

For Food

# HYGIENIC CUPLA

## Easy Wash Type

Disassemble and wash type / For food manufacturing piping

<b>Working pressure</b> 1.0 1.0 MPa (10 kgf/cm <sup>2</sup> )	<b>Valve structure</b> Straight through	<b>Applicable fluids</b> Food, Drinking water Water Powder Air
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Solves the troubles of ferrule joints by the effortless operation unique to CUPLA. Easy disassembly and cleanability help in hygienic management of HACCP.

- It can be connected by just inserting the plug to the socket and twisting the "Safety lock".
- The "Safety lock" feature ensures that there can be no unintentional disconnection of the coupling.
- O-rings that conforms to the Food sanitation Act of Japan is adopted.
- An operator friendly design. Seal parts will not drop off during connection like conventional fittings.
- Stainless steel (JIS SUS316L equivalent) for the liquid contact parts, and finished with buffing (#400).

Smart Connect and Disconnect



**Ferrule type**  
(ISO 2852 standard)

**Welding type**  
(JIS G 3447 standard)



Specifications				
Body material	Stainless steel [ SCS16 (JIS SUS316L equivalent) ] *1			
Surface finish of the liquid-contact part	Buff finish #400			
Size of end configurations	Welding type *2		Ferrule type *3	
	1.5 S / 2.0 S			
Pressure unit	MPa	kgf/cm <sup>2</sup>	bar	PSI
Working pressure	1.0	10	10	145
Seal material *4 Working temperature range	Seal material	Mark	Working temperature range	Remarks
	Silicone rubber	SI	0°C to +110°C	Standard material
	Fluoro rubber	FKM (X-100)	0°C to +180°C	Available on request
	Ethylene-propylene rubber	EPDM (EPT)	0°C to +150°C	Available on request
O-ring size	1.5 S: P38, 2.0 S: P50 (Dimensions, tolerance: refer to JIS B 2401, Hardness: A70±5)			

\*1: All metal parts are equivalent to SUS304 except those exposed to liquid contact.  
 \*2: The dimensions of the weld zone conform to JIS G 3447 stainless steel sanitary pipe.  
 \*3: Please use ferrule couplings conforming to IDF / ISO 2852.  
 \*4: The seal material conforms to article No.3-D-3-(1) Rubber utensils (except nursing utensils) or Containers / Packages. It has passed both material and elution tests specified in the Food sanitation Act and the standards for Food and Food additives (Notice No.370 of 1959 issued by the Ministry of Health and Welfare of Japan). Conforms to standard No.21CFR 177.2600 of the US Food and Drug Administration (FDA).

**Flow Direction**

Fluid flow can be bi-directional when socket and plug are connected.

**Interchangeability**

Sockets and plugs can be connected regardless of end configurations if the size is same.

Suitability for Vacuum		Vacuum pressure: 53 kPa A
Socket only	Plug only	When connected
—	—	Operational

Vacuum performance may vary depending upon working environment and usage conditions.

**Seal part (cross section)**

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

Enlarged view of seal part

Plug / Socket Connected state

**When installing the CUPLA on the pipe**

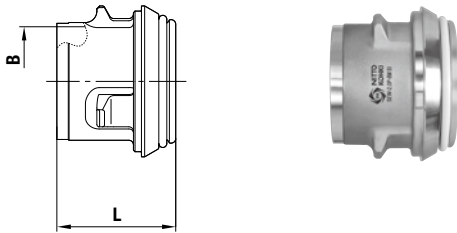
Connection and disconnection of socket and plug is enabled by sliding either the socket or plug to the central axis of pipe. When connecting the CUPLA to the pipe, ensure that there is at least minimum moving distance (L) in the axial direction.

Amount of sliding (L)  
More than 40 mm

**HACCP: Hazard Analysis and Critical Control Point**  
 HACCP is the management system in which food safety is addressed to the process from production, procurement and handling of raw materials to distribution and consumption of finished products through the analysis and control of biological, chemical and physical hazards.

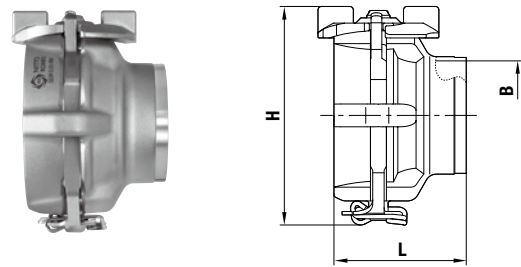
Models and Dimensions

**Plug** Welding type



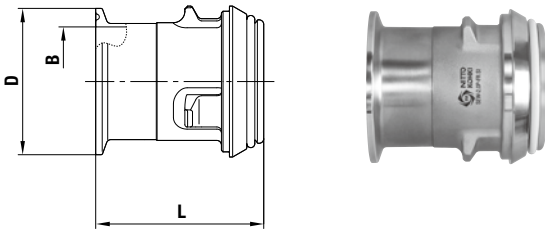
Model	Mass (g)	Dimensions (mm)	
		L	øB
SEW-1.5P-BW *	179	52	35.7
SEW-2.0P-BW *	231	52	47.8

