



Success Brief

Developing Manufacturing
Criteria and Processes for
Fracture Critical Assembly

Aerospace
Market

“Domaille is now
our first choice for
our complex
manufacturing
needs”

Jerry M.
Purchasing Manager
DEC Technologies
Division of Heico
Corporation

Unique Manufacturing

The DEC Technologies group benefits from Domaille’s Engineering to Manufacturing (E2M) process to successfully manufacture complex assembly within expedited schedule.

Customer	▪ DEC Technologies, part of the Heico Corporation
Product	▪ Flight Critical Latch Assemblies
Challenge	▪ DEC Technologies first supplier worked 18 months on the parts without making a compliant assembly.
Results	▪ Domaille worked with DEC Technologies engineering staff to define manufacturing parameters
Impact	▪ Domaille was the first supplier to successfully make a compliant latch assembly
Next Step	▪ Domaille now working with other Heico divisions as recommended supplier



Completed Latch Assemblies



Spotlight: Domaille E2M Co-Engineering Process

- Worked with DEC Technologies engineering team to define SOW.
- Utilized extensive Supply Chain Management contacts to work around long lead items.
- Developed multiple precision fixtures to keep parts from distorting during assembly process.

Challenge

DEC Technologies is a division of Heico Corporation. They are one of the divisions of Heico's Aerospace Part Group, which is the world's largest provider of FAA approved engine and component replacement parts. The Heico Parts Group holds over 4,000 PMA's and produces hundreds of new, highly engineered, parts each year.

DEC Technologies came to Domaille with an RFQ for a complex Latch Assembly. The latch assembly consisted of a two level bill of materials, with 17 total components, six different material types and five critical outside processing steps. The drawing package with the RFQ contained several outdated specifications, missing dimensions and unachievable tolerances. In addition, DEC Technologies needed a completed assembly in less than 20 weeks.

Solution

Domaille, working with DEC Technologies purchasing, quality and engineering staffs, constructed a Statement of Work to address expectations. In addition, the teams worked out dimensional and producibility issues. Domaille introduced many project management measures to ensure timely delivery. These included GANTT charts to manage priorities including long lead items, action item lists to track open items and responsibilities and weekly progress updates.

Along with defining the manufacturing and acceptance parameters, Domaille had to manufacture components to tolerances up to ± 0.0005 in the free state condition. Even more difficult than this was fastening all the components into an assembly and still maintaining these tolerances.

The Domaille Engineering product development group tackled the complex problem of creating a distortion free assembly process. They tested multiple concepts and provided samples to DEC Technologies quality and engineering staff for approval. The combination of product development, project management, engineering, supply chain management, precision manufacturing and robust quality processes led to results other contract manufacturing organizations could not achieve.



Find a business solution that is right for your company.
Contact your Domaille Engineering representative at 507-281-0275
or visit our website: www.DomailleEngineering.com.