Accessories for CUPLA

Quick Connect Couplings CUPLA

DIP MOLD DUST CAP

Dust caps for HI CUPLA, SP CUPLA Type A, TSP CUPLA, and HYDRAULIC CUPLA

- **PVC Dust Caps produced by dip molding are available for HI CUPLA, SP CUPLA Type A, TSP CUPLA, and HYDRAULIC CUPLA. Dust Caps prevent dust from getting inside the fluid line and protects the sealability and life of the O-ring.**

Caution: The function of the cap may be damaged due to fluid adhering to the CUPLA or due to the external environment. Wipe off the fluid from the CUPLA to prevent the fluid from adhering.

	Part number	Cap for HI CUPLA	Sales unit
Socket	CA96462	For 20 type	1
		For 30 type	1
		For 40 type	1
	CA96464	For 400 type	1
		For 600 type	1
		For 800 type	1
Plug	CA96453	For 20 type	1
		For 30 type	1
		For 40 type	1
	CA96455	For 400 type	1
		For 600 type	1
		For 800 type	1

	Part number	Cap for SP CUPLA Type A	Sales unit
Socket	CA96462	For 1S-A	1
	CA96463	For 2S-A	1
	CA96464	For 3S-A	1
	CA96465	For 4S-A	1
	CA96466	For 6S-A	1
	CA96467	For 8S-A	1
	CA96468	For 10S-A	1
	CA96449	For 12S-A	1
	CA96470	For 16S-A	1
Plug	CA96453	For 1P-A	1
	CA96454	For 2P-A	1
	CA96455	For 3P-A	1
	CA96456	For 4P-A	1
	CA96457	For 6P-A	1
	CA96458	For 8P-A	1
	CA96459	For 10P-A	1
	CA96460	For 12P-A	1
	CA96461	For 16P-A	1

	Part number	Cap for TSP CUPLA	Sales unit
Socket	CA96542	For 1TS	1
	CA96462	For 2TS	1
	CA96463	For 3TS	1
	CA96464	For 4TS	1
	CA96465	For 6TS	1
	CA96479	For 8TS	1
	CA96553	For 10TS	1
	CA96555	For 12TS	1
	CA96557	For 16TS	1
Plug	CA96541	For 1TP	1
	CA96453	For 2TP	1
	CA96454	For 3TP	1
	CA96455	For 4TP	1
	CA96456	For 6TP	1
	CA96551	For 8TP	1
	CA96552	For 10TP	1
	CA96459	For 12TP	1
	CA96556	For 16TP	1

	Part number	Cap for HSP CUPLA	Sales unit
Socket	CA96463	For 2HS	1
	CA96476	For 3HS	1
	CA96477	For 4HS	1
	CA96477	For 6HS	1
	CA96478	For 66HS	1
	CA96479	For 8HS	1
	CA96481	For 10HS	1
	CA96481	For 12HS	1
	CA96482	For 16HS	1
Plug	CA96454	For 2HP	1
	CA96455	For 3HP	1
	CA96456	For 4HP	1
	CA96456	For 6HP	1
	CA96471	For 66HP	1
	CA96472	For 8HP	1
	CA96473	For 10HP	1
	CA96473	For 12HP	1
	CA96475	For 16HP	1

	Part number	Cap for 700R CUPLA	Sales unit
Socket	CB00614	For 700R-3S	1
	CA82644	For 700R-4S	1
Plug	CA83164	For 700R-3P	1
	CA82643	For 700R-4P	1

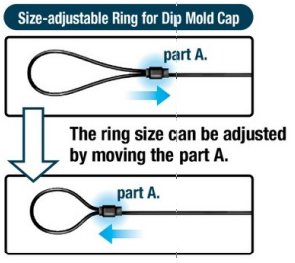
	Part number	Cap for 210 CUPLA	Sales unit
Socket	CA96463	For 210-2S	1
	CA96476	For 210-3S	1
	CA81555	For 210-4S	1
	CA96478	For 210-6S	1
	CA96466	For 210-8S	1
Plug	CA96454	For 210-2P	1
	CA96455	For 210-3P	1
	CA82643	For 210-4P	1
	CA96471	For 210-6P	1
	CA96551	For 210-8P	1

	Part number	Cap for 280 CUPLA	Sales unit
Socket	CB17082	For 280-2S	1
	CA96476	For 280-3S	1
	CA81555	For 280-4S	1
	CA96478	For 280-6S	1
	CA96466	For 280-8S	1
Plug	CA96453	For 280-2P	1
	CA96455	For 280-3P	1
	CA82643	For 280-4P	1
	CA96471	For 280-6P	1
	CA96551	For 280-8P	1

	Part number	Cap for F35/350 CUPLA	Sales unit
Socket	CB28313	For F35-2S	1
	CA81551	For F35/350-3S	1
	CA81555	For F35/350-4S	1
	CA97213	For F35/350-6S	1
	CA80401	For F35/350-8S	1
Plug	CA96454	For F35-2P	1
	CA81553	For F35/350-3P	1
	CA81557	For F35/350-4P	1
	CA97215	For F35/350-6P	1
	CA80402	For F35/350-8P	1

	Part number	Cap for ZEROSPILL CUPLA	Sales unit
Socket	CA96463	For ZEL-2S	1
	CA96464	For ZEL-3S	1
	CB28786	For ZEL-4S	1
	CA96466	For ZEL-6S	1
	CA96467	For ZEL-8S	1
Plug	CA96454	For ZEL-2P	1
	CB28790	For ZEL-3P	1
	CA96456	For ZEL-4P	1
	CA96457	For ZEL-6P	1
	CA96472	For ZEL-8P	1

	Part number	Cap for HSU CUPLA	Sales unit
Socket	CA96463	For HSU-2S	1
	CA96464	For HSU-3S	1
	CA96465	For HSU-4S	1
	CA96466	For HSU-6S	1
	CA96467	For HSU-8S	1
Plug	CB60672	For HSU-2P	1
	CB60673	For HSU-3P	1
	CB60674	For HSU-4P	1
	CB60675	For HSU-6P	1
	CB60676	For HSU-8P	1

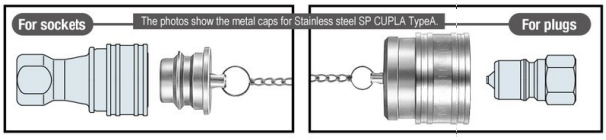


SAFETY CAP

Metal caps for HI CUPLA Series, SP CUPLA Type A, TSP CUPLA and HYDRAULIC CUPLA

(Semi-standard)

- **Metal Cap equipped with dust-proof and leak prevention function.**
- **Caps with metal material corresponding to that of CUPLA body are available.**



Model	Applicable CUPLA	Sales unit
Model name of Safety Cap is stated in the following manner. **Model= CUPLA Model (normal CUPLA) + SD (safety cap)** **Example:"2S-A-SD" identifies a safety cap for SP CUPLA Type A Model 2S-A.**	Sockets and plugs for HI CUPLA, SP CUPLA Type A, TSP CUPLA, HSP CUPLA, 210 CUPLA, S210 CUPLA, 350 CUPLA, 450B CUPLA and SP-V CUPLA	1 pc.

When ordering, please indicate Model Name or part number. Semi standard items: As these items are not always in stock, delivery time is subject to confirmation.

DUST CAP

Plastic Cap for HI CUPLA Series

- Dust caps prevent dust from getting inside CUPLA.

See page 149 for the details of Dip MOLD DUST CAP and SAFETY CAP for HI CUPLA.

Part number	Model	Applicable CUPLA	Sales unit	Material
CQ12434	20S-D	Sockets for 20/30/40 type HI CUPLA Series Note: Dust caps cannot be attached to the sockets for FULL- BLOW CUPLA, 400/600/800 type of HI CUPLA and HI CUPLA ACE.	1	Polyvinyl chloride (PVC)

DUST CAP

Dedicated polyethylene cap for HYGIENIC CUPLA

- Dust cap for both plug and socket (made of polyethylene).

The Dust Cap conforms to No. 3-D-2-(1) and 3-D-2-(2)-4 Apparatus and Containers/Packages. It has passed both material and elution tests specified in the standards for Food and Food additives. (Notice No.201 of revised March 31, 2006 by the Ministry of Health and Welfare of Japan)

Model	Size	Applicable CUPLA	Sales unit	Material
SEW-1.5SP-D	1.5S	For HYGIENIC CUPLA Plug and Socket	1	Polyvinyl chloride (HDPE)
SEW-2.0SP-D	2.0S		1	

SLEEVE COVER

Plastic cover for HI CUPLA Series (5 pcs. per package)

- Easier sliding operation is achieved by attaching an additional plastic cover over the socket sleeve of HI CUPLA Series.
- Plastic covers reduce the risk of damage if the CUPLA strikes other components or products.
- Sleeve covers in various colors allow for easier identification of various air lines.

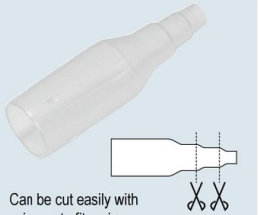
The SLEEVE COVER cannot be used together with the DUST CAP or DIP MOLD DUST CAP.

Part number	Model	Color	Applicable CUPLA	Sales unit	Material
CB23588	SLC-HI-R	Red	For HI CUPLA Series Sockets Note: Sleeve covers cannot be attached tc sockets for the FULL-BLOW CUPLA, 400/600/800 HI CUPLA, HI CUPLA ACE, Stainless HI CUPLA and Brass HI CUPLA.	5	Thermoplastic elastomer (TPE)
CB23590	SLC-HI-B	Blue		5	
CB23589	SLC-HI-Y	Yellow		5	
CB23591	SLC-HI-W	White		5	
CB23587	SLC-HI-K	Black		5	

PROTECTION COVER

Plastic Cover for NUT CUPLA and FULL-BLOW CUPLA Nut Type (Semitransparent)

- For NUT CUPLA and FULL-BLOW CUPLA Nut Type.
- Protection cover wraps up the whole CUPLA to absorb impacts and to reduce the risk of damage if the CUPLA accidentally strikes other components or products.
- Protection covers can be cut to fit the hose diameter which the CUPLA is connected to.
- Can be attached to either the socket or the plug, and can be used as a dust cap.



Part number	Model	Applicable CUPLA	Sales unit	Material
CB23784	SOC-HI	Can be attached to NUT CUPLA socket or plug (SN type & PN type) and the FULL-BLOW CUPLA socket (SN Type).	1	Polyvinyl chloride (PVC)

When ordering, please indicate Model Name or part number.

ACCESSORIES FOR AIR LINES

Air Line accessories for HI CUPLA series

DRAIN COCK

PRESSURE GAUGE

- Connects directly to 20/30/40 type HI CUPLA sockets.
- Convenient to control drainage and pressure in air lines.

Part number	Model	CUPLA that accessories can be mounted on	Sales unit	Description
CB23625	DC-30PF	HI CUPLA sockets	1	DRAIN COCK
CB11253	PG-10P	HI CUPLA sockets	1	PRESSURE GAUGE

SLEEVE STOPPER

Sleeve Stopper for SP CUPLA Type A

Attached to SP CUPLA Type A

- Sleeve stopper exclusively for SP CUPLA Type A sockets. Attaching the sleeve stopper after connection of socket and plug locks the sleeve of the socket and prevents unexpected disconnection.

	Part number	Stopper for SP CUPLA Type A socket	Applicable CUPLA	Sales unit	Material
Socket	CB24350	For 1S-A	SP CUPLA Type A sockets	10	Engineering plastics (POM)
	CB24351	For 2S-A		10	
	CB24352	For 3S-A		10	
	CB24353	For 4S-A		10	
	CB24354	For 6S-A		10	
	CB24355	For 8S-A		10	

	Part number	Stopper for SP CUPLA Type A socket	Applicable CUPLA	Sales unit	Material
Socket	CB26456	For 10S-A	SP CUPLA Type A sockets	1	SUS 304
	CB26457	For 12S-A		1	
	CB26458	For 16S-A		1	

ACCESSORIES FOR O-RING MAINTENANCE

Jigs & grease for replacement of O-rings for couplings
For SP CUPLA Type A, TSP CUPLA, HOT WATER CUPLA, ZEROSPILL CUPLA, HSP CUPLA, HSU CUPLA and HYGIENIC CUPLA

- The seal materials play an important role in maintaining the performance of a coupling. O-rings or seal materials of these CUPLA series are designed to be replaceable. Please be certain to choose the correct and genuine Nitto kohki O-ring in order to maintain the performance of couplings.

Jig for O-ring replacement

- **Model: PMJ-1 (Small)**
  (Part.No.CB23687)
  • Sales unit: 1 pc.
- **Model: PMJ-2 (Large)**
  (Part.No.CB23688)
  • Sales unit: 1 pc.

5mL container
Grease for CUPLA
- **GRE-HC1 (Hydrocarbon grease) for NBR, FKM O-ring or packing**
  (Part.No.CB28531)
  • Sales unit: 1 pc.

5mL container
Grease for CUPLA
- **GRE-M1 (Mineral grease) for NBR, FKM O-ring or packing**
  (Part.No.CB23701)
  • Sales unit: 1 pc.

5mL container
Grease for CUPLA
- **GRE-S1 (Silicone grease) for NBR, FKM, and EPDM O-ring or packing**
  (Part.No.CB23702)
  • Sales unit: 1 pc.

5mL container
Grease for CUPLA
- **GRE-S2 (Silicone grease) for NBR, FKM, and EPDM O-ring or packing**
  (Part.No.CB28791)
  • Sales unit: 1 pc.
  (NSF H1, NSF 61 registered product)
  Standardly applied to CUBE CUPLA

O-ring for SP CUPLA Type A	Part number NBR	FKM	EPDM	Sales unit
For 1S-A	CP01314	CP00907	CP03270	1
For 2S-A	CP00927	CP00928	CP03333	1
For 3S-A	CP00955	CP00956	CP03276	1
For 4S-A	CP00978	CP00979	CP03283	1
For 6S-A	CP01003	CP01004	CP03292	1
For 8S-A	CP01029	CP01030	CP03298	1
For 10S-A	CP00398	CP01053	CP07179	1
For 12S-A	CP01076	CP01077	CP03902	1
For 16S-A	CP01099	CP01100	CP06953	1

O-ring for TSP CUPLA	Part number NBR	FKM	EPDM	Sales unit
For 1TS	CP03987	CP04984	CP09795	1
For 2TS	CP01314	CP00907	CP03270	1
For 3TS	CP00927	CP00928	CP03333	1
For 4TS	CP00955	CP00956	CP03276	1
For 6TS	CP00978	CP00979	CP03283	1
For 8TS	CP00387	CP01258	CP04923	1
For 10TS	CP01273	CP01274	CP09221	1
For 12TS	CP00398	CP01053	CP07179	1
For 16TS	CP01304	CP01305	CP09794	1

O-ring for HSP CUPLA	Part number NBR	FKM	Sales unit
For 2HS	CP01185	CP02215	1
For 3HS	CP01194	CP03335	1
For 4HS	CP00294	CP02093	1
For 6HS	CP00294	CP02093	1
For 66HS	CQ33388	CP25937	1
For 8HS	TP00293	CP01179	1
For 10HS	CP01516	CP03371	1
For 12HS	CP01516	CP03371	1
For 16HS	CP03035	CP03453	1

Backup ring for HSP CUPLA	Part number PTFE	Sales unit
For 2HS	CP01186	1
For 3HS	CP01195	1
For 4HS	CP01203	1
For 6HS	CP01203	1
For 66HS	CP09659	1
For 8HS	CP01211	1
For 10HS	CP01517	1
For 12HS	CP01517	1
For 16HS	CP03036	1

O-ring for ZEROSPILL CUPLA	Part number NBR	FKM	EPDM	Sales unit
For ZEL-2S	CQ40611	CQ40740	CQ43755	1
For ZEL-3S	CQ40628	CQ40744	CQ43757	1
For ZEL-4S	CQ40645	CQ40748	CQ43759	1
For ZEL-6S	CQ40662	CQ40752	CQ43761	1
For ZEL-8S	CQ40679	CQ40756	CQ43763	1

O-ring for HSU CUPLA	Part number HNBR	Sales unit
HSU-2S	CQ42490	1
HSU-3S	CQ42496	1
HSU-4S	CQ42502	1
HSU-6S	CQ43482	1
HSU-8S	CQ43489	1

Backup ring for HSU CUPLA	Part number PTFE	Sales unit
HSU-2S	CP25269	1
HSU-3S	CQ42497	1
HSU-4S	CQ13520	1
HSU-6S	CQ26486	1
HSU-8S	CP20780	1

O-ring for HOT WATER CUPLA	Part number FKM	Sales unit
HW-2S-F	CB64216	2
HW-3S-F	CB64217	2
HW-4S-F	CB64218	2

O-ring for HYGIENIC CUPLA	Part number SI	FKM	EPDM	Sales unit
SEW-1.5P	CB63419	CB63420	CB63421	1
SEW-2.0P	CB62939	CB62940	CB62941	1

• See page 172 for replacement of the O-ring.

When ordering, please indicate Model Name or part number.

RESIDUAL PRESSURE RELEASE JIG

Residual Pressure Release Metal Jig for SP CUPLA Type A and HYDRAULIC CUPLA (Semi-standard)

- Residual pressure within socket or plug can be released easily by just turning the handle.
- Residual pressure release jigs are available in two types; socket type for use with plugs and plug type for use with sockets.
- Connection to sockets or plugs is the same as connection of normal CUPLA.

The photos show the jigs for HSP CUPLA.

Model	Attachable CUPLA	Sales unit
The model name is to be defined in the following manner. **ZN** – Type of CUPLA to be attached (Residual pressure release jig) → Example: For the CUPLA model 350-3S, the jig name would be ZN-350-3S	Sockets and plugs for SP CUPLA Type A, HSP CUPLA, 210 CUPLA, S210 CUPLA, 280 CUPLA and 350 CUPLA	1 pc.

