

For Charging Industrial Gases and Refrigerants

Charge Cupla CS Type

Frequent connection and disconnection under pressure can be easily made with the unique lever operation. Perfect for charging refrigerant, vacuum suction, and discharging residual pressure.

- Equipped with an automatic shut-off valve. Fluid in the passage is prevented from flowing out when disconnected.
- The Charge Cupla and Plug can be connected or disconnected even when the residual pressure remains. The shut-off valve can be opened or closed with the lever on the back end.
- The safety design prevents the valve from opening even if the lever is operated without connecting to the plug.
- The lever can be set to any position within the 360 degrees.
- The CS type can be connected to the standard 2P-V and 3P-V Plugs. The CS-GN type is also available for the 2P-V-GN and 3P-V-GN Plugs on request.
- Hydrogenated nitrile rubber (HNBR) is colored in blue for easy recognition.
- The Charge Cupla that employs a double O-Ring seal structure for high airtightness is also available on request.

Specifications

Body material	Stainless Steel (Partly Aluminum and Brass)		
Size (Thread)	1/4"		
Working pressure	3.0 MPa, 31 kgf/cm ² , 30 bar, 435 PSI		
Seal material Working temperature range	Seal material	Mark	Working temperature range
	Chloroprene rubber	CR (C308)	-20°C to +80°C
	Hydrogenated nitrile rubber	HNBR (H708)	-20°C to +120°C

Min. Cross-Sectional Area (mm²)

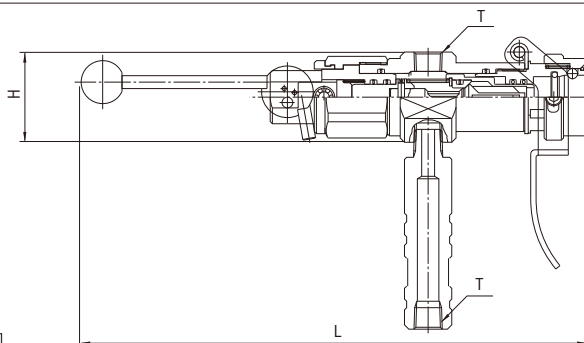
Model	CS-2S-V × 2P-V	CS-3S-V × 3P-V
Min. cross-sectional area	17	44

Combined Overall Length (mm)

Model	CS-2S-V × 2P-V	CS-3S-V × 3P-V
Combined Overall Length	245.5	250.5

Models and Dimensions

Socket



Model	Connecting Plug	Dimensions (mm)		
		L	øH	T
CS-2S-V	2P-V	232.5	42	Rc 1/4
CS-3S-V	3P-V	235.5	42	Rc 1/4

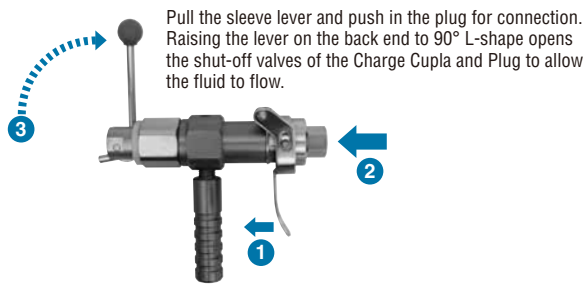


A general rule for identification

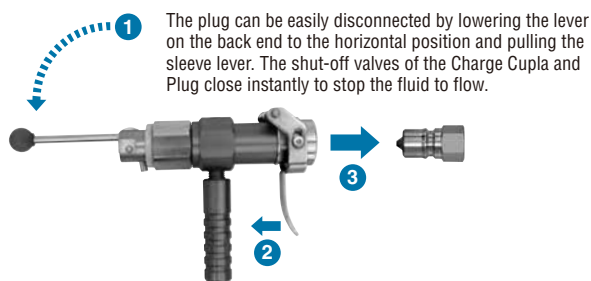
- A Charge Cupla with CR seal : The body and grip are coated with blue colored anodic oxidized alumina.
- A Charge Cupla with HNBR seal : The body and grip are coated with red colored anodic oxidized alumina.
- Please contact us should you require any other color.

