What Are Stepless Ear Clamps Used For?

Engineering Hardware & Fasteners · engineeringhardware.com/applications/stepless-ear-clamps

Stepless Ear Clamps are used for closing a hose, pipe or duct joint by band tension, selected by clamp range rather than by thread size. They are manufactured to Trade series (stepless ear clamps), and selection is driven by the nominal size, the fit and tolerance the assembly requires, and the service environment.

Primary duty

Closing a hose, pipe or duct joint by band tension, selected by clamp range rather than by thread size

Governing standard

Trade series (stepless ear clamps)

Category

Clamps & Couplings

Application notes are general engineering guidance. Verify the property class and any approval requirement against your own design calculation.



Stepless Ear Clamps are selected when an assembly calls for closing a hose, pipe or duct joint by band tension, selected by clamp range rather than by thread size. This application guide to the Trade series (stepless ear clamps) type covers concrete end-uses, the specification checklist, correct installation, and where an alternative fastener performs better.

Typical Applications for Stepless Ear Clamps

The most common settings where these are specified:

General machine building: fastening covers, brackets, motors and sub-assemblies on production equipment.

Maintenance & repair (MRO): a stocked size for servicing existing plant where the original fastener spec must be matched.

Fabrication & metalwork: bench and on-site assembly of steel frames, enclosures and weldments.

Product catalog

Related Hose Clamps products



(https://engineeringhardware.com/product/t-bolt-heavy-duty-superior-clamp-ss-zinc-plated-industrial-hose-clamp/)

Hose Clamps & Band Clamps

T-Bolt Heavy Duty Superior Clamp Ss Zinc-Plated Industrial Hose Clamp
(https://engineeringhardware.com/product/t-bolt-heavy-duty-superior-clamp-ss-zinc-plated-industrial-hose-clamp/)(https://engineeringhardware.com/product/t-bolt-heavy-duty-superior-clamp-ss-zinc-plated-industrial-hose-clamp/)

EU, American, Germany · Standard

US$0.24MOQ 50 pieces



(https://engineeringhardware.com/product/corrosion-resistant-flexible-thick-wire-double-wire-hose-clip/)

Hose Clamps & Band Clamps

Corrosion Resistant Flexible Thick Wire Double Wire Hose Clip
(https://engineeringhardware.com/product/corrosion-resistant-flexible-thick-wire-double-wire-hose-clip/)(https://engineeringhardware.com/product/corrosion-resistant-flexible-thick-wire-double-wire-hose-clip/)

W1/W4 · DIN4019

US$0.18 – 0.22MOQ 200 pieces



(https://engineeringhardware.com/product/american-type-wormadjustable-drive-hose-clamp-

stainless-steel-radiator-hose-clamp/)

Hose Clamps & Band Clamps

American Type Wormadjustable Drive Hose Clamp Stainless Steel Radiator Hose Clamp (https://engineeringhardware.com/product/american-type-wormadjustable-drive-hose-clamp-stainless-steel-radiator-hose-clamp/)

Steel · ISO, GS, RoHS, CE

US$0.0036 – 0.012 MOQ 1,000 pieces



(https://engineeringhardware.com/product/factory-supply-electrical-zinc-carbon-steel-u-type-hose-clamps-saddle-pipe-clamp/)

Hose Clamps & Band Clamps

Factory Supply Electrical Zinc Carbon Steel U-Type Hose Clamps Saddle Pipe Clamp (https://engineeringhardware.com/product/factory-supply-electrical-zinc-carbon-steel-u-type-hose-clamps-saddle-pipe-clamp/)