Caution: Since the upper limit of residual pressure that can be relieved depends on the product, please contact us separately.

CUPLA ADAPTER for Braided Hose Connection

Mounts on CUPLA plug / socket with female thread

- Adapter for CUPLA with female thread such as ZEROSPILL CUPLA and SP CUPLA Type A.
- No hose clamp is required resulting in reduced risk of injuries to fingers or palms.
- Deterioration of the braided hose at the hose barb part has been eliminated.
- Unique nut construction increases the pulling load of braided hoses.
- Simply push a braided hose onto the hose barb to the end and tighten the nut until it is flush against the hose barb base.
- No inner parts for conventional braided hose fittings are required. Thus incorrect assembling does not occur.

A tool and a hose clamp are not required.

Please use braided hoses available in the market.

Can be mounted on the plug and socket of ZEROSPILL CUPLA.

Benefits without a hose clamp **Two piece design**

Specifications

Body material	Brass			
Model	**BH90-3M**	**BH120-4M**	**BH150-4M**	**BH190-6M**
Size (Thread)	3/8"	1/2"	1/2"	3/4"
Braided hose size	ø9 x ø15 mm	ø12 x ø18 mm	ø15 x ø22 mm	ø19 x ø26 mm
Working pressure *1	Depends upon the specifications of braided hoses to be used.			
Working temperature range *1	Depends upon the specifications of braided hoses to be used.			
Applicable fluids *2	Air, Water, Oil			

Maximum Tightening Torque

Nm {kgf·cm}

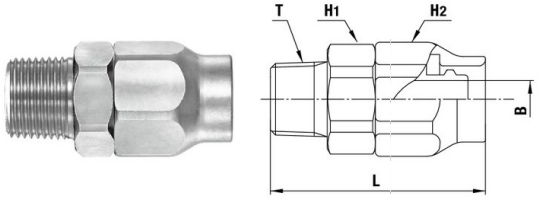
Model	BH90-3M	BH120-4M	BH150-4M	BH190-6M
Torque (Taper Pipe Threads) *3,4	12 {122}	30 {306}	30 {306}	50 {510}

*1 : Max working pressure and working temperature depend upon the specifications of braided hoses to be used.
*2 : Use within the specification of the seal material and the braided hose to be used.
*3 : Stress corrosion crack may happen if they are used under corrosive environment. Take note of usage conditions.
*4 : Tighten the nut until it is flush against the hose barb base after pushing a braided hose to the end.
• Braided hoses should be made of soft PVC and woven by reinforcement thread.

Models and Dimensions

WAF : WAF stands for width across flats.

BH-M type (Male thread)



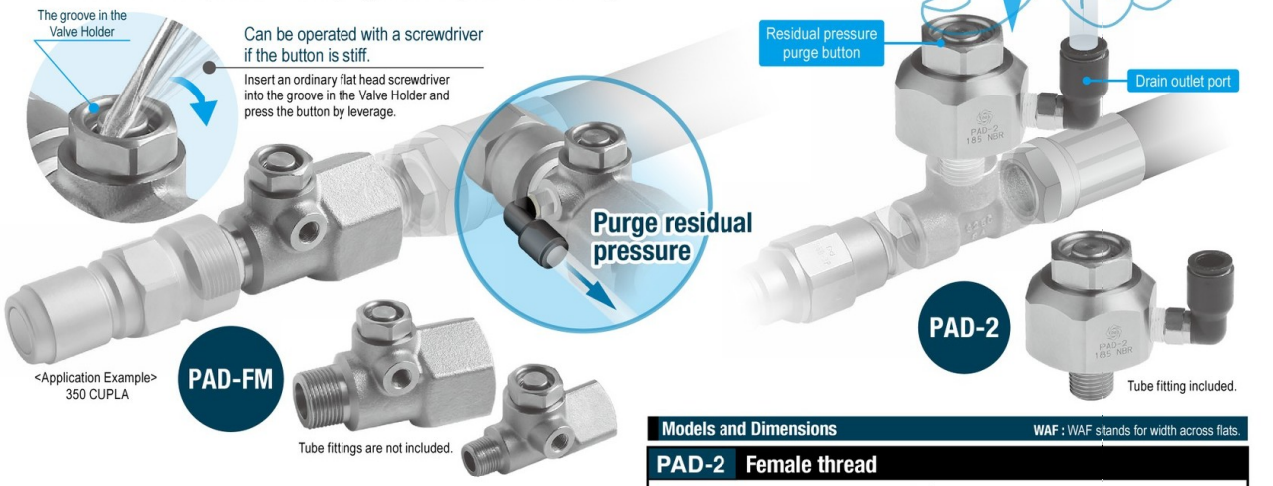
Model	Application (Hose) (mm)	Hose wall thickness (mm)	Mass (g)	Dimensions (mm)				
				L	H1 (WAF)	H2 (WAF)	T	øB
BH90-3M	ø9 x ø15	3±0.3	106	(49)	Hex.23	Hex.24	R 3/8	8.5
BH120-4M	ø12 x ø18	3±0.3	159	(59)	Hex.27	Hex.27	R 1/2	11
BH150-4M	ø15 x ø22	3.5±0.35	210	(67)	Hex.30	Hex.30	R 1/2	13
BH190-6M	ø19 x ø26	3.5±0.35	301	(74)	Hex.35	Hex.35	R 3/4	17

PURGE ADAPTER

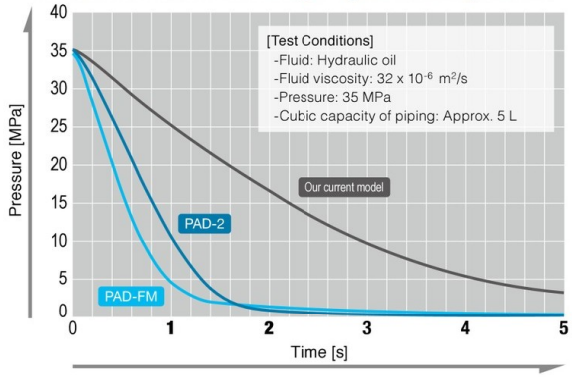
NEW

Residual Pressure Purge Adapter for Hydraulic Lines

- **Can be attached to hydraulic lines to purge residual pressure effectively.**



Residual Pressure Purge Speed Comparison



Specifications

Model	PAD-2	PAD-3FM	PAD-4FM	PAD-6FM	PAD-8FM
Body material	Steel (Nickel plated)				
Application	R 1/4	R 3/8 x Rc 3/8	R 1/2 x Rc 1/2	R 3/4 x Rc 3/4	R 1 x Rc 1
Pressure unit	MPa	kgf/cm²	bar	PSI	
Working pressure	35.0	357	350	5080	
Drain outlet port	For 8 mm OD tube	Application: Rc 1/8 (Max. Tightening Torque: 5 Nm)			
Applicable fluids	Hydraulic oil				
Seal material / Working temperature range	Seal material	Mark	Working temperature range	Remarks	
	Nitrile rubber	NBR (SG)	-5°C to +80°C	Standard material	

Maximum Tightening Torque

Nm {kgf·cm}

Size (Thread)	R 1/4	R 3/8 x Rc 3/8	R 1/2 x Rc 1/2	R 3/4 x Rc 3/4	R 1 x Rc 1
Torque	28 {286}	40 {408}	80 {816}	150 {1530}	250 {2550}

Minimum Cross-Sectional Area

(mm²)

Model	PAD-2	PAD-3FM	PAD-4FM	PAD-6FM	PAD-8FM
Minimum Cross-Sectional Area	–	78.5 (ø10)	122 (ø12.5)	213 (ø16.5)	363 (ø21.5)

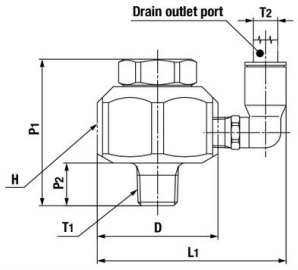
Suitability for Vacuum

Not suitable for vacuum application.

Models and Dimensions

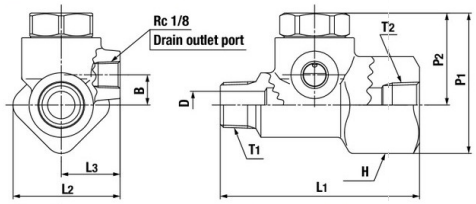
WAF : WAF stands for width across flats.

PAD-2 Female thread



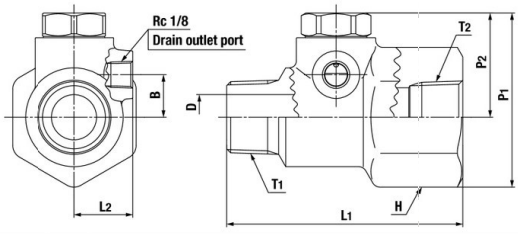
Model	Mass (g)	Dimensions (mm)						
		L1	øD	P1	P2	H (WAF)	T1	øT2
PAD-2	235	(62)	39.5	(48)	14	Hex.36	R 1/4	8

PAD-3FM / PAD-4FM For thread connection



Model	Mass (g)	Dimensions (mm)									
		L1	L2	L3	B	øD	P1	P2	H (WAF)	T1	T2
PAD-3FM	320	72.5	(39)	21.5	(11)	10	(51)	(33.5)	□29	R 3/8	Rc 3/8
PAD-4FM	307	72.5	(39)	21.5	(11)	12.5	(51)	(33.5)	□29	R 1/2	Rc 1/2

PAD-6FM / PAD-8FM For thread connection



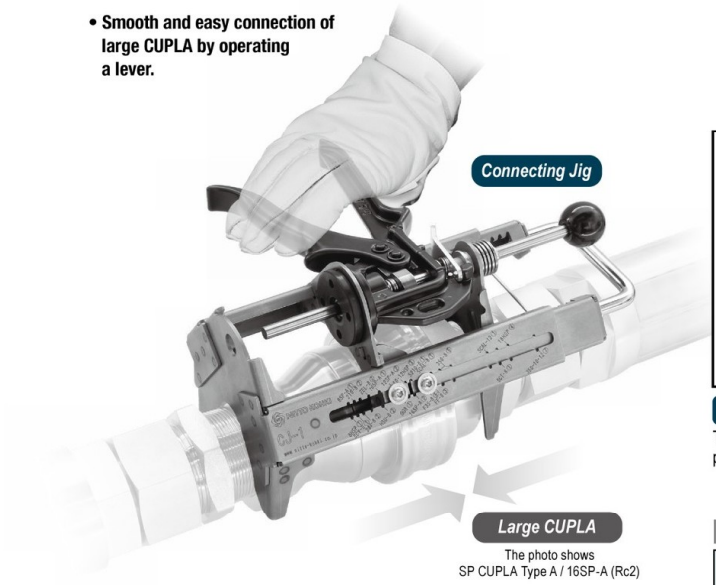
Model	Mass (g)	Dimensions (mm)								
		L1	L2	B	øD	P1	P2	H (WAF)	T1	T2
PAD-6FM	665	86	21.5	(15.5)	16.5	(63.5)	(38)	Hex.46	R 3/4	Rc 3/4
PAD-8FM	620	86	21.5	(15.5)	21.5	(63.5)	(38)	Hex.46	R 1	Rc 1

When ordering, please indicate Model Name or part number. Semi standard items: As these items are not always in stock, delivery time is subject to confirmation.

CUPLA CONNECTING JIG

Connecting Jig for large CUPLA

- **Smooth and easy connection of large CUPLA by operating a lever.**

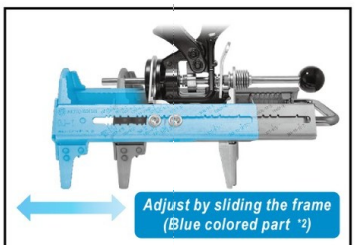


The photo shows
SP CUPLA Type A / 16SP-A (Rc2)

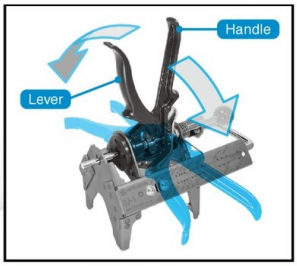
Versatile

Corresponds to all applicable models*1 by adjusting the body length.

*1: Standard CUPLA appearing in the CUPLA general catalog (two-way shut-off valve). Except MULTI CUPLA series. See below list of applicable models.

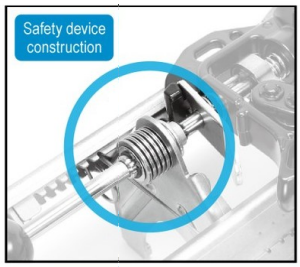


*2: The sliding part is colored blue for explanation.



Functional

The Handle can be used at any angle to prevent interference with the CUPLA.



Safe

If excessive force occurs during connection, the safety device prevents damage to the body. When the safety device is activated, the connection of the CUPLA is disabled.

Specifications

Model	CJ-1
Body material	Stainless steel (SUS430), Aluminum alloy
Applicable CUPLA	See list on the right
Connection under residue pressure	Not possible
Working temperature	Normal temperature
Storage Temperature Range	-20°C to +60°C
Mass	1.85 kg
Accessories	4 mm Hexagon wrench, Operation procedure tag, Cable tie

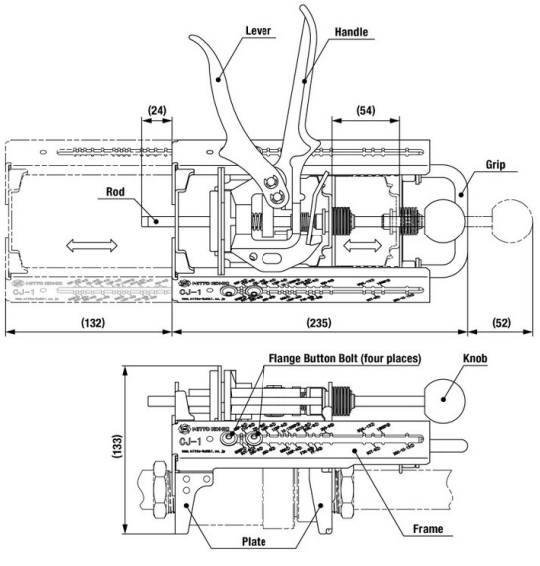
Prior to use, confirm the CUPLA to be connected and adjust it according to the model and size.
(See instructions for the adjusting procedures provided with the product)

List of Applicable Models

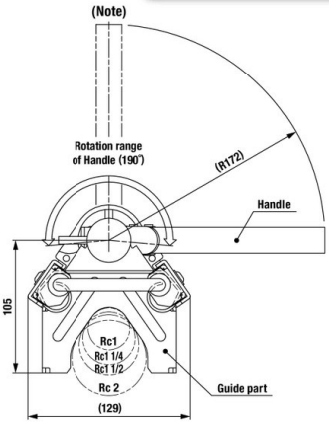
Applicable models	Size (Thread)			
	Rc 1	Rc 1 1/4	Rc 1 1/2	Rc 2
SP CUPLA Type A	8SP-A	10SP-A	12SP-A	16SP-A
ZEROSPILL CUPLA	ZEL-8SP	–	–	–
HSP CUPLA	8HSP	10HSP	12HSP	16HSP
210 CUPLA	210-8SP	–	–	–
HSU CUPLA	HSU-8SP	–	–	–
S210 CUPLA	S210-8SP	–	–	–
280 CUPLA	280-8SP	–	–	–
350 CUPLA	350-8SP	350-10SP	350-12SP	–
FLAT FACE CUPLA F35	F35-8SP	–	–	–
FLAT FACE CUPLA FF	FF-8SP	–	–	–
SEMICON CUPLA SP Type	8SP-304	–	–	–
SEMICON CUPLA SCS Type	SCS-8SP	–	–	–
SEMICON CUPLA SCY Type	SCY-8SP	–	–	–
SEMICON CUPLA SCT Type	SCT-8SP	–	–	–
SEMICON CUPLA SCAL Type	SCAL-8SP	–	SCAL-12SP	–

Models and Dimensions

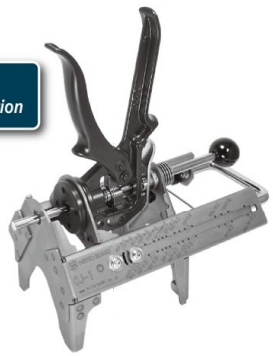
Model: CJ-1



(Note) When the Handle is perpendicular to the body, it may interfere with the CUPLA and will not be able to be used. In this case, tilt the handle to a convenient angle for use.



Connection of large CUPLA with Lever operation



* To prevent injuries, it is recommended to wear gloves during use.

(mm)

When ordering, please indicate Model Name or part number. Semi standard items: As these items are not always in stock, delivery time is subject to confirmation.

Seal Material Selection Table for Reference

For seal parts in the CUPLA (the important parts that prevent leaking to the outside), it is important to select the most appropriate seal material to suit the property and temperature of the fluid. It is so important that wrong selection may not only completely malfunction the CUPLA but also cause an unexpected accident.

When the fluid in question is not listed in "Seal Material Selection Table (For reference)," the seal material that you select should be tested under actual environment. Even if the fluid is stated in the following list, the test could be required in some cases.

