The advantages at a glance

- Multi-range hose clamp
- Material: W1, W2, W3, W4, W5
- Chromium VI free: compliant with ROHS, WEEE and ELV Environmental Directives
- Clamping ranges to DIN 3017: 8–16 mm up to 140–160 mm
- Larger diameters upon request

1. **Improved asymmetric housing**
   - even distribution of forces and safe assembly

2. **Screw support**
   - ease of assembly due to the safe guidance of the emerging band end

3. **Material and clamping range stamped on the band**
   - prevents errors

4. **Asymmetric extension**
   - prevents the housing from tilting over when the clamp is tightened

5. **Short housing saddle**
   - even contact pressure
   - improved efficiency

6. **Smooth or stamped inside of band**
   - optimal hose protection

**Materials**

<table>
<thead>
<tr>
<th>W1</th>
<th>W2</th>
<th>W3</th>
<th>W4</th>
<th>W5</th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
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<td>x</td>
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</tbody>
</table>

* No chromium VI used for the coating of the closure components
Types of clamp band

**Band width 7.5 mm**
- W2, W3 with smooth inside

**Band width 9 mm**
- W1 with smooth inside
- W2, W3, W4, W5 with stamped inside

**Band width 12 mm**
- W1, W2, W3 with smooth inside
- W4, W5 with stamped inside

Screws

<table>
<thead>
<tr>
<th>Type</th>
<th>Width</th>
<th>Heading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phillips head</td>
<td>SW 7*</td>
<td>• •</td>
</tr>
<tr>
<td>Slotted head</td>
<td>SW 7**</td>
<td>• • •</td>
</tr>
</tbody>
</table>

* Band width 7.5 mm = SW 6
** Band width 16 mm = SW 8

High band tensile force and high fracture torque

As always, the new TORRO® features high tensile forces. However, when compared with competitors’ products and the previous model, we now achieve significantly higher fracture torques. This provides for an increased assembly reliability.

Even clamping force distribution

Thanks to its enhanced technical design, the new TORRO® range delivers an even distribution of clamping force. The clamp sits perfectly on the hose and ensures the optimal sealing of the connection.

Corrosion resistance

<table>
<thead>
<tr>
<th>Material</th>
<th>Corrosion resistance in salt spray testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1</td>
<td>Min. 144 h</td>
</tr>
<tr>
<td>W2</td>
<td>Min. 72 h</td>
</tr>
<tr>
<td>W3</td>
<td>Min. 200 h*</td>
</tr>
<tr>
<td>W4</td>
<td>Min. 400 h</td>
</tr>
<tr>
<td>W5</td>
<td>Min. 1000 h</td>
</tr>
</tbody>
</table>

* Max 10% corrosion of the base material allowed

Applications in combustion engines

- Cooling water lines
- Depressurized as well as pressurized fuel lines and vent lines
- Oil lines
- Air ducts, both vacuum and express pressure applications (e.g. charged air) up to 140–160 mm
- Larger diameters on demand
Worm Drive Hose Clamps

Modular System

TORRO®

The TORRO® modular system offers several features that can be added to the clamp, in order to modify its technical characteristics. You are free to combine two or more of these accessories according to your requirements.

The Notch

The notch is a clever option for pre-positioning the TORRO® hose clamp on the hose. In this case the oval hole in the clamp band finds its exact counterpart on the hose surface. Thus the TORRO® is safely and accurately kept in place prior to the final assembly.

- Safe pre-assembly on the hose
- Smart weight saving option without weakening the performance of the clamp

The Prefix Clamp

With this accessory the TORRO® can also be pre-positioned on the hose. The two “teeth” of this device keep the TORRO® hose clamp safely in place if it needs to be stocked or transported prior to its final assembly.

- Safe pre-assembly on the hose

The Spring Insert

For this version of the TORRO® the standard hose clamp is equipped with a spring insert on the inside of the clamp band. When tightening the screw the spring is loaded and stores sufficient clamping force to ensure a long-lasting automatic re-tensioning effect. Thus the radial clamping force achieved will be sufficient even under extremely low temperatures. Therefore, the TORRO® is an optimal solution for applications under extreme temperature changes.

- Automatic re-tensioning effect in the event of hose relaxation
- Increased sealing reliability across a wide temperature range

The PreFix System

The PreFix System is a concept for integrated clamps and clips on hoses and pipes. The demand for complete systems that include the appropriate sealing function is increasing.

- Safe pre-assembly on the hose

The Radial Insert

The Radial® insert clamp consists of a standard riveted clamp with a stainless steel liner. This insert in the radial acts as a spring.

- Radial integrated element located on the inside of the clamp band
- High contact pressure due to the radially corrugated design
- There are also dynamic properties
- Only available in 9 mm bandwidth