



## Clinical Innovation

# A mirror with a scale- AR scalo mirror

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### ABSTRACT

The dental mouth mirror is one of the most common diagnostic instrument used in dentistry. This tool is small, cylindrical in shape, consisting of a metal/plastic bar as a handle and a metal/plastic plate as a mirror holder. The head of a dental mouth mirror is usually round and the most commonly used sizes are number 4 and number 5. The ruler used in dentistry is present either in the form of stainless steel bar or plastic rings. The ruler is used to measure the intraoral lesions, spaces between teeth in mouth or stone model, length of the tooth or implant in X-Ray, measure the length of files, paper tips and gutta-percha, etc. Therefore, AR Scalo Mirror is a combination of two dental instruments (mouth mirror and scale) which are put together as one so that it saves the time and effort as well as makes the diagnostic procedure less technique sensitive.

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## 1. Introduction

Dental instruments are the tools that dental professionals use to provide dental treatment. They include tools to examine, manipulate, treat, restore and remove teeth and surrounding oral structures. These tools range from smallest of instruments like wedges to largest of instruments like forceps. These tools not only help in carrying out any procedure but also ease the working efficiency of the operator.

The dental mouth mirror is one of the most common diagnostic instrument used in dentistry.<sup>1</sup> It finds a common place in the dental armamentarium for use in a variety of procedures in dentistry and may be referred to as a veritable *mullum in parvo*.<sup>2</sup> This tool is small, cylindrical in shape, consisting of a metal/plastic bar as a handle and a metal/plastic plate as a mirror holder. The head of a dental mouth mirror is usually round and the most commonly used sizes are number 4 and number 5. A number 2 mirror is popular where smaller sizes are used such as in the back of the mouth when space is limited or in the visualization

of the pulp chamber. There are 3 most important functions of the mouth mirror which are retraction of the buccal & lingual soft tissues, indirect & direct visualization and illumination.<sup>3</sup> When used properly, a mouth mirror can improve the ability of the operator to see clearly, enabling better diagnosis and treatment. In addition, a mouth mirror also helps in maintaining better ergonomic position for the operator thereby preventing occupational injury.

The ruler used in dentistry is present either in the form of stainless steel bar or plastic rings. The ruler is used to measure the intraoral lesions, spaces between teeth in mouth or stone model, length of the tooth or implant in X-Ray, measure the length of files, paper tips and gutta-percha, etc.

As the dental profession is evolving day by day and the never ending range of tools available, there is an increasing demand for supplementary materials that can keep up with advancing trends. Therefore, we took the initiative to make a modification of the conventional dental mirror in the form of “AR Scalo Mirror”. This instrument is a combination of two dental instruments (mouth mirror and scale) which are put together as one so that it saves the time and effort as well as makes the diagnostic procedure less technique sensitive.

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## 2. Design and Fabrication

The instrument designed here is the modification of the conventional dental mouth mirror with scale/graduations in mm on the stainless steel handle of the mouth mirror. The graduations are impregnated on the handle by the use of CAD/CAM technique.

The mirror with the scale shown in figure I and II is made up to 35 mm. This instrument is customizable as per the clinician's requirements.



Fig. 1: AR Scalo mirror



Fig. 2: Scale with mirror recording upto 35 mm

### 2.1. Uses

1. To provide retraction of tissues, indirect indirect & direct visualization and illumination.
2. To measure the horizontal distance between the maxillary and mandibular central incisors (overjet).
3. To measure mouth opening by measuring the Interincisal distance of the maxillary and mandibular incisors.
4. To measure the length of the lesions after any surgical procedure.
5. To measure the length of the dressings such as iodoform dressing given after certain surgical procedures.
6. To measure the length of implants.

7. To measure the length of files, paper tips and gutta-percha.
8. To measure the dental malocclusions such as an openbite, or labial insufficiency/open mouth posture.
9. To measure the vertical range of motion.
10. To measure Lateral Excursion movements.

### 2.2. Advantages

1. Ease of handling.
2. Reduced number of instruments on the operating table.
3. Economical.
4. Autoclavable.
5. Less time consuming.

## 3. Acknowledgment

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## 5. Conflict of Interest

The authors report no conflict of interest

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