

# Job Hazard Analysis

JHA Name: Horizontal Bandsaw



Assessment Date: 09-18-17

Revision Date: \_\_\_\_\_

Building or Location: Faribault and North Mankato Campus

Department or Program: CIM, Welding

Description of Individual Tasks or Assignments:

Cutting & Trimming (e.g., Metal, Plastic, etc.)

Tools, Equipment, or Machinery Used when Performing Task:

Horizontal Bandsaw, Cutting and Lubricating Fluids

Hazard Type(s) Associated with Task or Assignment:		Check for Exposure:	Specific Hazard Exposure:	Check if Exposure Recommends or Requires a Style of PPE?
1	<b>Impact</b> <u>Example:</u> Person(s) can strike an object, or be struck by a moving or flying/falling object (e.g., fragments, chips, particles, sand, dirt/debris).	X	Potential exposure to flying fragments, particles and debris generated from cutting (e.g., injuries to eyes)	X
2	<b>Penetration or Cut</b> <u>Example:</u> Person(s) can strike an object, be struck by an object, or fall upon an object or tool that would cut or otherwise break the skin.	X	Potential exposure to bladed/cutting equipment (e.g., injuries to hands, arms), potential exposure to slivers/splinters (e.g., injuries to fingers, hands)	X
3	<b>Crush or Pinch</b> <u>Example:</u> An object(s) or equipment/machine may crush or pinch a body or body part	X	Potential exposure to crushing and pinching hazard from dropping workpieces (e.g., injuries to feet)	X
4	<b>Chemical or Harmful Dust</b> <u>Example:</u> Exposure to chemicals (i.e., hazardous substances and harmful physical agents), infectious agents from spills, splashing, physical contact, and/or exposure to dusts, vapors, fumes, or gases that could cause illness, irritation, burns, asphyxiation, breathing/vision difficulty, sensitization, infection, or other toxic health effects (i.e., acute or chronic). Note: "May also have or create ignition potential."	X	Potential exposure to nuisance dusts (e.g., respiratory irritation/discomfort), potential exposure to cutting and lubricating fluids (e.g., skin irritation and illness, chemical sensitization)	X
5	<b>Heat</b> <u>Example:</u> Exposure to radiant heat sources, sparks, and splashes or spills of hot material			
6	<b>Light (optical) Radiation</b> <u>Example:</u> Exposure to strong light sources, glare, or intense light exposure which is a byproduct of a process. Note: "This category may also include hazards presented from lack of light (e.g., working in dark spaces/areas)."			
7	<b>Electrical Contact</b> <u>Example:</u> Exposure, contact, or proximity to live or potentially live electrical objects.			
8	<b>Ergonomic/ Human Factors</b> <u>Example:</u> Working in cramped spaces, repetitive movements, awkward postures, vibration, heavy lifting, etc. Note: "This category may also include unique hazards presented from tasks that require demanding or challenging degrees of mental and/or physical effort to be exerted by an individual. See <i>Physical Effort Definition/Examples</i> category for further explanation of physical effort."	X	Potential exposure to repetitive movements, lifting light to moderately heavy loads, and bending/twisting (when moving workpieces) (e.g., Muscular Skeletal Disorders)	X
9	<b>Environmental</b> <u>Example:</u> Exposure to noisy environments, hot or cold work environments, poor weather conditions, working at a height, and any other conditions in the workplace that could cause danger, discomfort, and/or negative health effects.	X	Potential exposure to loud/prolonged noise (horizontal bandsaw), potential exposure to slips and falls from spilled or dripped cutting fluids (e.g., various whole body injuries).	X

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## Personal Protective Equipment Requirements:

<b>Eyes &amp; Face:</b>	Safety Glasses with Side Shields or Goggles (Required when operating horizontal bandsaw)
<b>Head &amp; Ears:</b>	Hearing Protection Devices (Required when operating horizontal bandsaw)
<b>Whole Body:</b>	
<b>Feet:</b>	Safety Shoes (Required when handling heavy workpieces and working on slippery surfaces)
<b>Hands:</b>	Leather Gloves (Required when handling workpieces with rough or sharp edges)
<b>Respiratory:</b>	N95 Particulate Masks (Optional/Available not required)
<b>Other:</b>	"Note: Personnel must change from loose clothing, tie back long hair, and take off jewelry that could become entangled or snagged in moving saw blades"