**Socket** Welding type



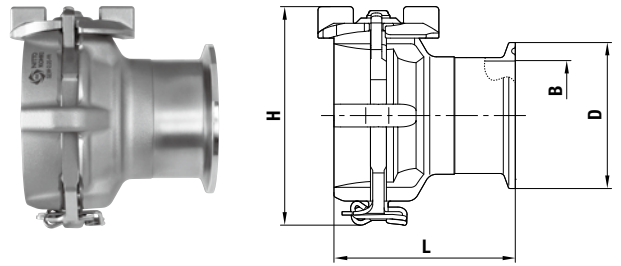
Model	Mass (g)	Dimensions (mm)		
		L	H	øB
SEW-1.5S-BW	364	58	(84)	35.7
SEW-2.0S-BW	455	58	(94)	47.8

**Plug** Ferrule type



Model	Mass (g)	Dimensions (mm)		
		L	øD	øB
SEW-1.5P-FR *	224	(73.5)	50.5	35.7
SEW-2.0P-FR *	301	(73.5)	64	47.8

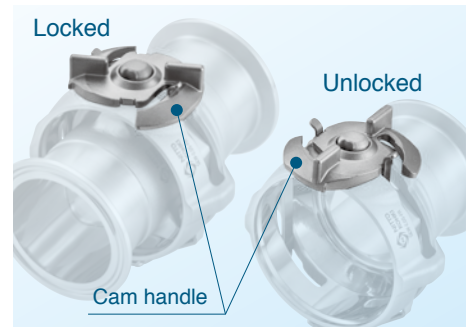
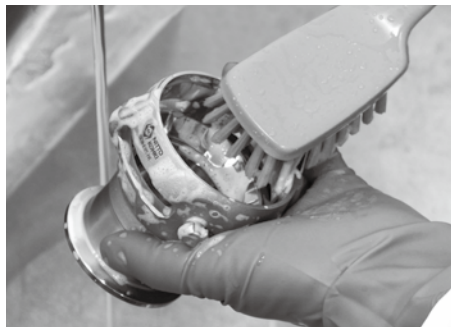
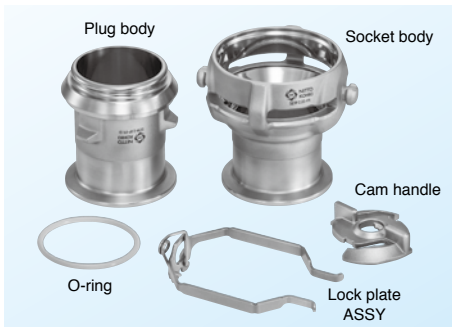
**Socket** Ferrule type



Model	Mass (g)	Dimensions (mm)			
		L	øD	H	øB
SEW-1.5S-FR	407	(79.5)	50.5	(84)	35.7
SEW-2.0S-FR	455	(79.5)	64	(94)	47.8

\* A type without seal material is also available. In such case, the model name ends with "-NP". (ex: SEW-2.0P-BW **-NP** )

Applications



**Easy assembly and disassembly**

No tools are required to disassemble / assemble HYGIENIC CUPLA. Small number of parts that are easy to handle, aiding efficient maintenance.

**Easy washing of the whole unit**

After disassembly, small number of components requires minimum effort when cleaning. No small parts to lose.

**Safety Lock function**

As a safety measure, the "Safety lock" feature ensures that there can be no unintentional disconnection of the CUPLA. By turning the cam handle, you can maintain the connected state of the socket and plug.



**Construction and Safety standards**

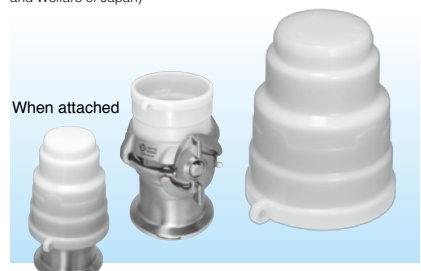
Since the O-Ring is attached beforehand, it will not drop off during connection like conventional fittings. And the seal material conforms to article No. 3-D-3-(1) Rubber utensils (except nursing utensils) or Containers / Packages. It has passed both material and elution tests specified in the Food sanitation Act and the standards for Food and Food additives (Notice No.370 of 1959 issued by the Ministry of Health and Welfare of Japan). Also conforms to standard No. 21 CFR 177.2600 of the US Food and Drug Administration (FDA).

Accessory

**DUST CAP** Dust cap for both plug and socket (made of polyethylene).

Prevents contamination of foreign matter into piping during separation.

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)



See page 150 for the details.

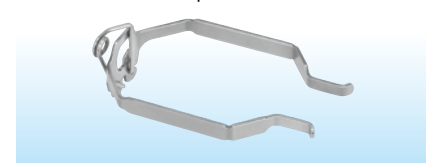
Consumables

The O-ring and Lock plate ASSY are consumable items. See the following list as a replacement guide for the Lock plate ASSY.

Replacement guide

Replacement parts	Connection and disconnection times
Lock plate ASSY	1000 times

Lock plate ASSY



- 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.).