Heavy Duty V-Profile Clamps

280

Reliable Connections

Recommended for EGR Systems, Engine Exhaust Ducts, Exhaust Pipe Systems, Aftertreatment Systems and Charged Air / Turbocharger.

Benefits

- 25% increased sealing capability
- Greater mechanical efficiency
- Optimum axial load distribution
- Customized insert geometries

Quick-lock latching mechanism with rotation limiter: for increased assembly efficiency

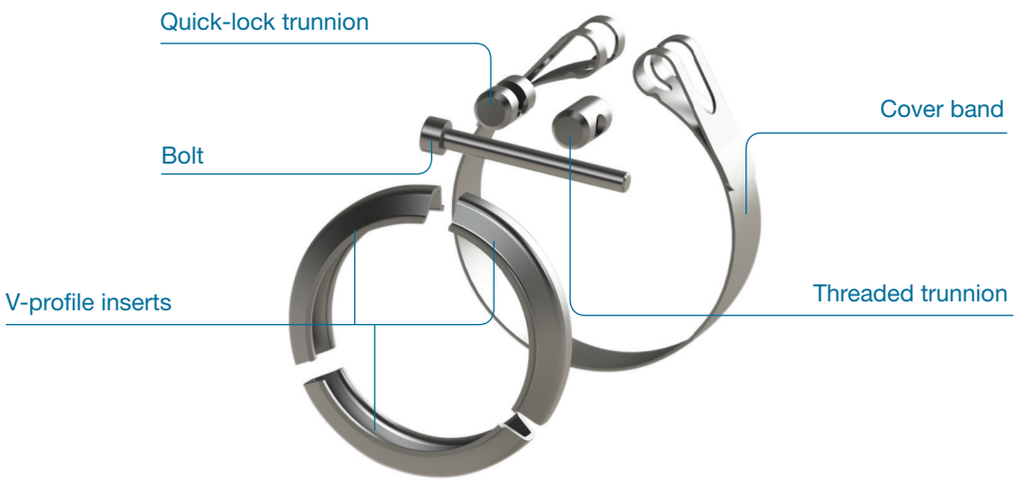
Low friction bolt and trunnions: eliminates torque losses, increase axial load and gasket sealing

Prevailing torque thread: for high vibration resistance

Multiple insert shapes (V-profile / hat-profile): for individual application design needs

ForceSeal

FEATURES



Heavy Duty V-Profile Clamps 280

TECHNICAL DATA OVERVIEW

Material
Cover band and inserts
1.4301 / AISI 304 for Gas temp < 550°C
1.4509 / AISI 441 for Gas temp < 700°C
Screws
A4-70 stainless steel (M6)
A4-80 high strength acid resistant steel (M8)
Trunnions (solid, threaded, quick-lock)
1.4305 / AISI 303 stainless steel

Dimensions

Hardware	Cover	Band bolt	Trunnion
M6	1.0 × 20 mm	M6 × 50 mm	ø 11.5 mm
M8	1.5 × 25 mm	M8 × 70 mm	ø 14.0 mm

PRODUCT DESCRIPTION

Heavy duty V-profile clamps are used to pull together and connect two circular flanges. They are very robust and can operate reliably and safely under conditions of stress, vibration, corrosion and temperature variation.

Oetiker Heavy Duty V-Profile Clamps 280 are optimized for superior load performance for extreme conditions in turbocharger and exhaust aftertreatment applications for both, milled and tube flanges in commercial vehicles like busses, trucks and tractors as well as industrial vehicles.

Engineered features enable efficiency and high performance and long lasting reliability yet meeting the Euro VI emission standards.

PRODUCT DESCRIPTION

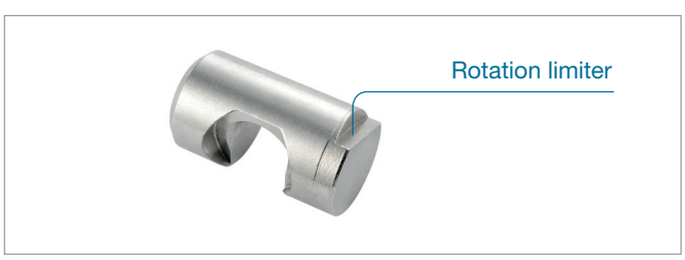
Quick-lock feature

Quick-lock latching mechanism for easy opening and easy assambly

Solid trunnion generates highest sealing capability

Rotation limiter feature

The rotation limiter at the quick-lock trunnion is a smart feature increasing assembly efficiency. It is used to limit the angle of rotation preventing the trunnion from turning to an unfavorable position.



Typical profile types

V-profile for compact design

Hat-profile for easy assembly and higher loads

Oetiker designs and produces V-profile clamps, in diameters up to 1000 mm, for both discrete DOC/DPF/SCR units as well as next generation integrated units.

