finishing and polishing. The finished case can also be checked in the lab with the Alma Gauge in order to establish that no flaking error has taken place and the teeth have been processed to the prescribed measurements.

V. Weak Incisive Papilla or Central Position

Occasionally, the incisive papilla may be rather flat, or in the lower ridge, the central position may not be obvious. In these circumstances the Alma Gauge measurements can be enhanced by marking a spot in the patients mouth that appears central in position. This applies to both the upper or the lower arch. A tissue marking pen can be used for this mark before impressions are taken.

Accurate transfer of this mark from the tissue surface will help ensure that all Alma Gauge recordings will be consistent.

The technician in the laboratory can perform a similar task by placing a fresh mark over the spots, allowing a mark to be passed onto the wax registration rims and later on to the tryins. All Alma Gauge readings performed during a case will be taken from the same position.

VI. Denture Duplication

Technique

With the assistance of the Alma Gauge, a reliable technique can be used that will allow dental and technician to create an accurate duplication of existing dentures. The Alma Gauge confirms the exact position of the teeth relative to the soft tissues - a critical first step in denture reproduction.

First, examine the mouth and the existing denture. Check the vertical dimension and amount of free-way space. If these measurements are found to be adequate, Alma Gauge measurements are taken of both the upper and lower existing dentures and recorded for use by the technician. Relin e type impressions are then taken inside the old dentures, preferably with the patient gently lying in centric occlusion. A wax bite of this position can be recorded if it is felt that the teeth cannot be easily occluded by the technician. Alginate impressions can also be taken of the existing dentures in order to allow the laboratory to see the relative positions of the teeth to each other.

The technician can now pour a model and articulate the dentures in the recorded occlusal relationship. The old dentures can be returned to the patient because the laboratory technician has sufficient information to set the teeth in the desired position.

With the use of the Alma Gauge measurements, the anterior teeth can be placed in exactly the same position as the old dentures. Also, by referring to the models of the old dentures, it is easy to arrange the teeth in the same type of relationship. Finally, at the try-in stage the dentist can confirm that the position of teeth is the same as that of the old dentures.

VII. Lost Denture Reproduction

With Alma Gauge measurements on file, patients who misplace or break their denture can now receive a temporary replacement in less time. Anterior tooth position can be quickly reestablished and a decision made as to an interim prosthesis.

The imprint of the mark will be reproduced in the impression and subsequently can be noted on the models.
The Alma Gauge can now be used confidently in the knowledge that the recordings taken do relate to the current shape of the lower ridge.

**II. Use of Alma Gauge Shields**

The Alma® Gauge Technique has been designed in order to improve the information that is passed between the dentist and the technician, and also to reduce the risk of cross infection.

1. **CHAIRSIDE PROCEDURES**

**Full Denture Technique**

- **A New Level of Accuracy in Anterior Denture Teeth Setup**
  - With the Alma Gauge, incisal edge position is measured both in a horizontal and vertical plane relative to the incisive papilla and recorded. This establishes the exact position of the upper or lower anterior teeth in three dimensions for the dentist and the laboratory technician.

2. **The Trubyte® Alma Gauge Technique**

- **A New Level of Accuracy in Anterior Denture Teeth Setup**
  - The incisive papilla and median raphe (mid-line) are considered anatomical landmarks in the maxilla, even after tooth loss. In view of this, the Alma Gauge has been developed to successfully contribute to an improved denture setup and processing technique.

3. **The Trubyte® Alma Gauge Technique**

- **A New Level of Accuracy in Anterior Denture Teeth Setup**
  - The vertical scale below the stylus handle is read first (X mm) and then a horizontal reading is taken (Y mm) on the base where the incisal edge of the teeth rest. A reading of 10X/8Y mm indicates that the incisal edge of the central teeth are 10mm vertical and 8mm horizontal to the incisive papilla.

4. **The Trubyte® Alma Gauge Technique**

- **A New Level of Accuracy in Anterior Denture Teeth Setup**
  - If vertical space is not satisfactory, this has to be incorporated in the lower rim. If the desired lower incisal edge position is e.g. 10X/4Y, the bite rim is required to be 2mm less on the vertical e.g. 8X/4Y. The try-in will then be 10X/4Y.

