

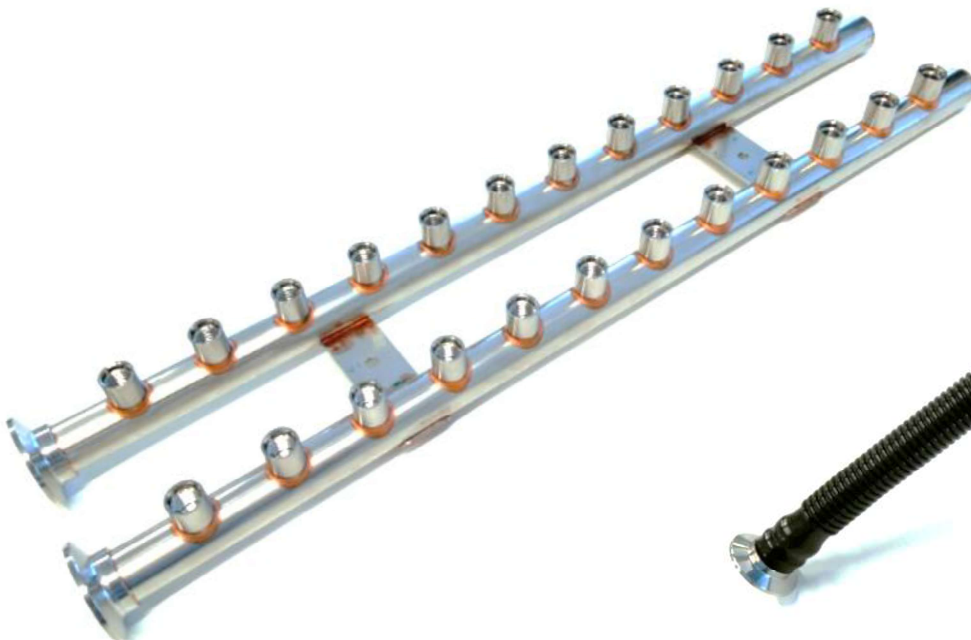
**FUTURITY
FLEXIBILITY
HUMANITY**



SANOH

Sanoh Industrial Co., Ltd.

Liquid Cooling Thermal Solution Products



Ball Valve Joints



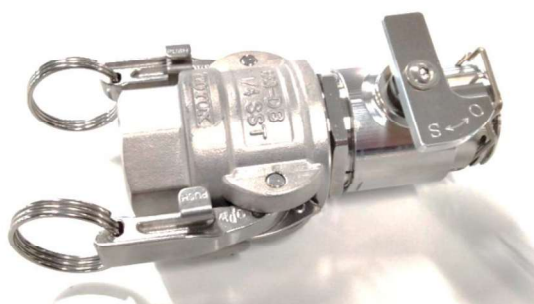
- **360° rotation** prevent twisting of hose or pipes
- **Safety mechanism** joints can be unmated only when water is stopped
- **Space-saving design** the smallest in its class

※As of April 2025

Application	Ball valve joints for piping in liquid cooling
Coolant liquid type	Glycol-based refrigerant/municipal water
Applicable pressure	−0.1 Mpa ~ 1.0 MPa
Fracture pressure	2.0 MPa
Leakage upon removal	6 cc
Operating temperature	−30 °C ~ 80 °C
Material	SUS304 / SCS13 / EPDM
Size	Passage diameter 24mm (1 inch) /Total length 126mm height 66mm
Mounting shape	Available 3 options below:



Ferrule



Cam Lock



Hose Direct

* Photo shown is an image only,
Please inquire for product specifications and details before actual purchase.

* All values shown are for reference.

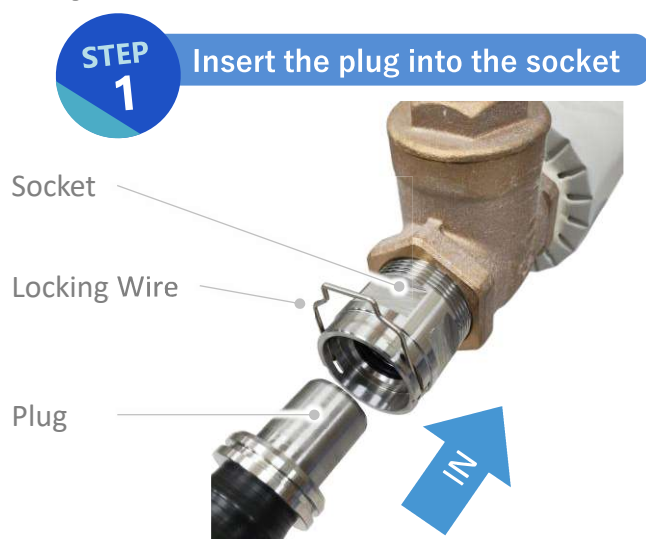
Sanrule



- **Easy fastening !**
2 steps easy operation
- No variation in tightening margin with **Reliable sealing** to avoid human error
- **Space-saving design**

