PRESCRIPTION SPECIFICATION

SUSPENDED COLUMN

**MULTICARE Evolution**

**Principle**

All beds shall be equipped with a suspended column such as MULTICARE Evolution manufactured by TLV, or an equivalent product:

* incorporating Low voltage/Extra low voltage and medical gas equipment,
* with an anchoring system to fit the building height,
* with a mechanical structure designed to accept an optional lightweight mobile arm (IV pole) and/or caring lighting mounted on an articulated arm, painted with a powdered epoxy coating (RAL 9016 satin white),
* with a compact structure to keep the visual field as clear as possible and provide full access for the patient's head,
* allowing the mounting of a full range of accessories and biomedical devices.

*(Image for information only, to illustrate the description)*

**Technical reference framework**

The steel anchorage must be able to pass through a false ceiling and shall be equipped with:

* electrical connection terminal blocks,
* column mounting plate,
* casting cover.

The suspended column:

* shall consist of an extruded aluminium profile (fire classification M0) separated into compartments closed by two clipped side covers
* shall be equipped with three vertical accessory mounting rails, 25 x 10 mm, 1500 mm high (two on the front and one on the back),
* shall be able to accommodate one or more trays,
* must support a 200 kg payload.

The trays, designed to comply with the strictest standards concerning hygiene and durability, shall be:

* equipped with a tempered glass or compact with white core (HPL) 6mm thick surface,
* equipped with side accessory mounting rails, section 25x10 mm,
* easily adjustable over the entire height of the column,
* equipped or not with one or two drawers,
* available in two sizes: 400 x 350 mm / 40kg and 600 x 450 mm / 60 kg.

The drawers shall be:

* made of anti-bacterial Kydex,
* equipped with a Push and Lock handle-free opening system,
* removable to facilitate cleaning and disinfection operations,
* available in two sizes: 312 x 283 x 139 mm and 512 x 383 x 139 mm (L x D x H).

Cleaning and disinfection will be easy, thanks to:

* smooth surfaces,
* soft injection moulded endcaps,
* perfect integration of exterior screws,
* electrical accessories flush-mounted with the cover.

The column can optionally be equipped with the following:

* Double-jointed lightweight mobile arm offering:
	+ horizontal travel of 850 + 988 mm,
	+ vertical travel of approximately 1000 mm,
	+ payload capacity of up to 40 kg (including the weight of the distribution box),
* 600 mm high distribution box:
	+ shall consist of an extruded aluminium profile separated into compartments closed by two clipped side covers,
	+ shall be equipped with one or two Ø38 x 600 mm stainless steel biomedical accessory support tubes,
	+ allows the distribution of low voltage and extra-low voltage or medical fluids.

**Installation and Maintenance**

These will be facilitated by**:**

* LV connection terminals with identification of the various networks (power socket and lighting) with WAGO-type push wire connectors
* ELV connection terminals with identification with WAGO-type push wire connectors,
* a wiring diagram placed inside the unit near the connection point,
* a label with the results of the EN-11197 electrical safety tests, placed on the cover inside the unit, near the connection terminal block,
* a system providing automatic earthing of the covers,
* electrical accessories secured to the bottom of the column (not requiring a finishing window front frame),

**Lighting**

The vertical column can optionally be equipped with:

* a LUMIA LED indirect lighting wall unit,
* A FLEX-E LED reading spot lamp on flexible stem,
* LED night light built into the bottom fitting.
* caring lighting, also used for minor surgery, mounted on an articulated arm.

**Equipment**

The distribution column shall include electrical and medical gas equipment of at least :

* 4 white power sockets on a normal electrical network,
* 4 red power sockets on a backed-up electrical network,,
* 4 equipotential earthing terminals,
* 2 double RJ45 connectors,
* 1 pre-piped oxygen outlet,
* 1 pre-piped medical air outlet,
* 2 pre-piped vacuum outlets,

**Normative reference framework**

The ceiling-mounted arm, completely factory-made, must comply with the following standards and recommendations in force:

* EN ISO 9001 and EN ISO 13485 : Quality management systems,
* CE Marking in accordance with Directives 93/42/EEC "Medical Devices" and 2006/42/EC "Machines",
* EN ISO 11197 : Special care bed head units,
* EN ISO 7396-1 : Medical gas distribution system - Part 1.

The manufacturer undertakes to provide the following:

* reports on the EN-11197 piping tests,
* reports on the EN-11197 electrical safety tests,
* proof of compliance with the electromagnetic compatibility requirements,
* the EC Medical Devices certificate issued by a notified body,
* the ISO 9001 and ISO 13485 certificates issued by a notified body.

The equipment shall be delivered with the instruction manual giving details of all assembly, installation, and maintenance operations.