	Fluids	Seal Material						
		Nitrile rubber	Hydrogenated nitrile rubber	Ethylene-propylene rubber	Fluoro rubber	Perfluoro-elastomer	Silicone rubber	Chloroprene rubber
2	2,2-Dimethyl-butane	◎	◎	×	◎	◎	×	△
	2,3-Dimethyl-butane	◎	◎	×	◎	◎	×	△
	2,4-Dimethyl-pentane	◎	◎	×	◎	◎	×	×
	2-Methyl-pentane	◎	◎	×	◎	◎	×	×
3	3-Methyl-pentane	◎	◎	×	◎	◎	×	×
A	Acetaldehyde	△	△	○	×	△	○	△
	Acetic acid	○	○	○	△	◎	△	○
	Acetic anhydride	△	×	○	×	◎	○	○
	Acetone	×	×	◎	×	◎	×	×
	Acetonitrile	×		×	△	◎	×	×
	Acetophenone	×	×	◎	×	◎	×	×
	Acetyl chloride	×	×	×	◎	◎	×	×
	Acetylacetone	×	×	◎	×	◎	×	×
	Acetylene	◎	◎	◎	◎	◎	○	○
	Air (50℃)	◎	◎	◎	◎	◎	◎	◎
	Aluminium bromide	◎	◎	◎	◎	◎	◎	◎
	Aluminium chloride	◎	◎	◎	◎	◎	○	◎
	Aluminium nitrate	◎	◎	◎	◎	◎	○	◎
	Aluminium sulfate	◎	◎	◎	◎	◎	◎	○
	Amine mixture	×	×	○	×	×	○	○
	Ammonia (anhydrous)	○	○	◎	×	○	○	◎
	Ammonia (Liquid) (65℃)	△			×	◎		△
	Ammonia (Liquid) (Cool)	△		◎	×	◎	○	○
	Ammonia gas (Low temperature)	◎	◎	◎	×	◎	◎	◎
	Ammonium carbonate	×	×	◎	◎	◎	×	◎
	Ammonium chloride	◎	◎	◎	◎	◎	×	◎
	Ammonium hydroxide	×	×	◎	×	×	◎	△
	Ammonium magnesium sulfate	×		×	×		×	×
	Ammonium nitrate (65℃)	◎	◎	◎			○	◎
	Ammonium phosphate (65℃)	◎		◎	×	◎	○	◎
	Ammonium sulfate	◎	◎	◎	×	◎	◎	○
	Ammonium sulfite	△	△	◎	△	◎	○	◎
	Ammonium thiosulfate	△	△	◎	△	◎	○	◎
	Amyl acetate	×	×	△	×	◎	×	×
	Amyl alcohol	○	○	◎	○	◎	×	○
	Aniline	×	×	○	△	◎	×	×
	Animal oil (Lard)	◎	◎	○	◎	◎	○	○
	Arsenic trichloride	△		×	×	◎	×	×
	Asphalt	○	○	×	◎	◎	×	×
B	Barium chloride	◎	◎	◎	◎	◎	◎	◎
	Barium hydroxide	◎	◎	◎	◎	◎	◎	◎
	Barium nitrate	△	△	◎	△	◎	○	◎
	Barium sulfate (65℃)	◎		◎	◎	◎	◎	◎
	Barium sulfide	◎	◎	◎	◎	◎	○	◎
	Beer	◎	◎	◎	◎	◎	◎	◎
	Benzaldehyde	×	×	◎	×	◎	○	×
	Benzene	×	×	×	◎	◎	×	×
	Benzyl alcohol	×	×	○	◎	◎	△	○
	Benzyl chloride	×	×	×	◎	◎	×	×
	Brake oil	△	△	◎	×	◎	△	◎
	Bromine	×	×	×	◎	◎	×	×
	Bromine water	×	×	×	◎	◎	×	×

	Fluids	Seal Material						
		Nitrile rubber	Hydrogenated nitrile rubber	Ethylene-propylene rubber	Fluoro rubber	Perfluoro-elastomer	Silicone rubber	Chloroprene rubber
B	Butadiene	×	×	×	◎	◎	×	×
	Butane	◎	◎	×	◎	◎	×	△
	Butane (liquid)	◎		×	◎		×	○
	Butanol (Butyl alcohol)	◎	◎	○	◎	◎	○	◎
	Butter and butter oil	◎	◎	◎	◎	◎	○	×
	Butyl acetate	×	×	○	×	◎	×	×
	Butyl stearate	○	○	×	◎	◎	×	×
	Butylaldehyde	×	×	○	×	○	×	×
	Butylene	○	○	×	◎	◎	×	△
C	Cadmium cyanide	△	△	◎	△	◎	○	◎
	Calcium acetate	○	○	◎	×	◎	×	○
	Calcium acetate (65℃)	○		◎	×	◎	×	○
	Calcium carbide					◎		
	Calcium carbonate	◎	◎	◎	◎	◎	◎	◎
	Calcium hydroxide	◎	◎	◎	◎	◎	◎	◎
	Calcium nitrate (65℃)	◎		◎	◎	◎	○	◎
	Calcium perchlorate	×		×	×		×	×
	Calcium sulfate	△	△	◎	△	◎	○	◎
	Calcium sulfate (65℃)	×		◎	△	◎	○	◎
	Calcium sulfite	◎	◎	◎	◎	◎	◎	○
	Carbitol	○	○	○	○	◎	○	○
	Carbon dioxide gas (65℃)	◎		○	○		○	○
	Carbon disulfide	×	×	×	◎	◎	×	×
	Carbon monoxide (65℃)	◎	◎	◎	◎	◎	◎	○
	Carbon tetrachloride	○	○	×	◎	◎	×	×
	Castor oil	◎	◎	○	◎	◎	◎	◎
	Chlorine (liquid)	×		×	×	○	×	×
	Chlorine gas	○	○	×	◎	◎	×	×
	Chlorine water	△	△	○	◎	◎	×	×
	Chloroacetone	×	×	◎	×	◎	×	×
	Chlorobenzene	×	×	×	◎	◎	×	×
	Chloroform	×	×	×	◎	◎	×	×
	Chlorophenol	×	×	×	◎	◎	×	×
	Chromium hydroxide					◎		
	Coconut oil	◎	◎	△	◎	◎	◎	×
	Cod liver oil	◎		◎	◎	◎	○	○
	Coffee	◎		×	×		×	×
	Copper chloride	◎	◎	◎	◎	◎	◎	◎
	Copper cyanide	◎	◎	◎	◎	◎	◎	◎
	Copper sulfate	◎	◎	◎	◎	◎	◎	○
	Corn oil	◎	◎	△	◎	◎	◎	△
	Cotton seed oil	◎	◎	△	◎	◎	◎	△
	Cresol (50℃)	×	×	×	○	◎	×	×
	Crude oil	○	○	×	◎	◎	×	×
	Cyclohexane	◎	◎	×	◎	◎	×	×
	Cyclohexanol	◎	◎	×	◎	◎	×	×
D	Developer	◎	◎	○	◎	◎	◎	○
	Diacetone alcohol	×	×	◎	×	◎	×	○
	Dibenzyl ether	×	×	○	×	◎	×	×
	Dichlorophenol	○	○	×	◎	◎	×	×
	Diesel oil	◎	◎	×	◎	◎	×	×
	Diethanolamine	△	△	◎	△	◎	○	◎

Seal Material Selection Table for Reference

How to read the selection tables

- ◎ Practically no harm, and can be used (Excellent)
- ○ Some harm may be inevitable but can be used under restrictions (Good)
- △ Should be avoided if at all possible (Not recommended)
- × Should not be used (Unsuitable)

Note: Contact us when the space is blank.

Note: When selecting the seal material, please consider the following suggestions carefully:

1. If there is no comment in the column of the fluid name, the condition of the fluid is under saturation at room temperature.
2. Please check with us for applications at a high fluid temperature or with different fluid concentrations.
3. For applications related to foods, please order separately specifing the detailed applications.

	Fluids	Seal Material						
		Nitrile rubber	Hydrogenated nitrile rubber	Ethylene-propylene rubber	Fluoro rubber	Perfluoro-elastomer	Silicone rubber	Chloroprene rubber
D	Diethylene glycol	◎	◎	◎	◎	◎	○	◎
E	Ethanol (Ethyl alcohol)	△	△	◎	△	◎	○	◎
	Ethyl acetate	×		○	×		○	×
	Ethyl benzene	×	×	×	◎	◎	×	×
	Ethyl cellulose	○	○	○	×	◎	○	○
	Ethyl chloride	◎	◎	△	◎	◎	×	×
	Ethylene glycol	◎	◎	◎	◎	◎	◎	◎
	Ethylene trichloride	×	×	△	◎	◎	×	×
F	Ferric sulfate	◎	◎	◎	◎	◎		◎
	Fish oil	○	○	×	◎	◎	◎	×
	Fluorine (Gas)	×		×	×	○	×	×
	Formic aldehyde	△	△	○	×	◎	○	△
	Freon 11	○	×	×	○	○	×	×
	Freon 12	◎	○	△	△	○	×	◎
	Freon 22	×	×	△	×	◎	×	◎
	Fuel oil	◎		×	◎	◎	×	○
	Furfural	×	×	○	×	◎	×	×
G	Gasoline	◎	◎	×	◎	◎	×	×
	Gelatin	◎	◎	◎	◎	◎	◎	◎
	Glucose	◎	◎	◎	◎	◎	◎	◎
	Glycerine (65˚C)	◎	◎	◎	◎	◎	◎	◎
	Grease (Petroleum-based)	◎	◎	×	◎	◎	×	×
H	Helium	◎	◎	◎	◎	◎	◎	◎
	Heptane (n-heptane)	◎	◎	×	◎	◎	×	○
	Hexane (n-hexane)	◎	◎	×	◎	◎	×	○
	Hexylene glycol	△	△	◎	△	◎	○	◎
	Hydraulic oil (Petroleum-based)	◎	◎	×	◎	◎	○	×
	Hydraulic oil (Phosphate ester series)	×	×	○	◎	◎	△	×
	Hydraulic oil (Synthetically-prepared)	○	○	×	◎	◎		×
	Hydraulic oil (Water-glycol series)	◎	◎	◎	○	◎	○	◎
	Hydraulic oil (Water-in-oil emulsion series)	◎	◎	×	◎	◎	△	×
	Hydrobromic acid	×	×	◎	◎	◎	×	×
	Hydrogen	◎	◎	◎	◎	◎	△	◎
	Hydrogen peroxide (30%)	×			◎		◎	×
I	Iron chloride	◎		◎	◎		○	◎
	Iron nitrate (65˚C)	◎		◎	◎		○	◎
	Iron sulfite (100%)	◎		×	×		×	×
	Isoamyl alcohol	×		×	×		×	×
	Isooctane	◎	◎	×	◎	◎	×	○
	Isopropanol	○	○	◎	◎	◎	◎	○
	Isopropyl acetate	×	×	○	×	◎	×	×
	Isopropyl alcohol	○	○	◎	◎	◎	◎	○
	Isopropyl ether	○	○	×	×	◎	×	×
K	Kerosene	◎	◎	×	◎	◎	×	○
L	Lard and lard oil	◎	◎	○	◎	◎	○	○
	Latex	×		×	×		×	×
	Liquefied petroleum gas (LPG)	◎	◎	×	◎	◎	△	×
	Liquors (beet)	◎	◎	◎	◎	◎	◎	◎
	Lubricating oil (SAE 10, 20, 30, 40, 50)	◎	◎	×	◎	◎	×	×
M	Magnesium chloride	◎	◎	◎	◎	◎	◎	◎
	Magnesium hydroxide	○	○	◎	◎	◎	×	○
	Magnesium nitrate	◎		×	×		×	×

	Fluids	Seal Material						
		Nitrile rubber	Hydrogenated nitrile rubber	Ethylene-propylene rubber	Fluoro rubber	Perfluoro-elastomer	Silicone rubber	Chloroprene rubber
M	Magnesium sulfate	◎		◎	◎	◎	◎	◎
	Maleic anhydride	×	×	○	×	◎	×	×
	Mercury	◎	◎	◎	◎	◎	×	◎
	Methanol	×	×	◎	×	◎	◎	◎
	Methyl bromide	○	○	×	◎	◎	×	×
	Methyl butyl ketone	×	×	◎	×	◎	×	×
	Methyl chloride	×	×	△	◎	◎	×	×
	Methyl ethyl ketone (MEK)	×	×	◎	×	◎	×	×
	Methyl isobutyl ketone (MIBK)	×	×	△	×	◎	×	×
	Methyl propyl ketone	×		○	×		×	×
	Methyl salicylate	×	×	○	×	◎	×	△
	Methylene bromide	×		×	◎	◎	×	×
	Methylene chloride	×		×	○	◎	×	×
	Milk	◎	◎	◎	◎	◎	◎	◎
	Mineral oil	◎	◎	×	◎	◎	△	△
	Monobromobenzene	×		×	◎	◎	×	×
	Monochlorobenzene	×	×	×	◎	◎	×	×
	Monoethanolamine (MEA)	×	×	○	×	◎	○	×
N	n-amyl alcohol	×		×	×		×	×
	Naphtha	○	○	×	◎	◎	×	×
	Naphthalene	×	×	×	◎	◎	×	×
	Naphthenic oil	◎		×	◎		×	×
	n-butyl alcohol	×		×	×		×	×
	Nickel acetate	○	○	◎	×	◎	×	○
	Nickel acetate (65˚C)	×		◎	×		×	×
	Nickel ammonium sulfate	△		◎	△	◎	○	◎
	Nickel chloride	◎	◎	◎	◎	◎	◎	◎
	Nickel nitrate	△	△	◎	△	◎	○	◎
	Nickel sulfate	◎	◎	◎	◎	◎	◎	○
	Nitrobenzene	×	×	△	○	◎	×	×
	Nitrogen (gas)	◎	◎	◎	◎	◎	◎	◎
O	Octyl alcohol	○	○	△	◎	◎	○	○
	Oleic acid	△	△	×	○	◎	×	×
	Olive oil	◎	◎	○	◎	◎	△	×
	Ortho-dichlorobenzene	×	×	×	◎	◎	×	×
	Oxygen (gas)	○	○	◎	◎	◎	◎	○
	Ozone	×	△	◎	◎	◎	◎	×
P	Palm oil	×		×	×		×	×
	Paradichlorobenzene	×	×	×	◎	◎	×	×
	Paraffin oil	◎	◎	×	◎	◎	×	×
	Peanut oil	◎		△	◎		◎	○
	Pentane (n-pentane)	◎	◎	×	◎	◎	×	◎
	Phenol	×	×	×	◎	◎	×	×
	Phosphorous oxychloride (dry)	○		◎	◎		○	○
	Phosphorous oxychloride (wet)	○		◎	◎		○	○
	Phosphorus	×		×	×	◎	×	×
	Pine oil	○	○	×	◎	◎	×	×
	Potassium acetate (65˚C)	○	○	◎	×	◎	×	○
	Potassium aluminium sulfate	△	△	◎	△	◎	○	◎
	Potassium bicarbonate	△	△	◎	△	◎	○	◎
	Potassium bichromate	◎		◎	◎	◎	◎	◎
	Potassium carbonate	△	△	◎	△	◎	○	◎

Seal Material Selection Table for Reference

	Fluids	Seal Material						
		Nitrile rubber	Hydrogenated nitrile rubber	Ethylene-propylene rubber	Fluoro rubber	Perfluoro-elastomer	Silicone rubber	Chloroprene rubber
P	Potassium cyanide	◎	◎	◎	◎	◎	◎	◎
	Potassium hydroxide (50%)	○	○	◎	×	◎	△	○
	Potassium hyposulfite	○		◎	◎		◎	◎
	Potassium nitrate	◎	◎	◎	◎	◎	◎	◎
	Potassium nitrite	△	△	◎	△	◎	○	◎
	Potassium phosphate	△	△	◎	△	◎	○	◎
	Potassium silicate	◎	◎	◎	◎	◎	×	◎
	Potassium sulfate	◎	◎	◎	◎	◎	◎	○
	Potassium thiosulfate	△	△	◎	△	◎	○	◎
	Propane	◎	◎	×	◎	◎	×	○
	Propionaldehyde	△	△	◎	△	◎	○	◎
	Propionitrile	◎	◎	×	◎	◎	◎	○
	Propyl acetate	×	×	○	×	◎	×	×
	Propyl alcohol	◎	◎	◎	◎	◎	◎	◎
	Propylene	△	△	×	◎	◎	×	×
	Pyridine	×		○	×	◎	×	×
R	Rosin oil	◎		×	×		×	×
S	Secondary butyl alcohol	○	○	○	◎	◎	○	○
	Soapy water (65℃)	◎	◎	◎	◎	◎	◎	○
	Sodium acetate	○	○	◎	×	◎	×	○
	Sodium aluminate	△	△	◎	△	◎	○	◎
	Sodium bicarbonate	◎	◎	◎	◎	◎	◎	◎
	Sodium bichromate	△	△	◎	△	◎	○	◎
	Sodium carbonate	◎	◎	◎	◎	◎	◎	◎
	Sodium chloride	◎	◎	◎	◎	◎	◎	◎
	Sodium chloride (salt water)	◎	◎	◎	◎	◎	◎	◎
	Sodium cyanide	◎	◎	◎	◎	◎	◎	◎
	Sodium hydroxide (Caustic Soda)	△	△	◎	△	◎	○	◎
	Sodium hypochlorite (1%)	○	○	○	○	◎	○	○
	Sodium hyposulfite	△	△	◎	△	◎	○	◎
	Sodium iodide	△	△	◎	△	◎	○	◎
	Sodium metaphosphate	◎	◎	◎	◎	◎	×	○
	Sodium nitrate	△		◎	△	◎	×	◎
	Sodium nitrite	○	○	◎	×	◎	×	○
	Sodium perborate	○	○	◎	◎	◎	○	○
	Sodium peroxide	○	○	◎	◎	◎	×	○
	Sodium phosphate	◎	◎	◎	◎	◎	×	◎
	Sodium plumbate	△	△	◎	△	◎	○	◎
	Sodium pyrosulfate	◎	◎	◎	◎	◎	◎	○
	Sodium silicate (Water glass)	◎	◎	◎	◎	◎	×	◎
	Sodium sulfate	◎	◎	◎	◎	◎	◎	○
	Sodium sulfide	◎	◎	◎	◎	◎	◎	○
	Sodium sulfite	◎	◎	◎	◎	◎	◎	○
	Spindle oil	◎	◎	×	◎	◎	△	×
	Starch	◎		◎	◎		◎	◎
	Steam (100℃)	×	×	◎	○	◎	×	×
	Styrene monomer	×	×	×	○	◎	×	×
	Sucrose solution	◎	◎	◎	◎	◎	◎	◎
	Sulfur	×	×	◎	◎	◎	○	◎
	Sulfur chloride (dry)	×	×	×	◎	◎	△	×
	Sulfur dioxide	×	×	◎	×	◎	○	×
	Sulfur tetroxide	×		×	◎		×	×

	Fluids	Seal Material						
		Nitrile rubber	Hydrogenated nitrile rubber	Ethylene-propylene rubber	Fluoro rubber	Perfluoro-elastomer	Silicone rubber	Chloroprene rubber
S	Syrup	◎						
T	Tertiary butyl alcohol	○	○	○	◎	◎	○	○
	Tetrachloroethylene	×	×	×	◎	◎	×	×
	Tetraethyl lead	○	○	×	◎	◎	×	×
	Tetralin	×	×	×	◎	◎	△	×
	Titanium terachloride	○		×	◎	◎	×	×
	Toluene (Toluol)	×	×	×	△	◎	×	×
	Triethanolamine	△	△	○	×	◎	×	○
	Triphenyl phosphite	×		◎	×		×	×
	Tung oil	◎	◎	×	◎	◎	×	○
V	Vinyl acetate	×		◎	×	◎	×	○
	Vinyl chloride	○	○	×	◎	◎	◎	×
W	Water	◎	○	◎	◎	◎	◎	◎
	Whisky	◎	◎	◎	◎	◎	◎	◎
	Wine	◎	◎	◎	◎	◎	◎	◎
X	Xylene	×	×	×	◎	◎	×	×
Z	Zinc chloride	◎	◎	◎	◎	◎	◎	◎
	Zinc sulfate	◎	◎	◎	◎	◎	◎	◎

Body Material Selection Table

The selection of appropriate body material for the CUPLA is closely related to its usage application, the type of fluid run through, its concentration (%), the pressure, its working environment, etc. So the material must be carefully considered in order to use the CUPLA efficiently and obtain its full performance. Since there are some body materials that should not be used with certain fluids, please refer to this table when making your selection.

