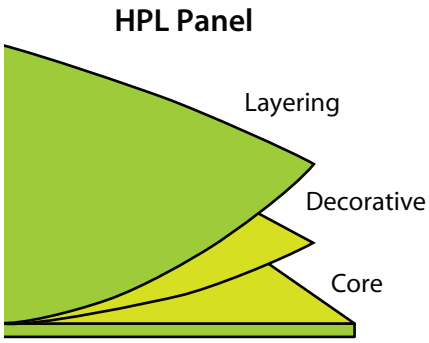
Turnkey **Operation** THEATERS

G. Samaras S.A.
MEDICAL GAS SYSTEMS

1.Wall coating of surgery rooms with HPL panels

1.1 HPL DESCRIPTION

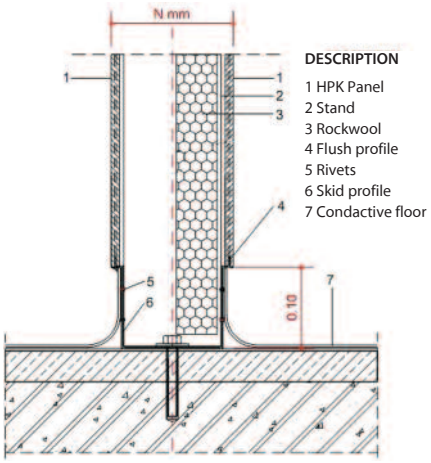
High Pressure Laminate (HPL) is a combination of specially developed, digitally imaged paper which is impregnated with melamine resins, a special UV resistant over laminate, and layers of phenolic resin impregnated kraft stock, all pressed under intense pressure and heat. This process fuses the layers together into a very durable, solid core product. HPL comes in both interior and exterior grades for a wide range of applications



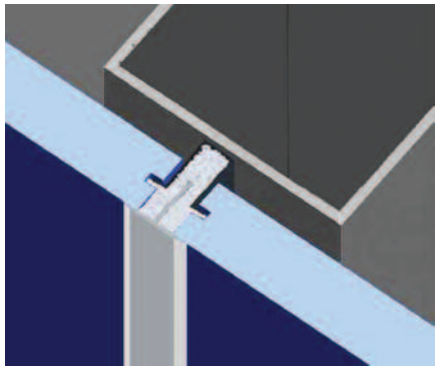
Attributes:

- Bright, vibrant graphics
- Impervious to moisture and temperature extremes
- Excellent UV protection
- Will not delaminate
- Extreme impact resistance
- Graffiti and scratch resistant
- Comes in a variety of thicknesses
- Thick stock is self-supporting
- Can be drilled and routed
- Will not rust or deteriorate if badly vandalized

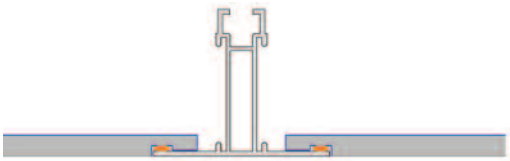
1.2 WALL COATING WITH HPL PANELS



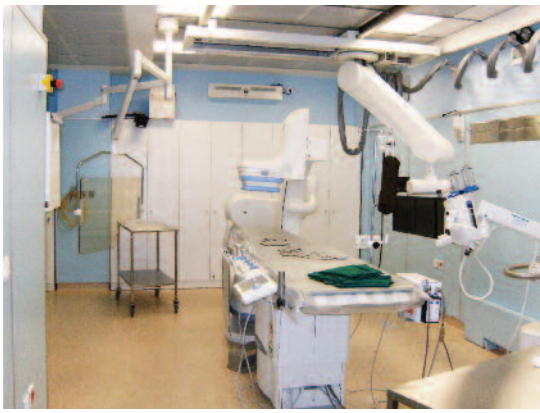
For wall coating we use phenol sheets HPL 10 mm thick and up to 3050mm long, which are mounted on a specially designed steel frame. The wall covering as well as the wall construction, needs a specially constructed galvanized steel frame for fixing the hpl panels. Assembly of hpl panels, with the roof and suspended ceiling: The suspended ceiling is placed on the hpl panels, using false ceiling perimeter profile.



1.3 FLOORING



The conductive floors properly installed (with a grid bronze and grounding) alienate any electrostatic charge created. Used in areas with very high standards of safety and sensitivity of electronic equipment. Is a static-conductive, flexible homogeneous vinyl floorcovering with an electrical resistance of 5 x 104 ≤ Rt ≤ 106 (EN 1081), available in tiles. The conductive carbon coated PVC pellets create the permanent static-conductive properties. It complies with EN 649.