**IV. LABORATORY PROCEDURES**

**Full Denture Technique**

- **A New Level of Accuracy in Anterior Denture Teeth Setup**
  - The laboratory technician places the shield on his/her gauge and can produce the bite rim, try-in and finished prosthesis to the required dimensions and arrangement, referring as needed to the graphic outline on the shield.

**V. After wax bite rim try-in**

- **A New Level of Accuracy in Anterior Denture Teeth Setup**
  - In the dental office, the teeth are tried in the patient’s mouth and centric registration, vertical dimension, cosmetics, etc. are examined. If the try-in is not correct, specific details can be given for any change in tooth position, e.g. “change 10X/8Y to 8X/6Y”, rather than the usual request to “bring the teeth in a little, they are too prominent”. When the try-in is acceptable to both dentist and patient, the teeth are returned to the laboratory with the final X/Y dimensions for processing.
The Trubyte® Alma Gauge Technique
A New Level of Accuracy
in Anterior Denture Teeth Setup

In the treatment of the edentulous patient, it is important for the dentist to
define the position of the anterior cen-
tal incisor teeth. These teeth control
the critical areas of aesthetics, phonet-
ics and function for denture wearers. A
technique has been developed which
uses the incisive papilla, an important
landmark, in defining and/or repro-
ducing denture tooth position.

The Alma® Gauge Technique.

- The inci-
sive papilla and median raphe (mid-
line) are considered to be anatomic
landmarks in the maxill-
a, even after tooth loss. In view
of this, the Alma Gauge has been developed
to successfully contribute to an improved
denture tooth setup and processing

The vertical scale below the stylus
handle is read first (X mm) and then
a horizontal reading is taken (Y mm) on
the base where the incisal edge of the
teeth rest. A reading of 10X/8Y mm
indicates that the incisal edge of the
central teeth are 10 mm vertical and
8 mm horizontal to the incisive papilla.

If vertical space is not satisfactory,
see “Restoring Proper VDO in A New Denture.”

1. CHAIRSIDE PROCEDURES
Full Denture Technique

A full patient history is recorded and measurements taken in order to
establish the acceptability of the verti-
cal dimension.

If the vertical height or freeway
space are not considered to be satis-
factory in the existing dentures, then
adjustments should be made to the Alma Gauge readings. In those cases
where the teeth have worn down or
the overall vertical dimension is reduced
it will be necessary to increase the Alma Gauge measure-
ments. This is achieved by adding buccalwax to the existing teeth until
an acceptable vertical height and
labial position have been reached.

The Trubyte® Alma Gauge Technique

The Alma® Gauge shields have
been designed in order to improve the
information that is passed between the
dentist and the technician, and also to
reduce the risk of cross infection.

1. CHAIRSIDE PROCEDURES
Full Denture Technique

- For patient history is recorded and measurements taken in order to
establish the acceptability of the verti-
cal dimension.

- If the vertical height or freeway
space are considered to be satis-
factory and if the patient
wants to reproduce the cosmetics of
his/her existing denture teeth, then
Alma Gauge measurements are taken
for both upper and lower dentures, as
follows:

2. The denture is placed on the gauge
base with the anterior teeth facing
the vertical arm.

3. Pushing down on the black stylus
handle will allow the stylus point to
locate the incisive papilla depres-
sion in the acrylic base.

The laboratory technician places
the Alma shield onto his/her gauge
and can produce the bite rim, tryin
and finished prosthesis to the required
dimensions and arrangement, refer-
ing as needed to the graphic outline
on the shield.

The laboratory technician places
the Alma shield onto his/her gauge
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ing as needed to the graphic outline
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The Trubyte® Alma Gauge Technique
A New Level of Accuracy in Anterior Denture Teeth Setup

In the treatment of the edentulous patient, it is important for the dentist to define the position of the anterior central incisor teeth. These teeth control the critical areas of aesthetics, phonetics, and function for denture wearers. A technique has been developed which uses the incisive papilla, an important landmark, in defining and/or reproducing denture tooth position.

**The Alma® Gauge Technique.**

The incisive papilla and median raphe (mid-line) are considered stable anatomical landmarks in the maxilla, even after tooth loss. In view of this, the Alma Gauge has been developed to successfully contribute to an improved denture tooth set-up and processing technique.

