S	14				28.5	30				21
	3/8	KRL08-03S	17				30.5	31.5				35
10	1/8	KRL10-01S	12	18.5	17	26.5	27	32	23	21.6	14.9	25
	1/4	KRL10-02S	17				30	33				26
	3/8	KRL10-03S	17				32	34.5				36
12	1/2	KRL10-04S	22	20.9	17	28.5	36	37	24	50.2	39.7	63
	1/4	KRL12-02S	17				31	35.5				28
	3/8	KRL12-03S	17				33	37				38
	1/2	KRL12-04S	22				37	39.5				65

* Reference dimensions after R(PT) thread installation. Note1) ϕD_1 : max. diameter

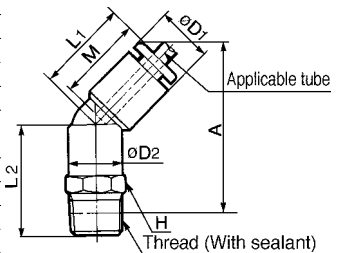


45° male elbow: KRK



Tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	$\phi D_1^{(1)}$	ϕD_2	L1	L2	A*	M	Eff. area (mm ²)		Weight (g)
6	1/8	KRK06-01S	10	12.8	10	18	20.5	33	19	6.9	3.4	12
	1/4	KRK06-02S	14				24.5	35				10
	3/8	KRK06-03S	17				26.5	36.5				33
8	1/8	KRK08-01S	12	15.2	12	20.5	22	37	20.5	19.7		13
	1/4	KRK08-02S	14				26	39				21
	3/8	KRK08-03S	17				28	41				35
10	1/8	KRK10-01S	12	18.5	17	24	24	42	23	30.9	23.2	25
	1/4	KRK10-02S	17				27	43.5				26
	3/8	KRK10-03S	17				29	45				36
12	1/2	KRK10-04S	22	20.9	17	25	33	47.5	24	44.5	35.1	63
	1/4	KRK12-02S	17				27.5	45.5				28
	3/8	KRK12-03S	17				29.5	47.5				38
	1/2	KRK12-04S	22				33.5	49.5				65

* Reference dimensions after R(PT) thread installation. Note1) ϕD_1 : max. diameter

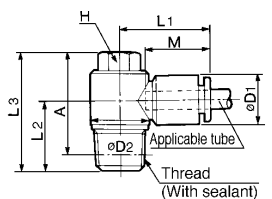


Universal male elbow: KRV



Tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	$\phi D_1^{(1)}$	ϕD_2	L1	L2	L3	A*	M	Eff. area (mm ²)		Weight (g)
6	1/8	KRV06-01S	8	12.8	13.4	24	14.5	26.5	22.5	17	5.9	2.9	15
	1/4	KRV06-02S	10				15.5	28.5	24.5				26
	3/8	KRV06-03S	14				18.5	31	25				24
8	1/8	KRV08-01S	12	15.2	17.6	28.5	15.5	28.5	24.5	18.5	16	11.2	30
	1/4	KRV08-02S	14				18.5	31.5	25.5				47
	3/8	KRV08-03S	17				20.5	36.5	30				20.5
10	1/4	KRV10-02S	14	18.5	20.6	31	19.5	35.5	29.5	21	27	20.3	40
	3/8	KRV10-03S	17				20.5	36.5	30				49
	1/2	KRV10-04S	22				22	38.5	32				63
12	3/8	KRV12-03S	17	20.9	25.2	34	25	41.5	33.5	22	39	30.8	80
	1/2	KRV12-04S	22										

* Reference dimensions after R(PT) thread installation. Note1) ϕD_1 : max. diameter

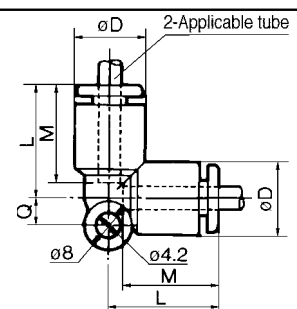


Union elbow: KRL



Tube O.D. (mm)	Part No.	$\phi D^{(1)}$	L	Q	M	Eff. area (mm ²)		Weight (g)
6	KRL06-00	12.8	20	5.3	17	9.0	4.2	6
8	KRL08-00	15.2	23	6	18	21.6	14.9	10
10	KRL10-00	18.5	26.5	6.8	21	35.2	25.0	17
12	KRL12-00	20.9	28.5	7.5	22	50.2	39.7	21