Application	Joints for piping in liquid cooling
Coolant liquid type	Glycol-based refrigerant/municipal water
Applicable pressure	- 0.1 Mpa ~ 1.0 MPa
Fracture pressure	2.0 MPa
Operating temperature	- 30 °C ~ 80 °C
Material	SUS304 / SCS13 / EPDM
Size	Passage diameter 24mm (1 inch) /Total length 57mm height 51mm

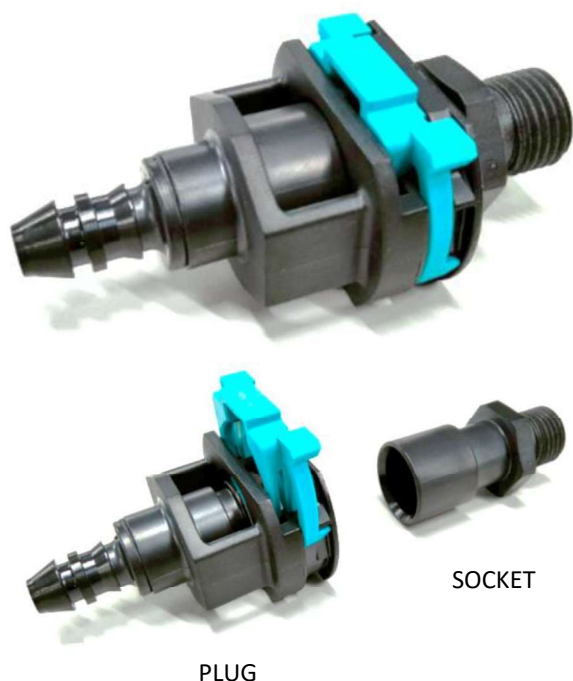
Fastening method :



* Photo shown is an image only,
Please inquire for product specifications and details before actual purchase.

* All values shown are for reference.

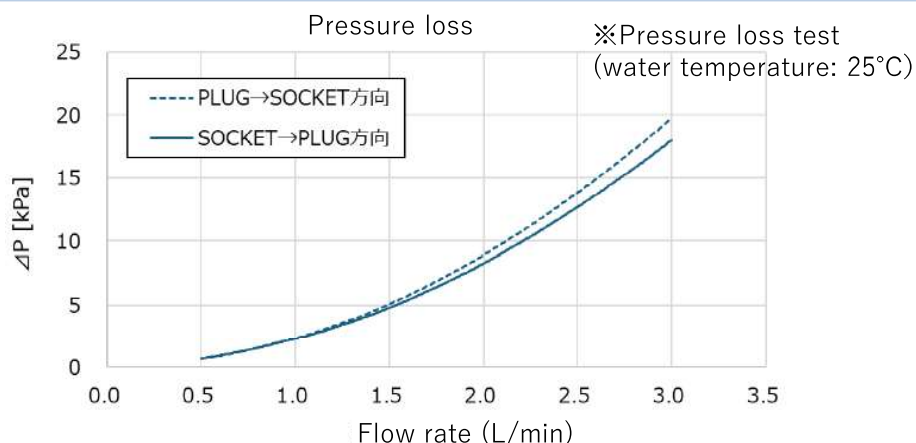
Shut-off connector



- Easy mating by simply pressing the **lock mechanism**
- **Half-mating prevention** to prevent mating errors
- **Shut-off mechanism** on both ends
- Made of PPS and SUS

Application	Piping for DLC (Direct Liquid Cooling)
Coolant liquid type	Glycol-based refrigerant/municipal water
Applicable pressure	-0.1 Mpa ~ 1.0 MPa
Fracture pressure	2.0 MPa
Leakage upon removal	Less than 0.8 cc
Operating temperature	-20 °C ~ 80 °C
Mounting shape	G1/4 or 9/16 UNF screw (tightening torque 1.0 Nm) + Our resin tube inner diameter $\Phi 6$
Material	PPS resin / EPDM / stainless