Hardware Tools · Standard, Nonstandard, ISO

US$0.12 – 0.18 MOQ 1,000 pieces



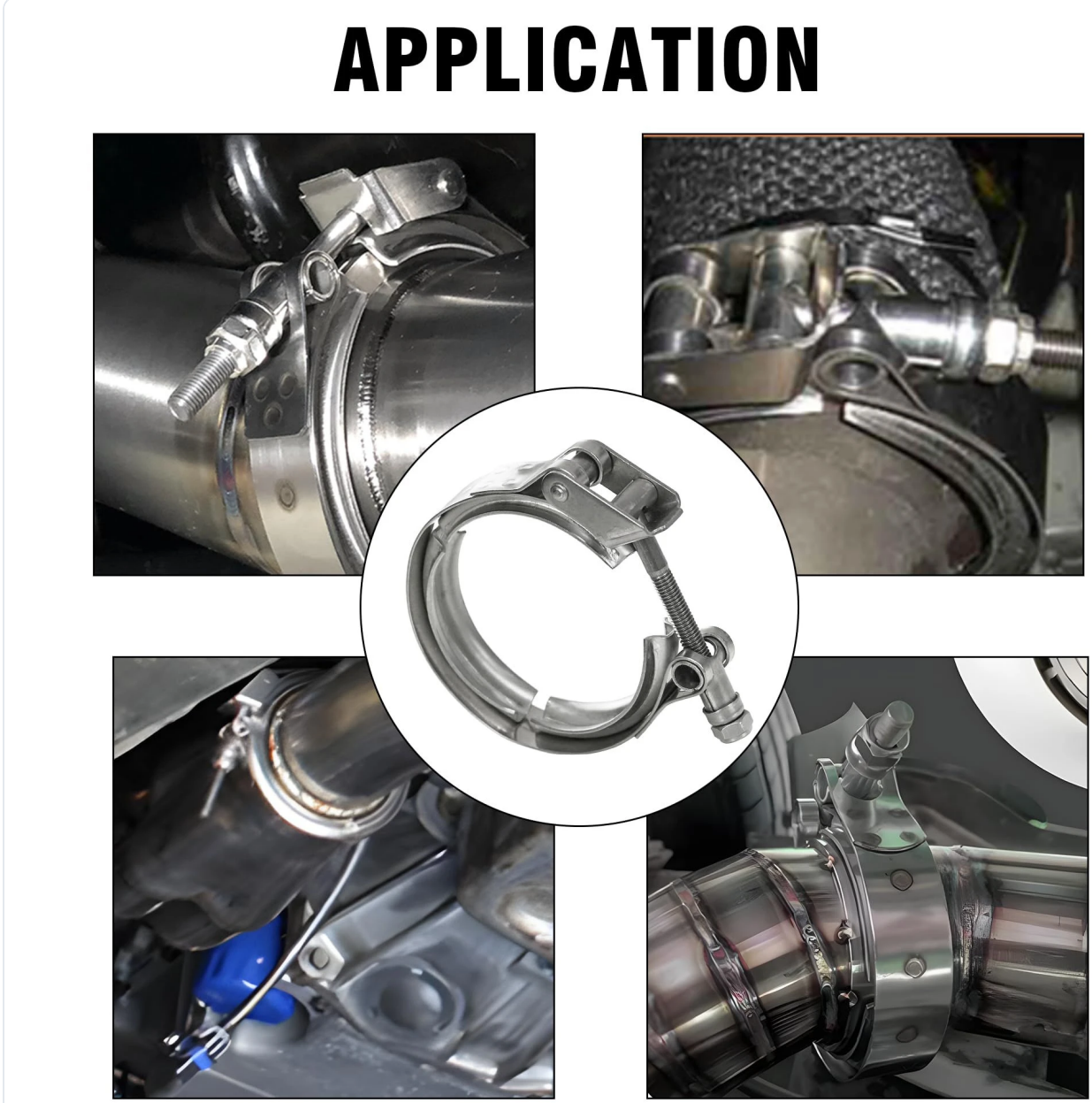
(https://engineeringhardware.com/product/china-supplier-exhaust-u-type-bolt-hose-clamp/)

Hose Clamps & Band Clamps

China Supplier Exhaust U Type Bolt Hose Clamp
(https://engineeringhardware.com/product/china-supplier-exhaust-u-type-bolt-hose-clamp/)(https://engineeringhardware.com/product/china-supplier-exhaust-u-type-bolt-hose-clamp/)

Standard · Stainless Steel

US$0.036 – 0.048 MOQ 1,000 pieces



(https://engineeringhardware.com/product/auto-exhuast-pipe-v-band-clamp-304-stainless-steel/)

Hose Clamps & Band Clamps

Auto Exhuast Pipe V Band Clamp 304 Stainless Steel
(https://engineeringhardware.com/product/auto-exhuast-pipe-v-band-clamp-304-stainless-steel/)(https://engineeringhardware.com/product/auto-exhuast-pipe-v-band-clamp-304-stainless-steel/)

Standard · Stainless Steel

US$3.60 – 7.20 MOQ 1,000 pieces

View all Hose Clamps & Band Clamps →
(https://engineeringhardware.com/fastener-products/clamps-clips-cable-ties/hose-clamps-band-clamps/)

Full product catalog (https://engineeringhardware.com/products/)

How to Specify Stepless Ear Clamps for Your Application

Size: Match the size to the mating part — see the dimension table below for each option.

Material: Choose the material and finish for the service environment — plated steel for general use, stainless for corrosion resistance.

Environment: For damp, coastal or chemical exposure prefer A4/316 stainless or a suitable coating; indoors, plated steel or A2 is usually sufficient.

Standard: This product is supplied to Trade series (stepless ear clamps). Quoting the standard on your order guarantees interchangeable dimensions between suppliers.

Where Stepless Ear Clamps Are Not the Right Choice

Match the fastener to the load, environment and whether the joint must be reopened; the wrong class or style is the usual cause of joint failure.