How to Use

Connection to Plug



Disconnection of Plug



Suits for Refrigerants That Require High Pressure

Charge Cupla CS-HP Type

Suits for refrigerants that require high pressure. High pressure version of the CS type. Frequent connection and disconnection under pressure can be easily made with the unique lever operation.

- Equipped with an automatic shut-off valve. Fluid in the passage is prevented from flowing out when disconnected.
- The Charge Cupla and Plug can be connected or disconnected even when the residual pressure remains. The shut-off valve can be opened or closed with the lever on the back end.
- The safety design prevents the valve from opening even if the lever is operated without connecting to the plug.
- The lever can be set to any position within the 360 degrees.
- The CS-HP type can be connected to the standard 2P-V, 3P-V, and 4P-V Plugs. The CS-HP-GN type is also available for the 2P-V-GN, 3P-V-GN, and 4P-V-GN Plugs on request.
- The Charge Cupla that employs a double O-Ring seal structure for high airtightness is also available on request.



A general rule for identification

- A Charge Cupla with CR seal : The body and grip are coated with blue colored anodic oxidized alumina.
- A Charge Cupla with HNBR seal : The body and grip are coated with red colored anodic oxidized alumina.
- Please contact us should you require any other color.

Specifications

Body material	Stainless Steel (Partly Aluminum and Brass)		
Size (Thread)	1/4", 1/2"		
Working pressure	4.5 MPa, 46 kgf/cm ² , 45 bar, 653 PSI		
Seal material Working temperature range	Seal material	Mark	Working temperature range
	Chloroprene rubber	CR (C308)	-20°C to +80°C
	Hydrogenated nitrile rubber	HNBR (H708)	-20°C to +120°C

Min. Cross-Sectional Area (mm²)

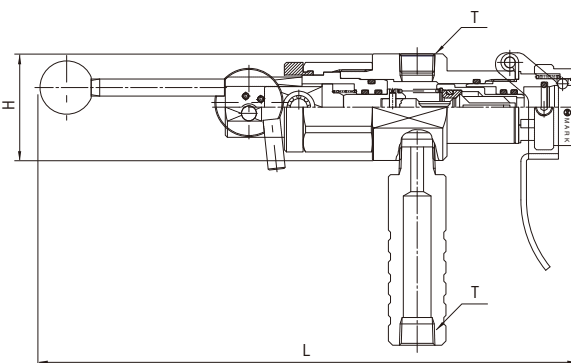
Model	CS-2S-V-HP × 2P-V	CS-3S-V-HP × 3P-V	CS-4S-V-HP × 4P-V
Min. cross-sectional area	17	44	71

Combined Overall Length (mm)

Model	CS-2S-V-HP × 2P-V	CS-3S-V-HP × 3P-V	CS-4S-V-HP × 4P-V
Combined Overall Length	263	267	297

Models and Dimensions

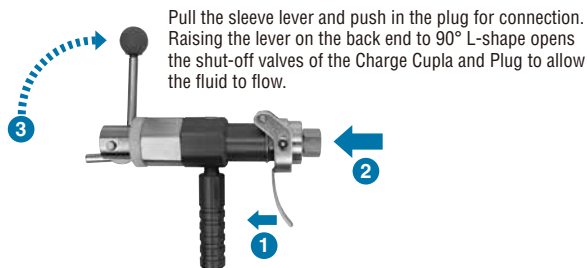
Socket



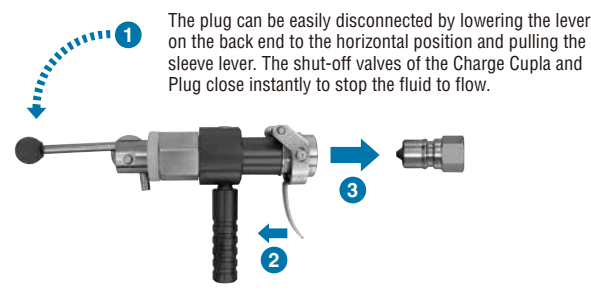
Model	Connecting Plug	Dimensions (mm)		
		L	øH	T
CS-2S-V-HP	2P-V	250	43	Rc 1/4
CS-3S-V-HP	3P-V	252	43	Rc 1/4
CS-4S-V-HP	4P-V	273	50	Rc 1/2

How to Use

Connection to Plug



Disconnection of Plug



Note: No lubricant is applied to HNBR O-ring in the socket. Please apply refrigerant oil to O-ring before use.

