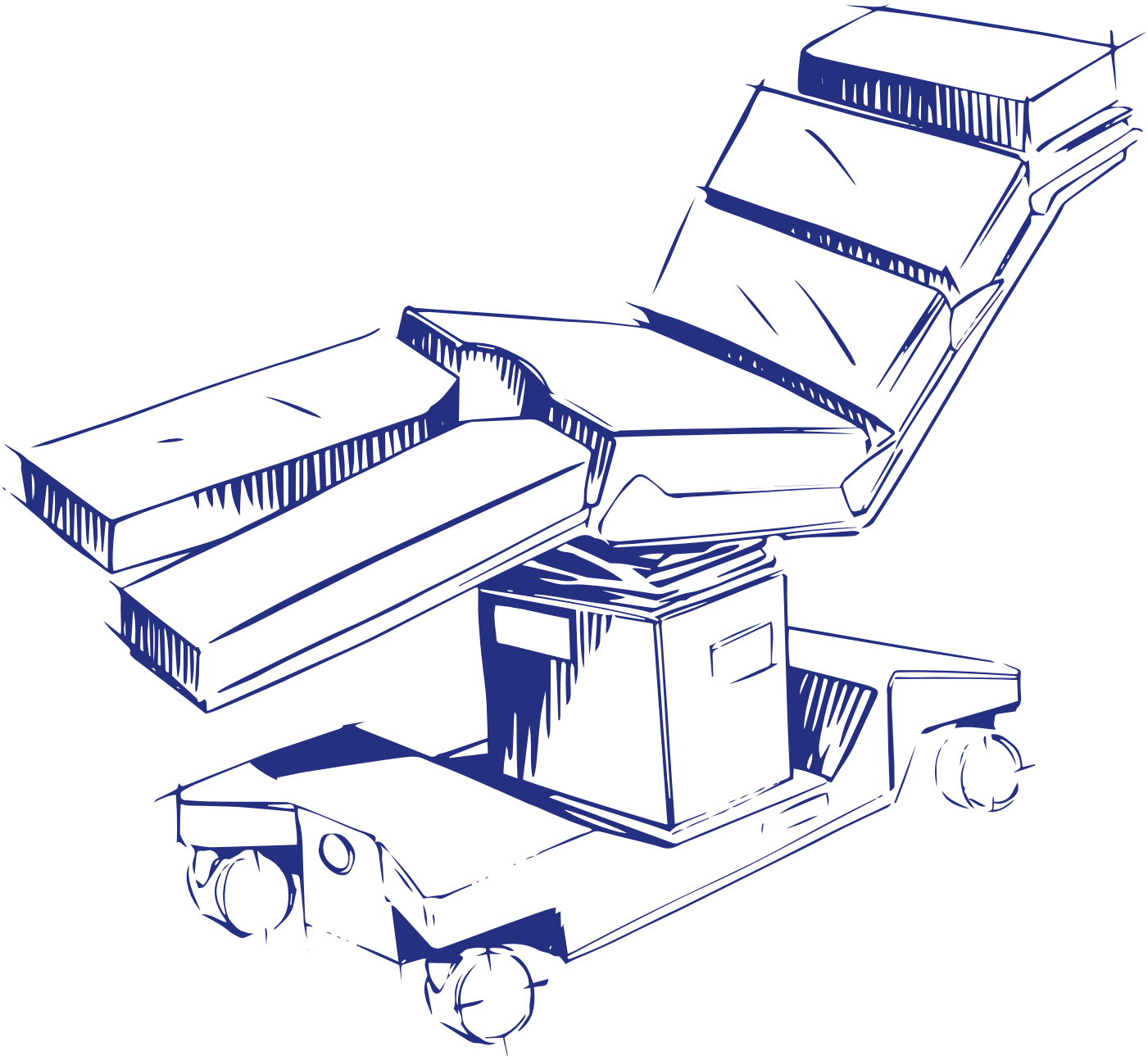
SurgiSystems



asso

MOBILE OPERATING TABLE

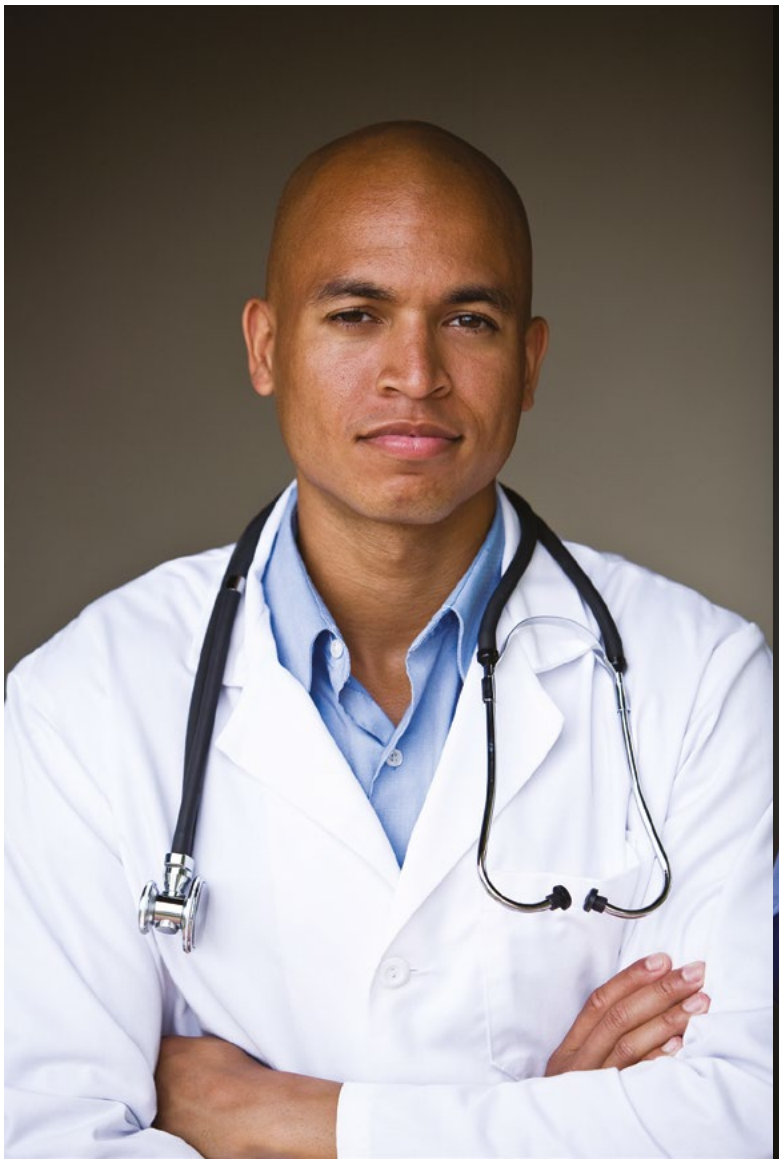
asso
life made simple

OPT SurgiSystems is an Italian brand and manufacturer of operating tables and OR accessories of the highest quality. OPT's production and headquarter are located in Calliano (Trento), Italy.

For 100 years, OPT has been dedicated on improving their operating tables and accessories to help the surgeons make surgery more simple, less invasive and safe for the patient. This long history of experience combined together with the technology of today, has given us the privilege to be a world leader in this sector, with installations all over the world.

With this 100 years of experience OPT continues to work closely with many high level hospitals to maintain all OPT products to the highest level and adapt to new surgical procedures.

As a result OPT SurgiSystems is one of the leaders on the national and international markets and is constantly working on its development and perfection. Close collaboration with the surgical world and attention to each detail are essential parts of our final success.



Dedicated to **you**,
who are taking care of **us**.

OPT®
SurgiSystems

Life made simple

Mobile operating table ASSO summarizes all the technology and know-how acquired by OPT in almost 100 years of history.

Following its tradition and its continuous technological development OPT has created a mobile operating table with **high technology** and **powerful performances** but at the same time **easy to use** and whose functions are **easy to comprehend**.

The operating table ASSO reaches even the most extreme positions with respect to the safety and comfort of both patient and user. It is a state-of-the-art product in terms of innovative and aesthetic criteria, rationality in every detail, safe use and versatility.

Three fundamental guidelines have been followed in the design of the table:

