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**YAMATO**  
ENGINEERING

YAMATO JAPAN QUICK COUPLINGS



**original** amato original products.

**BLY type General purpose** [P.5~P.6]  
<Socket>


Model	BLY-SH	BLY-SM	BLY-SF	BLY-SN
CS	○	○	○	○
BRS	○	○	○	○
SS	○	○	○	○

**BLY type General purpose** [P.5~P.6]  
<Plug>


Model	BLY-PH	BLY-PM	BLY-PF	BLY-PN
CS	○	○	○	○
BRS	○	○	○	○
SS	○	○	○	○

**BLK type One push type** [P.7~P.8]  
<Socket>


Model	BLK-SH	BLK-SM	BLK-SF	BLK-SN
CS	○	○	○	○
BRS				
SS				

**BLK-SA type With Sleeve guard** [P.9~P.10]  
<Socket> **original**


Model	BLK-SA-SH	BLK-SA-SM	BLK-SA-SF	BLK-SA-SN
CS	○	○	○	○
BRS				
SS				

**BLK type Sleeve Lock Mechanism** [P.11]  
<Socket>


Model	BLK-R-SH	BLK-R-SM	BLK-R-SF	BLK-R-SN
CS	○	○	○	○
BRS				
SS				

**Special product with flow regulator** [P.12]  
<Socket> <Plug>


Model	BLY-SNT	BLY-SMT	BLY-PMFT	BLY-PFFT
CS	○	○	○	○
BRS				
SS				

**Special Product Rotary type** [P.12]  
<Socket>


Model	BLK-SNR	BLK-R-SNR
CS	○	○
BRS		
SS		

**Special product Mold coupling** [P.12]  
<Socket> <Plug>


Model	YK02-SM	YK03-SH	YK01-PM	YK02-PM
CS				
BRS	○	○	○	○
SS				

Body material abbreviation (O indicates applicable material)

CS: Carbon Steel BRS: Brass SS: Stainless Steel

**original** amato original products.

**BLB type With button** [P.13~P.14]  
<Socket> **original**


Combination of Steel and Resin POM

**BLA type Small and light weight** [P.15~P.16]  
<Socket>


BLA12-SH BLA12-SM BLA12-SF BLA12-SN

Combination of Steel and Aluminum

**BLA type Small and light weight** [P.15~P.16]  
<Plug>


Model	BLA12-PH	BLA12-PM	BLA12-PFF	BLA12-PN
CS	○	○	○	○
BRS				
SS				

**STY type** [P.17~P.18]  
eral Purpose (Two-way open)  
<Socket>


Model	STY-SH	STY-SM	STY-SF
CS			
BRS	○	○	○
SS	○	○	○

**STY type Medium Pressure General** [P.17~P.18]  
Purpose (Two-way open)  
<Socket>


Model	STY-PH	STY-PM	STY-PF
CS			
BRS	○	○	○
SS	○	○	○

**SPY type Medium Pressure General** [P.19~P.20]  
Purpose (Both-way open close)  
<Socket> <Plug>


Model	SPY-S	SPY-P
CS		
BRS	○	○
SS	○	○

**Nut coupling for braided hose** [P.21]  
**original**


Model	BLY type	STY type	Adapter
CS			
BRS	○	○	○
SS			

Body material abbreviation (O indicates applicable material)

CS: Carbon Steel BRS: Brass SS: Stainless Steel

**Swivel Connector Plug** [P.22]  
**original**


BLY20-PMSW

BLY20-PMFSWR

Plug / Thread ... Steel, Brass  
Swivel part ... Aluminum



**original** amato original products.

LR type Rotary type 2-branch set **[P.23]**



LR-2

Socket, Plug ... Carbon Steel  
Branch part ... Brass (Chrome plating)

TW type 2-branch set **[P.24]**



TW-2

TW-2K

Socket, Plug ... Carbon Steel  
Branch part ...

MR type Rotary type Free connection **original**

**[P.25~P.26]**

<Master Body>



<Sub parts Female thread type>



<Sub parts Male thread type>



Air header coupling **[P.27~P.28]**

**original**



3 to 5 branch piping possible

Socket, Plug ... Carbon Steel  
Branch part ... Carbon Steel ( rivalent plating)

Portable line coupling **[P.29]**

**original**



BLY20-SPLT

BHY20-SPLT

**original** amato original products.

YD12 type Air Duster Gun **[P.30]**

**original**



YD100LED Air Duster Gun with LED **[P.31]**

**original**



YD-100LED

YD-110LED

YD10 type Air Duster Gun **[P.32]**



YD-10HC

YD-10HC-1

Air Parts **[P.36~P.38]**



Various types are handled.

BDK type <Socket> **[P.39]**

**original**



BDK-SH

BDK-SM

BDK-SF

BDK-SN

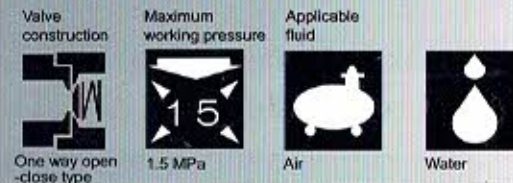
Proposals for various package processing **[P.40]**



Refer following pages for our other products.

Duster Nozzle ... **[P.32]**  
Air Hose ... **[P.33~P.35]**  
Air Chuck ... **[P.38]**





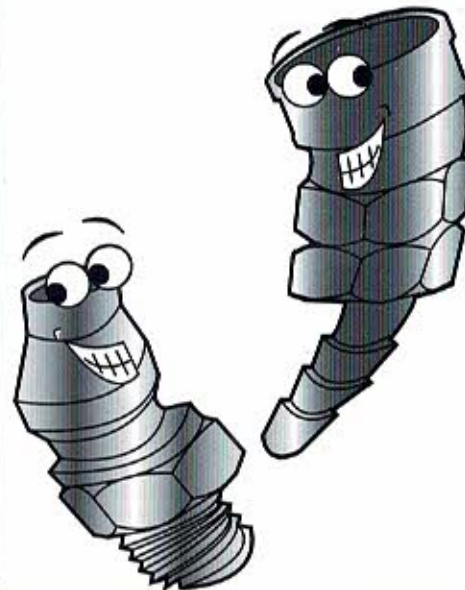
**From factory air piping to pneumatic tool connection, available in various body materials, sizes and end configurations. Excellent durability.**

- An excellent general purpose coupling for connecting air supply to pneumatic tools
- Steel coupling is suitable for air. Brass or stainless steel is suitable for water.
- Critical structural parts are heat-treated for increased strength giving greater durability and resistance to wear.
- Available in various body materials, sizes and end configurations applicable to a wide range of applications.



## Specifications

Standard		20 type				40 type			
Product name		BLY-21	BLY-22	BLY-23	BLY-24	BLY-44	BLY-46	BLY-48	
Nominal diameter		1 / 8 "	1 / 4 "	3 / 8 "	1 / 2 "	1 / 2 "	3 / 4 "	1 "	
Body material		Steel (Chromium plated), Brass							
Connection profile	Socket	Shank	S H	Male threads	S M	Female threads	S F	Nut type	S N
	Plug	Shank	P H	Male threads	P M	Female threads	P F	Nut type	P N
Max. Operating pressure (Pressure resistance) Kg/cm2(MPa)	Carbon Steel	1 5 [ 2 0 ] ( 1 . 5 [ 2 . 0 ] )							
	Brass	1 0 [ 1 5 ] ( 1 . 0 [ 1 . 5 ] )							
	Stainless	1 5 [ 2 0 ] ( 1 . 5 [ 2 . 0 ] )							
Seal material Ambient temperature range	Standard	Nitrile rubber (NBR) : - 20 deg.C ~ +80degC.							
	Option	Viton : - 20 deg.C ~ +180degC.							
Applicable fluid	Carbon Steel	Air, Oil, Others							
	Brass	Air, Water, Others							
	Stainless	Air, Water, Others							
Applications		Pneumatic tools, various pneumatic piping, water piping, pneumatic equipments etc.							



## Connection and disconnection

### (When connecting)

The valve of the socket will open automatically, flow path will open and fluid will flow, if you pull back the outer cylinder sleeve on the socket side and insert the plug.

### (When disconnecting)

Valve on the socket side is automatically closed, and the flow path will no allow flow outside when the outer cylinder sleeve on the socket side is pulled back, it gets detached. However, please note that the fluid on the plug side will flow out.

## Flow direction

Fluid flows from socket side to plug side.



# Product model, dimension chart

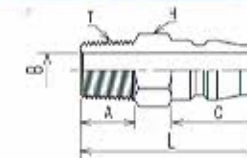
## Plug

### PH type (For hose connection)



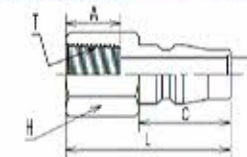
Model	Mounting side profile	L	A	C	H	T	B
BLY21-PH	1/8" For hose	58	30	20	φ15	φ7.5	φ4
BLY22-PH	1/4" For hose	58	30	20	φ15	φ9	φ5
BLY23-PH	3/8" For hose	58	30	20	φ15	φ11	φ7.5
BLY24-PH	1/2" For hose	63	35	20	φ17	φ15	φ9
BLY44-PH	1/2" For hose	69	35	23	φ22	φ15	φ9
BLY46-PH	3/4" For hose	74	40	23	φ25	φ21	φ12.5
BLY48-PH	1" For hose	79	45	23	φ30	φ27.5	φ19

### PM type (Male threads)



Model	Mounting side profile	L	A	C	H	T	B
BLY21-PM	Rc1/8" Female threads	37	10	20	△14	R1/8"	φ5
BLY22-PM	Rc1/4" Female threads	41	13	20	△14	R1/4"	φ7.5
BLY22-PMF	G1/4" Straight female threads	41	8	20	△14	G1/4"	φ7.5
BLY23-PM	Rc3/8" Female threads	41	13	20	△19	R3/8"	φ7.5
BLY24-PM	Rc1/2" Female threads	45	16	20	△23	R1/2"	φ12
BLY44-PM	Rc1/2" Female threads	49	16	23	△23	R1/2"	φ12.5
BLY46-PM	Rc3/4" Female threads	52	18	23	△29	R3/4"	φ16
BLY48-PM	Rc1" Female threads	54	20	23	△35	R1"	φ25

### PF type (Female threads)



Model	Mounting side profile	L	A	C	H	T	B
BLY21-PF	R1/8" Male threads	32	10	20	△14	Rc1/8"	
BLY22-PF	R1/4" Male threads	36	13	20	△17	Rc1/4"	
BLY22-PFF	G1/4" Straight male threads	32	9	20	△17	G1/4"	
BLY23-PF	R3/8" Male threads	37	14	20	△21	Rc3/8"	
BLY24-PF	R1/2" Male threads	40	16	20	△26	Rc1/2"	
BLY44-PF	R1/2" Male threads	42	16	23	△26	Rc1/2"	
BLY46-PF	R3/4" Male threads	44	18	23	△32	Rc3/4"	
BLY48-PF	R1" Male threads	48	20	23	△41	Rc1"	

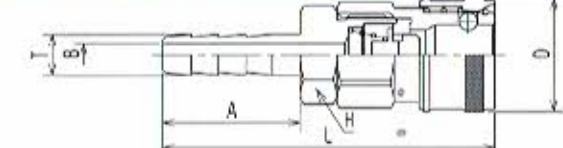
### PN type (Nut type)



Model	Mounting side profile	L	A	C	H	T	B
BLY21-PN	φ5×φ8 Urethane hose	43	17	20	△17	△17	φ4.5
BLY22-PN	φ6×φ9 Urethane hose	43	17	20	△17	△17	φ5
BLY22-PN	φ6.5×φ10 Urethane hose	43	17	20	△17	△17	φ5
BLY23-PN	φ8×φ12 Urethane hose	45	19	20	△19	△19	φ7.5
BLY23-PN	φ8.5×φ12.5 Urethane hose	45	19	20	△19	△19	φ7.5
BLY24-PN	φ11×φ16 Urethane hose	52	24	20	△23	△24	φ7.5

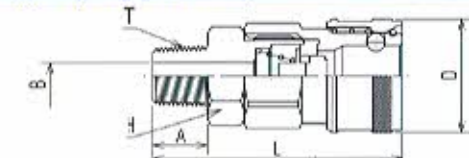
## Socket

### SH type (For hose connection)



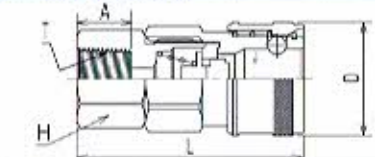
Model	Mounting side profile	L	A	D	H	T	B
BLY21-SH	1/8" For hose	67.5	25	φ25	△19	φ7.5	φ4
BLY22-SH	1/4" For hose	72.5	30	φ25	△19	φ9	φ5
BLY23-SH	3/8" For hose	72.5	30	φ25	△19	φ11	φ7.5
BLY24-SH	1/2" For hose	77.5	35	φ25	△19	φ15	φ9
BLY44-SH	1/2" For hose	83	35	φ35	△29	φ15	φ9
BLY46-SH	3/4" For hose	88	40	φ35	△29	φ21	φ12.5
BLY48-SH	1" For hose	93	45	φ35	△29	φ27.5	φ18

### SM type (Male threads)



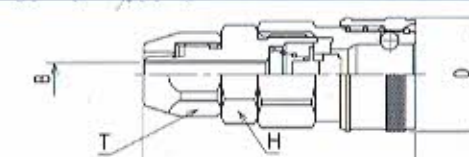
Model	Mounting side profile	L	A	D	H	T	B
BLY21-SM	Rc1/8" Female threads	52.5	10	φ25	△19	R1/8"	φ5
BLY22-SM	Rc1/4" Female threads	55.5	12	φ25	△19	R1/4"	φ7.5
BLY23-SM	Rc3/8" Female threads	56.5	13	φ25	△19	R3/8"	φ9
BLY24-SM	Rc1/2" Female threads	58.5	16	φ25	△23	R1/2"	φ9
BLY44-SM	Rc1/2" Female threads	63	16	φ35	△29	R1/2"	φ12.5
BLY46-SM	Rc3/4" Female threads	65	18	φ35	△29	R3/4"	φ16
BLY48-SM	Rc1" Female threads	67	20	φ35	△35	R1"	φ25

### SF type (Female threads)



Model	Mounting side profile	L	A	D	H	T	B
BLY21-SF	R1/8" Male threads	47.5	10	φ25	△19	Rc1/8"	
BLY22-SF	R1/4" Male threads	49.5	13	φ25	△19	Rc1/4"	
BLY22-SFF	G1/4" Straight male threads	45.5	9	φ25	△19	G1/4"	
BLY23-SF	R3/8" Male threads	51.5	13	φ25	△21	Rc3/8"	
BLY24-SF	R1/2" Male threads	55.5	16	φ25	△26	Rc1/2"	
BLY44-SF	R1/2" Male threads	60	16	φ35	△29	Rc1/2"	
BLY46-SF	R3/4" Male threads	61	19	φ35	△32	Rc3/4"	
BLY48-SF	R1" Male threads	63	20	φ35	△41	Rc1"	

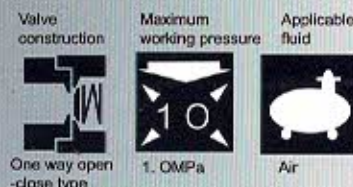
### SN type (Nut type)



Model	Mounting side profile	L	A	D	H	T	B
BLY21-SN	φ5×φ8 Urethane hose	59.5	φ25	△19	△17	φ4.5	
BLY22-SN	φ6×φ9 Urethane hose	59.5	φ25	△19	△17	φ5	
BLY22-SN	φ6.5×φ10 Urethane hose	59.5	φ25	△19	△17	φ5	
BLY23-SN	φ8×φ12 Urethane hose	61.5	φ25	△19	△19	φ7.5	
BLY23-SN	φ8.5×φ12.5 Urethane hose	61.5	φ25	△19	△19	φ7.5	
BLY24-SN	φ11×φ16 Urethane hose	65.5	φ25	△23	△24	φ9	



# BLK Type One Push connection type for pneumatic piping



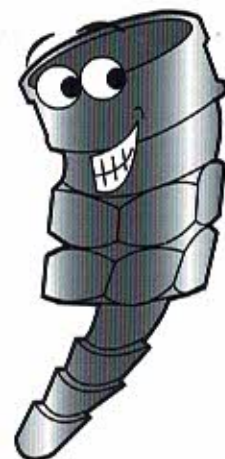
## Simple and secure push to connect type. Gives excellent handling touch.

- Just push the plug into the socket for simple and secure connection.
- Easy connect with one hand even in the narrow space due to its one push mechanism.
- Available in various end configurations applicable to a wide range of applications.
- Interchangeable with BLY type.
- Wide variety of end configurations is standardized for wide range of applications.



### Specifications

Product name	BLK-22	BLK-23	BLK-24
Nominal diameter	1/4"	3/8"	1/2"
Body material	Steel (Chromium plated), Brass		
Max. Operating kgf/cm <sup>2</sup> (MPa)	10	(1.0)	
Design Pressure kgf/cm <sup>2</sup> (MPa)	15	(1.5)	
Seal material Operating temperature range	Nitrile rubber (NBR) : -20 °C ~ +80 °C		



### Connect and disconnect

#### (When connecting)

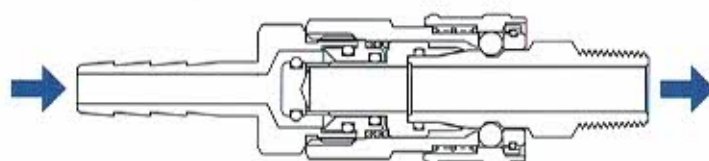
Simply push the plug into the socket, then the lock of the plug and valve of the socket will open automatically at the same time opening the flow path and allowing fluid to flow.

