

For High Pressure

# S210 Cupla

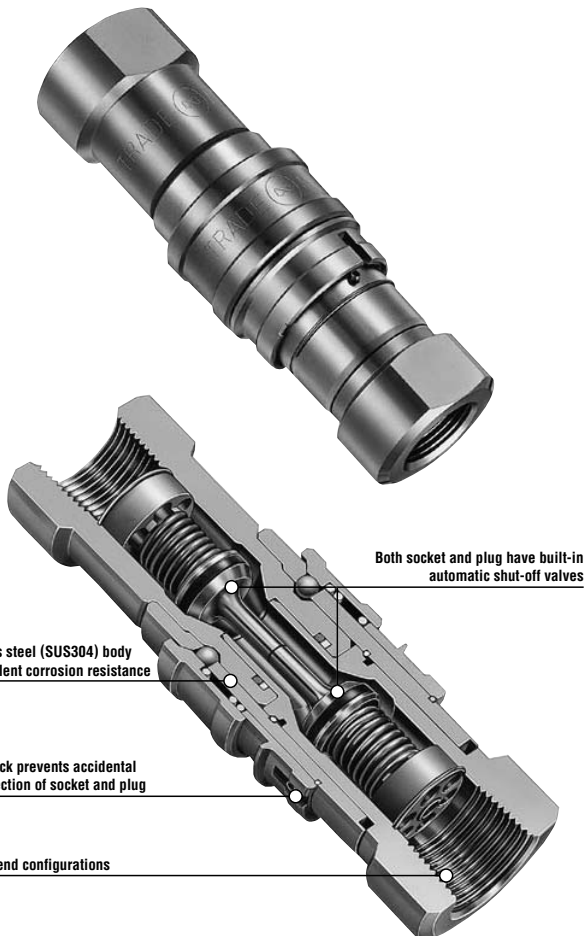
Stainless steel Cupla for high pressure up to 20.6MPa (210kgf/cm<sup>2</sup>)

<b>Working pressure</b> 20.6 20.6MPa (210kgf/cm <sup>2</sup> )	<b>Valve structure</b>  Two-way shut-off	<b>Applicable fluids</b>  Water Hydraulic oil Gas
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Stainless steel for excellent corrosion resistance!

The unique “inner seal mechanism” accepts a working pressure up to 20.6MPa.

- Body material is excellent corrosion resistant stainless steel (SUS304). Suited for use in tough conditions such as ocean development.
- Although it is made of stainless steel, the unique “inner seal mechanism” enables the working pressure of 20.6MPa (210kgf/cm<sup>2</sup>), the same as steel’s.
- Safety lock ensures tight and secured connection (preventing accidental disconnection) under vibration or impacts.
- Both socket and plug have built-in automatic shut-off valves that prevent fluid outflow on disconnection. Easy to handle.



## Specifications

Body material	Stainless steel (SUS304)			
Size	1/4" • 3/8" • 1/2" • 3/4" • 1"			
Working pressure MPa (kgf/cm <sup>2</sup> )	20.6 (210)			
Pressure resistance MPa (kgf/cm <sup>2</sup> )	31.0 (316)			
Seal material	Seal material	Mark	Working temperature range	Remarks
	Fluoro rubber	FKM (X-100)	-20°C~+180°C	Standard material
Working temperature range	Nitrile rubber	NBR (SG)	-20°C~+80°C	Made-to-order item

• The product comes with a dust cap.

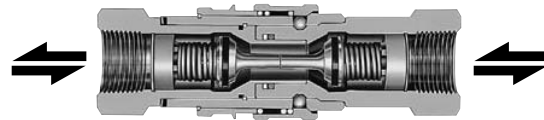
## Max. Tightening Torque

N·m (kgf·cm)

Size	1/4"	3/8"	1/2"	3/4"	1"
Torque	28 (286)	35 (357)	70 (714)	100 (1020)	180 (1836)

## Flow Direction

Fluid may flow in either direction from plug or from socket side when coupled.



## Interchangeability

Different sizes are not interchangeable.

## Min. Cross-Sectional Area

(mm<sup>2</sup>)

Model	S210-2SP	S210-3SP	S210-4SP	S210-6SP	S210-8SP
Min. cross-sectional area	26	47	84	153	233

## Suitability for Vacuum

1.3Pa (1 × 10<sup>-2</sup>mmHg)

Socket only	Plug only	When connected
—	—	Operational

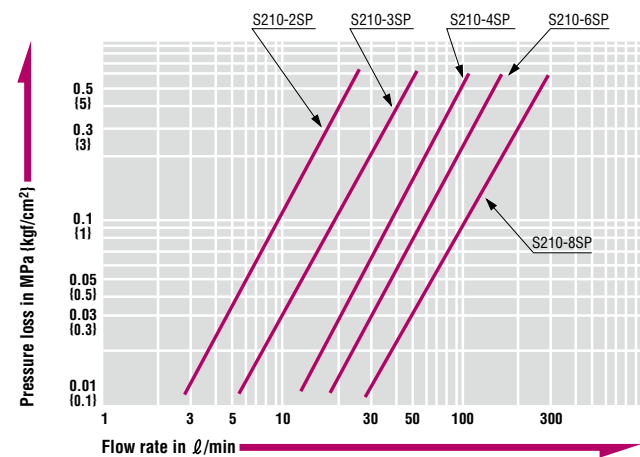
## Admixture of Air on Connection

(mℓ)

Model	S210-2SP	S210-3SP	S210-4SP	S210-6SP	S210-8SP
Volume of air	0.8	1.6	3.2	6.3	14.3