Note1) ϕD_1 : max. diameter

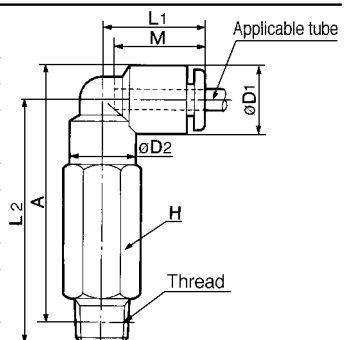


Extended male elbow: KRW



Tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	$\phi D_1^{(1)}$	ϕD_2	L1	L2	A*	M	Eff. area (mm ²)		Weight (g)
6	1/8	KRW06-01S	10	12.8	10	20	40	42.5	17	8.6	4.0	26
	1/4	KRW06-02S	14				46	46.5				41
	3/8	KRW06-03S	17				48	48				67
8	1/8	KRW08-01S	12	15.2	12	23	43.5	47	18.5	20.5	14.2	30
	1/4	KRW08-02S	14				49.5	51				47
	3/8	KRW08-03S	17				51.5	52.5				74
10	1/4	KRW10-02S	17	18.5	17	26.5	56.5	59.5	21	33.5	23.8	66
	3/8	KRW10-03S	17				58.5	61				76
	1/2	KRW10-04S	22				65	66				145
12	1/4	KRW12-02S	17	20.9	17	28.5	57.5	62	22	47.7	37.7	68
	3/8	KRW12-03S	17				59.5	63.5				78
	1/2	KRW12-04S	22				66	68.5				147

* Reference dimensions after R(PT) thread installation. Note1) ϕD_1 : max. diameter



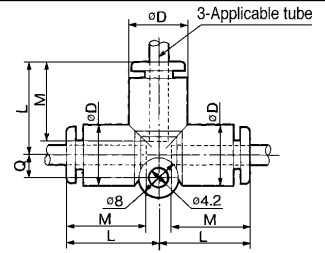
FR One-touch Fittings *Series KR*

Union tee: KRT



Tube O.D. (mm)	Part No.	$\phi D^{(1)}$	L	Q	M	Eff. area (mm ²)		Weight (g)
						FR double layer	FR soft nylon	
6	KRT06-00	12.8	20	5.3	17	10.6	6.4	10
8	KRT08-00	15.2	23	6	18.5	25.6	17.7	15
10	KRT10-00	18.5	26.5	6.8	21	40	28.4	25
12	KRT12-00	20.9	28.5	7.5	22	57.4	45.4	29

Note1) $\phi D1$: max. diameter

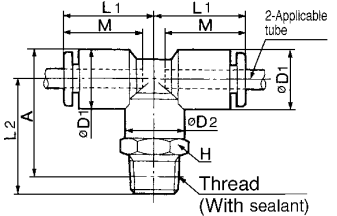


Branch tee: KRT



Tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	$\phi D1^{(1)}$	$\phi D2$	L1	L2	A*	M	Eff. area (mm ²)		Weight (g)
										FR double layer	FR soft nylon	
6	1/8	KRT06-01S	10	12.8	10	20	23	25.5	17	11.0	6.0	12
	1/4	KRT06-02S	14				27	27.5				20
	3/8	KRT06-03S	17				29	29				34
8	1/8	KRT08-01S	12	15.2	12	23	24.5	28	18.5	26.3	18.2	14
	1/4	KRT08-02S	14				28.5	30				22
	3/8	KRT08-03S	17				30.5	31.5				36
10	1/8	KRT10-01S	17	18.5	17	26.5	27	32	21	40.8	29.0	31
	1/4	KRT10-02S	17				30	33				29
	3/8	KRT10-03S	17				32	34.5				39
12	1/2	KRT10-04S	22	20.9	17	28.5	36	37	22	57.2	45.2	66
	1/4	KRT12-02S	17				31	35.5				31
	3/8	KRT12-03S	17				33	37				41
	1/2	KRT12-04S	22				37	39.5				68

