

Safety Manual



MS MIDWEST SANDRIGHT

Innovative Products for Innovative People



Safety Directions for Midwest Sandright / Rand-Bright Machines

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1. INTRODUCTION



This is a Safety Alert symbol. It alerts the user to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

IMPORTANT NOTE:

Persons unable to read English must have this manual translated and explained to them before operating or maintaining the machine. Everyone working on the machine must know how to operate it safely and correctly to avoid possible injury.

AVISO:

Las personas que no pueden leer el ingles deben mander hacer la lectura de este manual antes de operar o mantener la maquina. Todos que hacen funcionar las maquina deben saber operaria con toda seguridad y con exactitud para evitar un dano.

⚠ WARNING

Serious injury or death may result if this machine is misused in any way. Midwest provides the following information and instructions for the intended use and care of this equipment, and relies upon the purchaser to see that these instructions are made clear to any and all persons installing, servicing, or operating the machine.

DO NOT INSTALL, OPERATE OR SERVICE THIS MACHINE UNTIL:

1. YOU have read and fully understand the safety instructions in this manual.
2. YOU have read and understand the operating procedures in this manual, especially knowing the location and function of all machine controls.
3. YOU have read and understand all safety and operating instruction placards and/or decals attached to the machine and its related accessories.
4. YOU have read and understood the installation and maintenance procedures contained in this manual.



Any service on this machine must be performed only by authorized, competent and trained personnel.

5. YOU have personally been trained by an authorized factory representative or qualified supervisor as to the proper and safe use of this machine and its related accessories.



This Operating Manual and Safety Instructions must be kept in the vicinity of the machine at all times so that it is accessible to the operator and maintenance personnel.





The following Safety Instructions are general recommendations for most common operations. Additional safety measures must be incorporated for your particular application.

Midwest Sandright, therefore, makes no warranty or representation as to the absolute correctness or sufficiency of these instructions.

Midwest assumes no responsibility for machine and/or software modifications or for use of parts other than those manufactured and/or approved in writing by Midwest. The use of non-approved parts, unauthorized service personnel, or machine modifications may result in poor performance or in an accident causing serious injury or death and will void the warranty.

REMEMBER...It is the responsibility of the user to be sure that the machine is in safe operating condition at all times, the operator follows the safe operating conditions at all times, and that the operator follows the safe operating procedures described in this manual and attached to the machine!

If you have any questions concerning the safe operation of this machine, contact your supervisor OR Midwest Sandright Customer Service Department:

- ①  Tel: 1-800-697-1444 OR 1-612-721-5347
- ②  Email: service@midwestgroupone.com
- ③  Fax: 1-612-721-1736

2. GENERAL SAFETY PRECAUTIONS

KNOW YOUR MACHINE

Read the Technical Manual carefully. Learn the machine applications and limitations as well as the specific potential hazards particular to the machine. The Technical Manual furnished with this machine includes instructions for installation, operation and service, plus additional safety information. You must follow these instructions carefully. Do not install, operate or service this machine until you have read and understood all safety and operating instructions. Do not take anything for granted.

BE ALERT

The best defense against injuries on any machine is to be alert. NEVER initiate a machine function unless you completely understand what the function will cause the machine to do. In addition to obeying these recommendations, it is important that the operator pay close attention to the work he is doing. No amount of adherence to safety rules or precautions will protect a careless operator from injury to himself or damage to the machine.

MAKE USE OF SAFETY EQUIPMENT

Do not operate this machine unless all guards, shields, covers, interlocks and other safety devices are in place and functioning properly. Report missing guards, parts or other abnormalities to your supervisor immediately. NEVER defeat safety switches!

AVOID DANGEROUS ENVIRONMENT

NEVER use this machine in damp or wet locations. Floors must not be slippery due to water, dust, chips, oil, etc. Keep machine and surrounding area clean and well lighted. Do not leave loose objects on or around machine. Always provide adequate workspace. Poor housekeeping can be dangerous!

