

FITTING

CONTROLLER

VALVE

TUBE

MAKE-TO-ORDER
PRODUCTS

244

Push-In Fitting Type Molding Die Temperature Control Coupling Die Temperature Control Fitting Series

- *Push-In Fitting Type for Die Temperature Control.*
- *Thermal Oil, Clean Water and Air for Fluid Medium.*
- *No Projection left on the die, after uncoupling Plug.*
- *Stop Valve Built-In Type prevents Hot Water Ejection when uncoupling Plug.*

Die Temperature
Control

Minimal
Series

Stop Fitting
Series

Rotary
Series

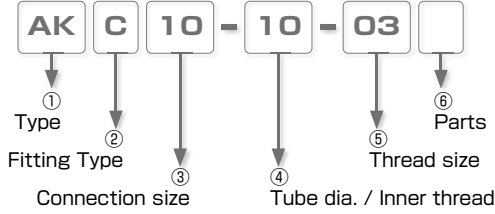
Twist-Proof
Fitting

Block and
Connector

Coupling

Color
Cap

Model Designation (Example)



① Type

- AK : Without stop valve (Standard type)
- AS : With stop valve

② Fitting Type (No code: Thread part (socket) only)

- C : Straight
- L : Elbow

③ Connection size

- 08 : 08 series (Standard type only)
- 10 : 10 series

④ Tube dia. / Inner thread (No code: Thread part (socket) only)

Tube dia.	Tube O.D. mm				Tube I.D. inch		Inner thread		
Code	6	8	10	12	ID06B	ID09B	01F	02F	03F
Size	ø6	ø8	ø10	ø12	1/4	3/8	Rc1/8	Rc1/4	Rc3/8

⑤ Thread size (No code: Fitting part (plug) only)

Thread size	Taper pipe thread			
Code	01	02	03	04
Size	R1/8	R1/4	R3/8	R1/2

⑥ Parts

- No code : Plug and Socket
- P : Plug
- S : Socket (Thread part only)

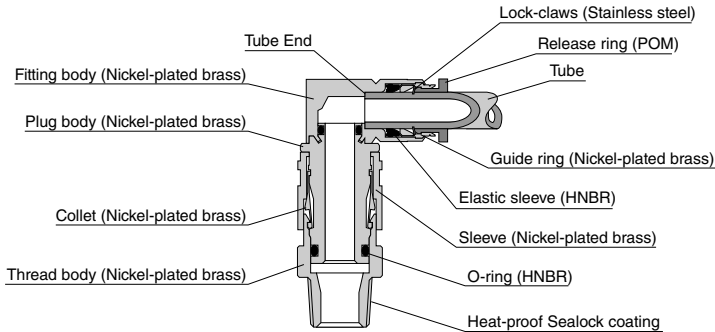
Specifications

Fluid medium	Air	Water (Clean water ※)	Heat medium oil (※)
Max. operating pressure	0.9MPa		
Max. vacuum	-100kPa	-	
Operating temp. range	0~60°C (No freezing)	0~99°C (No freezing)	0~120°C (No freezing)

△ Warning

- ※ . Make sure to follow the instructions below when the fluid medium is water or heat medium oil.
1. Surge pressure must be controlled lower than max. operating pressure when using water or heat medium oil.
 2. Be sure to place Insert Ring into the tube edge when using water or heat medium oil.

Construction (Elbow: AKL)





⚠ Detailed Safety Instructions

Before using PISCO products, be sure to read "Safety Instructions" and "Safety Instruction Manual" on page 23 to 27 and "Common Safety Instructions for Fittings" on page 33 to 35.

Warning

1. Before uncoupling the plug, make sure there is no pressure in the pipe and fluid such as water and heat medium oil are under 30°C . In case these compressed fluids are still in the pipes and are over 30°C , there is a possibility that the plug jumps out and cause injury or burns.
2. Do not touch the sleeve when a compressed fluid still remains in the pipe. There is a possibility that plug can be pulled out unexpectedly by touching it physically.
3. When a plug is installed in a socket, push the plug into the socket to fix properly until it stops. It may cause a disconnection of the plug if it is installed incompletely. After installing, pull the plug toward oneself moderately to make sure it is connected properly.
4. Use Nylon Tube Series "NB" for heat medium oil. Be sure to place Insert Ring into the tube edge. There is a possibility to cause the escape of tube and a fluid leakage without Insert Ring.
5. As for barb type, use the I.D.6.3mm-heat-proof hose for ID06 and the I.D.9.5mm-heat-proof hose for ID09. Usage of improper size of hoses may result in a poor connection, the escape of hose and a fluid leakage, etc.
6. Make sure to insert the barb into hose up to the barb end and fix it by a hose band which is commercially available. There is a possibility of the hose escape or a fluid leakage by a poor connection of the barb or without the hose band.

Caution

1. When the socket is embedded in a molding die, the top surface of the socket must be 3mm deep at maximum from the surface of the die. If the depth is more than 3mm, it can be difficult or impossible to uncouple the plug.
※ . Refer to "Die Processing Dimension" .

Standard Size List

Fitting (Plug) + Thread (Socket)

Type	Page	Thread size	Tube O.D. (mm)			
			6	8	10	12
AKC Straight Tube Coms	P.251	R1/8	●	●	●	●
		R1/4	●	●	●	●
		R3/8	●	●	●	●
		R1/2	●	●	●	●
AKL Elbow Tube Coms	P.252	R1/8	●	●	●	●
		R1/4	●	●	●	●
		R3/8	●	●	●	●
		R1/2	●	●	●	●

Type	Page	Thread size	Thread size (Pipe taper thread)		
			Rc1/8	Rc1/4	Rc3/8
AKC-F Female Screw Coms	P.253	R1/8	●	●	●
		R1/4	●	●	●
		R3/8	●	●	●
		R1/2	●	●	●

Type	Page	ネジサイズ	Tube I.D. (Inch size)	
			1/4	3/8
AKC-B Straight Barb Coms	P.253	R1/8	●	●
		R1/4	●	●
		R3/8	●	●
		R1/2	●	●

Fitting (Plug) only

Type	Page		Tube O.D. (mm)			
			6	8	10	12
AKC-P Straight Tube Plug	P.254		●	●	●	●
AKL-P Elbow Tube Plug	P.254		●	●	●	●

