



JQA-EM4057  
NITTO KOHKI Co.,LTD.  
Headquarters  
Research Center



JQA-2025  
NITTO KOHKI Co.,LTD.  
Couplings Division



Responding to  
Green Procurement

Environmentally Conscious Products

Cat.No. **C-026**

**For gases and liquids**

**NEW**

**SP CUPLA**

**TYPE A**

**SP CUPLA - Totally redesigned !**

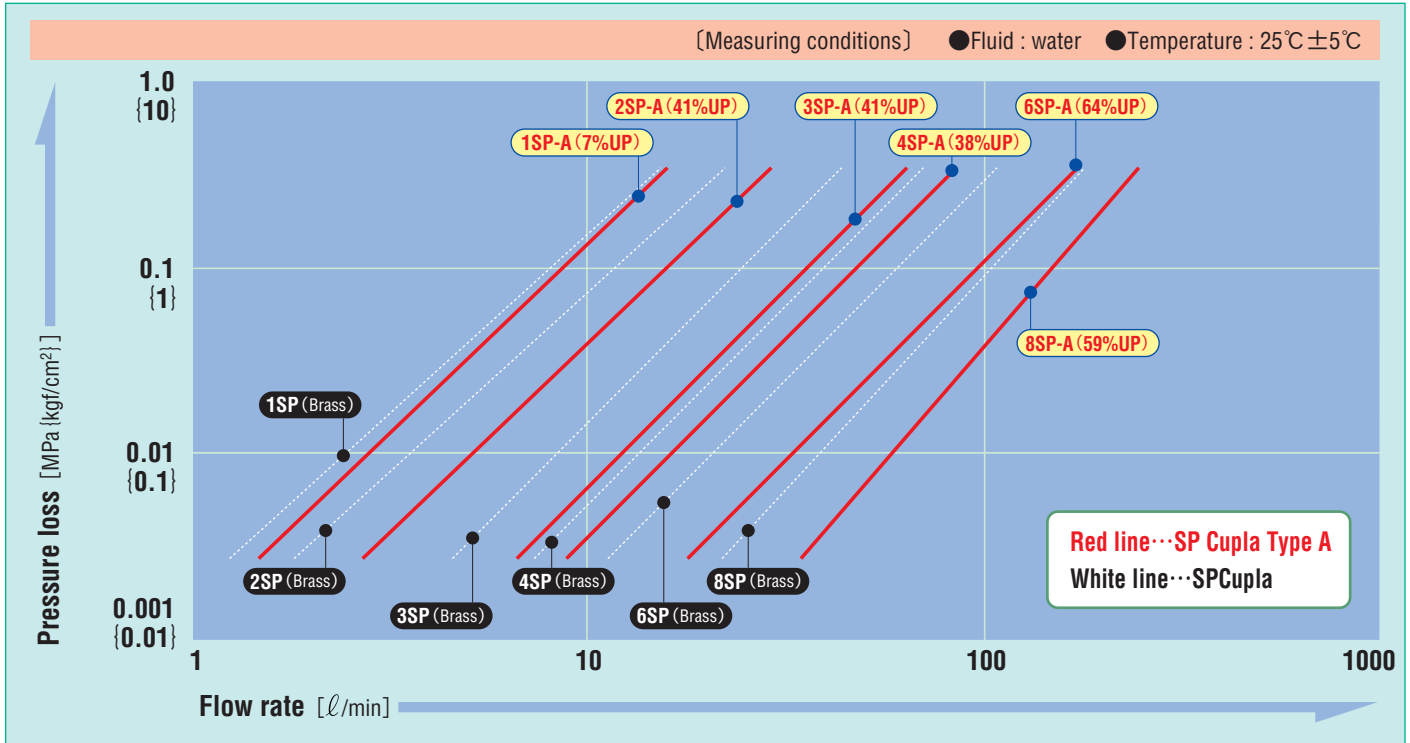
Flow has been increased up to 60% for Model 6SP.



# SP CUPLA has been recreated with new features.

## Increased flow volume ratio

Compared with conventional SP Cupla, flow volume has been increased up to 7% (for Model 1SP) and up to 64% (for Model 6SP). See chart for the details.



## Flow Rate Characteristics

Flow increase ratio to conventional SP CUPLA when SP CUPLA Type A and conventional SP CUPLA are connected.

Model	Flow increase ratio to conventional SP CUPLA when SP CUPLA Type A and conventional SP CUPLA are connected.	
	SP Type A is located upstream side.	SP Type A is located downstream side.
1SP	0%	7% UP
2SP	18% UP	18% UP
3SP	8% UP	12% UP
4SP	17% UP	8% UP
6SP	28% UP	20% UP
8SP	25% UP	9% UP

## New valve assembly provides better seal.

Thanks to the newly designed shape of the valve head, the valve returns automatically and smoothly to its original position when a socket and plug are disconnected. This structure enhances safety by sealing the flow passage of individual sockets and plugs.