Note1) $\phi D1$: max. diameter

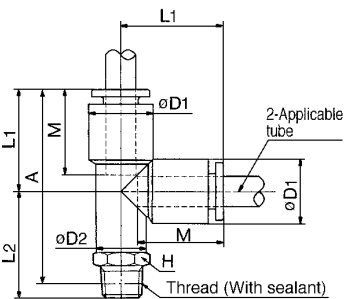


Male run tee: KRY



Tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	$\phi D1^{(1)}$	$\phi D2$	L1	L2	A*	M	Eff. area (mm ²)		Weight (g)
										FR double layer	FR soft nylon	
6	1/8	KRY06-01S	10	12.8	10	20	23	39	19	10.6	6.4	12
	1/4	KRY06-02S	14				27	41				20
	3/8	KRY06-03S	17				29	42.5				34
8	1/8	KRY08-01S	12	15.2	12	23	24.5	43.5	20.5	25.6	17.7	14
	1/4	KRY08-02S	14				28.5	45.5				22
	3/8	KRY08-03S	17				30.5	47				36
10	1/8	KRY10-01S	17	18.5	17	26.5	27	49.5	23	40.0	28.4	31
	1/4	KRY10-02S	17				30	50.5				29
	3/8	KRY10-03S	17				32	52				39
12	1/2	KRY10-04S	22	20.9	17	28.5	36	54.5	24	57.4	45.4	66
	1/4	KRY12-02S	17				31	53.5				31
	3/8	KRY12-03S	17				33	55				41
	1/2	KRY12-04S	22				37	57.5				68

Note1) $\phi D1$: max. diameter

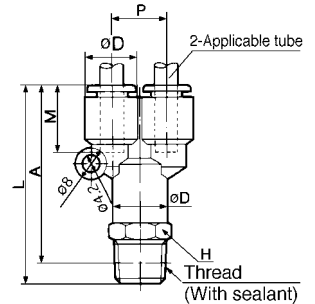


Branch "Y": KRU



Tube O.D. (mm)	Thread R(PT)	Part No.	H (Hex.)	$\phi D^{(1)}$	L	P	A*	M	Eff. area (mm ²)		Weight (g)
									FR double layer	FR soft nylon	
6	1/8	KRU06-01S	13	12.8	45.5	12.8	41.5	17	10.4	4.2	12
	1/4	KRU06-02S	14				43				22
	3/8	KRU06-03S	17				44.5				35
8	1/8	KRU08-01S	17	15.2	52.5	15.2	48.5	18.5	25.6	17.7	16
	1/4	KRU08-02S	17				49.5				24
	3/8	KRU08-03S	17				50				36
10	1/4	KRU10-02S	19	18.5	61	18.5	55	21	40	28.4	30
	3/8	KRU10-03S	19				55.5				40
	1/2	KRU10-04S	22				57				65
12	1/4	KRU12-02S	22	20.9	64.5	20.9	58.5	22	57.4	45.4	32
	3/8	KRU12-03S	22				59				40
	1/2	KRU12-04S	22				60.5				65

Note1) $\phi D1$: max. diameter

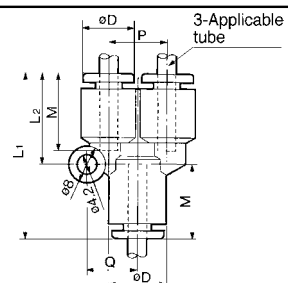


Union "Y": KRU



Tube O.D. (mm)	Part No.	$\phi D^{(1)}$	L1	L2	P	Q	M	Eff. area (mm ²)		Weight (g)
								FR double layer	FR soft nylon	
6	KRU06-00	12.8	37	20	12.8	11.7	17	10.4	4.2	10
8	KRU08-00	15.2	42.5	24.5	15.2	13.7	18.5	25.6	17.7	12
10	KRU10-00	18.5	48	27.5	18.5	16.1	21	40	28.4	16
12	KRU12-00	20.9	51	30	20.9	18.1	22	57.4	45.4	23

Note1) $\phi D1$: max. diameter

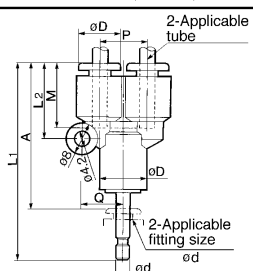


Plug-in "Y": KRU



Tube O.D. (mm)	Thread R(PT)	Part No.	$\phi D^{(1)}$	L1	L2	P	Q	A	M	Eff. area (mm ²)		Weight (g)
										FR double layer	FR soft nylon	
6	6	KRU06-99	12.8	55.5	20	12.8	11.7	38.5	17	10.4	4.2	19
8	8	KRU08-99	15.2	64.5	24.5	15.2	13.7	46	18.5	25.6	17.7	22
10	10	KRU10-99	18.5	71.5	27.5	18.5	16.1	50.5	21	40	28.4	26
12	12	KRU12-99	20.9	75.5	30	20.9	18.1	53.5	22	57.4	45.4	32