1. **Care for the patient**: ASSO ensures maximum comfort even in case of long lasting interventions thanks to anti-decubitus cushions and silent and smooth electrical movements, which improve the patient's comfort and safety.

2. **Care for OR operators**: ASSO fulfills all the requirements of various surgical specialties. The patient positioning is precise and immediate thanks to the complete modularity of the table top and the unique fast locking/unlocking system of the table top sections. The table top is also able to recognize the sections that have been added. The innovative software solution allows the surgeon to work with a perfect "vision" of the surgical field.

3. **Care for hospitals**: The use of ASSO with universal table top allows to organize a better logistics in the multidisciplinary operating rooms. In addition, thanks to its modularity the table top can be easily used in any surgical discipline without the need of adding specialized tables.

A smart operating table making the complex things simply

Simplicity

ASSO makes life in an OR easier and safer for both staff and patients. It is complete with **automatic support systems** such as the **automatic detection** of the table top orientation and the **anti-collision** safety system to prevent collision with the floor. These features allows the user to make any required position safely. Furthermore, the innovative **Fix Torque system** enables to hook/unhook the sections of the operating table in a secure and rapid way and in a single movement without using additional clamps or locks.

Modularity and universality

The operating table ASSO is **completely modular** with a single central section to which numerous sections (elongation plates, head and leg sections) can be added. Thanks to special sensors, the table is able to automatically detect the configuration setting and the table top orientation. Moreover, ASSO boasts a wide range of accessories, so that a single table top can satisfy the needs of every surgical discipline.

