

Chapter 3 Composition of the AQB implant system

Team of AQB Implant Workshop Instructors

The AQB implants are largely divided into two classes, one-piece and two-piece. The one-piece type, as can be deduced from its name, is the fusion of the part that is inserted into the jaw bone, and the abutment that acts as the interface between the superstructure and the fixture.

In contrast, in the two-piece type, the “fixture” or the root part that is buried into the jaw bone, and the “abutment” are constructed separately. To link these parts, a specialized screw is required.

With the AQB implant system, the process of implantation, except for implant placement, can be done using a single tool.

I. The structure of the one-piece type

There are two types of AQB one-piece implants, the standard, and the T-type. Each implant is given a model number, which denotes the dimensions of the implants: the diameter, the length of the root, and the length of the abutment (Fig. 4-3-1).

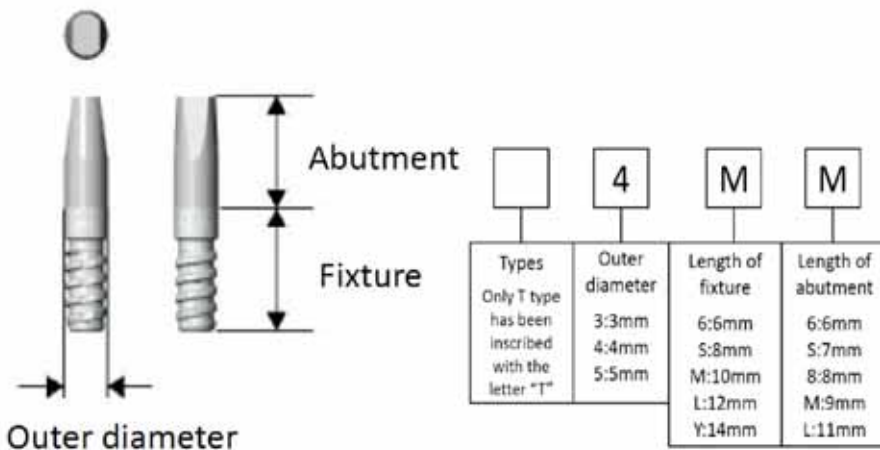


Fig.4-3-1
The sizing of AQB Implant

A. The structure of the standard one-piece type

The one-piece standard type has 27 variations, arising from three different diameters, five root lengths, and five different abutment lengths (Fig. 4-3-2)

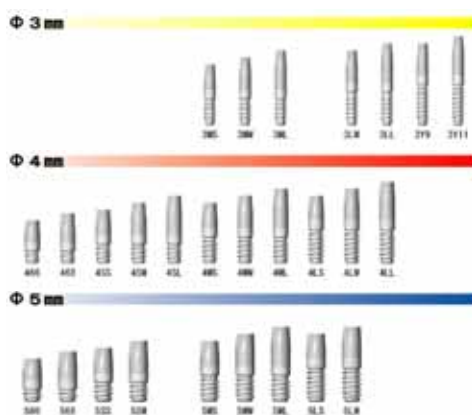


Fig. 4-3-2
The AQB one-piece implant lineup

B. The structure of the one-piece T-type

The one-piece T-type has 11 variations, arising from three different diameters, three root lengths, and two different abutment lengths (Fig. 4-3-3)

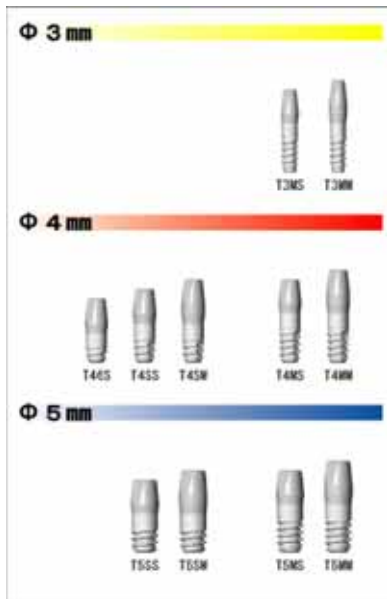


Fig. 4-3-3
The AQB T-type implant lineup

II. The structure of the two-piece type

The two-piece AQB implant is constructed of a set of fixtures and abutments. There are six fixture variations, arising from two different diameters and three root lengths. The abutment types can be separated into six classes including straight, angled, and over-denture abutments, giving rise to 28 different types in the product lineup.