Type	Page		Thread size (Pipe taper thread)		
			Rc1/8	Rc1/4	Rc3/8
AKC-FF Female Screw Plug	P.255		●	●	●

Type	Page		Tube I.D. (Inch size)	
			1/4	3/8
AKC-BF Straight Barb Plug	P.255		●	●

Thread (Socket) only

Type	Page		Thread size (Pipe taper thread)			
			R1/8	R1/4	R3/8	R1/2
AK Screw Socket	P.256		●	●	●	●

Stop Valve built-in Type: Fitting (Plug) + Thread (Socket)

Type	Page	Thread size	Tube O.D. (mm)			
			6	8	10	12
ASC Straight Tube Coms	P.257	R1/8	●	●	●	●
		R1/4	●	●	●	●
		R3/8	●	●	●	●
		R1/2	●	●	●	●
ASL Elbow Tube Coms	P.257	R1/8	●	●	●	●
		R1/4	●	●	●	●
		R3/8	●	●	●	●
		R1/2	●	●	●	●

Type	Page	Thread size	Thread size (Pipe taper thread)		
			Rc1/8	Rc1/4	Rc3/8
ASC-F Female Screw Coms	P.258	R1/8	●	●	●
		R1/4	●	●	●
		R3/8	●	●	●
		R1/2	●	●	●

Type	Page	ネジサイズ	Tube I.D. (Inch size)	
			1/4	3/8
ASC-B Straight Barb Coms	P.258	R1/8	●	●
		R1/4	●	●
		R3/8	●	●
		R1/2	●	●

Stop Valve built-in Type: Fitting (Plug) only

Type	Page		Tube O.D. (mm)			
			6	8	10	12
ASC-P Straight Tube Plug	P.259		●	●	●	●
ASL-P Elbow Tube Plug	P.259		●	●	●	●

Type	Page		Thread size (Pipe taper thread)		
			Rc1/8	Rc1/4	Rc3/8
ASC-FF Female Screw Plug	P.260		●	●	●

Type	Page		Tube I.D. (Inch size)	
			1/4	3/8
ASC-BF Straight Barb Plug	P.260		●	●

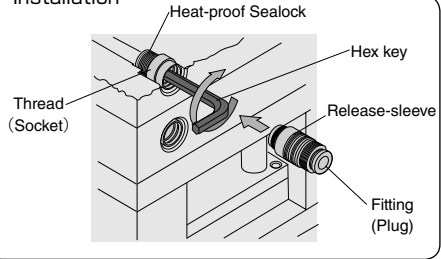
Screw Socket for Stop Valve built-in Type

Type	Page		Thread size (Pipe taper thread)		
			R1/8	R1/4	R3/8
AS Screw Socket	P.261		●	●	●

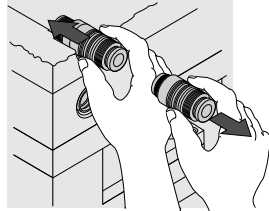
How to install and uncouple

- ① Drill a hole on a molding die, based on the thread in advance. See "Die Processing Dimension" on page 250. Use a hex key to tighten the thread of socket.
- ② Plug can be coupled with the socket by inserting only.
- ③ When uncoupling the plug, firstly push the plug until the release-sleeve stops, then pull it out. Since the socket is embedded in the die and there is no convex projection on the die surface, it is convenient to handle the die. Stop Valve built-in type is useful for safety operation by preventing the fluid from spilling out.

Installation



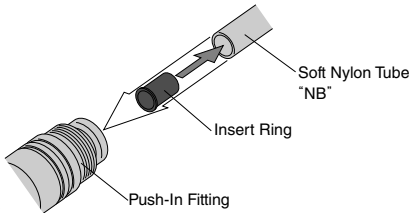
Uncoupling



How to handle

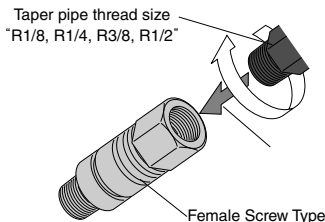
① Push-In Fitting

- Place Insert Ring into the edge of Soft Nylon Tube "NB", and insert the tube into the fitting up to the tube end.



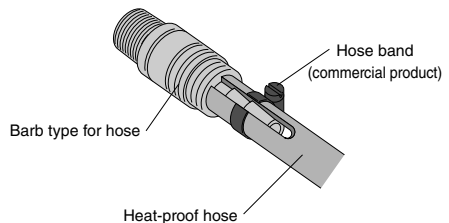
② Female Screw Type

- Connectable to taper pipe thread size "R1/8, R1/4, R3/8, R1/2".



③ Barb Type for Hose

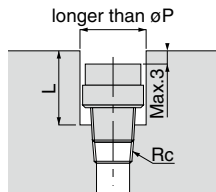
- Use a heat-proof hose with I.D.6.3mm for ID06 and a heat-proof hose with I.D.9.5mm for ID09. Make sure to insert the barb into hose up to the barb end and fix it by a hose band which is commercially available in order to avoid the hose escape.



Die Processing Dimension

Drill a molding die as the referential dimensions "øP" and "L" in order to embed a socket.

Unit : mm



Model code	Rc	L	ø P
AK 08-01S	Rc1/8	14.5	15
AK 08-02S	Rc1/4	14	15
AK(AS) 10-01S	Rc1/8	17	18
AK(AS) 10-02S	Rc1/4	17	18
AK(AS) 10-03S	Rc3/8	16.5	18
AK 10-04S	Rc1/2	18	22