#### (When disconnecting)

Coupling gets disconnected when the outer cylinder sleeve on the socket side is pulled back, the valve on the socket side is automatically closed, and the flow path will not allow flow out. However, please note that the fluid on the plug side will flow out.

#### Fluid direction

Use in such a way that fluid flows from socket side to plug side.

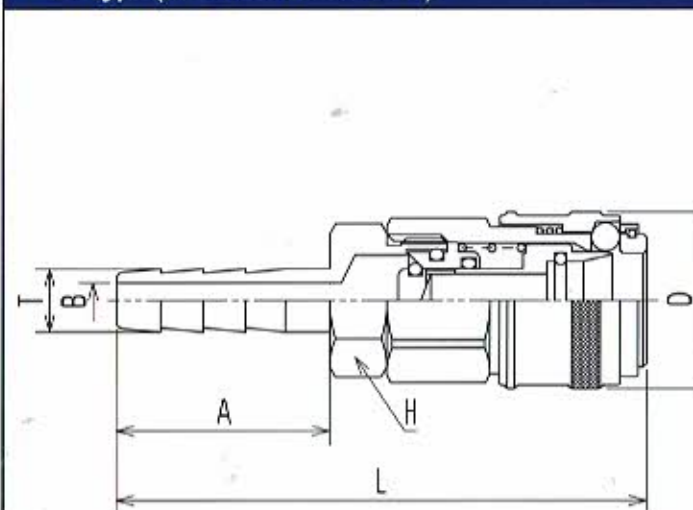


**Note** Due to the structure of the one-push socket, the sleeve may slide back due to external impact or vibration, and the socket and plug may get disconnected. Avoid the application in places where it is subjected to shocks or vibrations. In that case, we recommend model having sleeve guard specifications or lock function, having an external impact prevention function.

## Product type, Dimension chart

### One push type socket

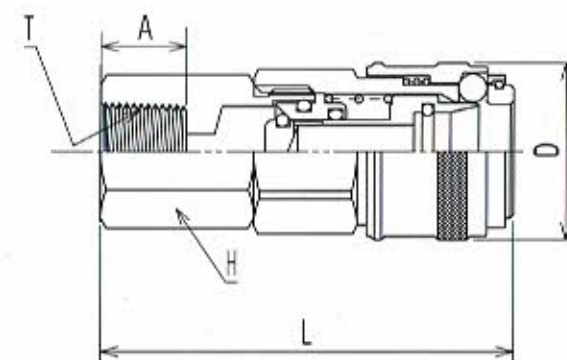
#### SH type (For hose connection)



Model	Mounting side profile	Dimensions mm					
		L	A	D	H	T	B
BLK22-SH	1/4" Hose	74.5	30	φ25	△19	φ9	φ5
BLK23-SH	3/8" Hose	74.5	30	φ25	△19	φ11	φ7.5
BLK24-SH	1/2" Hose	79.5	35	φ25	△19	φ15	φ9

Refer pages 9 to 11 for couplings that are resistant to external impact.

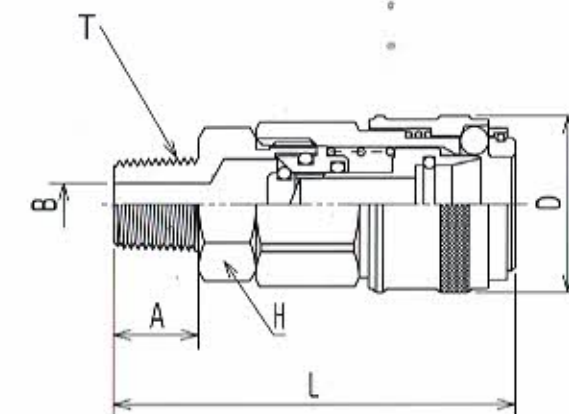
#### SF type (Female threads)



Model	Mounting side profile	Dimensions mm					
		L	A	D	H	T	B
BLK22-SF	R1/4" Male threads	57	13	φ25	△19	Rc1/4" Female threads	
BLK23-SF	R3/8" Male threads	57	14	φ25	△21	Rc3/8" Female threads	
BLK24-SF	R1/2" Male threads	61	16	φ25	△26	Rc1/2" Female threads	

Refer pages 9 to 11 for couplings that are resistant to external impact.

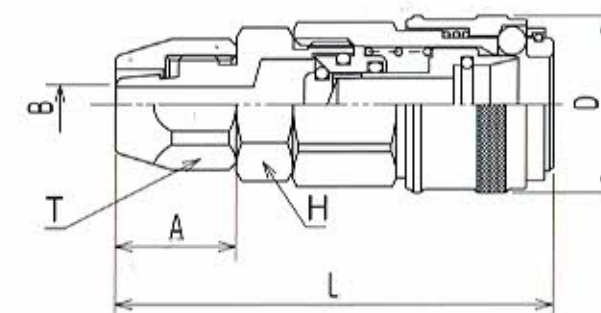
#### SM type (Male threads)



Model	Mounting side profile	Dimensions mm					
		L	A	D	H	T	B
BLK22-SM	Rc1/4" Female threads	56.5	12	φ25	△19	R1/4" Male threads	φ7.5
BLK23-SM	Rc3/8" Female threads	57.5	13	φ25	△19	R3/8" Male threads	φ9
BLK24-SM	Rc1/2" Female threads	60.5	16	φ25	△23	R1/2" Male threads	φ9

Refer pages 9 to 11 for couplings that are resistant to external impact.

#### SN type (Nut type)



Model	Mounting side profile	Dimensions mm					
		L	A	D	H	T	B
BLK22-SN	φ6.5×φ10 Urethane hose	61.5	17	φ25	△19	△17	φ5
BLK23-SN	φ8.5×φ12.5 Urethane hose	63.5	19	φ25	△19	△19	φ7.5

Refer pages 9 to 11 for couplings that are resistant to external impact.



# BLK- SA Type

One push connection type for pneumatic piping

original



## One push type coupling with sleeve guard for safety.

- Sleeve guard prevents accidental disconnection by external impacts
- Simple one push plug and socket to each other for connection. Easy connecting / disconnecting improves job efficiency.
- More robust to external impacts than BLK type and more economical than BLK - R type.
- Interchangeable with BLY type.



## Specifications

Product name	BLK-22SA	BLK-23SA	BLK-24SA
Nominal diameter	1/4"	3/8"	1/2"
Body material	Steel (Chrome plating), Brass		
Max. Operating pressure Kgf/cm <sup>2</sup> (MPa)	10 (1.0)		
(Design Pressure) Kgf/cm <sup>2</sup> (MPa)	15 (1.5)		
Seal material operating temperature range	Nitrile rubber (NBR) : -20 °C ~ +80 °C		
Coupling	One push type		

## Connection and disconnection

### (When connecting)

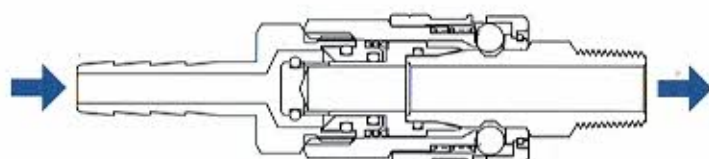
Simply push the plug into the socket, then the lock of the plug and valve of the socket will open automatically at the same time opening the flow path and allowing fluid to flow. Since it is a sleeve guard specification, it prevents the sleeve from coming off the plug even if some external impact is applied during use.

### (When disconnecting)

The unit gets disconnected when the inner sleeve of sleeve guard on the socket side is pulled back, the valve on the socket side is automatically closed, and the flow path does not flow out. However, please note that the fluid on the plug side will flow out.

## Fluid direction

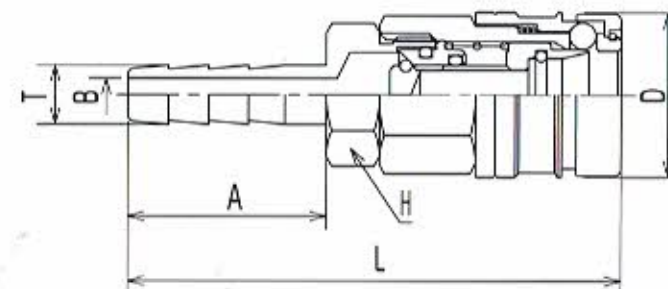
Use in such a way that fluid flows from socket side to plug side.



# Product type, Dimension chart

## One push type socket

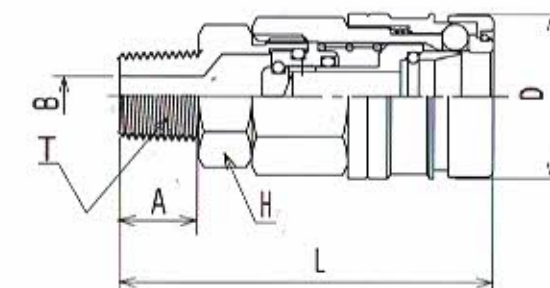
### SH type (For hose connection)



Model	Mounting side profile	L	A	D	H	T	B
BLK22SA-SH	1/4" Hose	74.5	30	φ25	Δ19	φ9	φ5
BLK23SA-SH	3/8" Hose	74.5	30	φ25	Δ19	φ11	φ7.5
BLK24SA-SH	1/2" Hose	79.5	35	φ25	Δ19	φ15	φ9

The BLK-R type where sleeve is locked by rotating, is on page 11.

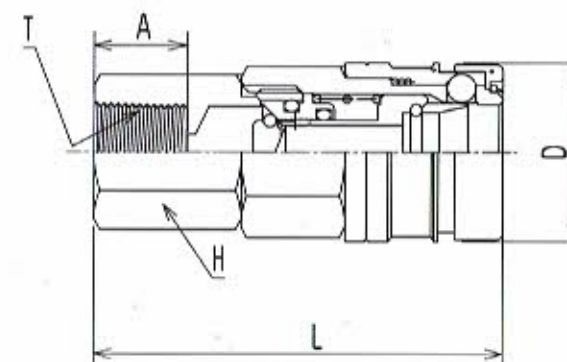
### SM type (Male threads)



Model	Mounting side profile	L	A	D	H	T	B
BLK22SA-SM	Rc1/4" Female threads	56.5	12	φ25	Δ19	R1/4" Male threads	φ7.5
BLK23SA-SM	Rc3/8" Female threads	57.5	13	φ25	Δ19	R3/8" Male threads	φ9
BLK24SA-SM	Rc1/2" Female threads	60.5	16	φ25	Δ23	R1/2" Male threads	φ9

The BLK-R type where sleeve is locked by rotating, is on page 11.

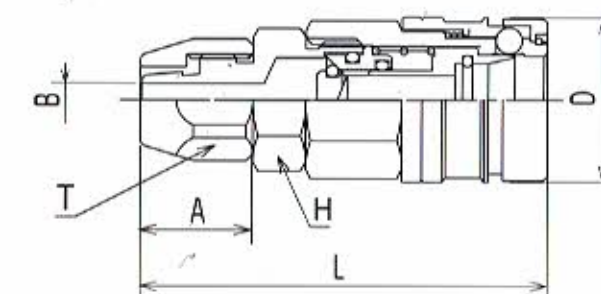
### SF type (Female threads)



Model	Mounting side profile	L	A	D	H	T	B
BLK22SA-SF	R1/4" Male threads	57	13	φ25	Δ19	Rc1/4" Female threads	φ5
BLK23SA-SF	R3/8" Male threads	57	14	φ25	Δ21	Rc3/8" Female threads	φ5
BLK24SA-SF	R1/2" Male threads	61	16	φ25	Δ26	Rc1/2" Female threads	φ5

The BLK-R type where sleeve is locked by rotating, is on page 11.

### SN type (Nut type)



Model	Mounting side profile	L	A	D	H	T	B
BLK22SA-SN	φ6.5×φ10 Urethane hose	61.5	17	φ25	Δ19	Δ17	φ5
BLK23SA-SN	φ8.5×φ25 Urethane hose	63.5	19	φ25	Δ19	Δ19	φ7.5

The BLK-R type where sleeve is locked by rotating, is on page 11.



# BLK Type

Sleeve lock mechanism one push type



## Easy to connect with one push mechanism Prevent disconnection from external impact, vibration

- Easy connection just by pushing the plug into socket
- Prevent disconnection of socket and plug from external impact, vibration.
- Available in various end configurations applicable to a wide range of applications.



### Connect and disconnect

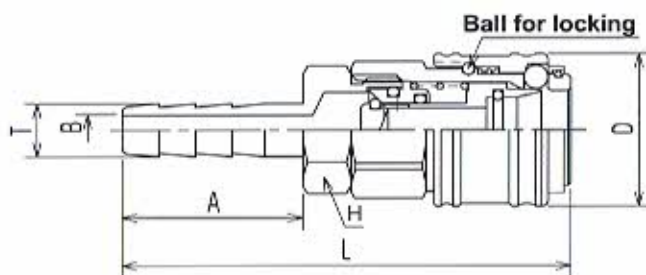
#### (When connecting)

Simply push the plug into the socket, and the valve of the socket will open automatically at the same time as the plug locks, opening the flow path and allowing fluid to flow. After connecting, rotate the sleeve 90 degrees to lock it.

#### (When disconnecting)

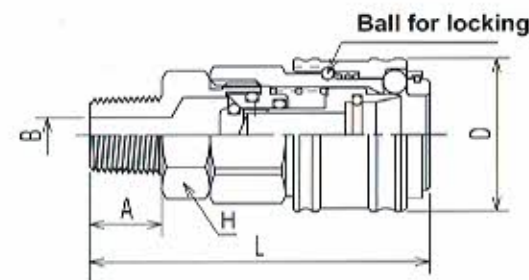
When the outer cylinder sleeve on the socket side is rotated 90 degrees and pulled back, it gets disconnected, the valve on the socket side is automatically closed, and the flow path does not flow out. However, please note that the fluid on the plug side will flow out.

#### SH type (for hose connection)



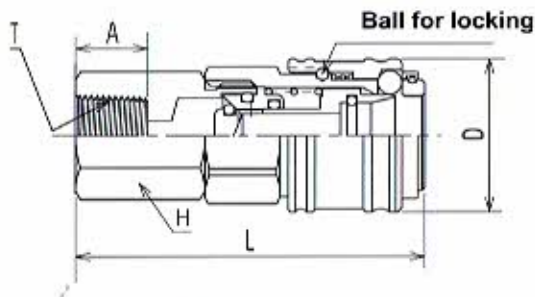
Model	Mounting side profile	Dimensions MM					
		L	A	D	H	T	B
BLK22R-SH	1/4" Hose	74.5	30	φ26	△19	φ9	φ5
BLK23R-SH	3/8" Hose	74.5	30	φ26	△19	φ11	φ7.5
BLK24R-SH	1/2" Hose	79.5	35	φ26	△19	φ15	φ9

#### SM type (Male threads)



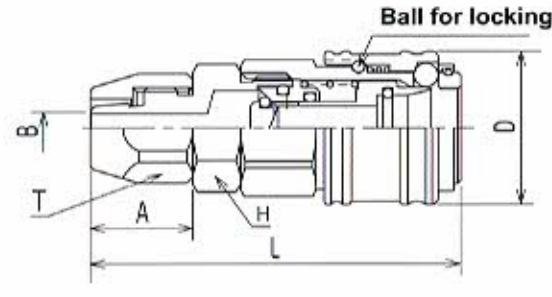
Model	Mounting side profile	Dimensions MM					
		L	A	D	H	T	B
BLK22R-SM	Rc1/4" Female threads	56.5	12	φ26	△19	R1/4" Male threads	φ7.5
BLK23R-SM	Rc3/8" Female threads	57.5	13	φ26	△19	R3/8" Male threads	φ9
BLK24R-SM	Rc1/2" Female threads	60.5	16	φ26	△23	R1/2" Male threads	φ9

#### SF type (Female threads)



Model	Mounting side profile	Dimensions MM					
		L	A	D	H	T	
BLK22R-SF	R1/4" Male threads	57	13	φ26	△19	Rc1/4" Female threads	
BLK23R-SF	R3/8" Male threads	57	14	φ26	△21	Rc3/8" Female threads	
BLK24R-SF	R1/2" Male threads	61	16	φ26	△26	Rc1/2" Female threads	

#### SN type (Nut type)



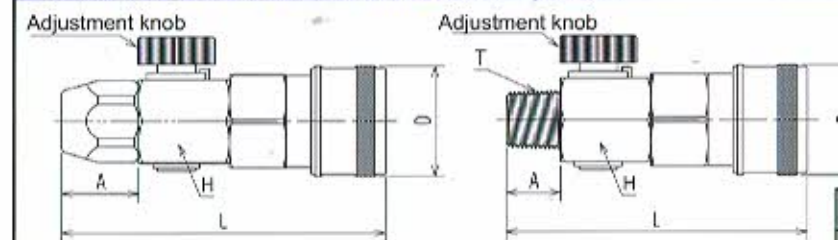
Model	Mounting side profile	Dimensions MM					
		L	A	D	H	T	B
BLK22R-SN	φ65×φ10 Urethane hose	61.5	17	φ26	△19	△17	φ5
BLK23R-SN	φ65×φ12.5 Urethane hose	63.5	19	φ26	△19	△19	φ7.5

# Special Product

### Coupling with flow rate regulator

- Fluid flow rate can be adjusted as needed by simply twisting the knob.
- Compatible with BL type.