The fixture comes with a healing cap attached, and all of the abutments, with the exception of the healing abutment, which is attached by a fixing screw (Fig. 4-3-4).

The characteristic of the two-piece AQB implant is the common usage of abutments. Excluding one type of abutment (the multi-abutment $\phi 4$, ss-type) all of the others can be fixed with both $\phi 4$ and $\phi 5$ fixtures.

Furthermore, by differentiating the uses of healing caps and healing abutments, it is possible to use these for both two-piece, two-stage; and two-piece, one-stage methods.

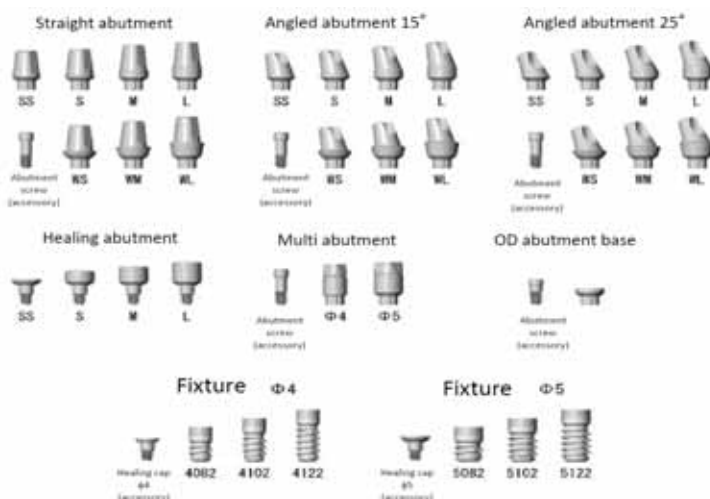


Fig. 4-3-4
The accessories of AQB two-piece type

A. The two-piece, one-stage method

This system is shown in Fig. 4-3-5. The healing abutment is used to cover the fixture after the first operation, once the fixture is implanted into the jaw bone. Gingivoplasty is conducted at the same time as implantation.

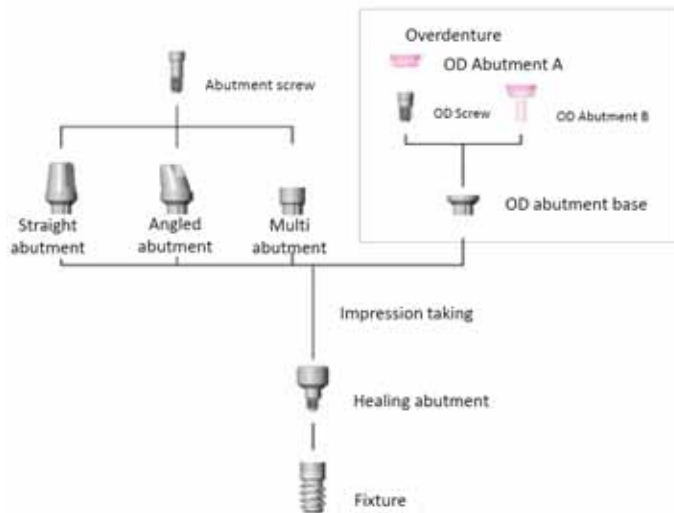


Fig. 4-3-5

Components of AQB two-piece one-stage type

B. Two-piece, two-stage method

This system is shown in Fig. 4-3-6. Here, by covering the fixture with a healing cap, the implant can be completely buried within the gum to give time for bone formation to occur. The secondary surgery is the same as with the one-stage method.

