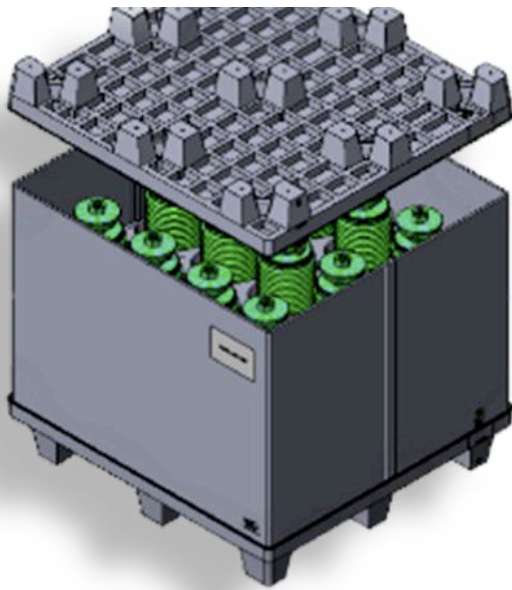


APPLICATION CASE STUDY #115

RETURNABLE PACKAGING: MILITARY DAMPENER



APPLICATION:

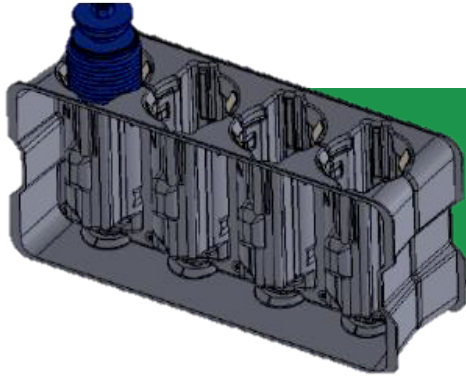
A custom container was needed to safely transport large military dampeners, while also allowing the pick-up points on the part to be easily accessible for robotic handling.

PROBLEM:

The dampeners had to be held in a specific orientation in order to properly interface with the automation at point of use. Due to the size, weight, and shape of the part, plastic corrugated partitions would not provide sufficient support to protect the components or maintain consistent alignment during shipping & handling. The overall unit load weight was also a key factor that had to be taken in to consideration in order to maximize freight utilization. A standard bulk bin could not be used due to the increased tare weight.

SOLUTION:

PolyFlex Products was able to meet all of the requirements by incorporating components, both standard and custom from each of their manufacturing processes. Engineers from each function including, injection molding, cast urethane, and thermoforming worked together to develop the ideal container.



Two-piece thermoformed tray designed to cradle the part while maintaining accurate positioning for robotic pick up.



Custom urethane plug engineered to absorb the vibration.

Standard injection molded TPU inserts used as contact points to protect the part and eliminate shaving during transit.



Standard mirror image pallet and lid with seatbelts keep the entire unit load secure during both static and dynamic conditions.