Custom manufacturing · Made to drawing

Need a stepless ear clamps outside the standard range?

With no standard to depart from, the tolerance scheme is the specification — which dimensions are critical, and which are simply nominal.

Minimum order from 2,000 pieces; samples within 7 days of drawing approval.

Custom hose & band clamp manufacturing (https://engineeringhardware.com/custom/clamps/)

Send a drawing (https://engineeringhardware.com/custom/clamps/#rfq)

Technical Drawing

Customize the parameters below — every spec field is editable, and the drawing redraws to match the values you choose. Changing the size will snap the other fields to that size's standard values; you can then override any individual value.

Dimensioned line drawing of crimped ear Stepless Ear Clamps to Trade series (stepless ear clamps). Side view and top view, drawn to the dimensions in the table below and redrawn for any size selected.

Sends the selected values to the quote form below.

Request a Quote

The form below follows the current technical drawing configuration. Change the drawing values above and the request details update automatically.

Dimensions & Specifications (Trade series (stepless ear clamps))

Closure	Ear count	Inner surface	Reusable	Typical ser
crimped ear	single ear	stepless, continuous	no	fuel, coolant
crimped ear	double ear	stepless, continuous	no	CV boots an
crimped ear with insert ring	single ear	stepless with 360 degree ring	no	food and be

Video: What Are Stepless Ear Clamps Used For? in use



► Watch video: https://www.youtube.com/watch?v=p-fvQwxYBBI (https://www.youtube.com/watch?v=p-fvQwxYBBI)

Third-party video, selected automatically for this topic. It is not produced by Engineering Hardware and is not a specification source — use the tables on this page for dimensional data.

Inside the plant

Manufactured in our own plant

This part is cold-formed, threaded, heat-treated and finished in-house. The stages below are where its class and finish are actually decided.



01

Cold heading

Wire rod is drawn to size and cold-formed into blanks. Forming rather than cutting keeps the grain flow continuous around the head, which is where a bolt is most likely to fail.

Head dimensions and under-head radius checked at set-up and per shift.



02

Thread rolling

Threads are rolled between hardened dies rather than cut. Rolled threads are stronger in fatigue than cut threads and hold pitch and flank angle far more consistently across a batch.

Go / no-go ring gauges to ISO 965 tolerance class 6g.



03

Heat treatment

Quench-and-temper brings carbon and alloy steel to the property class ordered — 8.8, 10.9 or 12.9 — with the furnace charge tracked so a finished lot can be traced back to it.

Core hardness and tensile tested per lot to ISO 898-1.



04

Surface treatment

Zinc, zinc-nickel, hot-dip galvanizing, black oxide, phosphate and Dacromet, selected against the service environment rather than against the price list.

Coating thickness and neutral salt spray hours to ISO 9227.

Frequently Asked Questions

What are Stepless Ear Clamps used for?

Closing a hose, pipe or duct joint by band tension, selected by clamp range rather than by thread size. They are supplied to Trade series (stepless ear clamps).

Which industries use Stepless Ear Clamps?

They are commonly specified in general machine building, maintenance & repair (mro) and fabrication & metalwork, among other sectors.

How do I choose the right size of Stepless Ear Clamps?

Match the size to the mating part using the dimension table on this page.

Are Stepless Ear Clamps made to a recognized standard?

Yes — they are manufactured to Trade series (stepless ear clamps), so dimensions are interchangeable between suppliers when you quote the standard on your order.

Can I get a quote for Stepless Ear Clamps in the size and material I need?

Yes. Use the technical drawing and quote form on this page to set the size and options, then send the exact configuration to our team for pricing and lead time.

Related Pages

Product page: Stepless Ear Clamps — specifications & sizes (https://engineeringhardware.com/fastener/stepless-ear-clamps/)

Stepless Ear Clamps Specification Guides

- **A4 stainless Stepless Ear Clamps** (https://engineeringhardware.com/guide/material/a4-stainless-steel-stepless-ear-clamps/)

Related Fastener Applications

- **Constant-Tension Worm Gear Hose Clamps applications** (https://engineeringhardware.com/applications/constant-tension-worm-gear-hose-clamps/)
- **Exhaust U-Bolt and Band Clamps applications** (https://engineeringhardware.com/applications/exhaust-u-bolt-and-band-clamps/)
- **Exhaust V-Band Clamps applications** (https://engineeringhardware.com/applications/exhaust-v-band-clamps/)
- **Sanitary Tri-Clamp Clamps applications** (https://engineeringhardware.com/applications/sanitary-tri-clamp-clamps/)
- **T-Bolt Hose Clamps applications** (https://engineeringhardware.com/applications/t-bolt-hose-clamps/)
- **Worm-Drive Hose Clamps applications** (https://engineeringhardware.com/applications/worm-drive-hose-clamps/)