For charging Industrial Gases and Refrigerants

Charge Cupla CNR Type/LRP Type

Easy disconnection from the plug by lifting the lever to discharge the residual pressure. Perfect for charging refrigerant, vacuum suction, and connection/disconnection under residual pressure.

- Equipped with an automatic shut-off valve. Fluid in the passage is prevented from flowing out when disconnected.
- The Charge Cupla and Plug can be connected or disconnected even when the residual pressure remains. The shut-off valve can be opened or closed with the lever on the back.
- Employs a double O-ring sealing structure for high air-tightness upon connection.
- The safety design prevents the valve from opening even if the lever is operated without connecting to the plug.
- Easy disconnection from the plug by lifting the lever to discharge the residual pressure after charging is complete.
- The CNR type can be connected to the standard 3P-V and 4P-V Plugs, and the LRP type to the standard 2P-V Plug. The CNR-GN type is also available for the 3P-V-GN and 4P-V-GN Plugs, and LRP-GN type for the 2P-V-GN Plug on request.
- Hydrogenated nitrile rubber (HNBR) is colored in blue for easy recognition.

Specifications

Body material	Stainless Steel (Partly Aluminum and Brass)		
Size (Thread)	1/4", 3/8", 1/2"		
Working pressure	4.5 MPa, 46 kgf/cm ² , 45 bar, 653 PSI		
Seal material Working temperature range	Seal material	Mark	Working temperature range
	Chloroprene rubber	CR (C308)	-20°C to +80°C
	Hydrogenated nitrile rubber	HNBR (H708)	-20°C to +120°C

Min. Cross-Sectional Area (mm²)

Model	CNR-3S × 3P-V	CNR-4S × 4P-V	LRP-2S × 2P-V
Min. cross-sectional area	44	62	17

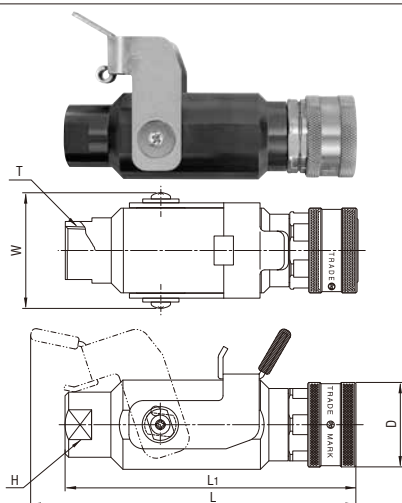
Combined Overall Length (mm)

Model	CNR-3S × 3P-V	CNR-4S × 4P-V	LRP-2S × 2P-V
Combined Overall Length	136	161	110

Models and Dimensions (WAF : WAF stands for width across flats.)

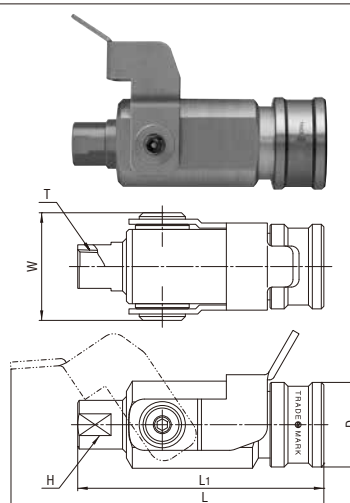
Socket

CNR Type



Model	Connecting Plug	Dimensions (mm)					
		L	L ₁	øD	W	H (WAF)	T
CNR-3S	3P-V	135	121	35	(48)	24	Rc 3/8
CNR-4S	4P-V	161	145	45	(54)	32	Rc 1/2

LRP Type



Model	Connecting Plug	Dimensions (mm)					
		L	L ₁	øD	W	H (WAF)	T
LRP-2S-V	2P-V	123	96	33	(42)	17	Rc 1/4



How to Use

Connection to Plug

Pull the sleeve on the Charge Cupla and insert the plug into the Charge Cupla for easy connection.