NEVER STAND ON MACHINERY

NEVER climb or stand on the machine or in any working area at any time when the machine is running. Do not store materials above or near the machine so that it is necessary to climb on the machine or stand in the path of the material to reach them.

USE LOCKOUT/TAGOUT PROCEDURE WHEN SERVICING OR MAKING ADJUSTMENTS ON MACHINE



Under OSHA 1910.147, every plant must have and enforce a Lockout/Tagout Procedure. Your procedure should include these key features:

1. Announce lockout to other personnel.
2. Turn power OFF at main panel.
3. Each person working on the machine should lockout power in OFF position with their own lock.
4. Each person must put key in his/her own pocket.
5. Clear machine of all personnel.
6. Test lockout by hitting START button.
7. Block, chain or release stored energy sources. [work on machine]
8. Before restarting machine, make sure no one is near the machine.
9. Take key from pocket.
10. Unlock the lockout device.
11. Turn power on at main panel.
12. Announce machine is ON to other personnel.

WATCH YOUR HANDS AND LIMBS

The functions of this machine make it impossible to eliminate all pinch areas and cut points.

Therefore:

1. Stay away from the path of the material when the machine is running.
2. NEVER remove chips, dust or scrap when the machine is running.
3. NEVER overreach.
4. Keep proper footing and balance at all times.
5. NEVER jeopardize your hands! Keep your hands away from all belts and rollers. Never reach where you cannot see. DO NOT place hands or finger between work piece and conveyors or rollers.
6. NEVER make machine or tooling adjustments of any kind when the machine is running. Always disconnect main power supply before adjusting the machine in any way or changing belts or platen graphite!



Refer to “LOCKOUT/TAGOUT PROCEDURE”, General Safety Precautions, page 1-6 above.

▲WARNING

Abrasive belts continue to turn after power is turned off and/or disconnected. Always be sure that belts have stopped turning before adjusting, changing or servicing!

WEAR PROPER APPAREL

1. Wear safety goggles/glasses with eye shields at all times.
2. Always wear safety shoes with steel toes and slip resistant soles.
3. Hearing protection should be worn when equipment is operated with noise levels in excess of that which is safe for unprotected ears.
4. If the operator has long hair, it should be tucked under a cap or tied back and up.
5. NEVER wear gloves. Gloves are easily caught in moving parts. Take them off before “turning on” or operating the machine.
6. NEVER wear loose-fitting clothing. Remove all jewelry, rings, watches, necklaces, neckties, etc., before operating or servicing the machine.



FIRE & EXPLOSION PROTECTION

This machine will create dust and under certain conditions, sparks. As such, there may be a fire and explosion hazard. Fire and explosion detection and suppression systems vary depending on what materials that you are processing and using, and they are something that you must coordinate throughout your factory. Thus, you are solely responsible for determining what fire and explosion protection is necessary for your particular facility, including this machine, and you must supply any necessary fire and explosion detection and suppression equipment or systems.



Loose electrical connections and dust do not mix.

Periodically check to see that all electrical connections are tight per the scheduled maintenance in Section 6 of this manual.

KEEP VISITORS AWAY

Persons other than the machine operator, including all plant personnel and visitors, should stay out of the machine area during operation. Visitors should always be kept at a safe distance from the machine and provided with the appropriate safety protection.

SAFETY WARNINGS



DO NOT operate machine with any guards removed.



DO NOT open doors while machine is running.



NEVER clean or lubricate machine while running.



NEVER attempt maintenance or adjustments with the power “ON” unless specified in the instructions.



Abrasive belts are perishable media. They should be discarded and replaced with new belts when worn.



Care and caution should be used when placing parts on the conveyor. **DO NOT** grasp the material in such a way that pinch points can capture body parts or clothing. **DO NOT** wear gloves.



The position indicator does not specify material thickness. It provides a relative position of the conveyor bed so that similar results can be achieved on subsequent runs.



Modifications to the original design or construction are not authorized unless written approval is obtained from the factory.

