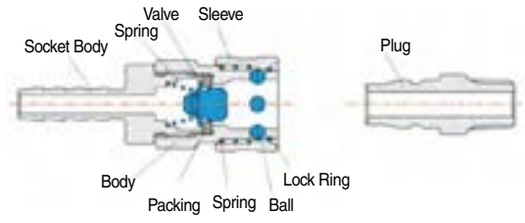
AUTO ACE COUPLER(Steel)

Application
- Used for piping of compressed air connections.
- Used for air tool equipped with drive and impact

Feature
- One-touch joints
- Uni-directional shut-off coupler with an automatic shut-off valve built in the socket.
- Recommended for piping of compressed air

Structural Diagram



Specification

Fluid	Air
Material	Steel(chrome~plated)
Working Pressure Range	10Kgf/㎠(1000kPa)
Maximum pressure	20Kgf/㎠(2000kPa)

Product Code System

A H H 22

① ② ③ ④

① Auto Ace Couplers

② Model

H	Socket

③ Type

H	Hose Stem
M	Male Thread
F	Female Thread
N	Hose Nut Type

④ Thread Size(T)

Size	22	23	24	44	46	48
H	9.0	11.0	15.0	15.0	21.0	27.0
M	R1/4	R3/8	R1/2	R1/2	R3/4	R1
F	Rc1/4	Rc3/8	Rc1/2	Rc1/2	Rc3/4	Rc1

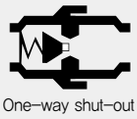
Size	21	22	23	24	25	26
N	8 X 5	9 X 6	10 X 6.5	12 X 8	12.5 X 8.5	16 X 11

▶ Minimum Sectional Area (㎟)

22 Type		23 Type		24 Type		44 Type		46 Type		48 Type	
H	M · F	H	M · F	H	M · F	H	M · F	H	M · F	H	M · F
19	32	32	32	32	32	63	80	80	80	80	80

Auto Ace Coupler (Steel)

AHH	AHM	AHF	AHN
			
Socket Nipple	Socket Male	Socket Female	Socket Nut

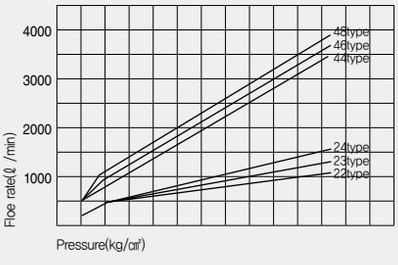
Valve Symbols: 
One-way shut-out

Working Pressure: 

15kgf/㎠

Applicable fluids: 
Air

▶ Flow Rate



▶ Measuring Conditions

- Fluid typr : Air
- Temperayure : Room temperature(20℃)

▶ How to check table

This diagram shows the flow quantity of input condition in flowing air.

▶ Example

For 24 type, in case using pressure is 5kg/㎠, find out flowing rate of vertical part according to the interchange of 24 type's round line and indicated arrow's pressure.

Common Using Precautions of Coupler Series

Never fail to check the following

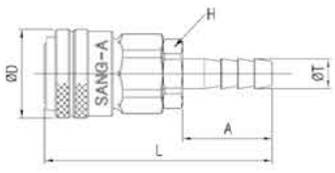
⚠ WARNING

1. Avoid applying or removing when pressure is on. It causes the danger of jumping of plug body.
2. Never touch the equipment under pressure in the state of putting plug and socket on the body. It cause "opening" by touch.
3. Never use coupler in place of rotary joint or other revolving joint.
4. Secure to flow the fluid from socket to plug.
5. Avoid the instrument or machine givinf strong bending weight, excessive vibration or shock.
6. To use the coupler on a vibration tool such as jet chisel, be sure to connect with 30cm rubber tube between tool and couple.

⚠ CAUTION

1. When putting plug into socket, secure to push it until it stops.
   Otherwise it may cause leakage. In addition, be sure to check whether it will come out or not by pulling it out.
2. Be caraful of plug body jumping by compressed air discharging when disconnecting.
3. Be sure not only to have dust or contamination with intended fluid but also to have flaws on body. It may cause leakage.
4. When pushing tube into the socket body, fix it with hose-band after wearing silicon.
5. Never fasten the thread over maximum limit of torque. It may cause breakage.

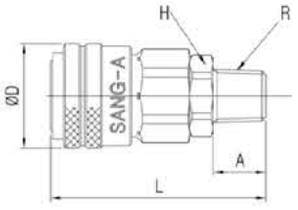
AHH
Socket Nipple



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	ØD	ØT	A	L	H	W.G(g)	Q'ty/Inbox
AHH 22	26.7	9	27	68.6	19	100.1	25
AHH 23	26.7	11	29	71.1	19	105.3	25
AHH 24	26.7	14.8	33	75.1	19	126.8	25

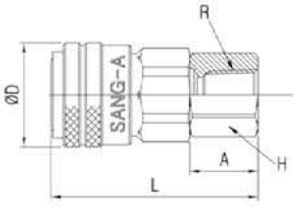
AHM
Socket Male



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	ØD	R	A	L	H	W.G(g)	Q'ty/Inbox
AHM 22	26.7	PT1/4	13.5	55.1	19	101.8	25
AHM 23	26.7	PT3/8	14	56.1	19	111	25
AHM 24	26.7	PT1/2	15	57.1	21	124.9	25

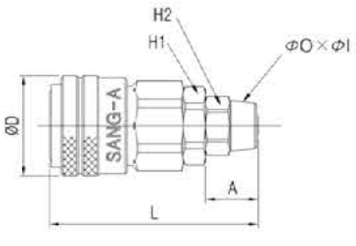
AHF
Socket Female



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	ØD	R	A	L	H	W.G(g)	Q'ty/Inbox
AHF 22	26.7	PT1/4	17.5	53.1	19	103.4	25
AHF 23	26.7	PT3/8	18.5	54.1	21	104.5	25
AHF 24	26.7	PT1/2	20	55.6	25	121.3	25

AHN
Socket Nut



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

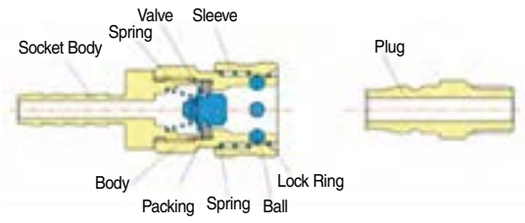
MODEL	ØD	A	L	H1	H2	ØO×Ø1	W.G(g)	Q'ty/Inbox
AHN 21	26.7	14	55.6	19	14	8×5	98.2	25
AHN 23	26.7	16	57.6	19	15	10×6.5	116.9	25
AHN 24	26.7	19	60.6	19	19	12×8	129.4	25

ACE COUPLER

Application
- Used for piping of compressed air connections.
- Used for air tool equipped with drive and impact

Feature
- Uni-directional shut-off coupler with an automatic shut-off valve built in the socket.
- Recommended for piping of compressed air

