



The BDT Technique®



FRAMEWORK



Individual e.max units & Polymer



BDT IMPLANT BRIDGE

CASE STUDY

RESTORING A FULLY EDENTULOUS ARCH

UTILISING MODERN MATERIALS & TRADITIONAL TECHNIQUES

By Phil Reddington & Lee Mullins

Planning.

All implant cases undertaken at the lab follow a pathway that begins with detailed planning

This case study is the 3rd in a series detailing our use of the BDT Implant bridge to restore full edentulous arches.

In this article we intend to demonstrate the flexibility of the BDT System .We start the case at the Bite registration stage after all previous stages of treatment i.e. tooth removal and provisionalisation have been completed and the clinician is happy with the oasis integration of the the implant fixtures.

Fig 1 & 2 shows a tripodised bite block



The simplicity of the system starts at the very beginning we supply the dentist with a Tripod fixed Bite rim. The bite rim is simply clicked into the patients mouth utilising lab supplied locator type abutments.

This allows the dentist to simply snap the bite rim in and out making it quick and easy to adjust without repeatedly screwing the bite rim in and out this also prevents wax or debris getting into the cylinders as no cylinders are present allowing if required major adjustments either additive or subtractive without damaging the fit of the rim.

We have had excellent feedback from our clients using this Method.



Once the data has been captured in the rim OVD, Lip support etc we transfer the rim to the verified master cast and mount on an articulator.

We are then ready to start the diagnostic set up. Fig 3 & 4



Once we are satisfied the set up is within the prosthetic envelope outlined by the bite rim we can then ship the set up to the dental office for try in evaluation.

Try in evaluation.

The next series of images Fig 5,6&7 show the inter-oral photographs used by the whole team Technicians, Dentist and of course the Patient to fully evaluate how things are looking and if any alterations or weeks are required. The try is also fixed on 3 locator type abutments once again making it extremely easy for the team to snap in and out to make the adjustments.



On Review of the try in photographs the team agreed a few changes would enhance the case.

Required changes were:

1. Axial inclination of canine teeth too distally inclined
2. teeth were too proclined
3. Incisal embrasures needed opening
4. facial planes of anterior teeth were too flat

With these tweaks agreed we set about making the necessary adjustments. Fig 8&9



The Teeth are adjusted very quickly we open the facial and incisal embrasures and soften the facial planes



Fig 10 shows the case after the Left side has had the adjustments and Fig 11. shows the completed adjustment across the arch.

At this point the try in can be snapped back in and assessed once more if all parties are happy we can then proceed with turning the try in into the final restoration.

The BDT technique ensures we lose non of the data captured and verified at this point.

Producing the BDT Implant Bridge.

Once we have the try in finally verified and signed off by the patient we can begin the process of manufacturing the BDT Implant Bridge.

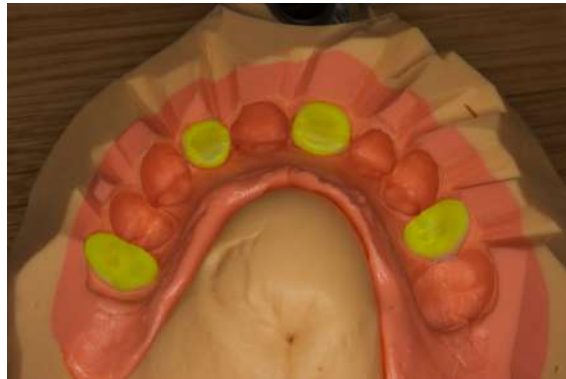
Fig 12 The master model and locator fixed try in is set in the verticulator.