3. SAFETY INSTRUCTIONS & PRECAUTIONS DURING OPERATION

BEFORE OPERATING THE MACHINE

1. Be sure you read and fully understand the operating instructions and safety information found in this manual.
2. Control panels, transformers, motors, junction boxes and other parts have high-voltage terminals. Removal of covers presents a risk of a severe electric shock resulting in serious injury or death.
3. Know the locations and functions of all controls and switches before operating them. Avoid touching switches accidentally.
4. NEVER touch a switch with wet hands that may result in electric shock.
5. Know where the Emergency Stop push button and/or cables are located so you can operate it at any time without having to look for it.
6. Check the condition of all cables, cords and exposed electrical wires to be sure that their insulation is not damaged.
7. Switches and levels should be checked for smooth operation.
8. Oil levels and lubricating points should be checked and serviced as recommended in this manual.
9. Close control panel and electrical enclosure doors and covers.
10. If a job is to be done by two or more persons, coordinating signals should be given and acknowledged at each step of the operation.
11. Be sure that proper safety equipment is worn at all times.

BEFORE CONTROL POWER SWITCH HAS BEEN TURNED ON

1. Insure that all adjustments are complete, guards and other safety equipment are in place and personnel are clear from the area. NEVER make adjustments unless you are certain the main power supply is off and the sanding belt has stopped turning.



**Refer to “LOCKOUT/TAGOUT PROCEDURE”,
General Safety Precautions, page 1-6 above.**

2. After making adjustments or changing belts, always secure abrasive head, etc. Make certain all bolts are tightened properly.
3. Belts should always conform to the machine specification, dimensions and types. Keep belts clean for best and safest performance. Insure that all sanding belts are mounted correctly for the direction of rotation. NEVER use ripped or damaged belts!
4. Remove adjusting keys, wrenches and other loose objects from the machine before turning it on.
5. NEVER operate the machine after taking medication that may impair your senses or while under influence of drugs or alcohol. Persons with illnesses that cause dizziness or fainting should NEVER operate equipment.
6. Report any loose, worn or broken parts to your supervisor.
7. Check drive belt tensions and adjust or replace as required.
8. Check the machine for proper alignment.

AFTER CONTROL POWER SWITCH HAS BEEN TURNED ON

1. Check to see that the control power switch “reset light” is on and illuminated when the power is turned on.
2. Check all guards, covers, shields, interlocks and other safety devices for proper operation.
3. Check pressure gauges for proper readings
4. Check motors, gearboxes, and other parts for abnormal noises and report any to your supervisor.
5. After the initial set-up is completed, always make a trial run before starting production.

MACHINE OPERATION

1. Whenever a heavy workpiece must be moved, two or more persons should always work together.
2. When moving more than one work piece at a time or a stack of material, only trained, qualified and authorized workers should operate forklift trucks, overhead cranes, or other similar material handling equipment.
3. NEVER touch a work piece or adjust machinery in any way while the machine is running and/or operations are in process.
4. NEVER clean machine or remove dust and chips while the machine is in operation.
5. NEVER get into the path of material where the machine feeds the work piece through the operations.
6. NEVER attempt any operation or use any accessory not recommended by the manufacturer.
7. NEVER exceed specifications printed in the Technical Manual. Always use recommended or lower speeds and feeds. A higher speed can rip belts and/or damage work piece, and result in debris being hurled from the machine with violent force!
8. NEVER force the machine or work piece. The machine will do a better and safer job at the production rate for which it was designed.
9. Work only with approved materials.



NEVER stand directly in the path of parts being fed into and out of the machine. There is always danger of part “Kickback”.

TO INTERRUPT MACHINE OPERATION

When leaving the machine area temporarily for any reason, or changing the set-up, checking the alignment, or, adjusting or changing belts, etc., always turn off the main power supply switch on the electrical enclosure.



Refer to “LOCKOUT/TAGOUT PROCEDURE”, General Safety Precautions, page 1-6.