1.4 CEILING

The ceiling is constructed in such way that meets all the requirements for areas with high standards hygiene, such as surgery and intensive care units. The frame is made of anodized aluminium panels from HPL panels that are antimicrobial.

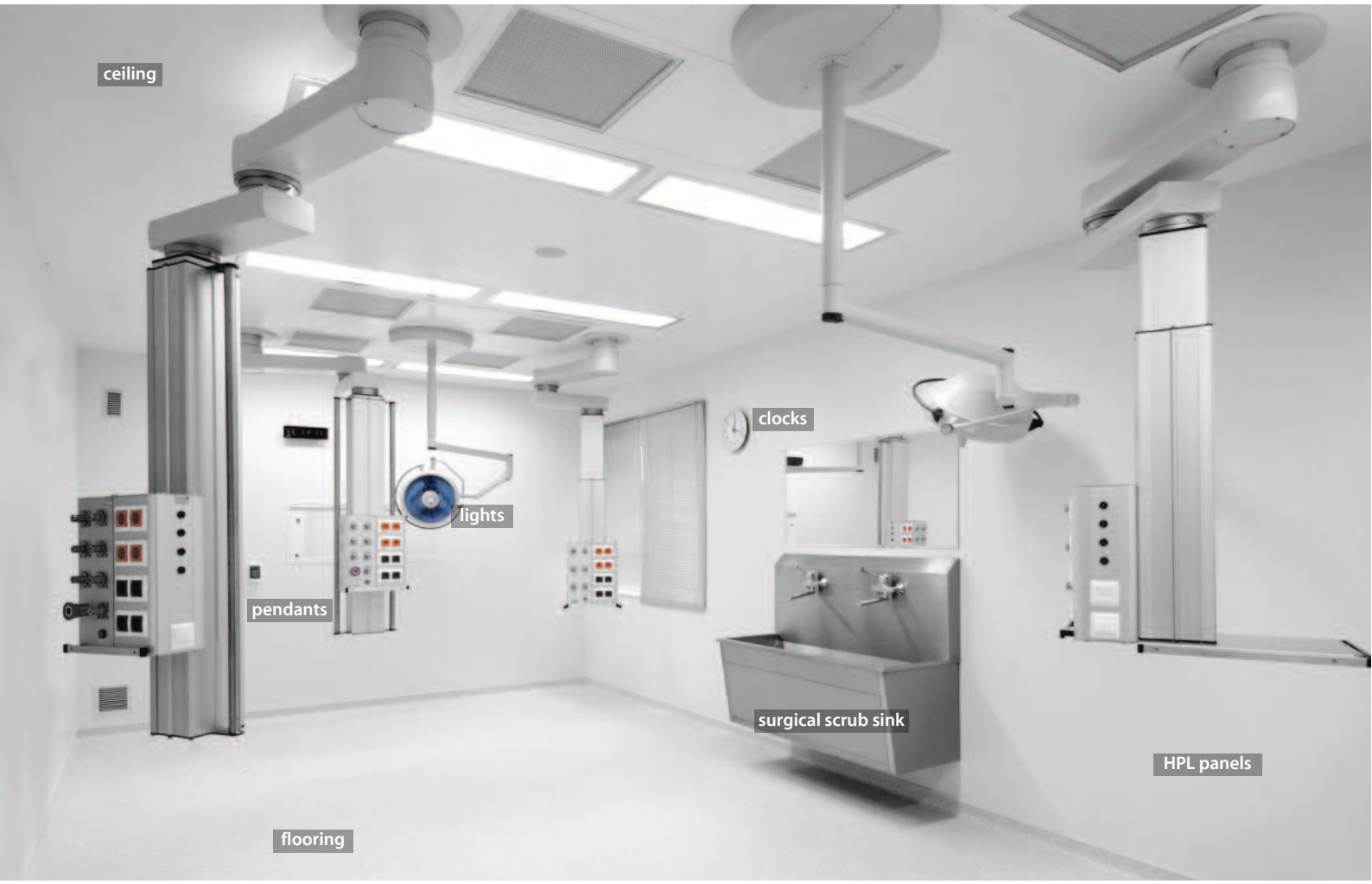
On the ceiling there are also placed special sealed (IP65) lights for clean rooms. The lights can be produced in various types depending on their size and their intensity, depending on what is appropriate for each area, following the requirements of the study.