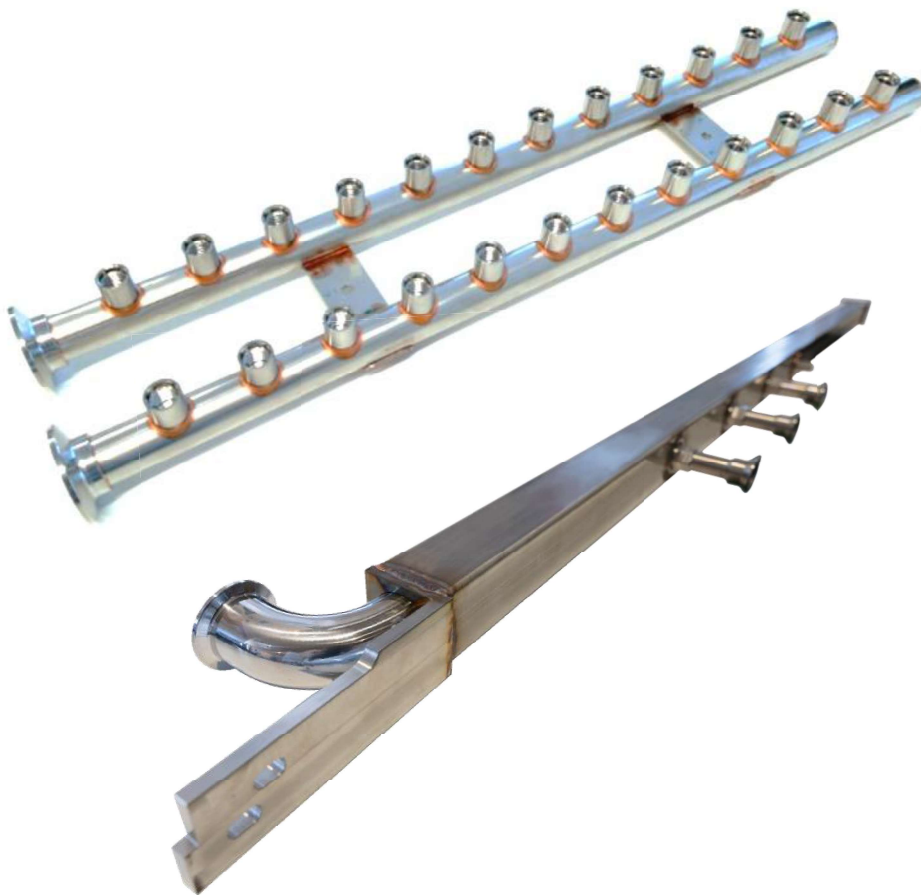
Pressure loss



* Photo shown is an image only,
Please inquire for product specifications and details before actual purchase.

* All values shown are for reference.

Manifolds



- **Even distribution** of refrigerant to multiple pipes or tubes
- Adjustable port diameter to keep liquid flow efficiently and uniformly
- Made of SUS

Application	Manifolds for DLC (Direct Liquid Cooling)
Coolant liquid type	Glycol-based refrigerant/municipal water
Applicable pressure	−0.1 Mpa ~ 1.0 MPa
Operating temperature	−20 °C ~ 80 °C
Material	Stainless (for round cross, square cross)/copper
Mounting shape	Customized or OCP standard
Connector	Customized or OCP standard
Pressure loss	Customized or OCP standard
Features	Customized to match any rack shape. Customized to match connector shape. Accept production of OCP standard manifolds.

Resin Tubes



- Utilizing technology for automotive tubes that stand in low to high temperature environment for long-time use

High quality resin tubes



- **Tube bending** is designed to match customer`s installation position

Application	Piping for liquid cooling
Coolant liquid type	Glycol-based refrigerant/municipal water
Applicable pressure	− 0.1 Mpa ~ 1.0 MPa
Operating temperature	− 20 °C ~ 80 °C
Material	Resin
Size	Various types (up to 1 inch diameter)
Shape	Corrugated/straight

Rear door mounted cooling pipe



- **Excellent corrosion resistance**
cooling pipe with **fin-type**
50% weight reduction and
1/4 space reduction could be
achieved compared to our
conventional pipe while maintaining
same cooling performance

Application	Cooling piping for rear door
Coolant liquid type	Glycol-based refrigerant/municipal water
Applicable pressure	−0.1 Mpa ~ 1.0 MPa
Cooling capacity	3.4 kW (※1) ~ 5.2 kW (※2)
Operating temperature	−20 °C ~ 80 °C
Material	Stainless
Size	Mounted to DC rack
Mounting shape	Customized by only changing the bracket

※1 Environmental conditions : rack exhaust heat temperature 35° C, wind speed 1.0 m/s,
cooling water temperature 15° C, cooling water flow 12 L/min

※2 Environmental conditions : rack exhaust heat temperature 45° C, wind speed 1.0 m/s,
cooling water temperature 15° C, cooling water flow 12 L/min

Why choose Sanoh's products?

Sanoh Industrial Co., Ltd. has long history as an automotive parts company and a manufacturer of piping for fuel, brake fluid, and coolant fluid.

We are one-stop supplier of liquid cooling system for data center offering everything from plastic tubes to manifolds, and various valves to coolers.

We offers our customers one-stop solution to eliminate troublesome tasks of selecting liquid cooling components.

Contact Us

Sanoh Industrial Co., Ltd.

New Business Development Headquarters
Cooling System Business Promotion Division



WEBSITE : <https://thermal-solution.sanoh.com>

Address : 758 Konosu, Koga-shi, Ibaraki 306-0041
TEL : 0280 - 66 - 9379
E-mail : pcl@sanoh.com

Revised July 2025

* The contents of this catalog are based on information as of July 2025.

* We have made every effort to ensure the accuracy of the contents of this catalog, but in the unlikely event that there are errors or omissions, please be aware that we cannot be held responsible for any damages resulting from such errors.

* The product warranty content and warranty period are based on our warranty conditions, which are determined separately.

* Please note that the content may change without notice.



Sanoh Industrial Co., Ltd.
<https://www.sanoh.com/>