END OF OPERATION

1. Before leaving the machine for the day, or at the end of a shift, always turn off the power switch on the operator control panel and the main power supply switch on the electrical enclosure.
2. Always clean the machine and work area at the end of each job, end of each shift, or end of the day. Remove and dispose of chips, dust and other scrap, if necessary.

WARNING

When restarting the machine after it has been shut down, always assume that it has been tampered with. Recheck all settings for the job as though it were running for the first time.



For additional safety information and operating instructions, refer to “Operating Instructions” section found in this technical manual.

4. SAFETY INSTRUCTIONS FOR MAINTENANCE OF THIS MACHINE

1. Be sure that you have read and fully understand the maintenance and safety procedures found in this manual before servicing this machine.
2. High voltage is used to power this machine. Only authorized electricians should correct any electrical component failure.
3. Always disconnect main power supply and lock it in the “OFF” position before attempting any repair. Tag disconnect switch “DO NOT START MAINTENANCE OPERATION IN PROCESS.” The main circuit breaker should be turned off through out the operation!



Refer to “**LOCKOUT/TAGOUT PROCEDURE**”, **General Safety Precautions**, page 1-6.

4. Know the points where high voltages are present on this machine and in the electrical enclosures.
5. In the event of a power failure, turn off main power supply switch and circuit breaker immediately.
6. Always make sure that replacement fuses have the proper current rating.
7. Electrical components are protected from normal moisture resulting from humidity, use of water-based cleaners and lubricants, etc. *DO NOT use a water hose to wash or clean the machine, except where specially approved.*
8. The machine operator should never proceed with any maintenance procedure unless instructed to do so by his supervisor.
9. After the maintenance procedure is completed, the maintenance person should:
 - a. Remove all parts, tools and other loose objects from the machine and surrounding area before the operator resumes work.
 - b. Check to determine that the machine is operating safely.
 - c. Record the maintenance and inspection data for future reference.

⚠ WARNING

Residual voltages can exist in the electrical cabinets for a period of time after the power has been turned off and/or disconnected. Check any component with a voltmeter before touching.

⚠ WARNING

Abrasive belts continue to turn after power is turned off and/or disconnected. Always be sure that they have stopped turning completely before adjusting, changing or servicing.



For additional safety information and maintenance instructions, refer to the PREVENTATIVE MAINTENANCE, TROUBLESHOOTING, AND DISASSEMBLY/ REPAIR PROCEDURES found in this manual.

5. SAFETY INSTRUCTIONS DURING INSTALLATION OF THIS MACHINE

1. Be sure that you have read and fully understand the installation and safety instructions found in this manual.
2. Before moving the machine, verify the weight and be sure to use properly rated lifting equipment.
3. When the pre-installation checklist is completed, contact the factory or authorized service center to set up a time for the final installation and training.

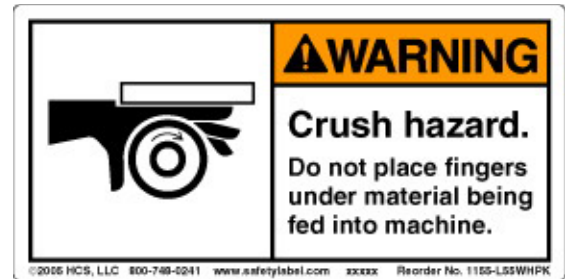


For additional safety information and maintenance instructions, refer to the INSTALLATION INSTRUCTIONS found in this manual.



6. ADDITIONAL SAFETY INFORMATION FOR SANDERS

1. Read, understand and follow the safety and operating instructions found in this manual. Know the limitations and hazards associated with this sander.
2. Be sure to watch your hands on the following areas of the sander when operating.



3. Be sure to turn off the machine before performing any service or maintenance such as changing the abrasive belt.
4. Be sure that the machine is always electrically grounded.
5. Keep the floor around the machine clean and free of scrap material, dust, oil and/or grease to minimize the danger of slipping.
6. Be sure that the work area is well lighted and that a proper exhaust system is used to minimize dust. Be sure to provide an adequate workspace around the machine.
7. Check the air supply unit before starting the sander.
8. Be sure that the tension roller has tensioned the abrasive belt before starting the main spindle.
9. Keep sanding belt sharp and clean for safety and the best performance.
10. Always keep the sander dust free.