Applicable Tube and Related Products

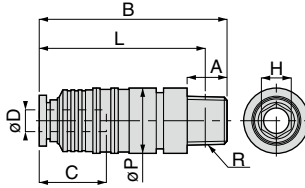
Soft Nylon Tube.....P.608

Insert Ring.....P.668

Tube Fitting Long Type.....P.262

■ Plug + Socket

AKC Straight Tube Coms

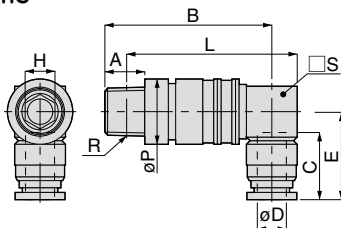


Unit : mm

Model code	Tube O.D. øD	R	A	B	L	øP	Tube end C	Hex. H	Weight (g)	Orifice dia.	Effective area (CV Value) (mm ²)
AKC08-601	6	R1/8	8	44	40	15	17	5	33	4.8	13.5(0.7)
AKC08-602		R1/4	11	45.5	39.5			6	36		13.6(0.71)
AKC08-801	8	R1/8	8	44.5	40.5	15	18.5	5	31.5	5.3	18.9(1.06)
AKC08-802		R1/4	11	46	40			6	34.5	6	18.4(1.1)
AKC10-801	8	R1/8	8	49.5	45.5	18	18.5	5	52	5.3	18.4(1.1)
AKC10-802		R1/4	11	51.5				45	8	52.5	6
AKC10-803		R3/8	12		59	80.5			24.7(1.54)		
AKC10-804		R1/2	15	54.5	46.5			22	80.5	24.7(1.54)	
AKC10-1001	10	R1/8	8	52	48	18	21	5	52.5	5.3	18.5(1.42)
AKC10-1002		R1/4	11	54				47.5	8	53	7.5
AKC10-1003		R3/8	12		57				59.5	82.5	
AKC10-1004		R1/2	15	57	49			22	82.5		8.1
AKC10-1201		12	R1/8	8	61			57	18	23.5	5
AKC10-1202	R1/4		11	63	56.5	8	74				7.5
AKC10-1203	R3/8		12			80.5	99.5	8.1			
AKC10-1204	R1/2		15	66	58	22		99.5			8.1

※ "L" is a reference value for height dimension after tightening thread.

AKL Elbow Tube Coms



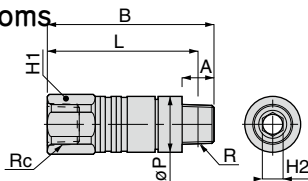
Unit : mm

Model code	Tube O.D. øD	R	A	B	L	øP	Tube end C	E	Hex. H	□ S	Weight (g)	Orifice dia.	Effective area (CV Value) (mm ²)			
AKL08-601	6	R1/8	8	37	39	15	17	22	5	12	47	4	9.2(0.49)			
AKL08-602		R1/4	11	38.5	38.5								9.5(0.5)			
AKL08-801	8	R1/8	8	38	41	15	18.5	24	5	14	52.5	5.3	18.9(1.06)			
AKL08-802		R1/4	11	39.5	40.5								18.4(1.1)			
AKL10-801	8	R1/8	8	43.5	46.5	18	18.5	24	5	14	57.5	5.3	18.5(1.63)			
AKL10-802		R1/4	11	45.5									46	18.7(1.11)		
AKL10-803		R3/8	12		48.5								47.5	22	65	6
AKL10-804		R1/2	15	98.5												
AKL10-1001	10	R1/8	8	45	49.5	18	21	28	5	17	87.5	5.3	18.5(1.63)			
AKL10-1002		R1/4	11	47									49	33.5(2.35)		
AKL10-1003		R3/8	12		50								50.5	22	117	7.5
AKL10-1004		R1/2	15	56.5												
AKL10-1201	12	R1/8	8	50.5	56.5	18	23.5	31	5	20	127	5.3	18.8(1.69)			
AKL10-1202		R1/4	11	52.5									56	133	7.5	34.8(2.86)
AKL10-1203		R3/8	12		55.5											
AKL10-1204		R1/2	15	151												

※ "L" is a reference value for height dimension after tightening thread.

■ Plug + Socket

AKC-F Female Screw Coms

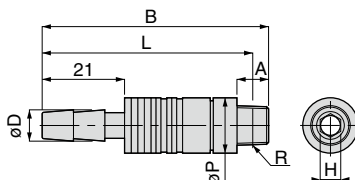


Unit : mm

Model code	Rc	R	A	B	L	ϕP	Hex. H1	Hex. H2	Weight (g)	Orifice dia.	Effective area (CV Value) (mm ²)
AKC08-01F01	Rc1/8	R1/8	8	41	37	15	14	5	35.5	5.3	19.6(1.16)
AKC08-01F02		R1/4	11	42.5	36.5			6	39	6.1	23.3(1.23)
AKC08-02F01	Rc1/4	R1/8	8	49	45	15	17	5	47	5.3	19.4(1.55)
AKC08-02F02		R1/4	11	50.5	44.5			6	50.5	6.1	23.2(1.85)
AKC10-01F01	Rc1/8	R1/8	8	42.5	38.5	18	17	5	53.5	5.3	18.7(1.15)
AKC10-01F02		R1/4	11	44.5				38	54	7.5	35(1.3)
AKC10-01F03		R3/8	12		60.5			8.1			
AKC10-01F04		R1/2	15	47.5	39.5			82.5	8.1		
AKC10-02F01	Rc1/4	R1/8	8	49.5	45.5	18	17	5	59.5	5.3	18.9(1.64)
AKC10-02F02		R1/4	11	51.5				45	60	8.1	34.8(2.64)
AKC10-02F03		R3/8	12		46.5			88			
AKC10-02F04		R1/2	15	54.5	22			88			
AKC10-03F01	Rc3/8	R1/8	8	55.5	51.5	18	21	5	75.5	5.3	18.9(1.69)
AKC10-03F02		R1/4	11	57.5				51	76	8.1	34.7(2.71)
AKC10-03F03		R3/8	12		51			82.5			
AKC10-03F04		R1/2	15	60.5	22			105			

※ "L" is a reference value for height dimension after tightening thread.

AKC-B Straight Barb Coms



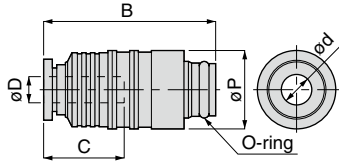
Unit : mm

Model code	Heat-proof hose I.D.	ϕD	R	A	B	L	ϕP	Hex. H	Weight (g)	Orifice dia.	Effective area (CV Value) (mm ²)
AKC08-ID06B01	6.3	8	R1/8	8	56	52	15	5	38	4.5	13.6(0.9)
AKC08-ID06B02			R1/4	11	57.5	51.5		6	41		
AKC08-ID09B01	9.5	12	R1/8	8	56	52	15	5	42	5.3	19.5(1.39)
AKC08-ID09B02			R1/4	11	57.5	51.5		6	45.5	6	22.4(1.54)
AKC10-ID06B01	6.3	8	R1/8	8	61.5	57.5	18	5	61	4.5	13.5(0.91)
AKC10-ID06B02			R1/4	11	63.5			57	61.5		
AKC10-ID06B03			R3/8	12	63.5	57		68			
AKC10-ID06B04			R1/2	15	66.5	58.5		22	83.5		
AKC10-ID09B01	9.5	12	R1/8	8	61.5	57.5	18	5	60.5	4.5	18.8(1.41)
AKC10-ID09B02			R1/4	11	63.5			57	61	7	29.6(2.21)
AKC10-ID09B03			R3/8	12	63.5	57		67.5			
AKC10-ID09B04			R1/2	15	66.5	58.5		22	88.5	6	

※ "L" is a reference value for height dimension after tightening thread.

