

# How different DLP 3D printing is from Milling?



- No maintenance costs for consumables
- No limitation for any angles and sides
- High accuracy and fitness
- > Low production cost
- > No dust, no noise



### Applications - Veneers











- 40 veneers at a time taking 3H and 30min
- 1kg liquid Zirconia prints 350 veneers, production cost at U\$1 in assuming retail price of U\$350
- Debinding & sintering time is 9H and flexural strength is 1000MPa
- Minimum thickness of veneers printable is
  0.2mm and recommendable thickness is
  0.4mm
- Panavia V5 produced by Noritake is recommendable for cementation

#### **Applications - Crowns**



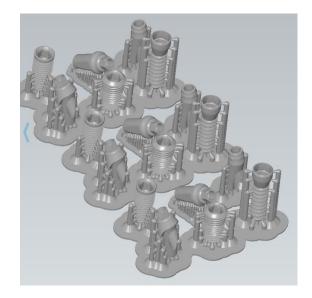


- 12 ~ 20 single crowns printable at a time taking 3H and
  30 min more or less
- 1kg liquid Zirconia prints 180 single crowns, production cost at U\$1.9 in assuming retail price of U\$350
- Debinding & sintering time is 15~23H and flexural strength is 1000MPa
- Pontic in multi-unit or bridge or implant crowns is recommendable to have hollow inside in the design file for quick and safe sintering

### Applications – Zirconia Implant Fixture & Abutment







- 15~20 customized implant fixtures & abutments printable at a time taking 3H and 30 min more or less
- 1kg liquid Zirconia prints 200 implant fixtures & abutments depending on the size, production cost at U\$1.75 in assuming retail price of U\$350
- Debinding & sintering time is 15~23H and flexural strength is 1000MPa
- Design skill is critical to keep the thickness below 5mm and to make inner circle of fixture and outer circle of abutment fit to each other

#### Applications – Customized Zirconia Ortho Bracket







- 25~ 27 customized Zirconia ortho brackets printable at a time taking 3H more or less
- Ikg liquid Zirconia prints 270 ortho brackets, production cost at U\$1.3 in assuming retail price of U\$350
- Debinding & sintering time is 9~11H and flexural strength is 1000MPa
- Ubracket software by DeltaFace is recommendable for designing of brackets
- Customized Zirconia brackets appears higher toughness over 6ksi than other ceramic brackets

## Applications - Dental Membrane(Scaffold)







- 3~6 customized dental membrane(scaffold) printable at a time taking 3H more or less
- Ikg liquid Zirconia prints 200 scaffolds, production cost at U\$1.75 in assuming retail price of U\$350
- Debinding & sintering time is 9~11H and flexural strength is 1000MPa
- The membrane should be polished for removal of membrane