○:Suitable △:Not suitable under certain conditions ×:Unsuitable

	Fluids	Brass	Stainless Steel	Steel	Aluminum	Polypropylene
A	Acetic acid	×	○		×	△
	Acetic anhydride	×	○		△	○
	Acetone	○	○	○	○	△
	Air	○	○	○	○	○
	Aluminum fluoride	○	×			○
	Aluminum chloride	×	×		×	○
	Aluminum sulfate	×	○			○
	Ammonia	×	○		×	○
	Ammonium nitrate	×	○			○
	Ammonium phosphate	△	○		×	○
	Ammonium sulfate	△	△		○	○
	Aniline	×	○		○	△
	Arsenic acid	△	○		△	○
B	Barium chloride	×	×			○
	Barium hydroxide	×	○		×	○
	Barium sulfide		○	○		○
	Beer	○	○	△	○	○
	Benzene	×	○	○	○	△
	Benzine	○	○	○	○	△
	Boric acid	△	○		×	○
	Butane	○	○	○		○
	Butyl acetate	○	○	○	○	△
C	Calcium chloride	○	△		△	○
	Calcium hydroxide	○	○	○	×	○
	Carbon dioxide	○	○	○	○	○
	Carbon disulfide	○	○	○		×
	Carbon tetrachloride	△	○		×	×
	Carbonic acid	○	○	○	○	○
	Chlorine		×			×
	Chromic acid	×	×		×	×
	Citric acid	△	○		△	○
	Cresol acid	○	○	○	△	○
D	Diesel fuel	○	○	○	○	△
	Dowtherm		○			
	Drinking water	△	○			○
E	Ethanol	○	○	○	○	○
	Ether	○	○	○	○	△
	Ethyl acetate	○	△	△	△	△
	Ethylene chloride					
	Ethylene glycol	○	○	○	○	○
F	Fatty acid	△	○			×
	Ferric chloride	×	×		×	○
	Ferric sulfate	×	△			○
	Formaldehyde 40%	△	○		△	○
	Formic acid	×	○		×	○
	Freon	○	○	○	○	×
G	Glycerine	○	○	○	○	○

	Fluids	Brass	Stainless Steel	Steel	Aluminum	Polypropylene
H	Hexane	○	○		○	△
	Hydrobromic acid		×		×	○
	Hydrochloric acid	×	×	×	×	○
	Hydrofluoric acid	△	×		×	○
	Hydrogen	○	○	○	○	○
	Hydrogen peroxide	×	○			○
	Hydrogen sulfide	△	△			○
I	Industrial water	○	○	△		
J	Jet fuel		○	△		
L	Lactic acid	×	○		×	○
	Liquefied petroleum gas (LPG)	○	○	○	○	○
M	Magnesium chloride	×	×		△	○
	Mercury	×	○	○		○
	Methyl alcohol	○	○	○	○	○
N	Naphtha	○	○	○	○	△
	Naphthalene	○	○	○	○	○
	Natural gas	○	○	○	○	○
	Nickel chloride	×	×			○
	Nitric acid	×	△		×	△
	Nitrobenzene	△	○	○		×
O	Octane					
	Oxygen	○	○	○		○
P	Paraffin	○	○	○		
	Phenol	△	○			○
	Phosphoric acid	×	○		×	○
	Potassium chloride	△	△		×	○
	Potassium hydroxide	△	○		×	○
	Pure water	△	○			○
R	Refined gasoline	○	○	○	○	○
	Refined petroleum	○	○	○	○	○
S	Salt water	×	△	×	×	○
	Sodium carbonate	○	○	○	△	○
	Sodium chloride	△	△	×	×	○
	Sodium hydroxide (Caustic soda)		△		×	○
	Sodium nitrate	△	○	○		○
	Sodium phosphate		△			○
	Sodium sulfate	○	○	○	○	○
	Sulfuric acid	×	×	×	×	△
	Sulfurous acid	×	△			○
T	Tannic acid	×	○			○
W	Wine	○	○		○	○
Z	Zinc chloride	×	△		△	○

Notes: 1. Since fluid concentration (%) and conditions of use may affect the performance, detailed study is necessary when choosing materials.
Notes: 2. For the cells that have no symbol marks, please consult us for appropriate body material.

Unit Conversion Tables

Length

m	cm	in	ft	yd	km	mile	n-mile
1	1×10^{2}	3.937×10	3.281	1.094	1	6.214×10^{-1}	5.400×10^{-1}
1×10^{-2}	1	3.937×10^{-1}	3.281×10^{-2}	1.094×10^{-2}	1.6093	1	8.690×10^{-1}
2.54×10^{-2}	2.540	1	8.333×10^{-2}	2.778×10^{-2}	1.852	1.151	1
3.048×10^{-1}	3.048×10	1.2×10	1	3.333×10^{-1}			
9.144×10^{-1}	9.144×10	3.6×10	3	1			

Area

m^2	in^2	ft^2	yd^2	km^2	acre	$mile^2$	ha
1	1.550×10^{3}	1.076×10	1.196	1	2.471×10^{2}	3.861×10^{-1}	1.00×10^{2}
6.452×10^{-4}	1	6.944×10^{-3}	7.716×10^{-4}	4.046×10^{-3}	1	1.562×10^{-3}	4.047×10^{-1}
9.290×10^{-2}	1.44×10^{2}	1	1.111×10^{-1}	2.590	6.40×10^{2}	1	2.590×10^{2}
8.361×10^{-1}	1.296×10^{3}	9	1	1×10^{-2}	2.471	3.861×10^{-3}	1

Mass (Weight)

kg	gr	oz	lb	t (metric ton)	ltn (long ton)	stn (short ton)
1	1.5432×10^{4}	3.527×10	2.205	1×10^{-3}	9.842×10^{-4}	1.102×10^{-3}
6.480×10^{-5}	1	2.286×10^{-3}	1.429×10^{-4}	6.480×10^{-8}	6.378×10^{-8}	7.143×10^{-8}
2.835×10^{-2}	4.375×10^{2}	1	6.25×10^{-2}	2.835×10^{-5}	2.790×10^{-5}	3.125×10^{-5}
4.536×10^{-1}	7.000×10^{3}	1.6×10	1	4.536×10^{-4}	4.464×10^{-4}	5×10^{-4}
1.000×10^{3}	1.543×10^{7}	3.5274×10^{4}	2.205×10^{3}	1	9.842×10^{-1}	1.102
1.016×10^{3}	1.568×10^{7}	3.5840×10^{4}	2.240×10^{3}	1.016	1	1.12
9.072×10^{2}	1.4×10^{7}	3.2000×10^{4}	2.000×10^{3}	9.072×10^{-1}	8.929×10^{-1}	1

Force

N	kgf	lbf	pdl
1	1.020×10^{-1}	2.248×10^{-1}	7.233
9.807	1	2.205	7.093×10
4.448	4.536×10^{-1}	1	3.217×10
1.383×10^{-1}	1.410×10^{-2}	3.108×10^{-2}	1

Pressure

MPa	kgf/cm^2	lbf/in^2 (PSI)	atm	mmHg	inHg	mmH_2O	ftH_2O
1	1.020×10	1.450×10^{2}	9.869	7.501×10^{3}	2.953×10^{2}	1.01972×10^{5}	3.346×10^{2}
9.807×10^{-2}	1	1.422×10	9.678×10^{-1}	7.356×10^{2}	2.896×10	1.0000×10^{4}	3.281×10
6.895×10^{-3}	7.031×10^{-2}	1	6.805×10^{-2}	5.172×10	2.036	7.031×10^{2}	2.307
1.013×10^{-1}	1.033	1.470×10	1	7.60×10^{2}	2.992×10	1.0332×10^{4}	3.390×10
1.333×10^{-4}	1.360×10^{-3}	1.934×10^{-2}	1.316×10^{-3}	1	3.937×10^{-2}	1.360×10	4.460×10^{-2}
3.386×10^{-3}	3.453×10^{-2}	4.912×10^{-1}	3.342×10^{-2}	2.54×10	1	3.453×10^{2}	1.133
9.806×10^{-6}	1×10^{-4}	1.422×10^{-3}	9.678×10^{-5}	7.356×10^{-2}	2.896×10^{-3}	1	3.281×10^{-3}
2.989×10^{-3}	3.048×10^{-2}	4.335×10^{-1}	2.950×10^{-2}	2.242×10	8.827×10^{-1}	3.048×10^{2}	1

CUPLA Inquiry Form

If you are unable to find a CUPLA that you are looking for, or the type that suits your particular requirements in this catalog, please fill in this form and fax it to our distributor in your country or directly to us. We will select the most suitable CUPLA for your applications and contact you directly or through our distributor.

FAX Sheet

To NITTO KOHKI CO., LTD.

Company Name		**Factory / Branch**	
Department / Section		**Full Name**	
Address		**TEL**	
E-mail		**FAX**	

CUPLA Usage Conditions

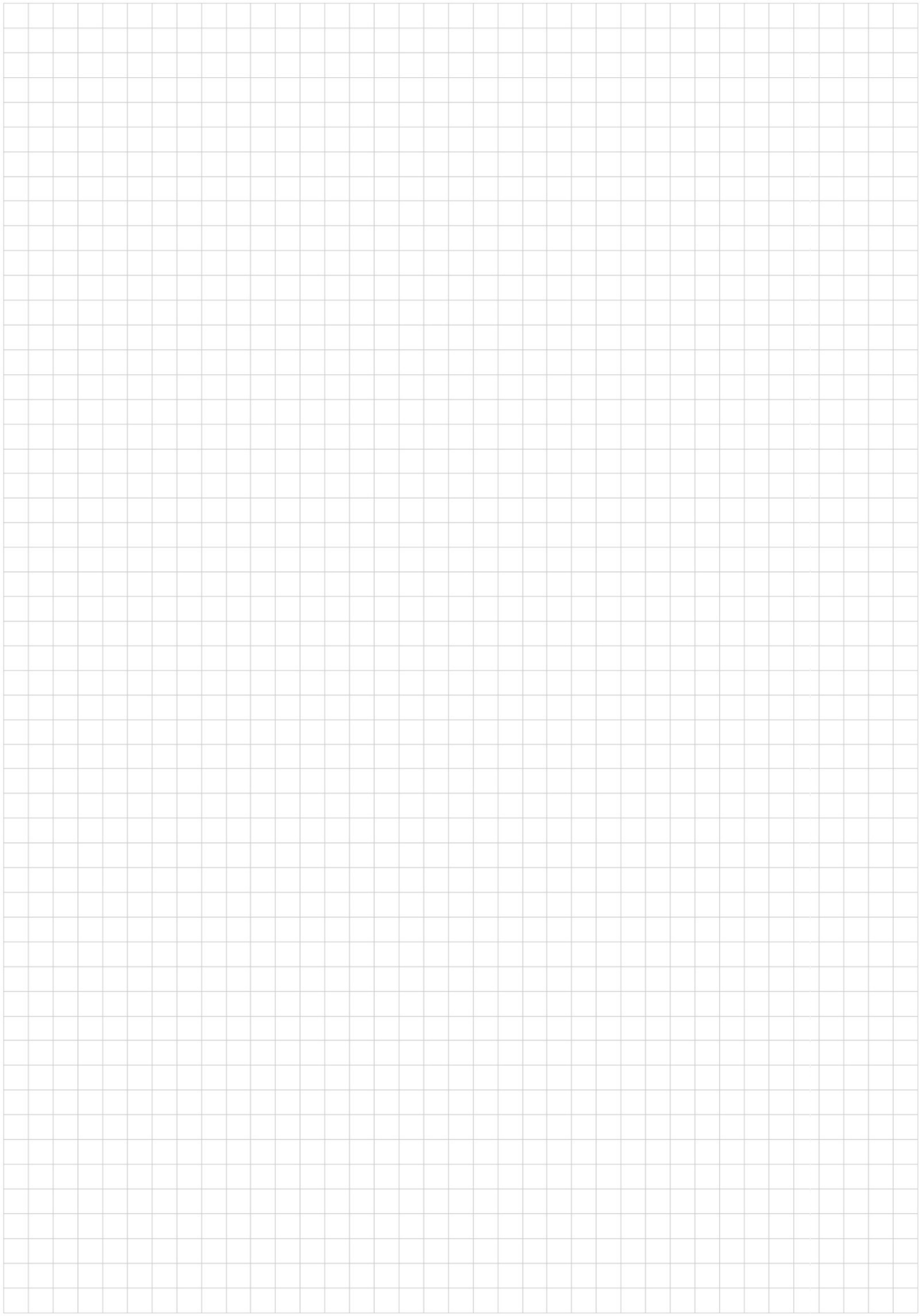
Application	(Product / Machinery) Name ( )	**Quantity to Be Used**	( ) pieces
Size	( ) Standard or Code to be conformed with, if any ( )	**Location**	Indoors • Outdoors
Product Name	HI CUPLA • SUPER CUPLA • MOLD CUPLA • SP CUPLA TYPE A • HSP • 350 • TSP • MINI CUPLA • Others ( )		
Body Material	( )	**Seal Material**	( )
Surface Treatment	( )	**Connection Disconnection Frequency**	( ) times / day • ( ) times / month
Valve	Socket (with • without) Plug (with • without)		
Fluid	Air • Water • Oil • Steam (Others:)		
Pressure	Maximum ( ) MPa Normal ( ) MPa Minimum ( ) MPa Impulse (with • without)		
Maximum Flow	( ) L/min		
Vacuum	( ) kPa		
Temperature	Maximum ( ) °C Normal ( ) °C Minimum ( ) °C		
Type of Thread	1. Unified Thread 2. Male Thread 3. Female Thread 4. Special thread / hose barb Standard or Code to be conformed with, if any ( )		
Other Requirements			

Please do not write in the following section.

Processing	Model		Seal Material		Drawing No.				
	Body Material		Surface Treatment						

Please make your blank copy of this form to fill in.

Memo



Taper Pipe Threads

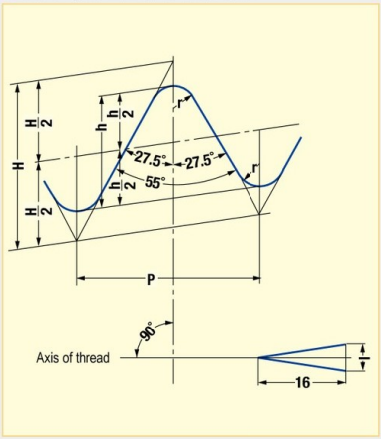
JIS B 0203:1999
ISO 7-1:1994
(BS21)

UDC 621.882.082.2 JIS
Japanese Industrial Standard

This Japanese Industrial Standard specifies taper pipe threads and is applicable to the threads used mainly for pressure-tight joints on the threads for joining pipes, pipe fittings, fluid machinery, etc.

Attached Table: Basic Profiles, Basic Dimensions and Tolerance

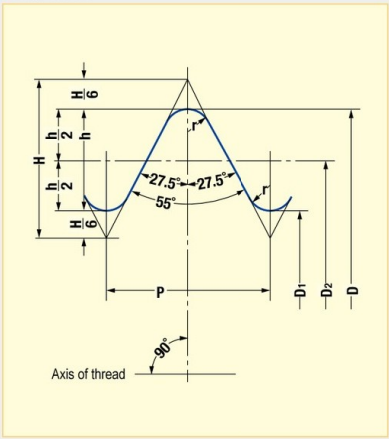
Basic Profile Applied for Taper External and Taper Internal Threads



Thick continuous line shows basic profile.

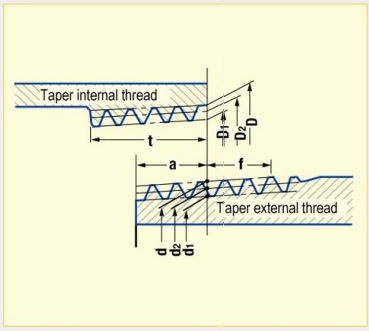
$P = \frac{25.4}{n}$ **H** = 0.960237 P, **h** = 0.640327 P, **r** = 0.137278 P

Basic Profile Applied for Parallel Internal Threads



Thick continuous line shows basic profile.

