Bath Iron Works Ergo Cup Experience

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Bath Iron Works

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GENERAL DYNAMICS
Bath Iron Works

Bath Iron Works (BIW) Overview

- Full service shipyard specializing in the design, build and support of complex surface combatants for U.S. Navy.
  - Constructed over 400 military and merchant ships
  - Established in 1884
  - Acquired by General Dynamics in 1995
- ~5,200 employees, 4 Collective Bargaining Units
- 29 Production Trades Classifications

BIW Ergo Cup Competition

- Started 2010 by Joint Ergo Committee
- Goal: recognize and encourage the implementation & sustainment of innovative ergonomic solutions.
- 2011 started Quarterly Winners
- 2011 Grand Champion winner represented company at AEC in 2012.

BIW Ergo Cup Competition

- All entries are voted by on Jt. Ergo Committee
- Each entry is evaluated based on following criteria:
  - Ergonomics Risk Reduction / Safety
  - Origination / Development
  - Innovation
  - Simplicity
  - Scalability and Sustainment
  - Cost Savings / ROI
  - Cost To Implement

FISETTE 2000

INNOVATIVE
SIMPLE
REDUCES RISK
COST EFFECTIVE

GENERAL DYNAMICS
Bath Iron Works

MECHANIZED GRINDING

FISETTE 2000

BIW Fisette 2000 Ergo Cup Team

Seated l to r: Steve “Bubba” Davis, John Fisette, Dana McIntire; and standing, Lou Bourgeois, Dennis Hitchcock, Jean Piche (D50), and John Freitas.

John Freitas (D50), Dennis Hitchcock (D50) and Jean Piche (D50) describing the Fisette Mechanized Grinding solution to attendees at Applied Ergonomics Conference.

BIW representatives at the Applied Ergonomics Conference received two awards, shown here, and included team members, l to r: Dana McIntire (D10), John Freitas (D50), John Fisette (D10), Jean Piche (D50), Steve “Bubba” Davis (D10), Dennis Hitchcock (D40) and Lou Bourgeois (D43).

Ergonomic Risk Scores	Left Wrist	Right Wrist	Left Elbow	Right Elbow	Left Shoulder	Right Shoulder	Back	Neck	Legs
Manual Hand Grinding									
Horizontal & Vertical									
Overhead									
Fisette 2000 Mechanized Grinding Tool									
All Tasks									

Risk Level: Low Risk | Medium Risk | Medium-High | High Risk

Problem (Before)

Manual Hand Grinding Risks

- High Hand-Arm Vibration
- Awkward Postures
- Forceful Static Gripping
- Repetitive Motions
- Contact Stress
- Time Consuming
- Labor-Intensive
- Quality Variation

Seated l to r: Steve "Bubba" Davis, John Fisette, and Dana McIntire; and standing, Lew Bourgeois, Dennis Hitchcock, Jean Piche, and John Freitas.

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FISETTE 2000

John Fisette, performing **"hands-free"** grinding using the Fisette 2000 Mechanized Grinding Tool

Solution (After)

Reduces Overall Risk & Labor

- Employee-Driven Solution
- In-House Design and Built using existing tools, equipment, and materials
- "Hands-Free" grinding
- Eliminates manual hand grinding with high vibratory tools
- Low Ergonomic Risk – no vibration, repetitive motions, awkward postures, static forceful gripping, or contact stress
- Allows early return-to-work for employees with limitations and injuries
- 60% Labor / Time Savings
- 50% less Consumable used
- Consistent, repeatable process that improves quality
- Great "Employee Idea Program"

Fisette 2000 Jigs