Overview

The Form® headwall is a UL-listed, configurable medical gas and electric service assembly which is available in either surface-mounted (mounted to the face of an interior partition) or semi-recessed (recessed into the interior partition) configurations. Within each of these configurations is an option for floor-mounted (Form® framing starts at the floor) or floating (Form® framing starts at 9" AFF) elevations. The standard configurations of these assemblies employ four strategically placed accessory rails along with four rows of services to conveniently locate medical gas, electrical, and communications provisions.

These units have three vertical sections which join together via a uniquely designed interlocking stud system which ensures that each section is secured tightly to and aligned properly with the other wall sections. The wall sections are referred to as the left wing, right wing, and center sections.

The wall sections are assembled on custom base assemblies which are easily adjusted for proper location. These base assemblies also provide a flat level surface on which to construct the headwalls. For units that terminate at the floor, the base assembly consists of two pieces. The bottom section of the base is anchored to the floor. The top section is able to pivot on the bottom section so that the top surface of the base can be leveled perfectly and
is then secured in place with mechanical fasteners. For “floating” headwalls which do not engage the floor, the base assembly is simply secured to the interior wall surface via mechanical fasteners into the wall studs. Blocking inside the wall cavity will be required for “floating” versions to provide sufficient anchorage.

The panel system is also uniquely designed in that the panels float on the face of the chassis. The custom made panel hangers hold the fascia firmly against the chassis while allowing it to move slightly in both the horizontal and vertical directions. This system allows the panels to fit tightly together and maintain proper alignment even with varying job-site conditions.

The trim kits for the Form headwalls provide an unparalleled final fit and finish. Units that attach to the floor have a 4" tall base which provides a structure for trim (provided by others) to be attached to. For the surface-mounted configurations, the sides are trimmed out with an anodized aluminum extrusion which is fitted with vinyl trim that forms to the contours of the interior wall surface. Units that extend to the finished ceiling come with crown molding that can be adjusted to follow a misplaced or misaligned finished ceiling. Units that terminate below the finished ceiling have an angled cap to trim the top. The panels of the semi-recessed unit sits on the face of the surrounding wall surface.

Also included in the standard configurations are monitor channels. One is intended to provide mounting for a monitor with the other being intended for a touchdown charting station.

**Options**

Vertical sections of the Form headwalls are available in three optional widths: 24", 32", and 36" for wing walls and 36", 42", and 48" for center sections.

There are several options for the height, as well. These headwalls can originate at the floor or begin at 9" above the finished floor. The headwalls can terminate at the finished ceiling line, extend above the finished ceiling, or terminate below the finished ceiling at a minimum of 84" above the finished floor.

All Form units are pre-piped and pre-wired for medical gas and electrical services; however, the location at which the services terminate is optional as well. The walls can be “back-fed” with junction boxes and piping terminations within the headwall cavity, or they can be “top-fed” with junction boxes and piping terminations above the finished ceiling.

Furthermore, the horizontal location of services, accessory rails, and panel seams are adjustable in 1" increments. Minimum distances between these apply.

There are also several options involved in the side trim assemblies. They can be provided with a slot for cord management, a vertical equipment rail, or a laminate insert to match or accent the fascia of the headwall.

Additionally, there are options relating to bed impact protection. One option is to choose an alternate, thicker, laminate for the bottom panel of the middle section of the headwall, which will provide increased impact protection. Another option is the addition of surface-mounted “bumpers” which will prevent the bed from impacting the panels.

**CONSTRUCTION**

**Structure**

The chassis of the units (including studs, nailers, electrical boxes, anchoring plates, and bases) are constructed of 16-gauge steel. The monitor channels and accessory rails are heavy-gauge anodized aluminum and are attached to the chassis by means of mechanical fasteners. The structure of the unit will typically be shipped in five sections: the base, a left and right wing, and two center sections which combine to form the middle section of the headwall.