$P = \frac{25.4}{n}$ **H** = 0.960491 P, **h** = 0.640327 P, **r** = 0.137329 P



How to symbolize taper pipe threads:

Taper external thread	**R 3/8**
Taper internal thread	**Rc 3/8**

Unit: mm

Designation of thread	Thread: Number of threads (in 25.4 mm) *n*	Thread: Pitch *P* (Given for reference)	Thread: Height of thread *h*	Thread: Radius *r* or *r'*	Gauge dia.: External thread: Major dia. *d*	Gauge dia.: External thread: Pitch dia. *d2*	Gauge dia.: External thread: Minor dia. *d1*	Gauge dia.: Internal thread: Major dia. *D*	Gauge dia.: Internal thread: Pitch dia. *D2*	Gauge dia.: Internal thread: Minor dia. *D1*	Position of gauge plane: External thread: From pipe end: Gauge length *a*	Position of gauge plane: External thread: From pipe end: Axial tolerance ±*b*	Position of gauge plane: Internal thread: At pipe end: Axial tolerance ±*c*	Tolerance on *D*, *D2* and *D1* of parallel internal thread ±	Length of useful thread (min.): External thread: From position of gauge plane toward larger dia. end *f*	Length of useful thread (min.): Internal thread: When there is incomplete thread part: From position of gauge plane toward smaller dia. end *l*	Length of useful thread (min.): Internal thread: When there is incomplete thread part: From end of pipe or coupler *l'* (Given for reference)	Length of useful thread (min.): Internal thread: When there is no incomplete thread part: Taper internal thread/ Parallel internal thread: From gauge plane or end of pipe or coupler *t*	Size of carbon steel pipe for ordinary piping (Given for reference): Outer dia.	Size of carbon steel pipe for ordinary piping (Given for reference): Thickness
R 1/8	28	0.9071	0.581	0.12	9.728	9.147	8.566	9.728	9.147	8.566	3.97	0.91	1.13	0.071	2.5	6.2	7.4	4.4	10.5	2.0
R 1/4	19	1.3368	0.856	0.18	13.157	12.301	11.445	13.157	12.301	11.445	6.01	1.34	1.67	0.104	3.7	9.4	11.0	6.7	13.8	2.3
R 3/8	19	1.3368	0.856	0.18	16.662	15.806	14.950	16.662	15.806	14.950	6.35	1.34	1.67	0.104	3.7	9.7	11.4	7.0	17.3	2.3
R 1/2	14	1.8143	1.162	0.25	20.955	19.793	18.631	20.955	19.793	18.631	8.16	1.81	2.27	0.142	5.0	12.7	15.0	9.1	21.7	2.8
R 3/4	14	1.8143	1.162	0.25	26.441	25.279	24.117	26.441	25.279	24.117	9.53	1.81	2.27	0.142	5.0	14.1	16.3	10.2	27.2	2.8
R 1	11	2.3091	1.479	0.32	33.249	31.770	30.291	33.249	31.770	30.291	10.39	2.31	2.89	0.181	6.4	16.2	19.1	11.6	34.0	3.2
R 1-1/4	11	2.3091	1.479	0.32	41.910	40.431	38.952	41.910	40.431	38.952	12.70	2.31	2.89	0.181	6.4	18.5	21.4	13.4	42.7	3.5
R 1-1/2	11	2.3091	1.479	0.32	47.803	46.324	44.845	47.803	46.324	44.845	12.70	2.31	2.89	0.181	6.4	18.5	21.4	13.4	48.6	3.5
R 2	11	2.3091	1.479	0.32	59.614	58.135	56.656	59.614	58.135	56.656	15.88	2.31	2.89	0.181	7.5	22.8	25.7	16.9	60.5	3.8
R 2-1/2	11	2.3091	1.479	0.32	75.184	73.705	72.226	75.184	73.705	72.226	17.46	3.46	3.46	0.216	9.2	26.7	30.1	18.6	76.3	4.2
R 3	11	2.3091	1.479	0.32	87.884	86.405	84.926	87.884	86.405	84.926	20.64	3.46	3.46	0.216	9.2	29.8	33.3	21.1	89.1	4.2
R 4	11	2.3091	1.479	0.32	113.030	111.551	110.072	113.030	111.551	110.072	25.40	3.46	3.46	0.216	10.4	35.8	39.3	25.9	114.3	4.5
R 5	11	2.3091	1.479	0.32	138.430	136.951	135.472	138.430	136.951	135.472	28.58	3.46	3.46	0.216	11.5	40.1	43.5	29.3	139.8	4.5
R 6	11	2.3091	1.479	0.32	163.830	162.351	160.872	163.830	162.351	160.872	28.58	3.46	3.46	0.216	11.5	40.1	43.5	29.3	165.2	5.0

Production Facilities That Assure Our Product Quality

Large scale production facilities in Tochigi Prefecture, Japan and Ayutthaya, Thailand, having the capability of flexible mass production, are in full operation around the clock and constitute a complete high-grade supply system, from the machining of components to the assembly and testing of finished products, that is forever ready and able to respond to our user's reliance.

Production Facilities Assure Flexible Supply System

TOCHIGI NITTO KOHKI CO., LTD.

Production of CUPLA, Linear-Motor-Driven Piston Pumps and their Applied Products

Tochigi Nitto Kohki factory is accredited under ISO 14001 & 9001.

ISO 14001 JQA-EM1934 ISO 9001 JQA-1039

In November 1995, the Japan Quality Assurance Foundation, authority for inspection and registration, awarded Tochigi Nitto Kohki "ISO 9001" for quality control and quality assurance in the manufacture of CUPLA products (Quick connect couplings) as well as 1kW or smaller Linear Drive air compressors, vacuum pumps and applied products, and in November 2001 "ISO 14001", also awarded International Standard for environment management systems intended to perform global environment preservation and pollution control.

NITTO KOHKI INDUSTRY (THAILAND) CO., LTD.

Production of CUPLA, Air Compressors, and Vacuum Pumps

ISO 14001 & 9001

ISO 14001 JQA-EM6395 ISO 9001 JQA-QM8194

NITTO KOHKI INDUSTRY (THAILAND) CO., LTD. factory is accredited under ISO 14000 and ISO 9001.

From Development to Production, Management and Marketing of "CUPLA"

Nitto Kohki has introduced the "integrated product assurance system" that can respond promptly to "users' requirements" by covering the range of development, quality control, production and marketing in order to ensure supply of high-performance high-quality "CUPLA".

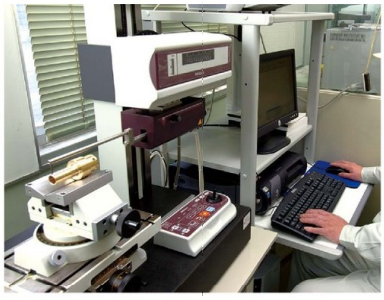
Nitto Kohki's Integrated Product Assurance System

Research and Development

The needs of the time and the latest information are gathered and analyzed, and unique technology is utilized to the challenge for ceaseless developement of better CUPLA, CUPLA that suggest new applications.

Quality Control

The careful selection of materials, painstaking pursuit of machining precision, and strict surveillance processes such as severe endurance tests have earned trust for our CUPLA as a global brand.



Production

High-grade, rationalized, and integrated production system extends from the machining of parts to the assembly and testing of completed products. Robots that we make ourselves for our own plants and many other state-of-the-art facilities that cannot be seen elsewhere have marvelous capacity for mass production. And with them all, we aim to be an establishment of a flexible supply system.

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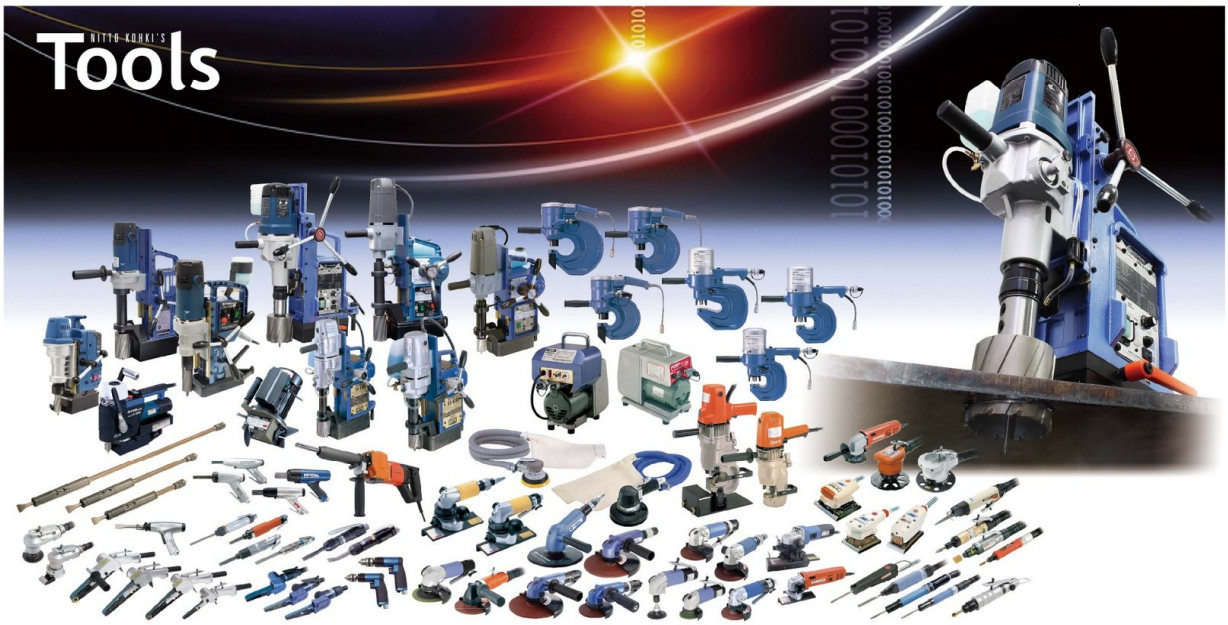
Marketing

Meticulous marketing activities include advertising in the general industrial press and specialist papers, national and local exhibitions, training sessions, catalogs, promotion videos, other presentation tools and technical data sheets for new launches, and unique yet dynamic campaigns, etc.

Nitto Kohki's Laborsaving Products

Nitto Kohki is capturing the needs of users by introducing to the world not only “CUPLA” quick connect couplings, but also next-generation laborsaving devices, including various “machine tools and hand tools”, high precision “Delvo” electric screwdrivers, and linear-motor-driven piston “compressors / vacuum pumps”.

Nitto Kohki’s Quality Products



Machines and Tools to Achieve Energy and Labor Savings in Processing Work

Machines and tools are used at various processing sites for such work as cutting, polishing, scaling, drilling and chamfering of steel materials. We have created a product line up of pneumatic, electric and hydraulic machines and tools to match the diversification of processing methods and the conditions of work operations.

High Precision “delvo” Electric Screwdrivers for Professional Use

NITTO KOHKI Electric Screwdrivers "delvo" are high-quality tools for professional use, with special emphasis on precise control of torque and long life. They apply just the correct amount of torque –with sure, positive control always at your fingertips. They are smooth and shockless in operation, too.

Compressors, Vacuum Pumps and Their Applied Products

NITTO KOHKI pumps are unique products featuring a linear-motor-driven free piston system. NITTO KOHKI has made available a complete series of air compressors and suction pumps that incorporate this uniquely functional design. These are quite appropriate as air sources or suction power units for various pneumatically operated equipment and apparatus in advanced industries.

Safety Guide

Safety Precautions

The safety precautions provide instructions for the safe use of NITTO KOHKI coupling "CUPLA" to avoid the potential danger of bodily harm or damage to surrounding property. The safety precautions are categorized under the headings Danger, Warning and Caution, in accordance with the degree of potential hazard to the body or surrounding property, if CUPLA is used incorrectly. They are all important notes for safety and must be followed as well as in accordance with International standards #1 and other local safety regulations #2.

#1: ISO 4413, Hydraulic Fluid Power – General rules relating to systems ISO 4414, Pneumatic Fluid Power – General rules relating to systems
#2: Industrial Health & Safety law (for example)

⚠ **DANGER**	**Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.**
⚠ **WARNING**	**Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.**
⚠ **CAUTION**	**Indicates a potentially hazardous situation which, if not avoided, may result in personal injury or property damage.**

⚠ DANGER

Stop using the product immediately if there is any anticipated danger of operation or reduced safety.

⚠ WARNING

The enclosed safety precautions are only a guideline. When using CUPLA, you are requested to pay particular attention to possible hazardous situations for the application which are not stated in the safety precautions.

Caution When Selecting CUPLA

⚠ DANGER

- Connection to a coupling of another brand may cause imperfect connection or disconnection, reduced air tightness, impaired pressure resistance or durability, reduced flow rate and potentially result in an unexpected accident and therefore must be avoided. Nitto Kohki cannot accept liability for any accident that may result by mixed use with the coupling of another brand. Please be sure to check for our marks on the right hand side of this page, which are always inscribed on NITTO KOHKI coupling "CUPLA" when you order and purchase.
- Do not use CUPLA under conditions and environments other than specified in the catalog.

⚠ WARNING

- Please consult us prior to use if CUPLA is required for use on machines, equipment or systems (hereafter referred to as "equipment, systems, etc.") for sustaining or controlling human life or body.
- When CUPLA is used for the purpose of ensuring safety, please consult us beforehand.
- The compatibility of the product with specific equipment, systems, etc. must be determined by the person designing the equipment, systems, etc. or the person who decides its specifications based on necessary analysis and test result. The expected performance and safety assurance of the equipment, systems, etc. will be the responsibility of the person who has determined its compatibility with the product.
- If CUPLA is to be used for the following applications, please consult us:
  - Vehicles, aircraft and associated equipment systems that accommodate people
  - Medical facilities or suction equipment that directly affects human body
  - Equipment that directly comes into contact with and runs food, drugs or medicines, drinking water, atomic energy equipment or equipment that ensures safety.
- Selecting the wrong type of seal material may cause a leak. In making your selection, please check the compatibility of the seal material with the type of fluid and temperature used in the application.
- Please consult us prior to selection or use of CUPLA when they are intended for use with corrosive or flammable gases/liquids and/or in atmospheres of these types of gases and liquids.

Warranty and Disclaimer

Our responsibilities for the defects in our products shall be as follows:

- We shall be responsible for any defects in design, material or workmanship of our products, if it is apparent that such defects are due to reasons solely attributable to us.
- Our responsibilities shall be limited to one of the following, as determined by us:
  (a) repair of any defective products or parts thereof,
  (b) replacement of any defective products or parts thereof; or
  (c) compensation for loss and damages incurred by you, which shall in no case exceed the amount of your purchase price for the defective products.
- We shall in no case be liable for any special, indirect or consequential loss or damages, whether such loss or damages are those arising from work stoppage, impairment of other goods or death or personal injury.

Performance, Dimensions and Its Limitation

Please note the performance charts and outside dimensions in this catalog do not take into account any tolerances found in mass production.
The information is an average or standard value to be a guide for selecting models and to enable technical appraisal by users.

Beware of Imitations

Recently, similar products which invite misidentification or confusion with NITTO KOHKI coupling "CUPLA" have appeared on the market.
Connection with such a similar product to NITTO KOHKI coupling "CUPLA" may cause:

1. Imperfect connection or disconnection
2. Reduced air tightness
3. Impaired pressure resistance or durability
4. Reduced flow rate

and could result in unexpected accidents.
Therefore, connection other than with NITTO KOHKI coupling "CUPLA" must be avoided.
Please be sure to check for our original marks on the right hand side of this page, which are always inscribed on NITTO KOHKI coupling "CUPLA" products, when you order and purchase.

Markings

Note:
Nitto Kohki cannot accept any liability for any accident that may occur as a result of using couplings of another brand in conjunction with our own.

Safety Guide

The following precautions must be taken when using CUPLA. Please contact Nitto Kohki or the outlet / supplier where you purchased the product with regard to repair procedures, certification on the specification or applications of the products.

⚠ Precautions Relating to the Use of All CUPLA products

Be sure to read the "Instruction Sheet" that comes with the product or "Caution" on the package before use.

