# Value Engineering Services

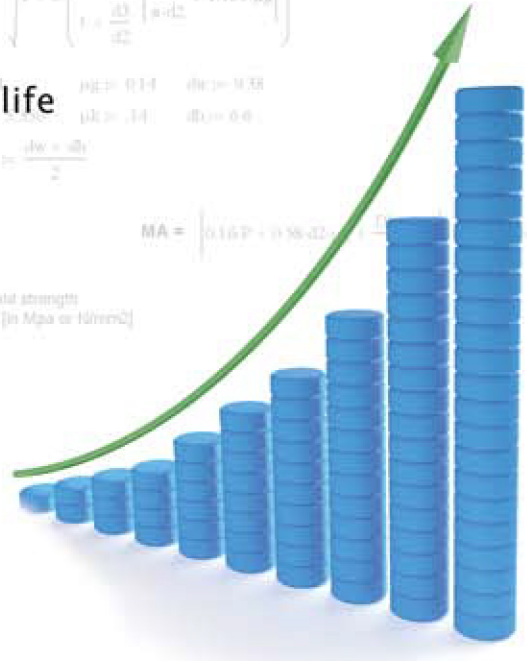
Gexpro® Services
Powerful Supply Chain Solutions

## Customer Needs

- Cost Savings and support in design phase
- Trouble free, cost efficient assembly
- End-product reliability and durability
- Up-to-date knowledge of new and innovative products
- Engineering application problem solving
- Drawing support
- Custom products for specific applications
- Ergonomics

## Why Us?

- True cost reduction
- C-part standardization and consolidation
- Engineering support to increase end-product life
- New Product Introduction support
- Assembly simplification and cost reductions
- Design assistance
- Technical seminars
- Product Learning Center



# Engineering Case Studies

## Case Study 1

### Engineering Investigation

**Situation**

Bolt failure during assembly- faulty fasteners suspected

**Action**

Investigation showed bolts to be mechanically sound and stated torque to be adequate. Further investigation revealed that torque was applied in Imperial units, rather than Metric units, resulting in a 25% higher torque.

**Results**

- Torque was adjusted
- Line down situation resolved
- Approximately $12,000 loss avoided

## Case Study 2

### New Design

Clinch Stud

Nut, Lock Washer, Flat Washer

**Situation**

Current design uses too many parts, long assembly time

**Action**

Switch from 4 parts to 1 using a blind rivet

Blind Rivet

**Results**

- 70% Material cost reduction
- 90% Labor cost reduction

## Case Study 3

### Line Walk Observation

**Situation**

Washer does not serve a purpose in this application, the metal plate is doing the job

**Action**

Eliminate washers

**Results**

- For 15,000 units built =~$60,000
- For 25,000 units built =~$100,000

# Customer Testimonials

*"All the concepts learned were clear and easy to understand and very usable for our daily work.*

*This is a great workshop and should be a requirement for all entry level engineers.*

*I greatly enjoyed the depth of the material covered. The presenters displayed an obvious knowledge and expertise. This was a good learning experience.*

*I have been to at least 3 other in-depth Bolted Joint seminars/ workshops- this featured a variety of related information and I learned very much.*

*The topics were interesting for all of the participants.*

*We truly appreciate your efforts to provide us with 'expert' review of these failed parts. This completes the final documentation we needed for the problem analysis. We appreciate your help!*

*Thank you. After reviewing your email I've been going over the equations and applying them to our situation."*