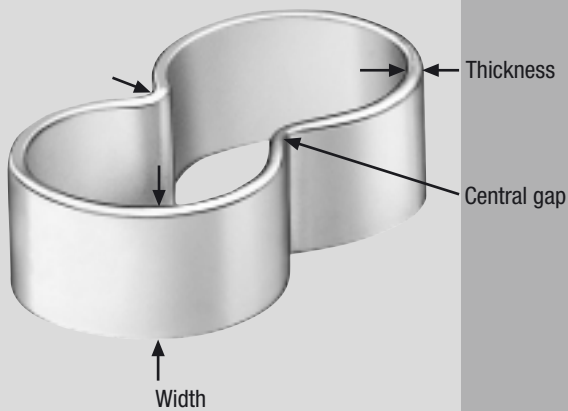


OETIKER

Technical Data Sheet

Twin Clamps

Product Group **108 & 158**



Connecting Technology



Technical Data

Twin Clamps

Product Group **108 & 158**

OETIKER Twin Clamps are available in open and closed versions. Both types are robust clamps intended exclusively for hose retaining purposes.

The closed clamps are mainly for industrial applications, for example holding pairs of gas welding hoses parallel, whereas the open type can be used in vehicle manufacture for securing tubing, cables, and hoses.

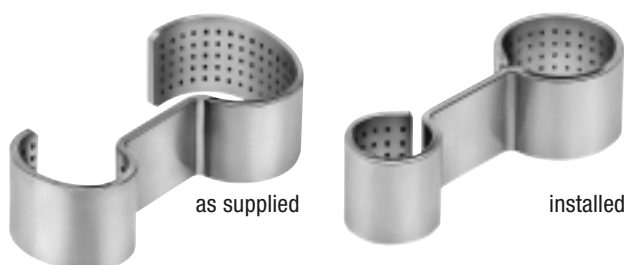
Both variations are suitable for use as pre-assembled retaining clamps.

Features

- For holding hoses, cables, tubes, and control cables parallel
- Can be used for different diameters and spacings
- Radiused strip edges prevent damage to clamped parts
- Fast, simple, secure installation
- Robust execution

OETIKER Twin Clamps – Open version

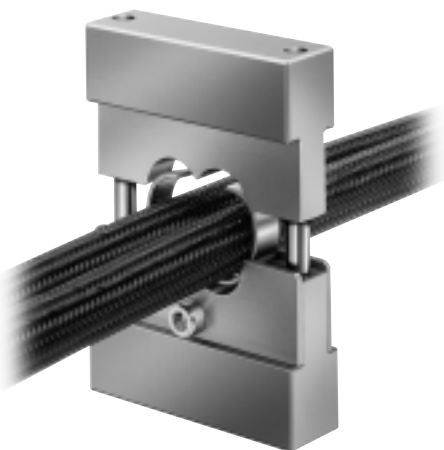
On request



OETIKER Twin Clamps – Open Version, are made from steel strip, and installed by forming around the lines that are to be held parallel.

Material

- **158** Stainless steel DIN 1.4301 or UNS S30400



The information provided in this data sheet is intended for reference purposes only and should not be considered a specification. OETIKER invites customers to submit samples with relevant application information, to determine the best suited clamp product and installation method.

OETIKER Twin Clamps – Closed Version



OETIKER Twin Clamps – Closed Version, are made as a single-component clamp. They are formed from short sections of tube.

Material

- **108** Zinc-plated steel to DIN 1.0338 or SAE 1008/1010
- Also available in stainless steel DIN 1.4301 or UNS S30400

Size range

5.0 - 23.0 mm

Size

See page 4.

Installation

See page 4.



Installation tools

OETIKER supplies pincers for manual closure.



For further information, please see the OETIKER Tool Catalogue.

Technical Data

Twin Clamps

Product Group 108 & 158



1.0 Material

OETIKER Twin Clamps are made from zinc-plated steel to DIN 1.0338 / SAE 1008/1010, or from an 18% chromium 8% nickel, austenitic grade of stainless steel to specifications DIN 1.4301 / UNS S30400.

Process

OETIKER Twin Clamps – Closed Version:

The manufacturing process for the OETIKER twin clamps incorporates the spiral roll-forming and welding of the raw material into lengths of tube, a technique developed to obtain a robust, continuous welded ring. Flat strip is rolled at approximately 45° into a tube forming die and the spiral edge TIG welded (Tungsten Inert Gas). The welded tube is drawn to precise inside and outside diameters prior to being cut into rings. The ring is annealed to relieve stress that is induced at all stages of the welding and drawing process, assuring that uniform mechanical properties exist throughout the material.