Automation

ASSO has electrical movements of all its components and a sophisticated software that fully respects the safety of both user and patient. For instance, the table automatically modifies the movement speed if particular sections have been attached.

Radiolucency

The table is completely **radiolucent on its entire length**. Therefore, it allows a rational and easy use of the C-Arm and the realization of radiographies on all its length, possible also thanks to the longitudinal shift of the table top. Wide range of carbon fibre sections applied on the central module allow for a **360° radiolucency**.

Technology

ASSO is designed with cutting-edge technological solutions that meet the needs of both surgeon and patient. To achieve the best performance also in terms of safety, ASSO offers the possibility to set different **security protocols** according to the specific requirements of the surgical operation. Moreover, ASSO is complete with the most innovative security systems that protect from any unexpected errors.

OPERATING TABLE

Universality and flexibility in one table

ASSO is a state-of-the-art product in its category in terms of aesthetical and innovative criteria, rationality in each detail, safety and versatility. It is a **universal** table suitable for all surgical specialties including **traumatology**.

Ergonomics

The table has been designed to simplify the daily activities of the OR staff and to increase the patients' safety and comfort in order to prevent injuries caused by decubitus. The base of the table is compact and has a small footprint in order to allow a better access to the operating area.

Modularity

ASSO has an entirely modular table top with a **single central section** to which numerous components (head and leg sections, elongation plates) can be added. ASSO allows to configure the table top attaching additional sections to both sides according to the surgical specialty. The table then **automatically detects the configuration** and does not require to reset with the remote control.

MOBILITY *Precision of motion*

Maneuverability

ASSO operating table has a simple and practical maneuverability and is completely safe thanks to 4 swiveling castors. They allow an easy control of the table even in narrow spaces. The castors have a special cover that protects from accidental impacts and infiltration. A 5th mechanical wheel (optional) ensures to easily move the table in case of obese patients' transportation.

Stability

ASSO has a system with electrical pins (controlled by wired or wireless remote control) that can lock the table in the required position and thus ensuring maximum stability in any surgical operation.

Electrical 5th wheel

The operating table ASSO can be supplied with a 5th electrical and retractable wheel. The 5th wheel allows the user to comfortably and safely move the table in case of long transfers or even in case of obese patients' transportation. This motorized wheel can be activated by ASSO wired remote controls.

CONTROL SYSTEMS

Total control of the table in one hand

New wireless remote controls with display

OPT adds to its line of **wireless remote controls** state-of-the-art remote controls with **LCD touch screen display**. Thanks to this option users always have a clear control of the table in all its functions.

Using these wireless remote controls it is possible to make **all electrical movements** of the operating table ASSO (including self-levelling).

Thanks to the bidirectional communication with the column, the display allows to quickly obtain various information and to activate all functions of the table.

The main features of the new wireless remote controls with LCD display are:

- Setting and selection of safety protocols for obese patients
- Visualization of all electrical movements of the table and movement degrees
- Automatic detection of sections attached to the central module of the table top
- Indications/ settings of the tabletop orientation on the column
- Visualization of the charging status of both remote control and the batteries of the table
- Information on the status of the operating table and warning through descriptive alarm messages
- Visualization of information about the use of the table
- Configuration of customized parameters of the table

The remote controls have **intuitive graphic symbols** in order to make their use immediate and extremely simple even for less experienced users. They also have **backlit buttons** and can therefore be used even with soft lights.

Remote control features

ASSO remote controls have a **STOP button** to block instantly any movement. Moreover, the remote controls with LCD display have a **LOCK/UNLOCK button** to block temporarily the buttons and a **SPEED button** to change the movement speed.

Every remote control can be connected to a specific table ASSO through a simple and quick binding procedure. Every remote control can activate only one table at a time thus avoiding any interference with other operating tables.

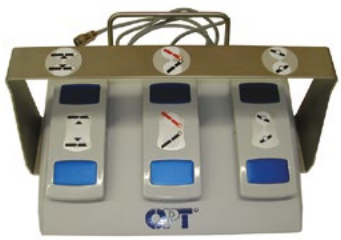
In addition, ASSO remote controls have an exclusive button to **memorize instantaneously a specific position** of the table, which can be recalled by the user any time.

Integrated control panel

ASSO column has an integrated control panel which can also be used as an **emergency control**. It can activate all the column and the table top movements without the use of any wired or wireless remote controls.

Foot switch

ASSO can be controlled by a foot switch with three pedals that controls **three electro-hydraulic movements**: height variation, longitudinal tilt and lateral tilt of the table top.



PERFORMANCES *Extreme positions with simplicity*

To ensure an optimal exposure of the surgical site, ASSO offers the opportunity to reach the most extreme positions with respect to the safety and comfort of both patient and user.

ASSO has electro-hydraulic column movements and electro-mechanical table top movements, completely independent from one another.

