

General Assembly Recommendation for TORRO® WDHC

Note: Instructions for operational safety have to be followed!

Following these recommendations for the TORRO® WDHC provided by NORMA helps to ensure the prevention of incorrect mounting of the clamp and to avoid assembly related failures, which could lead to improper working hose/spigot-connections.

Tightening procedure:

The clamp must be assembled perpendicular in the middle of the joint (see figure 1). For the tightening process the tightening torque (Nm) and speed (rpm) have to be controlled.

One step tightening process:

- Speed: 50 rpm, max. 350 rpm
- Tightening torque depends on the type of clamp (see individual drawing)

Multi-step tightening process:

- Step 1: until 70 % of the recommended nominal torque (TORRO® 9: ~ 2,0 Nm, TORRO® 12: ~ 3,5 Nm) speed: max. 350 rpm
- Step 2: until recommended nominal torque (see individual drawing) / speed: 50 rpm recommended
- Tightening torque and speed values given on the drawing may not be exceeded in any case.



TORRO 12 W4 Ø40 – 60 mm

Figure 1: Clamp positioning

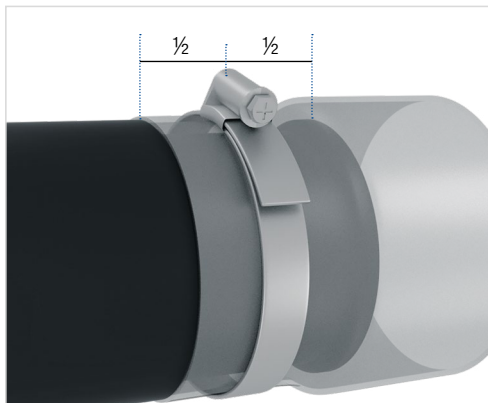
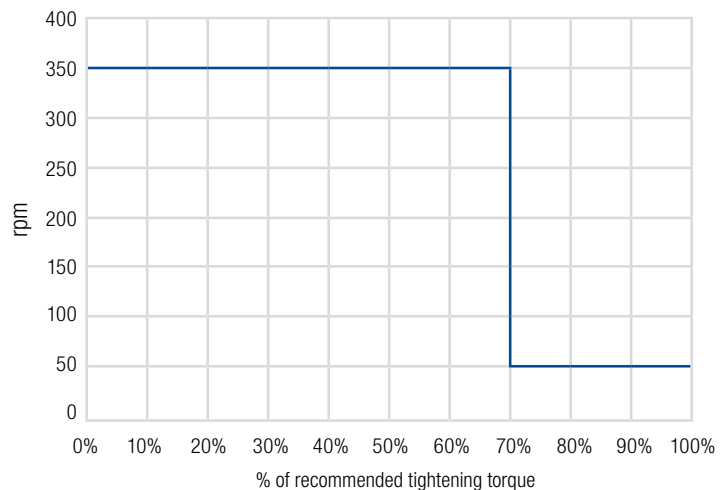


Figure 2: Tightening speed steps



General:

- Increase of tightening speed may lead to seizing/jamming.
- If clamp is tightened above recommended tightening torque, this will not increase pull-off force and seal ability of the clamp proportionally to the applied torque.
- If the tightening torque is exceeded, there is the danger of permanent damage to the clamp or hose (e.g. failure of the clamp at reassembly or leakage).
- Retightening (once) the connection, 1–5 minutes after the first assembly, may be useful (e.g. for tightening check at the assembly line) – further retightening steps are not recommended.
- Suitable assembly aids are water or a mixture of water and alcohol. Lubricants like soap solution, grease etc. are not recommended.
- It must be possible to place the assembly tool onto the clamp in a perpendicular manner – longitudinal offset of screw and tool has to be avoided.
- An assembly tool with hexagon drive is to be preferred for safety reasons, as slotted or cross recessed screwdrivers involve risk of injury to the worker and to the hose.

Strongly avoid in any case:

- Multiple retightening of the clamp (risk of hose damage)
- Overtightening in means of torque and speed (risk of permanent damage to clamp and system)
- Fully opening of the clamp and remounting of the band to the housing (if opened, exchange of clamp recommended)

For further information, please contact:

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