CUPLA for Low Pressure (Air)

⚠Caution

- Prior to use, check the compatibility of the seal material and body material against the temperature and the fluid to be used. Selecting the wrong seal material will lead to leakage.
  As to the use of any special paint or solvent, make thoroughly sure of the material compatibility.
- Do not use CUPLA continuously exceeding the rated working pressure. It will cause leakage or damage.
- Only use CUPLA that are within their rated temperature range. Otherwise this can lead to leakage through seal deterioration or damage. It cannot be used continuously at its lowest or highest rated working temperature.
- The durability of CUPLA differs depending on the operating environment and conditions (pressure and temperature etc.). If necessary, conduct performance evaluation test under your actual operating environment and conditions.
  Also, stress corrosion cracking may occur if used under corrosive environment. Take note of usage conditions.
- The working pressure and working temperature range for hose connection types depends upon the hose to be used. Prior to use, confirm that the temperature and the type of fluid to be used is suitable for the hose.
- When cleaning CUPLA, care must be taken not to use any material that will affect the seal and body materials.
- Apply a fluoropolymer resin sealant tape on male tapered pipe threads to ensure no leak. (Applies to thread type)
- Do not exceed the recommended maximum torque when screwing in to the male or female thread of CUPLA for installation. It will cause damage. (Applies to thread type, Nut type)
- Care must be taken when installing CUPLA not to overtighten or cross thread, this can cause damage and lead to leakage. (Applies to thread type, Nut type, especially body material: stainless steel)
- Do not use anything other than the applicable hose or tube sizes. It will cause leakage. (Applies to hose or tube fitter connection type)
- Insert the barb (tail) fully into a hose or a tube and secure it tightly with a hose clamp or a nut. Incomplete insertion or insufficient clamping will lead to leakage or sliding off of a hose or a tube from the barb (tail).
  (Applies to hose or tube fitter connection type)
- Never strike CUPLA when inserting barb (tail) into hose or tube. This could cause poor connection. (Applies to hose or tube fitter connection type)
- Do not use damaged (cracked) or deteriorated hoses or tubes. It will lead to leakage or bursting of hoses or tubes. (Applies to hose or tube fitter connection type)
- Cut off the hose or tube at a designated length from the end when reusing it. Failure to do so will lead to leakage or bursting of the hose or tube. See the "Instruction manual" enclosed with the product for the normal length.
  (Applies to hose or tube fitter connection type)
- Prior to use, always perform a leak test after installing CUPLA.
- After connection, try to pull the socket and plug apart to confirm secure connection. If the connection is incomplete, the socket and plug may disconnect when pressurized.
- Care should be taken when disconnecting CUPLA whilst still pressurized. To prevent injury due to the Plug popping out, CUPLA should be held firmly in one hand and the Plug in the other.
  If the medium is a gas, an audible bang may be heard on disconnection. We recommend disconnecting this CUPLA in an unpressurized state. (Except for CUPLA with purge function)
- Put a designated dust cap on CUPLA after disconnection when there is a possibility of foreign matter such as dirt sticking to the seal surface.
- Always install a shut-off valve between the pressure source and CUPLA.
- Do not use with any fluid or medium other than what is specified, to do so could cause leakage or damage.
- The use of inline filters is strongly advised and recommended. To prevent damage, the fluid should be clean before reaching CUPLA.
- Always let fluid flow from socket to plug. It will result in reduced flow. (Except for HI CUPLA Two Way Type)
- Do not use CUPLA in areas or environment where dust such as sand or metal powder can get in to CUPLA. It will lead to malfunction or leakage.
- Do not let paint stick to CUPLA. It will cause malfunction or leakage.
- Be careful not to put scratches or dents on CUPLA. Especially, scratches on the sealing parts will cause leakage.
- Do not apply any artificial impact, bend or tension. It will cause leakage or damage.
- Do not drop CUPLA. It will cause leakage or malfunction.
- Connecting CUPLA directly to vibrating or impacting equipment will result in reduced lifetime. The use of a 'Leader' or 'Whip' hose of approx. 30 cm in length between CUPLA and equipment is recommended to help alleviate this.
- Use only as quick connect couplings for fluid pipelines. (It cannot be used as a swivel joint)
- Only use CUPLA in a combination with NITTO KOHKI coupling "CUPLA".
- Do not disassemble CUPLA. It will cause leakage or damage.

Cautions on Handling CUPLA HOSE

⚠Caution

- Do not use CUPLA continuously exceeding the rated working pressure. It will cause leakage or damage.
- Only use CUPLA that are within their rated temperature range. Otherwise the hose will get damaged or deteriorate and cause leakage. It cannot be used continuously at its lowest or highest rated working temperature.
- Do not use on systems that have a high water content, such as drain discharge, this can damage the hose.
- The durability of the Hose differs depending on the operating environment and conditions (pressure and temperature etc.). If necessary, conduct performance evaluation test under your actual operating environment and conditions.
- Make sure that there is no twist or bend on the hose before use.
- Do not exceed the maximum extensible length, to do so will damage the hose. See catalogue page for full specification details. (Applies to NK CUPLA COIL HOSE)
- Do not bend the hose less than the minimum-bending radius. It will cause damage to the hose. (ø6.5 x ø10 mm minimum-bending radius :40 mm, ø8.5 x ø12.5 mm minimum-bending radius : 50 mm : Applies to NK CUPLA HOSE)
- Do not use with any fluid or medium other than what is specified, to do so could damage the hose.
- The use of inline filters is strongly advised and recommended. To prevent damage, the fluid should be clean before reaching CUPLA. The inclusion of foreign matter in the fluid could damage the hose.
- Do not use CUPLA in areas or environment where dust such as sand or metal powder can get in to CUPLA. This may cause damage to the hose.
- Do not use near fire. It will soften or deform the hose and cause damage to the hose.
- Take care not to damage the hose by dragging over rough ground or concrete. It is also important to ensure that the hose does not become kinked or crushed for long periods.
- Do not use for lifting or hoisting, this can damage the hose.
- Store in a shaded, dry and well-ventilated place.
- Cut off the hose at least 3 cm from the end when reusing it. Failure to do so will lead to leakage or bursting of the hose.
- Prior to use, always perform a leak test after installing CUPLA.

CUPLA for Oxygen / Fuel Gas

⚠Warning

- Do not use with any fluid or medium other than what is specified, to do so could cause leakage or damage.
- Do not use CUPLA continuously exceeding the rated working pressure. It will cause leakage or damage.
- Replace CUPLA with a new one if backfire occurs. Backfire damages the body and the seal and will lead to leakage or damage.
- Do not use damaged(cracked) or deteriorated hoses. It will lead to leakage or bursting of hoses. (Applies to hose barb type)
- Never let oil adhere to CUPLA when installing a hose. It will cause spontaneous fire.
- Insert the barb (tail) fully into a hose and secure it tightly with a hose clamp or a nut. Incomplete insertion or insufficient clamping will lead to leakage or sliding off of a hose from the barb (tail). (Applies to hose barb type)
- Prior to use, always perform a leak test after installing CUPLA. Always check for leakage on CUPLA before use. If any leakage is found, stop using immediately.
- Cut off the hose at least 3 cm from the end when reusing it. Failure to do so will lead to leakage or bursting of the hose. (Applies to hose barb type)
- Do not use CUPLA near fire or places where gas accumulates. It will lead to fire or explosion.
- Make sure that the valve on the torch is closed before connecting to CUPLA. If connected with valve open, the gas will flow out and could cause a fire or explosion.
- Do not disassemble CUPLA. It will cause leakage or damage.

⚠Caution

- Only use CUPLA that are within their rated temperature range. Otherwise this can lead to leakage through seal deterioration or damage. It cannot be used continuously at its lowest or highest rated working temperature.
- The durability of CUPLA differs depending on the operating environment and conditions (pressure and temperature etc.). If necessary, conduct performance evaluation test under your actual operating environment and conditions.
  Also, stress corrosion cracking may occur if used under corrosive environment. Take note of usage conditions.
- Make sure that O-rings and Packing seals are lubricated with our designated lubricant at all times. The O-rings will get damaged and cause leakage. Not using the designated lubricant will lead to spontaneous fire. (Ask us for the designated lubricant)
- Apply a fluoropolymer resin sealant tape on male tapered pipe threads to ensure no leak. (Applies to thread type)
- Do not exceed the recommended maximum torque when screwing in to the male or female thread of CUPLA for installation. It will cause damage. (Except for hose barb type)
- Do not use anything other than the applicable hose sizes. It will cause leakage. (Applies to hose barb type)
- Never strike CUPLA when inserting barb (tail) into hose. This could cause poor connection. (Applies to hose barb type)
- Do not use damaged (cracked) or deteriorated hoses. It will lead to leakage or bursting of hoses. (Applies to hose barb type)
- After connection, try to pull the socket and plug apart to confirm secure connection. If the connection is incomplete, the socket and plug may disconnect when pressurized.
- Care should be taken when disconnecting CUPLA whilst still pressurized. To prevent injury due to the Plug popping out, CUPLA should be held firmly in one hand and the Plug in the other.
  If the medium is a gas, an audible bang may be heard on disconnection. We recommend disconnecting this CUPLA in an unpressurized state.
- Always install a shut-off valve between the pressure source and the socket.
- The use of inline filters is strongly advised and recommended. To prevent damage, the fluid should be clean before reaching CUPLA.
- Always let fluid flow from socket to plug. It will result in reduced flow.
- Do not use CUPLA in areas or environment where dust such as sand or metal powder can get in to CUPLA. It will lead to malfunction or leakage.
- Do not let paint stick to CUPLA. It will cause malfunction or leakage.
- Be careful not to put scratches or dents on CUPLA. Especially, scratches on the sealing parts will cause leakage.
- Do not apply any artificial impact, bend or tension. It will cause leakage or damage.
- Do not drop CUPLA. It will cause leakage or malfunction.
- Connecting CUPLA directly to vibrating or impacting equipment will result in reduced lifetime.
- Use only as quick connect couplings for fluid pipelines. (It cannot be used as a swivel joint)
- Only use CUPLA in a combination with NITTO KOHKI coupling "CUPLA".
- Store CUPLA in a dry environment. Moisture will cause corrosion and may also freeze in low temperatures, which may cause malfunction of CUPLA or other equipment.

⚠ Precautions Relating to the Use of All CUPLA products

Be sure to read the "Instruction Sheet" that comes with the product or "Caution" on the package before use.

MOLD CUPLA / FLOW METER / HOT WATER CUPLA

⚠ Warning

- Do not apply pressure to CUPLA socket while it is disconnected. It will cause leakage or damage. (Applies to MOLD CUPLA or HOT WATER CUPLA)
- Do not use CUPLA continuously exceeding the rated working pressure. It will cause leakage or damage.
- The fluid in the piping of the plug side will spill out upon disconnection. When using for hazardous fluids (such as hot fluid), discharge all the fluid inside CUPLA before disconnecting, in order to prevent burns, etc. (Applies to MOLD CUPLA)

⚠ Caution

- Prior to use, check the compatibility of the seal material and body material against the temperature and the fluid to be used. Selecting the wrong seal material will lead to leakage.
  As to the use of any special paint or solvent, make thoroughly sure of the material compatibility.
- Only use CUPLA that are within their rated temperature range. Otherwise this can lead to leakage through seal deterioration or damage. It cannot be used continuously at its lowest or highest rated working temperature.
- Even if used within the rated operating temperature range, prolonged use of the FLOW METER when under pressure and with the temperature in the upper regions will cause leakage. (Especially when the valve is fully open)
- The durability of CUPLA or FLOW METER differs depending on the operating environment and conditions (pressure and temperature etc.). If necessary, conduct performance evaluation test under your actual operating environment and conditions.
  Also, stress corrosion cracking may occur if used under corrosive environment. Take note of usage conditions.
- The working pressure and working temperature range for hose connection types depends upon the hose to be used. Prior to use, confirm that the temperature and the type of fluid to be used is suitable for the hose. (Applies to MOLD CUPLA)
- Make sure that O-rings and Packing seals are lubricated with grease at all times. If not, the O-rings will get damaged and cause leakage.
- Apply a fluoropolymer resin sealant tape on male tapered pipe threads to ensure no leak. (Applies to MOLD CUPLA thread type or FLOW METER or HOT WATER CUPLA)
- Do not exceed the recommended maximum torque when screwing in to the male or female thread of CUPLA for installation. It will cause damage.
  When installing FLOW METER, in order to protect the spherical surface of the ball valve, install it with the valve in a fully opened state as a rule. (Applies to MOLD CUPLA thread type or FLOW METER or HOT WATER CUPLA)
- When the valve is fully open or closed, there will be a void between valve body and the ball valve which can trap a small amount of fluid under pressure.
  Before taking the body off from the piping, partially open the valve to allow the pressure to discharge. (Applies to FLOW METER)
- Do not use anything other than the applicable hose sizes. It will cause leakage. (Applies to hose barb type)
- Insert the barb (tail) fully into a hose and secure it tightly with a hose clamp. Incomplete insertion or insufficient clamping will lead to leakage or sliding off of a hose from the barb (tail). (Applies to hose barb type)
- Never strike CUPLA when inserting barb (tail) into hose. This could cause poor connection. (Applies to hose barb type)
- Do not use damaged(cracked) or deteriorated hoses. It will lead to leakage or bursting of hoses. (Applies to hose barb type)
- Cut off the hose at least 3 cm from the end when reusing it. Failure to do so will lead to leakage or bursting of the hose. (Applies to hose barb type)
- Prior to use, always perform a leak test after installing CUPLA.
- After connection, try to pull the socket and plug apart to confirm secure connection. If the connection is incomplete, the socket and plug may disconnect when pressurized. (Applies to MOLD CUPLA or HOT WATER CUPLA)
- Do not connect/disconnect with fluid still under dynamic pressure or static residual pressure. It will cause damage to the valve. (Applies to MOLD CUPLA or HOT WATER CUPLA)
- Always install a shut-off valve between the pressure source and CUPLA.
- Do not use with any fluid or medium other than what is specified, to do so could cause leakage or damage.
- Use it in the state that the fluid does not freeze in the case of water. If it freezes, it will cause damage to CUPLA.
- The use of inline filters is strongly advised and recommended. To prevent damage, the fluid should be clean before reaching CUPLA.
- Design and keep the fluid flow speed through CUPLA below 8 m/s. It will cause damage to the packing if used at 8m/s or over.
- When using FLOW METER, operate the ball valve slowly to prevent water hammer from occurring.
- Let fluid flow in the direction of the arrow shown on the FLOW METER. (Applies to FLOW METER)
- The FLOW METER may cause malfunction of the float due to contamination of foreign matter, water scale or air bubbles inside the fluid.
- Do not use CUPLA in areas or environment where dust such as sand or metal powder can get in to CUPLA. It will lead to malfunction or leakage.
- Do not let paint stick to CUPLA. It will cause malfunction or leakage.
- Be careful not to put scratches or dents on CUPLA. Especially, scratches on the sealing parts will cause leakage. (Applies to MOLD CUPLA or HOT WATER CUPLA)
- Do not apply any artificial impact, bend or tension. It will cause leakage or damage.
- Do not drop CUPLA. It will cause leakage or malfunction.
- Connecting CUPLA directly to vibrating or impacting equipment will result in reduced lifetime.
- Use only as quick connect couplings/flow meter for fluid pipelines. (It cannot be used as a swivel joint)
- Only use CUPLA in a combination with NITTO KOHKI coupling "CUPLA". (Applies to MOLD CUPLA or HOT WATER CUPLA)
- Do not disassemble CUPLA. It will cause leakage or damage.
- When storing FLOW METER, ensure that the valve is fully open. If stored with the valve partially open, the packing will deform and cause leakage.

CUPLA for Low Pressure (Water, Liquid) and for Medium Pressure

⚠ Warning

- Do not apply pressure to CUPLA socket or plug while they are disconnected. It will cause leakage or damage. (Applies to Valve Structures: Two-way shut-off type and One-way shut-off type)
- Do not use CUPLA continuously exceeding the rated working pressure. It will cause leakage or damage.
- The fluid in the piping will spill out upon disconnection. When using for hazardous fluids (such as hot fluid), discharge all the fluid inside CUPLA before disconnecting, in order to prevent burns, etc.
  (Applies to Valve Structures: Straight through type and One-way shut-off type)

⚠ Caution

- Prior to use, check the compatibility of the seal material and body material against the temperature and the fluid to be used. Selecting the wrong seal material will lead to leakage.
  As to the use of any special paint or solvent, make thoroughly sure of the material compatibility.
- Only use CUPLA that are within their rated temperature range. Otherwise this can lead to leakage through seal deterioration or damage. It cannot be used continuously at its lowest or highest rated working temperature.
- Even if used within the rated operating temperature range, prolonged use of TSP CUPLA Socket with Ball Valve when under pressure and with the temperature in the upper regions will cause leakage. (Especially when the valve is fully open)
- The durability of CUPLA differs depending on the operating environment and conditions (pressure and temperature etc.). If necessary, conduct performance evaluation test under your actual operating environment and conditions.
  Also, stress corrosion cracking may occur if used under corrosive environment. Take note of usage conditions.
- The working pressure and working temperature range for hose or tube connection types depends upon the hose or tube to be used. Prior to use, confirm that the temperature and of the type of fluid to be used is suitable for the hose or tube.
- When cleaning CUPLA, care must be taken not to use any material that will affect the seal and body materials.
- Make sure that O-rings and Packing seals are lubricated with grease at all times. If not, the O-rings will get damaged and cause leakage. (Except CUPLA with end face seal construction)
- Apply a fluoropolymer resin sealant tape on male tapered pipe threads to ensure no leak. (Applies to thread type)
- Do not exceed the recommended maximum torque when screwing in to the male or female thread of CUPLA for installation. It will cause damage.
  When installing TSP CUPLA Socket with Ball Valve, in order to protect the spherical surface of the ball valve, install it with the valve in a fully opened state as a rule. (Applies to thread type, Nut type)
- Care must be taken when installing CUPLA not to overtighten or cross thread, this can cause damage and lead to leakage. (Applies to thread type, Nut type, especially body material: stainless steel)
- When the valve is fully open or closed, there will be a void between valve body and the ball valve which can trap a small amount of fluid under pressure.
  Before taking the body off from the piping, partially open the valve to allow the pressure to discharge. (Applies to TSP CUPLA Socket with Ball Valve)
- Do not use anything other than the applicable hose or tube sizes. It will cause leakage. (Applies to hose or tube fitter connection type)
- Insert the barb (tail) fully into a hose or a tube and secure it tightly with a hose clamp or a nut. Incomplete insertion or insufficient clamping will lead to leakage or sliding off of a hose or a tube from the barb (tail).
  (Applies to hose or tube fitter connection type)
- Never strike CUPLA when inserting barb (tail) into hose or tube. This could cause poor connection. (Applies to hose or tube fitter connection type)
- Do not use damaged (cracked) or deteriorated hoses or tubes. It will lead to leakage or bursting of hoses or tubes. (Applies to hose or tube fitter connection type)
- Cut off the hose or tube at a designated length from the end when reusing it. Failure to do so will lead to leakage or bursting of the hose or tube. See the "Instruction manual" enclosed with the product for the normal length.
  (Applies to hose or tube fitter connection type)
- Prior to use, always perform a leak test after installing CUPLA.
- After connection, try to pull the socket and plug apart to confirm secure connection. If the connection is incomplete, the socket and plug may disconnect when pressurized.
- Put a designated dust cap on CUPLA after disconnection when there is a possibility of foreign matter such as dirt sticking to the seal surface.
- Do not connect/disconnect with fluid still under dynamic pressure or static residual pressure. It will cause damage to the valve. (Applies to Valve Structures: Two-way shut-off type and One-way shut-off type)
- Always install a shut-off valve between the pressure source and CUPLA.
- Do not strike the tip of an automatic shut-off valve with a hammer or a similar tool. It will cause leakage or malfunction.
  (Applies to medium pressure, Valve Structure: Two-way shut-off type) However, if you need to relieve residual pressure, please consult us.
- Do not use with any fluid or medium other than what is specified, to do so could cause leakage or damage.
- Use it in the state that the fluid does not freeze in the case of water. If it freezes, it will cause damage to CUPLA.
- The use of inline filters is strongly advised and recommended. To prevent damage, the fluid should be clean before reaching CUPLA.
- Design and keep the fluid flow speed through CUPLA below 8 m/s. It will cause damage to the valve if used at 8m/s or over. (Applies to Valve Structures: Two-way shut-off type and One-way shut-off type)
- When using TSP CUPLA Socket with Ball Valve, operate the ball valve slowly to prevent water hammer from occurring. Also be careful not to get fingers caught when operating the handle.
- Do not use CUPLA in areas or environment where dust such as sand or metal powder can get in to CUPLA. It will lead to malfunction or leakage.
- Do not let paint stick to CUPLA. It will cause malfunction or leakage.
- Be careful not to put scratches or dents on CUPLA. Especially, scratches on the sealing parts will cause leakage.
- Do not apply any artificial impact, bend or tension. It will cause leakage or damage.
- Do not drop CUPLA. It will cause leakage or malfunction.
- Connecting CUPLA directly to vibrating or impacting equipment will result in reduced lifetime.
- Use only as quick connect couplings for fluid pipelines. (It cannot be used as a swivel joint)
- Only use CUPLA in a combination with NITTO KOHKI coupling "CUPLA". (Except LEVER LOCK CUPLA)
- Do not disassemble CUPLA. It will cause leakage or damage.
- When storing TSP CUPLA Sockets with Ball valve, ensure that the valve is fully open. If stored with the valve partially open, the packing will deform and cause leakage.