Structural Diagram



Specification

Fluid	Air, Water, Oil		
Material	Brass(chrome~plated)	Steel(chrome~plated)	Stainless steel
Working Pressure Range	10Kgf/㎠(1000kPa)	10Kgf/㎠(1000kPa)	15Kgf/㎠(1500kPa)
Maximum pressure	15Kgf/㎠(1500kPa)	20Kgf/㎠(2000kPa)	20Kgf/㎠(2000kPa)

Product Code System

C H 22

① ② ③

① Model

C	Plug
H	Socket

② Type

H	Hose Stem
M	Male Thread
F	Female Thread
N	Hose Nut Type

③ Thread Size(T)

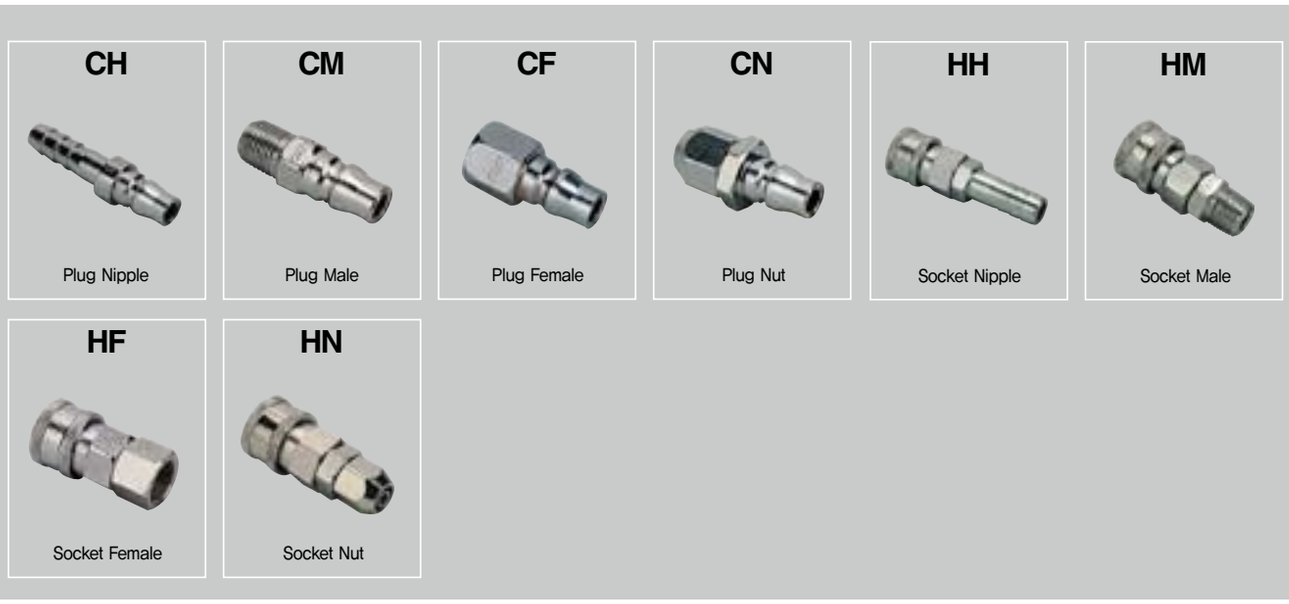
Size	22	23	24	44	46	48
H	9.0	11.0	15.0	15.0	21.0	27.0
M	R1/4	R3/8	R1/2	R1/2	R3/4	R1
F	Rc1/4	Rc3/8	Rc1/2	Rc1/2	Rc3/4	Rc1

Size	21	22	23	24	25	26
N	8 X 5	9 X 6	10 X 6.5	12 X 8	12.5 X 8.5	16 X 11

▶ Minimum Sectional Area (㎟)

22 Type		23 Type		24 Type		44 Type		46 Type		48 Type	
H	M · F	H	M · F	H	M · F	H	M · F	H	M · F	H	M · F
19	32	32	32	32	32	63	80	80	80	80	80

Ace Coupler (Steel)



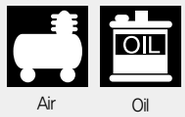
Valve Symbols

One-way shut-out

Working Pressure

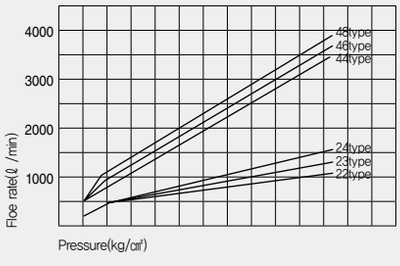
15kgf/㎠

Applicable fluids



Air Oil

▶ Flow Rate



▶ Measuring Conditions

- Fluid typr : Air
- Temperayure : Room temperature(20℃)

▶ How to check table

This diagram shows the flow quantity of input condition in flowing air.

▶ Example

For 24 type, in case using pressure is 5kg/㎠, find out flowing rate of vertical part according to the interchange of 24 type's round line and indicated arrow's pressure.

Common Using Precautions of Coupler Series

Never fail to check the following

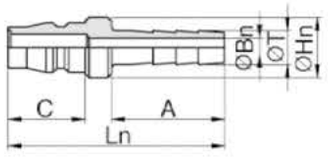
⚠ WARNING

1. Avoid applying or removing when pressure is on. It causes the danger of jumping of plug body.
2. Never touch the equipment under pressure in the state of putting plug and socket on the body. It cause "opening" by touch.
3. Never use coupler in place of rotary joint or other revolving joint.
4. Secure to flow the fluid from socket to plug.
5. Avoid the instrument or machine givinf strong bending weight, excessive vibration or shock.
6. To use the coupler on a vibration tool such as jet chisel, be sure to connect with 30cm rubber tube between tool and couple.

⚠ CAUTION

1. When putting plug into socket, secure to push it until it stops.
   Otherwise it may cause leakage. In addition, be sure to check whether it will come out or not by pulling it out.
2. Be caraful of plug body jumping by compressed air discharging when disconnecting.
3. Be sure not only to have dust or contamination with intended fluid but also to have flaws on body. It may cause leakage.
4. When pushing tube into the socket body, fix it with hose-band after wearing silicon.
5. Never fasten the thread over maximum limit of torque. It may cause breakage.

