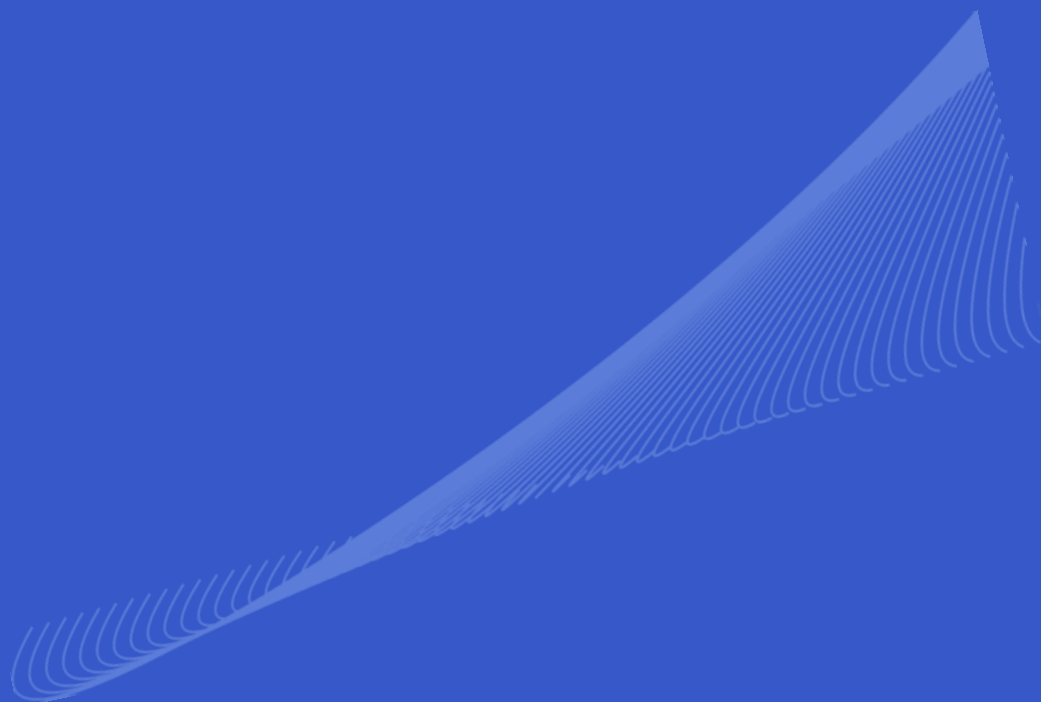



Titanium Denture Catalog



BAO-MEDITECH

82)070-4066-5848

bao-meditech@naver.com

INDEX

01

About Titanium Dentures 3

| | |
|-------------------------------------|---|
| Features | 3 |
| Weak Points of Titanium | 3 |
| Titanium Manufacturing Method | 4 |
| Recommended by BAOMEDITECH | |
| Quality of Finished Goods | 5 |

02

Manufacturing Process 7

| | |
|--------------------------------------|---|
| Project Implementation Process | 7 |
| Purchase Method & Procedure | 8 |

About Titanium Dentures

Introduction

Grade 23 Ti 6AL 4V ELI minimizes the use of O, Fe, C, etc. (impurities, interstitial solid elements). Accordingly, the strength is slightly reduced, but ductile fracture toughness is secured.



Features



Remarkable bio-affinity

Almost no allergies due to remarkable bio-affinity



High corrosion resistivity

High electrochemical corrosion resistivity



Lightness

4 times as light as gold
2 times as light as Cr-Co



Superior strength & heat conductivity

Stronger than Cr-Co
Lower heat conductivity than Cr-Co



No current event

No current event
between dissimilar metals



Easy reaction against gas elements

Easy reaction against gas elements (hydrogen, oxygen, nitrogen) at high temperatures (over 600°C)

Weak Points of Titanium

Exclusive silica investment (replication & investment)

Heating at 1100°C and casting at 250°C (preventing air bubbles & surface roughness)

Easy reaction against gas elements (hydrogen, oxygen, nitrogen) at high temperatures (over 600°C)

Arc-type casting machine argon gas (1,668°C)

Strong acidizing needed to remove oxide film after removing investment.

Air bubbles formed inside may cause fractures. Thus, air bubbles should be checked for (by X-ray)

Difficult to do centrifugal casting due to low specific gravity.

