A large vegetable grower and processor located in Northern California needed a double reduction speed reducer to replace a failed unit on one of its pepper processing machines. The equipment was critical to the plant’s operation, so downtime needed to be kept to a minimum. The desperate customer quickly contacted his local Motion Industries branch for help. After obtaining the specifications of the worn gearbox, the Motion sales associate immediately called Boston Gear based on a previous history of exceptionally fast delivery. Since the original reducer was not a standard product, the Boston Gear engineering team quickly went to work to create a drawing for a custom, 700 Series double reduction speed reducer with a 1500:1 ratio. The customer then verified that the new gearbox design would fit in their application based on Boston’s specs and dimension drawing.

Boston Gear was initially alerted to the customer breakdown on a Tuesday evening with a target shipping date of Friday, even though the standard lead time for a unit of this type and size is five days. Due to the delay associated with the design validation, the order was not received until the end-of-day (EOD) Wednesday. Meeting the deadline was made more challenging since the reducer required Boston Gear’s exclusive Stainless Bost-Kleen (SBK) coating that was developed to withstand repeated high-pressure washdowns that utilize harsh chemicals. Boston’s manufacturing team was committed to helping this customer and was able to complete the necessary component machining, unit assembly and coating application in two days, allowing for the shipment of the 275 lb. reducer by EOD Friday.

To help the customer even further, the Boston Gear team took the time to prefill the oil so the unit was ready-to-use upon receipt. It is a bit challenging to get the correct amount of oil in a double reduction reducer since the oil needs to pass slowly from the prefix to the secondary housing. The difficulty was enhanced due to the large size of the unit.