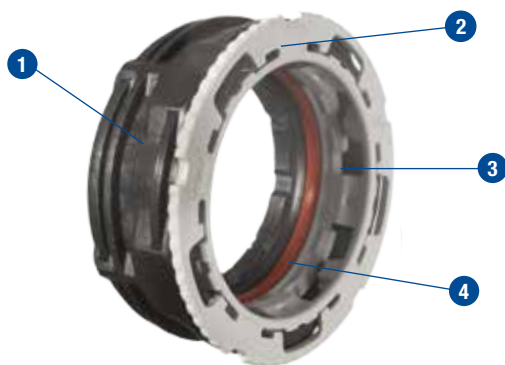


TWIST III – QUICK CONNECTORS

TWIST III is a quick connector series for charged air system applications. Developed to meet extremely tough requirements, especially in low-emission vehicles, it combines a low assembly effort with very good hydrolysis tolerance, temperature resistance and mechanical performance. TWIST III operates at approx. 3.5 bar excess pressure and engine compartment temperatures of -48°C up to $+135^{\circ}\text{C}$. Standard design configurations, 90° and adaptors. Special designs are also available.



Standard design



Optional design

Optional design



Optional design – Customer specific with an air port and a sensor base.

The advantages at a glance

- Compact design – space savings
- Always in “closed” position
- Easy open – no tool needed

- 1 Housing
- 2 Spider Ring
- 3 Supporting Ring
- 4 Sealing component

Applications

Charge air applications – cold side

QUICK CONNECTORS

TWIST III

Examples



TWIST III VO SP, welded on a blow molded pipe

Standard sizes and designs

TWIST III connector size designations are determined by the sealing diameter (ØD1) of the TWIST III spigot. Current standard diameters are listed below. Larger diameters may be added. Five standard sizes are available. TWIST III SP (spin-weld) is for applications where the quick connector will be spin-welded to other injection or blow-molded plastic components. TWIST III is also available for hot plate welding (HP). Based on recommendations from a spin-welding equipment supplier, this design includes weld surfaces, flash traps and support surfaces. This connector is tested using the GMW 15803 specification as reference.

TWIST III Quick Connector	Ø D1 (mm)
TWIST III 48.40	48.40
TWIST III 56.40	56.40
TWIST III 67.40	67.40
TWIST III 71.40	71.40
TWIST III 80.00	80.00

TWIST III

Optional designs

TWIST III connector size designations are determined by the sealing diameter ($\varnothing D1$) of the TWIST III spigot. Current standard diameters are listed below. Larger diameters may be added. Five standard sizes are available. TWIST III SP (spin-weld) is for applications where the quick connector will be spin-welded to other injection or blow-molded plastic components. TWIST III is also available for hot plate welding (HP). Based on recommendations from a spin-welding equipment supplier, this design includes weld surfaces, flash traps and support surfaces. This connector is tested using the GMW 15803 specification as reference.

Materials and construction

Standard versions are made from recyclable polyamide 66 with 35% to 50% GF. O-rings are currently available in Silicone (for diesel fuel resistance) and AEM (for gasoline resistance). For housing, we have also PBT with 30% to 45% material. Note that both plastic and metal spigots can be used. TWIST III quick connectors have a 360° symmetrical design. As they can be opened from any angle, they are perfect for tight environments as well as spin-weld applications. Additional cut-outs or knobs are not necessary.