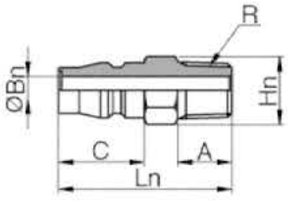
CH
Plug Nipple



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	Ln	C	A	ØBn	ØT	ØHn	W.G(g) Steel	W.G(g) Brass	Q'ty/ Inbox
CH22	57.5	20.5	30	5	9	16	30.3	31.4	50
CH23	61.5	20.5	34	7	11	16	33	36.4	50
CH24	63.5	20.5	34	7	15	20	61.3	66.8	50
CH44	66	23	36	9	15	22	65.7	70.5	20
CH46	77	23.4	45	13	21	30	123.2	131.3	20
CH48	85	23.4	53.5	20	27	34	139.4	154.2	16

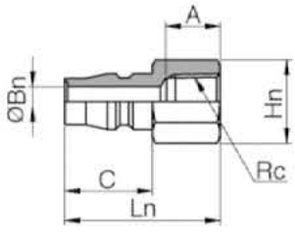
CM
Plug Male



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	Ln	C	A	R	ØBn	Hn	W.G(g) Steel	W.G(g) Brass	Q'ty/ Inbox
CM21	37.5	20.5	9	R1/8	7	14	23	24.3	100
CM22	41.5	20.5	13	R1/4	7	14	25.6	29.8	100
CM23	42.5	20.5	14	R3/8	7	17	33.3	44.9	50
CM24	46.5	20.5	16	R1/2	7	22	65.9	76.8	25
CM44	50	23.4	16	R1/2	13	22	69.3	73.7	25
CM46	55	23.4	18	R3/4	13	32	117.8	124	12
CM48	63	23.4	23	R1	13	35	185.1	197.3	9

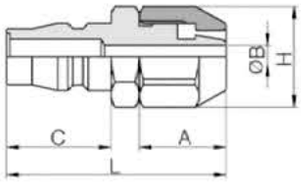
CF
Plug Female



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	Ln	C	A	Rc	ØBn	Hn	W.G(g) Steel	W.G(g) Brass	Q'ty/ Inbox
CF22	36.5	20.5	14	Rc1/4	7	17	27.9	39	50
CF23	37.5	20.5	15	Rc3/8	7	22	37.4	50	50
CF24	38.5	20.5	16	Rc1/2	7	26	61.9	70.3	25
CF44	41	23	16	Rc1/2	13	29	91.3	73	25
CF46	45	23	17	Rc3/4	13	35	122.2	124.3	20
CF48	54	23	22	Rc1	13	41	200.8	197.2	12

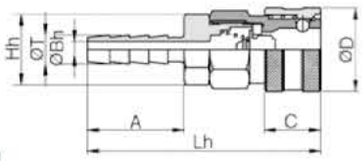
CN
Plug Nut



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	L	C	A	ØB	H	W.G(g) Steel	Q'ty/ Inbox
CN21(8×5)	41	20.5	15	3.5	16	31.9	50
CN22(9×6)	43	20.5	17	4	17	37.3	50
CN23(10×6.5)	43	20.5	17	4.5	17	50.2	25
CN24(12×8)	46.5	20.5	20	6.5	19	70.3	25
CN25(12.5×8.5)	48.5	20.5	22	7	19	81.2	25
CN26(16×11)	52	20.5	25	9.5	24	113.5	12

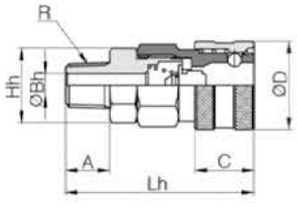
HH
Socket Nipple



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	Ln	C	A	ØBn	ØT	Hn	ØD	W.G(g) Steel	W.G(g) Brass	Q'ty/ Inbox
HH22	72.5	17.5	30	5	9	19	26	103.7	111.5	20
HH23	76.5	17.5	34	7	11	19	26	107.5	115.2	20
HH24	78.5	17.5	36	7	15	19	26	128.4	129.7	20
HH44	83.1	20	36	9	15	29	34	215.6	234.5	12
HH46	92.1	20	45	14	21	29	34	240.5	260.4	12
HH48	102.1	20	55	20	27	29	34	277.2	298.6	9

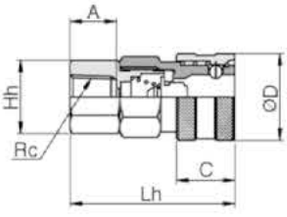
HM
Socket Male



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	Ln	C	R	A	ØBn	Hn	ØD	W.G(g) Steel	W.G(g) Brass	Q'ty/ Inbox
HM22	55.5	17.5	R1/4	13	7	19	26	102	108.2	20
HM23	56.5	17.5	R3/8	14	7	19	26	111.3	119.1	20
HM24	58.5	17.5	R1/2	16	9	22	26	126.3	139	20
HM44	63.1	20	R1/2	16	10	29	34	207.9	224.7	12
HM46	66.1	20	R3/4	18	16	32	34	238.5	254.3	12
HM48	70.1	20	R1	23	22	35	34	281	293.7	12

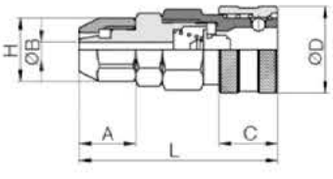
HF
Socket Female



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	Ln	C	Rc	A	Hn	ØD	W.G(g) Steel	W.G(g) Brass	Q'ty/ Inbox
HF22	49.5	17.5	Rc1/4	14	19	26	101	110.9	20
HF23	50.5	17.5	Rc3/8	14	22	26	101.9	110	20
HF24	52.5	17.5	Rc1/2	15	26	26	119.7	132.6	20
HF44	57.1	20	Rc1/2	16	29	34	214	253	9
HF46	61.1	20	Rc3/4	17	35	34	256.8	274	9
HF48	68.1	20	Rc1	22	41	34	331.5	360	6

HN
Socket Nut



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

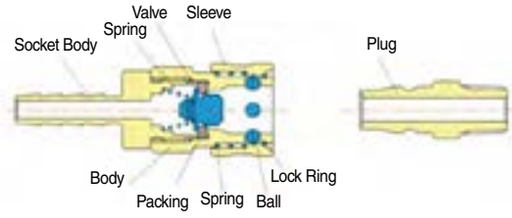
MODEL	L	C	A	ØB	H	ØD	W.G(g) Steel	Q'ty/ Inbox
HN21(8×5)	58	17.5	15	3.5	16	26	100.9	20
HN22(9×6)	60	17.5	17	4	17	26	101.2	20
HN23(10×6.5)	59.5	17.5	17	4.5	17	26	119.1	20
HN24(12×8)	62.5	17.5	20	6.5	19	26	132.5	12
HN25(12.5×8.5)	65.3	17.5	22	7	19	26	147.5	12
HN26(16×11)	67.5	17.5	25	9.5	24	26	235.8	6

COMPACT ACE COUPLER

Application
- Used for piping of compressed air connections.
- Used for air tool equipped with drive and impact

Feature
- Uni-directional shut-off coupler with an automatic shut-off valve built in the socket.
- Recommended for piping of compressed air

Structural Diagram



Specification

Fluid	Air, Water, Oil		
Material	Brass(chrome~plated)	Steel(chrome~plated)	Stainless steel
Working Pressure Range	10Kgf/㎠(1000kPa)	10Kgf/㎠(1000kPa)	15Kgf/㎠(1500kPa)
Maximum pressure	15Kgf/㎠(1500kPa)	20Kgf/㎠(2000kPa)	20Kgf/㎠(2000kPa)

