OM-292026B 2025-07

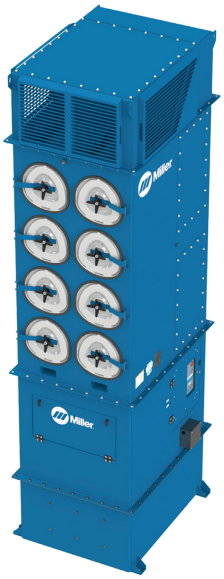
Processes

Multiprocess Welding

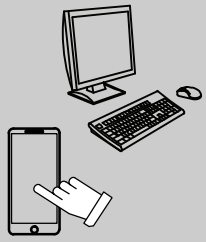
Description

Stationary Weld Fume Extractor

FILTAIR® Purifier



OWNER'S MANUAL



For product information, Owner's Manual translations, and more, visit

www.MillerWelds.com

From Miller to You

Thank you and *congratulations* on choosing Miller. Now you can get the job done and get it done right. We know you don't have time to do it any other way.

That's why when Niels Miller first started building arc welders in 1929, he made sure his products offered long-lasting value and superior quality. Like you, his customers couldn't afford anything less. Miller products had to be more than the best they could be. They had to be the best you could buy.

Today, the people that build and sell Miller products continue the tradition. They're just as committed to providing equipment and service that meets the high standards of quality and value established in 1929.

This Owner's Manual is designed to help you get the most out of your Miller products. Please take time to read the Safety Precautions. They will help you protect yourself against potential hazards on the worksite. We've made installation and operation quick and easy. With Miller, you can count on years of reliable service with proper maintenance. And if for some reason the unit needs repair, there's a Troubleshooting section that will help you figure out what the problem is, and our extensive service network is there to help fix the problem. Warranty and maintenance information for your particular model are also provided.

Miller Electric manufactures a full line of welders and welding-related equipment. For information on other quality Miller products, contact your local Miller distributor to receive the latest full line catalog or individual specification sheets. **To locate your nearest distributor or service agency call 1-800-4-A-Miller, or visit us at www.MillerWelds.com on the web.**

TRUE BLUE® WARRANTY

Working as hard as you do – every power source from Miller is backed by the most hassle-free warranty in the business.

CERTIFIED BY SCB ISO 9001™

Miller is the first welding equipment manufacturer in the U.S.A. to be registered to the ISO 9001 Quality System Standard.

Miller®

TABLE OF CONTENTS

SECTION 1 – SAFETY PRECAUTIONS – READ BEFORE USING

⚠ **Protect yourself and others from injury—read, follow, and save these important safety precautions and operating instructions.**

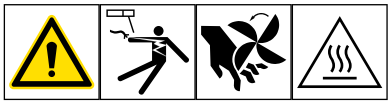
1-1. Symbol Usage

⚠ **DANGER! – Indicates a hazardous situation which, if not avoided, will result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.**

⚠ **Indicates a hazardous situation which, if not avoided, could result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.**

NOTICE – *Indicates statements not related to personal injury.*

☞ *Indicates special instructions.*



This group of symbols means Warning! Watch Out! ELECTRIC SHOCK, MOVING PARTS, and HOT PARTS hazards. Consult symbols and related instructions below for necessary actions to avoid these hazards.

1-2. Fume Extraction Hazards

⚠ **The symbols shown below are used throughout this manual to call attention to and identify possible hazards. When you see the symbol, watch out, and follow the related instructions to avoid the hazard. The safety information given below is only a summary of the more complete safety information found in the Principal Safety Standards. Read and follow all Safety Standards.**

⚠ **Only qualified persons should install, operate, maintain, and repair this equipment. A qualified person is defined as one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the project and has received safety training to recognize and avoid the hazards involved.**

⚠ **During operation, keep everybody, especially children, away.**

FUME EXTRACTOR MISUSE can be hazardous.

Welding produces fumes and gases. Breathing these fumes and gases can be hazardous to your health. Combustible materials can ignite and cause fire and explosion.

- Read and follow these instructions and the safety labels carefully. The fume extractor helps protect the user from specific airborne contaminants but must be used correctly to be fully effective. Have an industrial hygienist test the air in your facility to ensure the fume extractor provides adequate protection from contaminants in your environment. If you have questions about the extractor, see equipment label and consult your Safety Director and a certified Industrial Hygienist.
- Follow all applicable ANSI, OSHA, CSA, UL, NFPA and other regulatory guidelines pertaining to the use of fume extractors and the recirculation of filtered air.
- Portions of fume collection equipment, including the clean- and dirty-air plenums, can be considered OSHA Confined Spaces. Refer to the appropriate OSHA regulations to determine if a specific installation is a confined space and if a permit program is required.
- Do not use the fume extractor without an approved and properly installed spark guard unless the unit is designed and intended to be used without one. Without the spark guard, welding sparks can ignite a non-fire retardant filter or fume collected on the filter, or damage the filter and allow unfiltered air into the breathing zone. Do not allow sparks or any burning materials to enter the hood or duct of the fume extractor.
- Only use the fume extractor to extract weld fumes. Do not use the fume extractor to extract hot gases (above 140°F/60°C) wood or cement dust, engine exhaust, liquid vapors, explosive materials, aggressive fumes (acid), fumes from burning objects, or fumes from cleaning, cutting, gouging, grinding, painting, flame spraying, sand blasting, or other non-welding operations.
- Fumes from some welding operations can be combustible. Do not install or operate fume extractor where combustible weld fumes can be present unless a fire/and/or explosion protection system is present that has been selected and approved by a qualified person familiar with applicable codes and fire/explosion protection systems.
- Use the fume extractor only in atmospheres for which it is recommended. Do not use the extractor where contaminant levels are unknown or are immediately dangerous to life, or where the contaminant levels exceed the fume extractor specifications.
- Do not weld until you are sure the fume extractor is correctly assembled and working properly.
- Do not position the fume extractor hood in any location that will allow the weld fumes to be pulled into the operator's breathing zone.
- Minimize cross drafts that affect fume extraction by closing doors/windows and/or installing weld screens/curtains.
- Before each use, inspect the fume extractor for damage and verify it operates properly.
- Dangerous contaminants may not smell or be visible. Leave the area immediately if you notice any of the following:
  - Breathing becomes difficult.
  - You experience dizziness, impaired vision, or eye, nose, or mouth irritation.
  - The equipment is damaged.
  - Air flow decreases or stops.
  - If you think the equipment is not supplying adequate protection.
- To reduce the risk of fire, electric shock, or injury to persons, do not use replacement parts that have not been recommended by the manufacturer (e.g., parts made using a 3D printer).
- Replace damaged or plugged filter. Allow cooling period before inspecting or replacing filter, or cleaning particle tray and spark guard. Do not wash or reuse filter, or clean filter by tapping or with compressed air, unless specifically instructed by the manufacturer in the Owner's Manual (filter element can be damaged). Do not breathe the particles collected by the fume extractor. Wear approved safety equipment (respirator, gloves, long sleeve shirt) when performing filter maintenance. Dispose of used filter element and collected particles according to local, state, and federal requirements.
- Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for adhesives, coatings, cleaners, consumables, coolants, degreasers, fluxes, and metals.
- The fume extractor must be used with the extraction arm, hoses, filter, and other components recommended by the manufacturer.

ELECTRIC SHOCK can kill.

Touching live electrical parts can cause fatal shocks or severe burns. The input power circuit and machine internal circuits are also live when power is on. Incorrectly installed or improperly grounded equipment is a hazard.

- Do not touch live electrical parts.
- Disconnect input power before installing or servicing this equipment. Lockout/tagout input power according to OSHA 29 CFR 1910.147 (see Safety Standards).
- Properly install, ground, and operate this equipment according to its Owner's Manual and national, state, and local codes.
- Always verify the supply ground — check and be sure that input power cord ground wire is properly connected to ground terminal in disconnect box or that cord plug is connected to a properly grounded receptacle outlet.
- Frequently inspect input power cord and ground conductor for damage or bare wiring — replace immediately if damaged — bare wiring can kill.

FALLING EQUIPMENT can injure.

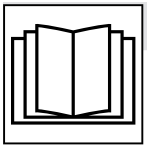
- Use correct procedures and equipment of adequate capacity to lift and support unit.
- If using lift forks to move unit, be sure forks are long enough to extend beyond opposite side of unit.
- Keep equipment (cables and cords) away from moving vehicles when working from an aerial location.
- Follow the guidelines in the Applications Manual for the Revised NIOSH Lifting Equation (Publication No. 94-110) when manually lifting heavy parts or equipment.

MOVING PARTS can injure.

- Keep hands, hair, loose clothing, jewelry, tools, and other objects away from moving parts such as fans.
- Keep all doors, panels, covers, and guards closed and securely in place.
- Have only qualified persons remove doors, panels, covers, or guards for maintenance and troubleshooting as necessary.
- Reinstall doors, panels, covers, or guards when maintenance is finished and before reconnecting input power.

FIRE OR EXPLOSION hazard.

- Do not install or place unit on, over, or near combustible surfaces.
- Do not install unit near flammables.
- Do not overload building wiring — be sure power supply system is properly sized, rated, and protected to handle this unit.



READ INSTRUCTIONS.

- Read and follow all labels and the Owner's Manual carefully before installing, operating, or servicing unit. Read the safety information at the beginning of the manual and in each section.
- Use only genuine replacement parts from the manufacturer.
- Perform installation, maintenance, and service according to the Owner's Manuals, industry standards, and national, state, and local codes.

1-3. Arc Welding And Plasma Cutting Hazards

ELECTRIC SHOCK can kill.

Touching live electrical parts can cause fatal shocks or severe burns. The electrode and work circuit is electrically live whenever the output is on. The input power circuit and machine internal circuits are also live when power is on. In semiautomatic or automatic wire welding, the wire, wire reel, drive roll housing, and all metal parts touching the welding wire are electrically live. Incorrectly installed or improperly grounded equipment is a hazard.

- Do not touch live electrical parts.
- Wear dry, hole-free insulating gloves and body protection.
- Insulate yourself from work and ground using dry insulating mats or covers big enough to prevent any physical contact with the work or ground.
- Do not use AC weld output in damp, wet, or confined spaces, or if there is a danger of falling.
- Do not store or use equipment in standing water.
- Use AC output ONLY if required for the welding or cutting process.
- If AC output is required, use remote output control if present on unit.
- Additional safety precautions are required when any of the following electrically hazardous conditions are present: in damp locations or while wearing wet clothing; on metal structures such as floors, gratings, or scaffolds; when in cramped positions such as sitting, kneeling, or lying; or when there is a high risk of unavoidable or accidental contact with the workpiece or ground. For these conditions, use the following equipment in order presented: 1) a semiautomatic DC constant voltage (wire) welder, 2) a DC manual (stick) welder, or 3) an AC welder with reduced open-circuit voltage. In most situations, use of a DC, constant voltage wire welder is recommended. And, do not work alone!
- Disconnect input power or stop engine before installing or servicing this equipment. Lockout/tagout input power according to OSHA 29 CFR 1910.147 (see Safety Standards).
- Properly install, ground, and operate this equipment according to its Owner's Manual and national, state, and local codes.
- Always verify the supply ground — check and be sure that input power cord ground wire is properly connected to ground terminal in disconnect box or that cord plug is connected to a properly grounded receptacle outlet.
- When making input connections, attach proper grounding conductor first — double-check connections.
- Keep cords dry, free of oil and grease, and protected from hot metal and sparks.
- Frequently inspect input power cord and ground conductor for damage or bare wiring — replace immediately if damaged — bare wiring can kill.
- Turn off all equipment when not in use.
- Do not use worn, damaged, undersized, or repaired cables.
- Do not drape cables over your body.
- If earth grounding of the workpiece is required, ground it directly with a separate cable.
- Do not touch electrode if you are in contact with the work, ground, or another electrode from a different machine.
- Use only well-maintained equipment. Repair or replace damaged parts at once. Maintain unit according to manual.
- Do not touch electrode holders connected to two welding machines at the same time since double open-circuit voltage will be present.
- Wear a safety harness if working above floor level.
- Keep all panels and covers securely in place.
- Clamp work cable with good metal-to-metal contact to workpiece or worktable as near the weld as practical.

- Insulate work clamp when not connected to workpiece to prevent contact with any metal object.
- Do not connect more than one electrode or work cable to any single weld output terminal. Disconnect cable for process not in use.

HOT PARTS can burn.

- Do not touch hot parts bare handed.
- Allow cooling period before working on equipment.
- To handle hot parts, use proper tools and/or wear heavy, insulated welding gloves and clothing to prevent burns.

FUMES AND GASES can be hazardous.

Welding and cutting produces fumes and gases. Breathing these fumes and gases can be hazardous to your health.

- Keep your head out of the fumes. Do not breathe the fumes.
- Ventilate the work area and/or use local forced ventilation at the arc to remove welding fumes and gases. The recommended way to determine adequate ventilation is to sample for the composition and quantity of fumes and gases to which personnel are exposed.
- If ventilation is poor, wear an approved air-supplied respirator.
- Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for adhesives, coatings, cleaners, consumables, coolants, degreasers, fluxes, and metals.
- Work in a confined space only if it is well ventilated, or while wearing an air-supplied respirator. Always have a trained watchperson nearby. Welding and cutting fumes and gases can displace air and lower the oxygen level causing injury or death. Be sure the breathing air is safe.
- Do not weld or cut in locations near degreasing, cleaning, or spraying operations. The heat and rays of the arc can react with vapors to form highly toxic and irritating gases.
- Do not weld or cut on coated metals, such as galvanized, lead, or cadmium plated steel, unless the coating is removed from the weld area, the area is well ventilated, and while wearing an air-supplied respirator. The coatings and any metals containing these elements can give off toxic fumes if welded.

ARC RAYS can burn eyes and skin.

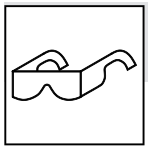
Arc rays from welding and cutting processes produce intense visible and invisible (ultraviolet and infrared) rays that can burn eyes and skin. Sparks fly off from the weld.

- Wear an approved welding helmet fitted with a proper shade of filter lenses to protect your face and eyes from arc rays and sparks when welding, cutting, or watching (see ANSI Z49.1 and Z87.1 listed in Safety Standards).
- Wear approved safety glasses with side shields under your helmet.
- Use protective screens or barriers to protect others from flash, glare, and sparks; warn others not to watch the arc.
- Wear body protection made from leather or flame-resistant clothing (FRC). Body protection includes oil-free clothing such as leather gloves, heavy shirt, cuffless trousers, high shoes, and a cap.

WELDING AND CUTTING can cause fire or explosion.

Welding or cutting on closed containers, such as tanks, drums, or pipes, can cause them to blow up. Sparks can fly off from the welding or cutting arc. The flying sparks, hot workpiece, and hot equipment can cause fires and burns. Accidental contact of electrode to metal objects can cause sparks, explosion, overheating, or fire. Check and be sure the area is safe before doing any welding or cutting.

