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### Ortho Banding/Bonding Set-Up

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<td>678-909</td>
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<td>Direct Bond Bracket Holder (see Section H)</td>
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### Ortho Debanding/Debonding Set-Up

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### Ortho Archwire Set-Up

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<td>Sickle Curette, EverEdge Version (see Section D)</td>
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<tr>
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<tr>
<td>Ligature Director (see Section H)</td>
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### Ortho Lingual Line Set-Up

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<td>Lingual Distal End Cutter (see Section H)</td>
<td>678-700</td>
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<tr>
<td>Lingual Pin &amp; Ligature Cutter (see Section H)</td>
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<td>Lingual Bracket Removing Pliers (see Section H)</td>
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<tr>
<td>Lingual Hammerhead NiTi Pliers (see Section H)</td>
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<td>Lingual Ligature Director - U Shaped (see Section H)</td>
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### Ortho Clear Line Collection Set-Up

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<td>Orthodontic Plier: The Vertical (see Section H)</td>
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<td>Orthodontic Plier: The Horizontal (see Section H)</td>
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<tr>
<td>Orthodontic Plier: The Hole Punch (see Section H)</td>
<td>678-803</td>
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*See Section A for rails color coding options of IMS cassette.
THE PURSUIT OF EXCELLENCE

At Hu-Friedy, the mission is clear: we dedicate ourselves to outstanding craftsmanship through the pursuit of excellence and attention to fine detail. Over a century later, Hugo Friedman’s unerring commitment to quality and innovation lives on at Hu-Friedy. As a result, Hu-Friedy instruments are indisputably the most skillfully created precision orthodontic instruments in the world.

Every instrument we create becomes, in essence, a critical extension of each practitioner’s skill. To achieve this, we handcraft each instrument individually, assuring instruments of the highest quality, durability and performance available to the profession.

IMMUNITY STEEL® ALLOY
- A premium blend of surgical stainless steel which provides corrosion resistance, optimal strength and long product life.
- 100% stainless steel from tip to tip — no dissimilar metals reaction.
- No chrome plating to scratch off, exposing lower quality metals that rust.

ORBIT JOINT
- Consistent smooth functionality — glides smoothly with no wobble.
- True alignment of cutter tips — rattling at the joint means tips do not come together properly.
- Single part construction — no shims to wear out, seize up or corrode.

SATIN FINISH
- Dramatically reduces light reflection into the clinician’s eye because the surface absorbs light versus high polish which reflects light.

LASER ENGRAVING OF APPLICABLE WIRE SIZES
- All Hu-Friedy Ortho cutters and pliers are laser engraved with the applicable wire minimums and maximums.
Hu-Friedy’s Clear Collection consists of innovative instruments designed to accent, individualise and optimise the biomechanics of the “invisible” aligner experience with no heat required.

**The Tear Drop**

**678-800**  
An instrument created to add a notch at the gingival margin of clear aligners anywhere elastic hooks are required within the arch. The Tear Drop provides a reservoir to hold the elastics in place as the aligner is seated. This permits easier manipulation of elastics by the patient.

The Tear Drop is positioned at an angle to the force that will be applied to the clear aligner by the elastics and the depth of the reservoir cut can be adjusted to need.

The Tear Drop elastic hook can be used to hook-up elastics of all types from Class II, Class III, Delta, Class I intraarch, for connection to TADS, and to produce intrusive forces for specific teeth.

**The Vertical**

**678-801**  
The Vertical emphasises over-correction of rotations by producing an indentation at the mesial or distal line angles on the facial and/or lingual of a specific tooth. A rotational couple can also be created using vertical indents on facial and lingual surfaces on opposing sides of a tooth. The Vertical can also enhance resolution of in-and-out discrepancies.

Impress an indentation with The Vertical along the mesial or distal line angle of a tooth to enhance rotational control.
The Horizontal
678-802
The Horizontal instrument produces an indentation to accent individual root torque. It also serves a second purpose by enhancing retention of either clear aligners or retainers by placing an indent into a tooth’s undercut or below a bonded attachment.