With the Alma Gauge, incisal edge position is measured both in a horizontal and vertical plane relative to the incisive papilla and recorded. This establishes the exact position of the upper or lower anterior teeth in three dimensions for the dentist and the laboratory technician.

**Alma Gauge “Quick Steps.”**

1. Place an Alma shield on the base.
2. Place denture on the base with anterior teeth facing the vertical arm, incisal edges down.
3. Push the indicator stylus point down onto the incisive papilla, allowing the stylus point to locate the incisive papilla depression in the acrylic base.
4. Read and record the vertical scale measurement on the indicator cylinder. This is X mm.
5. Read and record the horizontal scale measurement on the base. This is Y mm.
6. Note: The vertical scale readout is in X mm and the horizontal scale is in Y mm. These two readings (X/Y mm) translate to the position of the incisal edge of the central incisor teeth.
7. Using a marker, trace the outline of the anterior teeth on the shield to capture the arch width and general arrangement.

**I. CHAIRSIDE PROCEDURES Full Denture Technique.**

A full patient history is recorded and measurements taken in order to establish the acceptability of the vertical dimension.

- If the vertical height and freeway space are considered to be satisfactory in the existing dentures, then adjustments should be made to the Alma Gauge readings. In those cases where the teeth have worn down or the overall vertical dimension is reduced, it will be necessary to increase the Alma Gauge measurements. This is achieved by adding bevelling to the existing teeth until an acceptable vertical height and labial position have been reached. Alma Gauge readings are then taken and the dimensions sent to the laboratory along with final impressions, and a request to produce bite rims of that size.

**II. Use of Alma Gauge Shields**

The Alma Gauge shields have been designed in order to improve the information that is passed between the dentist and the technician, and also to reduce the risk of cross infection.

If a 2mm overbite relationship is required, this has to be incorporated in the lower rim preparation. If the desired lower incisal edge position is e.g., 10X/4Y, the bite rim is required to be 2mm less on the vertical e.g., 8X/4Y. The try-in will then be 10X/4Y.

**III. Restoring Proper VDO in a New Denture.**

- Place an Alma Shield on the base.
- Place denture on the base with anterior teeth facing the vertical arm, incisal edges down.
- Horizontal (Y) measurement
- Vertical (X) measurement
- Read the vertical scale below the stylus handle is read first (X mm) and then a horizontal reading is taken (Y mm) on the base where the incisal edge of the teeth rest. A reading of 10X/8Y indicates that the incisal edge of the central teeth are 10mm vertical and 8mm horizontal to the incisive papilla.

*For vertical space to be satisfactory, x/y mm. This establishes the exact position of the upper or lower anterior teeth in three dimensions for the dentist and the laboratory technician.*

**A. Marker Pen is then used to draw around the denture onto the shield to record the position of all the teeth around the arch. To adjust the shape of the bite rims, the technician takes a new Alma reading.**

The laboratory technician places the Alma shield onto his/her gauge and can produce the bite rim, try-in and finished prosthesis to the required dimensions and arrangement, referring as needed to the graphic outline on the shield.

**B. After wax bite rim try-in, the rims are returned to the laboratory along with all the other details recorded, e.g., smile line, median raphe, etc. The models are then articulated and a try-in is constructed by the technician.**

Once again the Alma Gauge confirms that the incisal edges of the teeth relate to the incisive papilla as requested.

**C. Back in the dental office, the teeth are tried in the patient’s mouth and centric registration, vertical dimension, cosmetics, etc. are examined.**

The laboratory technician places the Alma shield onto his/her gauge and can produce the bite rim, try-in and finished prosthesis to the required dimensions and arrangement, referring as needed to the graphic outline on the shield.

**D. Interference with phonetic evaluation.**

In the dental office this technique saves time at chairside, and assures proper bite rim dimensions. Sometimes, the bite rims require little modification at this stage, and the dentist can focus on finalizing the plane of occlusion and centric registrations.
finishing and polishing.

The finished case can also be checked in the lab with the Alma Gauge in order to establish that no flaking error has taken place and the teeth have been processed to the prescribed measurements.

V. Weak Incisive Papilla or Central Position

Occasionally, the incisive papilla may be rather flat, or in the lower ridge, the central position may not be obvious. In these circumstances the Alma Gauge measurements can be enhanced by marking a spot in the patients mouth that appears central in position. This applies to both the upper or the lower arch. A tissue marking pen can be used for this mark before impressions are taken.