Titanium Dentures by Milling Method Recommended by BAO-MEDITECH

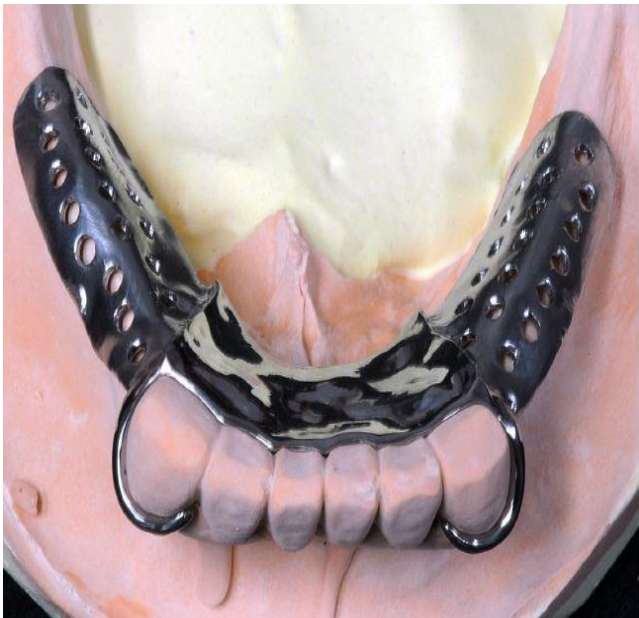
- Intrinsic mechanical features of titanium
- Relatively simple manufacturing process
- Time saving
- No casting defects
- Easy grinding
- Clasp isn't easily broken
- Superior fitness
- Substantial initial costs
- Consumption of materials (bur, titanium)



Quality of Finished Goods I

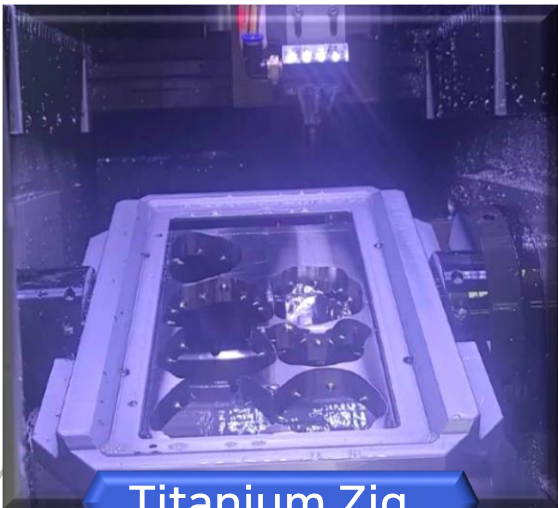


Quality of Finished Goods II



Project Implementation Process

Milling



Titanium Zig

Processing time varies based on
frame size & number of T
2.5 hours for the upper jaw plate
3.5 hours for the upper jaw
3 hours for the lower jaw
About 9 pieces a day



MANIX Pt-1

600kg Spindle- 2.2kw
Tools- 24 Chuck- 6mm
Axis 4 + Tilt Use of cutting oil
Continuous processing possible
using Scheduler

Tools

| Tool Life | | | | | | | | | | | |
|-------------|----------|----------|-------------|-----------|--------------|-------------|----------|----------|-------------|-----------|--------------|
| TOOL NUMBER | DATE | USE TIME | TARGET TIME | USE COUNT | TARGET COUNT | TOOL NUMBER | DATE | USE TIME | TARGET TIME | USE COUNT | TARGET COUNT |
| 111 | 18.11.20 | 25h 41m | 30 h 00m | 30 | 0 | 113 | 18.11.20 | 05h 38m | 30 h 00m | 14 | 0 |
| 112 | 18.11.20 | 00h 00m | 30 h 00m | 0 | 0 | 114 | 18.11.20 | 00h 00m | 30 h 00m | 1 | 0 |
| 113 | 18.11.20 | 12h 34m | 30 h 00m | 121 | 0 | 115 | 18.11.20 | 02h 45m | 30 h 00m | 69 | 0 |
| 114 | 18.11.20 | 00h 00m | 30 h 00m | 0 | 0 | 116 | 18.11.20 | 00h 00m | 30 h 00m | 0 | 0 |
| 115 | 18.11.20 | 16h 01m | 30 h 00m | 116 | 0 | 117 | 18.11.20 | 01h 03m | 30 h 00m | 32 | 0 |
| 116 | 18.11.20 | 00h 00m | 30 h 00m | 0 | 0 | 118 | 18.11.20 | 00h 00m | 30 h 00m | 0 | 0 |
| 117 | 18.11.20 | 12h 20m | 30 h 00m | 117 | 0 | 119 | 18.11.20 | 00h 00m | 30 h 00m | 0 | 0 |
| 118 | 18.11.20 | 00h 00m | 30 h 00m | 0 | 0 | 120 | 18.11.20 | 00h 00m | 30 h 00m | 0 | 0 |
| 119 | 18.11.20 | 14h 03m | 30 h 00m | 16 | 0 | 121 | 18.11.20 | 00h 00m | 30 h 00m | 0 | 0 |
| 120 | 18.11.20 | 00h 59m | 30 h 00m | 1 | 0 | 122 | 18.11.20 | 00h 00m | 30 h 00m | 0 | 0 |
| 121 | 18.11.20 | 18h 47m | 30 h 00m | 101 | 0 | 123 | 18.11.20 | 00h 00m | 30 h 00m | 0 | 0 |
| 122 | 18.11.20 | 00h 00m | 30 h 00m | 0 | 0 | 124 | 18.11.20 | 00h 57m | 30 h 00m | 71 | 0 |

| SPINDLE TOOL | ATC TOOL |
|-----------------|----------------|
| T01 | T01 |
| MPG MODE | CLEAN 1 |
| CLEAN 2 | CLEAN 3 |
| COOL OFF | COOL ON |
| A0 MOVE | A90 MOVE |
| ATC DOWN | ATC UP |
| ATC DOOR OPEN | ATC DOOR CLOSE |
| UNCLAMP | CLAMP |
| REAR | FRONT |
| TOOL HOME | TOOL GRIP |
| TOOL INITIALIZE | CLOSE |