- Remove all flammables within 35 ft (10.7 m) of the welding or cutting arc. If this is not possible, tightly cover them with approved covers.
- Do not weld or cut where flying sparks can strike flammable material.
- Protect yourself and others from flying sparks and hot metal.
- Be alert that welding sparks and hot materials from welding and cutting can easily go through small cracks and openings to adjacent areas.
- Watch for fire, and keep a fire extinguisher nearby.
- Be aware that welding or cutting on a ceiling, floor, bulkhead, or partition can cause fire on the hidden side.
- Do not cut or weld on tire rims or wheels. Tires can explode if heated. Repaired rims and wheels can fail. See OSHA 29 CFR 1910.177 listed in Safety Standards.
- Do not weld or cut on containers that have held combustibles, or on closed containers such as tanks, drums, or pipes unless they are properly prepared according to AWS F4.1 (see Safety Standards).
- Do not weld or cut where the atmosphere can contain flammable dust, gas, or liquid vapors (such as gasoline).
- Connect work cable to the work as close to the welding or cutting area as practical to prevent welding current from traveling long, possibly unknown paths and causing electric shock, sparks, and fire hazards.
- Do not use welder to thaw frozen pipes.
- Remove stick electrode from holder or cut off welding wire at contact tip when not in use.
- Wear body protection made from leather or flame-resistant clothing (FRC). Body protection includes oil-free clothing such as leather gloves, heavy shirt, cuffless trousers, high shoes, and a cap.
- Remove any combustibles, such as a butane lighter or matches, from your person before doing any welding or cutting.
- After completion of work, inspect area to ensure it is free of sparks, glowing embers, and flames.
- Use only correct fuses or circuit breakers. Do not oversize or bypass them.
- Follow requirements in OSHA 1910.252 (a) (2) (iv) and NFPA 51B for hot work and have a fire watcher and extinguisher nearby.
- Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for adhesives, coatings, cleaners, consumables, coolants, degreasers, fluxes, and metals.



FLYING METAL OR DIRT can injure eyes.

- Welding, cutting, chipping, wire brushing, and grinding cause sparks and flying metal. As welds cool, they can throw off slag.
- Wear approved safety glasses with side shields even under your welding helmet.

BUILDUP OF GAS can injure or kill.

- Shut off compressed gas supply when not in use.
- Always ventilate confined spaces or use approved air-supplied respirator.

CYLINDERS can explode if damaged.

Compressed gas cylinders contain gas under high pressure. If damaged, a cylinder can explode. Since gas cylinders are normally part of the welding process, be sure to treat them carefully.

- Protect compressed gas cylinders from excessive heat, mechanical shocks, physical damage, slag, open flames, sparks, and arcs.
- Install cylinders in an upright position by securing to a stationary support or cylinder rack to prevent falling or tipping.

- Keep cylinders away from any welding, cutting, or other electrical circuits.
- Never drape a welding or cutting torch over a gas cylinder.
- Never allow a welding electrode or cutting torch to touch any cylinder.
- Never weld on a pressurized cylinder—explosion will result.
- Use only correct compressed gas cylinders, regulators, hoses, and fittings designed for the specific application; maintain them and associated parts in good condition.
- Turn face away from valve outlet when opening cylinder valve. Do not stand in front of or behind the regulator when opening the valve.
- Keep protective cap in place over valve except when cylinder is in use or connected for use.
- Use the proper equipment, correct procedures, and sufficient number of persons to lift, move, and transport cylinders.
- Read and follow instructions on compressed gas cylinders, associated equipment, and Compressed Gas Association (CGA) publication P-1 listed in Safety Standards.

NOISE can damage hearing.

Noise from some processes or equipment can damage hearing.

- Wear approved ear protection if noise level is high.

ELECTRIC AND MAGNETIC FIELDS (EMF) can affect Implanted Medical Devices.

- Wearers of Pacemakers and other Implanted Medical Devices should keep away.
- Implanted Medical Device wearers should consult their doctor and the device manufacturer before going near arc welding, spot welding, gouging, plasma arc cutting, or induction heating operations.

1-4. Additional Hazards For Installation, Operation, And Maintenance

FIRE OR EXPLOSION hazard.

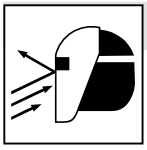
- Do not install or place unit on, over, or near combustible surfaces.
- Do not install unit near flammables.
- Do not overload building wiring — be sure power supply system is properly sized, rated, and protected to handle this unit.

FALLING EQUIPMENT can injure.

- Use lifting eye to lift unit only, NOT running gear, gas cylinders, or any other accessories.
- Use correct procedures and equipment of adequate capacity to lift and support unit.
- If using lift forks to move unit, be sure forks are long enough to extend beyond opposite side of unit.
- Keep equipment (cables and cords) away from moving vehicles when working from an aerial location.
- Follow the guidelines in the Applications Manual for the Revised NIOSH Lifting Equation (Publication No. 94-110) when manually lifting heavy parts or equipment.

OVERUSE can cause OVERHEATING.

- Allow cooling period; follow rated duty cycle.
- Reduce current or reduce duty cycle before starting to weld again.
- Do not block or filter airflow to unit.



FLYING SPARKS can injure.

- Wear a face shield to protect eyes and face.
- Shape tungsten electrode only on grinder with proper guards in a safe location wearing proper face, hand, and body protection.
- Sparks can cause fires—keep flammables away.

STATIC (ESD) can damage PC boards.

- Put on grounded wrist strap BEFORE handling boards or parts.
- Use proper static-proof bags and boxes to store, move, or ship PC boards.

MOVING PARTS can injure.

- Keep away from moving parts.
- Keep away from pinch points such as drive rolls.

WELDING WIRE can injure.

- Do not press gun trigger until instructed to do so.
- Do not point gun toward any part of the body, other people, or any metal when threading welding wire.

BATTERY EXPLOSION can injure.

- Do not use welder to charge batteries or jump start vehicles unless it has a battery charging feature designed for this purpose.

MOVING PARTS can injure.

- Keep away from moving parts such as fans.
- Keep all doors, panels, covers, and guards closed and securely in place.
- Have only qualified persons remove doors, panels, covers, or guards for maintenance and troubleshooting as necessary.
- Reinstall doors, panels, covers, or guards when maintenance is finished and before reconnecting input power.

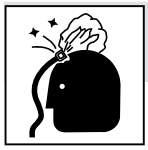
COMPRESSED AIR can injure or kill.

- Before working on compressed air system, turn off and lockout/tagout unit, release pressure, and be sure air pressure cannot be accidentally applied.
- Relieve pressure before disconnecting or connecting air lines.
- Check compressed air system components and all connections and hoses for damage, leaks, and wear before operating unit.
- Do not direct air stream toward self or others.
- Wear protective equipment such as safety glasses, hearing protection, leather gloves, heavy shirt and trousers, high shoes, and a cap when working on compressed air system.
- Use soapy water or an ultrasonic detector to search for leaks — never use bare hands. Do not use equipment if leaks are found.
- Reinstall doors, panels, covers, or guards when servicing is finished and before starting unit.

- If ANY air is injected into the skin or body seek medical help immediately.

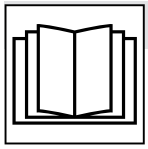
BREATHING COMPRESSED AIR can injure or kill.

- Do not use compressed air for breathing.
- Use only for cutting, gouging, and tools.



TRAPPED AIR PRESSURE AND WHIPPING HOSES can injure.

- Release air pressure from tools and system before servicing, adding or changing attachments, or opening compressor oil drain or oil fill cap.



READ INSTRUCTIONS.

- Read and follow all labels and the Owner's Manual carefully before installing, operating, or servicing unit. Read the safety information at the beginning of the manual and in each section.
- Use only genuine replacement parts from the manufacturer.
- Perform installation, maintenance, and service according to the Owner's Manuals, industry standards, and national, state, and local codes.

H.F. RADIATION can cause interference.

- High-frequency (H.F.) can interfere with radio navigation, safety services, computers, and communications equipment.
- Have only qualified persons familiar with electronic equipment perform this installation.
- The user is responsible for having a qualified electrician promptly correct any interference problem resulting from the installation.
- If notified by the FCC about interference, stop using the equipment at once.
- Have the installation regularly checked and maintained.
- Keep high-frequency source doors and panels tightly shut, keep spark gaps at correct setting, and use grounding and shielding to minimize the possibility of interference.

ARC WELDING AND PLASMA CUTTING can cause interference.

- Electromagnetic energy can interfere with sensitive electronic equipment such as microprocessors, computers, and computer-driven equipment such as robots.
- Be sure all equipment in the welding area is electromagnetically compatible.
- To reduce possible interference, keep weld cables as short as possible, close together, and down low, such as on the floor.
- Locate welding or cutting operation 100 meters from any sensitive electronic equipment.
- Be sure this welding machine or plasma cutter is installed and grounded according to this manual.
- If interference still occurs, the user must take extra measures such as moving the welding or cutting machine, using shielded cables, using line filters, or shielding the work area.

1-5. California Proposition 65 Warnings

⚠ **WARNING – This product can expose you to chemicals including lead, which are known to the state of California to cause cancer and birth defects or other reproductive harm.**

For more information, go to www.P65Warnings.ca.gov.

1-6. Principal Safety Standards

Safety in Welding, Cutting, and Allied Processes, American Welding Society standard ANSI Standard Z49.1. Website: www.aws.org.

Safe Practices for the Preparation of Containers and Piping for Welding and Cutting, American Welding Society Standard AWS F4.1. Website: www.aws.org.

National Electrical Code, NFPA Standard 70 from National Fire Protection Association. Website: www.nfpa.org.

Safe Handling of Compressed Gases in Cylinders, CGA Pamphlet P-1 from Compressed Gas Association. Website: www.cganet.com.

Safety in Welding, Cutting, and Allied Processes, CSA Standard W117.2 from Canadian Standards Association. Website: www.csagroup.org.

Safe Practice For Occupational And Educational Eye And Face Protection, ANSI Standard Z87.1, from American National Standards Institute. Website: safetyequipment.org.

Standard for Fire Prevention During Welding, Cutting, and Other Hot Work, NFPA Standard 51B from National Fire Protection Association. Website: www.nfpa.org.

OSHA, Occupational Safety and Health Standards for General Industry, Title 29, Code of Federal Regulations (CFR), Part 1910.177 Subpart N, Part 1910 Subpart Q, and Part 1926, Subpart J. Website: www.osha.gov.

OSHA *Important Note Regarding the ACGIH TLV, Policy Statement on the Uses of TLVs and BEIs.* Website: www.osha.gov.

Applications Manual for the Revised NIOSH Lifting Equation from the National Institute for Occupational Safety and Health (NIOSH). Website: www.cdc.gov/NIOSH.

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1-7. EMF Information

Electric current flowing through any conductor causes localized electric and magnetic fields (EMF). The current from arc welding (and allied processes including spot welding, gouging, plasma arc cutting, and induction heating operations) creates an EMF field around the welding circuit. EMF fields can interfere with some medical implants, e.g. pacemakers. Protective measures for persons wearing medical implants have to be taken. For example, restrict access for passers −by or conduct individual risk assessment for welders. All welders should use the following procedures in order to minimize exposure to EMF fields from the welding circuit:

1. Keep cables close together by twisting or taping them, or using a cable cover.
2. Do not place your body between welding cables. Arrange cables to one side and away from the operator.
3. Do not coil or drape cables around your body.
4. Keep head and trunk as far away from the equipment in the welding circuit as possible.
5. Connect work clamp to workpiece as close to the weld as possible.
6. Do not work next to, sit or lean on the welding power source.
7. Do not weld whilst carrying the welding power source or wire feeder.

About Implanted Medical Devices:

Implanted Medical Device wearers should consult their doctor and the device manufacturer before performing or going near arc welding, spot welding, gouging, plasma arc cutting, or induction heating operations. If cleared by your doctor, then following the above procedures is recommended.

SECTION 2 – CONSIGNES DE SÉCURITÉ - LIRE AVANT UTILISATION

⚠ **Pour écarter les risques de blessure pour vous-même et pour autrui — lire, appliquer et ranger en lieu sûr ces consignes relatives aux précautions de sécurité et au mode opératoire.**

2-1. Symboles utilisés

⚠ **DANGER! – Indique une situation dangereuse qui si on l'évite pas peut donner la mort ou des blessures graves. Les dangers possibles sont montrés par les symboles joints ou sont expliqués dans le texte.**

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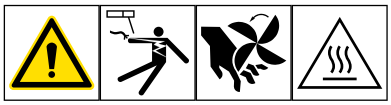
AVIS – *Indique des déclarations pas en relation avec des blessures personnelles.*

☞ *Indique des instructions spécifiques.*



Ce groupe de symboles veut dire Avertissement! Attention! DANGER DE CHOC ELECTRIQUE, PIECES EN MOUVEMENT, et PIECES CHAUDES. Reportez-vous aux symboles et aux directives ci-dessous afin de connaître les mesures à prendre pour éviter tout danger.

2-2. Dangers en matière d'extraction des fumées

⚠ **Les symboles représentés ci-dessous sont utilisés dans ce manuel pour attirer l'attention et identifier les dangers possibles. En présence de ce symbole, prendre garde et suivre les instructions afférentes pour éviter tout risque. Les consignes de sécurité présentées ci-après ne font que résumer l'information contenue dans les Normes de sécurité principales. Lire et suivre toutes les Normes de sécurité.**

⚠ **L'installation, l'utilisation, l'entretien et les réparations ne doivent être confiés qu'à des personnes qualifiées. Une personne qualifiée est définie comme celle qui, par la possession d'un diplôme reconnu, d'un certificat ou d'un statut professionnel, ou qui, par une connaissance, une formation et une expérience approfondies, a démontré avec succès sa capacité à résoudre les problèmes liés à la tâche, le travail ou le projet et a reçu une formation en sécurité afin de reconnaître et d'éviter les risques inhérents.**

⚠ **Au cours de l'utilisation, tenir toute personne à l'écart et plus particulièrement les enfants.**

LA MAUVAISE UTILISATION DES EXTRACTEURS DE FUMÉES peut comporter des dangers.

Le soudage produit des émanations et des fumées qu'il est dangereux de respirer. Les matériaux inflammables peuvent être allumés et causer un incendie ou une explosion.

