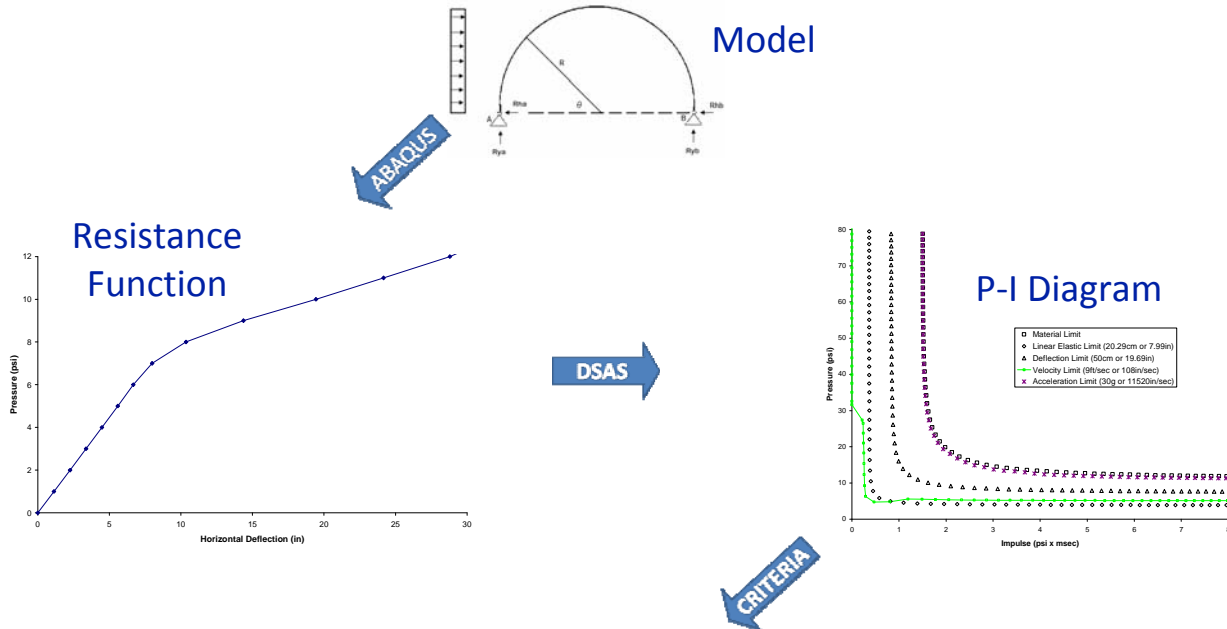
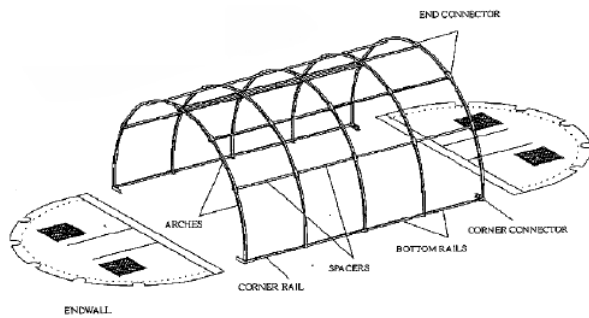


# Lightweight Relocatable Shelters (LRS) under Blast Loads

## Objective

Derive a simplified resistance function for the steel arch ribs in LRS based on theoretical and computational approaches. Use the resistance function to develop P-I diagrams and determine safe stand-off distances.

## Weatherhaven™ MTS-Lite framework



## Stand-Off Distances for Elastic and Deflection Failure Criteria

Vehicle Type	Charge Weight (lbs)	Linear Elastic Limit (ft)	Deflection Limit (ft)
Compact Car Trunk	250	177	97
Large Car Trunk	500	223	122
Panel Van	1500	332	176
Box Truck	5000	481	262
Single-Tractor Trailer	30000	874	477
Double-Tractor Trailer	60000	1102	601