#### SNT type (Nut type) SMT type (Male Threads)

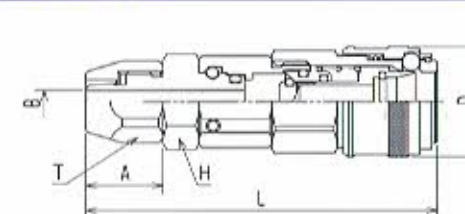


Model	Mounting side profile	Dimensions MM					
		L	A	D	H	T	
BLY22-SNT	φ65×φ10 Urethane hose	71.5	17	φ25	△19		
BLY22-SMT	Rc1/4" Female threads	66.5	12	φ25	△19	R1/4"	

### Rotary type nut coupling

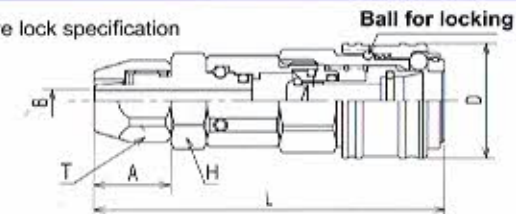
- It is a rotary type that prevents the twisting of hose, and rotates 360°.
- Easy connection just by pushing the plug into the socket.
- Compatible with BL type.

#### SNR type (Nut type)



Model	Application Shape/size	Dimensions MM					
		L	A	D	H	T	B
BLK22-SNR	φ65×φ10 Urethane hose	76.5	17	φ25	△19	△17	φ5
BLK23-SNR	φ65×φ12.5 Urethane hose	78.5	19	φ25	△19	△19	φ7.5

#### ● Sleeve lock specification

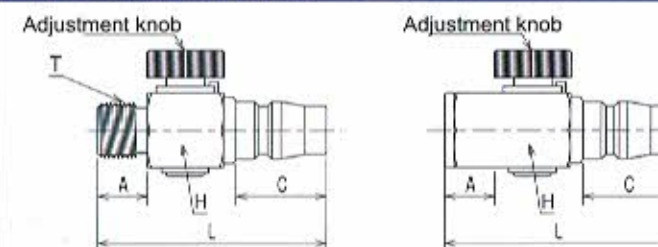


Model	Application Shape/size	Dimensions MM					
		L	A	D	H	T	B
BLK22R-SNR	φ65×φ10 Urethane hose	76.5	17	φ26	△19	△17	φ5
BLK23R-SNR	φ65×φ12.5 Urethane hose	78.5	19	φ26	△19	△19	φ7.5

### Plug with flow rate regulator

- We undertake lot production. Please contact us.

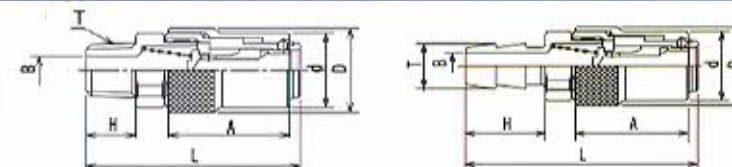
#### PMFT type, PFFT type



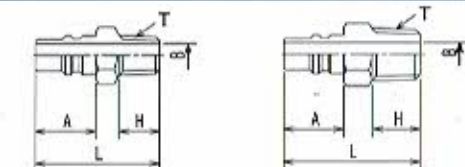
Model	Dimensions MM				
	L	A	C	H	T
BLY22-PMFT	50.5	11	20	△17	G1/4" Male threads
BLY22-PFFT	50.5	11	20	△17	G1/4" Female threads

### Mold coupling

#### YK type



Model	Dimensions MM						
	L	A	D	d	H	T	B
YK02-SM	52.5	29.5	φ21	φ18.5	13	R1/4"	φ6
YK03-SH	60.5	29.5	φ21	φ18.5	21	φ12	φ7



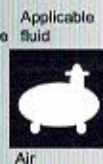
Model	Dimensions MM				
	L	A	H	T	B
YK01-PM	31	15	9	R1/8"	φ5.5
YK02-PM	34	15	12	R1/4"	φ6



# BLB Type

One push button type for pneumatic piping

original



## 6 Features

- \*Easy connection by inserting the plug and easy disconnection by pushing a button
- \*Safe with the lock function by the button knob
- \*Preventive from damage and protective from external impact as the body is covered with rubber case
- \*Ease recoiling impact occurred on the plug by releasing air pressure when disconnect
- \*Preventive measure for hose twisting with swivel mechanism

## JAPAN Patented Product

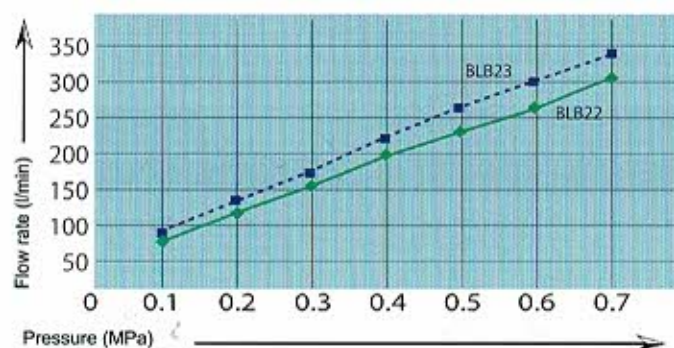


### Specifications

Product name	BLB22 (Red)	BLB23 (Blue)
Nominal diameter	1/4"	3/8"
Body material	Steel (Chrome plating) Pom. CR	
Max. Operating pressure Kgf/cm <sup>2</sup> (MPa)	10 (1.0)	
Design Pressure Kgf/cm <sup>2</sup> (MPa)	15 (1.5)	
Seal material Operating temperature range	Nitrile rubber (NBR) : -20 °C ~ +80 °C	

### Pressure flow rate characteristic diagram

Measurement condition : 26 deg.C



### Fluid direction

Safety design

Rotate the button knob to prevent the button from being pressed down by external contact.



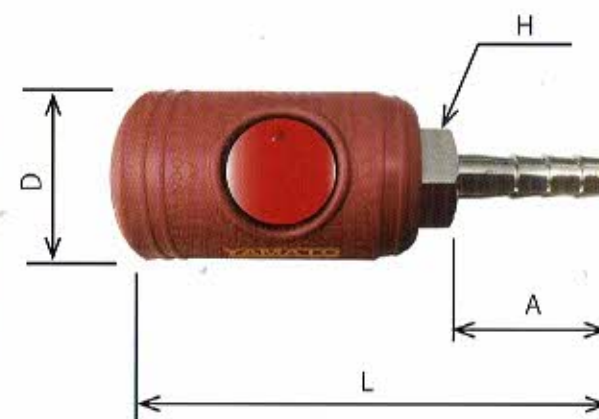
### Fluid direction

Available for connection with BLY 22 type, BLY23 type (3/8"), BLY type (1/2") plug.

## Product type, Dimension chart

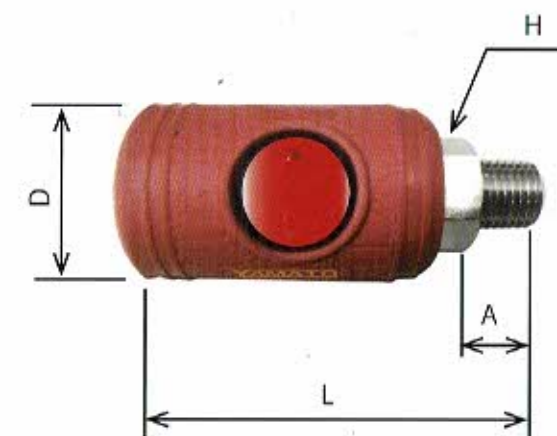
### One push button type socket

#### SH type (For hose connection)



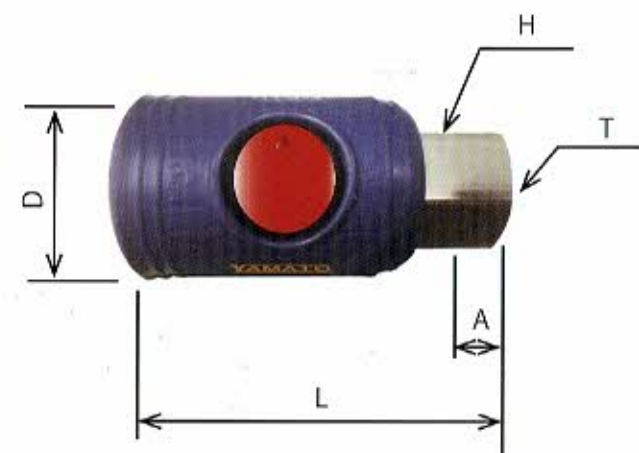
		L	A	D	H	T	B
BLB22-SH	1/4" Hose	87	30	φ33.5	Δ19	φ9	φ5
BLB23-SH	3/8" Hose	87	30	φ33.5	Δ19	φ11	φ7.5

#### SM type (Male threads)



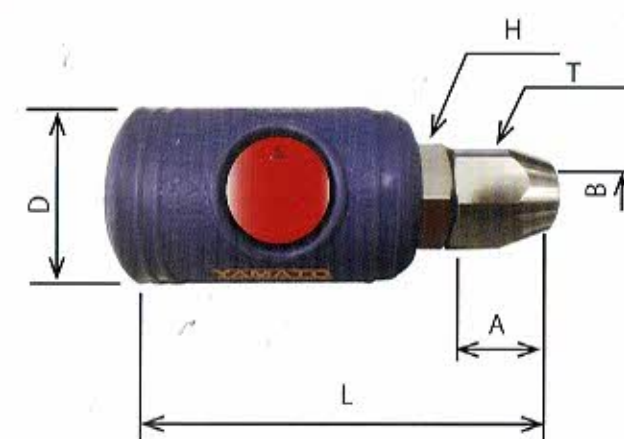
		L	A	D	H	T	B
BLB22-SM	Rc1/4" Female threads	70	12	φ33.5	Δ19	R1/4" Male threads	φ7.5
BLB23-SM	Rc3/8" Female threads	71	13	φ33.5	Δ19	R3/8" Male threads	φ9

#### SF type (Female threads)



		L	A	D	H	T
BLB22-SF	R1/4" Male threads	63	13	φ33.5	Δ19	Rc1/4" Female threads
BLB23-SF	R3/8" Male threads	64	14	φ33.5	Δ21	Rc3/8" Female threads

#### SN type (Nut type)



		L	A	D	H	T	B
BLB22-SN	φ8.5xφ10 Urethane hose	75	17	φ33.5	Δ19	Δ17	φ5
BLB23-SN	φ8.5xφ12.5 Urethane hose	77	19	φ33.5	Δ19	Δ19	φ7.5



# BLA Type

Universal purpose low pressure air-line couplings for pneumatic tools.



## From air supply source to pneumatic tool connection One push mechanism for easy handling

\*Compact and light weight suitable for long handling

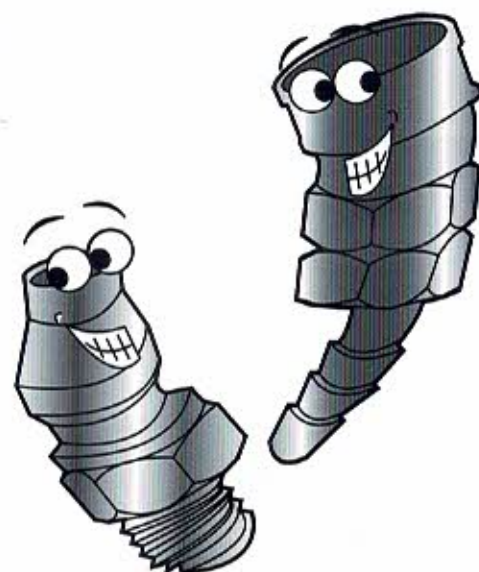
\*Easy connection / disconnection with one-push mechanism

\* Various end configurations applicable to a wide range of applications.



### Specifications

Main body material	Carbon Steel (plating) Aluminium
Size	1 / 4"
Max. operating pressure	1.0 (1.0)
Max. Design Pressure	1.5 (1.5)
Seal material	Nitrile rubber (NBR)
Operating temperature range	-20 °C ~ +80 °C



### Connect and disconnect

#### (Connect)

Pulling back outer cylinder sleeve on the socket and insert plug. Valve of socket opens automatically and air flows as flow path opens.

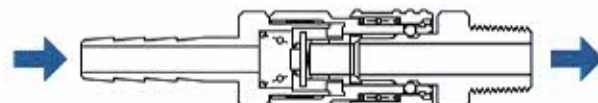
#### (Disconnect)

Pulling back outer cylinder sleeve for disconnecting. Valve of socket closes automatically and air does not flow out as flow path closes.

Note: Fluid remained in plug should flow out.

### Flow direction

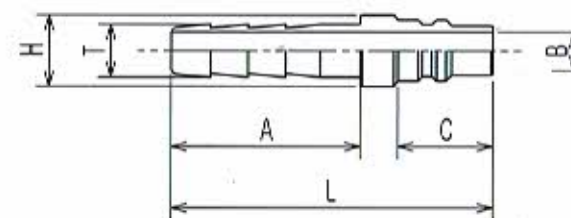
Fluid flows from socket side to plug side.



## Product model, dimension chart

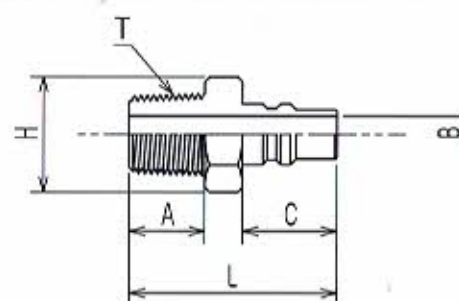
### Plug

#### PH type (For hose connection)



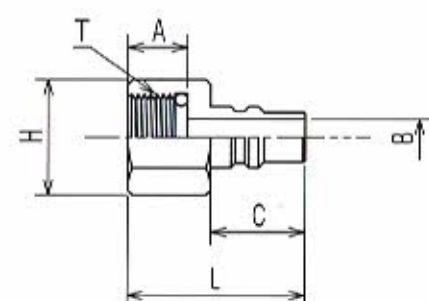
Model	Application	Dimensions (mm)					
		L	C	A	H	T	B
BLA12-PH	1/4" Hose	51	15	30	51	φ8.5	φ6

#### PM type (Male threads)



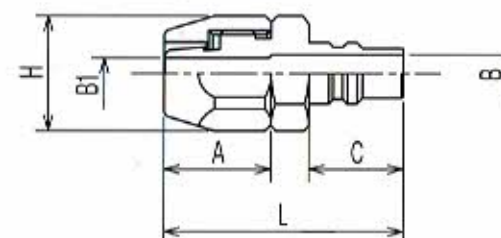
Model	Application	Dimensions (mm)					
		L	C	A	H	T	B
BLA12-PM	Rc1/4" Female threads	34	15	13	Δ17	R1/4"	φ6

#### PF type Female threads



Model	Application	Dimensions (mm)					
		L	C	A	H	T	B
BLA12-PFF	G1/4" Male threads	28	15	9	Δ17	G1/4"	φ6

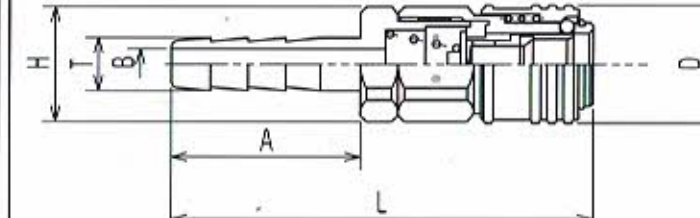
#### PN type Nut type



Model	Application	Dimensions (mm)					
		L	C	A	H	B	B1
BLA12-PN	φ6.3×φ0.9 Urethane hose	38	15	17	Δ17	φ6	φ5

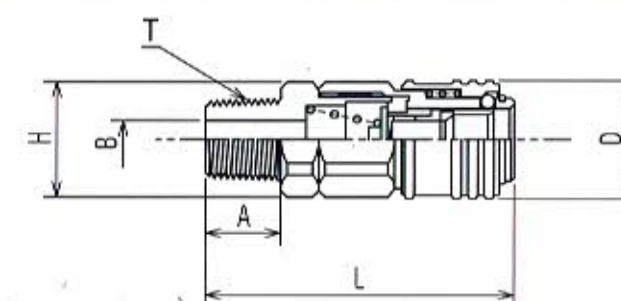
### Socket

#### SH type (For hose connection)



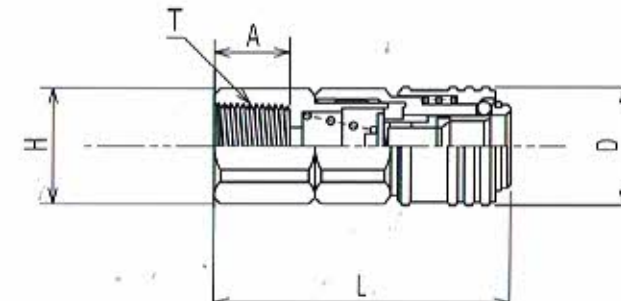
Model	Application	Dimensions (mm)					
		L	A	D	H	T	B
BLA12-SH	1/4" Hose	67	30	φ19	Δ17	φ8.5	φ5

