



# OccluMaster and Aesthetic-Press offer simplicity and efficiency

By Jörg Müller, MDT

As technicians, we face the constant challenge of maintaining the standard and consistency of every case, every time. As laboratory owners, we must balance that with efforts to reduce our overheads to remain competitive and provide a stable environment for our employees. In challenging economic times, this goal can be difficult to achieve.

What we need is a system that will ensure continuous quality throughout, improve efficiency and lower costs. That process must enable us to provide high calibre restorations to our clients, every time, regardless of which technician produced them. It must be a system that eliminates the personal style of the technician allowing the restorations produced to be uniform within the lab.

Aesthetic Press has designed a system that will meet all of these criteria. By combining prefabricated wax parts with the increasingly popular pressable systems for metal and Zirconia, they have developed a technology that promises to remove personal variation from the technicians' work, resulting in the most consistent, top-quality and economically advantageous product on the market.

## Introducing the OccluMaster

The OccluMaster is a prefabricated wax pattern that is unlike any other product on the market in its design and properties. Designed to carve as easily as dental wax, OccluMaster is also strong enough to withstand manipulation without breakage.

As a master technician, I have worked with every pattern currently available, in both wax and silicon molds. What I found was that most wax patterns were too thick, broke easily or were hard to carve. Meanwhile, the silicon molds were too difficult

to handle and, if squeezed into articulation, resulted in severe distortion of the anatomy and a damaged end product.

Whilst one technician might be skilled enough to produce high-quality results with the molds, their results were rarely reproduced by the second or third technician on the bench. Fluctuating preparation times also had a direct impact on cost.

By creating a systematic approach to using this technology, the time factor has taken a completely different role in the equation.

Table 1 shows the preparation times that can reasonably be expected in a conventional, porcelain built-up crown, versus the aesthetic-press technique using the OccluMaster wax pattern. Note the 150% gain in productivity from start to finish!

**Table 1. Working time comparison with OccluMaster**

OccluMaster		Regular Build Up	
Working time on OccluMaster crown:		Working time on build up technique	50 mins
Wax-up	10 mins	Working time on porcelain margin, 2 additional firings, plus finishing and fitting	20 mins
Invest and deinvest per unit*	3 mins		
Fit check, finish & glaze	15 mins		
Working time on porcelain margin	0 mins		
<b>Total</b>	<b>28 mins</b>		<b>70 mins</b>

\* We calculate an average of 3-4 crowns per ring.

What we needed was a new system that would be easy for any technician to use, with consistent time expenditures, whilst meeting the highest quality expectations.

## Four different OccluMasters

A wax pattern in four different anatomy styles now allows me to choose which dentist receives a certain anatomy. Some prefer a more traditional and less natural style, while others prefer a more sophisticated and dynamic occlusion.

There is also the difference between a gold surface and the porcelain crown. The finish of a nice gold crown requires a different style than the porcelain occlusion, with the option of a glaz bake. Each of these challenges is now easily addressed.

## Overview

Figures 1-4 show the different forms. The Classic form is the most basic style, while the ClassicPlus is slightly more natural looking and quite simple in morphology. The Premium form offers a more natural and functionally orientated anatomy. Finally, OccluMaster Natural is a cast of natural teeth and is therefore hard to beat.

## How to use the OccluMaster

With the help of warm air, the OccluMaster is warmed from the inside and outside before placing it on the PFM or Zirconia coping. Once the die is covered with a solid layer of dipping wax, we proceed with the same technique for full gold crowns (Figure 5-11).



Figure 1. OccluMaster Classic.



Figure 2. Occlumaster ClassicPlus.



Figure 3. OccluMaster Premium.



Figure 4. OccluMaster Natural.



Figure 5. Average occlusal clearance.



Figure 6. Positioning of OccluMaster and adding warm air.



Figure 7. The articulator is gently closed.



Figure 8. Minor adjustment on occlusion.



Figure 9. Finished crowns.



Figure 10. Pressed with Aesthetic-Press Zircon.



Figure 11. After one glaze bake only.



Figure 12. Perfectly prepared framework design.



Figure 13. First a wash bake is applied to increase the bonding of the porcelain.



Figure 14. A second opaque layer is sufficient for full coverage.



Figure 15. The finished wax up with the OccluMaster "Natural".



Figure 16. Highly aesthetic and functional anatomy in every detail.



Figure 17. The press result with the "Aesthetic-Press Classic" ingot.

### Case report

Figures 12-20 illustrate an example using the OccluMaster technique on a 3-unit bridge.

Before applying the wax pattern, the margins are first covered with a margin wax. Next the wax pattern is warmed from both inside and out with the help of a simple hairdryer. Once the wax shows signs of slight surface shine, the crown can be

pressed onto the ideal position on the die.

The wax is then exposed to warm air again, to maintain the right operating temperature, while gently closing the articulator. Depending on the situation, we can either achieve a final position at this time or can establish the final occlusion through gentle increments of warm air and further closing of the articulator. At this

point, more wax can be added at the buccal to stabilise the position of the tooth.

Once the crown is in place and its position is achieved, any necessary adjustments can be made, such as working on the approximal contact area. The occlusion should be checked with contact paper to ensure a very light occlusion in wax. This is an important step because wax, being so

soft, often leads to an increase in bite if the occlusal contact points are not established correctly.

It is critical to make sure the initial wax model is as perfect in form as possible, because any flaw in the original will cause an equal flaw in the outcome.

The goal is to wax the crown to its ideal form; no over-contouring is necessary at the margins. The porcelain will flow in the central groove even with a thickness of 0.3-0.5mm. On a buccal wall, we recommend a minimum thickness of 1.0 mm to achieve the desired colour variations.



Figure 18. Beautiful transition of the porcelain margin to the metal margin.

In most cases, all that remains to be done is adjusting the approximal contact area and refining the occlusal anatomy. In cases with very little occlusal reduction, the result will be the same using the OccluMaster wax pattern. Some situations, such as a bridge type construction, requires removing some of the approximal wall, but for the most part, the mold can be used in its original shape.

After investing the crown, we recommend using an Aesthetic-Press Zircon ingot to press over the zirconia coping. This universal ingot can be used for all colours. The necessary chroma is usually produced with one glaze bake, or sometimes two.

The result is a system that is designed to make it easier for the technician and the laboratory manager to control and achieve higher output, while maintaining the desired level of quality with each case. While it can take time to adjust to any new system, the ultimate payoff will be very satisfying.



Figure 19. With one glaze bake, the natural surface and texture is established.



Figure 20. The finished bridge with Aesthetic-Press Classic-“staining only”!

#### About the author

Jörg Müller finished his degree as technician in Germany in 1987 and was awarded top dental technician in the state of Rheinland-Pfalz. He graduated as a master technician in 1993 and opened his first dental laboratory in Düsseldorf the same year. He has lectured internationally on a variety of topics and has been published in both *Quintessence magazine* and *Dental Labor*.

*OccluMaster* and *Aesthetic Press* are distributed in Australia and New Zealand by *Australian Dental Solutions*. For enquiries, or to register interest for attending a course in Australia 2010 with Jorg Müller, please call Werner Sauer on (07) 3368-2693. For more information, see [www.apdental.net](http://www.apdental.net)