- Lire et observer minutieusement les présentes instructions et les étiquettes de sécurité. L'extracteur de fumées aide à protéger l'utilisateur contre les aérocontaminants, mais on doit l'utiliser correctement pour bénéficier de son efficacité. Confiez la vérification de la qualité de l'air dans votre établissement à un hygiéniste industriel pour confirmer que l'extracteur de fumées procure une protection adéquate contre les aérocontaminants présents dans le milieu de travail. Si vous avez des questions au sujet de l'extracteur, consultez l'étiquette apposée sur l'appareil, votre directeur de la sécurité ou un hygiéniste industriel certifié.
- Suivre toutes les directives ANSI, OSHA, CSA, UL, NFPA et autres portant sur l'utilisation des extracteurs de fumées et la recirculation de l'air filtré.
- Certaines sections de l'équipement de captage de fumées, notamment les chambres d'air propre et sale, peuvent être considérées des espaces confins aux termes d'OSHA. Consulter le règlement OSHA pertinent afin de déterminer si l'installation est un espace confin qui nécessite l'obtention d'un permis.
- Ne pas utiliser un extracteur de fumées sans pare-étincelles approuvé et correctement installé, à moins que l'appareil soit conçu pour fonctionner sans pare-étincelles. Sans ce dispositif, des étincelles de soudage peuvent enflammer ou endommager un filtre non ignifuge ou des produits de fumée imprégnés dans le filtre, et permettre la présence d'air non filtré dans la zone de respiration. Garder toute ouverture de la cagoule ainsi que la canalisation d'entrée d'air de l'extracteur de fumée éloignés de toute étincelle ou flamme.
- Utiliser l'extracteur de fumées uniquement pour extraire les fumées de soudage. Ne pas l'employer pour extraire des gaz chauds (à plus de 140° F/60° C), des poussières de bois ou de ciment, des gaz d'échappement de moteur, des vapeurs de liquides, des matières explosives, des émanations agressives (acides), de la fumée produite par des objets qui se consument ou encore des fumées provenant d'opérations de nettoyage, de découpage, de gougeage, de meulage, de peinture, de projection à la flamme, de sablage ou d'activités autres que le soudage. Ne pas installer ou utiliser un extracteur de fumées aux endroits ou des matériaux combustibles peuvent être présents.
- Les fumées de certaines opérations de soudure peuvent être inflammables. Ne pas installer ou faire fonctionner l'extracteur de fumée là où des fumées de soudure inflammables peuvent être présentes, à moins qu'une protection contre les incendies et les explosions, sélectionnée et approuvée par une personne qualifiée habituée à travailler avec de tels systèmes et avec les codes applicables, soit présente et fonctionnelle.
- Utiliser l'extracteur de fumées seulement dans des atmosphères pour lesquelles il est recommandé. Ne pas utiliser l'extracteur dans des endroits où la concentration de contaminants est inconnue, représente un danger immédiat pour la vie ou dépasse la capacité nominale de l'extracteur.
- Ne pas souder sans être sûr que l'extracteur de fumées est bien assemblé et qu'il fonctionne correctement.
- Ne pas placer le capot de l'extracteur de fumées dans une position qui dirigerait l'extraction de fumées de soudage vers la zone respiratoire de l'opérateur.
- Minimiser l'aspiration par les côtés qui affecte l'extraction de fumées en fermant les portes/fenêtres et/ou en installant des écrans/rideaux de soudage.
- Avant chaque utilisation, inspecter l'extracteur et vérifier qu'il fonctionne correctement.
- Les contaminants dangereux peuvent être inodores et incolores. Quittez immédiatement l'aire de travail si vous remarquez l'une des situations suivantes:
  - La respiration devient difficile.
  - Apparition d'étourdissements, de problèmes de vision ou irritation des yeux, du nez ou de la bouche.
  - L'équipement est endommagé.
  - La circulation d'air subit une baisse ou s'arrête.

– Si vous croyez que l'équipement ne procure pas une protection adéquate.

- Pour réduire les risques d'incendie, d'électrocution ou de blessure, n'utilisez pas de pièces de rechange qui n'ont pas été recommandées par le fabricant (par ex. des pièces fabriquées avec une imprimante 3D).
- Remplacer le filtre s'il est endommagé ou bloqué. Attendre que le filtre se refroidisse avant de l'inspecter ou de le remplacer, ou de nettoyer les particules accumulées sur le pare-étincelles. Ne pas laver ou réutiliser le filtre, et ne pas le nettoyer par chocs mécaniques ou avec de l'air comprimé, à moins que le fabricant le recommande expressément dans le mode d'emploi (l'élément filtrant peut s'endommager). Éviter de respirer les particules de poussière recueillies par l'extracteur de fumées. Porter du matériel de sécurité approuvé (appareil respiratoire, gants, chemise à manches longues) pour faire l'entretien du filtre. Disposer de l'élément filtrant ainsi que des particules de poussière recueillies de manière conforme à tous règlements fédéraux, provinciaux et municipaux applicables.
- Lire et comprendre les fiches de données de sécurité et les instructions du fabricant concernant les adhésifs, les revêtements, les nettoyants, les consommables, les produits de refroidissement, les dégraisseurs, les flux et les métaux.
- L'extracteur de fumées doit être utilisé avec le bras d'extraction, les tuyaux, le filtre et les autres composants recommandés par le fabricant.

UNE DÉCHARGE ÉLECTRIQUE peut entraîner la mort.

Le contact d'organes électriques sous tension peut provoquer des accidents mortels ou des brûlures graves. Le circuit d'alimentation et les circuits internes de la machine sont également sous tension lorsque l'alimentation est sur Marche. Un équipement installé ou mis à la terre de manière incorrecte ou impropre constitue un danger.

- Ne pas toucher aux pièces électriques sous tension.
- Couper l'alimentation ou arrêter le moteur avant de procéder à l'installation, à la réparation ou à l'entretien de l'appareil. Déverrouiller l'alimentation selon la norme OSHA 29 CFR 1910.147 (voir normes de sécurité).
- Installer le poste correctement et le mettre à la terre convenablement selon les consignes du manuel de l'opérateur et les normes nationales, provinciales et locales.
- Toujours vérifier la mise à la terre — vérifier et assurez-vous que le conducteur de mise à la terre du cordon d'alimentation est bien raccordé à la borne de mise à la terre dans le boîtier de déconnexion ou que la fiche du cordon est raccordée à une prise correctement mise à la terre.
- Vérifier fréquemment le cordon d'alimentation et le conducteur de mise à la terre afin de s'assurer qu'il n'est pas altéré ou dénudé. Le remplacer immédiatement s'il l'est . Un fil dénudé peut entraîner la mort.

LA CHUTE DE L'ÉQUIPEMENT peut provoquer des blessures.

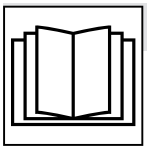
- Utilisez les procédures correctes et des équipements d'une capacité appropriée pour soulever et supporter l'appareil.
- En utilisant des fourches de levage pour déplacer l'unité, s'assurer que les fourches sont suffisamment longues pour dépasser du côté opposé de l'appareil.
- Tenir l'équipement (câbles et cordons) à distance des véhicules mobiles lors de toute opération en hauteur.
- Suivre les consignes du Manuel des applications pour l'équation de levage NIOSH révisée (Publication Nº94– 110) lors du levage manuelle de pièces ou équipements lourds.

Les PIÈCES MOBILES peuvent causer des blessures.

- Gardez vos mains, cheveux, vêtements amples, bijoux, outils et tout autre objet hors de portée des pièces en mouvement telles que les ventilateurs.
- Maintenir fermés et verrouillés les portes, panneaux, recouvrements et dispositifs de protection.
- Lorsque cela est nécessaire pour des travaux d'entretien et de dépannage, faire retirer les portes, panneaux, recouvrements ou dispositifs de protection uniquement par du personnel qualifié.
- Remettre les portes, panneaux, recouvrements ou dispositifs de protection quand l'entretien est terminé et avant de rebrancher l'alimentation électrique.

Risque D'INCENDIE OU D'EXPLOSION.

- Ne pas placer l'appareil sur, au-dessus ou à proximité de surfaces inflammables.
- Ne pas installer l'appareil à proximité de produits inflammables
- Ne pas surcharger l'installation électrique – s'assurer que l'alimentation est correctement dimensionné et protégé avant de mettre l'appareil en service.



LIRE LES INSTRUCTIONS.

- Lire et appliquer les instructions sur les étiquettes et le Mode d'emploi avant l'installation, l'utilisation ou l'entretien de l'appareil. Lire les informations de sécurité au début du manuel et dans chaque section.
- N'utiliser que des pièces de remplacement provenant du fabricant.
- Effectuer l'installation, l'entretien et toute intervention selon les manuels d'utilisateurs, les normes nationales, provinciales et de l'industrie, ainsi que les codes municipaux.

2-3. Dangers du soudage à l'arc et du coupage au plasma

UNE DÉCHARGE ÉLECTRIQUE peut entraîner la mort.

Le contact d'organes électriques sous tension peut provoquer des accidents mortels ou des brûlures graves. Le circuit de l'électrode et de la pièce est sous tension lorsque le courant est délivré à la sortie. Le circuit d'alimentation et les circuits internes de la machine sont également sous tension lorsque l'alimentation est sur Marche. Dans le mode de soudage avec du fil, le fil, le dérouleur, le bloc de commande du rouleau et toutes les parties métalliques en contact avec le fil sont sous tension électrique. Un équipement installé ou mis à la terre de manière incorrecte ou impropre constitue un danger.

- Ne pas toucher aux pièces électriques sous tension.
- Porter des gants isolants et des vêtements de protection secs et sans trous.
- S'isoler de la pièce à couper et du sol en utilisant des housses ou des tapis assez grands afin d'éviter tout contact physique avec la pièce à couper ou le sol.
- Ne pas utiliser de sortie de soudage CA dans des zones humides ou confinées ou s'il y a un risque de chute.
- Ne stockez pas et n'utilisez pas l'équipement dans de l'eau stagnante.
- Utilisez une source de soudage AC UNIQUEMENT si le procédé de soudage et de coupage le demande.
- Si l'utilisation d'une source électrique à courant électrique s'avère nécessaire, se servir de la fonction de télécommande si l'appareil en est équipé.

- D'autres consignes de sécurité sont nécessaires dans les conditions suivantes : risques électriques dans un environnement humide ou si l'on porte des vêtements mouillés ; sur des structures métalliques telles que sols, grilles ou échafaudages ; en position coincée comme assise, à genoux ou couchée ; ou s'il y a un risque élevé de contact inévitable ou accidentel avec la pièce à souder ou le sol. Dans ces conditions, utiliser les équipements suivants, dans l'ordre indiqué : 1) un poste à souder DC à tension constante (à fil), 2) un poste à souder DC manuel (électrode) ou 3) un poste à souder AC à tension à vide réduite. Dans la plupart des situations, l'utilisation d'un poste à souder DC à fil à tension constante est recommandée. En outre, ne pas travailler seul !
- Couper l'alimentation ou arrêter le moteur avant de procéder à l'installation, à la réparation ou à l'entretien de l'appareil. Déverrouiller l'alimentation selon la norme OSHA 29 CFR 1910.147 (voir normes de sécurité).
- Installer le poste correctement et le mettre à la terre convenablement selon les consignes du manuel de l'opérateur et les normes nationales, provinciales et locales.
- Toujours vérifier la mise à la terre — vérifier et assurez-vous que le conducteur de mise à la terre du cordon d'alimentation est bien raccordé à la borne de mise à la terre dans le boîtier de déconnexion ou que la fiche du cordon est raccordée à une prise correctement mise à la terre.
- En effectuant les raccordements d'entrée, fixer d'abord le conducteur de mise à la terre approprié et contre-vérifier les connexions.
- Les câbles doivent être exempts d'humidité, d'huile et de graisse; protégez-les contre les étincelles et les pièces métalliques chaudes.
- Vérifier fréquemment le cordon d'alimentation afin de s'assurer qu'il n'est pas altéré ou à nu, le remplacer immédiatement s'il l'est. Un fil à nu peut entraîner la mort.
- L'équipement doit être hors tension lorsqu'il n'est pas utilisé.
- Ne pas utiliser des câbles usés, endommagés, de grosseur insuffisante ou mal épissés.
- Ne pas enrouler les câbles autour du corps.
- Si la pièce soudée doit être mise à la terre, le faire directement avec un câble distinct.
- Ne pas toucher l'électrode quand on est en contact avec la pièce, la terre ou une électrode provenant d'une autre machine.
- Ne pas toucher des porte électrodes connectés à deux machines en même temps à cause de la présence d'une tension à vide doublée.
- N'utiliser qu'un matériel en bon état. Réparer ou remplacer sur-le-champ les pièces endommagées. Entretenir l'appareil conformément à ce manuel.
- Porter un harnais de sécurité si l'on doit travailler au-dessus du sol.
- S'assurer que tous les panneaux et couvercles sont correctement en place.
- Fixer le câble de retour de façon à obtenir un bon contact métal-métal avec la pièce à souder ou la table de travail, le plus près possible de la soudure.
- Isoler la pince de masse quand pas mis à la pièce pour éviter le contact avec tout objet métallique.
- Ne pas raccorder plus d'une électrode ou plus d'un câble de masse à une même borne de sortie de soudage. Débranchez le câble pour procédé non utilisé.

LES PIÈCES CHAUDES peuvent provoquer des brûlures.

- Ne pas toucher des parties chaudes à mains nues.
- Prévoir une période de refroidissement avant de travailler à l'équipement.
- Ne pas toucher aux pièces chaudes, utiliser les outils recommandés et porter des gants de soudage et des vêtements épais pour éviter les brûlures.

LES FUMÉES ET LES GAZ peuvent être dangereux.

Le soudage et le coupage produisent des vapeurs et des gaz. Leur inhalation peut être dangereuse pour votre santé.

- Eloigner votre tête des fumées. Ne pas respirer les fumées.
- À l'intérieur, ventiler la zone et/ou utiliser une ventilation forcée au niveau de l'arc pour l'évacuation des fumées et des gaz de soudage. Pour déterminer la bonne ventilation, il est recommandé de procéder à un prélèvement pour la composition et la quantité de fumées et de gaz auxquelles est exposé le personnel.
- Si la ventilation est médiocre, porter un respirateur anti-vapeurs approuvé.
- Lire et comprendre les fiches de données de sécurité et les instructions du fabricant concernant les adhésifs, les revêtements, les nettoyants, les consommables, les produits de refroidissement, les dégraisseurs, les flux et les métaux.
- Travailler dans un espace fermé seulement s'il est bien ventilé ou en portant un respirateur à alimentation d'air. Prévoyez toujours un surveillant formé à proximité. Les vapeurs de soudage et de coupage peuvent déplacer de l'air et abaisser le niveau d'oxygène, cause de lésion ou de mort. Assurez-vous de la qualité de l'air que vous respirez.
- Ne soudez pas ou ne coupez pas près de zones où sont effectuées des opérations de dégraissage, nettoyage ou pulvérisation. La chaleur et les rayons de l'arc peuvent réagir en présence de vapeurs et former des gaz hautement toxiques et irritants.
- Ne soudez pas ou ne coupez pas des métaux enrobés tels que des métaux galvanisés, contenant du plomb ou de l'acier plaqué au cadmium, à moins que l'enrobage ne soit ôté de la surface de soudage, que l'endroit où vous travaillez ne soit bien ventilé, ou, si nécessaire, que vous ne portiez un respirateur alimenté en air. Les enrobages ou tous métaux contenant ces éléments peuvent créer des vapeurs toxiques s'ils sont soudés ou coupés.

LES RAYONS DE L'ARC peuvent provoquer des brûlures dans les yeux et sur la peau.

Les rayons d'arc issus des procédés de soudage et de coupage produisent des rayons visibles et invisibles intenses (ultraviolets et infrarouges) qui peuvent entraîner des brûlures aux yeux et à la peau. Des étincelles jaillissent de la soudure.

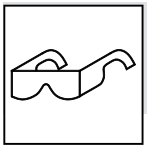
- Portez un casque de soudage approuvé muni de verres filtrants appropriés pour protéger visage et yeux contre les rayons et les étincelles d'arc pendant le soudage, le coupage ou la surveillance (voir ANSI Z49.1 et Z87.1 énuméré dans les Normes de Sécurité).
- Porter des lunettes de sécurité avec écrans latéraux même sous votre casque.
- Avoir recours à des écrans protecteurs ou à des rideaux pour protéger les autres contre les rayonnements les éblouissements et les étincelles ; prévenir toute personne sur les lieux de ne pas regarder l'arc.
- Porter une protection corporelle en cuir ou des vêtements ignifuges (FRC). La protection du corps comporte des vêtements sans huile, comme des gants de cuir, une chemise solide, des pantalons sans revers, des chaussures hautes et une casquette.

Le SOUDAGE ET le COUPAGE présentent un risque d'incendie ou d'explosion.