#### SM type (Male threads)



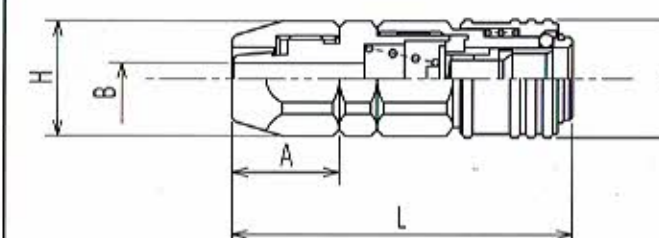
Model	Application	Dimensions (mm)					
		L	A	D	H	T	B
BLA12-SM	Rc1/4" Female threads	49	12	φ19	Δ17	R1/4"	φ6

#### SF type Female threads



Model	Application	Dimensions (mm)					
		L	A	D	H	T	
BLA12-SF	R1/4" Male threads	47	12	φ19	Δ17	Rc1/4"	

#### SN type Nut type

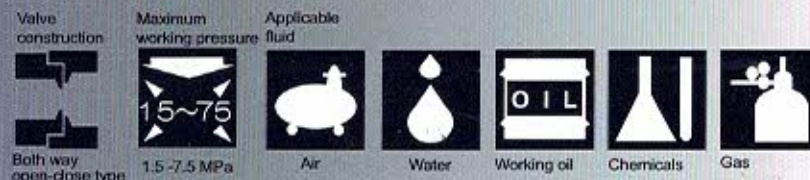


Model	Application	Dimensions (mm)					
		L	A	D	H	B	
BLA12-SN	φ6.3×φ0.9 Urethane hose	54	17	φ19	Δ17	φ5	



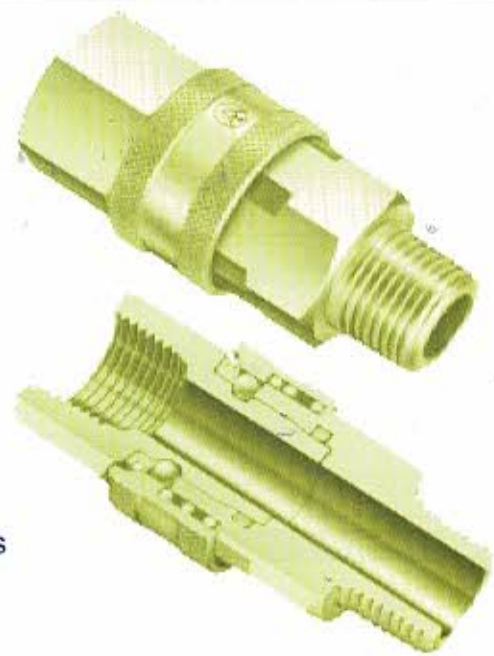
# STY Type

Medium pressure  
Multipurpose type



**Valveless structure suits high viscosity fluid. Wide selection of body materials, sizes and end configurations.**

- Valveless structure saves pressure loss and achieves high flow performance even for high viscous fluids such as grease.
- Availability of body material: SS 303, SS 304, Brass SS316, Carbon steel upon request
- Available in various materials, sizes, end configurations applicable to a wide range of applications.



## Specifications

- Structure: No valve, Ball-lock type
- Mounting part profile: PT Male threads (M type), PT Female threads (F type), Hose Shank (H type)

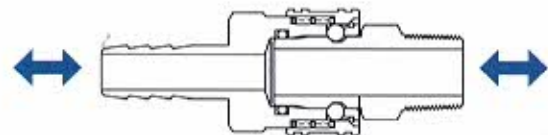
Main body material	Brass				Stainless			
Size	1/8" 1/4"	3/4"	1 1/4"	2"	1/8" 1/4"	3/4"	1 1/4"	2"
	3/8" 1/2"	1"	1 1/2"		3/8" 1/2"	1"	1 1/2"	
Max. Operating pressure	51 (5.0)	31 (3.0)	20 (2.0)	15 (1.5)	76 (7.5)	46 (4.5)	31 (3.0)	20 (2.0)
Max. Design pressure	76 (7.5)	46 (4.5)	31 (3.0)	24 (2.3)	102 (10.0)	66 (6.5)	46 (4.5)	31 (3.0)
Gasket material	Rubber material			Working temperature range		Remarks		
	Nitrile rubber			-20°C ~ +80°C		Standard material		
	Fluoro rubber (Viton)			-20°C ~ +180°C		Semi-standard product		
	Chloroprene rubber (Neoprene rubber)			-20°C ~ +80°C		Semi-standard product		
Operating temperature range	Ethylene propylene rubber			-40°C ~ +150°C		Semi-standard product		

## Maximum tightening torque (kgf-cm2)

Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Torque value	Brass								
	50	90	120	300	500	700	1500	1600	2600
Torque value	Stainless								
	90	140	220	600	900	1200	2400	2800	5000

## Flow direction

Fluid flows in either direction from plug or from socket side.



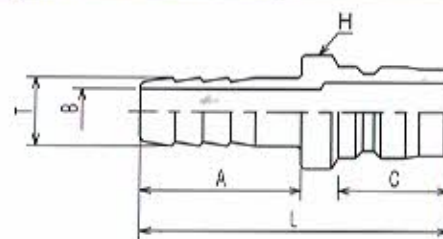
## Handling Guide

- Due to valveless structure, fluid in the piping may flow out at the time of disconnecting. Use the coupling where unnecessary to shut off the fluid when disconnecting. Be careful when handling dangerous fluids such as high temperature, chemical, etc.
- If the fluid flows intermittently in usual operation, it may cause a damage on gasket packing or body by water hammer phenomenon leading to the leakage. Replacement is recommended if sign of such damage is found at regular maintenance check.

# Product model, dimension chart

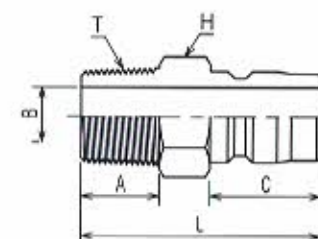
## Plug

### PH type (For hose connection)



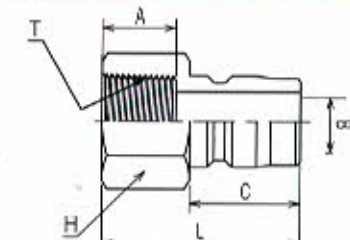
Model	Mounting shape of mating part	Dimensions (mm)						Standard material	Standard material
STY1-PH	For 1/8" hose	41	20	15.5	φ12	φ3	φ6.5	BSBM	SUS303
STY2-PH	For 1/4" hose	56	30	18	φ16	φ5	φ8	BSBM	SUS303
STY3-PH	For 3/8" hose	59	30	21	φ17	φ7.5	φ11	BSBM	SUS304
STY4-PH	For 1/2" hose	67	35	24	φ25	φ10	φ15	BSBM	SUS304
STY6-PH	For 3/4" hose	80	40	28	φ28	φ15	φ21	BSBM	SUS304
STY8-PH	For 1" hose	104	53	36	φ42	φ19	φ27	BSBM	SUS304
STY10-PH	For 1 1/4" hose	117	62	39	φ50	φ27	φ34.5	BSBM	SUS304
STY12-PH	For 1 1/2" hose	132	70	45.5	φ55	φ31	φ41	BSBM	SUS304
STY16-PH	For 2" hose	137	70	50.5	φ75	φ42	φ54	BSBM	SUS304

### PM type (Male threads)



Model	Mounting shape of mating part	Dimensions (mm)						Standard material	Standard material
STY1-PM	Rc1/8" Female threads	32	9	15.5	Δ12	φ4.5	R1/8"	BSBM	SUS303
STY2-PM	Rc1/4" Female threads	37.5	12	18	Δ17	φ6.5	R1/4"	BSBM	SUS303
STY3-PM	Rc3/8" Female threads	43	13	21	Δ19	φ10	R3/8"	BSBM	SUS304
STY4-PM	Rc1/2" Female threads	52	17	24	Δ23	φ13	R1/2"	BSBM	SUS304
STY6-PM	Rc3/4" Female threads	59	19	28	Δ32	φ17	R3/4"	BSBM	SUS304
STY8-PM	Rc 1" Female threads	73	22	36	Δ41	φ24	R1"	BSBM	SUS304
STY10-PM	Rc1 1/4" Female threads	82	23	39	Δ50	φ32	R1 1/4"	BSBM	SUS304
STY12-PM	Rc1 1/2" Female threads	93	26	45.5	50xφ60	φ38	R1 1/2"	BSBM	SUS304
STY16-PM	Rc 2" Female threads	100	27	50.5	77xφ84	φ50	R2"	BSBM	SUS304

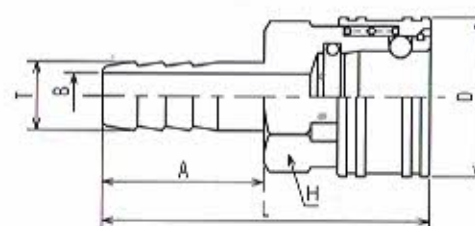
### PF type (Female threads)



Model	Mounting shape of mating part	Dimensions (mm)						Standard material	Standard material
STY1-PF	R1/8" Male threads	27	9	15.5	Δ14	φ4.5	Rc1/8"	BSBM	SUS303
STY2-PF	R1/4" Male threads	33	12	18	Δ17	φ6.5	Rc1/4"	BSBM	SUS303
STY3-PF	R3/8" Male threads	39	13	21	Δ21	φ10	Rc3/8"	BSBM	SUS304
STY4-PF	R1/2" Male threads	43	16	24	Δ26	φ13	Rc1/2"	BSBM	SUS304
STY6-PF	R3/4" Male threads	50	19	28	Δ32	φ17	Rc3/4"	BSBM	SUS304
STY8-PF	R 1" Male threads	61	22	36	Δ41	φ24	Rc1"	BSBM	SUS304
STY10-PF	R1 1/4" Male threads	64	22	39	Δ50	φ32	Rc1 1/4"	BSBM	SUS304
STY12-PF	R1 1/2" Male threads	75.5	26	45.5	2 Sides 50xφ65	φ38	Rc1 1/2"	BSBM	SUS304
STY16-PF	R2" Male threads	83	24	50.5	2 Sides 77xφ84	φ50	Rc2"	BSBM	SUS304

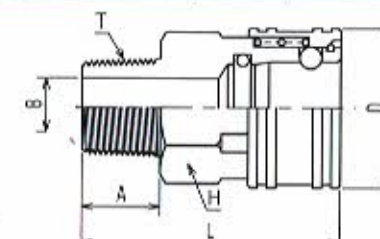
## Socket

### SH type (For hose connection)



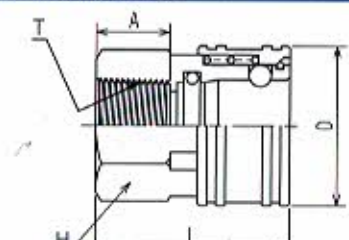
Model	Mounting shape of mating part	Dimensions (mm)						Standard material	Standard material
STY1-SH	For 1/8" hose	40	20	φ18	φ16	φ3	φ6.5	BSBM	SUS303
STY2-SH	For 1/4" hose	59	30	φ25(φ24)	Δ19	φ5	φ8	BSBM	SUS303
STY3-SH	For 3/8" hose	62	30	φ28	Δ23	φ7.5	φ11	BSBM	SUS304
STY4-SH	For 1/2" hose	71	35	φ35	Δ29	φ10	φ15	BSBM	SUS304
STY6-SH	For 3/4" hose	84	40	φ44	φ38	φ15	φ21	BSBM	SUS304
STY8-SH	For 1" hose	104	53	φ57.8	φ55	φ19	φ27	BSBM	SUS304
STY10-SH	For 1 1/4" hose	121	62	φ67	2 Sides 54xφ61	φ27	φ34.5	BSBM	SUS304
STY12-SH	For 1 1/2" hose	132	70	φ75	30xφ65	φ31	φ41	BSBM	SUS304
STY16-SH	For 2" hose	133	70	φ95	77xφ84	φ42	φ54	BSBM	SUS304

### SM type (Male threads)



Model	Mounting shape of mating part	Dimensions (mm)						Standard material	Standard material
STY1-SM	Rc1/8" Female threads	30	9	φ18	Δ14	φ4.5	R1/8"	BSBM	SUS303
STY2-SM	Rc1/4" Female threads	41	12	φ25(φ24)	Δ19	φ6.5	R1/4"	BSBM	SUS303
STY3-SM	Rc3/8" Female threads	46	13	φ28	Δ23	φ10	R3/8"	BSBM	SUS304
STY4-SM	Rc1/2" Female threads	56	17	φ35	Δ29	φ13	R1/2"	BSBM	SUS304
STY6-SM	Rc3/4" Female threads	63	19	φ44	Δ38	φ17	R3/4"	BSBM	SUS304
STY8-SM	Rc 1" Female threads	76	22	φ57.8	Δ50	φ24	R1"	BSBM	SUS304
STY10-SM	Rc1 1/4" Female threads	87	23	φ67	2 Sides 54xφ61	φ32	R1 1/4"	BSBM	SUS304
STY12-SM	Rc1 1/2" Female threads	93	26	φ75	2 Sides 50xφ65	φ38	R1 1/2"	BSBM	SUS304
STY16-SM	Rc 2" Female threads	106	27	φ95	2 Sides 77xφ84	φ45	R2"	BSBM	SUS304

### SF type (Female threads)



Model	Mounting shape of mating part	Dimensions (mm)						Standard material	Standard material
STY1-SF	R1/8" Male threads	27	9	φ18	Δ14	Rc1/8"	BSBM	SUS303	
STY2-SF	R1/4" Male threads	31.5	12	φ25(φ24)	Δ19	Rc1/4"	BSBM	SUS303	
STY3-SF	R3/8" Male threads	35	13	φ28	Δ23	Rc3/8"	BSBM	SUS304	
STY4-SF	R1/2" Male threads	42	16	φ35	Δ29	Rc1/2"	BSBM	SUS304	
STY6-SF	R3/4" Male threads	49	19	φ44	Δ38	Rc3/4"	BSBM	SUS304	
STY8-SF	R 1" Male threads	59	22	φ57.8	Δ50	Rc1"	BSBM	SUS304	
STY10-SF	R1 1/4" Male threads	64	22	φ67	2 Sides 54xφ61	Rc1 1/4"	BSBM	SUS304	
STY12-SF	R1 1/2" Male threads	74	26	φ75	2 Sides 50xφ65	Rc1 1/2"	BSBM	SUS304	
STY16-SF	R 2" Male threads	80	24	φ95	2 Sides 77xφ84	Rc2"	BSBM	SUS304	



# SPY Type

Medium pressure  
Multipurpose type



**For medium pressure applications, with automatic shut off valves in both socket and plug. Wide selection of sizes and end configurations.**

- Automatic shut-off valves in both socket and plug prevent fluid spill out on disconnection
- Available in Body material: Brass, SS 303, SS 304 Carbon Steel and SS 316 upon request.
- Available in various end configurations applicable to a wide range of applications.



## Specifications

- Structure: Two way Ball-lock standard type
- Mounting part profile: PT Female threads for both Socket and Plug

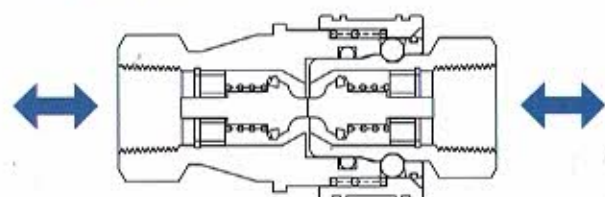
Main body material	Brass				Stainless			
Size	1/8" 1/4"	1/2" 3/4"	1 1/4"	2"	1/8" 1/4"	1/2" 3/4"	1 1/4"	2"
Max. operating pressure	51 (5.0)	31 (3.0)	20 (2.0)	15 (1.5)	76 (7.5)	46 (4.5)	31 (3.0)	20 (2.0)
Max. design pressure	76 (7.5)	46 (4.5)	31 (3.0)	24 (2.3)	102 (10.0)	66 (6.5)	46 (4.5)	31 (3.0)
Rubber material Operating temperature range	Rubber material		Working temperature range		Remarks			
	Nitrile rubber		- 20 °C ~ + 80 °C		Standard material			
	Fluororubber (Viton)		- 20 °C ~ + 180 °C		Semi-standard product			
	Chloroprene rubber (Neoprene rubber)		- 20 °C ~ + 80 °C		Semi-standard product			
Operating temperature range	Ethylene propylene rubber		- 40 °C ~ + 150 °C		Semi-standard product			

## Maximum tightening torque (kgf-cm2)

Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Torque value	Brass	50	90	120	300	500	700	1500	1600
	Stainless	90	140	220	600	900	1200	2400	2800

## Flow direction

Air flows in either direction from plug or from socket side.