■ Plug

AKC-P Straight Tube Plug

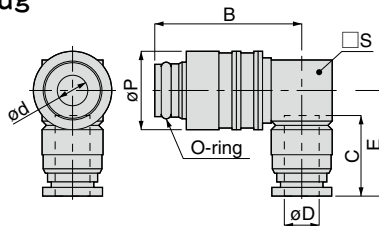


Unit : mm

Model code	Tube O.D. øD	B	øP	Tube end C	ød	Weight (g)	Orifice dia.	Recommended socket (thread only)
AKC08-6P	6	34	15	17	4.8	23	4.8	AK08-□S
AKC08-8P	8	34.5	15	18.5	6.1	21.5	6.1	AK08-□S
AKC10-8P	8	39	18	18.5	8.1	37	7	AK10-□S
AKC10-10P	10	41.5	18	21	8.1	37.5	8.1	AK10-□S
AKC10-12P	12	50.5	18	23.5	8.1	55.5	8.1	AK10-□S

※ □ in Recommended socket model code / Replaced with Thread size

AKL-P Elbow Tube Plug



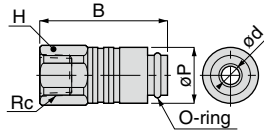
Unit : mm

Model code	Tube O.D. øD	B	øP	Tube end C	E	ød	□S	Weight (g)	Orifice dia.	Recommended socket (thread only)
AKL08-6P	6	27	15	17	22	4	12	37	4	AK08-□S
AKL08-8P	8	28	15	18.5	24	6	14	42.5	6	AK08-□S
AKL10-8P	8	33	18	18.5	24	8.1	14	42.5	6	AK10-□S
AKL10-10P	10	34.5	18	21	28	8.1	17	72.5	7.5	AK10-□S
AKL10-12P	12	40	18	23.5	31	8.1	20	108	8.1	AK10-□S

※ □ in Recommended socket model code / Replaced with Thread size

■ Plug

AKC-FP Female Screw Plug

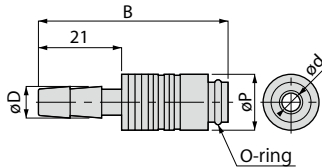


Unit : mm

Model code	Rc	B	øP	Hex. H	ød	Weight (g)	Orifice dia.	Recommended socket (thread only)
AKC08-01FP	Rc1/8	31	15	14	6.1	26	6.1	AK08-□S
AKC08-02FP	Rc1/4	39	15	17	6.1	37.5	6.1	AK08-□S
AKC10-01FP	Rc1/8	32	18	17	7.5	38	7.5	AK10-□S
AKC10-02FP	Rc1/4	39	18	17	7.5	44.5	8.1	AK10-□S
AKC10-03FP	Rc3/8	45	18	21	7.5	60	8.1	AK10-□S

※ . □ in Recommended socket model code / Replaced with Thread size

AKC-BP Straight Barb Plug



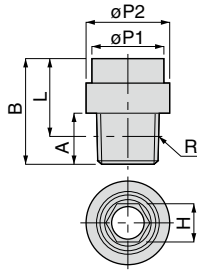
Unit : mm

Model code	Heat-proof hose I.D.	øD	B	øP	ød	Weight (g)	Orifice dia.	Recommended socket (thread only)
AKC08-ID06BP	6.3	8	46	15	4.5	28	4.5	AK08-□S
AKC08-ID09BP	9.5	12	46	15	6	32.5	6	AK08-□S
AKC10-ID06BP	6.3	8	51	18	4.5	46	4.5	AK10-□S
AKC10-ID09BP	9.5	12	51	18	7	45	7	AK10-□S

※ . □ in Recommended socket model code / Replaced with Thread size

Socket

AK Screw Socket



Unit : mm

Model code	R	A	B	L	øP1	øP2	Hex. H	Weight (g)	Orifice dia.
AK08-01S	R1/8	8	18.5	14.5	13	15	5	10	5.3
AK08-02S	R1/4	11	20	14	13	15	6	13	6.3
AK10-01S	R1/8	8	21	17	15.5	18	5	15	5.3
AK10-02S	R1/4	11	23	17	15.5	18	8	15.5	8.5
AK10-03S	R3/8	12	23	16.5	15.5	18	8	22.5	8.5
AK10-04S	R1/2	15	26	18	15.5	22	8	44.5	8.5

※ "L" is a reference value for height dimension after tightening thread.

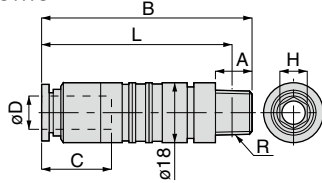
※ . No compatibility with AS (Screw Socket only).

Die Temperature Control Fitting Series

■ Stop Valve built-in / Plug + Socket

FITTING

ASC Straight Tube Coms



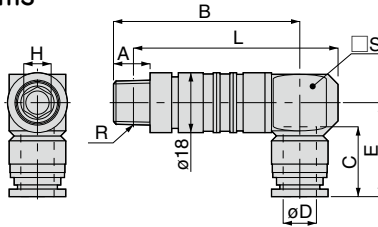
Unit : mm

Model code	Tube O.D. ϕD	R	A	B	L	Tube end C	Hex. H	Weight (g)	Orifice dia.	Effective area (CV Value) (mm ²)
ASC10-601	6	R1/8	8	57	53	17	5	67	5	12.6(0.66)
ASC10-602		R1/4	11		51		6	66.5		
ASC10-603		R3/8	12		50.5		73			
ASC10-801	8	R1/8	8	60.5	56.5	18.5	5	71	5.3	19.7(1.17)
ASC10-802		R1/4	11		54.5		6	70.5		
ASC10-803		R3/8	12		54		76.5			
ASC10-1001	10	R1/8	8	62.5	58.5	21	5	68	5.3	18.6(1.37)
ASC10-1002		R1/4	11		56.5		6	67.5		
ASC10-1003		R3/8	12		56		74			
ASC10-1201	12	R1/8	8	64.5	60	23.5	5	74	5.3	18.6(1.48)
ASC10-1202		R1/4	11		58.5		6	73.5		
ASC10-1203		R3/8	12		58		80			

※ "L" is a reference value for height dimension after tightening thread.