Product Code System

H S H 22

① SMALL ② ③

① Model

H : Socket

② Type

H	Hose Stem
M	Male Thread
F	Female Thread
N	Hose Nut Type

③ Thread Size(T)

Size	22	23	24
H	9.0	11.0	15.0
M	R1/4	R3/8	R1/2
F	Rc1/4	Rc3/8	Rc1/2

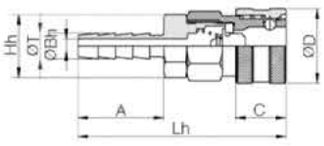
Size	21	22	23
N	8 X 5	9 X 6	10 X 6.5

▶ Minimum Sectional Area (㎟)

22 Type		23 Type		24 Type	
H	M · F	H	M · F	H	M · F
19	32	32	32	32	32

HSH

Socket Nipple

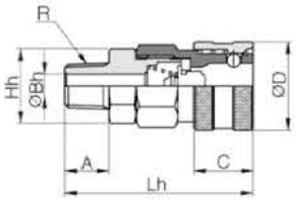


MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	ØD	ØT	H	A	L	W.G(g)	Q'ty/Inbox
HSH 22	23.6	9	19	27	61.4	68.7	25
HSH 23	23.6	11	19	29	63.4	72	25
HSH 24	23.6	14.8	19	33	67.4	87.3	25

HSM

Socket Male

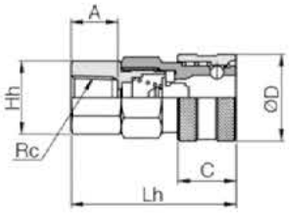


MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	ØD	A	L	H	R	W.G(g)	Q'ty/Inbox
HSM 22	23.6	13.5	47.9	19	R1/4	67.8	25
HSM 23	23.6	14.0	48.4	19	R3/8	71.6	25
HSM 24	23.6	15	49.4	20.6	R1/2	82.8	25

HSF

Socket Female

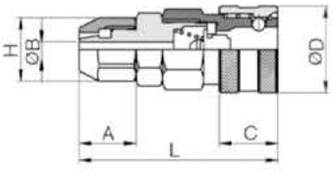


MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	ØD	A	L	H	R	W.G(g)	Q'ty/Inbox
HSF 22	23.6	17.5	45.9	19	R1/4	77.8	25
HSF 23	23.6	18.5	46.9	20.6	R3/8	77.4	25
HSF 24	23.6	20	48.4	25	R1/2	90.3	25

HSN

Socket Nut



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	ØD	A	L	H1	H2	HxØ	W.G(g)	Q'ty/Inbox
HSN 21	23.6	14	48.4	19	14	Ø8x5	70.5	25
HSN 23	23.6	16	50.4	19	15	Ø10x6.5	73.6	25
HSN 24	23.6	19	53.4	19	19	Ø12x8	82.4	25

(mm)

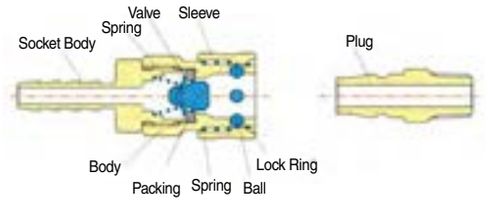
MODEL	ØD	A	L	C	H1	H2	HxØ	W.G(g)	Q'ty/Inbox
HSN S21	23.6	16.7	51.1	71.8	19	15	Ø8x5	79.8	25
HSN S23	23.6	20.5	54.9	76.2	19	16	Ø10x6.5	87	20
HSN S24	23.6	25	65	75.9	19	19	Ø12x8	97	20

MINOR COUPLER

Application
- Used for piping of compressed air connections.
- Used for air tool equipped with drive and impact

Feature
- Light and easy to use for it's made of ZnDc.
- Recommended for piping of compressed air

Structural Diagram



Specification

Fluid	Air
Material	ZnDc(chrome~plated)
Working Pressure Range	10Kgf/㎠(1000kPa)
Maximum pressure	15Kgf/㎠(1500kPa)

Product Code System

MC H 22
① ② ③

① Model

MC	Plug
MH	Socket

② Type

H	Hose Stem
M	Male Thread
F	Female Thread
N	Hose Nut Type

③ Thread Size(T)

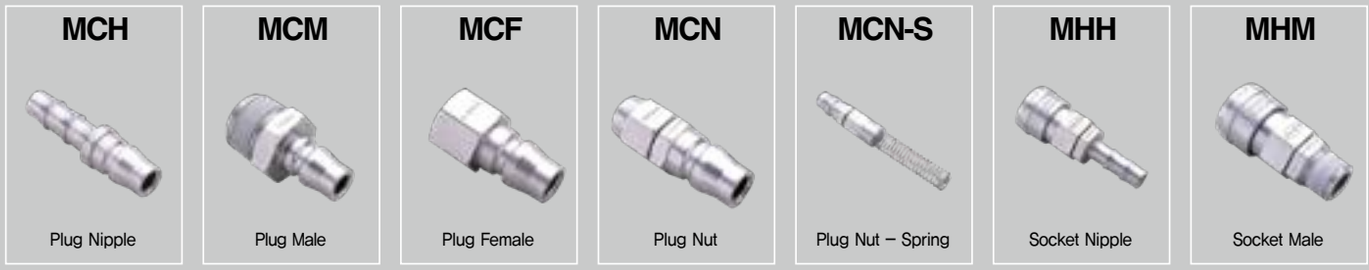
Size	22	23	24
H	9.0	11.0	15.0
M	R1/4	R3/8	R1/2
F	Rc1/4	Rc3/8	Rc1/2

Size	21	22	23
N	8 X 5	10 X 6.5	12 X 8

▶ Minimum Sectional Area (㎟)

22 Type		23 Type		24 Type	
H	M · F	H	M · F	H	M · F
19	32	32	32	32	32

Minor Coupler



Valve Symbols | Working Pressure | Applicable fluids

One–way shut–out | 10kgf/㎠ | Air

▶ Flow Rate

▶ Measuring Conditions

- Fluid typr : Air
- Temperayure : Room temperature(20℃)

▶ How to check table

This diagram shows the flow quantity of input condition in flowing air.

▶ Example

For 24 type, in case using pressure is 5kg/㎠, find out flowing rate of vertical part according to the interchange of 24 type's round line and indicated arrow's pressure.

Common Using Precautions of Coupler Series

Never fail to check the following

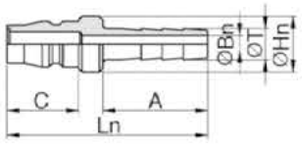
⚠ WARNING

1. Avoid applying or removing when pressure is on. It causes the danger of jumping of plug body.
2. Never touch the equipment under pressure in the state of putting plug and socket on the body. It cause "opening" by touch.
3. Never use coupler in place of rotary joint or other revolving joint.
4. Secure to flow the fluid from socket to plug.
5. Avoid the instrument or machine givinf strong bending weight, excessive vibration or shock.
6. To use the coupler on a vibration tool such as jet chisel, be sure to connect with 30cm rubber tube between tool and couple.