Note1) $\phi D1$: max. diameter



Series KR

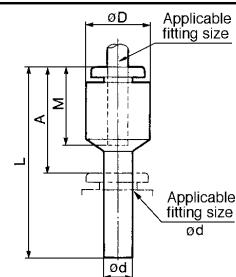
Plug-in reducer: KRR



Tube O.D. (mm)	Fitting size ϕ d	Part No.	ϕ D ⁽¹⁾	L	A	M	Eff. area (mm ²)		Weight (g)
							FR double layer	FR soft nylon	
6	8	KRR06-08	12.8	37	18.5	17	10.4	5.6	2.5
	10	KRR06-10		39.5					9.3
8	10	KRR08-10	15.2	41	18.5	18.5	26.1	18.0	4.0
	12	KRR08-12		42	20				4.6
10	12	KRR10-12	18.5	44.5	23	21	41.5	32.8	33



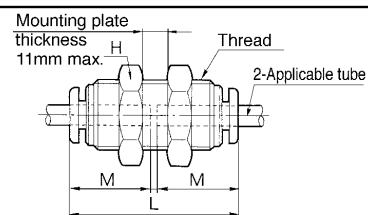
Note1) ϕ D1: max. diameter



Bulkhead union: KRE



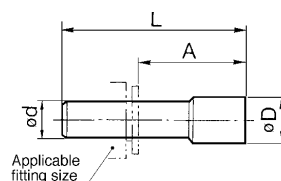
Tube O.D. (mm)	Part No.	T (M)	H (Hex.)	L	Mounting hole	M	Eff. area (mm ²)		Weight (g)
							FR double layer	FR soft nylon	
6	KRE06-00	M14 X 1	17	34.5	15	17	10.4	5.6	33
8	KRE08-00	M16 X 1	19	38	17	18.5	26.1	18.0	52
10	KRE10-00	M20 X 1	24	42.5	21	21	41.5	29.5	70
12	KRE12-00	M22 X 1	27	44	23	22	58.3	46.1	90



Plug: KRP



Fitting size ϕ d	Part No.	ϕ D	L	A	Weight (g)
6	KRP-06	8	35	16	1
8	KRP-08	10	39	18.5	2
10	KRP-10	12	43	20	3.5
12	KRP-12	14	46	22	5

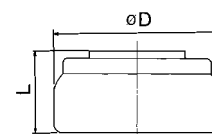


Spatter Cover 1: KR (Applicable tube: FR soft nylon)



Fitting size	Part No.	ϕ D	L	Weight (g)
6	KR-06C	15.5	9	0.9
8	KR-08C	17	9	1.0
10	KR-10C	20.8	10.5	1.5
12	KR-12C	22.8	10.5	1.6

* When tube insert parts are in line as KQU Union "Y", use KR-□□C1.

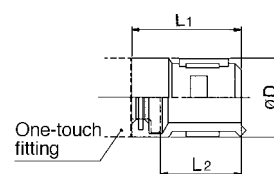


Spatter Cover 2: KR (Applicable tube: FR soft nylon, FR double layer)

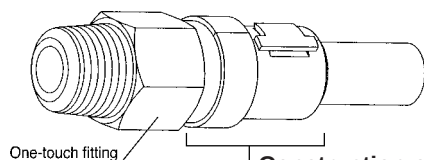


Fitting size	Part No.	L ₁	L ₂	ϕ D
6	KR-06C1	18	13.7	12.8
8	KR-08C1	20	15.7	15
10	KR-10C1	22	17.2	18
12	KR-12C1	22	17.2	20

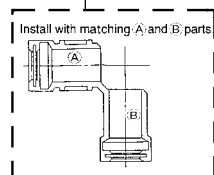
Installed



How to install



Construction of spatter cover



K□

M□

H□

D□

MS

T□

LQ

Clean
Room