

11-TTAG-010

Company Name	Robert Bosch Tool Corporation
NAICS	493110
Address	2700 College Blvd.
City	West Memphis
State	AR
ZIP	72302
County	Crittenden
Number of Employees	130
Year Established	2001
Company Web Site	Welcome to the Bosch Group
Contact Person	Andrew Miller
Title	Safety Engineer
Phone	870-268-7124
Email Address	Andrew.Miller@us.bosch.com
Fax	870-268-7159
Secondary Contact Name	Keith James
Secondary Contact Title	Distribution Supervisor
Secondary Contact Phone	901-603-0594
Secondary Contact Email	Keith.James@us.bosch.com
Resource Provider	Atlas Ergonomics, LLC
RP Address	13601 Forest Park Drive
RP City	Grand Haven
RP State	MI
RP ZIP	49417
RP County	NA - Resource Provider Is Not Located In Arkansas
RP Project Contact	Drew Bossen

RP Title	Principal
RP Phone	319-430-3382
RP Email	dbossen@atlasergo.com
RP Fax	616-328-6768
Project Area	Human Resource Development - 31 - Other Human Resource Development (Please provide short description in box provided below)
Project Area Brief Description	Ergonomic Risk Assessment: The focus of this project will be to perform a comprehensive ergonomic risk assessment of all job tasks at the Bosch facility in West Memphis, AR. Based upon the prioritization of risk, remediation programs will be developed to address the ergonomic risk factors identified by the assessment process. An implementation plan for resolution will be developed and submitted to Bosch Corporate Safety.
Federal Agency	- Not Applicable -
Project Title	11-TTAG-010 - Bosch - Ergonomic Risk Assessment
Competitive Challenges	<p>As a regional distribution center, Robert Bosch Tool Corporation in West Memphis, Arkansas utilizes its knowledge and experience to exceed the expectations of global customers based on the requirements established from international standards and customer expectations. Our ultimate goal is to fully satisfy our customer's expectations through the quality of our products and services.</p> <p>Competing in the global market is an ever changing and challenging environment. To stay competitive, especially with today's economic challenges, Robert Bosch Tool Corporation must continue to reduce costs while maintaining the superior product quality and service that customers and partners expect while providing an environment that attracts, and retains, a highly talented and productive workforce. Central to this discussion is a viable, healthy workforce. This ergonomic project will ensure employee longevity and a safe work environment.</p>
Specific Problem	<p>Over the past 5 years (2005-2009) the West Memphis facility has experienced 4-5 injuries on a annual basis accounting for 57 restricted workdays and 88 lost workdays. OSHA data indicates that on average, the direct cost of a workplace injury is \$23,000 + a multiple of indirect cost (3-5 times direct costs). Thus over our five year time horizon Bosch has experienced an annual injury cost in excess of \$100,000.00; in excess of \$500,000.00 for the five year time frame.</p> <p>Beyond the Bosch's own workforce, the facility utilizes "temp employees" on a consistent basis. Though historic data is sketchy, 2008 data reveals 5 over-use musculo-skeletal injuries accounting for 23 restricted workdays</p>

and 187 lost workdays. Thus almost doubling the total financial impact to Bosch on an annual basis.

With that as a backdrop, it is our goal to reduce the frequency and severity of ergonomic related injuries that our facility experiences on an annual basis. This facility-wide ergonomic assessment will identify the physical requirements of each of our jobs, the relative ergonomic risk and a remediation plan to reduce the risk that our employees are exposed to a daily basis. This process will provide us a foundation and roadmap from which to implement strategic initiatives to reduce the ergonomic risks within our facility.

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Finally, our workforce is aging and the pool of worker from which we pull is dwindling. It is critical that we provide a work environment that limits the exposure of known ergonomic risk factors (high force, high repetition, and awkward postures) which could ultimately influence the longevity of our workforce. We believe that this project can provide a significant enhancement to our work environment... providing a safer work environment for our aging workforce.