⚠ CAUTION

1. When putting plug into socket, secure to push it until it stops.
   Otherwise it may cause leakage. In addition, be sure to check whether it will come out or not by pulling it out.
2. Be caraful of plug body jumping by compressed air discharging when disconnecting.
3. Be sure not only to have dust or contamination with intended fluid but also to have flaws on body. It may cause leakage.
4. When pushing tube into the socket body, fix it with hose-band after wearing silicon.
5. Never fasten the thread over maximum limit of torque. It may cause breakage.
   - Never fasten the thread over maximum limit of torque, as it is made of ZINC. It may cause breakage.

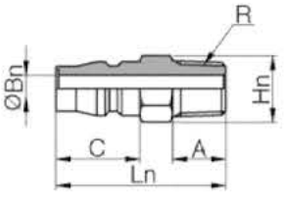
MCH
Plug Nipple



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	Ln	C	A	ØBn	ØT	ØHn	W.G(g)	Q'ty/ Inbox
MCH22-S ZNDC	49.5	20.5	25	5	9	15	24.6	50
MCH23-S ZNDC	50.5	20.5	30	7	9.6	15	25.8	50
MCH24-S ZNDC	55.5	20.5	30	9	15	20	39.5	50

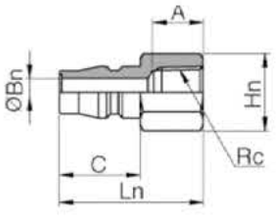
MCM
Plug Male



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	Ln	C	A	R	ØBn	Hn	W.G(g)	Q'ty/ Inbox
MCM22-S ZNDC	37.5	20.5	13	R1/4	7	14	25.8	100
MCM23-S ZNDC	38.5	20.5	13	R3/8	7	17	32.1	50
MCM24-S ZNDC	42	20.5	14.5	R1/2	7	22	46.9	50

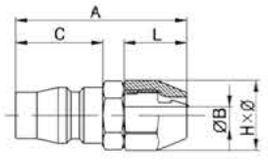
MCF
Plug Female



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	Ln	C	A	Rc	ØBn	Hn	W.G(g)	Q'ty/ Inbox
MCF22-S ZNDC	34.5	20.5	12.5	Rc1/4	7	17	28.3	50
MCF23-S ZNDC	37	20.5	14	Rc3/8	7	22	32.9	50
MCF24-S ZNDC	38.5	20.5	15	Rc1/2	7	24	46.3	25

MCN
Plug Nut

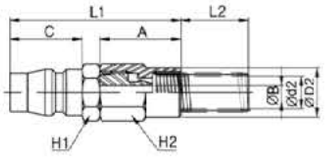


MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	L	C	A	ØB	H×Ø	W.G(g)	Q'ty/ Inbox
MCN21-S ZNDC	40.5	20.5	15	4	14×16	24.3	50
MCN23-S ZNDC	43.5	20.5	17	5	17×19	32.2	50
MCN24-S ZNDC	45.5	20.5	20	7	19×22	46.3	25

MCN-S

Plug Nut - Spring

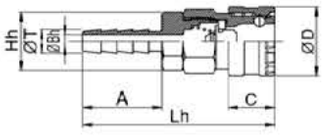


MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	ØD2	Ød2	ØB	L1	L2	A	C	H1	H2	W.G(g)	Q'ty/Inbox
MCN-S21S ZNDC	14	9.2	4	48.5	53	23	20.5	14	14	29.8	50
MCN-S23S ZNDC	17	11.2	5	53.5	67	27	20.5	17	17	39.2	25
MCN-S24S ZNDC	19	13.2	7	60.5	78	35	20.5	19	19	53.8	25

MHH

Socket Nipple

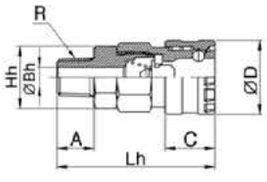


MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	ØD	ØT	ØBn	Hn	Lh	A	C	W.G(g)	Q'ty/Inbox
MHH22-S ZNDC	26	9	5	19	65.5	25	17.5	88.7	25
MHH23-S ZNDC	26	11	7	19	70.5	30	17.5	89.6	25
MHH24-S ZNDC	26	15	9	19	70.5	30	17.5	94.2	25

MHM

Socket Male

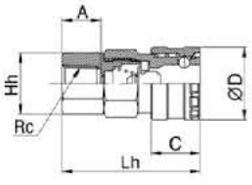


MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	ØD	R	ØBn	Hn	Lh	A	C	W.G(g)	Q'ty/Inbox
MHM22-S ZNDC	26	R1/4	8.5	19	52.5	12	17.5	89.2	25
MHM23-S ZNDC	26	R3/8	9	19	53.5	13	17.5	90.8	25
MHM24-S ZNDC	26	R1/2	9	21	55.5	15	17.5	102	25

MHF

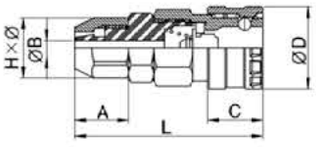
Socket Female



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	ØD	Rc	A	C	Hh	Lh	W.G(g)	Q'ty/Inbox
MHF22-S ZNDC	26	Rc1/4	12.5	17.5	19	48.5	88.1	25
MHF23-S ZNDC	26	Rc3/8	14	17.5	21	51	92.3	25
MHF24-S ZNDC	26	Rc1/2	15	17.5	26	52.5	102	25

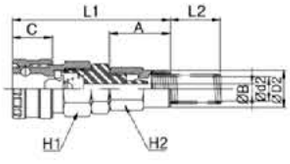
MHN
Socket Nut



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	ØD	L	A	C	ØB	H×Ø	W.G(g)	Q'ty/ Inbox
MHN21-S ZNDC	26	55.5	15	17.5	4	14×16	83.2	25
MHN23-S ZNDC	26	57.5	17	17.5	5	17×19	90.8	25
MHN24-S ZNDC	26	60.5	20	17.5	7	19×22	103.2	25

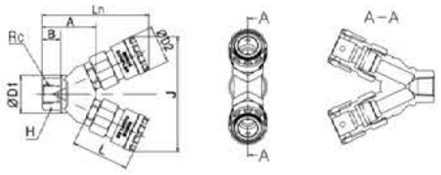
MHN-S
Socket Nut Spring



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	ØD2	Ød2	ØB	L1	L2	A	C	H1	H2	W.G(g)	Q'ty/ Inbox
MHN-S21S ZNDC	14	9.2	4	83	53	23	20.5	14	14	88.7	25
MHN-S23S ZNDC	17	11.2	5	88	67	27	20.5	17	17	97.8	20
MHN-S24S ZNDC	19	13.2	7	95	78	35	20.5	19	19	110.7	20