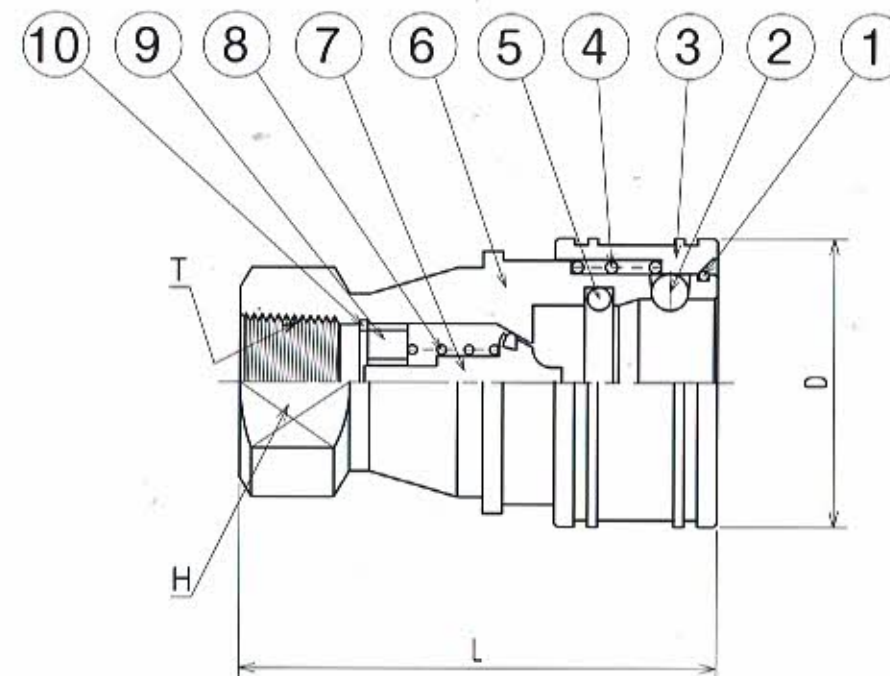


## Handling guide

In case that nipple or male thread is required for assembling, use nipple of the market standard.

# Product model, dimension chart

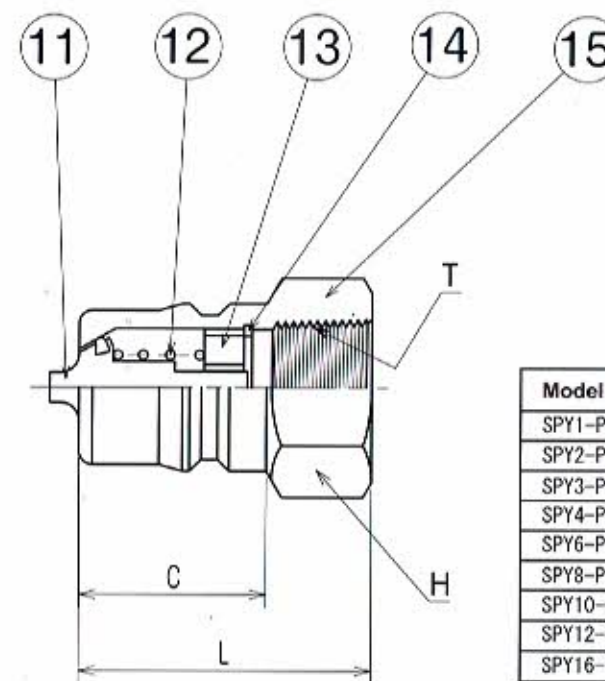
## Socket



No.	Part name
1	Stop ring
2	Steel balls
3	Sleeve
4	Sleeve spring
5	Body Seal
6	Socket body
7	Valve body
8	Valve spring
9	Valve guide
10	Snap ring

Model	Mounting shape of mating part	L	D	H	T	Standard material	Standard material
SPY1-S	R1/8" Male threads	49	φ25(φ24)	2 Faces 14 × φ17.5	Rc1/8" × 11mm	BSBM	SUS303
SPY2-S	R1/4" Male threads	57.5	φ28	2 Faces 17 × φ22	Rc1/4" × 13mm	BSBM	SUS303
SPY3-S	R3/8" Male threads	65.2	φ35	2 Faces 21 × φ25	Rc3/8" × 13mm	BSBM	SUS304
SPY4-S	R1/2" Male threads	71.8	φ44	2 Faces 29 × φ35	Rc1/2" × 16mm	BSBM	SUS304
SPY6-S	R3/4" Male threads	88	φ54	2 Faces 32 × φ40	Rc3/4" × 19mm	BSBM	SUS304
SPY8-S	R 1" Male threads	102	φ65	2 Faces 41 × φ48	Rc 1" × 22mm	BSBM	SUS304
SPY10-S	R1 1/4" Male threads	115	φ79	2 Faces 54 × φ59	Rc1 1/4" × 24mm	BSBM	SUS304
SPY12-S	R1 1/2" Male threads	124	φ89	2 Faces 63 × φ69	Rc1 1/2" × 24mm	BSBM	SUS304
SPY16-S	R 2" Male threads	132	φ109	2 Faces 77 × φ86	Rc 2" × 25mm	BSBM	SUS304

## Plug



No.	Part name
11	Valve body
12	Valve spring
13	Valve guide
14	Snap ring
15	Plug body

Model	Mounting shape of mating part	L	C	H	T	Standard material	Standard material
SPY1-P	R1/8" Male threads	30	19	Δ14	Rc1/8" × 11mm	BSBM	SUS303
SPY2-P	R1/4" Male threads	35.5	23	Δ17	Rc1/4" × 13mm	BSBM	SUS303
SPY3-P	R3/8" Male threads	40	25.2	Δ21	Rc3/8" × 13mm	BSBM	SUS304
SPY4-P	R1/2" Male threads	44	28.2	Δ29	Rc1/2" × 16mm	BSBM	SUS304
SPY6-P	R3/4" Male threads	53	36	Δ35	Rc3/4" × 19mm	BSBM	SUS304
SPY8-P	R 1" Male threads	62	40.3	Δ41	Rc 1" × 22mm	BSBM	SUS304
SPY10-P	R1 1/4" Male threads	70	45.5	2 Faces 54 × φ59	Rc1 1/4" × 24mm	BSBM	SUS304
SPY12-P	R1 1/2" Male threads	75	49	2 Faces 63 × φ69	Rc1 1/2" × 24mm	BSBM	SUS304
SPY16-P	R 2" Male threads	80	52	2 Faces 77 × φ84	Rc 2" × 25mm	BSBM	SUS304



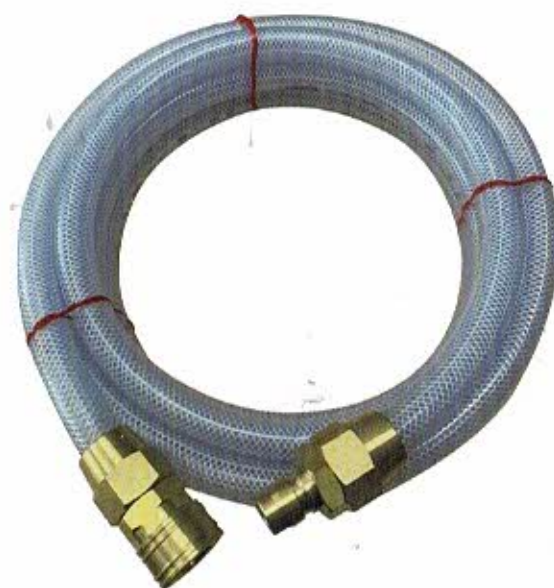
# Nut Coupling for Braided Hose

For Braided Hose

original

**Nut type coupling where hose band is not required.**

- Hose band is not required.
- Simply Insert hose to the root and just tighten the nut till end
- Reliable nut profile reduces greatly risk of hose slip away or fluid leaks
- Inner parts are not required as the coupling is for general braided hose



## Specifications

Material	Brass
Max. operating pressure	Comply with specification of the braided hose
Max. design pressure	Comply with specification of the braided hose
Working temperature range	Comply with specification of the braided hose
Applicable fluid	Air, water, oil etc.



## Specifications

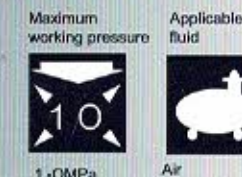
	φ9×φ15	φ12×φ18	φ15×φ22	φ19×φ26	φ25×φ33
BLY type	BLY23-SN-90	BLY24-SN-120	BLY24-SN-150	BLY46-SN-190	BLY48-SN-250
	BLY23-PN-90	BLY24-PN-120	BLY24-PN-150	BLY46-PN-190	BLY48-PN-250
STY type	STY3-SN-90	STY4-SN-120	STY4-SN-150	STY6-SN-190	STY8-SN-250
	STY3-PN-90	STY4-PN-120	STY4-PN-150	STY6-PN-190	STY8-PN-250
Adapter	3BH-90	4BH-120	4BH-150	6BH-190	8BH-250

1. Follow the specifications of the braided hose to be used.
2. Be careful about the usage environment as stress corrosion cracking may occur in the corrosive environment.
3. Tighten the nut to the end for fixing the braided hose firmly
4. The coupling is applicable to braided hose made from soft vinyl chloride and reinforced with woven yarn

# Swivel Connector Plug

For pneumatic piping

original



**Eliminates twisting, kinking, and dripping of the hose.**

- Swivel plug for connecting hoses such as air tools
- Tools can be used easily and work-ability is greatly improved since it rotates smoothly in 360° vertically and horizontally.
- The plug with flow regulator is also available
- 3 different body colors (Blue, Red, Yellow) are available for line management



Suitable in general for Air tools such as Impact wrench, Grinders etc.



Suitable for Air Duster Gun etc.

## Specifications

Material	Aluminum, Steel (Chrome plating)
Mounting thread size	R1/4 · G1/4
Max. operating pressure	1.0 MPa
Max. design pressure	1.5 MPa
Seal material	Nitrile rubber
Operating temperature range	-20~80°C
Body color	Blue, Red, Yellow (Almite plating)



Model	Mounting thread size of mating part	Accessories
BLY20-PMSW	Rc1/4	
BLY20-PMF SWR	G1/4	With flow regulator



# TW Type

For pneumatic manifold piping



## BLY type couplings assembled on free turn manifold

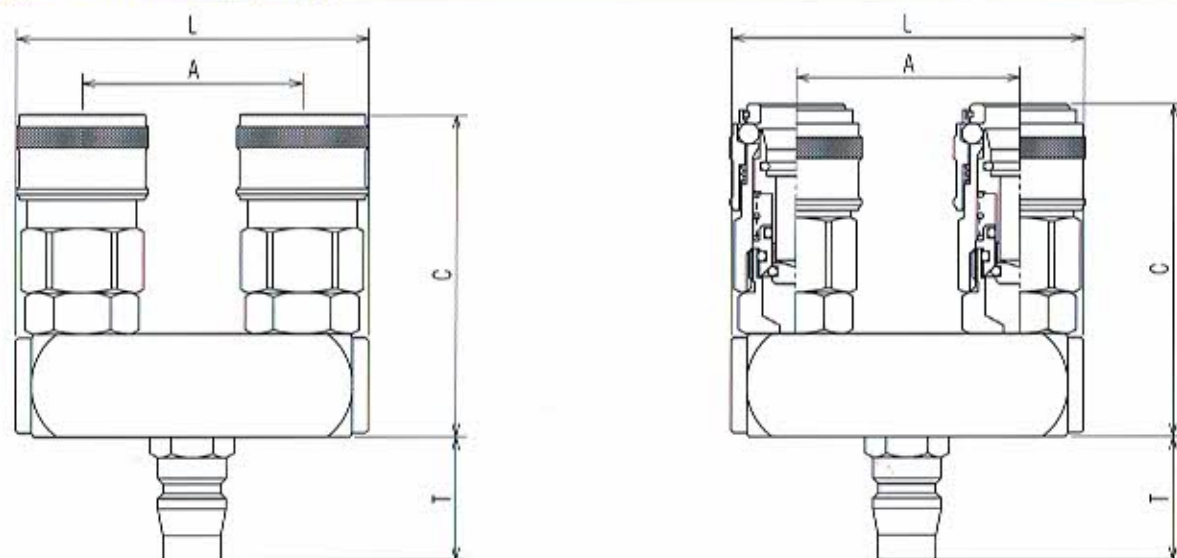
- Multiple outlets are available from single air supply source
- TW 2 is lightweight due to aluminum body



### Specifications

Product name	TW - 2	TW - 2 K
Branches	2 branches (Fixed)	
Body material	Body: Aluminium, Coupling: Steel (Chrome plating)	
Max. Operating pressure Kg/cm <sup>2</sup> (MPa)	1.0 (1.0)	
Max. design pressure Kg/cm <sup>2</sup> (MPa)	1.5 (1.5)	
Seal material Operating temperature range	Nitrile rubber (NBR) : - 20 deg.C ~ +80deg.C.	
Coupling	BLY type Popular type, BLK type One push type	

### TW type (For 2 branch piping)



Model	Socket (Discharge port)	Dimensions (mm)			
		L	A	C	T
TW-2	General purpose type (BLY type 20 type)	67	40	62.5	24
TW-2-2M	General purpose type (BLY type 20 type)	67	40	62.5	18
TW-2-3M	General purpose type (BLY type 20 type)	67	40	62.5	19

Model	Socket (Discharge port)	Dimensions (mm)			
		L	A	C	T
TW-2K	One push type (BLK type 20 type)	67	40	64.5	24
TW-2K-2M	One push type (BLK type 20 type)	67	40	64.5	18
TW-2K-3M	One push type (BLK type 20 type)	67	40	64.5	19
TW-2KR-2N	One push type (BLK type 20 type) Lock specification	67	40	64.5	25
TW-2KR-3N	One push type (BLK type 20 type) Lock specification	67	40	64.5	27

※ Sleeve lock specification to prevent connection slip is available separately.

# LR Type

Rotary type For air manifold piping



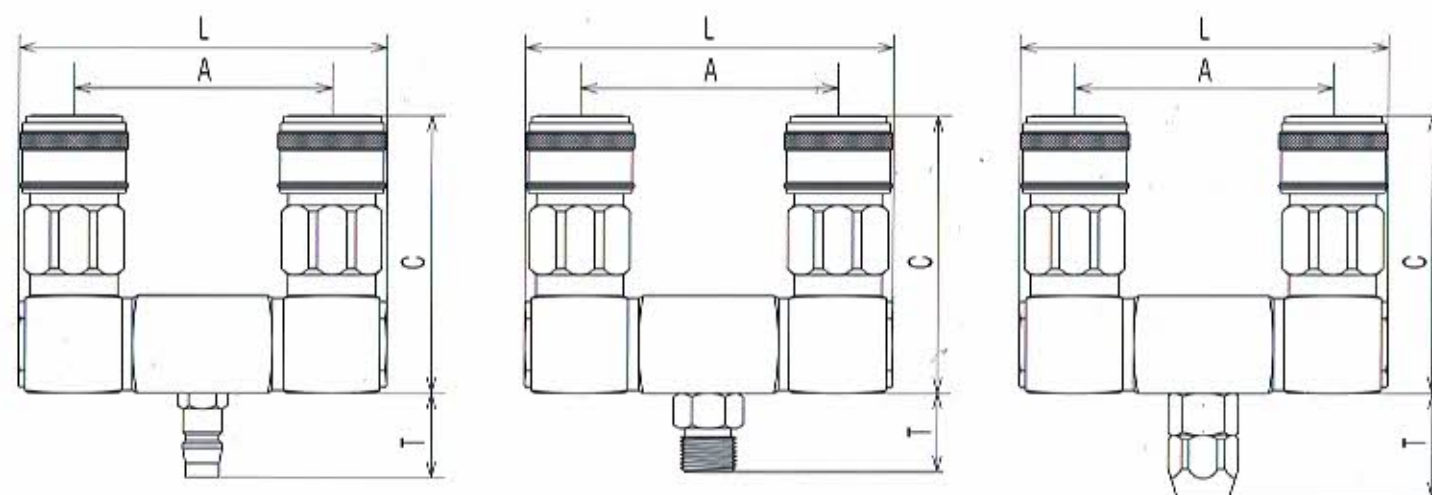
## BLK type air-line couplings on free turn manifold. Each air outlet can be turned freely (360°) to any angle independently

- Multiple outlets are available from single air supply source
- Possible hose twists are eliminated by the swivel mechanism



### 仕様

Model name	LR - 2
Branches	2 branches (swivel specification)
Main body material	
Max. Operating pressure Kg/cm <sup>2</sup> (MPa)	1.0 (1.0)
Max. design pressure Kg/cm <sup>2</sup> (MPa)	1.5 (1.5)
Seal material Operating temperature range	Nitrile rubber (NBR) : - 20 deg.C ~ +80deg.C.
Coupling	BLK type One push type



Model	Socket (Discharge port)	Dimensions (mm)			
		L	A	C	T
LR-2	One push type (BLK type 20 type)	77	50	63	24
LR-2-2M	One push type (BLK type 20 type)	77	50	63	18
LR-2-3M	One push type (BLK type 20 type)	77	50	63	19
LR-2-2N	One push type (BLK type 20 type) Lock specification	77	50	63	25
LR-2-3N	One push type (BLK type 20 type) Lock specification	77	50	63	27

※ Sleeve lock specification to prevent connection slip is available separately.