Fig 13 & 14 the wax is removed and the teeth are prepped internally and placed back into the verticulator matrix to give an idealised prep



Fig 15 the Titanium cylinders are linked together with plastic resin

Fig 16 the prepped teeth are filled with resin and the 2 parts are fixed together in the verticulator Fig 17



Once the resin is set the verticulator is opened to reveal the frame and teeth Fig 18

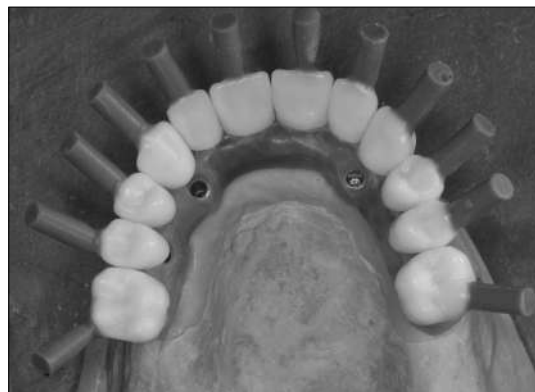
The teeth are then removed from the frame Fig 19 the frame can then be cast (alloy) Pressed (Polymer) or copy scanned and milled (Zirconia, Titanium or Chrome)



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Once the frame has been produced we can then turn our attention to the teeth. Usually the method would be to scan the teeth or to matrix and wax inject both options work but add either time expense or both!

There is also a risk of loss of data from the try in remember these teeth have been verified and the occlusal scheme and guidance ext has been fine tuned inter-orally so the logical progression is to press the exact teeth that have been used in the try in The Burn Out Denture Tooth Technique. Fig 20 & 21

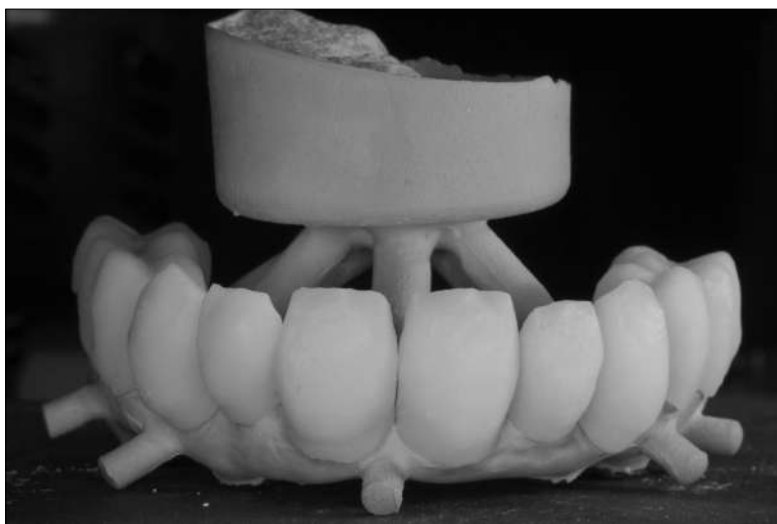


The last 5%

At this point we would like to draw your attention to this aspect of the BDT Technique.

Usually a ceramist layering a full arch of teeth and gums will spend anything from 12 to 18 hours constructing the bridge with various furnace firings and cool down times not to mention the difficulty of achieving high end aesthetics and reproducing the occlusal scheme by hand on the articulator lets face it this is extremely hard work and only fro the highly skilled ceramist.

Because we are pressing the denture teeth in Lithium dislocate (full contour posteriors & basic layering on anterior 6) we are not having to re build the entire occlusal scheme we simply stain and glaze the posteriors and apply basic layering to the anterior crowns. This allows the ceramist to spend the majority of the time on aesthetics as the function is already taken care of! Fig 22, 23 & 24



Once the staining and glazing of all posterior teeth is finished and the layering and shaping/polishing of the anteriors is finished the teeth can then be cemented to the frame. Fig 25



The final finish.

After cementation the margins of the teeth are primed ready to bond the pink composite to frame the final prostheses. Applying the pink composite is a skill in itself and really brings the ceramic restorations to life! Fig 26, 27 & 28



The completed BDT Implant Bridge.



The fit appointment.

When we are happy with the final prostheses and all final checks have been performed we are ready to ship the finished bridge to the dental office. Fig 29, 30, 31 & 32





We would like to give special thanks to Dr Liam McGraph for his clinical skills and photography in this case.



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