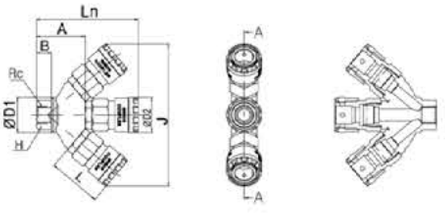
MLY
Branch Y



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	Rc	Ln	L	ØD1	ØD2	A	B	J	H	W.G(g)	Q'ty/ Inbox
MLY22	Rc1/4	73.2	39.5	26	26	37	12.5	79	19	264.0	10

MLW
Branch Triple



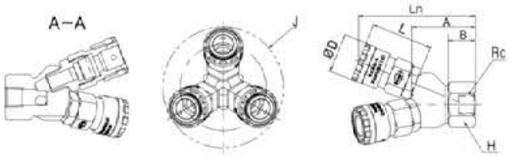
MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

MODEL	Rc	Ln	L	ØD1	ØD2	A	B	J	H	W.G(g)	Q'ty/ Inbox
MLW 22	Rc1/4	75.5	39.5	26	26	20	11	105.5	19	352	8

MLR

Branch R

Rc



MODEL [ØD-T] Tube(Metric)–Thread(R) (mm)

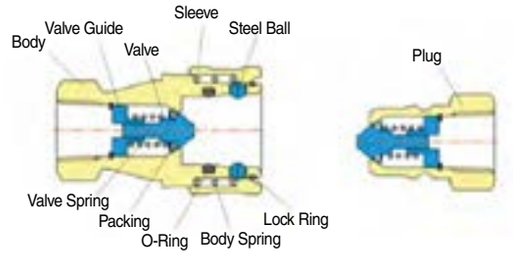
MODEL	Rc	Ln	L	ØD	A	B	ØJ	H	W.G(g)	Q'ty/ Inbox
MLR 22	Rc1/4	82	39.5	26	42	18	90	26	352	5
MLR 23	Rc3/8	82	39.5	26	42	18	90	26	350	5

HP COUPLER

Application
- Used for plant piping of chemicals, steam and oil.

Feature
- Bi-directional shut-off coupler with an automatic shut-off vallve incorporated on the both sides of CORK and HOLE.
- Excellent airtight effect, designed with high precision processing technology.

Structural Diagram



Specification

Fluid	Air, Water, Oil, Steam, Medicines, Gasolin (Another way air for Special Order)
Material	Brass
Working Pressure Range	0~70Kgf/㎠(7000kPa)
Maximum pressure	-20~80℃

Product Code System

8 H

① ②

① Thread Size(T)

	Thread Size								
Code	1	2	3	4	6	8	10	12	16
Size	Rc1/8"	Rc1/4"	Rc3/8"	Rc1/2"	Rc3/4"	Rc1"	Rc1 1/4"	Rc1 1/2"	Rc2"

② Model

C	Plug
H	Socket

Valve Symbols: Two-way shut-out

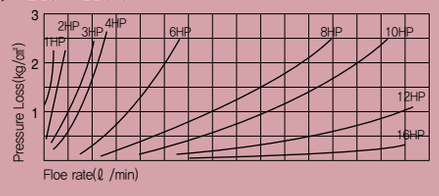
Working Pressure: 70 — 70kgf/㎠

Applicable fluids: Water, Oil, Gasoline, Steam, Chemicals, Air

▶ Minimum Sectional Area (㎟)

Products Code	1HP	2HP	3HP	4HP	6HP	8HP	10HP	12HP	16HP
Minimum Sectional Area(cc)	11	23	46	89	198	315	580	870	1240
Inflow Air Volume(㎟)	0.52	1.02	2.40	3.20	10.50	17.00	27.20	29.80	60.00

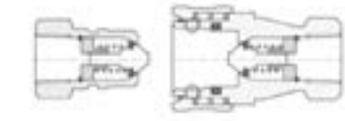
▶ Flow Rate

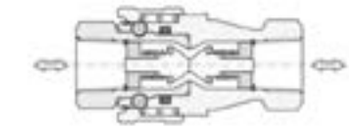


▶ Measuring Conditions
- Fluid type : Water
- Temperature: 30℃±5℃
- Motional viscosty: 50㎝-Strokes
- Specific gravity: 0.8727×10-3kg/㎠

▶ How to check table
For example, when flowing 100ℓ/㎜ of fluid at 6HP, the intersection of the horizontal axis flow at 100ℓ㎜, makes a pressure loss of 2kg/㎠.

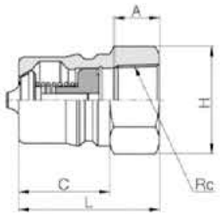
▶ Automatic air flow control
When disonnecting, the valve in the socket and plug instantly seal the air flow to prevent leakage On the contrary, when connected, the valves in the socket and Plug are opened and permit free flow of fluid through the couplings.





C

Plug Female

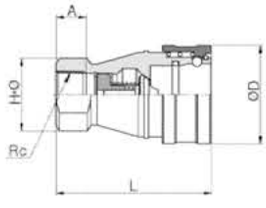


MODEL〔ØD-T〕Tube(Metric)–Thread(R)

MODEL	L	C	Rc	A	H	W.G(g)	Q'ty/ Inbox
HP 1C(BRASS)	29	19	Rc1/8	11	14	18.6	100
HP 2C(BRASS)	36	22	Rc1/4	13	17	35.2	50
HP 3C(BRASS)	40	25	Rc3/8	13	21	60.3	25
HP 4C(BRASS)	44	28.4	Rc1/2	16	29	121.1	20
HP 6C(BRASS)	52	36	Rc3/4	17	35	208.1	12
HP 8C(BRASS)	62	40	Rc1"	20	41	347.2	6
HP 10C(BRASS)	70	45	Rc 1 1/4	24	54	649.6	1
HP 12C(BRASS)	75	49	Rc 1 1/2	24	63	923.4	1
HP 16C(BRASS)	80	52	Rc2"	27	77	1,574	1

H

Socket Female



MODEL〔ØD-T〕Tube(Metric)–Thread(R)

MODEL	L	ØD	Rc	A	HxØ	W.G(g)	Q'ty/ Inbox
HP 1H(BRASS)	48	23.6	Rc1/8	11	2hex14×18	82.1	25
HP 2H(BRASS)	58	27.5	Rc1/4	13	2hex19×22	131.8	25
HP 3H(BRASS)	65	34.5	Rc3/8	13	2hex21×25	201.6	12
HP 4H(BRASS)	72	44.5	Rc1/2	16	2hex29×35	421	6
HP 6H(BRASS)	88	54.5	Rc3/4	17	2hex35×41	698.6	2
HP 8H(BRASS)	102	64.5	Rc1"	20	2hex41×48	1,061.4	2
HP 10H(BRASS)	115	77.5	Rc1 1/4	24	2hex54×59	1,724.1	1
HP 12H(BRASS)	124	87.8	Rc1 1/2	24	2hex64×69	2,569.9	1
HP 16H(BRASS)	132	109	Rc2"	27	2hex77×86	3,867.1	1

Common Using Precautions of Coupler Series

Never fail to check the following

⚠ WARNING

1. Avoid applying or removing when pressure is on. It causes the danger of jumping of plug body.
2. Never touch the equipment under pressure in the state of putting plug and socket on the body. It cause “opening” by touch.
3. Never use coupler in place of rotary joint or other revolving joint.
4. Secure to flow the fluid from socket to plug.
5. Avoid the instrument or machine givinf strong bending weight, excessive vibration or shock.
6. To use the coupler on a vibration tool such as jet chisel, be sure to connect with 30cm rubber tube between tool and couple.

