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

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

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

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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
HIP 4000 | 392

- **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
HIP 7000 | 393

- **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

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**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.
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.

**HIP 4000 | 392**
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.

**HIP 7000 | 393**
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.

Center handle effectively increases the hand spread for easier handling at beginning of stroke.