Lowering the lever opens the valve to allow fluid flow.



Disconnection of Plug

Lifting the lever discharges the remaining pressure between the valves in the Charge Cupla and plug. The plug can then be easily disconnected by pulling the sleeve on the Charge Cupla. Upon disconnection the valves in both sides close the flow passage instantly to prevent fluid from flowing out.



Prior to connecting/disconnecting the plug, reduce the fluid pressure below 1.0 MPa. The lever will spring back when pulled back with pressure remaining inside. Be careful not to get your fingers caught in the Cupla.

For Charging Industrial Gases and Refrigerants

Airless Charge Cupla CNA Type

The Airless valve structure minimizes air ingress on connection and fluid spillage on disconnection. Perfect for charging refrigerant, vacuum suction, and connection/disconnection under residual pressure.

- A special airless valve structure is employed in both socket and plug. This minimizes air ingress on connection and fluid spillage on disconnection. (CNA-GN Type is also available on request.)
- The Airless Charge Cupla and Plug can be connected or disconnected even when the residual pressure remains. The airless shut-off valve can be opened or closed with the lever on the back.
- The safety design prevents the valve from opening even if the lever is operated without connecting to the plug.



Specifications

Body material	Stainless Steel (Partly Aluminum and Brass)		
Size (Thread)	3/8"		
Working pressure	3.0 MPa, 31 kgf/cm ² , 30 bar, 435 PSI		
Seal material	Hydrogenated nitrile rubber	Mark	HNBR (H708)
Working temperature range	-20°C to +120°C		

Min. Cross-Sectional Area (mm²)

Model	CNA-3S-V × CNA-3P-V
Min. cross-sectional area	31.5

Combined Overall Length (mm)

Model	CNA-3S-V × CNA-3P-V
Combined Overall Length	111

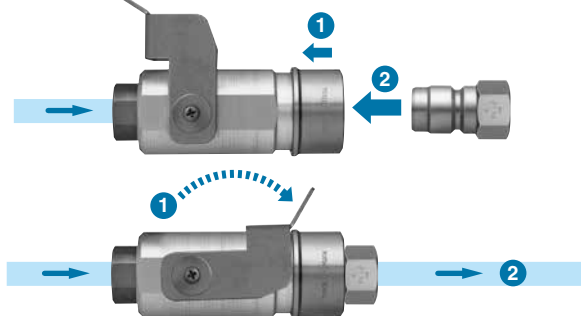
Models and Dimensions (WAF : WAF stands for width across flats.)

		Socket						
Model	Application	Dimensions (mm)						
		L	L ₁	øD	W	H (WAF)	T	
CNA-3S-V	R 3/8	114	103	38	(48)	23	Rc 3/8	

How to Use

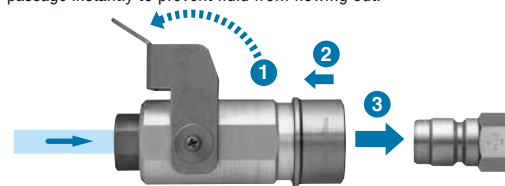
Connection to Plug

Pull the sleeve on the Charge Cupla and insert the plug for easy connection. Lowering the lever opens the valve to allow fluid flow.



Disconnection of Plug

The plug can be easily disconnected by lifting the lever and pulling the sleeve on the Charge Cupla. Upon disconnection the valves in both sides close the flow passage instantly to prevent fluid from flowing out.



		Plug		
Model	Application	Dimensions (mm)		
		L	H (WAF)	T
CNA-3P-V	R 3/8	43	Hex. 23	Rc 3/8