⚠ CAUTION

1. When putting plug into socket, secure to push it until it stops.
   Otherwise it may cause leakage. In addition, be sure to check whether it will come out or not by pulling it out.
2. Be caraful of plug body jumping by compressed air discharging when disconnecting.
3. Be sure not only to have dust or contamination with intended fluid but also to have flaws on body. It may cause leakage.
4. When pushing tube into the socket body, fix it with hose-band after wearing silicon.
5. Never fasten the thread over maximum limit of torque. It may cause breakage.

MOLD COUPLER

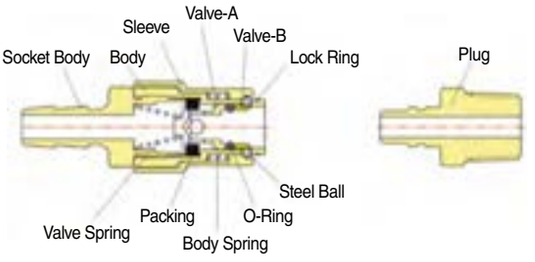
Application
- Used for piping of supplying cooling water on moulds.

Feature
- Quick assembly by one touch system.
- Uni-directional shut-off coupler with an automatic shut-off valve built in the socket.
- Useful in narrow space with O.D.(18.5㎜).
- Easy to connect or disconnect between cork and hole with long sleeve construction.

Specification

Fluid	Water, Oil
Material	Brass
Working Pressure Range	10Kgf/㎠(1000kPa)
Maximum pressure	15Kgf/㎠(1500kPa)

Structural Diagram



Product Code System

KC H 22

① ② ③

① Model

KC	Plug
KH	Socket

② Type

H	Hose Stem
M	Male Thread
F	Female Thread

③ Thread Size(T)

Size	21	22	23
H	1/8"	1/4"	3/8"
M	R1/8	R1/4	R3/8
F	Rc1/8	Rc1/4	Rc3/8

Mold Coupler

KCH

Plug Nipple

KCM

Plug Male

KCF

Plug Female

KHH

Socket Nipple

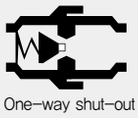
KHM

Socket Male

KHF

Socket Female

Valve Symbols

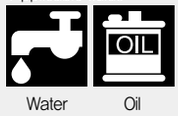


One-way shut-out

Working Pressure

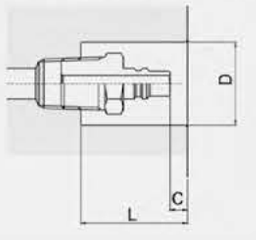
10kgf/㎠

Applicable fluids



Water Oil

▶ Gland Dimensions for Embedding



Modle	D	C	L
KCM21	20 Over	0–3	28
KCM23	20 Over	0–3	29
KCM23	23 Over	0–3	30

- The size exceeding 3㎜ causes interfrence with socket, making connection and disconnection impossible.
- The size “D”is the smallest recommended diameter. Therefore, process the hole in optimal size.

Common Using Precautions of Coupler Series

Never fail to check the following

⚠ WARNING

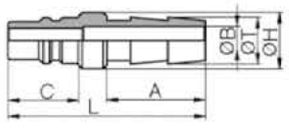
1. Avoid applying or removing when pressure is on. It causes the danger of jumping of plug body.
2. Never touch the equipment under pressure in the state of putting plug and socket on the body. It cause “opening” by touch.
3. Never use coupler in place of rotary joint or other revolving joint.
4. Secure to flow the fluid from socket to plug.
5. Avoid the instrument or machine givinf strong bending weight, excessive vibration or shock.
6. To use the coupler on a vibration tool such as jet chisel, be sure to connect with 30cm rubber tube between tool and couple.

⚠ CAUTION

1. When putting plug into socket, secure to push it until it stops.
   Otherwise it may cause leakage. In addition, be sure to check whether it will come out or not by pulling it out.
2. Be caraful of plug body jumping by compressed air discharging when disconnecting.
3. Be sure not only to have dust or contamination with intended fluid but also to have flaws on body. It may cause leakage.
4. When pushing tube into the socket body, fix it with hose-band after wearing silicon.
5. Never fasten the thread over maximum limit of torque. It may cause breakage.

KCH

Plug Nipple

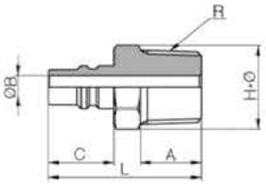


MODEL〔ØD-T〕Tube(Metric)–Thread(R)

MODEL	L	C	A	ØB	ØT	ØH	W.G(g)	Q'ty/Inbox
KCH21 BRASS	42	15	21	4.5	8	12	12.5	100
KCH22 BRASS	42	15	21	6	10	12	15.5	100
KCH23 BRASS	42	15	21	7	12	14	20.1	100

KCM

Plug Male

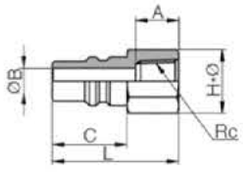


MODEL〔ØD-T〕Tube(Metric)–Thread(R)

MODEL	L	C	A	R	ØB	HxØ	W.G(g)	Q'ty/Inbox
KCM21 BRASS	31	15	11	R1/8	5.3	12.0X13.5	14.19	100
KCM22 BRASS	34	15	13	R1/4	5.3	14.0X15.5	22.66	100
KCM23 BRASS	35	15	14	R3/8	5.3	17.0X19.2	35.56	50

KCF

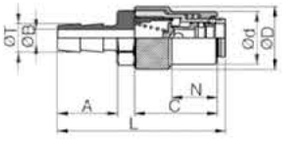
Plug Female



MODEL〔ØD-T〕Tube(Metric)–Thread(R)

MODEL	L	C	A	R	ØB	HxØ	W.G(g)	Q'ty/Inbox
KCF21 BRASS	28	15	10	Rc1/8	5.3	14x15.5	17.3	100
KCF22 BRASS	30.5	15	13	Rc1/4	5.3	17x19.2	24.5	50
KCF23 BRASS	32	15	14	Rc3/8	5.3	21x23.8	35.2	50

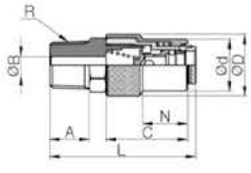
KHH
Socket Nipple



MODEL 〔ØD-T〕 Tube(Metric)–Thread(R)