Electro-hydraulic movements:

- Height variation (without cushions): 600-1.060 mm
- Trendelenburg / Reverse Trendelenburg: ± 35°
- Bilateral tilt: ± 27°

Electro-mechanical movements:

- Lower back section inclination: + 90°/- 50°
- Thorax flex: + 90°/- 50°
- Kidney flex: + 90°/- 50°
- Leg section indication: + 90°/- 90° (independently right, left or together)
- Longitudinal shift of the table top: 400 mm (completely electromechanical)
- Flex - only one button for two simultaneous movements (back section / Reverse Trendelenburg)
- Reflex - only one button for two simultaneous movements (Trendelenburg / back section)
- Self levelling - zero automatic position with simultaneous realignment of all movements, in order to speed the maneuver and especially to avoid trauma to patients.

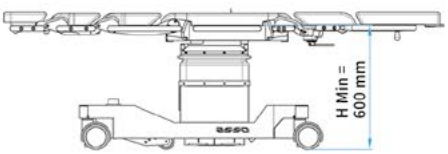
Manual movements:

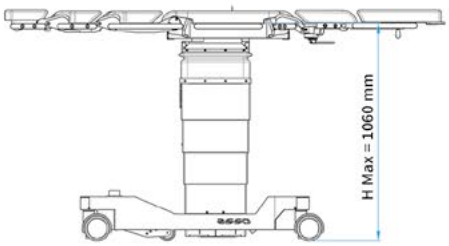
- Head section adjustment (removable): + 53°/- 53° (tiltable without adjustment at -90°)
- Upper back section: + 60°/- 90° (with tiltable section)
- Leg section spread: 180°

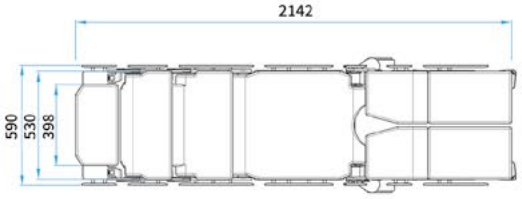
Noise reduction and fluidity in movement

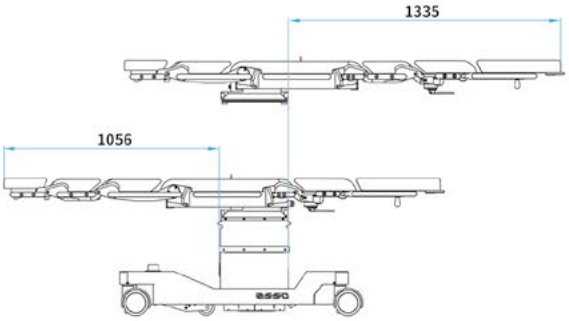
ASSO movements are **extremely silent** in order not to distract surgeons and OR staff during the intervention. Moreover, the electrical movements are extremely fluid and thus increasing the patient's comfort and safety.