Le soudage ou le coupage effectué sur des conteneurs fermés, tels que réservoirs, tambours ou conduites, peut causer leur explosion. Des étincelles peuvent être projetées de l'arc de soudure. La projection d'étincelles, des pièces chaudes et des équipements chauds peut provoquer des incendies et des brûlures. Le contact accidentel de l'électrode avec des objets

métalliques peut provoquer des étincelles, une explosion, un surchauffement ou un incendie. Avant de commencer le soudage, vérifier et s'assurer que l'endroit ne présente pas de danger.

- Ecartez tout produit inflammable situé à moins de 35 pieds (10,7 m) de l'arc de soudage ou de coupage. En cas d'impossibilité les recouvrir soigneusement avec des protections homologués.
- Ne soudez pas ou ne coupez pas dans un endroit où des étincelles pourraient atteindre des matières inflammables.
- Se protéger et d'autres personnes de la projection d'étincelles et de métal chaud.
- Assurez-vous qu'aucune étincelle ni matière chaude provenant du soudage ou du coupage ne peut se glisser dans de petites fissures ou tomber dans d'autres pièces contiguës.
- Surveiller tout déclenchement d'incendie et tenir un extincteur à proximité.
- Si vous soudez ou coupez sur un plafond, un plancher ou une cloison, soyez conscient que cela peut entraîner un incendie de l'autre côté.
- Ne pas couper ou souder des jantes ou des roues. Les pneus peuvent exploser s'ils sont chauffés. Les jantes et les roues réparées peuvent défaillir. Voir OSHA 29 CFR 1910.177 énuméré dans les normes de sécurité.
- N'effectuez pas de soudage ou de coupage sur des conteneurs ayant stocké des combustibles ou sur des conteneurs fermés tels que des réservoirs, tambours, ou conduites, à moins qu'ils n'aient été préparés correctement conformément à AWS F4.1 (voir les Normes de Sécurité).
- Ne pas souder là où l'air ambiant pourrait contenir des poussières, gaz ou émanations inflammables (vapeur d'essence, par exemple).
- Fixez le câble de masse sur la pièce à couper, le plus près possible de la zone à souder ou à couper afin d'éviter que le courant de soudage ou de coupage ne prenne une trajectoire inconnue ou longue et ne cause ainsi une décharge électrique ou un incendie.
- Ne pas utiliser le poste de soudage pour dégeler des conduites gelées.
- En cas de non utilisation, enlever la baguette d'électrode du porte-électrode ou couper le fil à la pointe de contact.
- Porter une protection corporelle en cuir ou des vêtements ignifuges (FRC). La protection du corps comporte des vêtements sans huile, comme des gants de cuir, une chemise solide, des pantalons sans revers, des chaussures hautes et une casquette.
- Avant de souder, retirer toute substance combustible de vos poches telles qu'un allumeur au butane ou des allumettes.
- Une fois le travail achevé, assurez-vous qu'il ne reste aucune trace d'étincelles incandescentes ni de flammes.
- Utiliser exclusivement des fusibles ou coupe-circuits appropriés. Ne pas augmenter leur puissance; ne pas les ponter.
- Suivre les recommandations dans OSHA 1910.252 (a) (2) (iv) et NFPA 51B pour les travaux à chaud et avoir de la surveillance et un extincteur à proximité.
- Lire et comprendre les fiches de données de sécurité et les instructions du fabricant concernant les adhésifs, les revêtements, les nettoyants, les consommables, les produits de refroidissement, les dégraisseurs, les flux et les métaux.



DES PIECES DE METAL ou DES SALETES peuvent provoquer des blessures dans les yeux.

- Le soudage, l'écaillement, le passage de la pièce à la brosse en fil de fer, et le meulage génèrent des étincelles et des particules métalliques volantes. Pendant la période de refroidissement des soudures, elles risquent de projeter du laitier.
- Porter des lunettes de sécurité avec écrans latéraux ou un écran facial.

LES ACCUMULATIONS DE GAZ risquent de provoquer des blessures ou même la mort.

- Fermer l'alimentation du gaz comprimé en cas de non utilisation.
- Veiller toujours à bien aérer les espaces confinés ou se servir d'un respirateur d'adduction d'air homologué.

LES BOUTEILLES peuvent exploser si elles sont endommagées.

Les bouteilles de gaz comprimé contiennent du gaz sous haute pression. Si une bouteille est endommagée, elle peut exploser. Du fait que les bouteilles de gaz font normalement partie du procédé de soudage, les manipuler avec précaution.

- Protéger les bouteilles de gaz comprimé d'une chaleur excessive, des chocs mécaniques, des dommages physiques, du laitier, des flammes ouvertes, des étincelles et des arcs.
- Placer les bouteilles debout en les fixant dans un support stationnaire ou dans un porte-bouteilles pour les empêcher de tomber ou de se renverser.
- Tenir les bouteilles éloignées des circuits de soudage ou autres circuits électriques.
- Ne jamais placer une torche de soudage sur une bouteille à gaz.
- Une électrode de soudage ne doit jamais entrer en contact avec une bouteille.
- Ne jamais souder une bouteille pressurisée - risque d'explosion.
- Utiliser seulement des bouteilles de gaz comprimé, régulateurs, tuyaux et raccords convenables pour cette application spécifique; les maintenir ainsi que les éléments associés en bon état.
- Tourner le dos à la sortie de vanne lors de l'ouverture de la vanne de la bouteille. Ne pas se tenir devant ou derrière le régulateur lors de l'ouverture de la vanne.
- Le couvercle du détendeur doit toujours être en place, sauf lorsque la bouteille est utilisée ou qu'elle est reliée pour usage ultérieur.
- Utilisez les équipements corrects, les bonnes procédures et suffisamment de personnes pour soulever, déplacer et transporter les bouteilles.
- Lire et suivre les instructions sur les bouteilles de gaz comprimé, l'équipement connexe et le dépliant P-1 de la CGA (Compressed Gas Association) mentionné dans les principales normes de sécurité.

Le BRUIT peut endommager l'ouïe.

Le bruit des processus et des équipements peut affecter l'ouïe.

- Porter des protections approuvées pour les oreilles si le niveau sonore est trop élevé.

Les CHAMPS ÉLECTROMAGNÉTIQUES (CEM) peuvent affecter les implants médicaux.

- Les porteurs de stimulateurs cardiaques et autres implants médicaux doivent rester à distance.
- Les porteurs d'implants médicaux doivent consulter leur médecin et le fabricant du dispositif avant de s'approcher de la zone où se déroule du soudage à l'arc, du soudage par points, du gougeage, de la découpe plasma ou une opération de chauffage par induction.

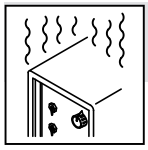
2-4. Symboles de dangers supplémentaires en relation avec l'installation, le fonctionnement et la maintenance

Risque D'INCENDIE OU D'EXPLOSION.

- Ne pas placer l'appareil sur, au-dessus ou à proximité de surfaces inflammables.
- Ne pas installer l'appareil à proximité de produits inflammables
- Ne pas surcharger l'installation électrique – s'assurer que l'alimentation est correctement dimensionné et protégé avant de mettre l'appareil en service.

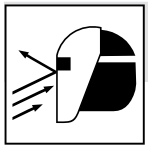
LA CHUTE DE L'ÉQUIPEMENT peut provoquer des blessures.

- Utiliser l'anneau de levage uniquement pour soulever l'appareil, NON PAS les organes de roulement, les bouteilles de gaz ou tout autre accessoire.
- Utilisez les procédures correctes et des équipements d'une capacité appropriée pour soulever et supporter l'appareil.
- En utilisant des fourches de levage pour déplacer l'unité, s'assurer que les fourches sont suffisamment longues pour dépasser du côté opposé de l'appareil.
- Tenir l'équipement (câbles et cordons) à distance des véhicules mobiles lors de toute opération en hauteur.
- Suivre les consignes du Manuel des applications pour l'équation de levage NIOSH révisée (Publication Nº94–110) lors du levage manuelle de pièces ou équipements lourds.



L'EMPLOI EXCESSIF peut SURCHAUFFER L'ÉQUIPEMENT.

- Laisser l'équipement refroidir ; respecter le facteur de marche nominal.
- Réduire le courant ou le cycle opératoire avant de recommancer le soudage.
- Ne pas obstruer les passages d'air du poste.



LES ÉTINCELLES PROJETÉES peuvent provoquer des blessures.

- Porter un écran facial pour protéger le visage et les yeux.
- Affûter l'électrode au tungstène uniquement à la meuleuse dotée de protecteurs. Cette manœuvre est à exécuter dans un endroit sûr lorsque l'on porte l'équipement homologué de protection du visage, des mains et du corps.
- Les étincelles risquent de causer un incendie - éloigner toute substance inflammable.

LES CHARGES ÉLECTROSTATIQUES peuvent endommager les circuits imprimés.

- Établir la connexion avec la barrette de terre AVANT de manipuler des cartes ou des pièces.
- Utiliser des pochettes et des boîtes antistatiques pour stocker, déplacer ou expédier des cartes de circuits imprimes.

Les PIÈCES MOBILES peuvent causer des blessures.

- Ne pas s'approcher des organes mobiles.
- Ne pas s'approcher des points de coincement tels que des rouleaux de commande.

LES FILS DE SOUDAGE peuvent provoquer des blessures.

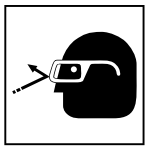
- Ne pas appuyer sur la gachette avant d'en avoir reçu l'instruction.
- Ne pas diriger le pistolet vers soi, d'autres personnes ou toute pièce mécanique en engageant le fil de soudage.

L'EXPLOSION DE LA BATTERIE peut provoquer des blessures.

- Ne pas utiliser l'appareil de soudage pour charger des batteries ou faire démarrer des véhicules à l'aide de câbles de démarrage, sauf si l'appareil dispose d'une fonctionnalité de charge de batterie destinée à cet usage.

Les PIÈCES MOBILES peuvent causer des blessures.

- S'abstenir de toucher des organes mobiles tels que des ventilateurs.
- Maintenir fermés et verrouillés les portes, panneaux, recouvrements et dispositifs de protection.
- Lorsque cela est nécessaire pour des travaux d'entretien et de dépannage, faire retirer les portes, panneaux, recouvrements ou dispositifs de protection uniquement par du personnel qualifié.
- Remettre les portes, panneaux, recouvrements ou dispositifs de protection quand l'entretien est terminé et avant de rebrancher l'alimentation électrique.



L'AIR COMPRIMÉ risque de provoquer des blessures ou même la mort.

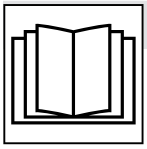
- Avant d'intervenir sur le circuit d'air comprimé, couper l'alimentation électrique, verrouiller etétiqueter l'appareil, détendre la pression ets'assurer que le circuit d'air ne peut être mis sous pression par inadvertance.
- Détendre la pression avant de débrancher ou de brancher des canalisations d'air.
- Avant d'utiliser l'appareil, contrôler lescomposants du circuit d'air comprimé, lesbranchements et les flexibles en recherchant tout signe de détérioration, de fuite et d'usure.
- Ne pas diriger un jet d'air vers soi-même ou vers autrui.
- Pour intervenir sur un circuit d'air comprimé, porter unéquipement de protection tel que des lunettes de sécurité, des gants de cuir, une chemise et un pantalon en tissu résistant, des chaussures montantes et une coiffe.
- Pour rechercher des fuites, utiliser de l'eau savonneuse ou undétecteur à ultrasons, jamais les mains nues. En cas dedétection de fuite, ne pas utiliser l'équipement.
- Remettre les portes, panneaux, recouvrements ou dispositifs deprotection quand l'entretien est terminé et avant de mettre enmarche l'appareil.
- En cas d'injection d'air dans la peau ou le corps, demander immédiatement une assistance médicale.

L'INHALATION D'AIR COMPRIMÉ risque de provoquer des blessures ou même lamort.

- Ne pas inhaler d'air comprimé.
- Utiliser l'air comprimé uniquement pour découper ou gouger ainsi que pour l'outillage pneumatique.

Une PRESSION D'AIR RÉSIDUELLE ETDES FLEXIBLES QUI FOUETTENT risquent de provoquer des blessures.

- Détendre la pression pneumatique des outils et circuits avant d'entretenir, ajouter ou changer des accessoires et avant d'ouvrir le bouchon de vidange ou de remplissage d'huile ducompresseur.



LIRE LES INSTRUCTIONS.

- Lire et appliquer les instructions sur les étiquettes et le Mode d'emploi avant l'installation, l'utilisation ou l'entretien de l'appareil. Lire les informations de sécurité au début du manuel et dans chaque section.
- N'utiliser que des pièces de remplacement provenant du fabricant.
- Effectuer l'installation, l'entretien et toute intervention selon les manuels d'utilisateurs, les normes nationales, provinciales et de l'industrie, ainsi que les codes municipaux.

LE RAYONNEMENT HAUTE FRÉQUENCE (H.F.) risque de provoquer des interférences.

- Le rayonnement haute fréquence (H.F.) peut provoquer des interférences avec les équipements de radio-navigation et de communication, les services de sécurité et les ordinateurs.
- Demander seulement à des personnes qualifiées familiarisées avec des équipements électroniques de faire fonctionner l'installation.
- L'utilisateur est tenu de faire corriger rapidement par un électricien qualifié les interférences résultant de l'installation.
- Si le FCC signale des interférences, arrêter immédiatement l'appareil.
- Effectuer régulièrement le contrôle et l'entretien de l'installation.
- Maintenir soigneusement fermés les portes et les panneaux des sources de haute fréquence, maintenir les éclateurs à une distance correcte et utiliser une terre et un blindage pour réduire les interférences éventuelles.

LE SOUDAGE À L'ARC ET LE COUPAGE PLASMA risquent de provoquer des interférences.

- L'énergie électromagnétique peut gêner le fonctionnement d'appareils électroniques sensibles comme des ordinateurs et des équipements commandés par ordinateur, tels que des robots.
- Veillez à ce que tout l'équipement de la zone de soudage soit compatible au plan électromagnétique.
- Pour réduire la possibilité d'interférence, maintenez les câbles aussi courts que possible, groupez-les et posez-les aussi bas que possible (ex. par terre).
- Veillez à souder ou à couper à une distance de 100 mètres de tout équipement électronique sensible.
- Assurez-vous que le poste de soudage ou le découpeur plasma est branché et mis à la terre conformément au présent manuel.
- Si l'interférence persiste, l'utilisateur doit prendre des mesures supplémentaires comme écarter le poste de soudage ou le découpeur, en utilisant des câbles blindés, des filtres de ligne, ou en protégeant la zone de travail.

2-5. Proposition californienne 65 Avertissements

⚠ **AVERTISSEMENT – Ce produit peut vous exposer à des produits chimiques tels que le plomb, reconnus par l'État de Californie comme cancérigènes et sources de malformations ou d'autres troubles de la reproduction.**

Pour plus d'informations, consulter www.P65Warnings.ca.gov.

2-6. Principales normes de sécurité

Safety in Welding, Cutting, and Allied Processes, American Welding Society standard ANSI Standard Z49.1. Website: www.aws.org.

Safe Practices for the Preparation of Containers and Piping for Welding and Cutting, American Welding Society Standard AWS F4.1. Website: www.aws.org.

National Electrical Code, NFPA Standard 70 from National Fire Protection Association. Website: www.nfpa.org.