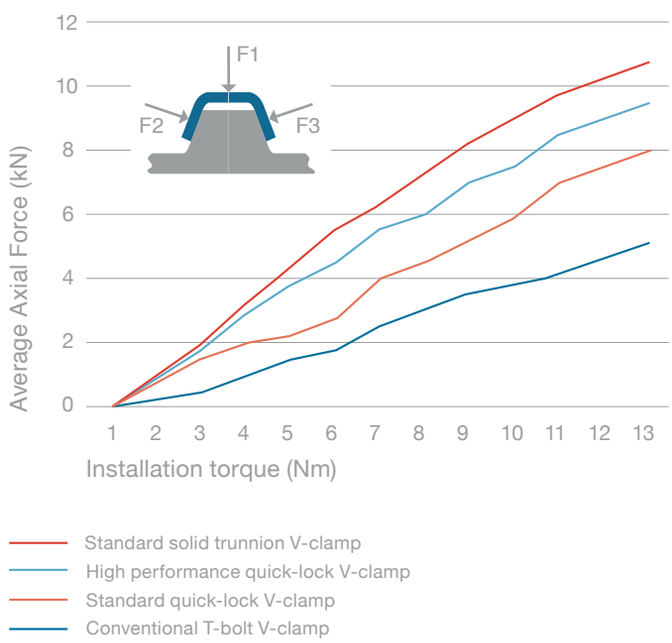
ASSEMBLY

Oetiker Heavy Duty V-Profile Clamps feature Allen® key or a hexagon head bolt, threaded up the neck, a threaded trunnion and a quick lock type trunnion for a quick and reliable assembly with common installation tools. Also a manual torque wrench is applicable, however, be cautios as the clamp stress might be higher.

Hardware	Torque[1]	Speed
M6	7.0 Nm	250-350 Rpm
M8 (open trunnion)	12 Nm	250-350 Rpm
M8 (closed trunnion)[2]	12 Nm	250-350 Rpm

1) no step down
2) closed trunnion recommended to be used on diameter sizes > 200 mm

Typical high load/low torque performance



25% increased sealing capability of standard quick-lock V-clamp compared to conventional T-bolt V-clamps.

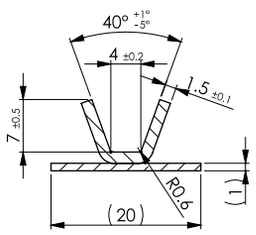
HARDWARE

M6

Type 1

ø 80-200 mm

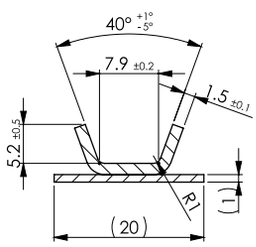
V-profile



Type 3

ø 100-200 mm

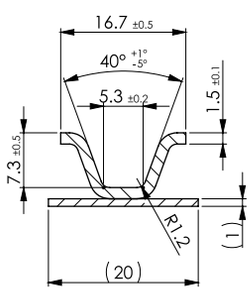
V-profile



Type 5

ø 80-200 mm

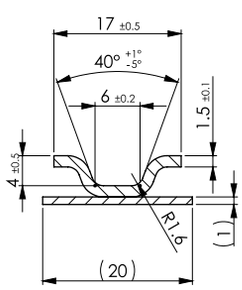
Hat-profile



Type 6

ø 80-200 mm

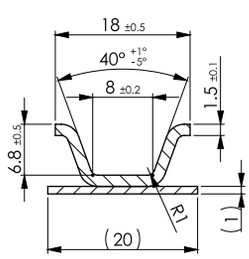
Hat-profile



Type 8

ø 80-200 mm

Hat-profile

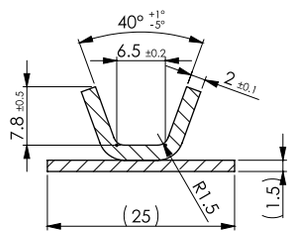


M8

Type 2

ø 100-200 mm

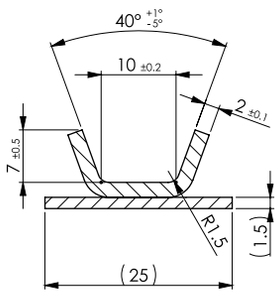
V-profile



Type 4

ø 100-200 mm

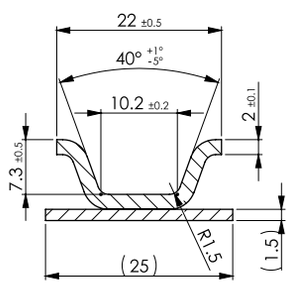
V-profile



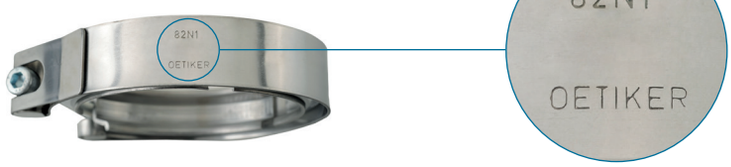
Type 7

ø 100-200 mm

Hat-profile



CLAMP MARKING



82 N1

Material

Diameter

OETIKER

Company name

Materials (according EN STD 10088-2)

Setup	Cover band & V-inserts	Trunnions	Screws	V-inserts	Remark
N1	1.4509	1.4305	M6: A4-70	1.4509	Better heat resistance
			M8: A4-80		
N2	1.4301	1.4305	M6: A4-70	1.4301	Better corrosion resistance
			M8: A4-80		

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