

WingGuard® Strap Clamp 270

Recommended for Occupant Safety Systems

Benefits

- Safe and easy assembly
- Smooth band edges
- Reliable components
- Superior assembly system
- Space efficient design
- Expansion resistant



WingGuard®: unique winged band-locking mechanism provides high holding force and fully encloses all sharp edges

Low profile design: space efficient

Burr-free strip edges: reduced risk of component damage, before and after assembly

Large diameter range: one clamp size suits a range of application diameters while providing ample clearance for easy assembly

Easy to assemble: single step electromechanical Oetiker FAST 3000 tool = fast, economic and reliable assembly

Process reliable assembly: direct measurement of the closing force



FEATURES



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TECHNICAL DATA OVERVIEW

Target applications

Occupant Safety Systems: Airbag module assemblies
 Other applications upon verification by Oetiker

Material

270 Band: high strength steel – HX 380 LAD + ZA 255
 Housing: stainless steel – 1.4301 / UNS S30400

Corrosion resistance according to ISO 9227

270 ≥ 144 hours

Size range	width x thickness	maximum closing force
20 – 50 mm	7.0 x 0.8 mm	1850 N

Sizes	diameter range	part number
Size 30	20 – 30 mm	27000001
Size 37	27 – 37 mm	27000012
Size 44	34 – 44 mm	27000013
Size 50	40 – 50 mm	27000003

WingGuard®

The innovative WingGuard® feature is highly space-efficient and provides a very low profile design.

To close the clamp, the strap is tensioned to a pre-determined closing force. Subsequently, two wings are cut and bent to create a permanent interlock, maintaining the precise diameter. The remaining band is then cut completely flush with the housing edge and the residual band is removed for recycling.

The WingGuard® Strap Clamp has a very low spring back effect and a high residual holding force.

The wings and cut strap are fully enclosed within the housing envelope and therefore the clamp has no exposed hooks or edges. This results in design and installation with no risk of damage to surroundings, e.g. sensitive airbag fabric.

Working range

The WingGuard® interlock design allows for the clamp to be locked at any diameter within the 10 mm clamp diameter working range.

TECHNICAL DATA
OVERVIEW

Clamp selection

The WingGuard® Strap Clamp can be clamped to any diameter in the diameter range as defined in the available sizes.

Overall clamp height

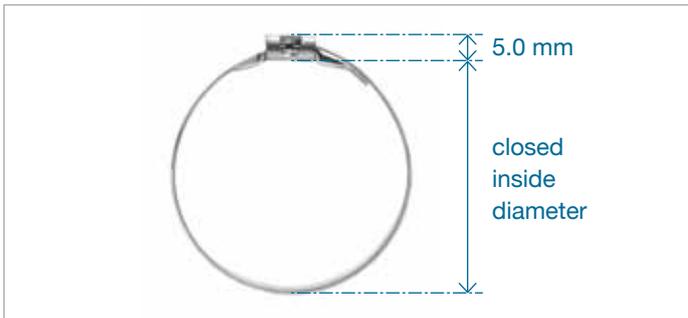
Equals the closed inside diameter + 5.0 mm

Radial assembly

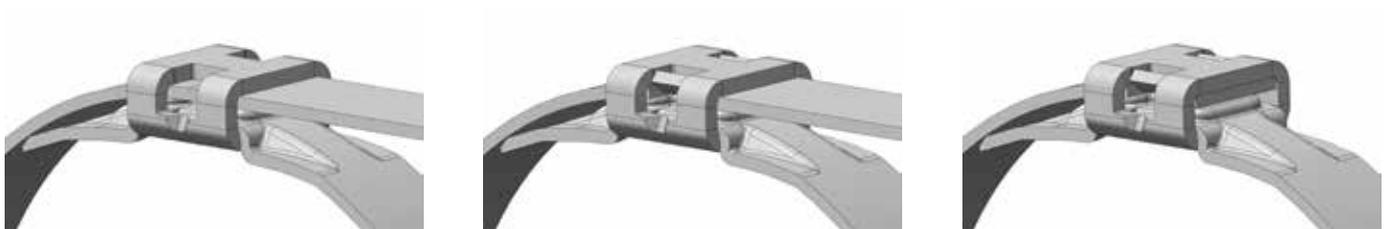
The clamp can be opened manually for radial assembly.

Shipping condition of clamp

The clamp is supplied in pre-formed condition as shown in the picture below.



ASSEMBLY



As supplied

Band goes through housing (pre-formed).

Closing

Band is tensioned to the pre-defined closing force. Wings are cut and bent up – clamp is locked.

Cutting

Remaining band is cut flush at housing. The residual band is ejected.

Assembly Recommendations

This clamp is installed using the specially designed electromechanical Fastener Assembly Stationary Tool (FAST) offered by Oetiker. The Oetiker FAST 3000 tool incorporates a sophisticated PLC control system to set, monitor and record critical process parameters for statistical process control purposes.

Assembly tool

Closing Force Validation Unit

2-Hand Safety control

Electrical enclosure

Foot pedal

Touch panel