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ASL Elbow Tube Coms

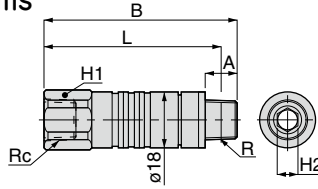


Unit : mm

Model code	Tube O.D. ϕD	R	A	B	L	Tube end C	E	Hex. H	□ S	Weight (g)	Orifice dia.	Effective area (CV Value) (mm ²)
ASL10-601	6	R1/8	8	53	55	17	22	5	12	79	4	9.4(0.47)
ASL10-602		R1/4	11		53			6		78.5		
ASL10-603		R3/8	12		52.5			85				
ASL10-801	8	R1/8	8	54	57	18.5	24	5	14	86	5.3	18.2(0.97)
ASL10-802		R1/4	11		55			6		85.5		
ASL10-803		R3/8	12		54.5			92				
ASL10-1001	10	R1/8	8	55.5	60	21	28	5	17	103	5.3	18.7(1.21)
ASL10-1002		R1/4	11		58			6		102.5		
ASL10-1003		R3/8	12		57.5			108				
ASL10-1201	12	R1/8	8	57	63	23.5	31	5	20	129.5	5.3	18.6(1.34)
ASL10-1202		R1/4	11		61			6		129		
ASL10-1203		R3/8	12		60.5			135.5				

※ "L" is a reference value for height dimension after tightening thread.

ASC-F Female Screw Coms

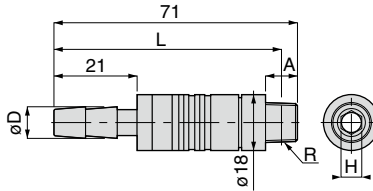


Unit : mm

Model code	Rc	R	A	B	L	Hex. H1	Hex. H2	Weight (g)	Orifice dia.	Effective area (CV Value) (mm ²)
ASC10-01F01	Rc1/8	R1/8	8	53	49	19	5	72.5	5.3	18.4(0.98)
ASC10-01F02		R1/4	11		47		6	72	6.3	25.9(1.14)
ASC10-01F03		R3/8	12		46.5		78.5			
ASC10-02F01	Rc1/4	R1/8	8	60	56	19	5	81.5	5.3	18.3(1.43)
ASC10-02F02		R1/4	11		54		6	81	6.3	25.9(1.73)
ASC10-02F03		R3/8	12		53.5		87			
ASC10-03F01	Rc3/8	R1/8	8	62	58	21	5	85	5.3	18.4(1.48)
ASC10-03F02		R1/4	11		56		6	84.5	6.3	25.9(1.84)
ASC10-03F03		R3/8	12		55.5		90.5			

※ "L" is a reference value for height dimension after tightening thread.

ASC-B Straight Barb Coms



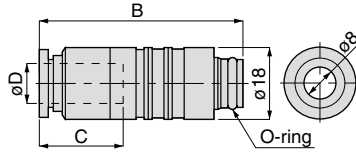
Unit : mm

Model code	Heat-proof hose I.D.	∅D	R	A	L	Hex. H	Weight (g)	Orifice dia.	Effective area (CV Value) (mm ²)
ASC10-ID06B01	6.3	8	R1/8	8	67	5	69	4.5	13.2(0.83)
ASC10-ID06B02			R1/4	11	65	6	68.5		13.6(0.87)
ASC10-ID06B03			R3/8	12	64.5	75			
ASC10-ID09B01	9.5	12	R1/8	8	67	5	75.5	5.3	18.2(1.18)
ASC10-ID09B02			R1/4	11	65	6	75	6	21.2(1.34)
ASC10-ID09B03			R3/8	12	64.5	81.5			

※ "L" is a reference value for height dimension after tightening thread.

■ Stop Valve built-in / Plug

ASC-P Straight Tube Plug

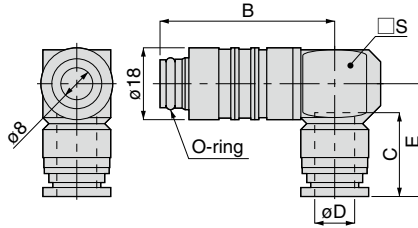


Unit : mm

Model code	Tube O.D. ϕD	B	Tube end C	Weight (g)	Orifice dia.	Recommended socket (thread only)
ASC10-6P	6	44.5	17	48	5	AS10-□S
ASC10-8P	8	48	18.5	52	7	AS10-□S
ASC10-10P	10	50	21	49	8.1	AS10-□S
ASC10-12P	12	52	23.5	55	8.1	AS10-□S

※ □ in Recommended socket model code / Replaced with Thread size

ASL-P Elbow Tube Plug

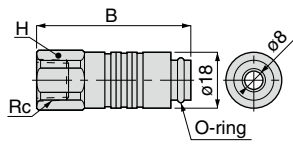


Unit : mm

Model code	Tube O.D. ϕD	B	Tube end C	E	□S	Weight (g)	Orifice dia.	Recommended socket (thread only)
ASL10-6P	6	40.5	17	22	12	60	4	AS10-□S
ASL10-8P	8	41.5	18.5	24	14	67.5	6	AS10-□S
ASL10-10P	10	43	21	28	17	84	7.5	AS10-□S
ASL10-12P	12	44.5	23.5	31	20	111	8.1	AS10-□S

※ □ in Recommended socket model code / Replaced with Thread size

ASC-FP Female Screw Plug

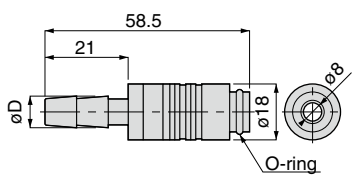


Unit : mm

Model code	Rc	B	Hex. H	Weight (g)	Orifice dia.	Recommended socket (thread only)
ASC10-01FP	Rc1/8	40.5	19	53.5	8.1	AS10-□S
ASC10-02FP	Rc1/4	47.5	19	62.5	8.1	AS10-□S
ASC10-03FP	Rc3/8	49.5	21	66	8.1	AS10-□S