Tool life



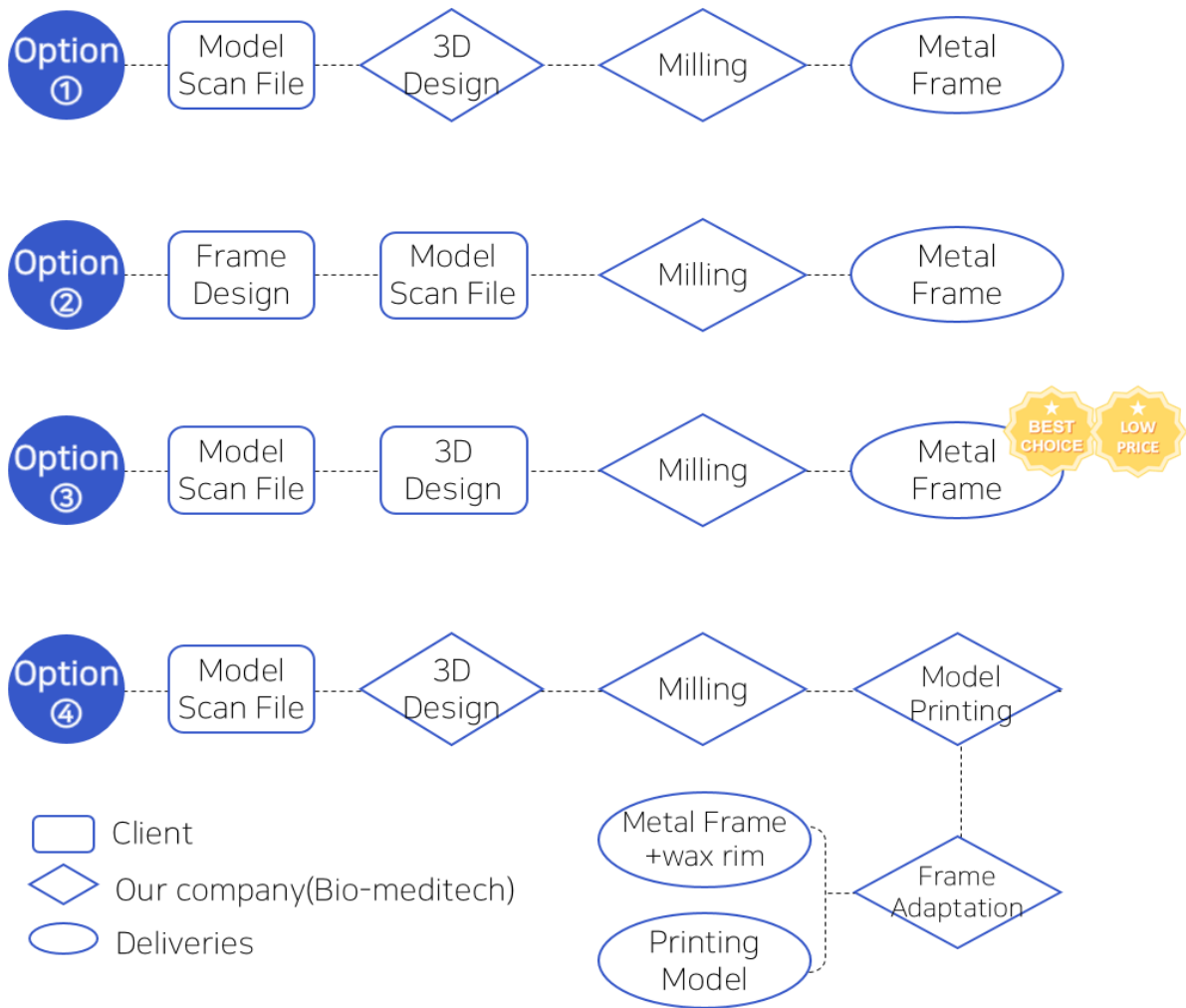
Milling bur

Purchase Method & Procedure



Partial Frame Milling Service

3D Titanium Milling Service



Model Scan File: STL file

3D Design: EXO, 3SHAPE, Dental Wing available

Frame Design: Drawing on a scan model and scanning

Model Printing: Resin 3D printing model

Titanium Milling & Design: 2-4 days

"In Lab Time" does not include shipping