



Service Valves replacement process

SandenVendo February 2023

This document explain the replacement process of the service valves
for condensing unit SANDEN VENDO CDU-L / CDU-M et CDU-S

References :

Type	Model
CDU-L	R06A2A R06A2B R06A2C
CDU-M	R04A1A R04A1B R04A1C R04A1D
CDU-S	R02A1A R02A1B R02A1D

100% CO2 Condensing units

ECO-FRIENDLY REVOLUTION

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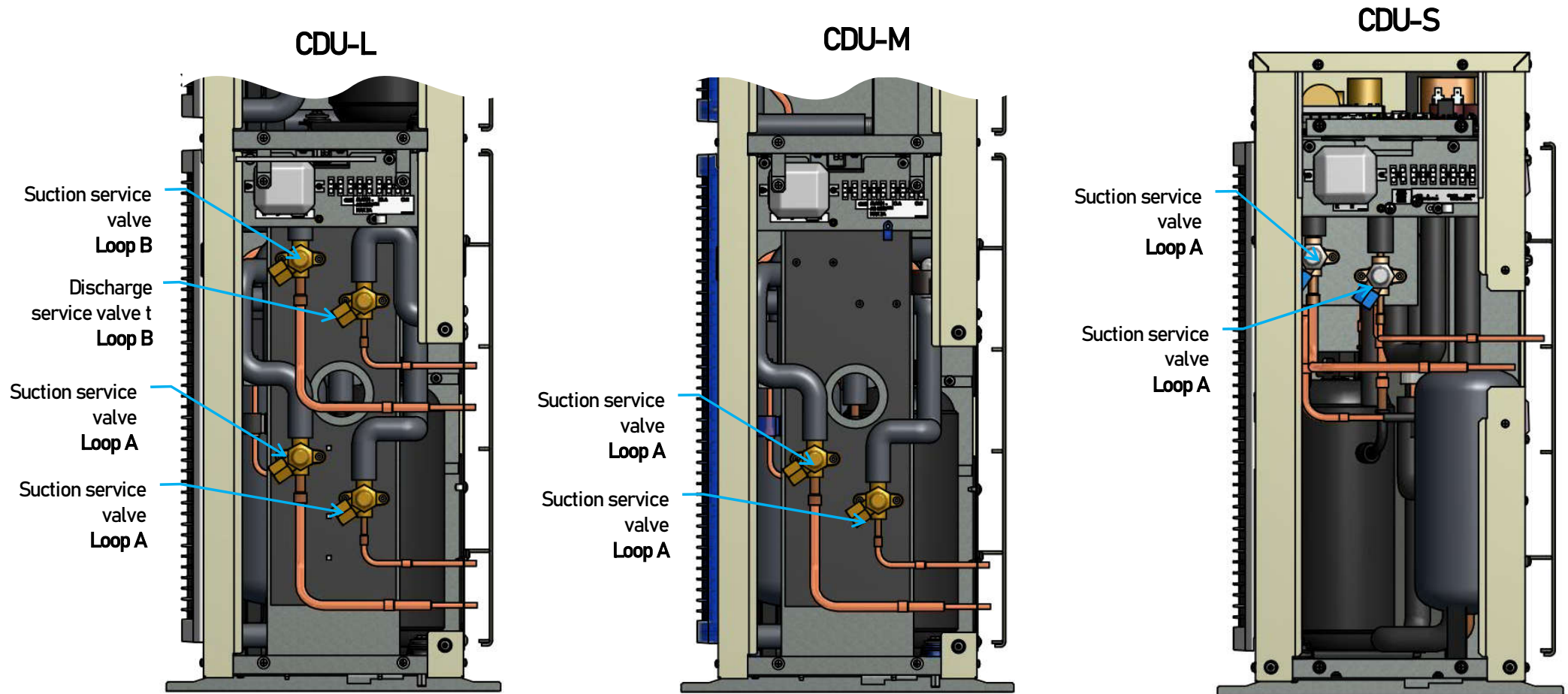
1. Summary

- 1. Service valves position by models
- 2. Usage of service valves and cautions
- 3. Replacement process

