



“The speed and accuracy of the Eden 350V 3D printer has allowed tdl Precision Orthodontics to gain a strategic advantage in the dental sector. Combined with manipulative treatment planning software, we’ve been able to compete against global giants in this sphere with obvious cost and timing advantages.” by Sid Tass - tdl Precision Orthodontics

#### CASE STUDY

# Making the right impression

**INDUSTRY** | Dental

**TECHNOLOGY** | PolyJet

#### THE CLIENT

tdl Precision Orthodontics specialises in the manufacturing of high quality orthodontic products & appliances for Dental and Medical Professionals.

#### THE TECHNOLOGY

tdl Precision Orthodontics uses PolyJet technology and resins to produce high resolution dental models and precision fitted surgical guides on an Eden 350V PolyJet 3D Printer.

### THE 3D PRINTING PROCESS

Before 3D Printing, orthodontists would take an impression of a clients mouth, the impression would be physically collected by tdl Precision Orthodontics and a plaster model would be made. From this model, a range of customised orthodontic appliances would be made to execute, complement or complete clinical treatment plans. Now, by combining intra oral scanning with 3D Printing, the Dental Professional can scan their clients teeth to produce accurate, high definition digital impressions that can be sent instantaneously to tdl Precision Orthodontics where an accurate model can be created within hours.

No more waiting for plaster to dry, tdl Precision Orthodontics can print 44 models within four and a half hours using their in-house PolyJet printer. These models are printed in high resolution ensuring an accurate and smooth surface, achieving an accuracy in the fit of retainers as never before seen.

No more messy plaster or alginate to deal with. No more trips to the orthodontist to tweak the retainer to get it right, with an accurate scan, an accurate well-fitting retainer can be produced the first time, saving hours of labour and unnecessary fittings.

“Having these digital files changes the way we service our clients,” says Sid Tass, Director tdl Precision Orthodontics. “If someone loses their retainer, they no longer need to return to the orthodontist for another impression. We can build a new one using their initial and best digital file that we store on our secure server.”

“With the advent of bio and medical materials, we are also able to print custom surgical guides specifically for patients to be used in surgery,” adds Sid. “The future of dental and orthodontic 3D Printing is very exciting. As the materials and techniques improve, we can offer a greater scope of services.”

“One day soon I hope to be able to 3D print a finished appliance for direct use in patients mouths.”

### 3D PRINTED BENEFITS

- No dusty powders
- Accurate models
- Time efficient work flow
- Cost efficient process
- Improved customer experience
- Upskilling local workforce



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