

Esthetic Clasp Options for Cast Partials

Achieving optimal aesthetics while maintaining retention, stability and healthy tooth structure has always been a challenge with cast partial dentures. Today's patient demands cleaner, brighter and more perfect teeth no matter what the restorative situation. Yet, the use of clasps has resulted in highly visible metal display, drawing attention to the restoration.

In the past, the only real aesthetic alternative for dental professionals was to go through the expense and technical difficulties involved with incorporating precision attachments into the prosthesis or cutting down healthy natural teeth for use as abutments. Now, with "Hidden Clasp" partial denture systems such as Saddle-Lock®, clasp retained cast partials can be crafted without visible metal display. Twenty-first century materials and techniques have made the creation of lighter, stronger, aesthetic partial dentures easier and more reliable than ever before – without the aid of cast crowns or expensive precision attachments. For patients who do not wish to have metal in their mouths or for cases where no preparation of teeth is desired, NaturalFlex™ II acetyl resin partials and removable bridges offers superior strength and a vastly expanded range of applications.

Saddle-Lock®



Saddle-Lock "hidden clasp" Vitallium® 2000 cast partial.



Unsightly old conventional clasp upper partial denture.

Proven Retention

The key to the revolutionary Saddle-Lock design is the use of the proximal walls (i.e., the natural mesial and distal undercut planes) rather than the buccal undercuts of abutment teeth for retention. The concavities in these surfaces are more pronounced and occur with greater dependability than those on facial tooth surfaces. When properly analyzed and measured, the resulting undercuts can be used to create retention superior to that of standard facial clasps, without producing stress on the abutment teeth. With clasp emergence back at the casting



Completely tooth-borne upper partial denture.

finish line, the necessary strength is provided for resiliency. The segment is locked to the ridge by positioning the clasp terminals at each end of the denture saddle. An extremely flexible technique, Saddle-Lock can be used with completely tooth-borne removable partial dentures and with both unilateral and bilateral distal extension prostheses.

"Retentoscope" Ensures Accurate Clasp Placement

This precision survey and design instrument is employed in the laboratory to precisely measure the depth of each undercut, ensuring an equal, yet gentle, clasp load on all abutments. Using the Retentoscope, the technician can locate the clasp in the degree of undercut that precisely coincides with the modulus of elasticity of the framework alloy. Each clasp is placed in the exact location for ideal retention and biomechanics. Adjustments are virtually eliminated. No recontouring of the mesial or distal walls is required.

Natural Management of Oral Stresses

Conventional buccal clasps transmit lateral stress during insertion, forces that are borne by the abutment tooth alone. Saddle-Lock transmits these stresses in an anterior-posterior direction, utilizing adjoining teeth for support. By placing the guide planes in contact with the guide planes of the natural teeth, lateral and horizontal forces are resisted. The abutment teeth, free from harmful forces, are protected against tenderness or soreness. This arrangement also assists with retention in the same manner as precision attachment intracoronal retainers. The seated partial denture actually resists vertical and lateral movement during mastication as the retentive points are fully reciprocated (balanced) during function, either by the guide planes or the natural teeth.

Ideal for Distal Extension Appliances

Saddle-Lock is functionally more effective than other clasp designs in coping with inadequate retention and instability in free-end saddle cases. Many distal extension appliances fail due to the excessive mobility of the free-end saddle. Saddle-Lock overcomes this shortcoming. The retentive clasp force located in the distal undercut transmits its stabilizing effect into the loose end segment of the denture, resisting dislodging forces during mastication.

Vertical and Effortless Placement

The labiobuccal aspects used by conventional prostheses frequently diverge. This lack of parallelism causes retainers to encounter tooth interference during insertion, necessitating the tilting or orthodontic pulling of the appliance from one side of the ridge to the other.

With Saddle-Lock, placement is straight, vertical and effortless due to the precise measurement and paralleling of the undercut planes with the Retentoscope. Contouring of the mesial and distal walls is not necessary. Fingertip pressure positions the partial quickly and easily, yet there is strong resistance to dislodgement.

NaturalFlex™ II



NaturalFlex II virtually disappears in the mouth as shown by white clasp on model to the left.



Temporary and unilateral.



Overlay partial.



NaturalFlex II partials.

Wide Range of Applications

Based on acetyl resin technology proven in European dentistry for over a decade, NaturalFlex II offers dental professionals and patients a host of advantages. Super strong partial dentures, removable bridges and long-term temporaries can be created with true long-term aesthetics and strength. Tooth or tissue-coloured clasps can be created every bit as thin as those made from metal – without sacrificing function or longevity. The clasps virtually disappear in the mouth. And, the material can be used to fabricate practically invisible clasps on existing metal partials as well as unilateral space maintainers, posts, implant abutments and orthodontic devices.

Unsurpassed Physical Properties

NaturalFlex II partials are lightweight, yet it is among the most resistant and stiffest non-reinforced materials. Featuring excellent tensile and shock strength, it is up to 20 times harder than restorations fabricated from standard acrylic materials.

Natural Aesthetics

With twenty colour-stable shades and three different pink hues to match conventional acrylic resins, NaturalFlex II ensures a perfect customized aesthetic match for each patient. Biocompatible, non-allergenic and monomer-free, prostheses are flexible (without warming) for a comfortable fit. All of this means excellent patient acceptance.

Conclusion

In almost any clinical situation, metal and/or acetyl resin prostheses can be created to meet the most exacting aesthetic demands. Unsightly metal clasps no longer need to be a challenge!

QUICK FACTS

Saddle-Lock®

- Indicated for completely tooth-borne removable partial dentures and unilateral and bilateral distal extension prostheses.
- Contraindications: where maximum extension is required or if edentulous areas do not exist allowing clasps to be hidden (e.g., single central or single lateral).
- Provides superb aesthetics without crowning healthy dentition.
- Cosmetically natural appearance. Unsightly buccal clasps eliminated. No visible metal display.
- Proven retention through clasp design that utilizes only proximal walls (i.e., natural mesial and distal undercut planes) of abutment teeth.
- Transmits stresses in an anterior-posterior direction, utilizing adjoining teeth for support.

NaturalFlex™ II

- Acetyl resin technology with over a decade of clinical proof.
- Create tooth or tissue-coloured clasps every bit as thin as metal – without sacrificing function or longevity.
- Indicated for super strong partials, removable bridges, long-term temporaries and implant abutments.
- Can also be employed to create virtually invisible clasps on existing metal partials.
- Up to 20 times harder than restorations fabricated from standard acrylic materials.
- Lightweight, yet among the most resistant and stiffest non-reinforced materials.
- Excellent tensile and shock strength. High elastic memory. Remarkable dimensional stability.
- Twenty colour-stable shades. Three pin hues. Perfect customized shade match for each patient.
- Excellent patient acceptance. Flexible for comfortable fit. No need to warm the appliance.

Ask For Your FREE Cast Partial/Flexible Partial Technical Information Package

The package contains:

- Four Aurum Ceramic/Classic Technical Sheets covering different Cast and Flexible Partial techniques.
- Sample Patient brochures
- Complete information on the Aurum Ceramic/Classic Cast and Flexible Partial Team™.



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