※ . □ in Recommended socket model code / Replaced with Thread size

ASC-BP Straight Barb Plug



Unit : mm

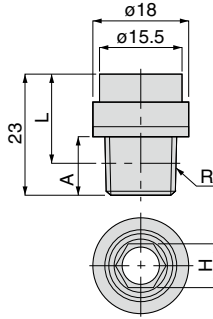
Model code	Heat-proof hose I.D.	ϕD	Weight (g)	Orifice dia.	Recommended socket (thread only)
ASC10-ID06BP	6.3	8	50	4.5	AS10-□S
ASC10-ID09BP	9.5	12	56.5	6	AS10-□S

※ . □ in Recommended socket model code / Replaced with Thread size

■ Stop Valve built-in / Socket

AS

Screw Socket



Unit : mm

Model code	R	A	L	Hex. H	Weight (g)	Orifice dia.
AS10-01S	R1/8	8	19	5	19	5.3
AS10-02S	R1/4	11	17	6	18.5	6.3
AS10-03S	R3/8	12	16.5	6	25	6.3

※ "L" is a reference value for height dimension after tightening thread.

※ . No compatibility with AK (Screw Socket only).



SAFETY Instructions

This safety instructions aim to prevent personal injury and damage to properties by requiring proper use of PISCO products.

Be certain to follow ISO 4414 and JIS B 8370

ISO 4414 : Pneumatic fluid power...Recommendations for the application of equipment to transmission and control systems.

JIS B 8370 : General rules and safety requirements for systems and their components.

This safety instructions is classified into "Danger", "Warning" and "Caution" depending on the degree of danger or damages caused by improper use of PISCO products.



Danger

Hazardous conditions. It can cause death or serious personal injury.



Warning

Hazardous conditions depending on usages. Improper use of PISCO products can cause death or serious personal injury.



Caution

Hazardous conditions depending on usages. Improper use of PISCO products can cause personal injury or damages to properties.



Warning

1. Selection of pneumatic products

- ① A user who is a pneumatic system designer or has sufficient experience and technical expertise should select PISCO products.
- ② Due to wide variety of operating conditions and applications for PISCO products, carry out the analysis and evaluation on PISCO products. The pneumatic system designer is solely responsible for assuring that the user's requirements are met and that the application presents no health or safety hazards. All designers are required to fully understand the specifications of PISCO products and constitute all systems based on the latest catalog or information, considering any malfunctions.

2. Handle the pneumatic equipment with enough knowledge and experience

- ① Improper use of compressed air is dangerous. Assembly, operation and maintenance of machines using pneumatic equipment should be conducted by a person with enough knowledge and experience.

3. Do not operate machine / equipment or remove pneumatic equipment until safety is confirmed.

- ① Make sure that preventive measures against falling work-pieces or sudden movements of machine are completed before inspection or maintenance of these machine.
- ② Make sure the above preventive measures are completed. A compressed air supply and the power supply to the machine must be off, and also the compressed air in the systems must be exhausted.
- ③ Restart the machines with care after ensuring to take all preventive measures against sudden movements.

Disclaimer

1. PISCO does not take any responsibility for any incidental or indirect loss, such as production line stop, interruption of business, loss of benefits, personal injury, etc., caused by any failure on use or application of PISCO products.
2. PISCO does not take any responsibility for any loss caused by natural disasters, fires not related to PISCO products, acts by third parties, and intentional or accidental damages of PISCO products due to incorrect usage.
3. PISCO does not take any responsibility for any loss caused by improper usage of PISCO products such as exceeding the specification limit or not following the usage the published instructions and catalog allow.
4. PISCO does not take any responsibility for any loss caused by remodeling of PISCO products, or by combinational use with non-PISCO products and other software systems.
5. The damages caused by the defect of Pisco products shall be covered but limited to the full amount of the PISCO products paid by the customer.



SAFETY INSTRUCTION MANUAL

PISCO products are designed and manufactured for use in general industrial machines. Be sure to read and follow the instructions below.

Danger

1. Do not use PISCO products for the following applications.
 - ① Equipment used for maintaining / handling human life and body.
 - ② Equipment used for moving / transporting human.
 - ③ Equipment specifically used for safety purposes.

Warning

1. Do not use PISCO products under the following conditions.
 - ① Beyond the specifications or conditions stated in the catalog, or the instructions.
 - ② Under the direct sunlight or outdoors.
 - ③ Excessive vibrations and impacts.
 - ④ Exposure / adhere to corrosive gas, inflammable gas, chemicals, seawater, water and vapor. *
* Some products can be used under the condition above(④), refer to the details of specification and condition of each product.
2. Do not disassemble or modify PISCO products, which affect the performance, function, and basic structure of the product.
3. Turn off the power supply, stop the air supply to PISCO products, and make sure there is no residual air pressure in the pipes before maintenance and inspection.
4. Do not touch the release-ring of push-in fitting when there is a working pressure. The lock may be released by the physical contact, and tube may fly out or slip out.
5. Frequent switchover of compressed air may generate heat, and there is a risk of causing burn injury.
6. Avoid any load on PISCO products, such as a tensile strength, twisting and bending. Otherwise, there is a risk of causing damage to the products.
7. As for applications where threads or tubes swing / rotate, use Rotary Joints, High Rotary Joints or Multi-Circuit Rotary Block only. The other PISCO products can be damaged in these applications.
8. Use only Die Temperature Control Fitting Series, Tube Fitting Stainless SUS316 Series, Tube Fitting Stainless SUS316 Compression Fitting Series or Tube Fitting Brass Series under the condition of over 60°C (140° F) water or thermal oil. Other PISCO products can be damaged by heat and hydrolysis under the condition above.
9. As for the condition required to dissipate static electricity or provide an antistatic performance, use EG series fitting and antistatic products only, and do not use other PISCO products. There is a risk that static electricity can cause system defects or failures.
10. Use only Fittings with a characteristic of spatter-proof such as Anti-spatter or Brass series in a place where flame and weld spatter is produced. There is a risk of causing fire by sparks.
11. Turn off the power supply to PISCO products, and make sure there is no residual air pressure in the pipes and equipment before maintenance. Follow the instructions below in order to ensure safety.
 - ① Make sure the safety of all systems related to PISCO products before maintenance.
 - ② Restart of operation after maintenance shall be proceeded with care after ensuring safety of the system by preventive measures against unexpected movements of machines and devices where pneumatic equipment is used.
 - ③ Keep enough space for maintenance when designing a circuit.
12. Take safety measures such as providing a protection cover if there is a risk of causing damages or fires on machine / facilities by a fluid leakage.