Increase clear aligner or retainer retentiveness by producing a horizontal indent into the undercut of specific teeth or just under an attachment.

Accent individual root torque by producing an indent at the gingival margin on either the buccal or lingual for any tooth in the arch form.

The Hole Punch
678-803
The Hole Punch is used to create half-moon cutouts for relief of clear aligners around bonded buttons used for elastics. No need to attempt to attach buttons to plastic trays. In addition, the Hole Punch can nip away plastic to provide soft tissue clearance to prevent aligner impingement of tissue.

The half moon cutout can be placed on any tooth where bonded buttons or brackets are added for elastics or other biomechanics.

The Hole Punch is positioned at the gingival margin with one-half of the “circle” of the punch over the plastic of the aligner.

DID YOU KNOW?
All hinged instruments – forceps, rongeurs, scissors, pliers, hemostats, orthodontic pliers, etc. – should be kept lubricated. Regular use of proper lubricants, like Hu-Friedy Penetrating Oil (IPS) and Instrument Lubricant Spray (ILS), will prevent rust, corrosion and stiff joints to ensure smooth operation. All hinged instruments should be sterilised in the open position. See also page A26 - Ims Section
ORTHO LINGUAL COLLECTION

The Ortho Lingual Collection consists of ten instruments that feature:

• Optimal intraoral access
• Ideal visibility for clinician
• Enhanced comfort for patient
• More time savings allowing for additional patient education

Every ortho instrument from Hu-Friedy is created using the highest quality materials, processes and quality assurance.

Lingual Distal End Cutter
678-700
Wire size: .012” to .018”

Occlusal view of the Lingual Distal End Cutter cutting the excess archwire distal to the buccal tube.

Lingual Pin & Lig Cutter
678-701
Wire size: ≤ .012"

Occlusal view of the Lingual Pin & Lig Cutter cutting the excess steel ligature.

Lingual Weingart Pliers
678-702
Wire size: ≤ .030"

Occlusal view of the Lingual Weingart Pliers guiding the archwire into the bracket slot.
Lingual Mathieu Pliers
678-705
Occlusal view of the Lingual Mathieu Pliers tying steel ligature to hold the arch wire into bracket slot.

Lingual Weingart Pliers, 90° Bend
678-702-90
Wire size: ≤ .030"

Lingual Bracket Removing Pliers
678-703
Lingual view of the Lingual Bracket Removing Pliers debonding the bracket.

Lingual Hammerhead NiTi Pliers
678-704
Wire size: ≤ .025"
Occlusal view of the Lingual Hammerhead NiTi Pliers bending NiTi wire distal to the buccal tube.

Lingual Arch Forming Pliers
678-309
Designed to create double back and triple back bends in .030" and .036" lingual arch wires.
Wire size:
≤ .036" (.91 mm)

Lingual Hammerhead NiTi Pliers with Serrations
678-704SER
Wire size: ≤ .025"
Lingual Ligature Director 678-706
Wire size: ≤ .021" x .025"

Lingual Ligature Director, U Shape 678-707
Wire size: ≤ .021" x .025"

Lingual Torquing Key with Picker 678-708
Slot size .018"
CUTTERS

With our diamond-honed cutting edges and orbit-formed joint, you will experience sharp and accurately-aligned cutting edges for every procedure, every time.

For each individual area of focus, we provide a specifically engineered cutter. To meet these stringent standards, all of our blades are hand-finished to maximise cutting performance for the appropriate wire size.

**Universal Cut & Hold Distal End Cutter**

**678-101**

When used intraorally it safely holds the cut portion to be discarded. Patient comfort is enhanced by the smooth, tapered tip.

Wire size:

\[ \Phi = 0.012” \times 0.021” \times 0.025” \]

\[ (0.30 \text{ mm} \times 0.53 \text{ mm} \times 0.64 \text{ mm}) \]

**Universal Cut & Hold Distal End Cutter with Long Handle**

**678-101L**

Same as 678-101, with long handle.

