Hand Installation Pincers (HIP)
HIP 4000 | 392, HIP 7000 | 393

OETIKER®

Connecting Technology

Recommended for the installation of Low Profile Clamp 292 and Ear Clamp 293

Benefits
- Top sealing performance
- Quick and easy installation
- Ergonomic grip

Pincer for Low Profile Clamp 292
HIP 4000 | 392

Pincer for Ear Clamp 293
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Top sealing performance: superior strength and high closing force

Economic design: cost effective for hand installation of low volume assembly or prototypes of ToothLock® clamps

Ergonomic grips: safe and simple closure

Pincer for Low Profile Clamp 292
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Jaw 1

Jaw 2

Pincer for Ear Clamp 293
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TECHNICAL DATA OVERVIEW

Pincer for Low Profile Clamp 292	
Model No.	HIP 4000 | 392
Item No.	14100392
Dimensions:	
Length	325.0 mm
Width	62.0 mm
Height	220.0 mm
Weight	612 g
Jaw width	-
Opening gap	31.0–14.0 mm
For ear width	-
Reference jaw force	4000 N

Pincer for Ear Clamp 293 *	
Model No.	HIP 7000 | 393
Item No.	14100393
Dimensions:	
Length	312.0 mm
Width	62.0 mm
Height	370.0 mm
Weight	771 g
Jaw width	12.0 mm
Opening gap	Jaw 1: 22.0–9.0 mm
	Jaw 2: 15.2–2.0 mm
For ear width	17 mm
Reference jaw force	7000 N

*Jaw 1 designed for partial ear pinch, Jaw 2 allows for completion of ear pinch

APPLICABLE CLAMPS

Product Group	Size (mm)	Closing Force Max. (N)	Ear Width (mm)	Assembly tools: Pincer for Low Profile Clamp 292 HIP 4000	392	Pincer for Ear Clamp 293 HIP 7000	393
292	57.5 – 118.0	3900	-	14100392	-
293	40.0 – 120.5	7500	17	-	14100393

Compound Action Tools

The compound action mechanism increases the mechanical advantage as the handles are closed, thus providing for higher clamping forces when needed most.

A center handle attached to one of the two handles is used to reduce the wide handle span at the beginning of the tool stroke, and folds away conveniently as the handles are brought together.

Pincer for Low Profile Clamps 292

Jaws are specifically designed to engage with the hook geometry of the 292 ToothLock® low profile clamp.

The ability to easily generate over 4000 N of closing force at any handle position, allows the user to take full advantage of the high radial loads which can be achieved with ToothLock® clamp technology.
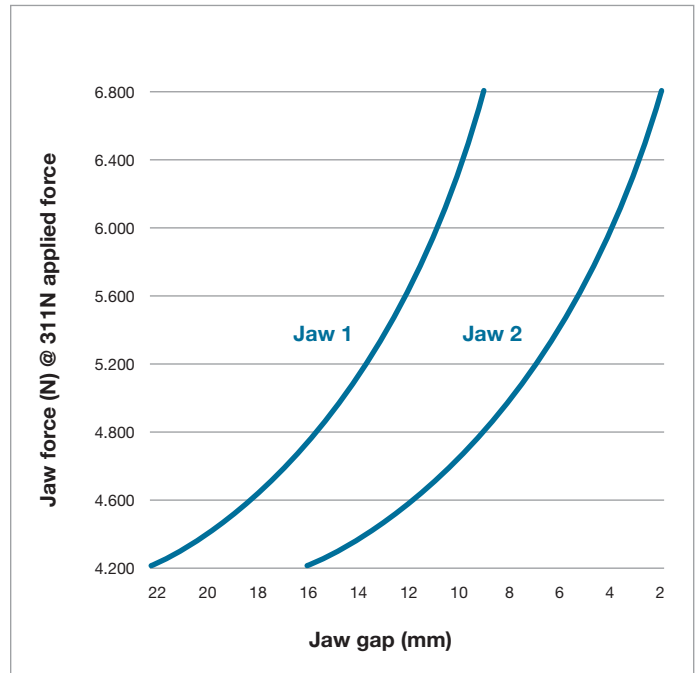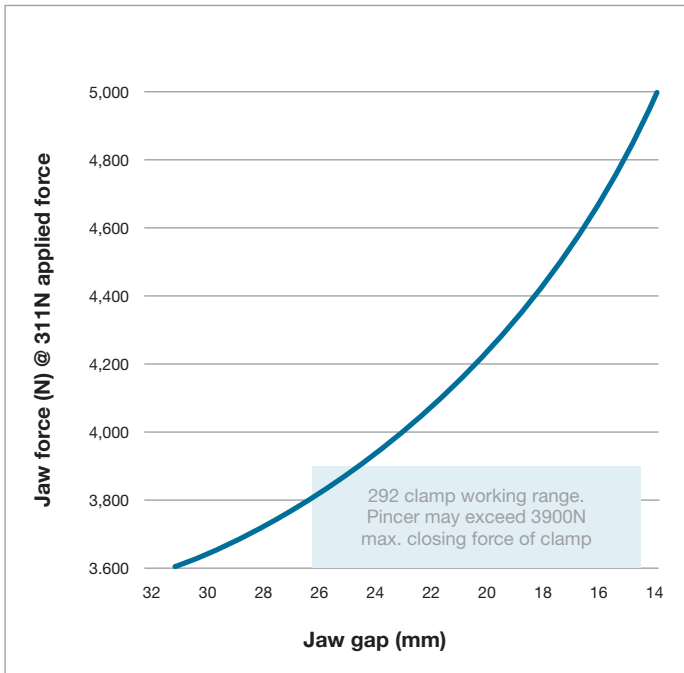
Pincer for Ear Clamps 293

Jaws are specifically designed to suit the ear of the 293 ToothLock® clamp.