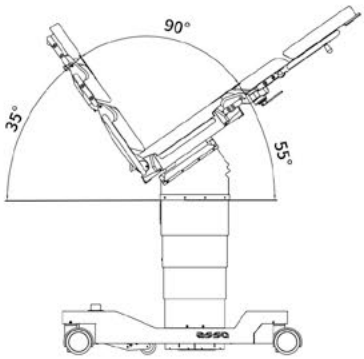
TECHNICAL DRAWINGS

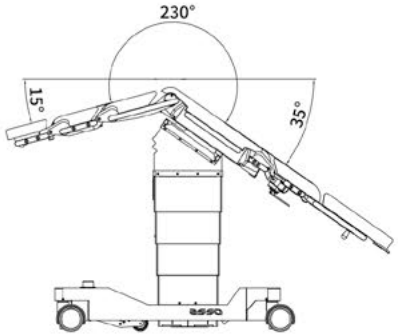


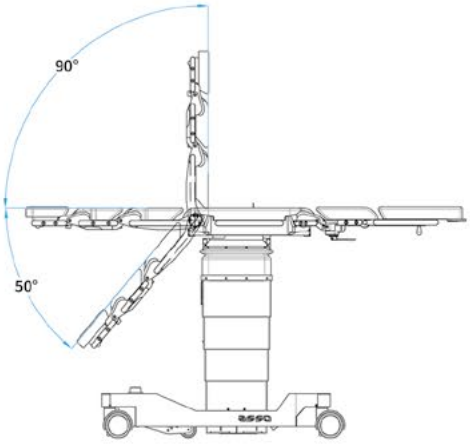


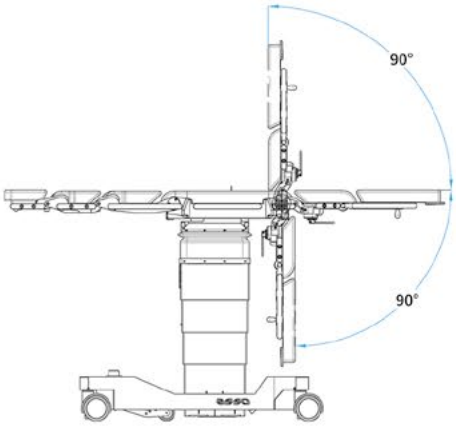


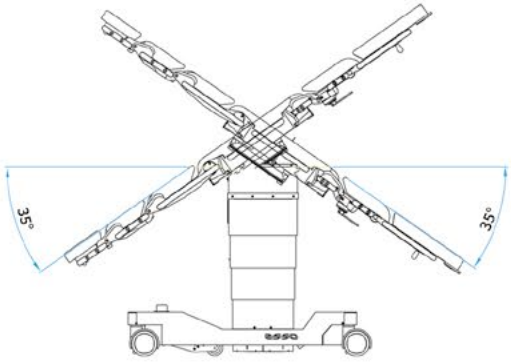


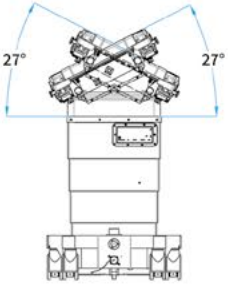












Tolerance +/- 2° on angular movements and +/- 3% on linear movements

OPT

TECHNICAL FEATURES

Know-how acquired in nearly 100 years of experience

Modularity and flexibility

The extreme modularity of ASSO increases the flexibility of the OR. For instance, it allows to change the table configuration quickly and easily according to the required surgical discipline and thus adapting to the OR staff needs.

Remote panel integrated to the column

An integrated remote panel, placed at the base of the table, allows to perform all electrical movements of both column and table top. In addition, there are luminous indicators of the battery charge status and of the correct data transmission.

Mobility

The maneuverability of ASSO is ensured by 4 swiveling castors that allow easy control of the table even in narrow spaces.

Anti-collision system

ASSO has a sophisticated **anti-collision system** of the table top that prevents from crashes against the floor.

Central section of the table top

The central section of the table top is motorized on both sides (back and legs). It does not need any additional electric section for the electromechanical movements and performs all surgical activities without the need of moving the patient.

Attachment system

The innovative **Fix Torque system** allows to hook/unhook the sections of the operating table in a safe and rapid way and in a single movement without using additional clamps or locks.

Column all included

The column contains all the components designed for table functioning including the power supply. Therefore, even in case of discharged batteries, there is **no external power supply** that could disturb the operators.

Base of minimal size

The base of ASSO ensures maximum stability and practicality. This avoids collisions with the surgeon, OR personnel and other devices (C-arms, etc.).

Stability

A system with electrical pins (controlled by wired or wireless remote controls) can lock the table in the required position and thus ensuring maximum stability in any surgical operation.

CONSTRUCTIVE TECHNOLOGY

The tradition of innovation

Main features

ASSO is made of **stainless steel** and noble materials of the highest quality.

The standard **cushions** of the operating table are made in **soft, radiolucent,** anti-static, anti-decubitus and ergonomically shaped material. Their thickness of 60 mm allows a comfortable patient positioning even during long lasting operating sessions. The total **absence of stitching** on the cushions makes their cleaning extremely easy.

As an alternative, it is possible to choose **cushions in visco-elastic material** with a thickness of 80/ 90 mm. This type of cushion is **anti-decubitus**, easily removable and of **maximum comfort** for the patient. All the cushions of the table top and of the sections are **latex free.**

Radiolucency

ASSO table top is **completely radiolucent on its entire length**, anterior-back direction and without any shadow zones. Thanks to the longitudinal shift of the table top a rational and easy use of the C-Arm and the realization of radiographies is available on all its length. The longitudinal shift is greater than the column length so there is no need to move the patient. Wide range of carbon fibre sections applied on the central module allow for a **360° radiolucency**.

Unique attachment system of the table top sections

All of the sections of the table top ASSO have a unique **Fix Torque system**. This system allows to hook/unhook the sections in a secure and rapid way and in a single movement without using additional clamps or locks.

Bariatric surgery (for obese patients)

The exceptional **load capacity** of ASSO is **454 kg (1000lb)***.

Electro-polishing

The **electro-polishing procedure** is currently the best technique for **stainless steel treatment.** It ensures a longer life of the material and a simpler cleaning of the table. After the treatment, the surface is smooth, shiny and more resistant to scratches and bacterial agents.

* With the operating table code 7712000 /P

TECHNOLOGY AND SAFETY

Full safety for operator and patient

Automatic detection of the table top orientation

Thanks to special sensors, ASSO automatically detects the position of the head and leg sections (or any accessory placed directly on the central section from the head/leg side). This leads to the automatic detection of the patient's orientation and to the consequent regulation of the movement degrees and the activation of the anti-collision system of the single sections.

Safe positioning of obese patients

With ASSO the user can set up several safety protocols according to needs of the surgical procedure and according to the patients' weight or height.

Full integration

ASSO can be integrated with the main control systems for integrated OR thanks to wireless communication protocols which comply with the most stringent regulatory standards.

Anti-collision system

ASSO has an exclusive **anti-collision safety system** that recognizes the sections attached to the table top and can prevent collisions against the column and/or the floor without limiting its performances.