Safety Guide

⚠ Precautions Relating to the Use of All CUPLA products

Be sure to read the "Instruction Sheet" that comes with the product or "Caution" on the package before use.

CUPLA for High Pressure

⚠ Danger

- Do not apply pressure to CUPLA socket or plug while they are disconnected. It will cause leakage or damage.

⚠ Warning

- Do not use CUPLA continuously exceeding the rated working pressure. Also, do not use 700R CUPLA in an environment where there is impulse pressure. It will cause leakage or damage.
- Do not connect/disconnect with fluid still under dynamic pressure or static residual pressure. It will cause damage to the valve. However, the HSP-PV type can be connected under static residual pressure.
- After connection, try to pull the socket and plug apart to confirm secure connection. If the connection is incomplete, the socket and plug may disconnect when pressurized.
- Only use CUPLA in a combination with NITTO KOHKI coupling "CUPLA". However, 280 CUPLA is interchangeable with couplers complying with ISO7241-1A.
  When using by connecting 280 CUPLA with other brand's, compare the pressure specifications and use under the lower pressure.
- Do not disassemble CUPLA. It will cause leakage or damage.

⚠ Caution

- Prior to use, check the compatibility of the seal material and body material against the temperature and the fluid to be used. Selecting the wrong seal material will lead to leakage.
  As to the use of any special paint or solvent, make thoroughly sure of the material compatibility.
- Only use CUPLA that are within their rated temperature range. Otherwise this can lead to leakage through seal deterioration or damage. It cannot be used continuously at its lowest or highest rated working temperature.
- The durability of CUPLA differs depending on the operating environment and conditions (pressure and temperature etc.). If necessary, conduct performance evaluation test under your actual operating environment and conditions.
  Also, stress corrosion cracking may occur if used under corrosive environment. Take note of usage conditions.
- When cleaning CUPLA, care must be taken not to use any material that will affect the seal and body materials.
- Make sure that O-rings and Packing seals are lubricated with grease or oil at all times. If not, the O-rings will get damaged and cause leakage.
- Apply a fluoropolymer resin sealant tape on male tapered pipe threads to ensure no leak.
- Do not exceed the recommended maximum torque when screwing in to the male or female thread of CUPLA for installation. It will cause damage.
- Care must be taken when installing CUPLA not to overtighten or cross thread, this can cause damage and lead to leakage. (Applies to HSU CUPLA, S210 CUPLA)
- Prior to use, always perform a leak test after installing CUPLA.
- Put a designated dust cap on CUPLA after disconnection when there is a possibility of foreign matter such as dirt sticking to the seal surface.
- Always install a shut-off valve between the pressure source and CUPLA.
- Do not strike the tip of an automatic shut-off valve with a hammer or a similar tool. It will cause leakage or malfunction. However, if you need to relieve residual pressure, please consult us.
- Do not use with any fluid or medium other than what is specified, to do so could cause leakage or damage. Do not use 280 CUPLA with water-glycol operating oil. The plating will dissolve.
- Use it in the state that the fluid does not freeze in the case of water. If it freezes, it will cause damage to CUPLA.
- The use of inline filters is strongly advised and recommended. To prevent damage, the fluid should be clean before reaching CUPLA.
- Design and keep the fluid flow speed through CUPLA below 8 m/s. It will cause damage to the valve if used at 8 m/s or over.
- Do not use CUPLA in areas or environment where dust such as sand or metal powder can get in to CUPLA. It will lead to malfunction or leakage.
- Do not let paint stick to CUPLA. It will cause malfunction or leakage.
- Be careful not to put scratches or dents on CUPLA. Scratches on the sealing parts will cause leakage. Especially, be careful about the seating surface of HSP CUPLA with male parallel thread with 30° flare.
- Do not apply any artificial impact, bend or tension. It will cause leakage or damage.
- Do not drop CUPLA. It will cause leakage or malfunction. If a FLAT FACE CUPLA FF plug is dropped, there is a possibility that the valve may open, to re-set, connect the Socket to the Plug and disconnect, the valve will return to its original position.
- Connecting CUPLA directly to vibrating or impacting equipment will result in reduced lifetime.
- Use only as quick connect couplings for fluid pipelines. (It cannot be used as a swivel joint)
- When using O-Ring seals for GP Type or GS Type of HSP CUPLA, use the O-Ring size described on the "Instruction manual" enclosed with the product.
- Due to the metal-touch valve structure, 450B CUPLA and 700R CUPLA will slightly leak when not coupled.

* Contact us when using CUPLA for high pressure gases.

MULTI CUPLA Series

Overall MULTI CUPLA

⚠ Caution

- Prior to use, check the compatibility of the seal material and body material against the temperature and the fluid to be used. Selecting the wrong seal material will lead to leakage.
  As to the use of any special paint or solvent, make thoroughly sure of the material compatibility.
- Only use CUPLA that are within their rated temperature range. Otherwise this can lead to leakage through seal deterioration or damage. It cannot be used continuously at its lowest or highest rated working temperature.
- The durability of CUPLA differs depending on the operating environment and conditions (pressure and temperature etc.). If necessary, conduct performance evaluation test under your actual operating environment and conditions.
  Also, stress corrosion cracking may occur if used under corrosive environment. Take note of usage conditions.
- When cleaning CUPLA, care must be taken not to use any material that will affect the seal and body materials.
- Apply a fluoropolymer resin sealant tape on male tapered pipe threads to ensure no leak. (Applies to Snap ring mount Type, MAM Type, MAM-A Type, MAM-B Type)
- Do not exceed the recommended maximum torque when screwing in to the male or female thread of CUPLA for installation. It will cause damage.
- Prior to use, always perform a leak test after installing CUPLA.
- Always install a shut-off valve between the pressure source and CUPLA.
- Do not use with any fluid or medium other than what is specified, to do so could cause leakage or damage.
- The use of inline filters is strongly advised and recommended. To prevent damage, the fluid should be clean before reaching CUPLA.
- Do not use CUPLA in areas or environment where dust such as sand or metal powder can get in to CUPLA. It will lead to malfunction or leakage.
- Do not let paint stick to CUPLA. It will cause malfunction or leakage.
- Be careful not to put scratches or dents on CUPLA. Scratches on the sealing parts will cause leakage.
- Do not apply any artificial impact, bend or tension. It will cause leakage or damage.
- Connecting CUPLA directly to vibrating or impacting equipment will result in reduced lifetime.
- Use only as quick connect couplings for fluid pipelines.
- Only use CUPLA in a combination with NITTO KOHKI coupling "CUPLA".

MAM Type

⚠ Warning

- Do not connect/disconnect with fluid still under dynamic pressure or static residual pressure exceeding the maximum working pressure. It will cause damage to CUPLA.
- Do not drop MULTI CUPLA. It will cause deformation of the plate.

⚠ Caution

- Do not use CUPLA continuously exceeding the rated working pressure. It will cause leakage or damage.
- Make sure that O-rings and Packing seals are lubricated with grease or oil at all times. If not, the O-rings will get damaged and cause leakage.
- Do not deform the stop ring when installing CUPLA. If the stop ring is widened, it may come off from its groove and lead to poor connection or damage of CUPLA. Also change the stop ring with a new one when replacing CUPLA.
- Install hoses symmetrically from the locking unit when they are connected to CUPLA in order to distribute the reaction force evenly. Failure to do so will lead to breakage.
- Connect after making sure that the lever is in the "connect" position. It will not connect if it is not in the "connect" position.
- Do not force turning the lever. It will cause breakage.
- Do not disassemble CUPLA. It will cause leakage or damage.

MAM-A Type / MAM-B Type

⚠ Warning

- Do not connect or disconnect CUPLA while they are pressurized or residual pressure of more than 0.6 MPa remains. It will cause damage to CUPLA.
- Do not use CUPLA continuously exceeding the rated working pressure. It will cause leakage or damage.
- Do not drop MULTI CUPLA. It will cause deformation of the plate.

⚠ Caution

- Make sure that O-rings and Packing seals are lubricated with grease or oil at all times. If not, the O-rings will get damaged and cause leakage.
- Install the C type retaining ring by using a pair of snap ring pliers. If the C type retaining rings are expanded too much, it will come off from its groove and lead to poor connection or breakage. Also change the retaining ring with a new one when replacing CUPLA.
- Install hoses symmetrically from the locking unit when they are connected to CUPLA in order to distribute the reaction force evenly. Failure to do so will lead to breakage.
- Connect after making sure that the lever is in the "connect" position. It will not connect if it is not in the "connect" position.
- Do not force turning the lever. It will cause breakage.
- Do not strike the tip of an automatic shut-off valve with a hammer or a similar tool. It will cause leakage or malfunction.
- Use it in the state that the fluid does not freeze in the case of water. If it freezes, it will cause damage to CUPLA.
- Design and keep the fluid flow speed through CUPLA below 8 m/s. It will cause damage to the valve if used at 8 m/s or over.
- Do not disassemble CUPLA. It will cause leakage or damage.

⚠ Precautions Relating to the Use of All CUPLA products

Be sure to read the "Instruction Sheet" that comes with the product or "Caution" on the package before use.

MULTI CUPLA Series

MAS Type / MAT Type

⚠ Warning

- Do not apply pressure to CUPLA socket or plug while they are disconnected. It will cause leakage or damage.
- Do not use CUPLA continuously exceeding the rated working pressure. It will cause leakage or damage.

⚠ Caution

- Make sure that O-rings and Packing seals are lubricated with grease or oil at all times. If not, the O-rings will get damaged and cause leakage.
- Keep the center axis eccentricity of the Socket and Plug within 0.6 mm diameter. Failure to do so will lead to leakage or breakage.
- Install the C type retaining ring by using a pair of snap ring pliers. If the C type retaining rings are expanded too much, it will come off from its groove and lead to poor connection or breakage. Also change the retaining ring with a new one when replacing CUPLA. (Applies to MAS Type CUPLA)
- Care must be taken when installing CUPLA not to overtighten or cross thread, this can cause damage and lead to leakage.
- When connecting, connect socket and plug together tightly without a gap. If the gap exceeds 0.5 mm the flow will be reduced.
- For the load required to maintain connection when CUPLA is connected, see the page in this catalog where MAS Type / MAT Type is described. Connection exceeding the maximum acceptable load will cause breakage. Connecting below the minimum load required to maintain connection will result in reduced flow.
- Do not connect/disconnect with fluid still under dynamic pressure or static residual pressure. It will cause damage to the valve.
- Do not strike the tip of an automatic shut-off valve with a hammer or a similar tool. It will cause leakage or malfunction.
- Use it in the state that the fluid does not freeze in the case of water. If it freezes, it will cause damage to CUPLA.
- Design and keep the fluid flow speed through CUPLA below 8 m/s. It will cause damage to the valve if used at 8 m/s or over.
- Do not drop CUPLA. It will cause leakage or malfunction.
- Do not disassemble CUPLA. It will cause leakage or damage.

MALC-01 Type

⚠ Caution

- Do not use CUPLA continuously exceeding the rated working pressure. It will cause leakage or damage.
- Keep the center axis eccentricity of the Socket, Plug and/or hole in the plate within 2 mm diameter. Failure to do so will lead to leakage or breakage. For the dimensions of end configurations for processing on plates, see the page in this catalog where MALC-01 Type is described.
- Obliquity of socket and plug must be within 0.5 degrees during connection or disconnection. If installed exceeding 0.5 degrees, it will cause leakage or damage.
- When connecting, connect socket and plug together tightly without a gap. However, it can be used even when the gap is 0.5 mm. If the gap exceeds 0.5 mm the flow will be reduced.
- For the load required to maintain connection when CUPLA is connected, see the page in this catalog where MALC-01 Type is described. Connection exceeding the maximum acceptable load will cause breakage. Connecting below the minimum load required to maintain connection will result in reduced flow.
- When using water, judge whether CUPLA can be used or not by conducting a performance evaluation test under your actual operating environment and conditions. Leakage may occur according to rust or foreign matter in the piping or solidified minerals. Use it in the state that the fluid does not freeze in the case of water. If it freezes, it will cause damage to CUPLA.
- Design and keep the fluid flow speed through CUPLA below 8 m/s. It will cause damage to the valve if used at 8 m/s or over.
- Do not drop CUPLA. It will cause leakage or malfunction.
- Do not disassemble CUPLA. It will cause leakage or damage.

MALC-SP Type / MALC-HSP Type

⚠ Danger

- Do not use uncoupled socket or plug continuously exceeding its rated working pressure. It will cause leakage or damage. (Applies to MALC Type CUPLA)

⚠ Warning

- Do not use CUPLA continuously exceeding the rated working pressure. It will cause leakage or damage.
- Do not disassemble CUPLA. It will cause leakage or damage.

⚠ Caution

- Keep the center axis eccentricity of the Socket and Plug within 2 mm diameter. Failure to do so will lead to leakage or breakage.
- Obliquity of socket and plug must be within 0.5 degrees during connection or disconnection. If installed exceeding 0.5 degrees, it will cause leakage or damage.
- Install the C type retaining ring by using a pair of snap ring pliers. If the C type retaining rings are expanded too much, it will come off from its groove and lead to poor connection or breakage. Also change the retaining ring with a new one when replacing CUPLA. (Applies to Snap ring mount Type)
- Care must be taken when installing CUPLA not to overtighten or cross thread, this can cause damage and lead to leakage. (Applies to MALC-SP Type CUPLA)
- When connecting, connect socket and plug together tightly without a gap. However, it can be used even when the gap is 0.5 mm. If the gap exceeds 0.5 mm the flow will be reduced.
- For the load required to maintain connection when CUPLA is connected, see the page in this catalog where MALC-SP Type or MALC-HSP Type is described. Connection exceeding the maximum acceptable load will cause breakage. Connecting below the minimum load required to maintain connection will result in reduced flow.
- Do not strike the tip of an automatic shut-off valve with a hammer or a similar tool. It will cause leakage or malfunction.
- Use it in the state that the fluid does not freeze in the case of water. If it freezes, it will cause damage to CUPLA.
- Design and keep the fluid flow speed through CUPLA below 8 m/s. It will cause damage to the valve if used at 8 m/s or over.
- Do not drop CUPLA. It will cause leakage or malfunction.

SEMICON CUPLA Series

⚠ Warning

- Do not apply pressure to CUPLA socket or plug while they are disconnected. It will cause leakage or damage.
- Prior to use, check the compatibility of the seal material and body material against the temperature and the fluid to be used. Selecting the wrong seal material will lead to leakage. (The "Seal Material Selection Table" and "Body Material Selection Table" described in our product catalog is for reference only.)
- Do not use CUPLA continuously exceeding the rated working pressure. It will cause leakage or damage.
- Only use CUPLA that are within their rated temperature range. Otherwise this can lead to leakage through seal deterioration or damage. It cannot be used continuously at its lowest or highest rated working temperature.
- When using hazardous fluids, always wear protective clothing which are suitable for the fluid being used and will protect the whole body. Any spillage or leakage should be dealt with by an expert in that product.
- Do not connect/disconnect with fluid still under dynamic pressure or static residual pressure. It will cause damage to the valve.
- When using pressure tanks, connect/disconnect as follows:
  Connection: Connect CUPLA on the nitrogen gas side first, and then reduce the nitrogen gas pressure to ambient pressure. Only after then, connect CUPLA on the liquid side.
  Disconnection: Reduce the nitrogen gas pressure to ambient pressure, and confirm that the internal pressure has become ambient pressure. Only after then, disconnect CUPLA on the liquid side.
- Do not strike the tip of an automatic shut-off valve with a hammer or a similar tool. It will cause leakage or malfunction. However, if you need to relieve residual pressure, please consult us.

