Overview:
This large pressure formed enclosure is the Top Cover for a highly sophisticated portable medical laser unit that houses new laser technology used for the removal of tattoos.

Features and Benefits:
This pressure formed Top Cover measures approximately 20” wide by 34” in length and is formed into a female, machined aluminum, temperature controlled production mold cavity that is over 11” in depth.

The material used to produce the cover is a .375” thick Kydex “T” (Acrylic-PVC) sheet custom extruded to size.

In order to accommodate the fact that three of the Top Cover sidewalls had zero draft, horizontal ribbing for venting, undercuts and numerous molded in sidewall recesses, three of the four mold sidewalls retract pneumatically to allow the forming of the required features and the removal of the part after forming. To assist the stretching of the heated plastic sheet into the mold a syntactic foam plug assist is also used.

After forming, internal blocks for mounting features are added and then the Top Cover is completely machined utilizing a large 5-axis machining center. Once machined, there are (16) threaded inserts assembled to the cover for mounting features. Once the machined cover is deburred, inspected and cleaned it then goes thru a number of prep operations for the copper conductive coating that is sprayed on the inside surfaces of the cover and the two-tone (blue and black) paint finish that is applied to the outside surfaces of the cover.