Safety

Safety is a prior focus of OPT in the development and design of all its products.

Attention is paid on the patient's safety and tranquility as well as on the safety of the operators working in the OR.

ASSO has been designed according to **passive safety** principles (a reliable, solid and efficient product) and to **active safety** principles (devices which prevent and avoid any errors caused by misuse).

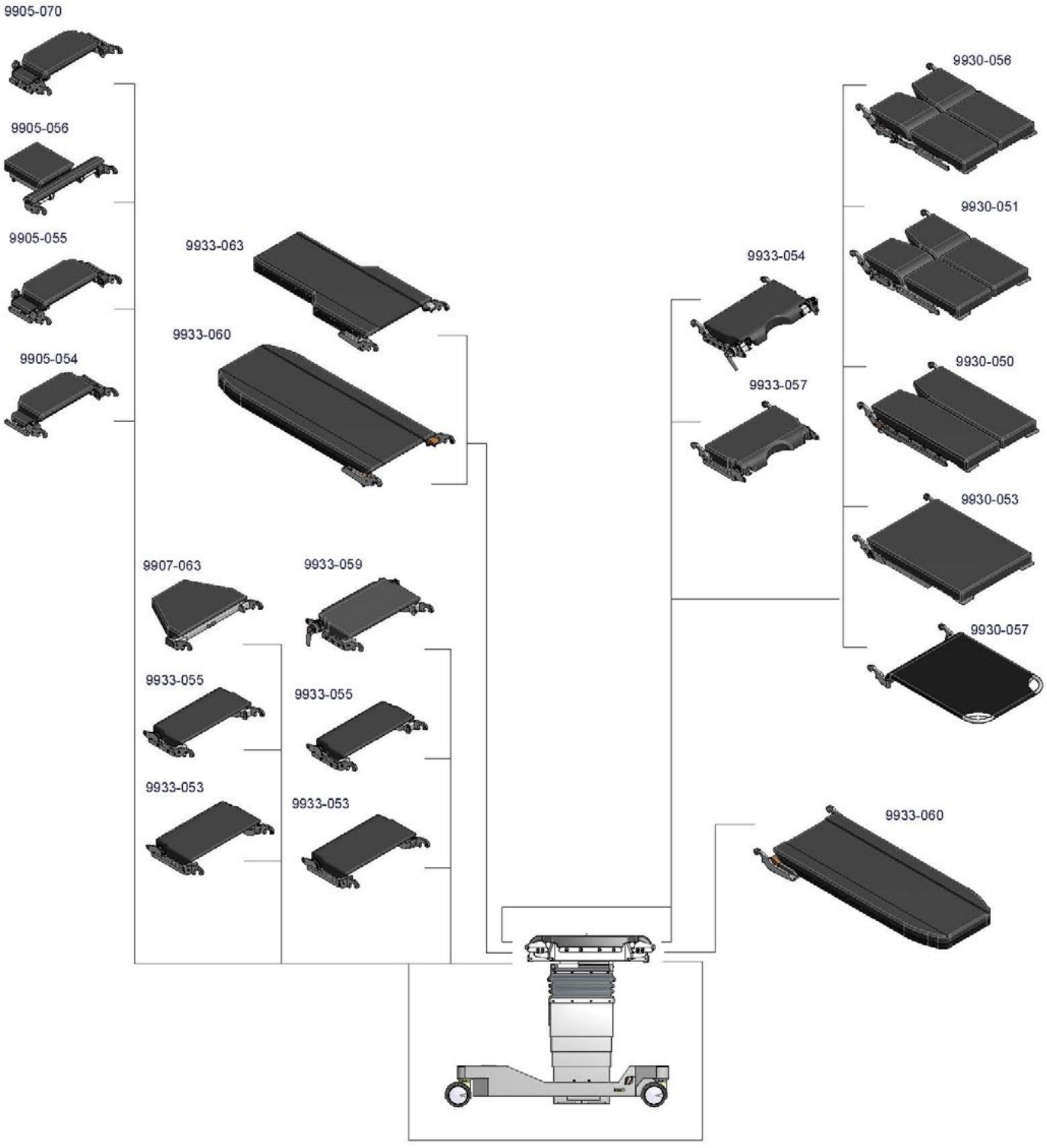
ISO Certification

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV ISO 9001

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV ISO 13485

COMPANY WITH ENVIRONMENTAL SYSTEM CERTIFIED BY DNV ISO 14001

OPT SurgiSystems is a company with a Quality and Environmental Management System certified according to **ISO 9001:2015**, **ISO 13485:2016** and **ISO 14001:2015**; this allows OPT SurgiSystems to guarantee high standards in the design, manufacturing and safety of its medical devices with an active participation in environmental protection.
The operating table **ASSO**, manufactured by OPT SurgiSystems, is a medical device that complies with **Regulation (EU) 2017/745 (MDR)**.