Wire size:

\[ \Phi = 0.012” \times 0.021” \times 0.025” \]

\[ (0.30 \text{ mm} \times 0.53 \text{ mm} \times 0.64 \text{ mm}) \]
Flush Cut Distal End Cutter, No Hold
678-102
An exceptional universal cutter for all types of wires.
Wire size: ≤ .021" x .025"
(.53 mm x .64 mm)

Hard Wire Cutter, 15°
678-103
15° offset tip enhances access in difficult areas. Designed to cut hard wires.
Wire size: ≤ .022" x .028"
(.56 mm x .71 mm)

Multi-Use Cutter
678-105
Designed to cut soft wire pins and ligature wires.
Wire size: ≤ .015" (.38 mm)

Mini Pin & Ligature Cutter
678-106
Slim profile is a plus in difficult to access areas. Designed to cut soft wire pins and ligature wires.
Wire size: ≤ .012" (.30 mm)

Hard Wire Cutter
678-104
Designed to cut hard wires.
Wire size: ≤ .022" x .028"
(.56 mm x .71 mm)

Micro-Mini Pin & Ligature Cutter
678-107
Ultra slim profile is a plus in the most difficult to access areas. Designed to cut soft wire pins and ligature wires.
Wire size: ≤ .012" (.30 mm)
Micro-Cutter 678-110
Ligature cutter with reduced tip dimension. Designed to cut soft wire pins and ligature wires.
Wire size: ≤ .012" (.30 mm)

Flush Cut & Hold Distal End Cutter 678-111
Cuts and holds wire distally flush to the buccal tube while reducing debondings. Designed for all types of wires.
Wire size: ≤ .020" (.51 mm)

Micro-Mini Pin & Ligature Cutter with Long Handle 678-107L
Same as 678-107, with long handle.
Wire size: ≤ .012" (.30 mm)

Cuts and holds wire distally flush to the buccal tube while reducing debondings. Designed for all types of wires.
Wire size: ≤ .020" (.51 mm)

Micro-Mini Pin & Ligature Cutter, 15° 678-109
15° offset tip with ultra slim profile is a plus in the most difficult to access areas. Designed to cut soft wire pins and ligature wires.
Wire size: ≤ .012" (.30 mm)

Slim Flush Cut & Hold Distal End Cutter 678-113
Cuts and holds wire distally flush to the buccal tube while reducing debondings. Designed for all types of wires.
Wire size: ≤ .012" to .021" x .025"
(.30 mm - .53 mm x .64 mm)

Micro Cutter 678-110
Ligature cutter with reduced tip dimension. Designed to cut soft wire pins and ligature wires.
Wire size: ≤ .012" (.30 mm)

Slim Micro Cutter 678-500
The slender tip allows for easier access when removing elastics. The face of the cutter has been scooped out and reduced by 13% as compared to our original 678-110 to enhance visibility.
Wire size: ≤ .008" to .012"
UTILITY PLIERS

Strong, yet lightweight and perfectly balanced, the dimensions of these instruments are perfectly proportioned, they fit your grasp with unsurpassed ease. Designed to provide superior control with effortless versatility, Hu-Friedy’s Utility Pliers assure comfort to both you and your patients.

Weingart Pliers
678-201
Versatile utility pliers with serrations. Tapered 32° angular design is convenient for placement and removal of archwires.

Slim Weingart Pliers
678-202
Slim, tapered 20° tips with serrations offer greater access and versatility.

Weingart Pliers with Long Handle
678-201L
Same as 678-201, with long handle.

How Pliers
678-203
How utility pliers have serrated tips. Useful for placement and removal of archwires, pins and other auxiliaries.
How Pliers, Offset 678-204
Similar to the straight How pliers, except tips are angled at 40° for accessing lingual and other hard to reach areas.

Band Seating Pliers 678-205
Serrated tips grip brackets to assist in placing bands.