⚠ Caution

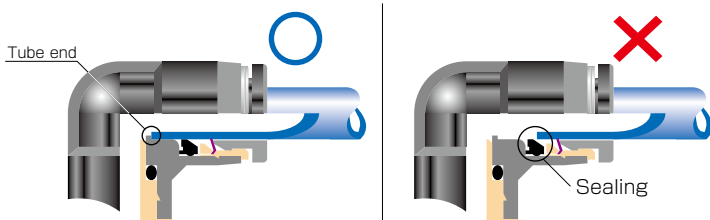
1. Remove dusts or drain before piping. They may get into the peripheral machine / facilities and cause malfunction.
2. When inserting an ultra-soft tube into push-in fitting, make sure to place an Insert Ring into the tube edge. There is a risk of causing the escape of tube and a fluid leakage without using an Insert Ring.
3. The product incorporating NBR as seal rubber material has a risk of malfunction caused by ozone crack. Ozone exists in high concentrations in static elimination air, clean-room, and near the high-voltage motors, etc. As a countermeasure, material change from NBR to HNBR or FKM is necessary. Consult with PISCO for more information.
4. Special option "Oil-free" products may cause a very small amount of a fluid leakage. When a fluid medium is liquid or the products are required to be used in harsh environments, contact us for further information.
5. In case of using non-PISCO brand tubes, make sure the tolerance of the outer tube diameter is within the limits of Table 1.

● Table 1. Tube O.D. Tolerance

mm size	Nylon tube	Polyurethane tube	inch size	Nylon tube	Polyurethane tube
ø1.8mm	—	± 0.05mm	ø1/8	± 0.1mm	± 0.15mm
ø3mm	—	± 0.15mm	ø5/32	± 0.1mm	± 0.15mm
ø4mm	± 0.1mm	± 0.15mm	ø3/16	± 0.1mm	± 0.15mm
ø6mm	± 0.1mm	± 0.15mm	ø1/4	± 0.1mm	± 0.15mm
ø8mm	± 0.1mm	± 0.15mm	ø5/16	± 0.1mm	± 0.15mm
ø10mm	± 0.1mm	± 0.15mm	ø3/8	± 0.1mm	± 0.15mm
ø12mm	± 0.1mm	± 0.15mm	ø1/2	± 0.1mm	± 0.15mm
ø16mm	± 0.1mm	± 0.15mm	ø5/8	± 0.1mm	± 0.15mm

6. Instructions for Tube Insertion

- ① Make sure that the cut end surface of the tube is at right angle without a scratch on the surface and deformations.
- ② When inserting a tube, the tube needs to be inserted fully into the push-in fitting until the tubing edge touches the tube end of the fitting as shown in the figure below. Otherwise, there is a risk of leakage.



Tube is not fully inserted up to tube end.

- ③ After inserting the tube, make sure it is inserted properly and not to be disconnected by pulling it moderately.
- ※ When inserting tubes, Lock-claws may be hardly visible in the hole, observed from the front face of the release-ring. But it does not mean the tube will surely escape. Major causes of the tube escape are the followings;
- ① Shear drop of the lock-claws edge
 - ② The problem of tube diameter (usually small)
- Therefore, follow the above instructions from ① to ③, even lock-claws is hardly visible.

7. Instructions for Tube Disconnection

- ① Make sure there is no air pressure inside of the tube, before disconnecting it.
- ② Push the release-ring of the push-in fitting evenly and deeply enough to pull out the tube toward oneself. By insufficient pushing of the release-ring, the tube may not be pulled out or damaged by scratch, and tube shavings may remain inside of the fitting, which may cause the leakage later.

8. Instructions for Installing a fitting

- ① When installing a fitting, use proper tools to tighten a hexagonal-column or an inner hexagonal socket. When inserting a hex key into the inner hexagonal socket of the fitting, be careful so that the tool does not touch lock-claws. The deformation of lock-claws may result in a poor performance of systems or an escape of the tube.
- ② Refer to Table 2 which shows the recommended tightening torque. Do not exceed these limits to tighten a thread. Excessive tightening may break the thread part or deform the gasket and cause a fluid leakage. Tightening thread with tightening torque lower than these limits may cause a loosened thread or a fluid leakage.
- ③ Adjust the tube direction while tightening thread within these limits, since some PISCO products are not rotatable after the installation.

● Table 2: Recommended tightening torque / Sealock color / Gasket materials

Thread type	Thread size	Tightening torque	Sealock color	Gasket materials
Metric thread	M3 × 0.5	0.7N·m	—	SUS304 NBR
	M5 × 0.8	1.0 ~ 1.5N·m		
	M6 × 1	2 ~ 2.7N·m		
	M3 × 0.5	0.5 ~ 0.6N·m		POM
	M5 × 0.8	1 ~ 1.5N·m		
	M6 × 0.75	0.8 ~ 1N·m		
Taper pipe thread	M8 × 0.75	1 ~ 2N·m	White	—
	R1/8	7 ~ 9N·m		
	R1/4	12 ~ 14N·m		
	R3/8	22 ~ 24N·m		
Unified thread	R1/2	28 ~ 30N·m	—	SUS304, NBR
	No.10-32UNF	1.0 ~ 1.5N·m		
National pipe thread taper	1/16-27NPT	7 ~ 9N·m	White	—
	1/8-27NPT	7 ~ 9N·m		
	1/4-18NPT	12 ~ 14N·m		
	3/8-18NPT	22 ~ 24N·m		
	1/2-14NPT	28 ~ 30N·m		

※ These values may differ for some products. Refer to each specification as well.

9. Instructions for removing a fitting

- ① When removing a fitting, use proper tools to loosen a hexagonal-column or an inner hex bolt.
- ② Remove the sealant stuck on the mating equipment. The remained sealant may get into the peripheral equipment and cause malfunctions.

10. Arrange piping avoiding any load on fittings and tubes such as twist, tensile, moment load, shaking and physical impact. These may cause damages to fittings, tube deformations, bursting and the escape of tubes.