Two side by side jaws take advantage of the large 17 mm closing travel of the clamp while maintaining the ability to generate high closing force. This permits the exceptionally high radial loads of the clamp to be achieved with a simple hand tool.

CLOSING FORCE COMPARISON CHARTS

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Jaw force (N) @ 311N applied force — Jaw gap (mm)

292 clamp working range. Pincer may exceed 3900N max. closing force of clamp

Jaw 1   Jaw 2

ℹ Notice: Hand pincer closing force consistency cannot be guaranteed, given the inherent variability of applied force. Reference jaw forces are guidelines only, actual pincer force varies on basis of applied hand force, local worker safety limits and specific application properties. Max closing force of clamp may be exceeded. It is the responsibility of the end-user to assure worker safety and final connection integrity.

INSTRUCTION GUIDE

Minimum closure requirements of each clamp 292 and 293 must be observed for full tooth engagement. Refer to respective clamp Technical Data Sheets for clamp sizing and further assembly details.
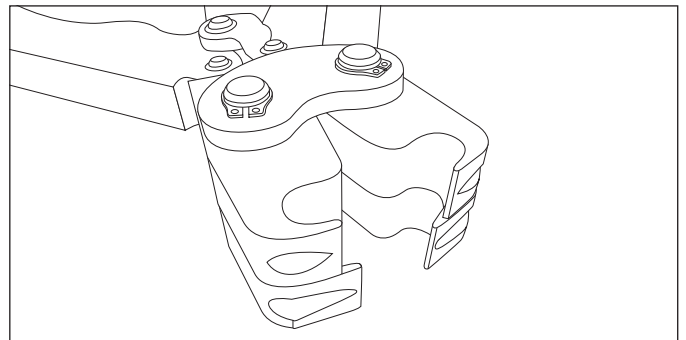
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The pincer tip geometry is specifically designed to engage with 292 tensioning tunnels. End of tool stroke coincides with minimum clamp diameter in working range.
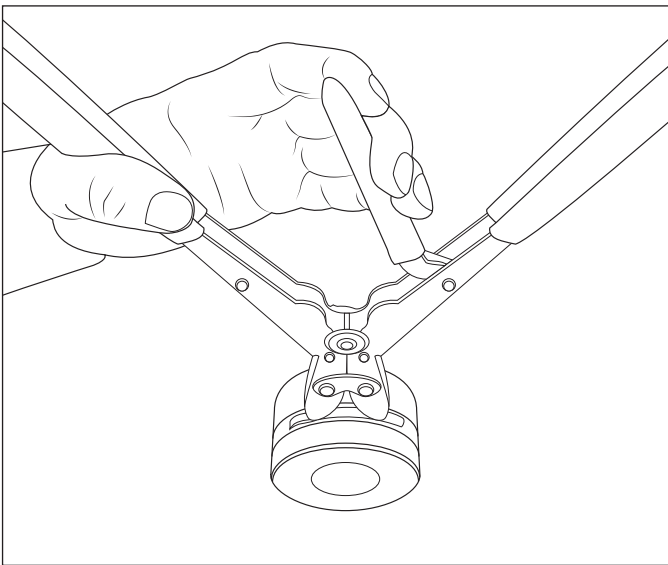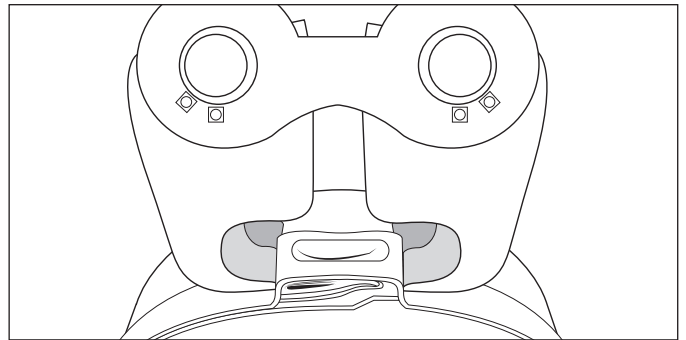

Center handle effectively increases the hand spread for easier handling at beginning of stroke
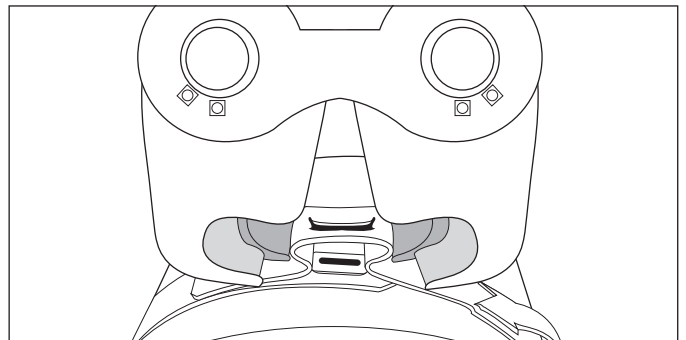
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The two jaw pincer is designed to accommodate the large 17 mm Ear.

1. Jaw 1 with wider gap is used first.

2. Position Jaw 1 over ear, close clamp as required.

3. If further diameter reduction is required at end of handle stroke, position Jaw 2 over ear and continue until desired diameter reduction is achieved.