Adhesive Removing Pliers 678-206
Reversible, replaceable blade is used to remove the bulk of composite material after debonding attachments.

Posterior Band Removing Pliers, Long 678-207
The alignment of the tip and occlusal pad is well suited for posterior band removal.

Posterior Band Removing Pliers, Short 678-208
The offset alignment of the tip and occlusal pad is well suited for band removal.

Force Module Separating Pliers 678-210
Used for placement of elastic separators.

Coon Style Ligature Tying Pliers 678-211
Most popular pliers for tying stainless ligature wires.
Wire size: ≤ .015" (.38 mm)

Tip Back Pliers 678-216
Bends down the distal extension of an archwire protruding past the buccal tube. Unique contra-angle design allows for easy intraoral access. With long handle.
Wire size: ≤ .022" x .025" (.53 mm x .64 mm)

Bracket Removing Pliers 678-219
Works well for steel, ceramic and plastic brackets of all types.

Angulated Bracket Removing Pliers 678-220L
High angle design in long handle is effective for removal of all bracket styles from anterior and posterior teeth.

Crown & Band Contouring Pliers 678-221
Designed for fitting of stainless steel crowns and bands.

Slim Crown & Band Contouring Pliers 678-221M
Same as 678-221, with slimmer beak.
**Utility Pliers**

**Slim Crown & Band Contouring Pliers**

**678-221MC**

Same as 678-221, with slimmer beak.

**Steiner Tying Pliers**

**678-222**

Ideal for tying stainless steel ligature wires.

Wire size: ≤ .015" (.38 mm)

**Band Crimping Pliers**

**678-225**

Thin tips allow for easy access into molar and bicuspid bands.

**Band Crimping Pliers with Spring**

**678-225M**

Thin tips allow for easy access into molar and bicuspid bands. With spring.

**Ultra Slim Weingart Pliers**

**678-501**

Wire size: ≤ .030"

**Slim Band Removing Pliers**

**678-503**

With a 21% thinner and more tapered working end compared to our original 678-207 model, the Slim Band Removing Pliers allow for easy accessibility helping limit patient discomfort.

**DID YOU KNOW?**

Instrument lubricants are ideal for: forceps, rongeuros, pliers, needle holders, arterial clamps etc.

See also page A26 - Ims Section
WIRE FORMING PLIERS

These instruments perform as natural extensions of your professional artistry. Our impeccably smooth finished tips allow you to bend the wire without risk of damage. Whether you are shaping stainless steel or nickel titanium, Hu-Friedy has a hand-finished, precision instrument to help bring your brilliant workmanship to life.

Jarabak Pliers
678-301
Wire size: \( \leq .020" \) (0.51 mm)

Three Jaw Pliers
678-302
Useful for contouring and bending wire.
Wire size: \( \leq .030" \) (0.76 mm)

Omega Loop Forming Pliers
678-303
Graduated cone is designed to form precise omega loops: .045", .060" and .075"
Wire size: \( \leq .022" \times .025" \) (.53 mm x .64 mm)

Bird Beak Pliers
678-304
Versatile loop forming pliers for round wires.
Wire size: \( \leq .030" \) (0.76 mm)
Light Wire Bird Beak Pliers with Groove 678-305
A longer cone than a standard bird beak is useful for forming precise loops in light wire. The groove allows for locating and duplicating loops.
Wire size: \( \leq .020" \) (.51 mm)

Tweed Loop Forming Pliers 678-306
Loop forming pliers with .045", .060" and .075" diameters for creating bull and helical loops in wires.
Wire size: \( \leq .022" \times .025" \) (.53 mm x .64 mm)

Arch Bending Pliers 678-307
Designed for placing first, second and third order bends, .050" blade width.
Wire size: \( \leq .022" \times .025" \) (.53 mm x .64 mm)

Tweed Pliers, Slim 678-307S
Designed for placing first, second and third order bends, .025" blade width.
Wire size: \( \leq .022" \times .025" \) (.53 mm x .64 mm)