1.5 AUTOMATIC HERMETICALLY SEALED SLIDING DOORS

Conditioned rooms require wide, practical entrances. To achieve certain conditions in a surgery room, the door must be hermetically closed. They are low in weight and have a good level of sound insulation (standard = 28dB). They can also be x-ray proof for x-ray laboratories. This type of door is specially designed for use in operating theatres, laboratories and other clean room environments where air-pressure control and hygiene is of the utmost importance.

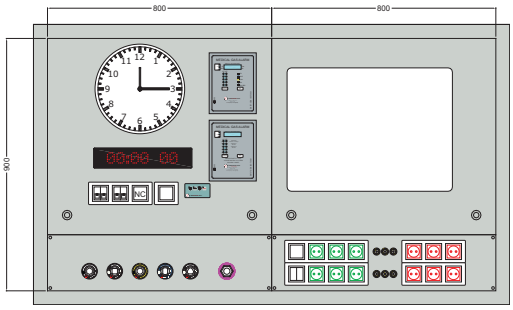
1.6 MEDICAL GASES

- **TERMINAL UNITS:** Two-part Outlets for O2 - N2O - Air- Vacuum - Compressed Air according to ISO 9376-1 Outlets are installed at the final delivery points in a medical gas pipeline system. They are used by personnel to supply the various different gases using special quick-action connection fittings. The two-part outlets are composed of the base part and the finishing part.
- **TERMINAL UNITS:** Bed head units have been created for grouping all the necessary electrical, lighting, data, communications equipment and medical gases services and are designed to serve: Normal hospital care, intensive care areas, special care areas (reanimation, geriatric, coronary, etc.), old people home.
- **CEILING PENDANT ARMS:** The ceiling pendants for special treatment rooms, is placed at the ceiling of these rooms, as intensive care units and surgeries, above the patient bed or above the surgical table. The ceiling pendant has been created for grouping all the necessary electrical, data and medical gases services, required for use in operating theatres in anaesthetic, surgical rooms and intensive care areas.



2. Equipment

2.1 CONTROL PANEL

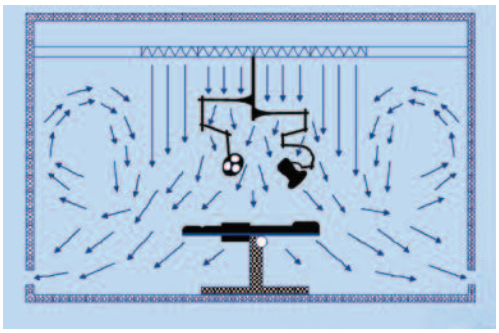


The control panel is made of stainless steel or corian according to the client's wish. It has openings at the places where basic equipment of the surgery room such us negatoscope, clock, timer, plugs, medical gasses circulation panel, sockets for several uses, electrical installations and control mechanisms. The control panel is put on base made of galvanized steel with shelves made of the same material and holes in the places that the wires must pass through. That way they are maintained in excellent condition.