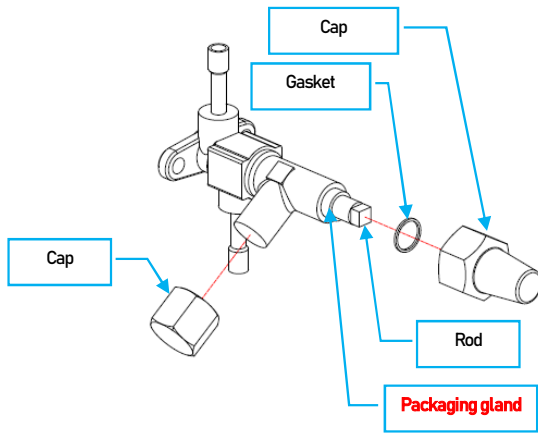
1. Service valves position by models

SERVICE VALVE HP: REFERENCE 92605-C2040

SERVICE VALVE LP: REFERENCE 92605-C2050



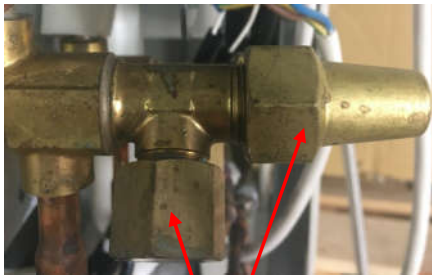
2.Using service valves and cautions



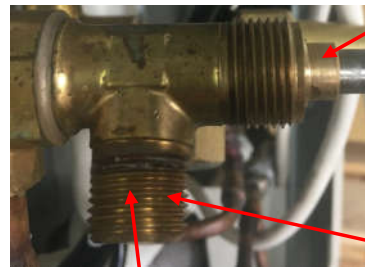
Loosen the packing gland before any manipulation of the rod.
Tighten the packing gland when the manipulation of the rod is finished.
Failure to loosen the packing gland may cause damage to the rod as well as valve leaks.

Below are the tightening torques to be applied to use the service valve

Service valves (mm)	Service port cap (Nm)	Rod (Nm)	Rod access cap (Nm)	Packaging gland (Nm)
Suction valve: 6.35 mm (1/4")	12 to 14	13 to 17	25 to 35	9 to 11
Discharge valve: 9.53 mm (3/8")				



1. Unscrew and remove the protective covers



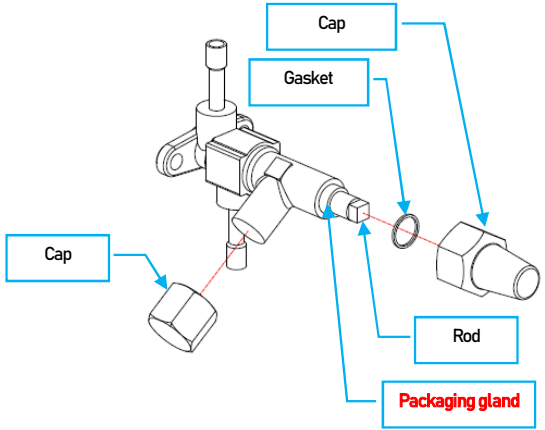
2. Connect the CDU to the manifold
Male outlet **G 3/8"**

Packaging gland

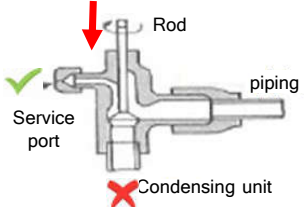


Example of connection
Inlet G 3/8" female
Outlet 1/4" SAE

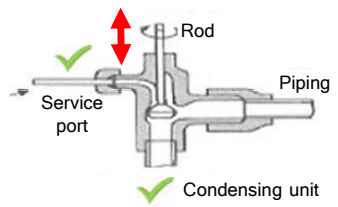
2.Using of service valves and cautions



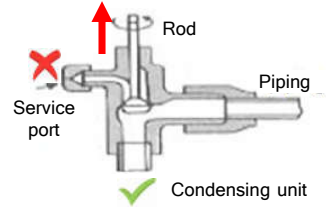
Loosen the packing gland before any manipulation of the rod.
 Tighten the packing gland when the manipulation of the rod is finished.
Failure to loosen the packing gland may cause damage to the rod as well as valve leaks.



Valve in fully closed position (rod in forward position).
 The group is isolated from the rest of the circuit



Valve in intermediate position.
 The 3 outputs, service port, condensing unit and refrigeration circuit communicate



Valve in fully open position (rod in rear position).
 The service port is isolated from the rest of the circuit

3.Replacement process

1. Shutdown of the compressor with front switch
2. Remove the refrigerant R744 of the dedicated loop through the suction service valve.
3. Ensure that there is no remaining pressure on the loop.
4. Debraze the failed service valve
5. Install the new service valve
6. Brazing with nitrogen flux
7. Leakage test at 80 bar , check brazing (see guide for piping work and start-up)
8. Check that absence of error code
9. Load R744 into the Loops (A or B): initial loads determined at commissioning
10. Start of the compressor with the front switch