



CT Scan Appliance Fabrication Specifications

The scan appliance can be created following the below steps. The scan appliance should be created from a radiolucent material according to the desired prosthetic and surgical restoration.

1. *Creating desired restoration*

An optimal representation of the restored teeth should be created.

Partially edentulous cases

A model of the patient's jaw should be created, using a non expanding / contracting material. A wax up for the missing teeth should be performed or final prosthetic restoration should be placed on the model.

Fully edentulous cases

The final restorative prosthesis should be used, or a wax up of the final restoration should be created.

2. *Creating the appliance*

The appliance should be created from a homogenous and uniform radiolucent material 3-4mm thick. Do not use Vacuform material as it is too thin for the virtual surgical guide rebuild. If the case is fully edentulous, an acrylic denture duplicator kit can be used. The scan appliance should extend over buccal and lingual soft tissue, and should cover the entire arch.

A radiopaque substance such as Barium sulfate (15% of the acrylic weight in the area of the missing teeth) can be incorporated to represent the desired position of the final restoration. Alternatively, pins (pins from safety pins can be used) can be placed in the middle of the future restoration reaching the maximum tooth height.

3. *Inserting Gutta-percha markers*

5 gutta purcha markers should be inserted on the buccal side of the appliance, and 3 should be inserted on the lingual side (the insertion holes should be no more then 1mm deep). The markers can be attached via heating or glue. The markers should be dispersed and spaced along the length of the arch, and at different levels in relation to the occlusal plane.



The scan appliance should be tested on the models and then in the patient's mouth to ensure a secure and snug fit prior to the CT Scan.

The patient should be scanned wearing the scan appliance, and the scan appliance should be scanned separately. See "The CT Scanning Protocol"

Questions regarding fabrication specifications or the protocol should be directed to plan@BlueSkyBio.com