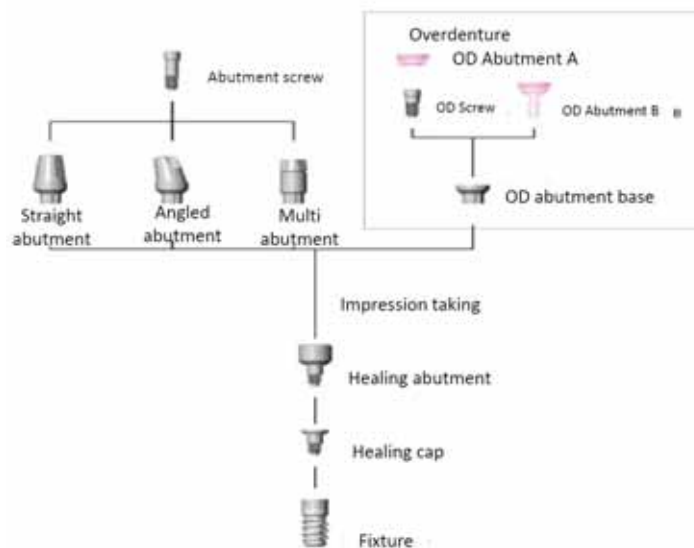


Fig. 4-3-6

Components of AQB two-piece two-stage type

III. The structure of the AQB implant prosthesis

The dental impression techniques differ for one-piece and two-piece AQB implants (Fig. 4-3-7). With regards to the one-piece type, as the fixture and the abutment component are fixed, the methods of prosthesis creation are limited.

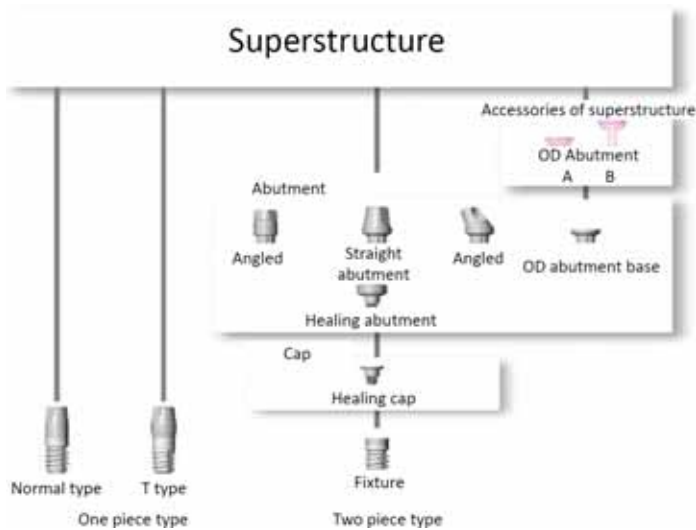


Fig. 4-3-7

Impression taking methods for AQB implants

A. The basic prosthesis of the one-piece type

The dental impression techniques for one-piece type AQB implants are done in the manner similar to that used for natural teeth.

B. The basic prosthesis of the Two-piece type

After initially mounting the abutment onto the fixture, the dental impression of the two-piece AQB implant can also be done in a manner similar to that used for natural teeth.

It is possible to create an even more precise superstructure, by performing closed-tray or open-tray techniques using the tools shown in Fig. 4-3-8.

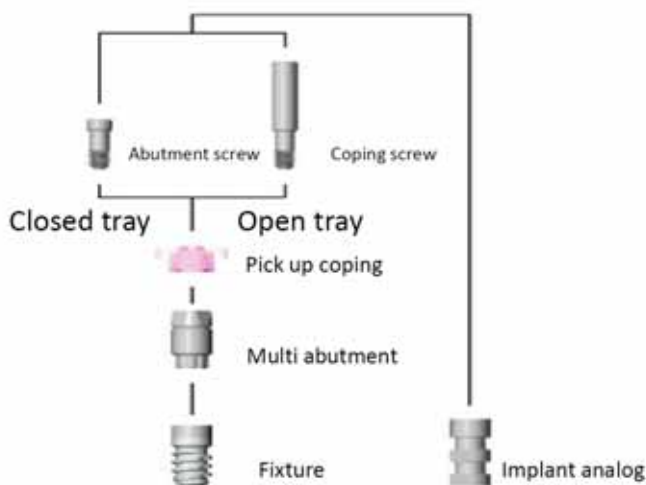


Fig.4-3-8

Tools for AQB implants impression taking

IV. The characteristics of the AQB implant system

As is shown above, a good balance exists between one-piece and two-piece types to fulfill the various needs of patients. With the one-piece type, rapid recovery of dental occlusion can be expected, and with the two-piece type, a superstructure similar in appearance to that of the patient's own teeth can be constructed. Most of the indispensable tools for surgery (drills, reamers) can be used for both types; it is therefore possible to choose to implant either system with the least amount of expenditure.

Patients' expectations of implant treatment are rising. With the wide range of treatment options available with AQB implants, each overcoming the faults of the other, it has become possible to meet the rising demands of both dentists and patients.