Rectangular Arch Bending Pliers 678-308
Designed for placing first, second and third order bends, .070" blade width.
Wire size: \( \leq .022" \times .025" \) (.53 mm x .64 mm)

Hollow Chop Contouring Pliers 678-310
Perfect for subtle contouring of arch wires.
Wire size: \( \leq .030" \) (.76 mm)

O’Brien Pliers 678-311
For precise forming of small helical loops and intraoral tip back bends.
Wire size: \( \leq .020" \) (.51 mm)

Mini Three Jaw Pliers 678-312
Tips are rounded for ease of contouring light wire.
Wire size: \( \leq .030" \) (.76 mm)
WIRE FORMING Pliers

**General Contouring Pliers**
678-315
Tapered, serrated pliers for ease of contouring archwires.
Wire size: ≤ .012" x .025" (.53 mm x .64 mm)

**Marcotte Looping Pliers**
678-316
For precise forming of helical loops and T loops. No right angles. Prevents stress fracture of wires.
Wire size: ≤ .022" x .025" (.53 mm x .64 mm)

**Hollow Chop Pliers**
678-317
Same as 678-310, with reduced radius.
Wire size: ≤ .030" (.76 mm)

**Light Wire Bird Beak Pliers**
678-318
A longer cone than a standard bird beak is useful for forming precise loops in light wire.
Wire size: ≤ .020" (.51 mm)

**Nance Loop Forming Pliers**
678-319
For precise forming of loops in four lengths: 3, 4, 5 and 6 mm. Groove at base aids in closing loops.
Wire size: ≤ .022" (.53 mm)

**Adams Pliers**
678-320
Excellent precise right angle bends and appliance application.
Wire size: ≤ .040" (1.01 mm)

**V-Stop Pliers**
678-321
Places V bend in archwires, including nickel titanium, to prevent archwire from traveling.
Wire size: ≤ .022" x .025" (.53 mm x .64 mm)

**NiTi Three Jaw Pliers**
678-322
Designed for forming and contouring of all archwire, especially for NiTi.
Wire size: ≤ .020" (.51 mm)

**Optical Pliers**
678-323
Excellent for forming helical closing loops and arch adjustments.
Wire size: ≤ .022" x .025" (.53 mm x .64 mm)
Bird Beak Pliers with Cutter
678-325
Smooth bending surfaces for a range of loop sizes while providing a sharp blade for cutting.
Wire size: ≤ .022" x .025" (.53 mm x .64 mm)

Long Tapered Bird Beak Pliers
678-326
Bends a variety of smooth loops.
Wire size: ≤ .022" x .025" (.53 mm x .64 mm)

Old Style Loop Pliers
678-324
Provides optimum accuracy and precision in forming and closing loops with one cylindrical three-step beak and one triangular beak.
Wire size: ≤ .022" x .025" (.53 mm x .64 mm)

Hammerhead® NiTi Tie-Back Pliers
678-327
Multi-use NiTi bender, no heat.
Wire size: ≤ .025" (.63 mm)

Torquing Pliers with .016" / .018" key
678-328-20
Torquing Pliers with .018" / .022" key
678-328-21

Slim Hammerhead NiTi Pliers
678-502
For NiTi wire only, no heat.
Wire size: ≤ .025"
HAND INSTRUMENTS

All of our Orthodontic hand instruments are available in a variety of ergonomic handle sizes to accommodate your personal preference. Finely tuned to achieve accurate weight, balance and tip alignment, Hu-Friedy produces only the highest caliber tips and handles, in the manner of precision and excellence you demand.
Direct Bond Bracket Holder 678-212
Slim Direct Bond Bracket Holder 678-212M
Slim Direct Bond Bracket Tweezers 678-504
Slim Buccal Tube Bonder Tweezers 678-505
Distal Cinch Back Hand Instrument 678-506
Wire size: \( \leq 0.021" \times 0.025" \)
H20

HAND INSTRUMENTS

Dull Scaler
678-910

Dull Scaler
678-911

Ligature Director/Band Pusher
678-912

Dull Scaler
678-913

Scaler/Picker
678-914

Picker/Ligature Director
678-916
Band Pusher
BP300
Aids in placement and burnishing of band.

