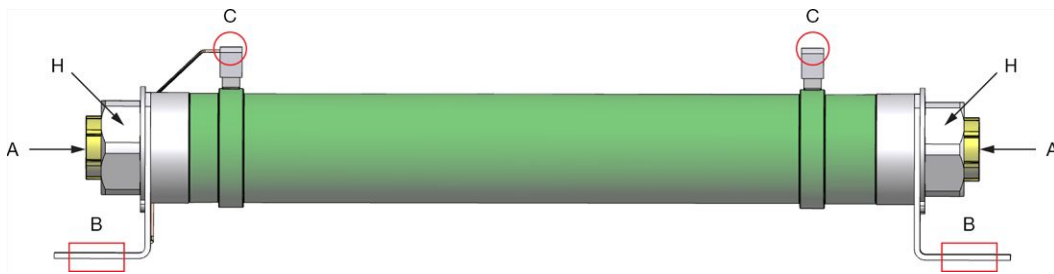


Recommended Installation Instructions for WCR Water Cooled Resistors

By Thomas Boudinot

RESISTOR ILLUSTRATION

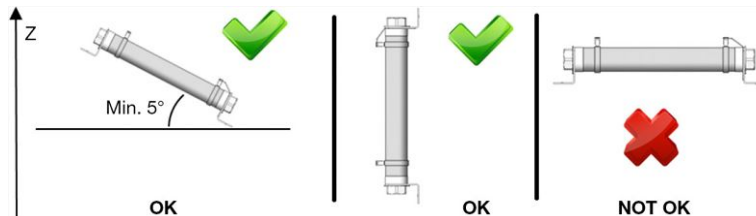


The resistors are supplied with screws and nuts for electric connection (not visible on the illustration above).

Warning: it is absolutely necessary to respect the order of operations 1, 2, 3, and 4.

OPERATION 1: MECHANICAL INSTALLATION

- The resistor must be mounted vertically, or must have a minimum angle of 5° to the horizontal



- Fix the resistor on its support
- To make sure that no foreign objects are inside the resistor, manually remove (without any tool) the two protective plastic plugs on the ends of the resistor (**A**)

OPERATION 2: HYDRAULIC CONNECTION

- Connect the pipes on the hydraulic connections (SERTO, Parker, ...) according to supplier's specification by immobilizing the hexagon (**H**) of the hydraulic connection fixed on resistor. **Be careful:** it is absolutely necessary to immobilize the hexagon of the hydraulic connection (**H**) to avoid a leak during utilization or a deformation of the brackets
- Apply a torque of 25 Nm ± 1 Nm or follow the supplier's requirement for fittings tightening
- Do not try to turn the resistor relative with its fixings
- Use deionized or industrial water with glycol 60 % max.
- In case of an extended non-utilization or transport period, purge the hydraulic circuit.
Attention: it is absolutely necessary to connect the water inlet by the lowest side



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OPERATION 3: BRACKET SETUP (B)

- The resistors are fixed with fork-type brackets
- Fix the brackets with screws or M8 studs (B)
- Use a flat washer and a contact washer with standard nut or flats washer with a self-locking nut
- Apply a maximum torque of $17 \text{ Nm} \pm 1 \text{ Nm}$

OPERATION 4: ELECTRICAL CONNECTION

- Respect a nominal tightening torque of 130 Ncm on the electrical connections (C) by keeping the screw in position during tightening. Do not apply a torsion stress on the collars to prevent chips in the coating
- Make sure that cables do not touch the resistor on the active parts and that the connections are positioned to the top

COMMISSIONING

When the equipment is used, it is imperative to make sure that the circulation of the water-glycol circuit works before power-up with a minimal flow of 5 l/min.

Note

- Only compliance with these recommendations and the datasheet WCR (www.vishay.com/doc?32500) will ensure normal operation of the equipment and avoid any malfunction