Technical drawing of ASSO with the different configurations of the operating table

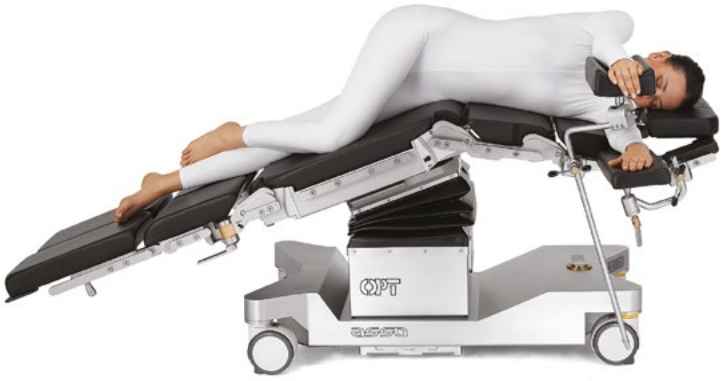
SURGICAL POSITIONS

Laparoscopic surgery

Thorax surgery in lateral decubitus

Colon surgery

Abdominal surgery



Kidney surgery in lateral decubitus
(flex position)

Gynae-uro-procto in
lithotomy position

Lithotomic surgery

Lithotomic surgery
with instrument tray

Vascular surgery with
carbon fibre section

Thyroid surgery

Goiter surgery

Shoulder arthroscopy in lateral decubitus

Shoulder surgery in beach chair position

Shoulder surgery

Hip surgery in lateral decubitus

Knee arthroscopy

Hip surgery with traction device
in carbon fibre