## Smooth and immediate connection

The newly designed shape of the plug body enables smooth and immediate connection.



## Adoption of Stainless Steel 304

Stainless steel 304 has been adopted as the standard body material of stainless steel type CUPLA.

## Interchangeability

There is interchangeability between the SP Type A and conventional SP type. No interchangeability between sizes.

## Sleeve stopper (Optional)

A new sleeve stopper securely prevents unexpected and improper disconnection. (See the last page.)

## Products in response to Green Procurement

Environmentally friendly nickel plating is applied for the surface treatment of the steel body and internal steel components.

# SP CUPLA TYPE A SERIES



Stainless steel

Brass

Steel

Specifications (SUS316 is available as option.)				
Body material	Brass		Stainless steel • Steel (nickel plating)	
Size	1/8"•1/4" 3/8"	1/2"•3/4" 1"	1/8"•1/4" 3/8"	1/2"•3/4" 1"
Working pressure MPa (kgf/cm <sup>2</sup> )	5.0 (51)	3.0 (31)	7.5 (76)	4.5 (46)
Pressure resistance MPa (kgf/cm <sup>2</sup> )	7.5 (76)	4.5 (46)	10.0 (102)	6.5 (66)
Packing material, Working temperature range	Packing material	Nitto symbol	Working temp	Remarks
	Nitrile rubber	NBR (SG)	-20°C~+80°C	Standard material
	Fluoro rubber	FKM (X-100)	-20°C~+180°C	
	Perfluoroelastomer	P	0°C~+50°C	Semi-standard item
Ethylene-Propylene rubber	EPDM (EPT)	-40°C~+150°C		

Max. Tightening Torque N • m {kgf • cm}							
Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	
Torque	Steel	9 (92)	14 (143)	22 (224)	60 (612)	90 (918)	120 (1224)
	Brass	5 (51)	9 (92)	12 (122)	30 (306)	50 (510)	65 (663)
	Stainless steel	9 (92)	14 (143)	22 (224)	60 (612)	90 (918)	120 (1224)

**Fluid flow direction**

Fluid flows in either direction from plug or socket.

**Interchangeability**

Different sizes are not interchangeable.

- Interchangeable with conventional SP CUPLA in same size.

## Models and Dimension Tables

Plug		For male thread connection						
Model	Application	Mass (g)			Dimensions (mm)			
		Steel	Brass	Stainless steel	Lp	C	Hp	T
1P-A	R 1/8	17	19	17	29	19	Hex 14	Rc 1/8
2P-A	R 1/4	32	34	32	36	22	Hex 17	Rc 1/4
3P-A	R 3/8	56	61	56	40	25	Hex 21	Rc 3/8
4P-A	R 1/2	112	121	112	44	28	Hex 29	Rc 1/2
6P-A	R 3/4	190	205	190	52	36	Hex 35	Rc 3/4
8P-A	R 1	311	333	310	62	40	Hex 41	Rc 1

Minimum Cross-Sectional Area (mm <sup>2</sup> )						
Model	1SP	2SP	3SP	4SP	6SP	8SP
Area	14	26	51	73	178	229

Suitability for vacuum applications 1.3×10 <sup>-1</sup> Pa {1×10 <sup>-3</sup> mmHg}		
Socket only	Plug only	When connected
—	—	Available

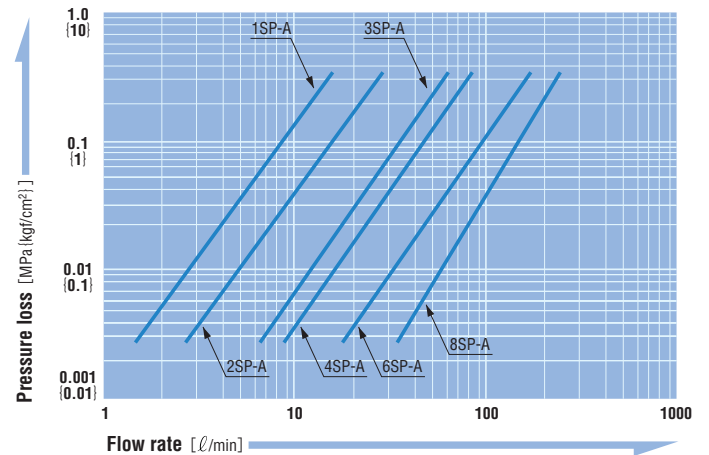
Admixture of air upon connection (mℓ)						
Model	1SP	2SP	3SP	4SP	6SP	8SP
Volume of air	0.6	1.1	2.7	3.9	11	25

Spillage upon disconnection (mℓ)						
Model	1SP	2SP	3SP	4SP	6SP	8SP
Volume of fluid	0.4	0.8	2.1	3.4	9.5	15

## Flow Rate – Pressure Loss Characteristics

(Measuring conditions) ● Fluid : water ● Temperature : 25°C ±5°C

Note that the flow rate-pressure loss characteristics are slightly different when the packing material is Perfluoroelastomer or ethylene propylene rubber.



