### CASE STUDY

# Accelerating production of medical beds

Sector: Medical technology



#### The challenge

Flex produces a line of hospital beds on behalf of a leading medical technology company. As the number of COVID-19 infections rose, so did the demand for hospital beds. To meet this demand, our customer asked us to accelerate the production of critical-care and standard hospital beds.

In meeting the demand increase, we worked within these requirements and constraints:

- 1,000+ BOM line items
- More than 150 suppliers
- Materials in short supply, including casting, electronics, plastics, sensors, metal and more
- 180 days to reach volume production

As we made many base parts from scratch, we needed to procure certain metals. Yet we were seeing months-long lead times for many kinds of commodities as early as February 2020.

Bed model	Demand pre-COVID-19	Demand during COVID-19
Critical care	~100 beds per month	5X ~500 beds per month
Standard	~40 beds per month	2X ~100 beds per month
Infant	~50 beds per month	~50 beds per month



Our customer provides critical-care beds equipped with touchscreens and other advanced technologies in support of hospital programs and processes.

### The solution

Within eight weeks, we received shipments of the critical raw material, enabling us to begin production. In normal times, sourcing and procuring commodities take at least six months. The following actions quickly enabled us to hit our key milestones.

#### How our supply chain team mobilized

- We established a war-room setup with materials experts to expedite raw materials
- We put an internal escalation process in place to address issues as they came up in real time
- We held daily calls with site teams, suppliers and the customer to align, provide status updates and address signs of risks
- Our engineers explored and developed alternate parts to work around shortages
- We supported our customer's vendors to help them work around shortages

By June 2020, we had achieved our production targets of 2.5x and 5x daily normal volumes for the critical-care and standard hospital beds, respectively.

# How we elevated our manufacturing capabilities

- We ramped up our end-to-end capacity to produce parts like high level assembly (HLA), metal fabrication and PCBAs
- We set up three working shifts to operate 24/6, with one day set aside for preventive equipment maintenance
- We developed additional tooling in just three weeks to increase our end-to-end capacity
- We put continuous engineering coverage in place to support production
- We conducted continuous direct labor training and quality controls to accelerate our pace
- We shipped the beds fully configured, so that the receiving hospitals could set them up seamlessly

# Partnering with the customer for last-mile delivery

We moved each unit with care and a sense of urgency, supported by our customer who stepped in to deliver on the final mile.



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