Safe Handling of Compressed Gases in Cylinders, CGA Pamphlet P-1 from Compressed Gas Association. Website: www.cganet.com.

Safety in Welding, Cutting, and Allied Processes, CSA Standard W117.2 from Canadian Standards Association. Website: www. csa-group.org.

Safe Practice For Occupational And Educational Eye And Face Protection, ANSI Standard Z87.1, from American National Standards Institute. Website: safetyequipment.org.

Standard for Fire Prevention During Welding, Cutting, and Other Hot Work, NFPA Standard 51B from National Fire Protection Association. Website: www.nfpa.org.

OSHA, Occupational Safety and Health Standards for General Industry, Title 29, Code of Federal Regulations (CFR), Part 1910.177 Subpart N, Part 1910 Subpart Q, and Part 1926, Subpart J. Website: www.osha.gov.

OSHA *Important Note Regarding the ACGIH TLV, Policy Statement on the Uses of TLVs and BEIs.* Website: www.osha.gov.

Applications Manual for the Revised NIOSH Lifting Equation from the National Institute for Occupational Safety and Health (NIOSH). Website: www.cdc.gov/NIOSH.

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2-7. Informations relatives aux CEM

Le courant électrique qui traverse tout conducteur génère des champs électromagnétiques (CEM) à certains endroits. Le courant issu d'un soudage à l'arc (et de procédés connexes, y compris le soudage par points, le gougeage, le découpage plasma et les opérations de chauffage par induction) crée un champ électromagnétique (CEM) autour du circuit de soudage. Les champs électromagnétiques produits peuvent causer interférence à certains implants médicaux, p. ex. les stimulateurs cardiaques. Des mesures de protection pour les porteurs d'implants médicaux doivent être prises: par exemple, des restrictions d'accès pour les passants ou une évaluation individuelle des risques pour les soudeurs. Tous les soudeurs doivent appliquer les procédures suivantes pour minimiser l'exposition aux CEM provenant du circuit de soudage:

1. Rassembler les câbles en les torsadant ou en les attachant avec du ruban adhésif ou avec une housse.
2. Ne pas se tenir au milieu des câbles de soudage. Disposer les câbles d'un côté et à distance de l'opérateur.
3. Ne pas courber et ne pas entourer les câbles autour de votre corps.
4. Maintenir la tête et le torse aussi loin que possible du matériel du circuit de soudage.
5. Connecter la pince sur la pièce aussi près que possible de la soudure.
6. Ne pas travailler à proximité d'une source de soudage, ni s'asseoir ou se pencher dessus.
7. Ne pas souder tout en portant la source de soudage ou le dévidoir.

En ce qui concerne les implants médicaux :

Les porteurs d'implants doivent d'abord consulter leur médecin avant de s'approcher des opérations de soudage à l'arc, de soudage par points, de gougeage, du coupage plasma ou de chauffage par induction. Si le médecin approuve, il est recommandé de suivre les procédures précédentes.

SECTION 3 – DEFINITIONS

3-1. Miscellaneous Symbols And Definitions

I	On
O	Off
%	Percent

	Protective Earth (Ground)
A	Amperes
V	Volts

	Filter
	Auto

SECTION 4 – SPECIFICATIONS

4-1. Serial Number And Rating Label Location

The serial number and rating information is located on the side of the unit. Use rating label to determine input power requirements and/or rated output. For future reference, write serial number in space provided on back cover of this manual.

4-2. General Description

Product Description

The Filtair Purifier Fume Extraction System is a continuous duty dust collector with filters intended to handle applications with light to medium loads in large, indoor construction bays such as weld operation lines. Continuous duty means the filter cartridges can be pulse cleaned without interrupting airflow through the collector.

The Filtair Purifier Fume Extraction System comes standard with the inlet section (including inlet deflector shields), clean air plenum and dirty air plenum (including dust bin), fan chamber, outlet chamber, filters pulse and fan controls. The fan and fan motor can be serviced from the rear of the collector via an access panel. Pulse and manifold components can be serviced from multiple side access panels on either side.

The housing features a stacked section assembly intended to be easy to install in facilities. Additionally the housing includes pockets designed for the tines of a standard forklift to aid in assembly and positioning of the collector.

The Filtair Purifier Fume Extraction System features a 3-sided open-air inlet section at the top to provide multidirectional ambient air cleaning. Each inlet face is covered by a inlet deflector shield intended to reduce the risk of ingress of heated particulate. The inlet deflector shields are lightweight and removable for cleaning. The Filtair Purifier Fume Extraction System also features a 3-sided open air outlet at the bottom to direct airflow for circulation in the facility.

The Filtair Purifier Fume Extraction System includes an internal dust bin, accessible via a latched front panel. The pail pack holds up to 5 gallons of collected dust, and can be removed for emptying using the latches and handles on the bin.

Intended Use

The Filtair Purifier Fume Extraction System can be installed alone or in combinations to filter the ambient air within the work area. Each Filtair Purifier Fume Extraction System is capable of processing 7,000-9,000 cfm. By positioning one or more Filtair Purifier Fume Extraction System in the work area a desirable average air exchange rate can be achieved.

Operations requiring higher temperature, dust loading, humidity, or air stream chemistry will require application guidance and potentially modifications.

4-3. Standard Equipment

Filters

The Filtair Purifier Fume Extraction System ships with filter cartridges installed.

Filter Housing

The Filtair Purifier Fume Extraction System filter housing consists of both the Clean Air Plenum in the rear of the collector and the Dirty Air Plenum in the front. Filter access is found on the front face of the collector. Air passes from the inlet section freely to the Dirty Air Plenum then passes through the filter media into the Clean Air Plenum. It then passes through the fan chamber and through the outlet section before returning, clean, to the environment.

Inlet Section

The Filtair Purifier Fume Extraction System inlet section features a 3-sided open-air inlet section at the top of the collector to provide multidirectional entry of ambient air into the collector. Each inlet face is covered by an inlet deflector shield intended to reduce the risk of ingress of heated particulate.

Inlet Deflector Shield

The Filtair Purifier Fume Extraction System comes with inlet deflector shields to cover all three inlet sides. The inlet deflector shields are lightweight and removable for cleaning both them and the inlet.

Compressed Air

The Filtair Purifier Fume Extraction System requires an external source of compressed air to supply the manifold and pulse system. Air is stored in the manifold and released when the system cleans through the blow pipes and into the filters.

Outlet Section

The Filtair Purifier Fume Extraction System outlet section returns the cleaned air to the work environment at the base of the collector promoting air circulation within the work environment.

Side Mounted Junction Box

The Filtair Purifier Fume Extraction System ships with internal wiring pre-wired at the factory. The side mounted junction box provides the terminal block interface between the internal wiring and the site-specific incoming wiring.

5-Gallon Dust Drawer

An internal dust drawer, accessible from the front panel, provides easy access for dust removal and disposal.

Fan Control

An internal factory installed fan and motor assembly produce airflow. The fan and motor assembly is located near the base of the collector to increase stability by lowering the collector's center of gravity. The fan/motor chamber is lined with acoustical foam and is designed in combination with the exhaust plenum to reduce average operational sound pressure levels below 85dBa (at distances 1 meter from the Filtair Purifier Fume Extraction System).

Cleaning Controls and Sensors

Delta P Control

The Delta P Controller monitors the differential pressure between the clean-air and dirty-air plenums, providing a visual display of the filter condition. When combined with a pulse timer, it manages the pressure drop by turning the cleaning mechanism On and Off at the chosen limits. There are three (3) set points: HIGH (On), LOW (Off) and ALARM. The first two, HIGH (On) and LOW (Off), control the filter cleaning system. The third, ALARM, provides a relay output to activate an external alarm supplied by others.

4-4. Options and Accessories

Compressed Air Dump Valve

The compressed air dump valve is used to shut off the compressed air supply and discharge stored compressed air from the collector.

Sprinkler Coupling

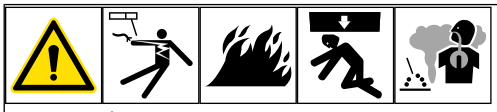
Sprinkler couplings are provided for the convenience of fire control system installers. The fire control system installer shall make their own decisions on the appropriate location of fire control system components.

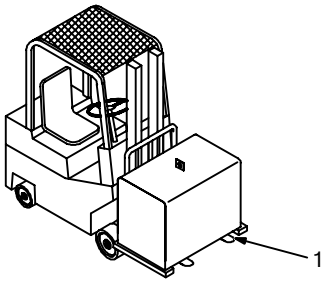
4-5. Specifications

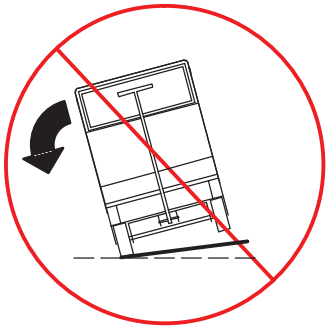
Input Power	Length Of Input Power Cord	Nominal Air Flow	Motor kW	Filter Area	*Compressed Air Usage/ Requirements	Weight	Dimensions
230V, 460V or 575V 3-phase, 60 Hz	Customer Supplied	7,000 CFM 198,217.9 liter/ sec)	15 Hp 11.2 Kw	2,032 ft^2 (188.78 m^2)	9.75 SCFM (277.1 LPM) 60 PSIG (413.7 kPa)	3272 lbs. (1484 kg)	61.4 x 48.1 x 169.9 in. (1559.6 x 1220.7 x 4314.2 mm)
*Air supply must be clean, dry, and oil free.							

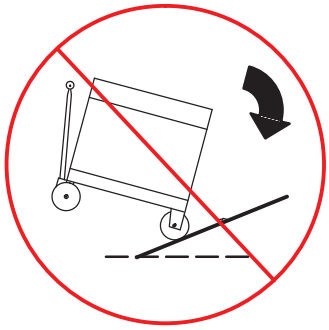
SECTION 5 – INSTALLATION

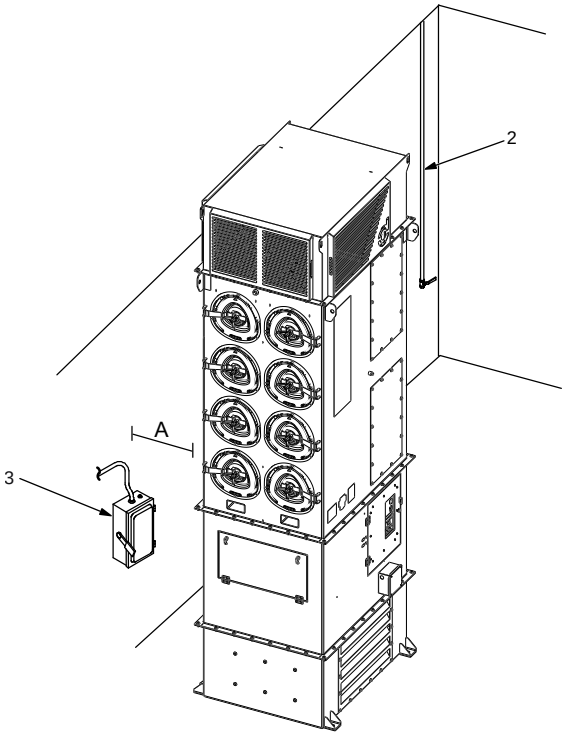
5-1. Selecting A Location











⚠ **Only qualified persons should install, operate, maintain, and repair this unit.**

⚠ **Installation must meet all National and Local Codes—have only qualified persons make this installation.**

⚠ **Do not use this equipment to support personnel, large tools, or other material.**

⚠ **Do not move or operate unit where it could tip.**

⚠ **Special installation may be required where gasoline or volatile liquids are present - see NEC Article 511 or CEC Section 20.**

NOTICE – *The extractor is intended to be installed indoors on a reinforced concrete foundation. Prepare locations for and set anchors prior to final installation.*

Moving The Equipment

1 Lifting Forks

Use lifting forks to move unit.

If using lifting forks, extend forks beyond opposite side of unit.

Use lifting eyes and hoist to lift unit. See Section 5-7 for additional lifting information.

Compressed Air, Power Supplies

2 Compressed Air Supply (1 in. NPT Connection) (90−100 psi/621 − 689 kPa)

Clean, dry, oil-free compressed air is needed for the cleaning function to operate properly.

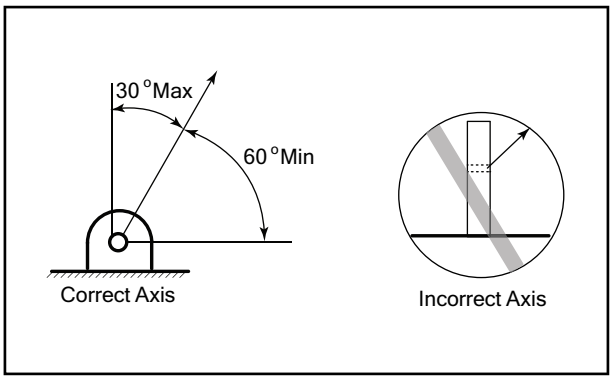
3 AC Power Supply

A dedicated 230 volt, 460 volt or 575 volt AC individual branch circuit protected by time delay (type J) fuses or circuit breaker is required for each unit. See Section 5-7.

Position unit near the welding operation and close to compressed air supply and 230 volt, 460 volt or 575 volt AC power supply. Keep unit way from obstructions that may restrict movement of the fume collector. Be sure equipment is accessible for maintenance.

Airflow Clearance:
A: 36 in. (914.4 mm) – all sides

5-2. Lifting Information



⚠ **Use equipment of adequate capacity to lift and support unit.**

Typical Lifting Guidence

Use all lifting points provided.

Use clevis connectors, not hooks, on lifting slings.

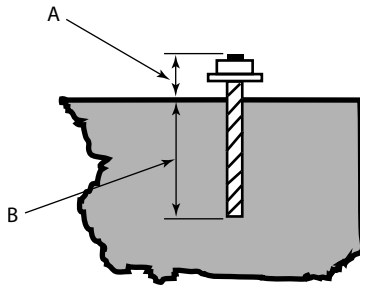
Use spreader bars to prevent damage to equipment.

Check the Specification Control drawing for weight and dimensions of the collector and components to ensure adequate crane capacity.

Lift collector and accessories separately and assemble after collector is in place.

Use drift pins to align holes in section flanges during assembly.

5-3. Support Installation



⚠ **Anchors must comply with local code requirements and be capable of supporting dead, live, wind, seismic and other applicable loads.**

☞ *Anchor sizes shown are provisional, as final anchor sizing will depend on job-site load conditions, equipment location, foundation/framing design variables and local codes. Consult a qualified engineer for final selection of suitable anchors.*

Anchor Bolt Recommendations

The quantity of anchor bolts should match the number of holes provided in the base plates of the collector. Anchor diameter is typically 1/8-inch less than the baseplate hole diameter.

A. .Anchors should project a minimum of 1 ¾ -inch and account for nut, washer, baseplate, and shims/grout.

B. .Embedment depth (suitable for the physical properties of the foundation).

Step 1. Prepare the foundation or support framing in the selected location. Locate and install anchors.

Step 2. Set the hopper on the ground or a flat surface with the collector connection flange down. The discharge opening on the hopper base should be oriented up.

Step 3. Use drift pins to align holes.

Step 4. Reference the Leg Positioning and Leg and Cross Brace Assembly drawings. Attach the legs to the hopper gussets using the hardware supplied.