Common Safety Instructions for Fittings

Before selecting or using PISCO products, read the following instructions. Read the detailed instructions for individual series as well as the instructions below.

Warning

1. Do not use fittings with fluid medium other than air or water. (Water can be used with some series.) Contact us for using other kind of fluid medium except air and water.
2. Do not use fittings except Anti-spatter, Brass and Brass Compression Fitting series in a place where the flame and weld spatter is produced. There is a risk of causing fire by sparks.
3. As for applications where threads or tubes swing / rotate, use Rotary Joints, High Rotary Joints or Multi-Circuit Rotary Block only. The other PISCO products can be damaged in these applications.
4. Use only Die Temperature Control Fitting Series, Tube Fitting Stainless SUS316 Series, Tube Fitting Stainless SUS316 Compression Fitting Series or Tube Fitting Brass Series under the condition of over 60°C (140° F) water or thermal oil. Other PISCO products can be damaged by heat and hydrolysis under the condition above.
5. As for the condition required to dissipate static electricity or provide an antistatic performance, use EG Series fitting and antistatic products only, and do not use other PISCO products. There is a risk that static electricity can cause system defects or failures.
6. Avoid any load on PISCO products, such as a tensile strength, twisting and bending. Otherwise, there is a risk of causing damage to the products.

⚠ Caution

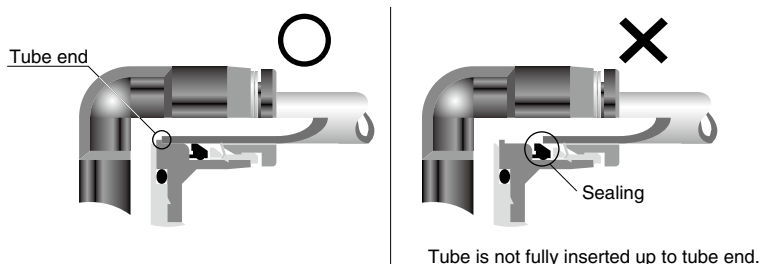
1. In case of using non-PISCO brand tubes, make sure the tolerance of the outer tube diameter is within the following limits of Table 1.

● Table 1. Tube O.D. Tolerance

mm size	Nylon tube	Urethane tube	inch size	Nylon tube	Urethane tube
ø1.8mm	—	± 0.05mm	ø1/8	± 0.1mm	± 0.15mm
ø3mm	—	± 0.15mm	ø5/32	± 0.1mm	± 0.15mm
ø4mm	± 0.1mm	± 0.15mm	ø3/16	± 0.1mm	± 0.15mm
ø6mm	± 0.1mm	± 0.15mm	ø1/4	± 0.1mm	± 0.15mm
ø8mm	± 0.1mm	± 0.15mm	ø5/16	± 0.1mm	± 0.15mm
ø10mm	± 0.1mm	± 0.15mm	ø3/8	± 0.1mm	± 0.15mm
ø12mm	± 0.1mm	± 0.15mm	ø1/2	± 0.1mm	± 0.15mm
ø16mm	± 0.1mm	± 0.15mm	ø5/8	± 0.1mm	± 0.15mm

2. Instructions for Tube Insertion

- ① Make sure that the cut end surface of the tube is at right angle without a scratch on the tube surface and deformations.
- ② When inserting a tube, the tube needs to be inserted fully into the push-in fitting until the tubing edge touches the tube end of the fitting as shown in the figure below. Otherwise, there is a risk of leakage.



- ③ After inserting the tube, make sure it is inserted properly and not to be disconnected by pulling it moderately.

3. Instructions for Tube Disconnection

- ① Make sure there is no air pressure inside of the tube, before disconnecting it.
- ② Push the release-ring of the push-in fitting evenly and deeply enough to pull out the tube toward oneself. By insufficient pushing of the release-ring, the tube may not be pulled out or damaged by scratch, and tube shavings may remain inside of the fitting, which may cause the leakage later.

4. Instructions for Installing a fitting

- ① When installing a fitting, use proper tools to tighten a hexagonal-column or an inner hexagonal socket. When inserting a hex key into the inner hexagonal socket of the fitting, be careful so that the tool does not touch lock-claws. The deformation of lock-claws may result in a poor performance of systems or an escape of the tube.
- ② Refer to Table 2 which shows the recommended tightening torque. Do not exceed these limits to tighten a thread. Excessive tightening may break the thread part or deform the gasket and cause a fluid leakage. Tightening thread with tightening torque lower than these limits may cause a loosened thread or a fluid leakage.
- ③ Adjust the tube direction while tightening thread within these limits, since some PISCO products are not rotatable the installation.

● Table 2: Recommended tightening torque / Sealock color / Gasket materials

Thread type	Thread size	Tightening torque	Sealock color	Gasket materials
Metric thread	M3 × 0.5	0.7N·m	—	SUS304 NBR
	M5 × 0.8	1.0 ~ 1.5N·m		
	M6 × 1	2 ~ 2.7N·m		
	M3 × 0.5	0.5 ~ 0.6N·m		POM
	M5 × 0.8	1 ~ 1.5N·m		
	M6 × 0.75	0.8 ~ 1N·m		
	M8 × 0.75	1 ~ 2N·m		
Taper pipe thread	R1/8	7 ~ 9N·m	White	—
	R1/4	12 ~ 14N·m		
	R3/8	22 ~ 24N·m		
	R1/2	28 ~ 30N·m		
Unified thread	No.10-32UNF	1.0 ~ 1.5N·m	—	SUS304, NBR
National pipe thread taper	1/16-28NPT	7 ~ 9N·m	White	—
	1/8-27NPT	7 ~ 9N·m		
	1/4-18NPT	12 ~ 14N·m		
	3/8-18NPT	22 ~ 24N·m		
	1/2-14NPT	28 ~ 30N·m		

※. These values may differ for some products. Refer to each specification as well

5. Instructions for removing a fitting

- ① When removing a fitting, use proper tools to loosen a hexagonal-column or an inner hexagonal socket.
- ② Remove the sealant stuck on the mating equipment. The remained sealant may get into the peripheral equipment and cause malfunctions.

6. Arrange piping avoiding any load on fittings and tubes such as twist, tensile, moment load, shaking and physical impact. These may cause damages to fittings, tube deformations, bursting and the escape of tubes.