7. ADDITIONAL SAFETY INFORMATION FOR WET DUST COLLECTORS

1. Read, understand and follow the safety and operating instructions found in this manual. Know the limitations and hazards associated with this wet dust collector.
2. Be sure to watch your hands in the following areas of the wet dust collector when operating.



3. Be sure to turn off the machine before performing any service or maintenance such as cleaning.
4. Be sure that the machine is always electrically grounded.
5. Keep the floor around the machine clean and free of scrap material, dust, oil and/or grease to minimize the danger of slipping.
6. Be sure that the work area is well lighted and to provide an adequate workspace around the machine.
7. Motors and impellers continue to turn after power is turned off and/or disconnected. Always be sure that these parts have stopped turning before adjusting, changing, or servicing.
8. This machine WILL CONTAIN dust, and under certain conditions, sparks, that may lead to a fire or explosion hazard. Fire and explosion detection and suppression systems vary depending on what materials you are processing and using, and they are something that you must coordinate throughout your factory. Thus, you are solely responsible for determining what fire and explosion protection is necessary for your particular facility, including this machine, and you must supply any necessary fire and explosion detection and suppression equipment or systems.
9. After the control power switch has been turned off, check level in sight gauges and water level plate for proper reading.

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7. ADDITIONAL SAFETY INFORMATION FOR WET DUST COLLECTORS, cont'd.

10. Before leaving the machine for the day or at the end of a shift:
 - always turn OFF the power switch on the operator control panel, the main power supply switch on the electrical enclosure, as well as the main water supply, if auto level refill is used.

 - always wipe the machine and work area at the end of each job or shift.
11. When restarting the machine after it has been shut down, always assume that it has been tampered with and recheck all settings for the job as though it were running for the first time! Turn on water if auto level refill is used.
12. Do not use any detergent cleaners on the inside area of the dust collector. Foam will result in water being exhausted from the top of the dust collector.

8. SAFETY LABEL DOCUMENTATION

RULES FOR SAFE OPERATION

This manual uses the conventions shown below to emphasize critical or safety related information.

Do not soil, paint, alter, deface or remove any safety or operating procedure decals or placards from the machine. In the interest of your safety, we feel that it is important that all Midwest Sandright equipment in use, no matter how old, have up-to-date instructional decals and safety placards on the machine. If they are illegible or missing, order at once any individual decal or complete set free of charge by calling the Midwest Sandright Customer Service Department at (612) 721-5347 or toll-free at (800) 697-1444.

THE SAFETY ALERT SYMBOL



This is a safety alert symbol. It alerts the user to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

THE SIGNAL WORDS

The safety alert symbol shown above is combined with three different signal words to indicate the nature of the hazard severity, as indicated below. These signal words are used in this manual and also on the safety labels attached to each machine.



DANGER - White letters with red background and red exclamation point.

This indicates an imminently hazardous situation which, if not avoided WILL result in death or serious injury.



WARNING - Black letters on a safety orange background with an orange exclamation point.

This indicates a potentially hazardous situation which if not avoided, COULD result in death or serious injury.



CAUTION - Black letters on a safety yellow background with a safety yellow exclamation point.

This indicates a potentially hazardous situation which if not avoided, COULD result in minor or moderate injury.



CAUTION - As above, without the safety alert symbol.

This indicates a potentially hazardous situation which if not avoided, COULD result in property damage.



SAFETY LABEL KIT



Safety Label Kits are specific for each model. For more information or to order a free Safety Label Kit, please refer to the Operating Manual shipped with the machine or call Midwest Parts & Service at 612-721-5347 (model and serial number required at time of order).

Midwest Group One

2645 26th Avenue South

Minneapolis, MN 55406 USA

612.721.5347 voice

612.721.1736 fax

midwestgroupone.com