Femur surgery

Tibia surgery

Skull surgery in prone decubitus

Skull surgery in supine decubitus

Skull surgery in beach chair position

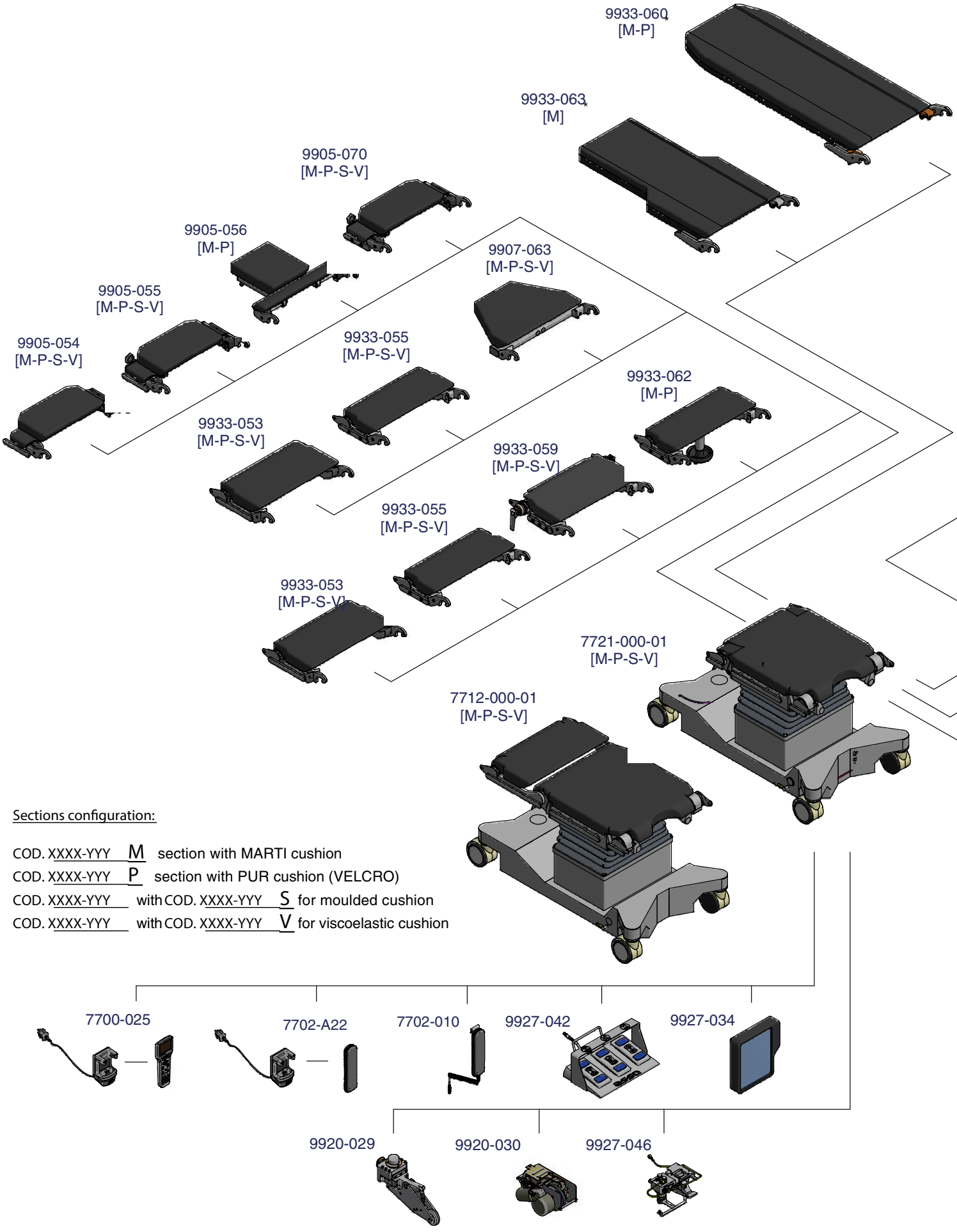
Spine surgery in genupectural position

Skull surgery in park bench position

Spine surgery in prone decubitus

Column stabilization

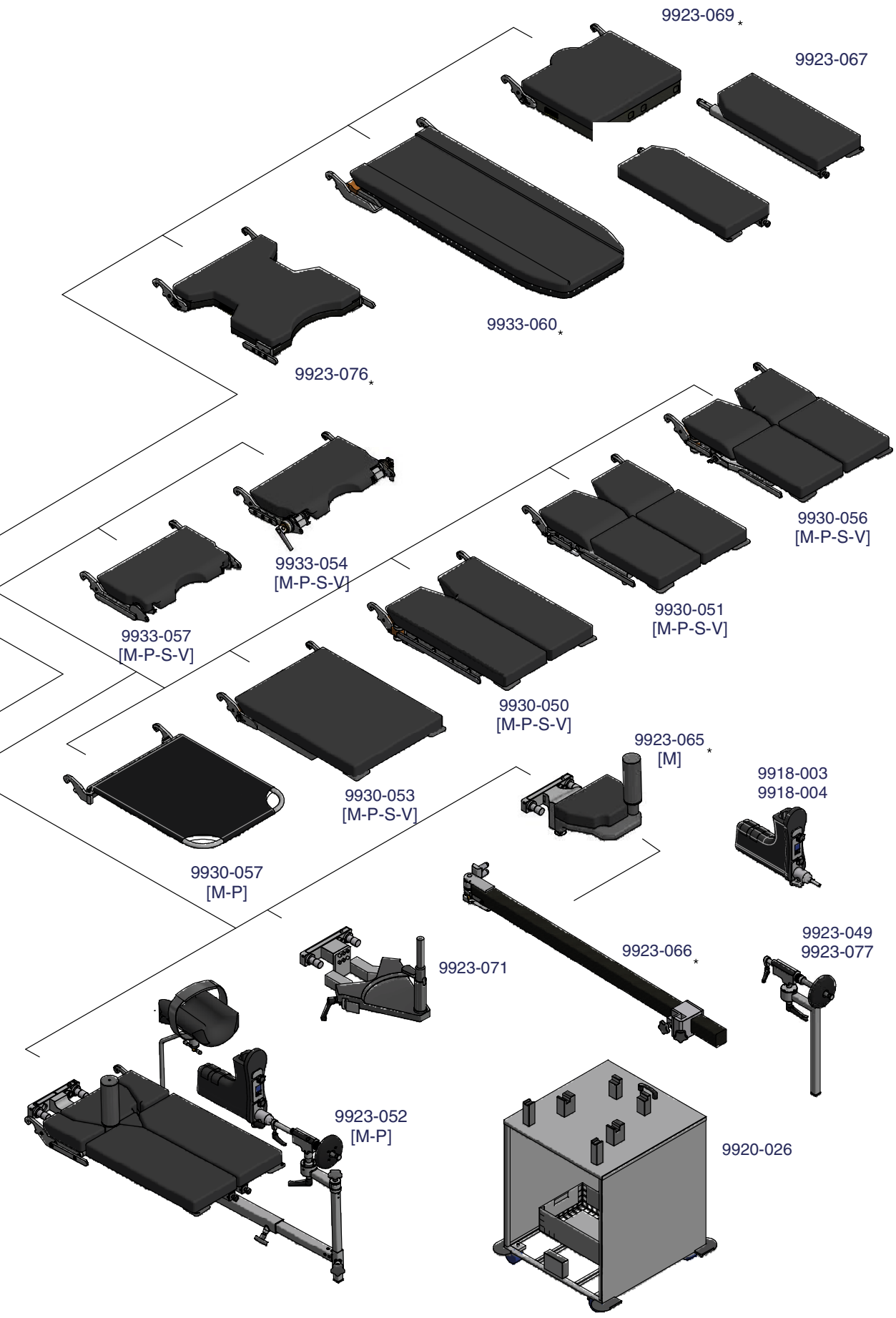
LAY OUT



Sections configuration:

COD. XXXX-YYY M section with MARTI cushion
COD. XXXX-YYY P section with PUR cushion (VELCRO)
COD. XXXX-YYY with COD. XXXX-YYY S for moulded cushion
COD. XXXX-YYY with COD. XXXX-YYY V for viscoelastic cushion

* Carbon fibre section



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