# MR Type

Coupling on free turn manifold

original



**Possible to connect outlets additionally as necessity. Each air outlet can be turned freely (360°) to any angle independently**

- Multiple outlets are available from single air supply source by additional connecting.
- Multiple outlets are rotatable to any angle. Possible hose twists can be eliminated by the swivel mechanism
- Inexpensive for sudden expansion.
- Smart support for various environments depending on the combination.
- A wide range of sizes and connection type are standardized
- Coupling is compatible with BL type plugs.



## Specifications

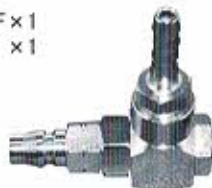
Product name	MR Series
Branches	1 ~ n branches (Rotary type)
Body material	Body: Brass, Steel (Chrome plating), Coupling: Steel (Chrome plating)
Inlet, Outlet	Socket (S), Plug (P), Female threads (F), Male threads (M), Hose nipple (H), Nut (N)
Max. operating pressure $\text{kgf/cm}^2 (\text{MPa})$	1.0 (1.0)
Design pressure $\text{kgf/cm}^2 (\text{MPa})$	1.5 (1.5)
Seal material	Nitrile rubber (NBR) : -20 deg.C ~ +80deg.C.
Operating temperature range	
Coupling	BLK type One push type

## Installation example

Rotates freely 360°.

e also accept lot assembly sales, so please contact us separatel

MR20P-F x 1  
MR1T x 1



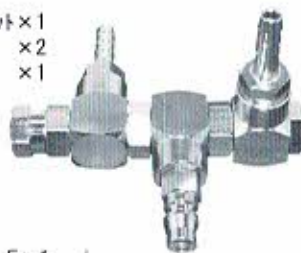
MR20P-F x 1  
MR1T x 1  
MR2T-M x 1



MR20P-F x 1  
MR1T x 2  
MR2T-M x 1



MR20P-F x 1  
MR1T x 2  
MR20P x 1



MR20P-F x 1  
MR1N x 3



MR4M-F x 1  
MR1S x 5  
MRL金具 x 1



MR20P-F x 1  
MR1N x 2  
MR65N-M x 1



MR20P-F x 1  
MR1N x 4  
MR65N-M x 1

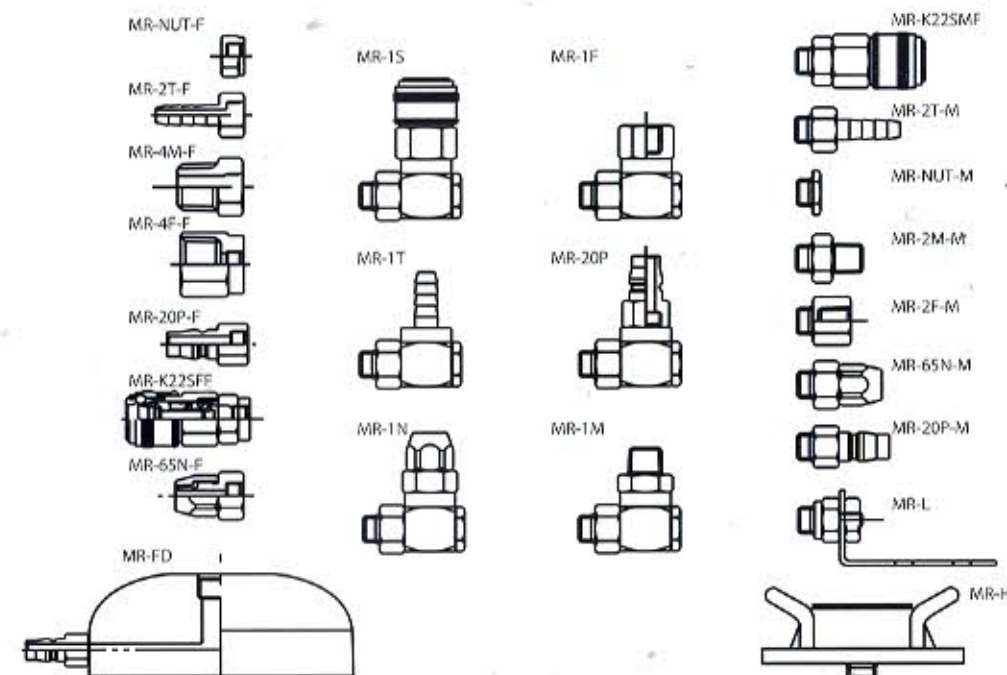


MR-HD x 1  
MR1S x 3  
MR-FD x 1



## MR type (Multiple connection couplers)

Large number of sizes, profiles are standardized, which corresponds to wide range of applications.



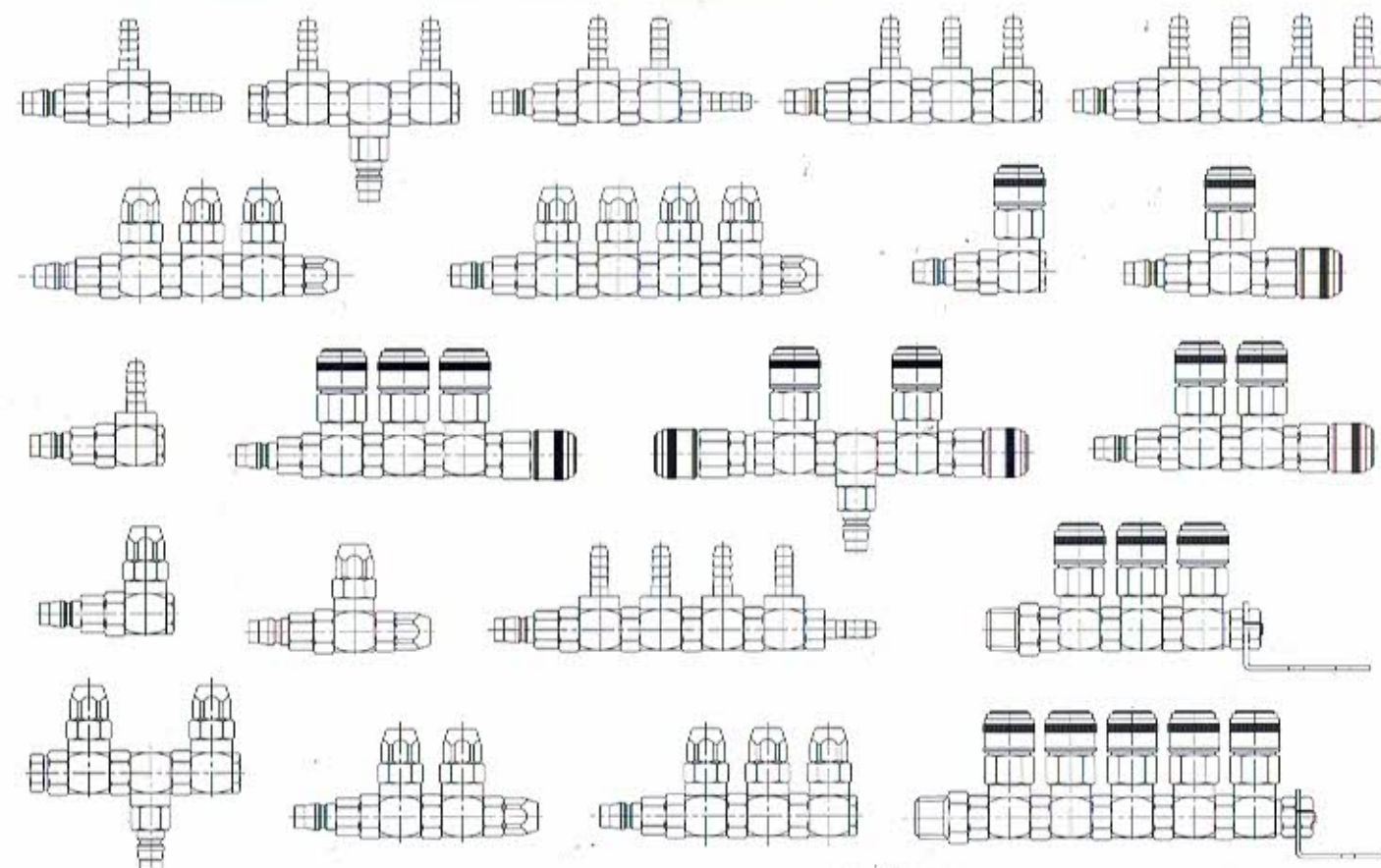
## Multiple connection couplers (MR type)

Model	Profile
MR-1S	One push socket
MR-1F	Rc1/4
MR-1T	Ø 9 Shank
MR-1N	For Ø6.5xØ10 urethane hose
MR-1M	R1/4
MR-20P	20 type plug

Model	Profile
MR-2T-F	Ø 9 Shank
MR-4M-F	R1/2
MR-4F-M	Rc1/2
MR-20P-F	20 type plug
MR-K225FF	One push socket
MR-65N-F	For Ø6.5xØ10 urethane hose
MR-NUT-F	
MR-FD	Pedestal for portable line coupling

Model	Profile
MR-2T-M	Ø 9 Shank
MR-2M-M	R1/4
MR-2F-M	Rc1/4
MR-20P-M	20 type plug
MR-K225MF	One push socket
MR-65N-M	For Ø6.5xØ10 urethane hose
MR-NUT-M	
MR-L	L type fixed mounting bracket
MR-HD	Pressure indicator for portable line coupling

## Connection composition example





**original**

<p>Valve construction</p>  <p>One way open-close type</p>	<p>Maximum working pressure</p>  <p>1.5 MPa</p>	<p>Applicable fluid</p>  <p>Air</p>
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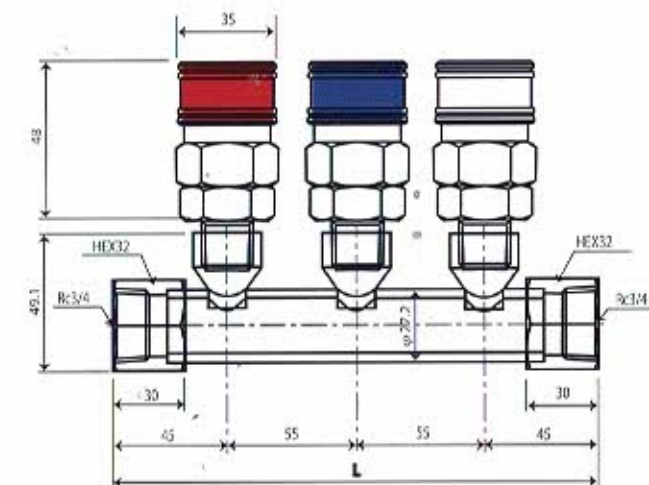
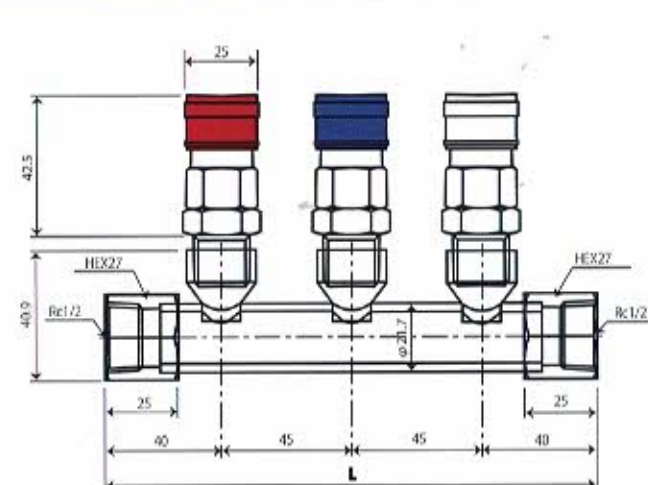
- Achieves 3 to 5 branch air outlets directly from the piping!
- Easy and speedy air piping work that takes time and effort!
- Lighter than conventional products!
- Achieve reasonable price setting!
- Color-coded management of piping lines by adopting the industry's first color coupling!
- Added variance for piping sizes 1/2 and 3/4.
- BLY20 type 40 type compatible.
- Stainless steel products are available.

**Significantly  
lightweight**

About **-30%**  
than conventional  
PAL product



Pipe	Rc1/2 - Rc3/4
Branches	3 ~ 5 branches (Fixed)
Body material	Body: Steel (trivalent plating), Coupling: Steel (Chrome plating)
Max. Operating pressure $\text{kgf/cm}^2(\text{MPa})$	15 (1.5)
Design Pressure $\text{kgf/cm}^2(\text{MPa})$	20 (2.0)
Seal material	
Operating temperature range	Nitrile rubber (NBR) : - 20 deg.C ~ +80deg.C.
Coupling	BLY type Popular type, (20 type 40 type)



Model	Mounting port	Coupling color	Lmm	Weight g
4PAL3-20-3	BLY23-SM × 3 branches	Red, Blue, Silver	170	757
4PAL4-20-4	BLY23-SM × 4 branches	Red, Blue, Yellow, Silver	215	968
4PAL5-20-5	BLY23-SM × 5 branches	Red, Blue, Yellow, Green, Silver	260	1185

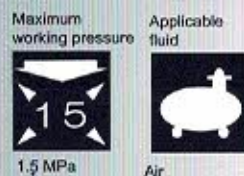
Model	Mounting port	Coupling color	Lmm	Weight g
6PAL3-20-3	BLY24-SM × 3 branches	Red, Blue, Silver	200	912
6PAL4-20-4	BLY24-SM × 4 branches	Red, Blue, Yellow, Silver	255	1162
6PAL5-20-5	BLY24-SM × 5 branches	Red, Blue, Yellow, Green, Silver	310	1415
6PAL3-40-3	BLY44-SM × 3 branches	Red, Blue, Silver	200	1193
6PAL4-40-4	BLY44-SM × 4 branches	Red, Blue, Yellow, Silver	255	1536
6PAL5-40-5	BLY44-SM × 5 branches	Red, Blue, Yellow, Green, Silver	310	1883
6PAL3-2040-21	BLY24-SM × 2 branches BLY44-SM × 1 branch	Red, Blue, Silver	200	1006
6PAL4-2040-31	BLY24-SM × 3 branches BLY44-SM × 1 branch	Red, Blue, Yellow, Silver	255	1254
6PAL5-2040-32	BLY24-SM × 3 branches BLY44-SM × 2 branches	Blue, Yellow, Green, Red, Silver	310	1601



# Portable Line Coupling

**original**

For air manifold piping



## Presenting additional items than the branch coupling

- It can be used as a portable branch relay station for air hoses.

Portable manifold for branching 6 outlet directions from one supply line.  
Easy for line management by color coded coupling.

Fixed type for high pressure line (Max. OP 2.5 MPa) is also available.

### Specifications

Material	Coupling	Steel
	Pedestal	Brass
Maximum working pressure	1.5MPa	
Pressure resistance	2.0MPa	
Seal material	Nitrile rubber	
Ambient temperature range	-20 ~ 80°C	
No. of branches	6	
Accessories	Dust-proof cap	

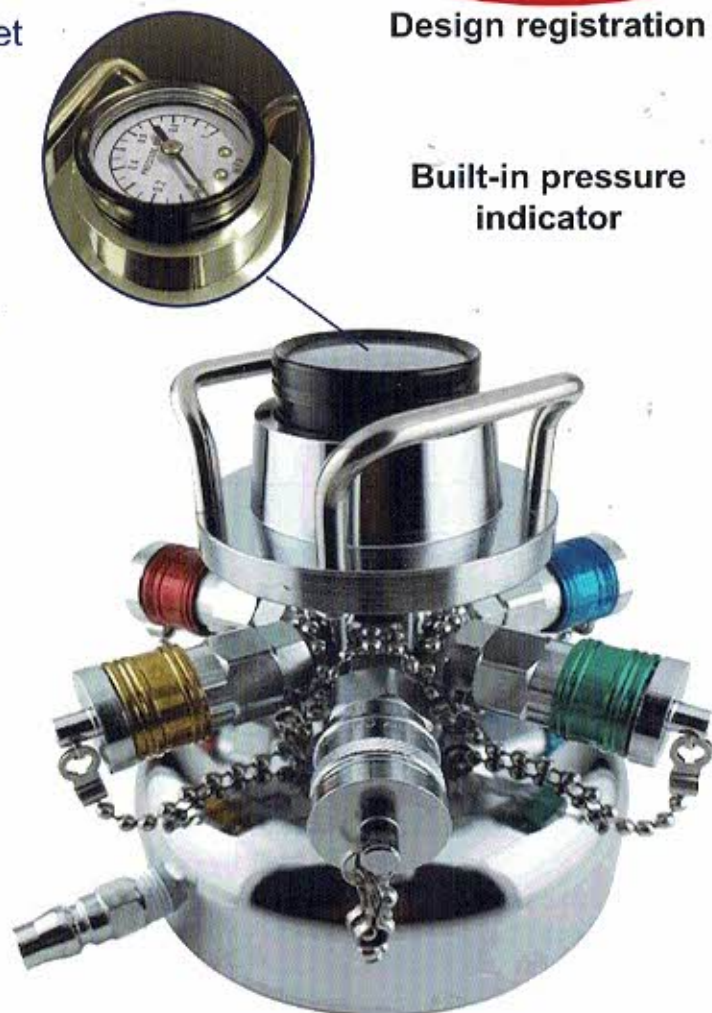
~2.5MPa is available for high pressure.