⚠ Caution

- The durability of CUPLA differs depending on the operating environment and conditions (pressure and temperature etc.). If necessary, conduct performance evaluation test under your actual operating environment and conditions. Also, stress corrosion cracking may occur if used under corrosive environment. Take note of usage conditions. O-rings are consumable items. Replace them periodically.
- If necessary, conduct an elution test and confirm the suitability of the material.
- When cleaning CUPLA, care must be taken not to use any material that will affect the seal and body materials.
- Apply a fluoropolymer resin sealant tape on male tapered pipe threads to ensure no leak.
- Do not exceed the recommended maximum torque when screwing in to the male or female thread of CUPLA for installation. It will cause damage. (Applies to SP Type, SCS Type, SCY Type)
- Care must be taken when installing CUPLA not to overtighten or cross thread, this can cause damage and lead to leakage. (Applies to SP Type, SCS Type, SCY Type)
- When installing SCT Type or SCAL Type CUPLA, firstly apply a fluoropolymer resin sealant tape on the male tapered pipe thread and tighten firmly by hand. Then, additionally tighten with a wrench by turning it 1 3/4 to 2 turns. At this time, overtightening will damage the thread and cause leakage, so be careful.
- Do not use anything other than the applicable tube sizes. It will cause leakage.
- Contact us if detail dimensions of the fixing part is required, such as 19/32-18UNS (for SP Type or SCS Type) or application shape for plugs of SCF Type CUPLA.
- Prior to use, always perform a leak test after installing CUPLA.
- For the purpose of reducing the insertion load on connection and to prevent O-ring from damage, apply pure water or a lubricant that is suitable for the operational environment to the Plug tip and sealing surface. (Applies to SP Type, SCS Type)
- After connection, try to pull the socket and plug apart to confirm secure connection. If the connection is incomplete, the socket and plug may disconnect when pressurized.
- For fluoropolymer resin CUPLA, continuous use under dynamic pressure will result in reduced performance. To extend lifetime, it is recommended to be kept unpressurized unless it is necessary.
- Since the bellows of the SCAL Type CUPLA Socket is made of polytetrafluoroethylene (PTFE), a small amount of gas will escape.
- When using for hazardous fluids, discharge all the fluid inside CUPLA with nitrogen gas, etc., before disconnecting. If disconnected without discharging the fluid, a small amount of fluid will spill out.
- Always mount a designated dust cap after disconnection. Any foreign matter adhering to the sealing surface will cause leakage.
- Always install a shut-off valve between the pressure source and CUPLA.
- The use of inline filters is strongly advised and recommended. To prevent damage, the fluid should be clean before reaching CUPLA.
- Design and keep the fluid flow speed through CUPLA below 8 m/s. It will cause damage to the valve if used at 8 m/s or over.
- Do not use CUPLA in areas or environment where dust such as sand or metal powder can get in to CUPLA. It will lead to malfunction or leakage.
- Do not let paint stick to CUPLA. It will cause malfunction or leakage.
- Be careful not to put scratches or dents on CUPLA. Scratches on the sealing parts will cause leakage. Especially, CUPLA made of flucropolymer resin are deformed easily, so be careful.

Safety Guide

⚠ Precautions Relating to the Use of All CUPLA products

Be sure to read the "Instruction Sheet" that comes with the product or "Caution" on the package before use.

SEMICON CUPLA Series

⚠ Caution

- Do not apply any artificial impact, bend or tension. It will cause leakage or damage.
- Do not drop CUPLA. It will cause leakage or malfunction.
- Connecting CUPLA directly to vibrating or impacting equipment will result in reduced lifetime.
- Use only as quick connect couplings for fluid pipelines. (It cannot be used as a swivel joint)
- Do not disassemble CUPLA. It will cause leakage or damage.
- Check CUPLA regularly. Stop using immediately if anything unusual is found on CUPLA.

CUPLA for Inert Gas

⚠ Warning

- Do not apply pressure to CUPLA socket or plug while they are disconnected. It will cause leakage or damage. (Applies to SP-V CUPLA)
- Do not use CUPLA continuously exceeding the rated working pressure. It will cause leakage or damage.
- The fluid in the piping will spill out upon disconnection. Take extra care when using at places where it is liable to cause anoxia. (Applies to PCV PIPE CUPLA)

⚠ Caution

- Prior to use, check the compatibility of the seal material and body material against the temperature and the fluid to be used. Selecting the wrong seal material will lead to leakage.
- Only use CUPLA that are within their rated temperature range. Otherwise this can lead to leakage through seal deterioration or damage. It cannot be used continuously at its lowest or highest rated working temperature.
- The durability of CUPLA differs depending on the operating environment and conditions (pressure and temperature etc.). If necessary, conduct performance evaluation test under your actual operating environment and conditions. Also, stress corrosion cracking may occur if used under corrosive environment. Take note of usage conditions. For PCV PIPE CUPLA, replace it with a new one after connection/disconnection of 5000 times as an approximate guide.
- When cleaning CUPLA, care must be taken not to use any material that will affect the seal and body materials.
- Apply thread sealants on male tapered pipe threads to ensure no leak.
- Do not exceed the recommended maximum torque when screwing in to the male or female thread of CUPLA for installation. It will cause damage.
- Care must be taken when installing CUPLA not to overtighten or cross thread, this can cause damage and lead to leakage. (Applies to SP-V CUPLA Body material: Stainless steel)
- Prior to use, always perform a leak test after installing CUPLA.
- Make sure that O-rings are lubricated with grease at all times. If not, the O-rings will get damaged and cause leakage. (Applies to SP-V CUPLA seal materials:)
- For the purpose of reducing the insertion load on connection and to prevent O-ring from damage, apply a lubricant that is suitable for the operational environment to the Plug tip and sealing surface. (Applies to SP-V CUPLA Seal material: HNBR)
- Do not use pipe sizes other than the suitable sizes. It will cause leakage. Contact us if required to use Aluminum alloy pipes. (Applies to PCV PIPE CUPLA)
- Chamfer the edge of the copper pipe to be used. If not chamfered, it will damage the packing and cause leakage. Do not use pipes with deformation or burrs. It will lead to leakage or poor connection. (Applies to PCV PIPE CUPLA)
- When connecting copper pipes, push down the lever only after confirming that the end of the copper pipe is pressed against the packing inside CUPLA. At this time, be careful not to get fingers caught. (Applies to PCV PIPE CUPLA)
- After connection, try to pull the socket and plug apart or CUPLA and pipe apart to confirm secure connection. If the connection is incomplete, the socket and plug may disconnect when pressurized.
- Do not disconnect with fluid still under dynamic pressure or static residual pressure. (Applies to PCV PIPE CUPLA)
- Contact us if it is required to connect/disconnect SP-V CUPLA under dynamic pressure or static residual pressure.
- When connected with the copper pipe, do not rotate the pipe. It will damage the packing and cause leakage. (Applies to PCV PIPE CUPLA)
- Put a designated dust cap on CUPLA after disconnection when there is a possibility of foreign matter such as dirt sticking to the seal surface. (Applies to SP-V CUPLA)
- When disconnected, store CUPLA with the lever in the 'Open' position. (Applies to PCV PIPE CUPLA)
- Always install a shut-off valve between the pressure source and CUPLA.
- Do not strike the tip of an automatic shut-off valve with a hammer or a similar tool. It will cause leakage or malfunction. (Applies to SP-V CUPLA) However, if you need to relieve residual pressure, please consult us.
- Do not use with any fluid or medium other than what is specified, to do so could cause leakage or damage.
- The use of inline filters is strongly advised and recommended. To prevent damage, the fluid should be clean before reaching CUPLA.
- Do not use CUPLA in areas or environment where dust such as sand or metal powder can get in to CUPLA. It will lead to malfunction or leakage.
- Do not let paint stick to CUPLA. It will cause malfunction or leakage.
- Be careful not to put scratches or dents on CUPLA. Especially, scratches on the sealing parts will cause leakage.
- Do not apply any artificial impact, bend or tension. It will cause leakage or damage.
- Do not drop CUPLA. It will cause leakage or malfunction.
- Connecting CUPLA directly to vibrating or impacting equipment will result in reduced lifetime.
- Stop using CUPLA if the lever is deformed. (Applies to PCV PIPE CUPLA)
- Ensure that any copper residue or swarf that has adhered to the inside of CUPLA is removed after use. (Applies to PCV PIPE CUPLA)
- Use only as quick connect couplings for fluid pipelines. (It cannot be used as a swivel joint) (Applies to SP-V CUPLA)
- Only use CUPLA in a combination with NITTO KOHKI coupling "CUPLA". (Applies to SP-V CUPLA)
- Do not disassemble CUPLA. It will cause leakage or damage.

PAINT CUPLA

⚠ Warning

- Make sure that a hose containing a ground wire is connected to a ground. Insufficient grounding will lead to fire or dangerous explosion caused by possible sparks of static electricity.
- Wear appropriate clothes and protective equipment such as safety glasses, face guard and gloves at all times. Otherwise it could be potentialy hazardous when paint or solvent splashes on to operators.

⚠ Caution

- This CUPLA is designed for paints diluted by solvents. Do not use this CUPLA for any other applications such as Powder coating, Electrostatic coating or Electrodeposition coating. The seal material will deteriorate and cause leakage. As to the use of any special paint or solvent, make thoroughly sure of the material compatibility.
- Do not use CUPLA continuously exceeding the rated working pressure. It will cause leakage or damage.
- Only use CUPLA that are within their rated temperature range. Otherwise this can lead to leakage through seal deterioration or damage. It cannot be used continuously at its lowest or highest rated working temperature.
- The durability of CUPLA differs depending on the operating environment and conditions (pressure and temperature etc.). If necessary, conduct performance evaluation test under your actual operating environment and conditions. Also, stress corrosion cracking may occur if used under corrosive environment. Take note of usage conditions.
- Do not exceed the recommended maximum torque when screwing in to the male or female thread of CUPLA for installation. It will cause damage.
- Prior to use, always perform a leak test after installing CUPLA.
- After connection, try to pull the socket and plug apart to confirm secure connection. If the connection is incomplete, the socket and plug may disconnect when pressurized.
- The fluid in the piping of the plug side will spill out upon disconnection. Be careful so that it will not contact the human body.
- Clean CUPLA each time after use. Otherwise paint will dry out and will cause malfunction, insufficient color mix or poor grounding. When cleaning CUPLA, care must be taken not to use any material that will affect the seal and body materials.
- When cleaning, do not try to open the valve by inserting something except the plug into the socket. It will cause leakage.
- Always install a shut-off valve between the pressure source and CUPLA.
- The use of inline filters is strongly advised and recommended. To prevent damage, the fluid should be clean before reaching CUPLA.
- Always let fluid flow from socket to plug.
- Do not use CUPLA in areas or environment where dust such as sand or metal powder can get in to CUPLA. It will lead to malfunction or leakage.
- Be careful not to put scratches or dents on CUPLA. Especially, scratches on the sealing parts will cause leakage.
- Do not apply any artificial impact, bend or tension. It will cause leakage or damage.
- Do not drop CUPLA. It will cause leakage or malfunction.
- Connecting CUPLA directly to vibrating or impacting equipment will result in reduced lifetime.
- Use only as quick connect couplings for fluid pipelines. (It cannot be used as a swivel joint)
- Only use CUPLA in a combination with NITTO KOHKI coupling "CUPLA".
- Do not disassemble CUPLA. It will cause leakage or damage.

⚠ Precautions Relating to the Use of All CUPLA products

Be sure to read the "Instruction Sheet" that comes with the product or "Caution" on the package before use.

HYGIENIC CUPLA

⚠ Warning

- Any residual fluid remaining in the passage will spill out on disconnection. Drain any residual fluid before disconnection to avoid burns or injury to the skin when dangerous fluid such as chemical agent or high temperature fluid is used. If the fluid comes into contact with the skin, stop the disconnecting work and consult a doctor if necessary.

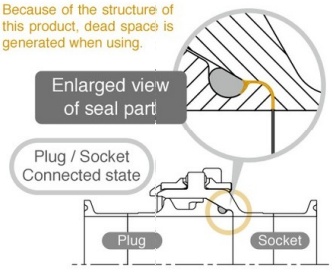
⚠ Caution

Observe the cautions below. If not observed, it could result in burns, injury to the skin, damage to the product or other machinery when dangerous fluid such as chemical agent or high temperature fluid is used. Stop using CUPLA immediately if this happens.

- CUPLA can be easily disassembled for cleaning. CUPLA should be evaluated before use to determine the suitability with regard to sanitation and safety. Especially when using O-rings of other brands than Nitto Kohki, be sure to evaluate the O-ring at your end.
- Prior to use, check the compatibility of the seal material and body material against the temperature and the fluid to be used. Selecting the wrong seal material will lead to leakage.
- Do not use CUPLA continuously under any pressure exceeding the rated working pressure. This may cause leakage or damage.
- Use only within range of its rated temperature. May cause damage or deterioration to the sealing and leak if used otherwise. Also, do not use continuously at the lowest or highest working temperature.
- The durability of CUPLA differs depending on the operating environment and conditions (pressure and temperature etc.). If necessary, conduct performance evaluation test under your actual operating environment and conditions.
- When assembling, disassembling and washing, do not drop the disassembled parts, or put scratches on the sealing surface. It will cause malfunction or leakage.
- When washing, do not deform the lock plate by applying excessive force. It will cause bad connection.
- When assembling or disassembling, do not put scratches on the O-ring. Also do not attach the O-ring in a twisted state. It will cause leakage.
- When welding to CUPLA, do so with CUPLA in disassembled state. Welding in assembled state will deform the parts or damage the O-ring and cause leakage.
- The outer diameter and thickness of the pipe to be welded to CUPLA must conform to JIS G 3447.
- After welding to CUPLA, please polish the welded part. (Surface roughness Ra ≦1.0 μm recommended for the liquid contact parts. Surface roughness on the weld line should not exceed Ry=16 μm.)
- If it is not polished or if the surface roughness becomes rougher than the recommended value, it may potentially cause the spread of bacteria.
- Malfunction caused by welding (directly or otherwise) is not included in the warranty.
- For the ferrule type, please use ferrule couplings conforming to IDF / ISO 2852.
- Prior to use, always perform a leak test after installing CUPLA.
- When a high temperature fluid is applied to CUPLA, be careful in handling CUPLA as it also becomes hot. If CUPLA is used in a high temperature atmosphere, the cam handle may not rotate smoothly. In such case, please apply water, etc. to the part where the cam handle and the lock plate ASSY is in contact.
- When powder is applied to CUPLA, static electricity may be generated. Please take countermeasure against this if required.
- When CUPLA remains connected for long periods of time, it may become difficult to disassemble. In this case, do not forcefully turn the socket and plug to disconnect as this may damage the seal material and cause leakage.
- Do not disconnect with fluid still under dynamic pressure or static residual pressure.
- Do not drop CUPLA. It will cause leakage or malfunction.
- Always install a shut-off valve between the pressure source and CUPLA.
- Do not apply any artificial impact, bend or tension. It will cause leakage or damage.
- Connecting CUPLA directly to vibrating or impacting equipment will result in reduced lifetime.
- Use only as quick connect couplings for fluid pipelines.
- Only use CUPLA in a combination with NITTO KOHKI coupling "CUPLA".
- Check CUPLA regularly. Stop using immediately if anything unusual is found on CUPLA.
- When storing CUPLA, remove the O-ring from the plug. Otherwise, it may become difficult to remove due to adsorption.
- Before using CUPLA, disassemble and clean it in the way that is appropriate to your usage conditions and not affecting the seal material and body material.

Seal part (cross section)

Because of the structure of this product, dead space is generated when using.



- The O-ring and Lock plate ASSY are consumable items.
- Please replace the Lock plate ASSY at approximately 1,000 times connections / disconnections.
- When the Lock plate ASSY is deformed, replace it with a new one regardless of connection/disconnection times.
- The durability of the O-ring differs depending on the operating environment and conditions (pressure and temperature etc.).

SEMI-STANDARD CUPLA Series

Contact us separately for detail cautions for the SEMI-STANDARD CUPLA series.

Maintenance of CUPLA

CUPLA should be inspected periodically to ensure safe operation and to prevent them from a performance drop or malfunction. If there is a malfunction in CUPLA or wear and tear, please replace it with a new one. If you have any concerns, contact Nitto Kohki or the distributor from whom you purchased your CUPLA.

O-ring Replacement Procedure

The internal O-ring is a consumable item. If the O-ring in the socket has failure such as wear and tear or deterioration, take the following steps to replace it with a new one. Always use genuine Nitto Kohki O-rings.

Accessories for O-ring maintenance

Grease for O-ring

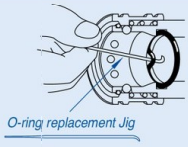
GRE-M1 (Mineral grease) for NBR and FKM
GRE-HC1 (Hydrocarbon grease) for NBR and FKM
GRE-S1 (Silicone grease) for NBR, FKM, and EPDM
GRE-S2 (Silicone grease) for NBR, FKM, and EPDM (NSF H1, NSF 61 registered product)

O-ring replacement Jig

How to Remove the O-ring

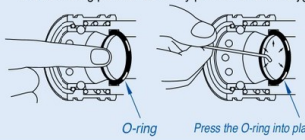
❶ Use an optional O-ring replacement Jig to remove the O-ring. Be careful not to damage the groove of O-ring with the jig. Used O-rings with wear and tear or deterioration can be removed easily with the jig.

❷ After removing the O-ring, wipe the groove clean with a cloth.



How to Install a New O-ring

❶ After making sure that no dust or foreign matter exists in the groove of O-ring, push in part of the O-ring and the remaining part can be easily pressed in with the jig.



❷ HSP CUPLA has a backup ring. Insert an O-ring in the place as shown in the figure. If CUPLA connection/disconnection is hard and not smooth after the O-ring has been replaced, apply a little grease to the O-ring.

⚠ Caution for Storing CUPLA

- Store CUPLA in a place where no dust or foreign matter gets in. If fluid flows while the dust or foreign matter is present inside CUPLA, the dust or foreign matter may go into the equipment connected to CUPLA and may cause malfunction.
- Store CUPLA indoors away from water or moisture.
- Store CUPLA in a shaded, dry and well-ventilated place.
- Do not to drop CUPLA. It will deform or damage CUPLA.
- If CUPLA are stored or not being used for a long period of time, check their appearance, function and performance before use.

CUPLA

Quick Connect Couplings

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