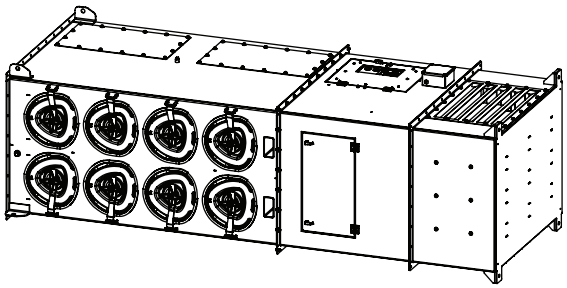
Step 5. Join multiple hoppers together at hopper gussets using the hardware supplied. Do not tighten hardware at this time.

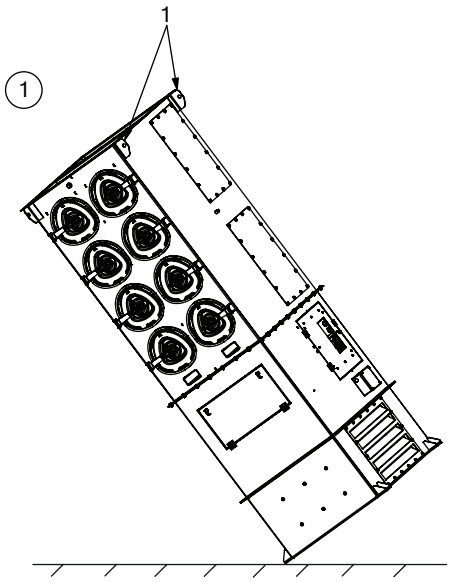
Step 6. Turn leg and hopper assembly over and position over anchor bolts. Secure each leg pad to the foundation anchor bolts with customer-supplied flat washers and nuts. Do not tighten hardware at this time.

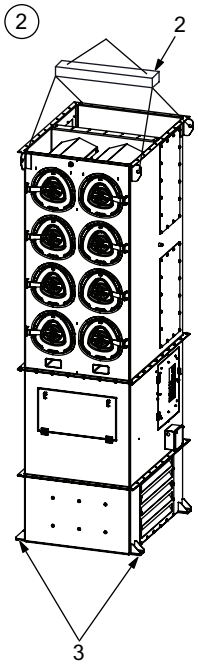
Step 7. Level hopper.

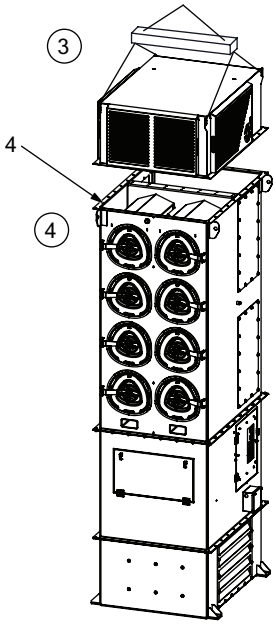
Step 8. Tighten all hardware securing legs, cross braces, hopper gussets, and foundation anchor bolts.

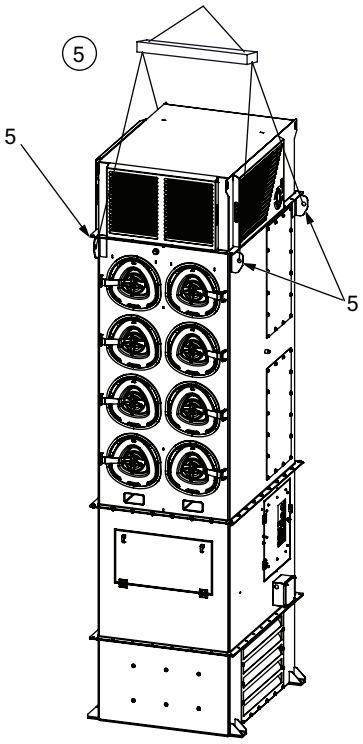
5-4. Positioning and Assembling











⚠ **Use equipment of adequate capacity to lift and support unit.**

1 Offset Lugs
2 Spreader Bar
3 Foot Tabs
4 Sealant
5 Lifting Lugs

Step 1. Lift the collector upright using the offset lugs at top of collector as shown

NOTICE – *If moving collector use spreader bar to distribute the load evenly.*

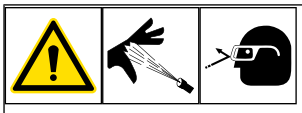
Step 2. Anchor the lower body of the collector into position using foot tabs.

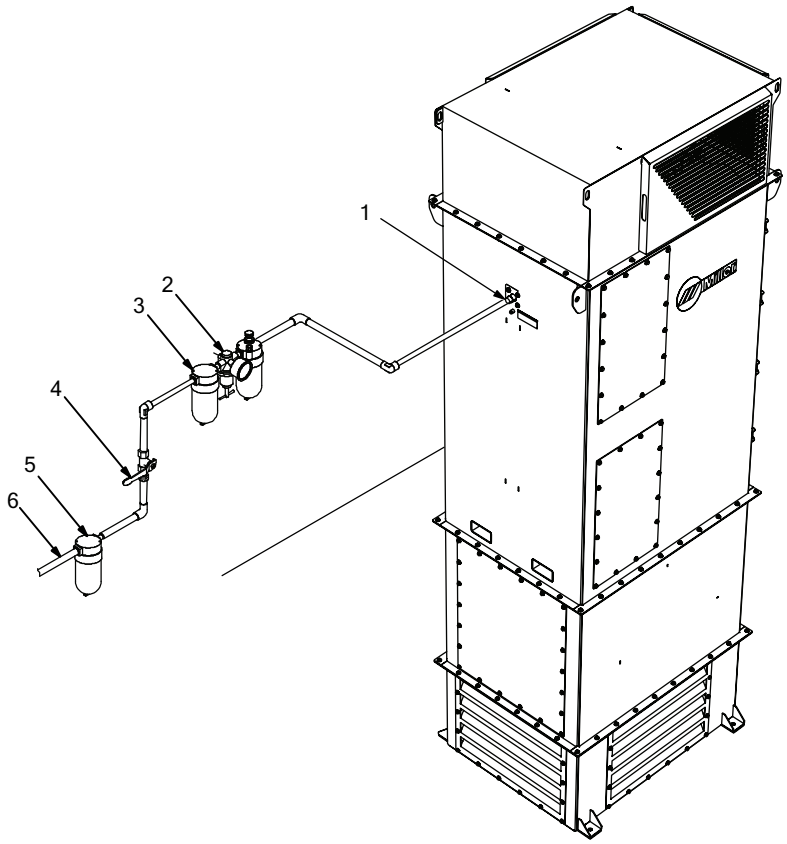
Step 3. Apply rope sealant around upper flange of main body

Step 4. Lower the inlet plenum onto the main body and bolt into place

Step 5. If moving collector after assembly, Use main body lifting lugs and spreader bar as shown

5-5. Connecting To Compressed Air Supply





⚠ **Shut off air supply before disconnecting or connecting air hose.**

⚠ **Wear protective equipment when disconnecting compressed air supply. Internal air tank is under pressure and will discharge when air supply is disconnected.**

⚠ **Close cover before starting unit or operating filter cleaning system.**

⚠ **Do not direct air stream toward self or others.**

⚠ **If ANY air is injected into the skin or body seek medical help immediately.**

⚠ **Install a safety exhaust valve to isolate the compressed air supply. The safety exhaust valve should completely exhaust pressure from the extractor when closed and include provisions to allow closed-position locking.**

NOTICE – *All compressed−air components must be sized to meet the maximum system requirements of 90−100 psi (621−689 kPa) supply pressure.*

NOTICE – *The compressed air supply must be oil and moisture free. Contaminated air does not clean the filters effectively and causes cleaning valve failure and affects fume extractor performance.*

NOTICE – *Purge compressed air lines to remove debris before connecting to the unit's compressed air manifold.*

☞ *Do not kink or puncture tubing during installation.*

☞ *Use thread−sealing tape or pipe sealant on all compressed air connections and fittings.*

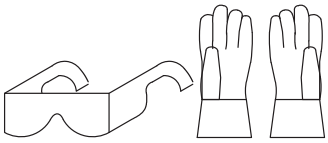
1 1 In. NPT Connection
2 Air Regulator
3 Bleed-Type Air Filter
4 Shutoff Valve
5 Automatic Condensate Valve
6 Air Supply Line

Remove the pipe plug from the collector's air supply coupling and connect the compressed-air supply lines. Use threadsealing tape or pipe sealant on all compressed-air connections.

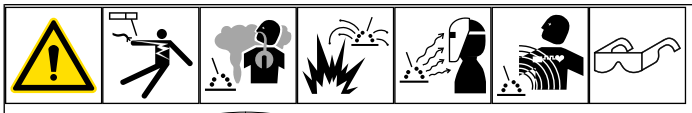
Install customer −supplied shut −off valve, bleed −type regulator with gauge, filter, and automatic condensate valve in the compressed−air supply line.

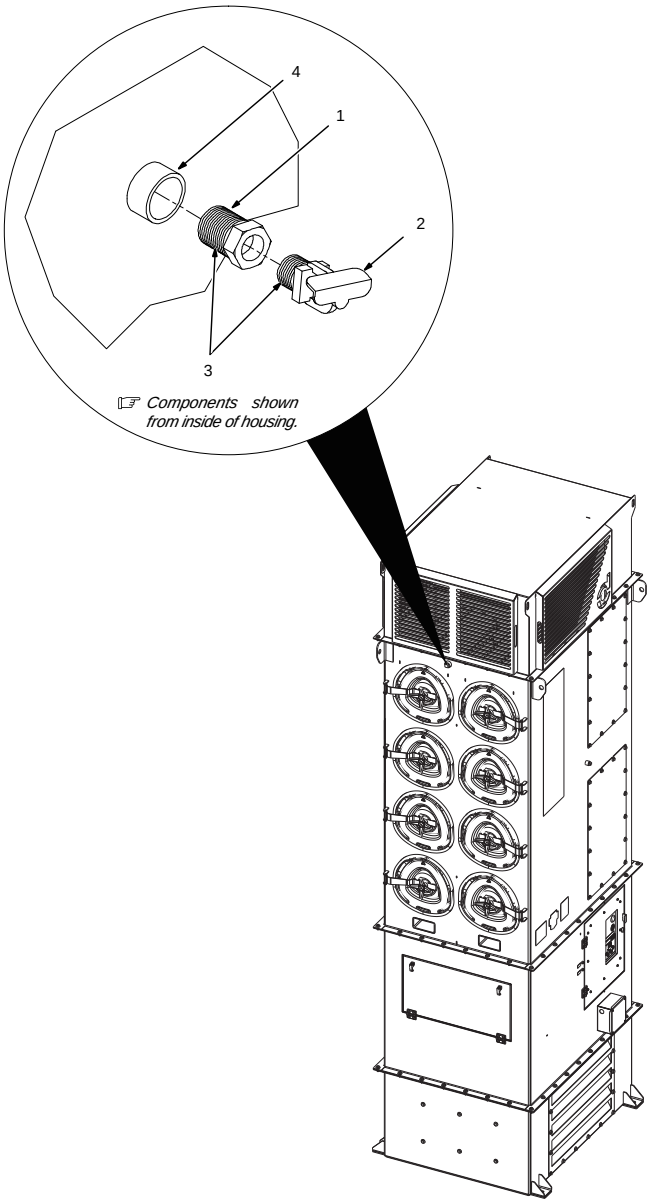
Set compressed −air supply to 90 psig (621 kPa).

The pulse-cleaning controls are factory set to clean one or more filters every 10-seconds during a cleaning cycle.



5-6. Installing Optional Sprinkler





☞ *Components shown from inside of housing.*

⚠ **Disconnect and lockout/tagout input power. Follow established procedures regarding the installation and removal of lockout/tagout devices.**

⚠ **Sprinkler systems place a large quantity of water in the fume extractor when activated. Provide adequate drainage to remove water from facility.**

☞ *Consult local authorities when installing fire control system on fume extraction equipment.*

Fire control sprinklers are available for all models operating under negative pressure. These sprinklers require a minimum water pressure of 15 psig (103 kPa). The sprinkler heads discharge 17 gal (64L) of water per minute.

1 Reducer

2 Sprinkler Assembly

3 Pipe Sealant Compound

4 1 In. NPT Tapped Fitting

Remove or open the filter access covers to access the sprinkler tap located in the dirty-air plenum.

Apply pipe sealant to the threads of the pipe reducer located on the sprinkler assembly.

Thread sprinkler assembly onto the 1 In. (25 mm) diameter sprinkler tap and tighten securely.

5-7. Electrical Service Guide

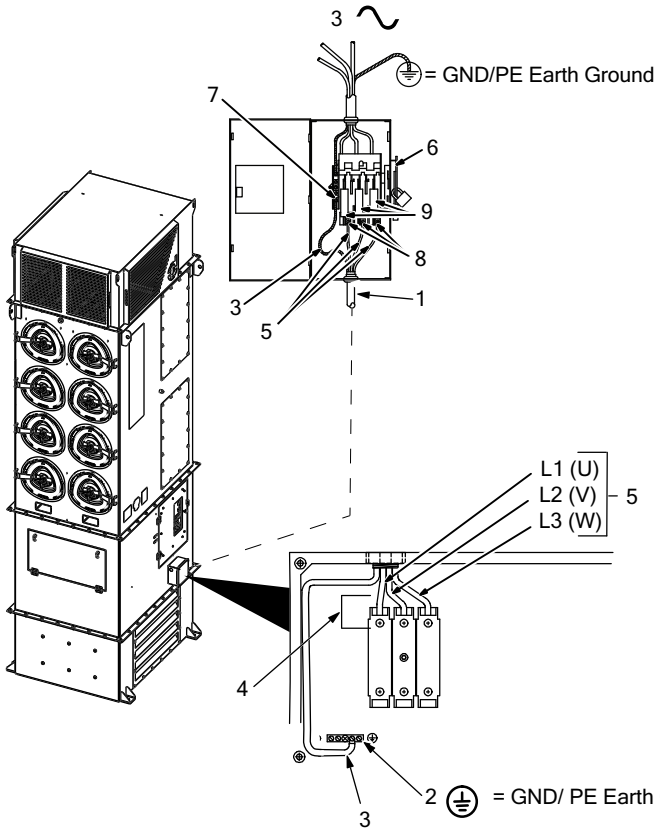
⚠ **Failure to follow these electrical service guide recommendations could create an electric shock or fire hazard. These recommendations are for a dedicated circuit sized for the rated output of the electrical equipment.**

	60 Hz 3-Phase	60 Hz 3-Phase	60 Hz 3-Phase
Rated Supply Voltage (V)	230	460	575
Rated Maximum Supply Current I_{1max} (A)	36	18	14.5
Maximum Recommended Standard Fuse Rating In Amperes[1]			
Time Delay Fuses [2]	45	20	15
Normal Operating Fuses[3]	50	25	20
Minimum Supply Conductor Size In AWG (mm^2)[5]	8	12	12
Maximum Recommended Supply Conductor Length In Feet (Meters)[4]	156 (47)	250 (76)	387 (118)
Minimum Grounding Conductor Size In AWG (mm^2) [5]	10	12	12

Reference: 2023 National Electrical Code (NEC) (including article 630)

1 If a circuit breaker is used in place of a fuse, choose a circuit breaker with time-current curves comparable to the recommended fuse.
2 "Time-Delay" fuses are UL class "RK5" . See UL 248.
3 "Normal Operating" (general purpose - no intentional delay) fuses are UL class "K5" (up to and including 60 amps), and UL class "H" (65 amps and above). See UL 248.
5 Raceway conductor data in this section specifies conductor size (excluding flexible cord or cable) between the panelboard and the equipment per NEC Table 310.16 and is based on allowable ampacities of insulated copper conductors having a temperature rating of 75°C (167°F) with not more than three single current-carrying conductors in a raceway.
4 Maximum total length of copper supply conductors in entire installation, raceway and/or flexible cord.