Rotary type  
(MR3S-SPLT)



BHY20-SPLT  
High pressure type



BLY20-SPLT

**NEW**

Design registration

Built-in pressure indicator

# Air duster gun

**original**

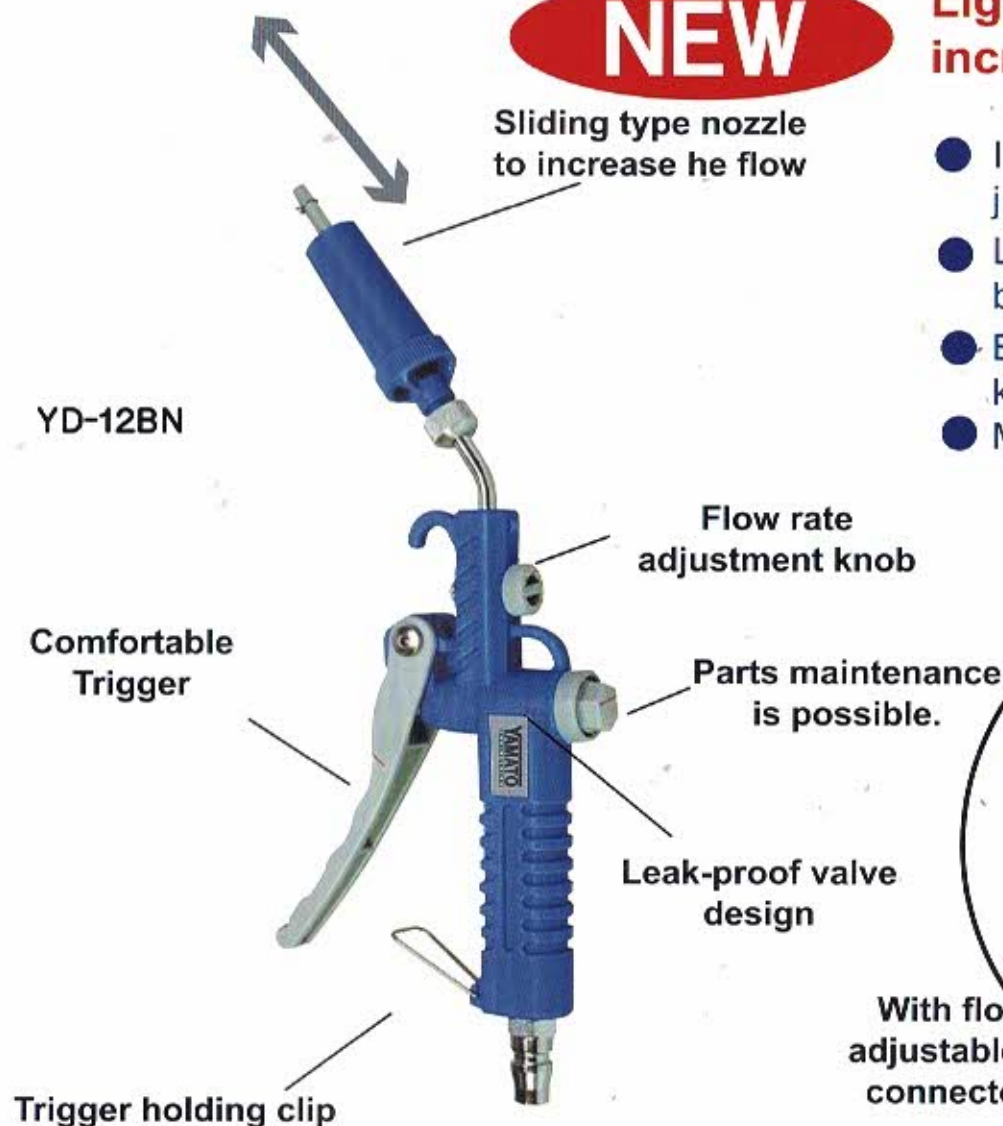
**NEW**

## Lightweight, increased air blow gun

- Increase the flow rate with just one slide!
- Lightweight due to the resin body!
- Built-in flow rate adjustment knob!
- Most comfortable Trigger!

PAT.3197968

YD-12BN



Simultaneously released

YD100-12BN

With flow rate adjustable swivel connector plug

Series model	Product	Material
YD-12BN	Resin Blow gun	POM
YD-06PN	Resin flow increase nozzle	POM
YD100-12BN	Aluminum Blow-gun	Aluminum

### YD-12BN product specifications

Body material	POM Hard grade plastic
Maximum working pressure	1.0 MPa
Pressure resistance	1.5 MPa
Seal material	Nitrile rubber
Country of origin	Taiwan



Photograph is an image, specifications etc. may be changed.

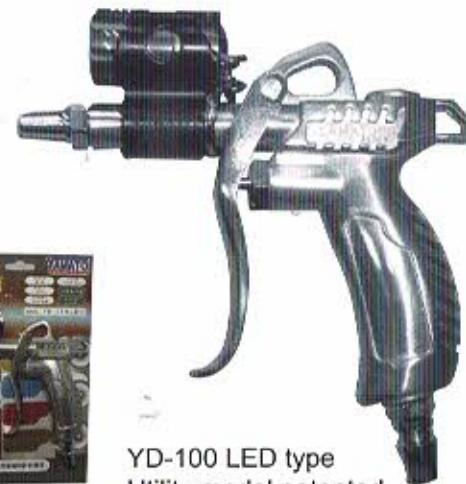


# Air Duster Gun

original

The new design allows comfortable fit in hand. Most popular Air Duster with LED light for easy working in dark work areas.

- e pursued ease of use by providing long nose and long trigger
- Four color custom stickers are given to identify the work and piping lines.



YD-100 LED type  
Utility model patented

## Specifications and Standards

### YD-100 type Duster Gun

Applicable fluid	Compressed air
Max. Operating pressure	1. 0MP max. * is 2.5MPa
Operating temperature range	0°C ~ +60°C
Material	Aluminium, Steel, Resin
Air inlet port	Normal pressure plug type * is high pressure type
Nozzle mounting size	G 1 / 8
Grip sticker	4 colour (Pink, Yellow, Blue, Wood grain)

### LED light (Only for model 'with light')

No. of LED lights	9 Nos.
Battery used	Button cell (CR2025) 2 Nos.
Continuous use	About 30 Hrs. (In case of new product)
Colour	Pink, Yellow, Blue, Silver

- Specifying the color of LED light is no possible.
- Attached battery is for testing purpose. It may drain faster than the usual battery.

Model	Nozzle type	Nozzle tip dia. (mm)	Nozzle length (mm)	Weight (g)	With light	Pack sales
YD-100-LED	Standard	2.0	23	261	○	○
YD-100H-LED *	Standard	2.0	23	261	○	○
YD-110-LED	With 100mm long nozzle as standard	3.0	100	272	○	○
YD-110H-LED *	100mm long nozzle	3.0	100	272	○	○
YD-130-LED	300mm long nozzle	2.0	300	298	○	○
YD-100-OP	Standard	2.0	23	229		
YD-100-1P	100mm long nozzle	3.0	100	241		
YD-100-3P	300mm long nozzle	2.0	300	267		
YD-100-5P	500mm long nozzle	2.0	500	287		
YD-100-ORP	Flow adjustment nozzle	2.0	29	237		
YD-100-1RP	100mm long nozzle	2.0	100	258		
YD-100-LFP	Flexible nozzle	2.0	300	239		
YD-100-LAP	Free long nozzle	2.0	190~400	309		

○ Dimensions shown are standard values.

## Connection with urethane hose



DCH-300RS



### [Special features]

- Specially processed, high elasticity polyurethane tube in a spiral shape.
- It is hard to break, has excellent wear resistance and elastic
- Coupler specifications make it easy to attach and detach with the air tool.

### Specifications

Fluid used	Compressed air
Allowable pressure	0.8MP
Operating temperature range	-5°C ~ +60°C
Hose material	Polyurethane resin
Hose diameter	Inner diameter 5 mm x outer diameter 8 mm
Metal fittings	Coupler Socket, Coupler Plug

Model	Application range	Hose coil outer diameter	Weight
YCU-3C	2m	65mm	235g
YCU-5C	4m	65mm	315g
YCU-7C	6m	65mm	395g
YCU-10C	8m	65mm	515g

Dimensions shown are standard values.

At Yamato, there are large number of Air Dusters apart from YD-100 type.

### YD-10 type Duster Gun

Applicable fluid	Compressed air
Maximum working pressure	1. 0MP a
Ambient temperature range	0°C ~ +60°C
Air inlet port	Normal pressure plug type
Nozzle mounting size	G 1 / 8



YD-10HC-1R Pack

### YD-30 type Duster Gun

Applicable fluid	Compressed air
Maximum working pressure	2. 5MP a
Ambient temperature range	0°C ~ +60°C
Air inlet port	High pressure plug type
Nozzle mounting size	G 1 / 8



YD-30HC-1R Pack

Model	Nozzle type	Nozzle tip dia. (mm)	Nozzle length (mm)	Weight (g)	Pack sales	Features
YD-10HC	Standard	2.0	23	220		
YD-10HC-1	100mm long nozzle	3.0	100	244		
YD-10HC-3	300mm long nozzle	2.0	300	257		
YD-10HC-5	500mm long nozzle	2.0	500	275		
YD-10HC-OR	Flow adjustment nozzle	2.0	29	228		Flow rate can be adjusted at the nozzle.
YD-10HC-1R	100mm flow adjustment nozzle	2.0	100	250	○	The flow rate can be adjusted with a long nozzle. Pack sale available.
YD-30HC	Flow adjustment nozzle	2.0	28	233	○	YD-10HC-OR type high pressure specification. Pack sale available.
YD-30HC-1R	100mm flow adjustment nozzle	2.0	100	254	○	
YD-ORC	Standard	2.0	23	245		The flow rate can be adjusted on the main body. Nipple specification is also available.
YD-10RC	100mm long nozzle	3.0	100	256		
YD-RBP	Pencil type rubber	2.0	60	61		Just bend the centre of the rubber body with one hand to eject.
D90-02	100mm long nozzle	3.0	100	187		Lightweight air duster. high pressure specification.

Dimensions shown are standard values.

### YD-RBP type Pencil type Rubber Duster

Applicable fluid	Compressed air
Maximum working pressure	0. 7MP a
Ambient temperature range	0°C ~ +60°C
Air inlet port	Normal pressure plug type
Nozzle mounting size	G 1 / 4



YD-RB (Pencil type)



D90-02

## available Duster Nozzles

### Nozzle for Duster



YD-0N



YD-1N



YD-3N

Part No.	Nozzle type	Nozzle length	Material	Thread size
YD-0N	Standard nozzle	23mm	Brass	G 1 / 8
YD-1N	100mm long nozzle	100mm	Brass	G 1 / 8
YD-3N	300mm long nozzle	300mm	Brass	G 1 / 8
YD-5N	500mm long nozzle	500mm	Brass	G 1 / 8

### Flow adjustment nozzle



YD-ORN



YD-1RN

Part No.	Nozzle type	Nozzle length	Material	Thread size
YD-ORN	Flow adjustment nozzle	28mm	Brass	G 1 / 8
YD-1RN	100mm flow adjustment nozzle	100mm	Brass	G 1 / 8

### Flexible nozzle



### Free long nozzle



### Flow increasing nozzle



Part No.	Nozzle type	Nozzle length	Material	Thread size
YD-FN3	Flexible nozzle	300mm	Special high density polyethylene	G 1 / 8

◆ Connection par material: Brass, Lining: Aluminium

◆ Dust-proof cap material: Soft vinyl chloride

Part No.	Nozzle type	Nozzle length	Material	Thread size
YD-FLN4	Free long nozzle	190~400mm	Brass	G 1 / 8

◆ Flow becomes 2.7 times to that of standard nozzle

Part No.	Nozzle type	Nozzle length	Material	Thread size
YD-BN	Flow increasing nozzle	470mm	Aluminium	G 1 / 8

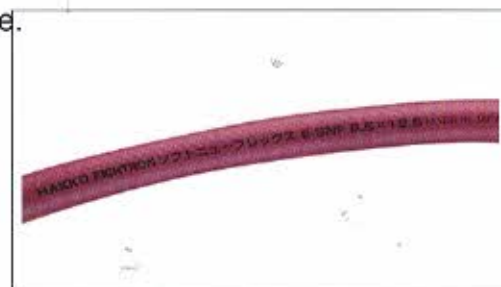


# Air Hoses

## Soft new flex

- Polyurethane hose with excellent flexibility and durability
- Smooth surface hardly be damaged by sliding the hose
- Flexibility and durability sufficiently maintained even in cold climate.

Model Number	I.D. x O.D. mm	Applicable pressure at 20°C at 60°C	Allowable bend radius at 20 deg.C mm	Applicable temperature range °C	Standard length m	Weight g/m
E-SNF-6.5-10M	6.5 x 10	0~1.5	0~0.6	40	-20~60	10
E-SNF-6.5-20M					-20~60	20
E-SNF-6.5-30M					-20~60	30
E-SNF-6.5-50M					-20~60	50
E-SNF-6.5-100M					-20~60	100
E-SNF-8.5-10M	8.5 x 12.5	0~1.5	0~0.6	55	-20~60	10
E-SNF-8.5-20M					-20~60	20
E-SNF-8.5-30M					-20~60	30
E-SNF-8.5-50M					-20~60	50
E-SNF-8.5-100M					-20~60	100



※ Company at their convenience, may change the color tone of hose without notice.

## New Flex

- Air pressure resistant polyurethane hose, light weight for standard specification
- Flexibility and durability sufficiently maintained even in cold climate.

Model Number	I.D. x O.D. mm	Applicable pressure at 20°C at 60°C	Allowable bend radius at 20 deg.C mm	Applicable temperature range °C	Standard length m	Weight g/m
E-NF-6.5-10M	6.5 x 10	0~1.5	0~0.6	40	-20~60	20
E-NF-6.5-20M					-20~60	30
E-NF-6.5-30M					-20~60	50
E-NF-6.5-50M					-20~60	100
E-NF-6.5-100M					-20~60	10
E-NF-8.5-10M	8.5 x 12.5	0~1.5	0~0.6	55	-20~60	20
E-NF-8.5-20M					-20~60	30
E-NF-8.5-30M					-20~60	50
E-NF-8.5-50M					-20~60	100
E-NF-8.5-100M					-20~60	10



※ Company at their convenience, may change the color tone of hose without notice.

## Hose Assembly

- ◆ Please inquire separately for the deliver

BLK-S type and soft new flex



LR-2 type and new flex



Model number	Hose size I.D. x O.D. (mm)	Length m	Coupling
SNF6.5-10C-SA	6.5 x 10	10	BLK22SA-SN (Socket) BLY22-PN (Plug)
SNF8.5-10C-SA	8.5 x 12.5	10	BLK23SA-SN (Socket) BLY23-PN (Plug)

\* Hose length, connection coupling sets are available other than the listed ones.

Model number	Hose size I.D. x O.D.	Length m	Coupling
LR2-NF85-3	8.5 x 12.5	3	LR-2-3N (Socket) BLY23-PN (Plug)
LR2-NF85-5		5	
LR2-NF85-10		10	
LR2-NF85-20		20	

\* Hose length, connection coupling sets are available other than the listed ones.

## Technoale

- Excellent workability with flexibility and hard to scratch by sliding the hose

Model Number	I.D. x O.D. mm	Allowable pressure MPa	Allowable bend radius at 20 deg.C mm	Applicable temperature range °C	Standard length m
TA10 x 6.5-5M	6.5 x 10	1.5	150	-20~60	5
TA10 x 6.5-10M					10
TA10 x 6.5-20M					20
TA10 x 6.5-30M					30
TA10 x 6.5-100M					100
TA12.5 x 8.5-5M	8.5 x 12.5	1.5	150	-20~60	5
TA12.5 x 8.5-10M					10
TA12.5 x 8.5-20M					20
TA12.5 x 8.5-30M					30
TA12.5 x 8.5-100M					100



※ Company at their convenience, may change the color of hose without notice.

## Hose Assembly

- ◆ Please inquire separately for the deliver



BLK22SA type and Technoale hose  
(Model No.:TAC65 x 10B)

Model number	Hose size I.D. x O.D.	Length m	Coupling
TAC10 x 6.5-5M	6.5 x 10	5	BLY22-SN (Socket) BLY22-PN (Plug)
TAC10 x 6.5-10M		10	
TAC10 x 6.5-20M		20	
TAC10 x 6.5-30M		30	
TAC12.5 x 8.5-5M	8.5 x 12.5	5	BLY23-SN (Socket) BLY23-PN (Plug)
TAC12.5 x 8.5-10M		10	
TAC12.5 x 8.5-20M		20	
TAC12.5 x 8.5-30M		30	
TAC65 x 5B	6.5 x 10	5	BLK22SA-SN (Socket) BLY22-PN (Plug)
TAC65 x 10B		10	
TAC65 x 20B		20	
TAC65 x 30B		30	
TAC85 x 5B	8.5 x 12.5	5	BLK23SA-SN (Socket) BLY23-PN (Plug)
TAC85 x 10B		10	
TAC85 x 20B		20	
TAC85 x 30B		30	

\* Hose length, connection coupling sets are available other than the listed ones.