Band Pusher/Scaler
BP300S
Same as BP300 except the working end is shorter.

Band Pusher/Scaler
BPS1
Versatile instrument for band placement and cleanup of band cement.

Band Pusher/Scaler
BPS2
Same as BPS1 except the working end of the band pusher is shorter.

Fillion Explorer/Ligature Director
FE/LD
Ideal for placing and removing elastic ligatures with lingual brackets.

Ligature Director
LD1

Ligature Director
LDG2
Ligature Director/Plugger
LDP

Ligature Director Tucker
LDT

Plugger/Ligature Picker
PLPK

Lingual Ligature Director, .018"
SNLD1

Lingual Ligature Director, .025"
SNLD2

Lingual Torquing Key
TK018
Designed for proper wire placement and improved torque expression in an .018" slot lingual system.

Straight .020" Applicator
TK020S

Single End Ligature Director
WBI-M/R
MATHIEUS, SCISSORS & HEMOSTATS

Created with the same meticulous attention to detail as our pliers, Hu-Friedy hinged instruments are also forged from Immunity Steel® Alloy, making them resistant to rust and corrosion.

Ortho Mathieu, Narrow Tip Pliers
678-330
Slimmer tip makes this ideal for gripping and placing elastic auxillaries.

Ortho Mathieu, Wide Tip Pliers
678-331
With wider, stronger tips.

Ortho Mathieu, Perma Sharp® Pliers
678-332
Thin tips made with Carbide inserts
Golden handle.

Halsted-Mosquito Hemostat
H4

Crown & Gold Scissors Curved
SCGC

Crown & Gold Scissors Pedo
SCGCP

Crown & Gold Scissors Straight
SCGS

Wire-Cutting Scissors
WCS
Serrated blade; notch for soft wire-cutting.
## Replacement Parts

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
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<tbody>
<tr>
<td>Replacement blade for 678-206</td>
<td>678-001</td>
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<tr>
<td>Replacement blade for 678-303</td>
<td>678-002</td>
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<tr>
<td>Silicone Insert for 678-111</td>
<td>678-011</td>
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<tr>
<td>Silicone Insert for 678-113</td>
<td>678-013</td>
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<tr>
<td>1/4&quot; Replacement pads for 678-207, 678-208, 678-503</td>
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<tr>
<td>1/4&quot; Replacement pad for 678-206</td>
<td>678-014A</td>
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<td>1/8&quot; Replacement set screw for 678-206, 678-303</td>
<td>678-018</td>
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<td>Torquing Key .016&quot; / .018&quot;</td>
<td>678-020</td>
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<td>Torquing Key .018&quot; / .022&quot;</td>
<td>678-021</td>
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<td>3/16&quot; Replacement pad for 678-207, 678-208, 678-503</td>
<td>678-036</td>
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<td>Quantity: 6</td>
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</tbody>
</table>
REFERENCE

**DO’S & DON’TS OF PROCESSING INSTRUMENTS**
For best results, Hu-Friedy recommends the use of ultrasonics for instrument cleaning and steam autoclaves for sterilisation. Never use tartar remover on instruments. For light stains, we recommend Shine reNEW™ Cleaner. Never spray surface disinfectant near instruments. Use only approved lubricant (Never use WD-40 or Handpiece lube).

**STAINLESS STEEL INSTRUMENTS**
While stainless steel has superior corrosion resistance, it will discolor and corrode when exposed to higher than recommended chemical concentrations or certain chemicals.

