This tech sheet outlines the various levels of partial denture service available to you and your patients from Dental Arts Laboratories, Inc. We have been providing quality laboratory services to the dental profession since 1934, so we understand why you need a variety of partial denture alternatives when prescribing removable prosthetics. A few of our certified design alternatives are presented here with their respective guidelines as well as a brief overview of our precision milling and attachment services.

**PREMIUM VITALLIUM® 2000 PLUS PARTIAL DENTURES**
Each DAL partial denture framework is cast in premium Vitallium 2000 Plus alloy. Vitallium 2000 Plus guarantees you ideal strength and biocompatibility, as it is one of the purest forms of chrome cobalt alloy with no nickel and no beryllium. For your convenience, all Vitallium partial dentures are flat-rate, unit-priced for predictable fee quotation to your patients.

**FREE SURVEY AND DESIGN SERVICE**
DAL provides FREE survey, design and estimates on your study casts to assist with preparation guidelines and treatment approval. Simply send us your study casts and we’ll do the rest.

**PRECISION/COMBINATION FIXED WITH REMOVABLE RECONSTRUCTION**
As a complete service laboratory, DAL provides you with the interdepartmental communication, technical expertise and case planning skills to properly facilitate the fabrication of combination fixed with removable reconstruction. We provide you with a complete line of precision attachment services to include both precision milling technology as well as our unique Spark Erosion electro-machined attachments. With Spark Erosion, both primary and secondary attachments are machine fit simultaneously with both components in exact relationship to one another. This unique ability eliminates the inaccuracy of fit and prolongs the life of the attachment. Featured below are a few of our attachment options. Please call us for a complete listing.
THE EQUIPOISE® SYSTEM - A COMPLETE SYSTEM FOR PARTIAL DENTURE DESIGN

The Equipoise System provides you with a complete system for esthetic partial denture design – from conventional to semi-precision milled and precision C&L attachment applications.

THE EQUIPOISE BALANCE OF FORCE PRINCIPLE

The Equipoise principle of partial denture design protects, preserves and strengthens abutment teeth while directing all masticatory forces down the long axis of the abutment tooth.

This is accomplished through the use of the Equipoise Class II lever design. The Class II lever design has the rest (fulcrum) opposite of the retentive tip of the clasp (resistance arm) and the denture base (the effort arm). The clasp arm always moves in the same direction as the denture base while directing all forces down the long axis of the retaining abutment tooth. With the Class II lever design, you always obtain stability during mastication and retention only when needed against dislodging forces.

EQUIPOISE C&E MILLED DESIGN

The C&E Milled Design features the application of a milled abutment crown (12 degree milled undercut) with a precision C-rest (for stabilization and reciprocation) and a conventional E-clasp (for retention). This semi-precision design shows no metal while maintaining proper contact with the adjacent tooth.

EQUIPOISE CLASP PREPARATION GUIDELINES

The E-clasp is a lingual back-action clasp that is fully reciprocated, vertically and horizontally.

Rest Preparation:  
The occlusal rest is prepared with a cylindrical diamond stone. On bicuspid the rests should be spoon-shaped and encompass 1/3 the mesiodistal width of the tooth and at least 2/3 of the buccolingual width. Molar rest seats should encompass 1/4 the mesiodistal width and 2/3 buccolingual width.

Rests on incisors are prepared over the cingulum or on the incisal edge of the tooth. The cingulum rest should be at least 1 mm deep and 1/2 the width of the tooth mesiodistally away from the edentulous area. The incisal rest should be at least 1-1/2 mm deep and 1-1/2 mm wide.

Interproximal Preparation:  
An interproximal access of at least 1 mm is necessary to give the minor connector enough strength to support a well contoured rest. This preparation is made by removing 1/2 mm of enamel from the abutment and 1/2 mm enamel from the adjacent tooth. A 1 mm tapered diamond stone is recommended. Rubber wheel or polish cut surfaces.