100LED type set  
(Model No.:DH-65R-100LED)



YD-0RC type set  
(Model No.:DH-650R-01S)



Swivel coupling set  
(Model No.:YHS-815SJP)  
(Swivel coupling is sold in sets only)



# Air Hoses

## Suction hose FW type

- Suitable for suction and discharge
- Excellent workability with flexibility and light weight

Model No.	I.D. x O.D. mm	Applicable pressure MPa	Allowable bend radius mm	Applicable temperature range °C	Standard length m	Weight g/m
FW-25-5	25.5 x 30.9	0.5	200	-20~60	5	1.65
FW-32-5	31.8 x 37.4	0.5	250			2.1
FW-38-5	38.1 x 43.9	0.4	300			2.5
FW-50-5	50.5 x 57.5	0.4	400			4

\* O.D. is reference value.



## Suction hose CH type

- The inner rubber keeps pressure tightness and outer rubber has abrasion resistance as well as weathering resistance. The hose withstands external impact such as crush of foreign object
- Designed and manufactured with a sufficient safety factor and rigorously tested for pressure resistance. The reinforced knitting yarn uses strong synthetic fibers, and when internal pressure is applied, there is little expansion and contraction, and pressure resistance is excellent.
- Woven yarn made of synthetic fibers is used in between for the reinforcement to increase safety

Model No.	I.D. x O.D. mm	Applicable pressure MPa	Allowable bend radius B(S)	Ambient temperature range °C	Standard length m
GH8-3	7.9 x 15.0	1.5	2(S)	-20~60	3
GH9-3	9.5 x 16.5	1.5	2(S)		
GH12-3	12.7 x 21.0	1.0	2(S)		
GH15-3	15.9 x 25.0	1.0	1		
GH19-3	19.0 x 29.0	1.0	1	-20~60	5
GH8-5	7.9 x 15.0	1.5	2(S)		
GH9-5	9.5 x 16.5	1.5	2(S)		
GH12-5	12.7 x 21.0	1.0	2(S)		
GH15-5	15.9 x 25.0	1.0	1		
GH19-5	19.0 x 29.0	1.0	1		



## Bridgestone Excel Color Hose

- Extensive lineup that can be widely used for different purposes.
- Lightweight, highly flexible, and easy to handle.
- Suitable for riveting, rock drilling, other compressed air, general water supply, and fluid identification piping.

Model No.	I.D. x O.D. mm	Applicable pressure MPa	Number of knitting B(S)	Applicable temperature range °C	Standard length m
6*2B-5-(Color)	6.3 x 13.4	1.5	105	-20~60	5
6*2B-10-(Color)					10
6*2B-20-(Color)					20

⚠ Liquid: Cannot use for Air (not suitable for constant or long-term pressurization) Oxygen, acetylene and fuel gas (LMN). The life may be shortened when used with clean air, dry air, etc.

◆ Coupling mounting is possible. Please contact us for the applicable size.



Colors: Red(R), Blue (B), Green (G), Yellow (Y), Black (BK).

# Air Parts

## Nipple

### Straight threads



### aper threads



### Straight threads

Product No.	Size	Total length	Hexagon
NI-S11	G1/8 x G1/8	18mm	12
NI-S22	G1/4 x G1/4	28mm	14
NI-S33	G3/8 x G3/8	30mm	17

### Taper threads

Product No.	Size	Total length	Hexagon
NI-T11	R1/8 x R1/8	19mm	12
NI-T22	R1/4 x R1/4	31mm	14
NI-T33	R3/8 x R3/8	32mm	17

◆ Material: Brass (Nickel plating)

## Different diameter nipple

### Straight threads



### aper threads



### Straight threads

Product No.	Size	Total length	Hexagon
NI-S12	G1/8 x G1/4	24mm	14
NI-S23	G1/4 x G3/8	29mm	17
NI-S34	G3/8 x G1/2	32mm	21

### Taper threads

Product No.	Size	Total length	Hexagon
NI-T12	R1/8 x R1/4	28mm	14
NI-T23	R1/4 x R3/8	32mm	17
NI-T34	R3/8 x R1/2	36mm	22

◆ Material: Brass (Nickel plating)

## Socket

### Straight threads



### aper threads



### Straight threads

Product No.	Size	Total length	Hexagon
SO-S11	G1/8 x G1/8	20mm	14
SO-S22	G1/4 x G1/4	25mm	17
SO-S33	G3/8 x G3/8	29mm	21

### Taper threads

Product No.	Size	Total length	Hexagon
SO-T11	Rc1/8 x Rc1/8	22mm	14
SO-T22	Rc1/4 x Rc1/4	28mm	17
SO-T33	Rc3/8 x Rc3/8	32mm	21

◆ Material: Brass (Nickel plating)

## Different diameter socket

### Straight threads



### aper threads



### Straight threads

Product No.	Size	Total length	Hexagon
SO-S12	G1/8 x G1/4	22mm	17
SO-S23	G1/4 x G3/8	27mm	21
SO-S34	G3/8 x G1/2	30mm	26

### Taper threads

Product No.	Size	Total length	Hexagon
SO-T12	Rc1/8 x Rc1/4	25mm	17
SO-T23	Rc1/4 x Rc3/8	32mm	21
SO-T34	Rc3/8 x Rc1/2	36mm	26

◆ Material: Brass (Nickel plating)

## Nipple Socket

### Straight threads



### aper threads



### Straight threads

Product No.	Size	Total length	Hexagon
NS-S11	G1/8 x G1/8	18mm	14
NS-S22	G1/4 x G1/4	24mm	17
NS-S33	G3/8 x G3/8	28mm	21

### Taper threads

Product No.	Size	Total length	Hexagon
NS-T11	R1/8 x Rc1/8	20mm	12
NS-T22	R1/4 x Rc1/4	26mm	16
NS-T33	R3/8 x Rc3/8	29mm	21

◆ Material: Brass (Nickel plating)



# Air Parts

## Different diameter Nipple Socket

### Straight threads



◆ Material: Brass (Nickel plating)

Product No	Size	Total length	Hexagon
NS-S12	G1/8 × G1/4	22mm	16
NS-S21	G1/4 × G1/8	23mm	14
NS-S23	G1/4 × G3/8	27mm	21
NS-S32	G3/8 × G1/4	27mm	17
NS-S34	G3/8 × G1/2	30mm	26
NS-S43	G1/2 × G3/8	29mm	21

### Taper threads



◆ Material: Brass (Nickel plating)

Product No	Size	Total length	Hexagon
NS-T12	R1/8 × Rc1/4	24mm	17
NS-T21	R1/4 × Rc1/8	22mm	14
NS-T23	R1/4 × Rc3/8	29mm	21
NS-T32	R3/8 × Rc1/4	28mm	17
NS-T34	R3/8 × Rc1/2	31mm	26
NS-T43	R1/2 × Rc3/8	29mm	22

## Single Taper Nipple, Nipple Socket

### Single Taper Nipple



### Single Taper Nipple Socket



◆ Material: Brass (Nickel plating)  
◆ S-11 no plating

### Single Taper Nipple

Product No	Size	Total length	Hexagon
ST-11	G1/8 × R1/8	18mm	12
ST-22	G1/4 × R1/4	28mm	14
ST-33	G3/8 × R3/8	30mm	17

### Single Taper Nipple Socket

Product No	Size	Total length	Hexagon
TN-S2T2	G1/4 × Rc1/4	26mm	17
TN-T2S2	R1/4 × G1/4	25mm	17

## Urethane hose joint

### Outer thread type For Ø6.5xØ10



### For Ø8.5xØ12.5



### Inner thread type For Ø6.5xØ10



### For Ø8.5xØ12.5



### Intermediate type For Ø6.5xØ10



### Flexible metal fitting For Ø6.5xØ10



### For Ø8.5xØ12.5



◆ Material: Brass (Nickel plating)

### Outer thread type

Product No	Size	Total length	Hexagon
UJ65-MG1/4	G1/4 × (6.5φ × 10φ)	34mm	16
UJ85-MG1/4	G1/4 × (8.5φ × 12.5φ)	37mm	19

### Inner thread type

Product No	Size	Total length	Hexagon
UJ65-FG1/4	G1/4 × (6.5φ × 10φ)	32mm	16
UJ85-FG1/4	G1/4 × (8.5φ × 12.5φ)	35mm	19

### Intermediate type

Product No	Size	Total length	Hexagon
UJ65-65	(6.5φ × 10φ) × (6.5φ × 10φ)	46mm	16

### Flexible metal fitting

Product No	Size	Total length	Hexagon
UJT65	G1/4 × (6.5φ × 10φ)	46mm	16
UJT85	G1/4 × (8.5φ × 12.5φ)	49mm	19

## Hose Nut



◆ Material: Brass (Nickel plating)

Product No	Size	Total length	Hexagon
HT-S1-6	6φ × G1/8	27mm	12
HT-S2-7	7φ × G1/4	37mm	16
HT-S2-9	9φ × G1/4	38mm	16
HT-S3-11	11φ × G3/8	45mm	19

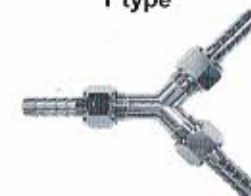
# Air Parts

## Hose joint

### I type



### Y type



### 3 pronged



### 2 pronged



◆ Material: I type Brass  
◆ Others Brass (Nickel plating)

### I type

Product No	Size	Total length
IHJ-7	7φ × 7φ	40mm
IHJ-9	9φ × 9φ	58mm
IHJ-11	11φ × 11φ	66mm

### Y type

Product No	Size	Total length
YHJ-7	7φ × 7φ × 7φ	94mm
YHJ-9	9φ × 9φ × 9φ	94mm
YHJ-11	11φ × 11φ × 11φ	109mm

### 3 pronged

Product No	Size	Total length
THJ-6	6φ × 6φ × 6φ	43mm
THJ-7	7φ × 7φ × 7φ	55mm
THJ-9	9φ × 9φ × 9φ	58mm
THJ-11	11φ × 11φ × 11φ	60mm

### 2 pronged

Product No	Size	Total length
WHJ-7	7φ × 7φ × G1/4	76mm
WHJ-9	9φ × 9φ × G1/4	76mm
WHJ-11	11φ × 11φ × G3/8	85mm

## Nipple (Hose joint)

### Single-ended nipple Straight threads



### Single-ended nipple Taper threads



### Y type intermediate nipple



### 2 pronged intermediate nipple



◆ Material: Brass (Nickel plating)

### Single-ended nipple Straight threads

Product No	Size	Total length	Hexagon
KN-S2-7	7φ × G1/4	35mm	14
KN-S2-9	9φ × G1/4	40mm	14
KN-S3-11	11φ × G3/8	43mm	17

### Single-ended nipple Taper threads

Product No	Size	Total length	Hexagon
KN-T1-6	6φ × R1/8	36mm	12
KN-T2-9	9φ × R1/4	40mm	14
KN-T3-11	11φ × R3/8	44mm	17

### Y type intermediate nipple

Product No	Size	Total length
YN-2	G1/4 × G1/4 × G1/4	46mm
YN-3	G3/8 × G3/8 × G3/8	46mm

### 2 pronged intermediate nipple

Product No	Size	Total length
WN-2	G1/4 × G1/4 × G1/4	60mm
WN-3	G3/8 × G3/8 × G3/8	62mm

## Air chuck (For filling air in he tires)

### For W tires



### Model 55K

Applicable model	Truck, W tires, Passenger cars, Motorbikes
Maximum applicable pressure	0.7MPa
Air connection	Plug type
Material	Brass, Nickel plating

### For cycles



### Model 60K

Applicable model	Motorbikes, Cycles
Maximum applicable pressure	0.7MPa
Air connection	Plug type
Material	Brass, Nickel plating

### For car, cycle tires



### Model 50SK



### Model 50K

Applicable model	Truck, Passenger cars, Motorbikes, Cycles
Maximum applicable pressure	0.7MPa
Air connection	Plug type
Material	Brass, Nickel plating

### For special wheels



### Model 55K

Applicable model	Thin shaft valves, Truck, W tires, Passenger cars, Motorbikes
Maximum applicable pressure	0.7MPa
Air connection	Plug type
Material	Brass, Nickel plating

In addition, we also handle the hand held chucks etc.



## The one-push coupling with sleeve guard specifications has been redesigned with an unprecedented design!

- Sleeve guard specifications prevent detachment due to "external impact".
- One-push connection just by inserting the plug.
- Weight has been reduced by using aluminum as the main body material.
- Piping can be color-coded for each work line with three color variations.

## DESIGN COUPLINGS

**original**

Design registered.



BDK type

For one push type air piping

### Specifications

Product name	BDK22	BDK23
Nominal diameter	1/4"	3/8"
Body material	Aluminum (Almite), Steel (Chrome plating), Brass	
Max. operating pressure Kgf/cm <sup>2</sup> (MPa)	10 (1.0)	
Design pressure Kgf/cm <sup>2</sup> (MPa)	7 (0.7)	
Seal material	Nitrile rubber (NBR) : -20 °C ~ +80 °C	
Operating temperature range		
Coupling	One push type	

### Product model and mounting sizes

SH type (For hose connection)		SM type (Male threads)		SF type (Female threads)		SN type (Nut type)	
Model	Size	Model	Size	Model	Size	Model	Size
BDK22-SH	1/4" Hose	BDK22-SM	R1/4" Male threads	BDK22-SF	Rc1/4" Female threads	BDK22-SN	φ6.5×φ10 urethane hose
BDK23-SH	3/8" Hose	BDK23-SM	R3/8" Male threads	BDK23-SF	Rc3/8" Female threads	BDK23-SN	φ8.5×φ12.5 urethane hose

★ All types are available in here metallic colours: Gold (GO), Red and Blue (BL).



We also offer package processing for stores.

Individual packaging  
proposal



Wrap winding  
processing proposal



Handbag processing  
proposal



Clear case  
processing proposal



Desktop furniture  
proposal



Blister processing  
proposal



Header bagging  
processing proposal





- 1 Avoid unplugging the coupling under pressure. It may pose a danger to your work.
- 2 It may be difficult to connect if there is residual pressure in the coupling. Avoid hitting the tip of the valve with a hammer etc.
- 3 It may cause a malfunction if foreign matter gets into the fluid used. Be sure to use the fluid through a filter.
- 4 Incorrect selection of rubber material may cause leakage. Select the rubber material after confirming the compatibility with the type of fluid and temperature.
- 5 Be careful, as the dust and scratches on the sealing surface may cause leakage.
- 6 Excess tightening may cause damage when installing the coupling. Tighten with an appropriate torque. Also, be sure to fix it with a hose band when installing the hose.
- 7 Avoid using either of the socket or plug alone at the time of dynamic pressure.
- 8 Avoid using with tools or equipment which exert excessive vibrations or impact. Also, avoid using it in an excessive bending, pulling or rotation state.
- 9 Apply grease to the O-ring on a regular basis.

## Ring material and compatible fluid

Material	Nitrile rubber	Neoprene	Viton	Silicon rubber	Ethylene propylene
Symbol	NBR	CR	FKM	Q	EPDM
Applicable temperature range	-20~+80°C	-20~+80°C	-20~+180°C	-20~+180°C	-40~+150°C
Compatible fluid ammonia		●	●		●
Sulphurous acid gas	●	●	●		●
Carbon dioxide gas	●		●		●
Oxygen	●	●	●		●
Propane	●		●		
Freon 12		●	●		●
Freon 22		●			
Gasoline	●				
Light oil	●				
Spindle oil	●				
Phosphate ester			●		●
Chlorine			●		
Sulphuric acid			●		
Beverage				●	
Water vapour			△		●
Tricrane (?)			●		

## \* Performance standards and contractual management

The numerical values of the external dimensions shown in this catalogue are average values for use as technical reference material.

## \* Similar product compatibility

Our coupling product group considers compatibility with other companies' products, however, please contact us.



## Caution

Even within the working pressure range, a hammer phenomenon may occur depending on the usage conditions, and as a result, a force higher than the working pressure force gets applied to the coupling, causing deformation of plug etc. We recommend regular replacement.

## Company Profile

Company name : Yamato Engineering Co., Ltd.

Representative : Noriyoshi Kishimoto,  
President and CEO

Location : 3-1-6 Nunoichicho, Higashi-Osaka City,  
Osaka, Japan 〒579-8004

TEL: 072-985-0154 / FAX: 072-985-0432

HP: <http://www.yamato.ecweb.jp>

Established: April 1972

Business : Development,  
manufacture and sale of rapid fluid couplings

Bank : Osaka City Shinkin Bank Hiraoka Branch  
San ju San Bank Higashi Osaka Branch  
Eiwa Shinkin Bank Hanazono Branch

## History

April 1972: Founded in Higashi-Osaka City, Osaka Prefecture

June 1994: Started mass production of air couplings

January 1995: Launched as an original brand

May 2004: Opened second factory

February 2014: Opened a new factory. Headquarters function relocated

October 2015: Built our own factory in Higashi Osaka.

Integrated relocation of all factories

January 2016: Change of President and CEO Noriyoshi Kishimoto,  
assumed office.

Sept 2021: Opening of Nabari Factory

We have a track record of about 50 years since we started manufacturing couplings.

It is used by many customers such as general mechanic routes, automobile maintenance routes, food routes, and DIY equipment related products. With the motto "Good products at low prices", all employees will continue to work ahead.