

Stryker ProCases

Applying rock and roll solutions to medical problems

The Project:

Stryker Corporation is a leader in the worldwide orthopaedic market and is one of the world's largest medical device companies. Stryker delivers results through a wide range of capabilities including joint replacements, trauma, spine and micro implant systems, orthobiologics, powered surgical instruments, surgical navigation systems, endoscopic products as well as patient handling and emergency medical equipment.

The Problem:

Trauma Theatre Trolleys

Stryker manufactures orthopaedic implants for trauma. The volume of implants designed for the human body is vast, which includes size variations based on the dimensions of individual patients.

Surgeons would traditionally have pre-ordered parts for operations based on individual requirements, however this does not allow for on the spot changes in requirements or to fix unforeseen problems.

Stryker needs a system to allow surgeons to access the full suite of parts required for an operation allowing them to choose the parts on location and to change or request new parts without delays.

This system means changes could be made during surgery and would only require surgical nurses to leave the OR to obtain the new part.

Achieving this goal would increase operation efficiency to help patient recovery, and surgeons could make better decisions on what was required. It would also allow Stryker to increase sales and for hospitals to reduce costs as they would only be billed for what was used.



The Solution:

Flight Cases with Welded Plastic Internals

ProCases are made using the finest Finnish birch plywood. Each case is carefully designed, the plywood is laminated with tough but washable PVC and fitted with aluminium extrusions and heavy duty knuckle ball joints. The robust and durable nature and the ability to custom design and create cases to the clients exact requirements, make them perfect for this role.

CP Cases carefully compile the subcomponents for each trolley and take measurements of each of the surgical parts. The expert design team set about creating solutions which house all of these parts in a case that was transportable in and out of theatre but also allow every part to be visible and easily located.

An initial suite of cases was designed and submitted to Stryker, and during consultation with them and end-users, alterations were made to improve the efficiency of each case to optimise it for use in surgery.

Each case requires a combination of drawer systems, plastic welded dividers and CNC routed foam partitions and the internals of many of the cases include a complex plastic frame using 3mm High Density Polypropylene (HDPE), a hard wearing and rigid material, strong enough to support the heavy items.

Stryker has a clear advantage working directly with CP Cases and their ability to supply a range of products and design services under one roof. CP Cases manufacture complex flight cases out of plywood and can draw on experience from nearly 40 years of shaping plastic, metal fabrication and foam routing.