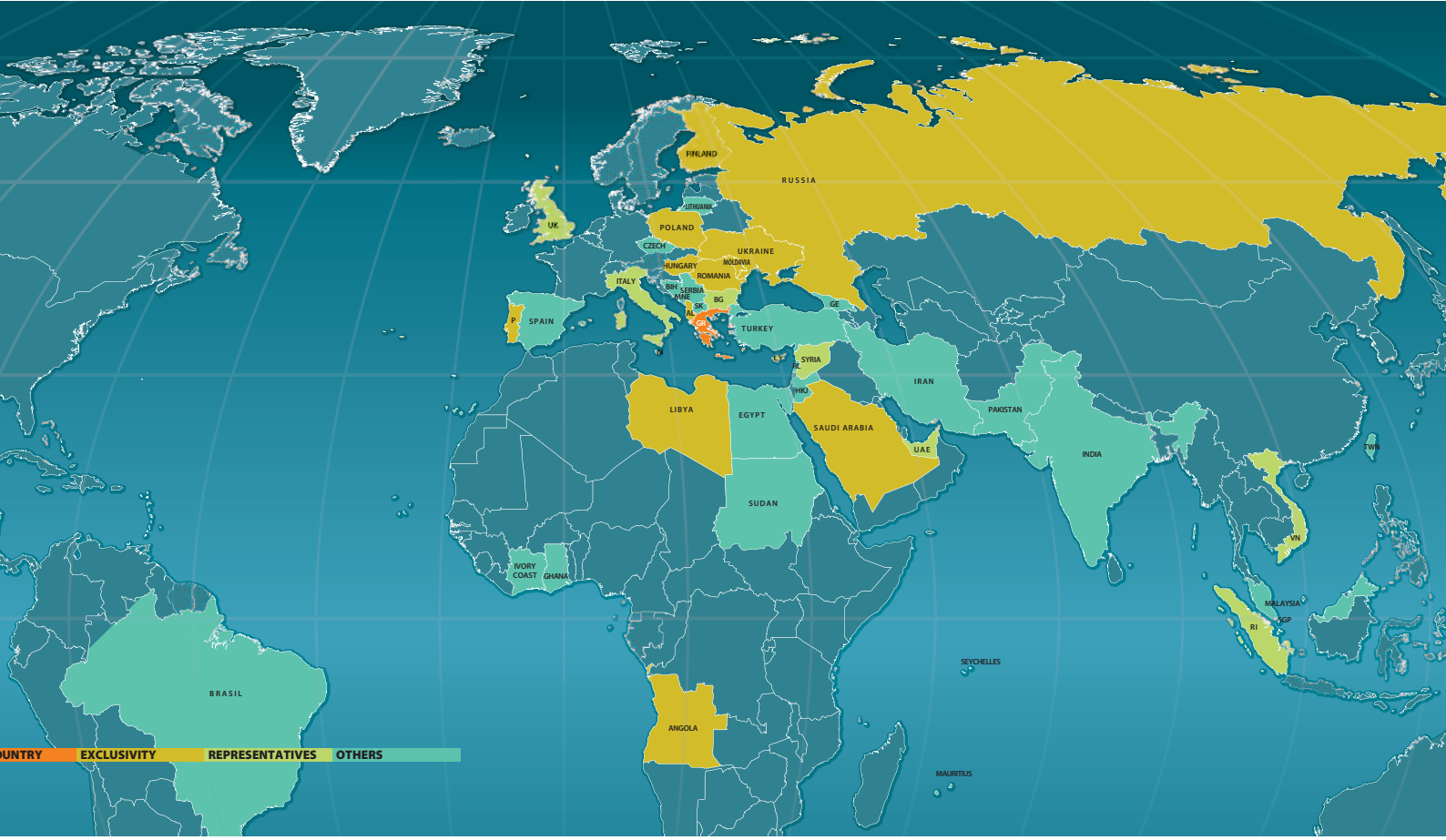
2.2 SCRUB UP

The electronic hand-washing units have been devised by constantly complying with what the Department of Industrial Hygiene has established in the "guidelines for the definition of standards of safety and hygiene in operating departments. All products of this series consist of one single tank unit in 15/10mm-thick AISI 304 or 316 of stainless steel with panelling under basin. The unit is also equipped with an upper panelling without sharp corners and edges: such even surface avoids spreading of bacteria in any of its parts. The hydraulic parts are in solid brass while all parts in contact with water are perfectly smooth to prevent any spreading of bacteria.

2.3 LAMINAR FLOW SYSTEM



Laminar Air Flow means that the flow of air is continuous, steady and uni-directional, with the entire body of air in the room moving with a low uniform velocity in parallel planes. In rooms equipped with Laminar Flow Patterns, the idea is to have a steady, turbulence-free flow of absolutely clean air to bathe the occupants and equipment's. Under this condition of a piston-like delivery of air, the air will migrate over all surfaces. Any contaminated particles will not be picked up from one spot and deposited in another. Rather, it will be carried away from the working area to the Exhaust Point.



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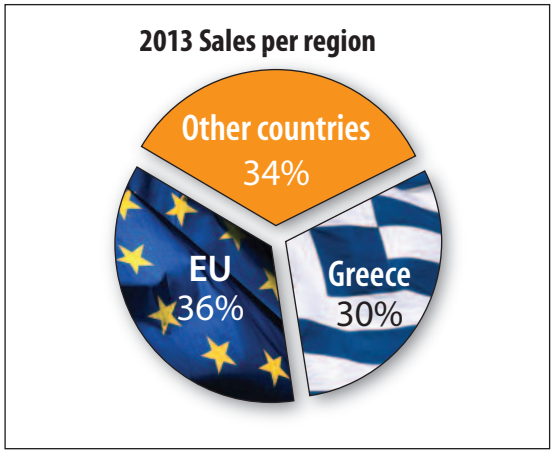

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