

The Modern Dental Junction Box

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Select from a variety of esthetic options that provide an effective manner to combine utilities, foot control connections and data cable management into one comprehensive system. Learn more about how they function and best placement for use in your style of dental operator and equipment.

What is a Dental Junction Box?

Historically junction boxes provided a place to terminate the end run of the compressed air line, electrical power, water line and optional suction lines in through the floor. The dental unit could then be connected via a flexible umbilical that housed tubing that would connect inside the junction box to master valves and power outlets. The outer housing and cover provided a way in which to conceal the connections.

What makes ASI Dental's Modern Dental Junction Box Different?

ASI provides three different mounting versions that include the traditional above floor mount but also provide a unique In-Wall mounting version along with an In-Floor version. These are designed out of heavier duty materials with esthetic finishes. In addition to basic utilities, they also provide concealment and connection to house data communication cabling including computers and video feeds from microscopes along with under floor connections for foot controls.

Which Type of Junction Box is Best for My Dental Office and Where Should they Be Placed?

This will primarily depend on what type of equipment is being used and where the handpiece delivery system is placed in the office. Other considerations would include architectural design features such as floor to ceiling windows and structural columns and beams.

ASI's In-Wall Junction Box is ideal for dental delivery carts that are placed in the front/side delivery position for the dentist or operator. These allow the cart to be placed back into the corner of the room to allow ingress/egress for the patient and then brought forward when the patient is reclined. The In-Wall allows the umbilical from the cart to be attached and disappear neatly into the wall and keeps the umbilical from being seen in the middle of the room when not in use. The In-Wall box is generally placed with the bottom of the box about 12"-15" above the floor and should be positioned in relation to the patient chair to be between about mid-way of the patient chair to 3' towards the corner of the room.



The In-Wall box is also ideal for rear delivery units and assistant carts as it allows a shorter umbilical to be run up into the wall and keeps carts from running over or being impeded by an in-floor type connection.

ASI's Expanded In-Wall Junction Box is designed to be built into the wall and allow umbilical utility connections for compressed air, suction, electrical, data and med gas connections manifolds. Includes: pre-dry-wall installation box, electrical gang boxes, data cable, Mounting for air line and bracket system for med gas manifolds. Manifolds include: Oxygen, Nitrous and WAGD valves, Quick Connect Faceplates and Angle hose.



The Above Floor and In-Floor Junction Box Versions are generally used for front delivery carts. The boxes are placed ahead of the dental chair towards the patient's feet end. This allows the junction connection to be somewhat concealed by the patient chair. The advantage of an in-floor box will provide a smooth transition from floor surface to the top plate of the junction box. Placement in the center of the room does provide for ambidextrous use where the front cart can be positioned to either the left or right side of the

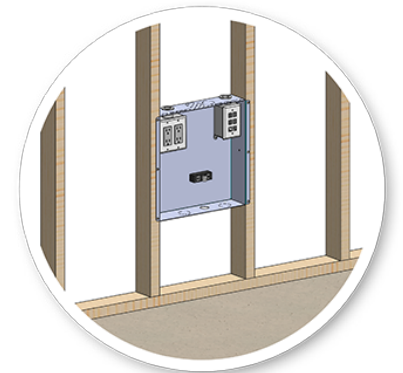


chair. An esthetic drawback is that the umbilical can be more visible.

The floor junction boxes should not be positioned too close to the base of the patient chair in case the operators ever want to move the chair closer to the front wall. So, there should be enough room between the box and the patient chair base to allow maneuverability.

What is Included in the ASI Dental Junction Box?

ASI boxes are constructed of heavy thick-walled aluminum and include an angled attachment point that allows the outer umbilical jacket to be anchored to the box. The In-Wall and In-Floor junction boxes are a two-piece type design with an interior design that is mounted during the construction phase and the secondary finish portion that mounts outside post construction. The door allows ease of access to make connections and perform maintenance checks. The junction boxes include a separate outlet box for a dual outlet and a data cable box to run cables with common connections adapters. An air line regulator is not included as this is included standard with ASI dental delivery carts.



When do they Need to Be Installed

Since the junction boxes are being used to place the end run of utilities and data cabling, they do need to be installed during the construction phase for the treatment room. The pre-drywall portion of the In-Wall junction box should be placed as the structural studs for the wall are being placed. This allows the box to be placed and secured in between two studs. The In-Floor box will also either be placed prior to new concrete being poured or will need to have an opening made in the sub-floor to secure the box.