Stainless steel should not be exposed to the following chemicals:
- Sodium Hypochlorite (household bleach), Tartaric Acid (stain and tartar remover), Aluminum Chloride, Barium Chloride, Bichloride of Mercury, Calcium Chloride, Carbolic Acid, Chlorinated Lime, Citric Acid, Dakin’s Solution, Ferrous Chloride, Lysol, Mercuric Chloride, Mercury Salts, Phenol, Potassium Permanganate, Potassium Thiocyanate or Stannous Chloride.

The following chemicals should NEVER be used with stainless steel: Aqua Regia, Ferric Chloride, Sulfuric Acid, Hydrochloric Acid or Iodine.

**HINGED INSTRUMENTS**
All hinged instruments - forceps, rongeurs, scissors, pliers, hemostats, orthodontic pliers, etc.—should be kept lubricated. Regular use of proper lubricants, like Hu-Friedy Penetrating Oil (IPS) and Instrument Lubricant Spray (ILS), will prevent rust, corrosion and stiff joints and will ensure smooth operation. (Household lubricants and handpiece lubricants are NOT recommended.)

**INSTRUMENT CLEANING**
All instruments need to be cleaned before they are sterilised. They should be washed with a non-corrosive, low sudsing neutral detergent. Instrument cleaning can be accomplished by ultrasonic cleaning, which is the method of choice to prevent hand injuries caused by hand scrubbing.

**INSTRUMENT STERILISATION**
Sterilisation is a process that kills microorganisms. There are three common methods of heat sterilisation used in the dental office that can be verified by spore testing (steam autoclave, dry heat, and chemical vapor). Sterilise hinged instruments in the open position. For a comparison of heat sterilisation methods, visit our website at Hu-Friedy.eu.

**SHARPENING**
Sharpen cutters regularly. How often depends on such factors as the frequency of use, types of applications the cutter is being used in, etc. Routinely inspect cutters to determine if sharpening is required. Sharp instruments cut more efficiently and regular sharpening will enhance the life of your cutter.

**TROUBLESHOOTING**

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>PREVENTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPOTTING</td>
<td>• Insufficient rinsing after ultrasonic cleaning</td>
<td>• Rinse thoroughly under steady stream of water for 30 seconds</td>
</tr>
<tr>
<td></td>
<td>• Insufficient drying after ultrasonic cleaning</td>
<td>• Rinse with hot water</td>
</tr>
<tr>
<td></td>
<td>• Not changing ultrasonic solution</td>
<td>• Optional: Dip cassettes in alcohol after rinsing</td>
</tr>
<tr>
<td></td>
<td>• Steriliser has not been cleaned</td>
<td>• Solution should be changed at least once a day</td>
</tr>
<tr>
<td>RUST</td>
<td>• Corrosion from carbon steel instruments spreads to stainless steel instruments solution</td>
<td>• Sterilisers should be cleaned weekly</td>
</tr>
<tr>
<td></td>
<td>• Use only distilled water for reservoir</td>
<td>• Separate stainless and carbon instruments</td>
</tr>
<tr>
<td></td>
<td>• For carbon steel instruments: Dip in pre-sterilised rust-inhibiting solution as suggested by steriliser manufacturer</td>
<td>• Rinse and dry instruments thoroughly</td>
</tr>
<tr>
<td></td>
<td>• Never use household bleach or stain and tartar remover</td>
<td>• Use approved cleaning, sterilisation solutions only</td>
</tr>
</tbody>
</table>
Hu-Friedy, at its sole option, will repair or replace for a period of three years following the date of purchase, orthodontic cutter 678-113 and 678-700 that fail as a result of a defect in materials or workmanship. Hu-Friedy, at its sole option, will repair or replace for a period of seven years following the date of purchase, all other orthodontic cutters that fail as a result of a defect in materials or workmanship. In addition, Hu-Friedy, at its sole option, will repair or replace for a period of ten years following the date of purchase, any orthodontic utility pliers or wire bending pliers that fail as a result of a defect in materials or workmanship.

For additional warranty information including limitations on warranties and exclusions, please visit Hu-Friedy.eu.
For more information about Hu-Friedy’s Total Solutions visit HU-FRIEDY.EU