## Other Control Measures or Requirements (Engineering & Administrative Controls):

**#2) Penetration or Cut Hazards:** Blades are guarded to prevent operator contact and make sure all other machine safety features are operational. Always clamp the workpiece securely in vice. Adjust the saw guard to the width of the materials being cut. Do not stand on the right side of the bandsaw arm. A broken blade is likely to fly in that direction. When starting the saw; allow the blade to reach full RPM before cutting, start all cuts gently, and do not force the blade or apply excessive pressure. Turn off the power before backing out of a cut. This avoids pulling the blade off its wheels. To avoid bending or breaking the blade, you should not twist or bend the saw blade when removing your stock. Support long stock or workpieces at the same height as the saw's table to prevent binding. Guard long material at both ends to prevent anyone from coming into contact with it. Never remove the workpiece or scrap materials from the saw's table while the blade is running. **#4) Chemical or Harmful Dust Hazards:** Personnel should receive Right-to-Know training (e.g., regarding chemical & physical hazards). SDS should be provided/available for all hazardous chemicals. Particulate masks available upon request for personnel experiencing respiratory discomfort from dusts generated. **#8) Ergonomic Hazards:** Personnel should receive Ergonomics training (including warning signs and conditions of ergonomic/human factors hazards). When possible set up workstation or immediate job site to help minimize reaching, and/or sitting or working in awkward positions to prevent strains, soreness, and other discomfort. "NOTE: Horizontal bandsaws are only operated for very short periods of times in most College environments in comparison to other General Industry, and/or Construction applications." Keep all horizontal bandsaws blades sharp by replacing dull or damaged blades (dull blades can increase chances of slipping, breaking, and kickback). **#9) Environmental Hazards:** Personnel should receive Hearing Conservation training (e.g., regarding noise hazards), and be included in the Hearing Conservation Program when potentially exposed to a TWA of 85dB. Practice good housekeeping and clean up spilled or dripped cutting and lubricating materials. **Miscellaneous Considerations:** If the blade breaks or comes off the wheels: shut off the power, stand clear, let the machine coast to a complete stop, do not open the wheel guards. Always disconnect power before making adjustments or changing saw blades. Remove scraps and any foreign items from the saw before operating. Personnel should make sure to only use correct size and type blades for the materials being cut. Operators of tools, equipment, and machinery should read and follow all Manufacturers' recommendations/requirements (e.g., inspections, servicing/maintenance, safe usage, etc.). Any tools, equipment, or machinery found damaged, defective, or otherwise unsafe should immediately be removed from service and not used until repaired or replaced. Personnel should always consult their Supervisors on the selection and use of PPE for the tasks being performed.

## Physical Effort Definition/Examples

**1.) Physical Mobility-** Movement from place to place on the job, considering distance and speed **2.) Physical Agility-** ability to maneuver body while in place or in static position **3.) Physical Strength (Light to Moderate)-** Ability to handle routine office materials and tools **4.) Physical Strength (Moderate to Heavy)-** Ability to handle 50lbs+ objects, considering frequency **5.) Dexterity-** skill and ability in using hands, fingers, and feet **6.) Physical Balance-** ability to maintain balance and physical control **7.) Coordination-** harmonious functioning of body parts (e.g., eye/hand, hand/foot, etc.) **8.) Endurance-** ability to sustain a prolonged stressful effort or activity with limited opportunity to rest

Note: "This JHA provides only the minimum PPE/safety requirements necessary to safely complete the task or assignment, and the JHA only covers the hazards or exposures that are most likely to be encountered. Nothing within this JHA bars or restricts personnel from requesting higher degrees of PPE or control to mitigate workplace hazards. In addition, South Central College personnel (e.g., employees and students) are required to complete any applicable safety or on-the-job trainings required prior to performing their positions or participating in their programs of study. Finally, South Central College personnel should consult their supervisors/instructors, the college's written safety programs/policies, and/or the Security & Safety Director whenever they have questions or concerns."

**Certification: This document certifies a hazard assessment was conducted meeting the provisions specified under 29 CFR 1910.132 (d) and South Central College's related safety programs and policies.**

Name: Al Kluever

Date: 09-18-17