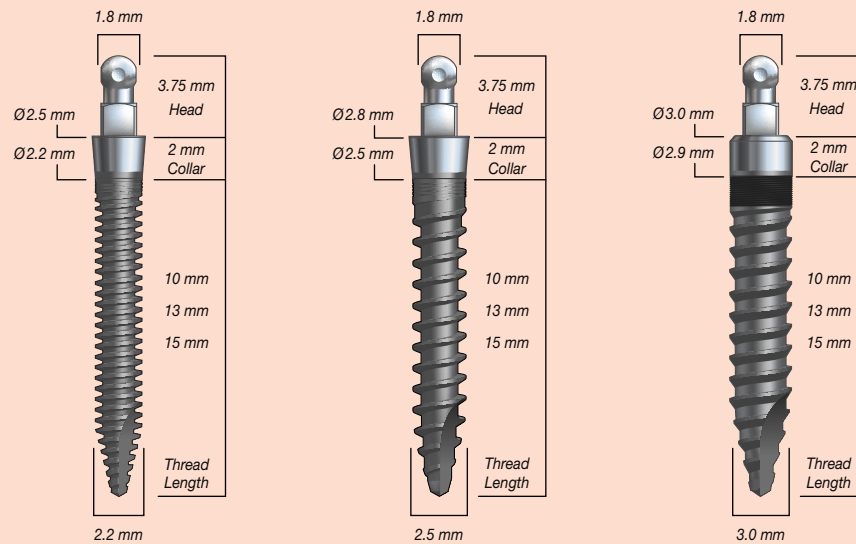


## ■ Inclusive® Mini Implants

### By the Numbers

The positions of small-diameter implants must be meticulously planned just like conventional-sized implants. The endosseous section must be well encased within the bone with a high primary stability. Just as important, spacing between implants, as well as the position of the heads of the implants, must be planned from a prosthetic perspective. This technical sheet is intended to provide guidelines for the proper prosthetic positions of Inclusive Mini Implants.



Implant Dimensions

### Inclusive Mini Implants

Inclusive Mini Implants are available in 2.2 mm, 2.5 mm and 3.0 mm diameters. The 10 mm, 13 mm and 15 mm lengths are based on the endosseous section. The transgingival collar is 2.0 mm in height. The implant diameter and length should be based on the available bone. The 2.2 mm diameter mini implants have a tighter thread pattern and are intended primarily for mandibular cases. The 2.5 mm diameter mini implants have a broader thread pattern designed for ridges with less dense bone such as the anterior maxilla. The 3.0 mm diameter is intended for ridges with adequate width. It has a buttress thread pattern for increased pull-out resistance. All Inclusive Mini Implants feature a micro-threaded section for increased primary stability in the crestal cortical plate.

### Creating the Osteotomy

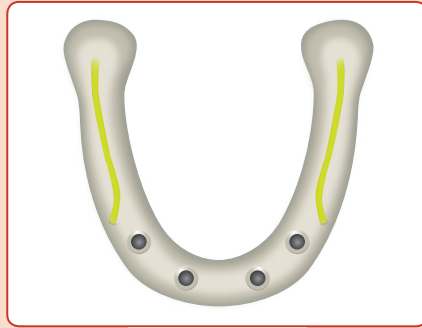
The goal in placement of mini implants is to achieve a high primary stability (approximately 35 Ncm) and with at least 2 mm of labial and lingual bone encasing the implant. The drill diameter and depth should be based on the quality of the bone. Typically the drill is taken to approximately one-half (½) the length of the implant. If performing a flapless procedure, the thickness of the soft tissue should be added to the drill depth. There is a drill (1.5 mm, 1.7 mm and 2.4 mm diameters) that matches the minor diameter of the threaded section of each diameter of implant.

### Position of the Transgingival Collar

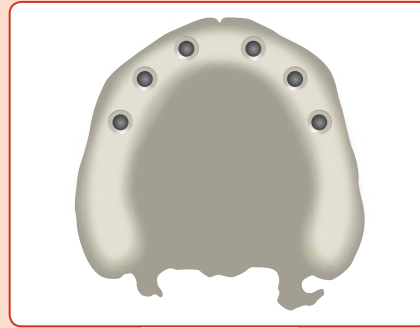
The endosseous section of Inclusive Mini Implants is available in 10 mm, 13 mm and 15 mm lengths. The height of the transgingival collar is 2 mm. The top of the collar should be slightly above the crest of the soft tissue at final placement. It may be necessary to reduce the height of redundant soft tissues.

## Spacing Between Implants

Appropriate radiography should be taken to identify the location of the inferior alveolar nerve, including a possible anterior loop as well as the sinuses for maxillary cases. Four (4) mini implants should be placed within the symphysis area of the mandible with as wide an anterior-posterior spread as possible while still ensuring an adequate margin of safety from the nerve. Typically, six (6) implants are placed anterior to the maxillary sinuses for upper overdentures. The O-ring housings are 4.75 mm in diameter. There should be at least 2 mm of acrylic between these metal housings in the denture base. Therefore, the centers of the implants should be at least 7 mm apart.



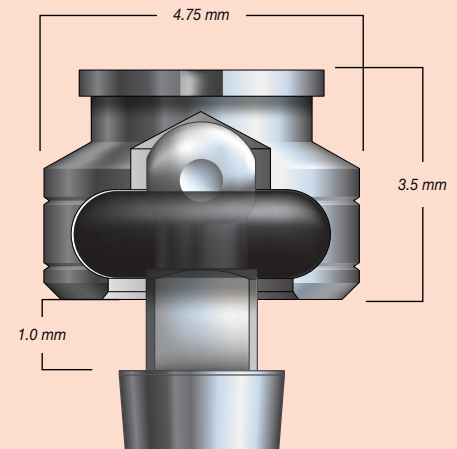
*Mandibular Spacing*



*Maxillary Spacing*

## Vertical Prosthetic Spacing

The height of the O-ring housing is 3.5 mm. There is a space of approximately 1.0 mm between the top of the collar and the base of the O-ring housing to allow the housing to be rotated in cases where the implants are divergent. The housings can accommodate up to 30 degrees of angular divergence between implants. However, the implants should be placed as parallel to one another as possible to provide ideal prosthetic fit and to avoid excessive wearing of the O-rings upon denture removal. There should be a minimum of 3 mm thickness of acrylic in the denture base above the housing to provide adequate strength to the prosthesis. Therefore, there should be at least 8 mm of vertical space from the top of the collar. The denture teeth would be in addition to this space.



*O-ring Housing Dimensions*

## Conclusion

Mini implants can be an invaluable asset in your armamentarium for appropriate cases. Proper planning from both the surgical and prosthetic perspectives will help ensure correct placement and performance.