



## Customer

Durable Medical Equipment Manufacturer

## Parts

Steel Bases and Steel Tubes

## Manufacturing Issue

Turnaround times were too long for these parts that are critical in customizing the final product for the end user.

Inconsistent production and assembly.

## Customer's Goal

Locate a supplier in the Midwest with the capabilities to manufacture three different lengths of the steel tube and four different designs of the steel base.

Utilize this same supplier to assemble the steel tubes and bases into six different assemblies with the possibility of more combinations in the future.

## Manufacturing Process

We utilized the technology of our fiber laser with the hands-on operations of the cut-off saw to manufacture these steel parts.

The four different base plates needed to fit precisely and securely onto the end product so minimal deviation is allowed from the design print. Likewise, the dimensions of the tubes needed to be cut to a precise length and opening to fit properly and safely onto the bases. Ultra's prototyping established the final production process to achieve the parts' dimensions.

A key step to this production was developing a feasible and sturdy process for welding together the steel tubes and bases. A customized fixture was designed and built by our in-house Tool Room to better stabilize the components during the welding process, resulting in greater precision and higher-quality welds.

To complete these six assemblies, Ultra selected high-quality suppliers to do the deburring and applying of the black matte powder coating. Once these secondary services are performed, a final quality inspection is performed by our Value-Added technicians prior to packaging.

## Customer Outcome

Ultra has provided the customer with robust and precision steel assemblies to utilize on their medical equipment.

These steel tubes and plates are interchangeable providing less costly design changes with greater flexibility.