



**BISON**

**BISON**  
Gear & Engineering Corp.



## Products Offered by BISON



- AC / DC Gearmotors
- Reducers
- VWDIR
- AC / DC Motors
- Hollow Shaft Offset
- Controls

# Markets Served by BISON



Agricultural



Medical



Food Equipment



Security



Industrial



Material Handling



Packaging Conveyors



Military



Aerospace



Machine Tool



Recreational Equipment



Transportation



Specialty Machinery

# New Products



# Value Proposition



# Diverse Applications



# Diverse Applications



# Basic Financial Balance Sheet

Assets	Liabilities
Cash	Debt
Inventory	Accounts Payable
Plant & Equipment	
Accounts Receivable	
Total Assets	Total Liabilities

**Assets – Liabilities = Stakeholder Equity**

# Human Capital Balance Sheet

Assets	Liabilities
Cash	Debt
Inventory	Accounts Payable
Plant & Equipment	
Accounts Receivable	
Total Assets	Total Liabilities

**Assets – Liabilities = Stakeholder Equity**

# Human Capital Balance Sheet

Assets	Liabilities
<b>Skill Sets Being Utilized</b>	Debt
Inventory	Accounts Payable
Plant & Equipment	
Accounts Receivable	
Total Assets	Total Liabilities

**Assets – Liabilities = Stakeholder Equity**

# Human Capital Balance Sheet

Assets	Liabilities
Skill Sets Being Utilized	Debt
<b>Skill Sets Not Yet Tapped or Used</b>	Accounts Payable
Plant & Equipment	
Accounts Receivable	
Total Assets	Total Liabilities

**Assets – Liabilities = Stakeholder Equity**

# Human Capital Balance Sheet

Assets	Liabilities
Skill Sets Being Utilized	Debt
Skill Sets Not Yet Tapped or Used	Accounts Payable
<b>Educational System &amp; Learning Tools</b>	
Accounts Receivable	
Total Assets	Total Liabilities

**Assets – Liabilities = Stakeholder Equity**

# Human Capital Balance Sheet

Assets	Liabilities
Skill Sets Being Utilized	Debt
Skill Sets Not Yet Tapped	Accounts Payable
Educational System & Learning Tools	
<b>Skill Sets Under Development</b>	
Total Assets	Total Liabilities

**Assets – Liabilities = Stakeholder Equity**

# Human Capital Balance Sheet

Assets	Liabilities
Skill Sets Being Utilized	<b>Tools &amp; Investment, Skill Gap</b>
Skill Sets Not Yet Tapped	Accounts Payable
Educational System & Learning Tools	
Skill Sets Under Development	
Total Assets	Total Liabilities

**Assets – Liabilities = Stakeholder Equity**

# Human Capital Balance Sheet

Assets	Liabilities
Skill Sets Being Utilized	Tools & Investment, Skill Gap
Skill Sets Not Yet Tapped	<b>Tuition Reimbursement Program &amp; Learning Budget</b>
Educational System & Learning Tools	
Skill Sets Under Development	
Total Assets	Total Liabilities

**Assets – Liabilities = Stakeholder Equity**

# Human Capital Balance Sheet

Assets	Liabilities
Skill Sets Being Utilized	Skill Gap
Skill Sets Not Yet Tapped, <i>eg NAM Stackable Credentials</i>	Tuition Reimbursement Program & Learning Budget
Educational System & Learning Tools	
Skill Sets Under Development - <i>MSSC</i>	
Total Assets	Total Liabilities

**Assets – Liabilities = Stakeholder Equity**

# Human Capital Balance Sheet

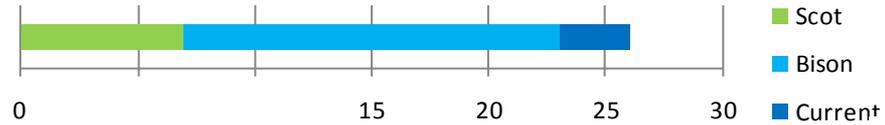
## BISON GEARMOTORS, REDUCERS, MOTORS

redefining gearmotor robusticity for over forty years





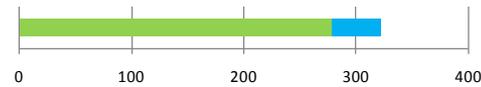
## Experience



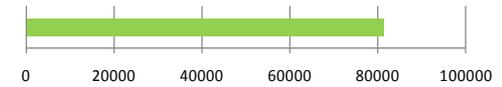
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### Quality – RGA