**Trim**

The Form units have trim packages with a variety of materials which may contain a combination of stainless steel, anodized aluminum extrusions with vinyl trim, powder coated light-gauge steel or aluminum, membrane-pressed MDF panels, or particle board panels with a high-pressure laminate finish and edge banding.
Fascia

The fascia of the Form headwalls is constructed of precision cut, membrane-pressed, 3/4" thick MDF panels. The typical configuration is a nine-panel grid. Panels ship separately from the chassis sections so that all rough in work can be completed before the finishes are installed.

Modular offers 3D laminate selections in standard options from manufacturers such as Renolit, Surface Source International, Omnova, and Ambtra. PET options are also available from Ambtra. If a material with a higher impact resistance is required, Renolit Armouren is available. See table below to find which type is available in each brand. Each of these brands and types of 3D laminate have been tested per ASTM E-84 and assigned a flame spread index (FSI) and a smoke developed index (SDI). Section 803.1.1 of the International Building Code uses the FSI and SDI to group interior finishes into one of three classes; A, B, or C. The results of each test are listed below along with the interior finish classification according to IBC.

<table>
<thead>
<tr>
<th>Laminate Brand</th>
<th>Type</th>
<th>Core Material</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renolit</td>
<td>Standard PVC</td>
<td>Standard MDF</td>
<td>C</td>
</tr>
<tr>
<td>Renolit</td>
<td>Armouren PVC (Impact Material)</td>
<td>Standard MDF</td>
<td>C</td>
</tr>
<tr>
<td>Renolit</td>
<td>Standard PVC</td>
<td>Fire-Rated MDF</td>
<td>A</td>
</tr>
<tr>
<td>SSI</td>
<td>Standard PVC</td>
<td>Standard MDF</td>
<td>B</td>
</tr>
<tr>
<td>SSI</td>
<td>Standard PVC</td>
<td>Fire-Rated MDF</td>
<td>A</td>
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<td>Omnova</td>
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</tr>
<tr>
<td>Ambtra</td>
<td>Standard PVC</td>
<td>Fire-Rated MDF</td>
<td>B</td>
</tr>
</tbody>
</table>

MEDICAL GAS CONNECTIONS

Piping

Medical gas outlets are pre-manifolded with Type “L” medical copper tubing and terminate near the top of each vertical frame section or above the accessible ceiling line, as indicated on the project drawings. Prior to manifolding, all tubing and fittings are cleaned, rinsed, and dried in accordance with NFPA 99. All joints are made with a silver brazing alloy with a melting point of at least 1000°F. Tubing ends are securely capped and properly identified. To prevent galvanic corrosion, all copper tubing is protected from contact with dissimilar metals.

Medical Gas Outlets

Outlets are manufacturer’s standard brand. Type and style are as called for on the project drawings.

ELECTRICAL CONNECTIONS

Wiring Line Voltage

Each vertical frame section is completely pre-wired with service connections terminating above the accessible ceiling line or within the cavity of the headwall, as indicated on the project drawings. All wiring is to be in accordance with UL requirements.

Low-Voltage Provisions

Provisions for low-voltage communication devices consist of backboxes or barriered compartments. Communications devices and wiring are to be supplied and installed by others. These devices include nurse call, television, code blue, telephone, monitor jacks, etc.
Devices

Hospital-grade power receptacles, ground jacks, switches, etc. are to be installed as indicated on the project drawings.

INSTALLATION

Installation of the product includes receiving, storage, erection, overhead bracing, clean-up, touch-up, carton disposal, etc. All necessary installation materials are to be supplied by the contractor to include such items as tools, fasteners, caulking and electric lamps not supplied by the manufacturer.

The electrical contractor is responsible for all electrical hook-up at service connection locations. All hard-wired light fixtures are installed, wired and lamped by this contractor. After the installation is complete, the electrical contractor is to test equipment function, including electrical receptacles and grounding, in accordance with NFPA requirements.

The medical gas contractor is responsible for piping and connection of all medical gas services which terminate near the top of each vertical frame section. The medical gas contractor is also responsible for purging, pressure testing, gas identification and system certification in accordance with NFPA 99.

Accessory items are to be installed in accordance with the manufacturer’s instructions and under the direction of the hospital.