PIECE PLUG ASSEMBLY IMPROVEMENT
FIELD REDESIGNED AND REINFORCED A TANK ASSEMBLY YIELDING OVER $16,000 IN SAVINGS

CHALLENGE
During a plant Gemba Walk with a current customer, Field observed an assembly condition and took steps to perform an Applications Problem Solving and Assembly Line Review of their manufacturing process when applying tape to pipe plugs and pipe nipples.

The existing process was causing setup and changeover issues, and it was taking a multitude of attempts to get just one accurate assembly. The current assembly had 2-3 wraps of PTFE tape installed with a machine that required various dies and small parts to be interchanged during the set-up in order for a specific thread to be taped. The machine also required specific PTFE tape cartridges.

During the last visit, Field observed only one correct assembly out of eight. The operator also had to use a pair of gloves and pliers, or a T-handle hex wrench, to hold the work piece and then engage the dies to begin the taping process each time.

SOLUTION
Field proposed a new procedure that utilized a pre-applied tape and option for a ST-3® sealant for the two plug sizes to eliminate a process that was costing a lot of time in rework, as well as money in wasted materials.

The new recommendations aimed to improve the entire process by eliminating the manual application of PTFE and the use of the tape machine and cartridges.

Field worked closely with the customer’s engineering and manufacturing personnel to ensure a smooth implementation process.

RESULTS
The recommended Field solution eliminated the inconsistent and time-consuming manufacturing process that required manual setup and changeover, which aided in:

- Reducing total cost
- Reducing scrap/rework
- Eliminating current assembly taping equipment
- Eliminating internal assembly time
- Eliminating workspace required for assembly equipment
- Eliminating ordering and inventory of tape and replacement parts
- Reducing equipment maintenance costs
- Improving operator ergonomics and safety
- Fixing cost no variance

Total Cost Savings with Field: $16,754

FIELD RESULTS
- $3,056 Savings on scrap material
- $2,501 Piece Price Savings
- $11,197 Savings in labor costs
- Total Cost Savings with Field: $16,754 (15.7%)

FIELD SERVICE PROVIDED
- Applications Problem Solving
- Assembly Line Review
- Engineering Review
- Product Redesign

More than parts, Field is a full-service, data-driven, on-demand engineering partner with a unique technical approach to inventory management of, and supply chain solutions for, fasteners and other Class “C” items—contractually guaranteeing to lower your total cost of fastening.