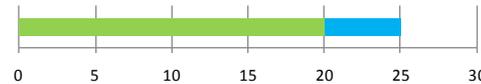
### Quality – FA



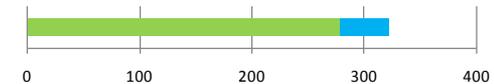
### BIRF



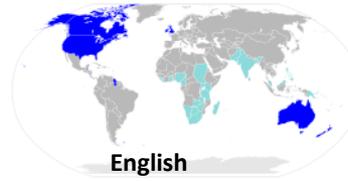
### Safety - BIRF



### NUR



### Languages



# Human Capital Balance Sheet

## Other Experience / Course Completed

- Geometric Dimensioning and tolerance.
- 5S / visual workplace and Cellular-flow.
- *Noise control Engineering short course.*
- *Failure Mode and Effective Analysis.*
- *Project Management Training Program.*
- *Manufacturing Skills Standards Certification*

## Tools / Software use

- SAGE Software.
- National Career Readiness Certification - Math
- E-Drawing From SolidWorks.
- Sequence Work Instruction Software.
- Statistic/ Pareto chart.
- ISO Audit.
- Poka-Yoke ( Mistake Proofing)
- Engineering Change request Form.
- Eight Disciplines Problem Solving Process.
- Bison Improvement and Recommendation Form.

# Illinois P-20 Council

Looking at entire education system with objective of improving percentage of Illinois citizens with meaningful certificates or college degrees from 40 to 60% by 2025

# P-20 STEM Program of Study: Design

Grade	Core Curriculum	Electives	Program of Study Pathway Courses	Work-Based Learning
Elementary and Middle School	EXPLORE Assessment and Education Plan Development			Career Awareness and Exploration
Secondary Education 9 <sup>th</sup> and 10 <sup>th</sup>	Required English, Language Arts, Math, Science, Social Science, and Physical Education Courses	Recommended Science, Social Science, Humanities, Art, and Foreign Language Courses	Orientation Level Courses across Multiple Career Pathways	Career Workshop, Mentor, Job Shadow
Secondary Education 11 <sup>th</sup> and 12 <sup>th</sup>			Placement Exam for Dual Credit Courses: COMPASS and PLAN	Mentor, Job Shadow, Internship, Sponsored PBL Challenge
Post-Secondary Education and Careers			Continuation of Career Pathway Development and Acquisition of Stackable Credentials (i.e. Certifications and Certificates/Degrees)	Mentor, Internship, Sponsored PBL Challenge

Manufacturing STEM program of studies: providing hands-on learning opportunities with local manufacturers

# P-20 STEM Program of Study: Manufacturing Pathway Courses

Grade	Program of Study Pathway Courses			
<b>Secondary Education</b> 9 <sup>th</sup> and 10 <sup>th</sup>	<p style="text-align: center;"><b>Technology and Engineering Orientation Courses</b></p> <ul style="list-style-type: none"> <li>* PLTW Intro to Engineering Design or Engineering by Design Foundations of Technology</li> <li>* Manufacturing Technology Orientation (including MSSC CPT Safety Module) or Engineering Orientation (PLTW Principles of Engineering or EbD Technology Design)</li> </ul>			
<b>Secondary Education</b> 11 <sup>th</sup> and 12 <sup>th</sup>	<p style="text-align: center;"><b>Placement Exam for Dual Credit Courses: COMPASS and PLAN</b></p>			
	<b>Product/Process Development</b>	<b>Production</b>	<b>Maintenance, Installation and Repair</b>	<b>Logistics and Inventory Control</b>
	<ul style="list-style-type: none"> <li>• Engineering Tech I                             <ul style="list-style-type: none"> <li>- PLTW: Digital Electronics</li> <li>- EbD: Advanced Technical Design</li> </ul> </li> <li>• Engineering Tech II                             <ul style="list-style-type: none"> <li>- PLTW: Computer Integrated Manufacturing</li> <li>- EbD: Advanced Technical Application</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Manufacturing I                             <ul style="list-style-type: none"> <li>- Production Systems (MSSC CPT) and/or Process Specialization</li> <li>- Welding (AWS), Machining (NIMS), Other Processes</li> </ul> </li> <li>• Manufacturing II                             <ul style="list-style-type: none"> <li>- Production Systems (MSSC CPT) and/or Process Specialization</li> <li>- Welding (AWS), Machining (NIMS), Other Processes</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Automated System Robotics I (MSSC CPT)                             <ul style="list-style-type: none"> <li>- Automation</li> <li>- Electrical Mechanical, and Fluid Power Systems</li> </ul> </li> <li>• Automated Systems &amp; Robotics II (MSSC CPT – Maintenance Awareness)                             <ul style="list-style-type: none"> <li>- Programmable Logic Controls, Sensors, Programmable Robots</li> <li>- Maintenance/Repair</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Logistics and Warehousing Operations I                             <ul style="list-style-type: none"> <li>- MSSC-CLA</li> <li>- Other</li> </ul> </li> <li>• Logistics and Warehousing Operations II                             <ul style="list-style-type: none"> <li>- MSSC-CLT</li> <li>- Other</li> </ul> </li> </ul>

# Questions