Solution

Each job with the facility will be analyzed to determine the physical requirements of the job along with the relative ergonomic risk related to:

- Posture
- Force
- Repetition
- Work Cycle / Duration

Upon completion of the assessment the relative risks will be prioritized top to bottom with associated remedial implementation strategies which may include one or more of the following:

- Engineering Intervention – engineering the risk out of the process
- Work Practice Intervention – training employees on how to reduce their personal risk
- Administrative Intervention – job rotation / job expansions

Report out with budgetary consideration will be provided.

Implementation Plan

The focus of this project will be to develop an **Essential Function Profiles / Ergonomic Risk Assessment** for all major jobs area of the facility. Based upon what we know today (prior history of injury with the facility), these will be the area of focus within the facility.

Priority 1	Priority 2	Priority 3
DSP	Receiving	SCPM / High Bay
FCPM	Mezzanine	QA

Parcel	Replenishment	Office
Lanes / LTL	Inventory	
RF Picking		
Non-Con Picking		
High Velocity		

Our focus may deviate slightly once we are performing data collection in the field though it is unlikely to have major affects given the past history of injuries.

Maintenance Plan

Ongoing support of this project will be provided by our local service representative, Jerry Fenter from Fenter Physical Therapy in Marion, AR. He will be readily available for ongoing / immediate needs as needs arise. In addition, Atlas corporate will be available longer range projects that may be identified out of the risk assessment process.

Step 1

Step 1: Data Collection

We would propose spending 2 days on-site (2 resources) to gain a comprehensive vision of the work that is performed within the facility. During this process, we would gather objective measures of the physical tasks being performed and perform an ergonomic risk assessment of the related job tasks. Step 1 of this project could be completed within the end of the 3rd quarter 2010.

Step 1 Time

40.00

Step 1 Budget

\$3,600

Step 2

Step 2: Report Writing

Essential Function Profiles / Ergonomic Risk Assessments would be documented for each job function within the facility. Step 2 of this project could be completed within the end of the 3rd quarter 2010.

Step 2 Time

10.00

Step 2 Budget

\$1,200

Step 3

Step 3: Report Out

Webinar to management team on findings of Ergonomic Risk Assessment and recommendations for improvement.

Step 3 Time

2.00

Step 3 Budget

\$200

Increased Sales	\$0
Retained Sales	\$0
CS Inventory	\$0
CS Labor	\$50,000
CS Materials	\$0
CS Other	\$0
II Plant	\$0
II IS	\$0
II Workforce	\$0
II Research	\$0
II Other	\$0
AUI	\$0
SOI	\$0
Job Retention	0
Job Creation	0
YN 90Days	Yes
YN Affiliation	No
YN Agreement	Yes
YN Total Project Price	Yes
Explain Total Project Price	<p>Estimated Travel Expenses:</p> <p>Airfare (1 resource from Iowa City, IA): \$500</p> <p>Car Rental (1 car for 3 days): \$200</p> <p>Hotel (3 nights for one resource): \$375</p> <p>Meals: <u>\$125</u></p> <p>Total Travel: \$1,200</p> <p>Project Fees <u>\$5,000</u></p> <p>Total Cost: \$6,200</p> <p>Project Cost = \$5,000 + Travel Costs of \$1,200</p>

YN Cash Match Agreement	Yes
Copied	No
TTAG ID	11-TTAG-010
Signature Panel - RP AR Name	Drew Bossen
Signature Panel - RP AR Email	dbossen@atlasergo.com
Signature Panel - Enterprise AR Name	Andrew Miller
Enterprise - Email
Signature Panel - Enterprise AR Email	Andrew.Miller@us.bosch.com
Include in Batch	Yes
Batch Number	NA
Application Status	Pending
Organization	AMS
BatchTest	Processed
Batch Date	
Set Batch Number	
Lvl4	Yes
Application Description	5-Strategic/Business Management/Planning Services
SBIR-STTR	No