MODEL	L	A	C	N	ØB	ØT	ØD	Ød	W.G(g)	Q'ty/Inbox
KHH21 BRASS	58.8	21	29	16	4.5	6.5	22	18.5	62.2	25
KHH22 BRASS	58.8	21	29	16	6	10	22	18.5	63.3	25
KHH23 BRASS	58.8	21	29	16	7	12	22	18.5	65.6	25
KHH24 BRASS	58.8	21	29	16	9	16	22	18.5	73.9	25

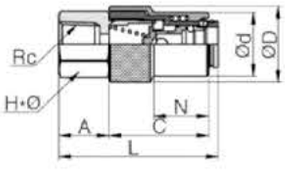
KHM
Socket Male



MODEL 〔ØD-T〕 Tube(Metric)–Thread(R)

MODEL	L	A	C	N	ØB	R	ØD	Ød	W.G(g)	Q'ty/Inbox
KHM21 BRASS	48.8	11	29	16	6	R1/8	22	18.5	63	25
KHM22 BRASS	50.8	13	29	16	6	R1/4	22	18.5	67.7	25
KHM23 BRASS	51.8	14	29	16	6	R3/8	22	18.5	76.3	25

KHF
Socket Female



MODEL 〔ØD-T〕 Tube(Metric)–Thread(R)

MODEL	L	A	C	N	HxØ	Rc	ØD	Ød	W.G(g)	Q'ty/Inbox
KHF21 BRASS	43.3	13	29	16	11x19	Rc1/8	22	18.5	64.3	25
KHF22 BRASS	46.3	13	29	16	17x19.2	Rc1/4	22	18.5	65.5	25

Classification of Warning Indication

DANGER Risk of death or serious injury.
(The most dangerous condition.)

WARNING Potential risk of danger, death or serious injury.
(Potential danger)

CAUTION Potential risk of danger and of financial damage.

Common Precautions

DANGER

▶ Never use for the following:
① As equipment for the purpose of the maintenance and management of human life.
② As equipment for the purpose of movement of human transportation.
③ As equipment requiring essential safety.

WARNING

▶ Never use on the following environment:
① Using for applications other than originally intended.
② Place of excessive vibration, shock, rotation and curve.
③ Place consisting of corrosive gas, inflammable/flammable gas, chemicals, sea water, water and vapor.

▶ Never disassmble or remodel the equipment; this may cause malfunction or leakage.
▶ When repairing or checking equipment, remove air pressure first.
▶ Never tamper with the sleeve of fitting when pressure is on.

CAUTION

▶ Never assemble with parts from other manufacturers; this may cause leakage or damage to the equipment.

Sang-A Pneumatic Co., Ltd. is not responsible for damage or injury that may occur due to interchanging of parts outside of the Sang-A Pneumatic brand.

Using Precautions of Fitting Series

Never fail to check the following

WARNING

1. Never use for fluids other than air and water(Water:available in case of special order only)
2. Never use at the place of spatter to avoid fire.
3. Be sure to use with Rotary Joint to prevent damage or leakage at the place of rotation.
4. Never use with water hotter than 60℃. This causes breakage of resin due to hydrolysis or heat.
5. Be sure to use after checking static electricity prevention requirements.
6. Avoid external impact such as bending, twisting and drawing on fittings.

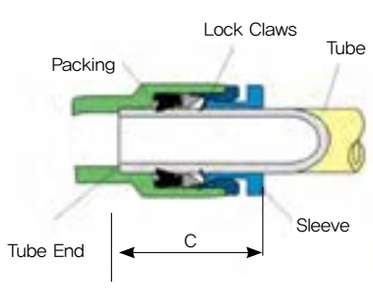
CAUTION

① Be sure to meet the following conditions for the tube, otherwise it may cause leakage of air or inferiority of the application.

SIZE	POLYURETHANE TUBE	NYLON TUBE	SIZE	POLYURETHANE TUBE	NYLON TUBE
Ø 3mm	± 0.10	± 0.08	Ø 1/8	± 0.10	± 0.08
Ø 4mm	± 0.10	± 0.08	Ø 5/32	± 0.10	± 0.08
Ø 6mm	± 0.12	± 0.10	Ø 3/16	± 0.12	± 0.10
Ø 8mm	± 0.12	± 0.10	Ø 1/4	± 0.12	± 0.10
Ø 10mm	± 0.15	± 0.12	Ø 5/16	± 0.15	± 0.12
Ø 12mm	± 0.15	± 0.12	Ø 3/8	± 0.15	± 0.12
Ø 16mm	± 0.15	± 0.15	Ø 1/2	± 0.15	± 0.15

② Cautions in the application of tube:

- Be sure to confirm that the section of tube is cut at a right angle. Make sure that there is no indication of damage to the outside of the tube.
- Be sure to refer to the following for application and removal of the tube.
  Sang-A Pneumatic equipment is made to follow a 2-step insertion of tubing into the fitting.
  The 1st step goes past the Lock Claws, and the 2nd step goes into the Packing.
  Make sure that the second step has been acquired.
- The elliptical design of the sleeve makes for a simple and easy application.
  (Please order the round sleeve if there are restrictions)



▶The size of Sleeve

SLEEVE SIZE		Ø3	Ø4		Ø6	Ø8	Ø10	Ø12	Ø16
		Ø1/8	Ø5/32	Ø3/16	Ø1/4	Ø5/16	Ø3/8	Ø1/2	
C	General Specifications(mm)		10X12	11X13	12X14	14X16	17X19	21X23	24X27
	Compact Specifications(mm)	7X6	10X8		12X10				

- Minimum insertion part of tube is as follows and be sure to use leaving as much as the following size as margin.

SLEEVE SIZE		Ø3	Ø4	Ø6	Ø8	Ø10	Ø12	Ø16
		Ø1/8	Ø5/32, 3/16	Ø1/4	Ø5/16	Ø3/8	Ø1/2	
C	General Specifications(mm)		16	17	18.5	21	22	25
	Compact Specifications(mm)	9.5	11.5	12.5	Ø3/16(N/A)			

③ Cautions on disconnecting tube:

- Before disconnecting tube, be sure to confirm that the pressure inside the tube is at zero.
- Before disconnecting tube, pull it out after pressing the sleeve equally on both sides.
  Unequal pressing strength will make scratch on tube by insufficient open of lock claws, this will cause air leakage.
- Be sure not to shake or make 360 degree rotation when disconnecting the tube.
  The scratch made by the misuses will cause air leakage.

④ Cautions on treatment of the equipment body:

- When fastening the body onto the six-angle part of the inside and outside of the fitting, choose the correct tool and size.
- When fastening the thread, please refer to the "Torque Recommended"(P13)
  If torque is higher than the recommended, this may cause damage or air leakage.
  If torque is lower than the recommecded, this may cause air leakage.
- After fastening the thread, most of Sang-A equipment allows control of the direction of the pipe.