5-8. Connecting Input Power



⚠ **Installation must meet all National and Local Codes—have only qualified persons make this installation.**

⚠ **Disconnect and lockout/tagout input power before connecting input conductors from unit. Follow established procedures regarding the installation and removal of lockout/tagout devices.**

⚠ **Always connect green or green/yellow conductor to supply grounding terminal first, and never to a line terminal.**

⚠ **Do not use the fume extraction equipment unless you are sure it is correctly assembled and working properly.**

See rating label on unit and check input voltage available at site.

1 Input Power Conductors (Customer Supplied Cord)

Select size and length of conductors using Section 5-7. Conductors must comply with national, state, and local electrical codes. If applicable, use lugs of proper amperage capacity and correct hole size.

Fume Extractor Input Power Connections

2 Grounding Bar

3 Green Or Green/Yellow Grounding Conductor

Connect green or green/yellow grounding conductor to grounding terminal first.

4 Fume Extractor Line Terminals

5 Input Conductors L1 (U), L2 (V) And L3 (W)

Connect input conductors L1 (U), L2 (V) and L3 (W) to fume extractor line terminals.

Close and secure access door on fume extractor.

Disconnect Device Input Power Connections

6 Disconnect Device (switch shown in OFF position)

7 Disconnect Device (Supply) Grounding Terminal

8 Disconnect Device Line Terminals

Connect green or green/yellow grounding conductor to disconnect device grounding terminal first.

Connect input conductors L1 (U), L2 (V) And L3 (W) to disconnect device line terminals.

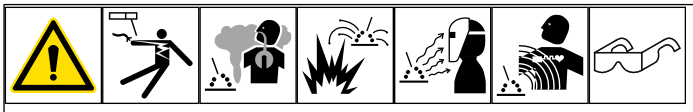
9 Over-Current Protection

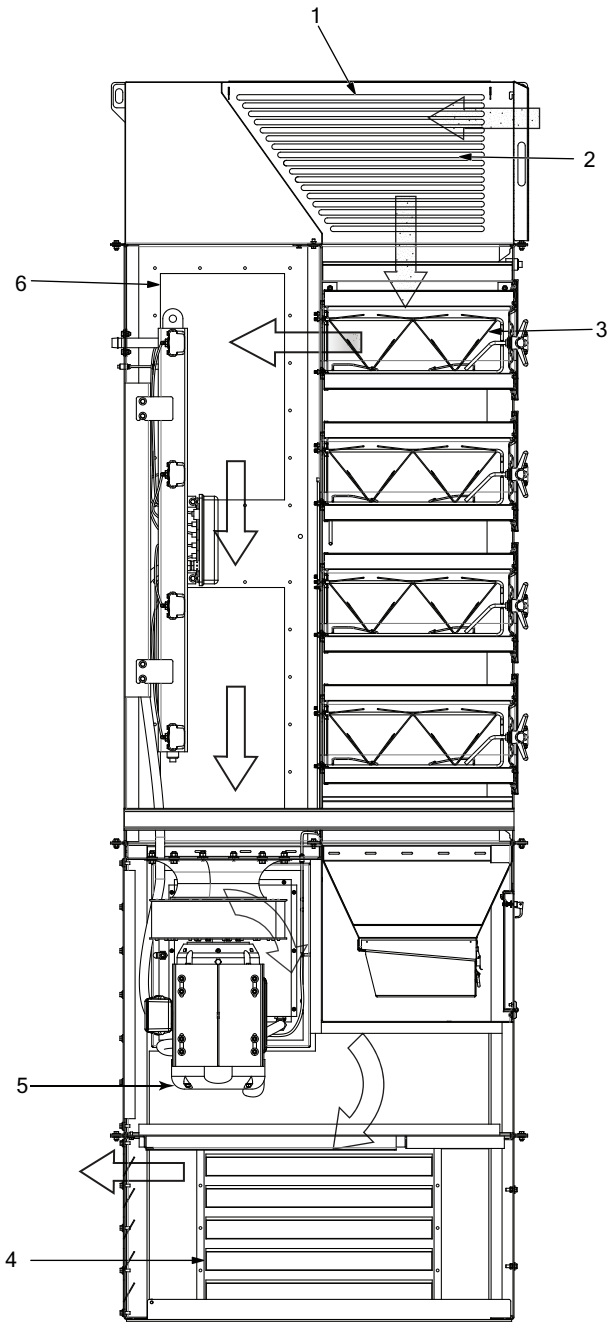
Select type and size of over-current protection using Section5-7 (fused disconnect switch shown).

Close and secure door on line disconnect device. Follow established lockout/ tagout procedures to put unit in service.

SECTION 6 – OPERATION

6-1. General Operation





⚠ **Only use the fume extractor to extract weld fumes. Do not use the fume extractor to extract hot gases (above 140° F/60° C), wood or cement particulate, engine exhaust, liquid vapors, explosive materials, aggressive fumes (acid), fumes from burning objects, or fumes from cleaning, cutting, gouging, grinding, painting, flame spraying, sand blasting, or other non-welding operations**

1 Inlet Deflector Shield

2 Dirty Air Inlet

3 Filter

4 Clean Air Outlet

5 Fan Chamber

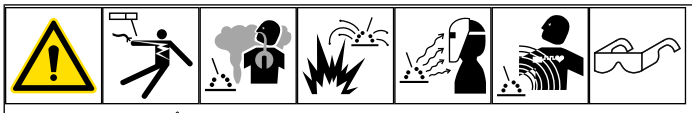
6 Clean Air Plenum

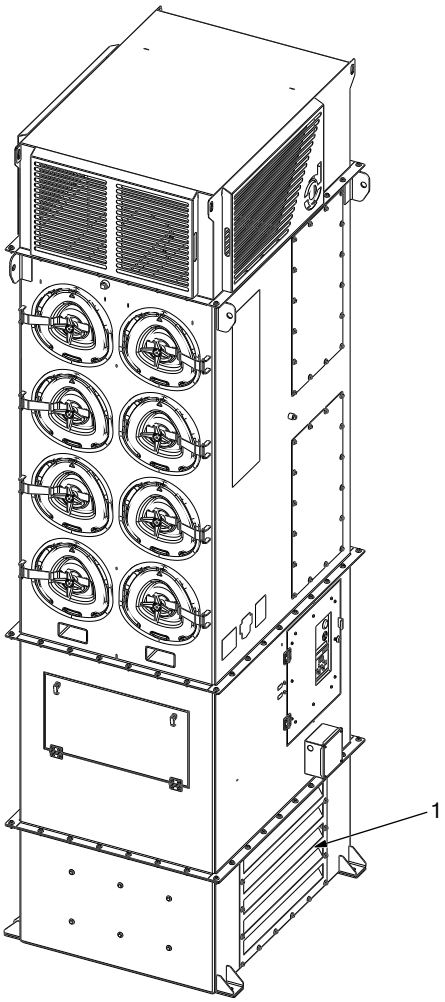
During normal operation, the power module containing the blower draws dust-laden air from the work space through the filter cartridges. Dust collects on the outside surface of the filters. Clean, filtered air flows through to the center of the cartridge, through the clean-air plenum and into the outlet plenum. Filtered air exits through the back.

Filter cleaning is completed using pulse-jet technology. A solenoid valve controlled by a solid-state timer and a diaphragm valve aligned to each filter provides the pulse cleaning. The diaphragm valve sends a pulse of compressed air through the filter cartridge from the inside out and collected contaminants fall into the dust bin. At the end of each pulse, the diaphragm valve closes and the filter cartridge resumes normal operation. One filter cartridge is cleaned per pulse.

Filter cartridges require replacement which can be accomplished from outside the collector by opening the filter access cover and sliding the spent filters from the collector. Filters can be removed and replaced without the need for tools. The shape of the filter and special markings on the collector makes it easy to ensure filters are installed properly.

6-2. Prestart Checklist (Before Welding)





⚠ **Do not use the fume extraction equipment unless you are sure it is correctly assembled and working properly.**

☞ *Check for free and easy movement of the collection hose and nozzle before each use.*

1 Clean Air Outlet

Verify clean air outlet is not obstructed and discharge air appears clean (free of welding fumes). Check filter if discharge air appears dirty. Make sure panels are closed (and latched) to ensure a tight seal around the filter.

Verify electrical connections are tight.

Check that the dust container is properly sealed and clamped.

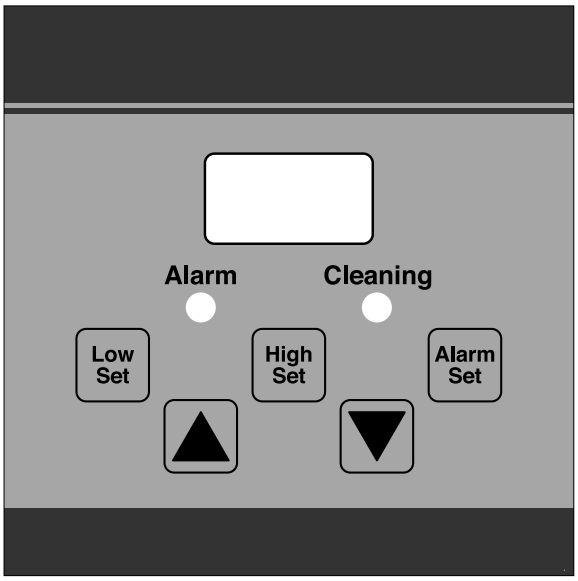
Remove all loose items in or near the inlet and outlet of the unit. Confirm that all remote − mounted controls and solenoid enclosures (if applicable) are properly wired and all service switches are in the Off position.

Check that all optional accessories are installed properly and secured.

Turn power ON at source.

Turn the compressed-air supply ON. Set compressed-air supply pressure to a level suitable for the filters 90 psi (621 kPa).

6-3. Controller – General Information



⚠ **Do not use the fume extraction equipment unless you are sure it is correctly assembled and working properly.**

The controller monitors the differential pressure between the clean and dirty-air plenums to indicate the filter condition. When combined with a pulse timer, it manages the pressure drop by turning the cleaning mechanism on and off at the set limits. There are three setpoints: High Pressure On, Low Pressure Off, and Alarm. High Pressure On and Low Pressure Off control the filter cleaning system. The Alarm setpoint provides a relay output to activate an external alarm (customer supplied).

Normal Operation
The controller monitors the pressure in the clean-air and dirty air plenums while the extractor is running. The fan blower draws air through the filters, creating a pressure drop. The controller measures the pressure drop and provides a visual display in inches water gauge or metric (SI) units of data.

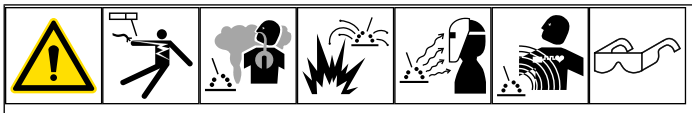
Filter Cleaning
When the pressure drop across the filters exceeds the High setpoint, the controller closes an output relay allowing a timer to trigger the cleaning valves sequentially. When the pressure drop has decreased to the Low setpoint, the relay opens and the cleaning cycle stops. This sequence continues as long as the extractor is in use, maintaining the pressure drop within a narrow range

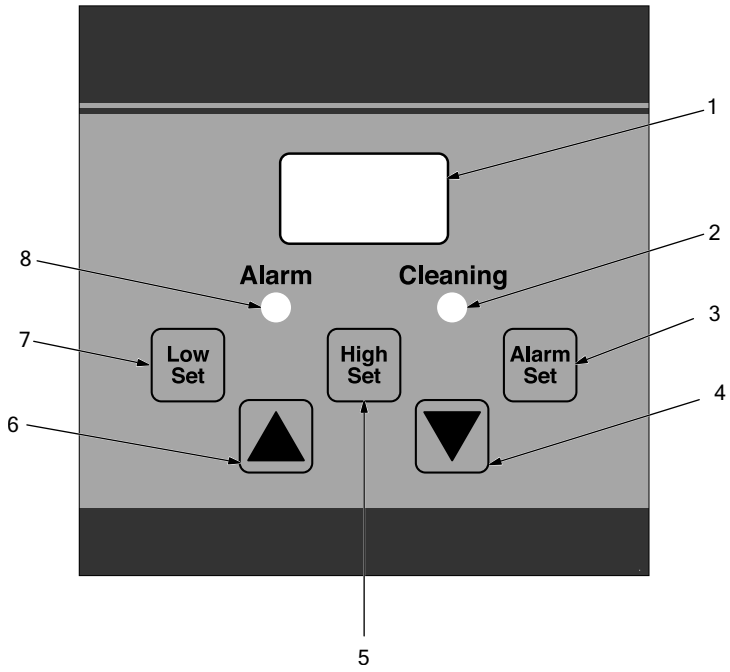
Alarm
The Alarm setpoint is set to a higher setting than the High Pressure On setpoint used to start the filter cleaning cycle. It indicates situations when the cleaning system cannot reduce the pressure drop due to cleaning system failure, lack of compressed air, or the end of the filters useful life. There is a time delay prior to setting the Alarm to prevent nuisance trips. The controller also provides an input connection for a remote alarm reset.

Operational Checklist

- Visually confirm controller display is illuminated and displaying differential pressure.
- Observe and address any alarm conditions.
- If cleaning light is on, confirm that the extractor is advancing through the cleaning process.

6-4. Setpoint Adjustments





⚠ **Do not use the fume extraction equipment unless you are sure it is correctly assembled and working properly.**

Controls and Indicators

1 Three Digit Display

2 Cleaning Relay Indicator

3 Alarm Set Key

4 Decrease

5 High Set Key

6 Increase

7 Low Set Key

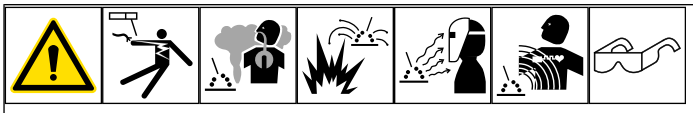
8 Alarm Relay Indicator

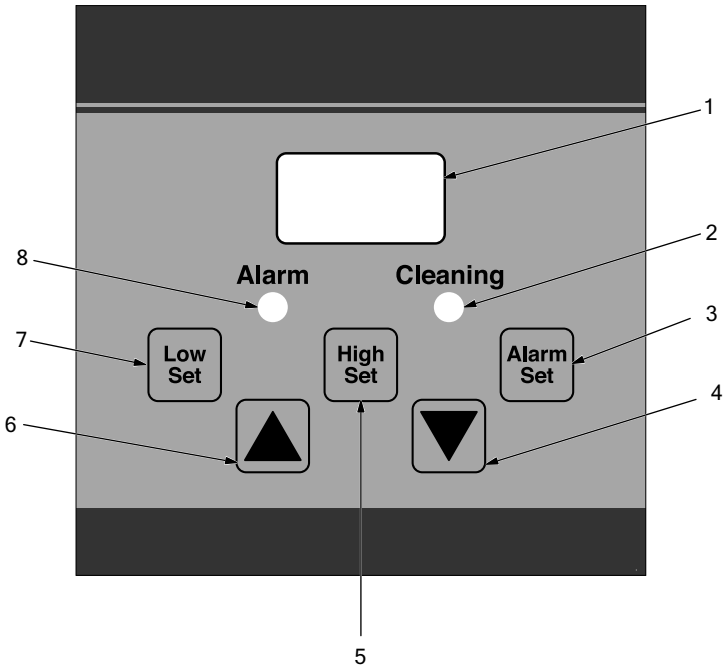
Low Setpoint
Press and hold the LOW SET key while using the increase or decrease keys until the desired low setpoint is displayed. If the desired setting cannot be reached, increase the high setpoint to a value higher than the intended low setpoint and adjust the low setpoint.