OETIKER Twin Clamps – Open Version:

The manufacturing process for this type of clamp is similar to that used for other clamps made from strip material. The material is fed into automatic forming and shearing machines, which produce the appropriate geometry.

Edge condition

Closed Version:

Oxidation during heat treating and burrs generated at the ring cut-off process, are removed by an aggressive tumbling operation as a final phase of the ring manufacturing process.

Open Version:

Stringent controls are maintained at the OETIKER strip processing facility, conditioning the slit material and forming a machined or rolled edge radius. This process reduces the potential for damage caused by sharp or square edges, when the clamp compresses adjacent material.

Corrosion resistance

OETIKER Twin Clamps – Closed Version:

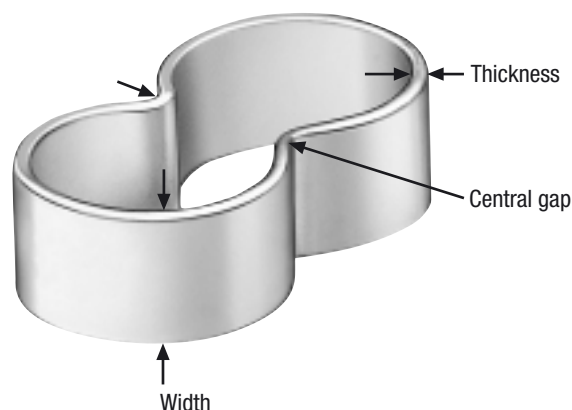
To ensure the level of corrosion resistance expected by industry, all clamps made of DIN 1.0338 / SAE 1008/1010 are zinc-plated and chromated. This coating ensures that the clamps withstand a 96-hour salt-spray test to DIN 50021 / ASTM B117 without rust formation.

OETIKER Twin Clamps – Open Version:

Due to their chemical composition, clamps made from stainless steel to DIN 1.4301 / UNS S30400 have excellent resistance to numerous corrosive environmental conditions.

It is important to select the correct size of closed twin clamp, taking into account the different diameters that a clamp geometry can accommodate. The same applies when designing closing tools for the open versions.

2.0 Clamp Design



Both types are robust clamps intended exclusively for retaining purposes.

OETIKER Twin Clamps – Closed Version:

Known as a “one-piece design”, this type of clamp has an uninterrupted, and thus robust, geometry. It is available with different diameters on each side. Radial assembly is not possible.

OETIKER Twin Clamps – Open Version:

This type of clamp can be installed either radially or axially. The inner surface has a pattern of indentations to improve its holding properties.

Closure

Closed Version:

By using OETIKER closing tools to pinch the central gap, there is a simultaneous reduction in the two diameters of an OETIKER Twin Clamp so that the lines within them are gripped. The diameter reduction of the clamp is proportional to the width of the central gap.

Open Version:

By using OETIKER closing tools to form the radius geometry, there is a simultaneous reduction in the two nominal diameters so that the lines within them are gripped. The diameter reduction of the clamp is dependent on the radius geometry.

Technical Data

Twin Clamps

Product Group **108 & 158**

3.0 Assembly Recommendations

OETIKER Twin Clamps – Closed Version

This type of clamp is installed by pushing it axially along the two parallel lines to the required position, and pinching it at the central gap with a force that will accomplish the required retaining force.

Manual pincer

Item No.

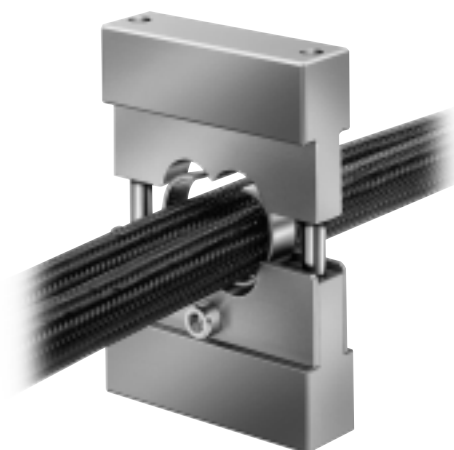
Manual pincer, normal 14100082



OETIKER Twin Clamps – Open Version

This type of clamp is installed by forming it around parallel lines after it has been positioned to the desired location, preferably by pushing it axially along them. The two sides of the clamp are then pressed individually, or, if the two sides of the clamp have different diameters, pressed together in a custom designed tool.

Application-related diameters and installation tools on request.



Internet: www.oetiker.com



OETIKER has been developing connecting technology for over 50 years. OETIKER products are manufactured by its own companies in line with ISO/TS 16949 and sold worldwide by subsidiary companies or agents in over 40 countries. Numerous patents are proof of continuous innovation.

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