Socket		For male thread connection						
Model	Application	Mass (g)			Dimensions (mm)			
		Steel	Brass	Stainless steel	Ls	D (OD)	Hs	T
1S-A	R 1/8	73	79	75	48	24	Flat 14	Rc 1/8
2S-A	R 1/4	119	128	130	58	28	Flat 19	Rc 1/4
3S-A	R 3/8	187	202	193	65	35	Flat 21	Rc 3/8
4S-A	R 1/2	368	397	391	72	45	Flat 29	Rc 1/2
6S-A	R 3/4	639	686	645	88	55	Flat 35	Rc 3/4
8S-A	R 1	951	1024	962	102	65	Flat 41	Rc 1

● The photos above show steel couplings. ● The appearance of stainless couplings differs slightly from that shown in the photos above.

# Accessories

The lineup of accessories shown here enables safer and more comfortable use.

●When ordering, please include the product code.

## Sleeve stopper

Mounting a sleeve stopper after connecting a coupling secures the sleeve of the socket and prevents unexpected disconnection.

Product code	Description	qty per pack	material
CB24350	Stopper for 1S	10	POM (Plastic)
CB24351	Stopper for 2S	10	
CB24352	Stopper for 3S	10	
CB24353	Stopper for 4S	10	
CB24354	Stopper for 6S	10	
CB24355	Stopper for 8S	10	



## Dust cap

A plastic (PVC) dust cap is available for both the plug and socket. This dust cap prevents dust from entering the pipe, prolongs coupling service life, and helps to avoid the trouble of leakage. It also prevents foreign matter from adhering to the O-ring.

	Product code	Application	Qty per pack		Product code	Application	Qty per pack
For plug	CA96453	For 1P-A	1	For socket	CA96462	For 1S-A	1
	CA96454	For 2P-A	1		CA96463	For 2S-A	1
	CA96455	For 3P-A	1		CA96464	For 3S-A	1
	CA96456	For 4P-A	1		CA96465	For 4S-A	1
	CA96457	For 6P-A	1		CA96466	For 6S-A	1
	CA96458	For 8P-A	1		CA96467	For 8S-A	1



## Cupla

Nitto Kohki obtained ISO14001 certification (an international standard for environmental systems) in order to comprehensively conduct our earth-conscious design and production activities, and is now making strenuous efforts for these earth-conscious activities through all our operations. As part of these activities, Nitto Kohki itself sets "Environmental impact substances" based on the RoHS directive and various regulations, and is now promoting the elimination of said substances from our products and production processes. Nickel plating is applied to the couplings listed below in place of colored zinc chromate plating, which contains hexavalent chromium, an environmental impact substance.

Cuplas changed to nickel plating for the main body and internal parts

<p>Type A <b>SP Cupla ( steel )</b> ( Air · Oil )</p>	<p><b>TSP Cupla ( steel )</b> ( Air · Oil )</p>	<p><b>HSP Cupla</b> ( Oil )</p>	<p><b>Super HSP Cupla</b> ( Oil )</p>	<p><b>Hyper HSP Cupla</b> ( Oil )</p>	<p><b>210 Cupla</b> ( Oil )</p>
<p><b>350 Cupla</b> ( Oil )</p>	<p><b>Flat Face Cupla F35</b> ( Oil )</p>	<p><b>450B Cupla</b> ( Oil )</p>	<p><b>700R Cupla</b> ( Oil )</p>	<p>■ Other Cuplas changed to nickel plating for the main body and internal parts:</p> <ul style="list-style-type: none"> <li>● SP CUPLA (Steel)</li> <li>● HSP Cupla with digital pressure gauge</li> <li>● Line Cupla MINI</li> <li>● PCV Cupla</li> <li>● Pipe Cupla</li> <li>● Custom-made Cupla</li> </ul>	

Cuplas changed to nickel plating for internal parts only

- Hi Cupla (steel)
- Hi Cupla TW type
- Anti-vibration Plug Hose
- Full-Blow Cupla
- Nut Cupla
- Rotary Nut Cupla
- Oil Cupla
- Duster Cupla
- Purge Line Cupla
- Purge Hi Cupla
- Purge Hi Cupla (PVR type)
- Rotary Line Cupla (RT/RE type)
- Line Cupla (200L/200S)
- Rotary type Full-Blow Line Cupla
- Multi Cupla (MAM type)
- 280 Cupla
- Multi Cupla (MAS/MAT type)
- Multi Cupla (MALS/MALT type)

★ Specifications and designs are subject to change at any time without notice.



**Head Office**  
9-4, Nakaikegami 2-chome,  
Ohta-ku, Tokyo 146-8555 Japan  
Phone : 03(3755)1111 Fax : 03(3753)8791

▶ E-mail : [overseas@nitto-kohki.co.jp](mailto:overseas@nitto-kohki.co.jp)  
▶ URL : <http://www.nitto-kohki.co.jp>

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