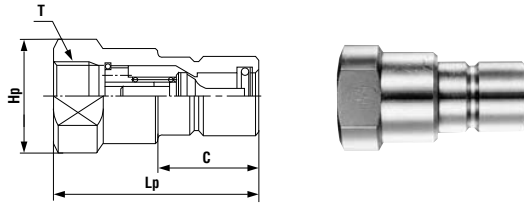
## Flow Rate – Pressure Loss Characteristics

[Test conditions] • Fluid : Hydraulic oil • Temperature : 30°C ± 5°C  
• Fluid viscosity : 32 × 10<sup>-6</sup>m<sup>2</sup>/s • Density : 0.87 × 10<sup>3</sup>kg/m<sup>3</sup>



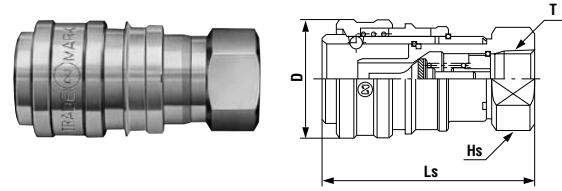
Models and Dimensions

**Plug** Female thread



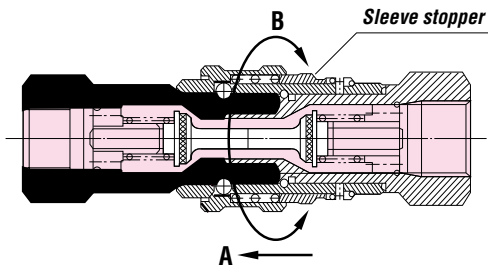
Model	Application	Mass (g)	Dimensions (mm)			
			Lp	C	Hp(WAF)	T
S210-2P	R 1/4	75	50.5	20	19 x ø22	Rc 1/4
S210-3P	R 3/8	131	59	24	24 x ø28	Rc 3/8
S210-4P	R 1/2	242	70.5	28	30 x ø35	Rc 1/2
S210-6P	R 3/4	452	81.5	35.5	38 x ø44	Rc 3/4
S210-8P	R 1	935	100	47.5	50 x ø58	Rc 1

**Socket** Female thread



Model	Application	Mass (g)	Dimensions (mm)			
			Ls	øD	Hs(WAF)	T
S210-2S	R 1/4	130	(59)	27	19	Rc 1/4
S210-3S	R 3/8	220	(68.5)	32	24	Rc 3/8
S210-4S	R 1/2	395	(81)	39.7	30	Rc 1/2
S210-6S	R 3/4	680	(97.5)	48	38	Rc 3/4
S210-8S	R 1	1,365	(118)	62	50	Rc 1

Construction of and How to Use Safety Lock (Fail Safe Mechanism) to Prevent Accidental Disconnection



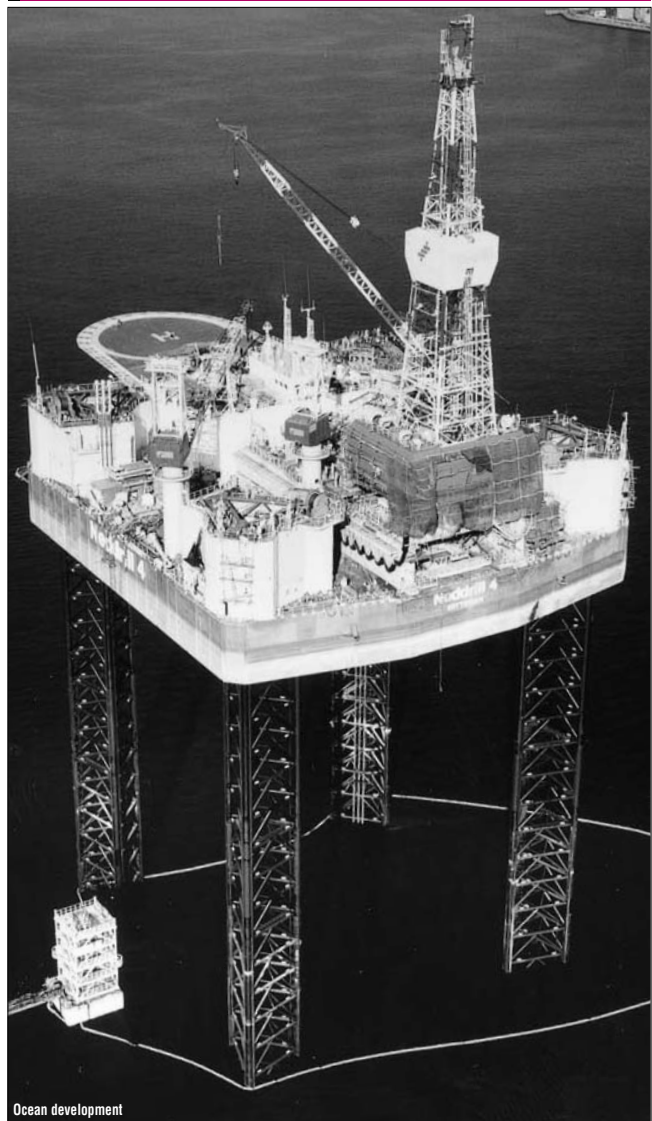
**To lock the sleeve**

Push the sleeve stopper towards A and turn 90° (towards B) to the left or right to engage the sleeve stopper.

**To unlock the sleeve**

Push the sleeve stopper towards A and turn 90° (towards B) to the left or right to disengage the sleeve stopper.  
Socket and plug can now be easily disconnected.

Application Example



Ocean development