The imprint of the mark will be reproduced in the impression and subsequently can be noted on the models.

Accurate transfer of this mark from the tissue surface will help insure that all Alma Gauge recordings will be consistent.

The technician in the laboratory can perform a similar task by placing a fresh mark over the spots, allowing a mark to be passed onto the wax registration rims and later on to the tryins. All Alma Gauge readings performed during a case will be taken from the same position.

VI. Denture Duplication Technique

With the assistance of the Alma Gauge, a reliable technique can be used that will allow dental and technician to create an accurate duplication of existing dentures. The Alma Gauge confirms the exact position of the teeth relative to the soft tissues - a critical first step in denture reproduction.

First, examine the mouth and the existing denture. Check the vertical dimension and amount of free-way space. If these measurements are found to be adequate, Alma Gauge measurements are taken of both the upper and lower existing dentures and recorded for use by the technician. Refine type impressions are then taken inside the old dentures, preferably with the patient gently lying in centric occlusion. A wax bite of this position can be recorded if it is felt that the teeth cannot be easily occluded by the technician. Algnate impressions can also be taken of the existing dentures in order to allow the laboratory to see the relative positions of the teeth to each other.

The technician can now pour a model and articulate the dentures in the recorded occlusal relationship. The old dentures can be returned to the patient because the laboratory technician has sufficient information to set the teeth in the desired position.

With the use of the Alma Gauge measurements, the anterior teeth can be placed in exactly the same position as the old denture. Also, by referring to the models of the old dentures, it is easy to arrange the teeth in the same type of relationship. Finally, at the try-in stage the dentist can confirm that the position of the teeth is the same as that of the old dentures.

VII. Lost Denture Reproduction

With Alma Gauge measurements on file, patients who misplace or break their denture can now receive a temporary replacement in less time. Anterior tooth position can be quickly reestablished and a decision made as to an interim prosthesis.

The technician can now pour a model and articulate the dentures in the recorded occlusal relationship. The old dentures can be returned to the patient because the laboratory technician has sufficient information to set the teeth in the desired position.

With the use of the Alma Gauge measurements, the anterior teeth can be placed in exactly the same position as the old denture. Also, by referring to the models of the old dentures, it is easy to arrange the teeth in the same type of relationship. Finally, at the try-in stage the dentist can confirm that the position of the teeth is the same as that of the old dentures.
The finished case can also be checked in the lab with the Alma Gauge in order to establish that no flaking error has taken place and the teeth have been processed to the prescribed measurements.

VI. Tenture Duplication Technique

With the assistance of the Alma Gauge, a reliable technique can be used that will allow dental and technician to create an accurate duplication of existing dentures. The Alma Gauge confirms the exact position of the teeth relative to the soft tissues - an essential first step in denture reproduction.

First, examine the mouth and the existing denture. Check the vertical dimension and amount of free-way space. If these measurements are found to be adequate, Alma Gauge measurements are taken of both the upper and lower existing dentures and recorded for use by the technician. Reline type impressions are then taken inside the old dentures, preferably with the patient gently biting in centric occlusion. A wax bite of this position can be recorded if it is felt that the teeth cannot be easily occluded by the technician. Alginate impressions can also be taken of the existing dentures in order to allow the laboratory to see the relative positions of the teeth to each other.

The technician in the laboratory can perform a similar task by placing a fresh mark over the spots, allowing a mark to be passed onto the wax registration rims and later on to the try-ins. All Alma Gauge readings performed during a case will be taken from the same position.

VII. Lost Denture Reproduction

With Alma Gauge measurements on file, patients who misplace or break their denture can now receive a temporary replacement in less time. Anterior tooth position can be quickly reestablished and a decision made as to an interim prosthesis.

The technician can now pour a model and articulate the dentures in the recorded occlusal relationship. The old dentures can be returned to the patient because the laboratory technician has sufficient information to set the teeth in the desired position.

With the use of the Alma Gauge measurements, the anterior teeth can be placed in exactly the same position as the old denture. Also, by referring to the models of the old dentures, it is easy to arrange the teeth in the same type of relationship. Finally, at the try-in stage the dentist can confirm that the position of the teeth is the same as that of the old dentures.