High Setpoint
Press and hold the HIGH SET key while using the increase or decrease keys until the desired high setpoint is displayed. If the desired setting cannot be reached, increase the alarm setpoint to a value higher than the intended high setpoint and readjust the high setpoint.

Alarm Setpoint
Press and hold the ALARM SET key while using the increase or decrease keys until the desired alarm setpoint is displayed. If the desired setting cannot be reached, decrease the high setpoint to a value lower than the intended alarm setpoint and adjust the alarm setpoint.

6-5. Controller Calibration





⚠ Do not use the fume extraction equipment unless you are sure it is correctly assembled and working properly.

The only user calibration is the zero adjustment of the display. Slight changes in electronic components (over time) or pressure within the plant environment may cause the display to read something other than 0.0 while at rest. Use the following procedure to recalibrate the operating system.

1 Three Digit Display
2 Cleaning Relay Indicator
3 Alarm Set Key
4 Decrease
5 High Set Key
6 Increase
7 Low Set Key
8 Alarm Relay Indicator

Turn power to the controller on for a minimum of 30 minutes to stabilize the operating temperature.

Disconnect the pressure tubing, either leaving it to atmosphere, or connecting the two barbed fittings together with a short length of tubing.

Turn power to the controller off

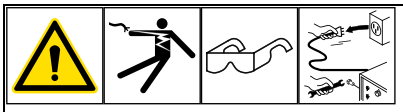
Press and hold the LOW SET, HIGH SET, and ALARM SET keys while turning power to the controller back on. Continue holding the keys as the controller goes through its power-up sequence. The number 8 is displayed in each digit, and then the display reads 0.0.

Release the three keys. The new calibration is stored in memory.

Connect one section of tubing from the control enclosure's high-pressure port to the pressure tap on the dirty air plenum. Connect the remaining section of tubing from the control enclosure's low pressure port to the pressure tap on the clean air plenum.

SECTION 7 – MAINTENANCE AND TROUBLESHOOTING

7-1. Routine Maintenance



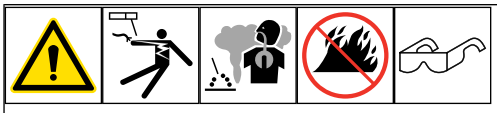
⚠ **Disconnect power before maintaining.**

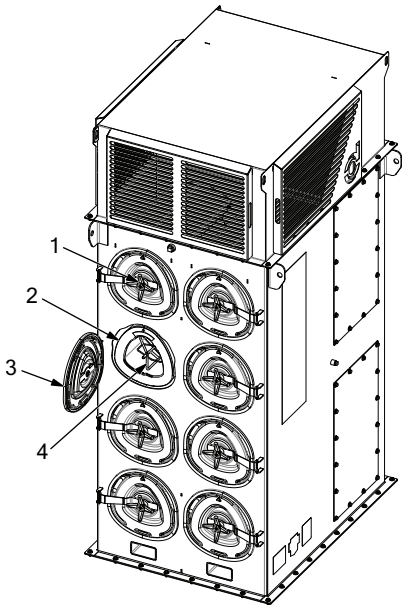
☞ *Maintain more often during severe conditions.*

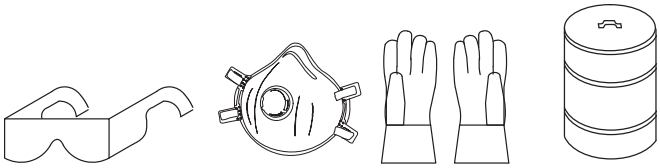
Maintenance Schedule		Daily	Monthly	Every 3 Months	Annually
Air Pressure Drop	Check pressure drop at controller. Clean or replace filters as necessary.	●			
Outer Surfaces	Clean outer surfaces.		●		
Mounting Equipment Hardware	Check mounting equipment hardware for loose or missing hardware.		●		
Particulate Bin	Check level of particulate bin. Clean as necessary,		●		
Compressed Air Supply Line	Drain moisture from compressed air supply line.		●		
Compressed Air Supply Line Filters	Check filters on compressed air supply line.		●		
Cleaning Vlves, Solenoid Valves and Tubing	Check cleaning valves, solenoid valves and tubing for leaks.		●		
Labels	Replace unreadable labels.			●	
Inlet Deflector and Clean Air Outlet	Inspect inlet deflector and clean air outlet for excess residue. Clean deflector shields and perform regular maintenance as conditions demand.			●	
Filters	Check filters for damage, including seals and gaskets.			●	
Sprinkler System	Inspect sprinkler head for corrosion or leaks. Test and inspect as required by local requirements and/or national codes.				●

*To be done by factory authorized service agent.

7-2. Replacing Filter







⚠ **Turn off unit and disconnect input power connector before replacing filter.**

⚠ **Turn off compressed air supply and bleed air lines before servicing fume extractor. Bleed manifold air pressure to 0 psi (0 kPa).**

⚠ **Do not operate unit without filter or with dirty (plugged) filter.**

⚠ **Replace filter when dirty (plugged).**

⚠ **Do not breathe the particles collected by the fume extractor. Wear approved safety equipment (respirator, gloves, long sleeve shirt) when servicing filter and spark guard. Dispose of used element and collected particles according to local, state, and federal requirements.**

⚠ **Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for metals, consumables, coatings, cleaners, and degreasers.**

⚠ **If after replacing filter, Service Indicator light remains on (unit must be turned on), contact an Authorized Factory Service Agent.**

☞ *Replace filters row by row from the top to avoid contaminating lower filters.*

1 Knob
2 Filter
3 Filter Access Cover
4 Yoke

Remove access cover by turning knob counterclockwise

Break the seal between the filter cartridge and the sealing surface.

Slide each filter out of the access port along the suspension yoke and dispose of in accordance with local requirements for the materials being collected

Inspect and clean the sealing surface prior to installing a new filter.

Clean any dust from the yoke threads that may have accumulated during the filter removal.

☞ *Check integrity of access cover gasket. Replace access cover gasket if worn or damaged.*

Install new filter onto yoke with gasket oriented towards the collector.

☞ *The filter shape and yoke work together to ensure proper filter alignment during filter installation. To assist with alignment, an alignment mark (△) at the top of the filter end cap (non-gasketed end) must match with the alignment mark (▽) at the top of the filter access opening.*

Place the access cover onto the yoke. The smooth corner of the cover should be oriented towards the top as shown in the triangular access cover.

☞ *The access cover must be properly aligned to ensure a dust tight seal to the housing.*

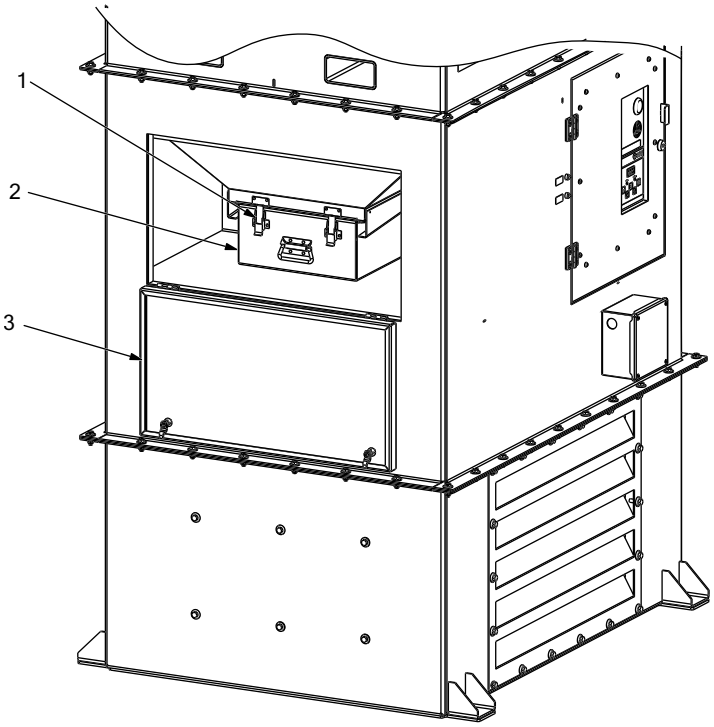
☞ *Do not exceed 150 in-lbs (17 N·m) torque when securing the access cover as over tightening may cause damage to the filter and/or equipment.*

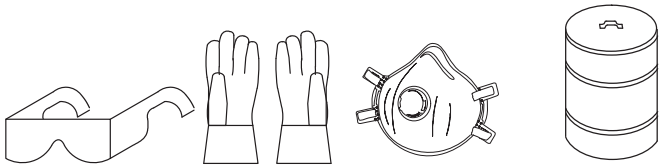
☞ *When filter installation is complete, check to ensure that each access cover is seated and sealed against the filter housing to ensure a dust tight housing seal.*

Proceed to the next row of filters and repeat for all remaining filters.

Check for any accumulation of dust in the storage area and dispose of in accordance with local requirements for the materials being collected.

7-3. Emptying Particle Bin





⚠ Turn off compressed air supply and bleed air lines before servicing fume extractor. Bleed manifold air pressure to 0 psi (0 kPa).

⚠ Do not operate unit without filter or with dirty (plugged) filter.

⚠ Do not breathe the particles collected by the fume extractor. Wear approved safety equipment (respirator, gloves, long sleeve shirt) when servicing filter and spark guard. Dispose of used element and collected particles according to local, state, and federal requirements.

⚠ Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for metals, consumables, coatings, cleaners, and degreasers.

☞ *Empty when dust container is 2/3 full. Check integrity of gasket under container cover. Replace gasket if worn or damaged.*

1 Clamps
2 Particle Bin
3 Access Door

Open access door and unclamp particle bin from extractor.

Empty particle bin

Reinstall particle bin with clamps and secure access door.

☞ *The extractor should not be operated without the particle bin in place and should not be serviced while extractor is running. Do not service the particle bin without turning the collector OFF.*

7-4. Troubleshooting Table

Trouble	Remedy
Motor/blower unit will not start or continue running.	Check input power connection.
	Check that filter is in place.
	Check that filter cabinet cover is in place and locked.
	Check display for error (rapid flashing blue light).
	Have Factory Authorized Service Agent check unit.
Decreased air flow.	Check that all access panels and doors are secured. Check that particle bin is in place and secured.
	Check exhaust area for obstruction.
	Inspect filters (including gaskets) and replace if damaged or dirty. Be sure filter is installed properly (see Section 7-2).
	Verify air supply is connected for automatic filter cleaning.
	Check differential pressure gauge.
	Have Factory Authorized Service Agent check unit.
Fume extractor discharges fumes or particles.	Inspect filters (including gaskets) and replace if damaged or dirty. Be sure filter is installed properly (see Section 7-2).
	Check seals on filter access ports.
	Have Factory Authorized Service Agent check unit.

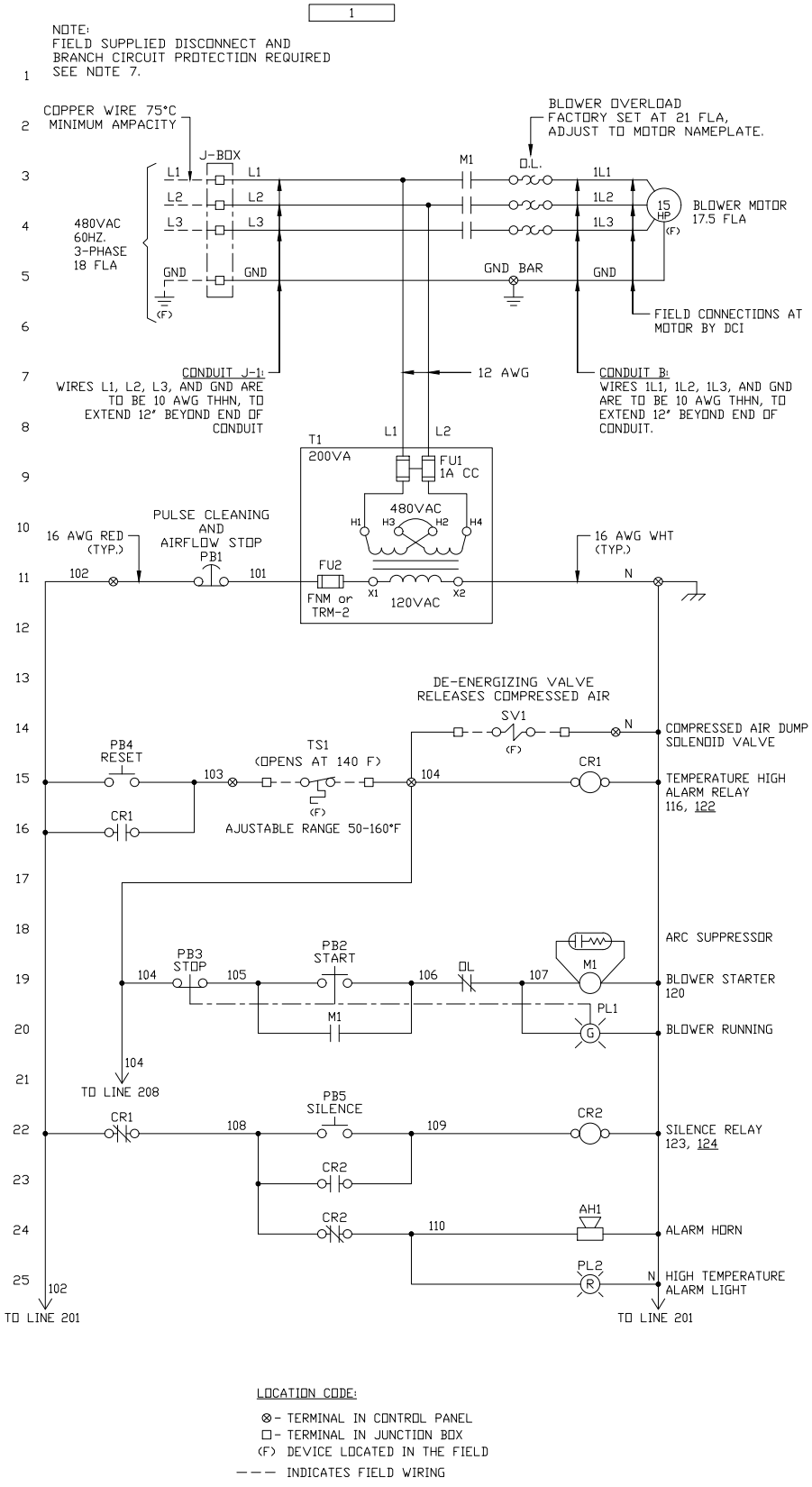
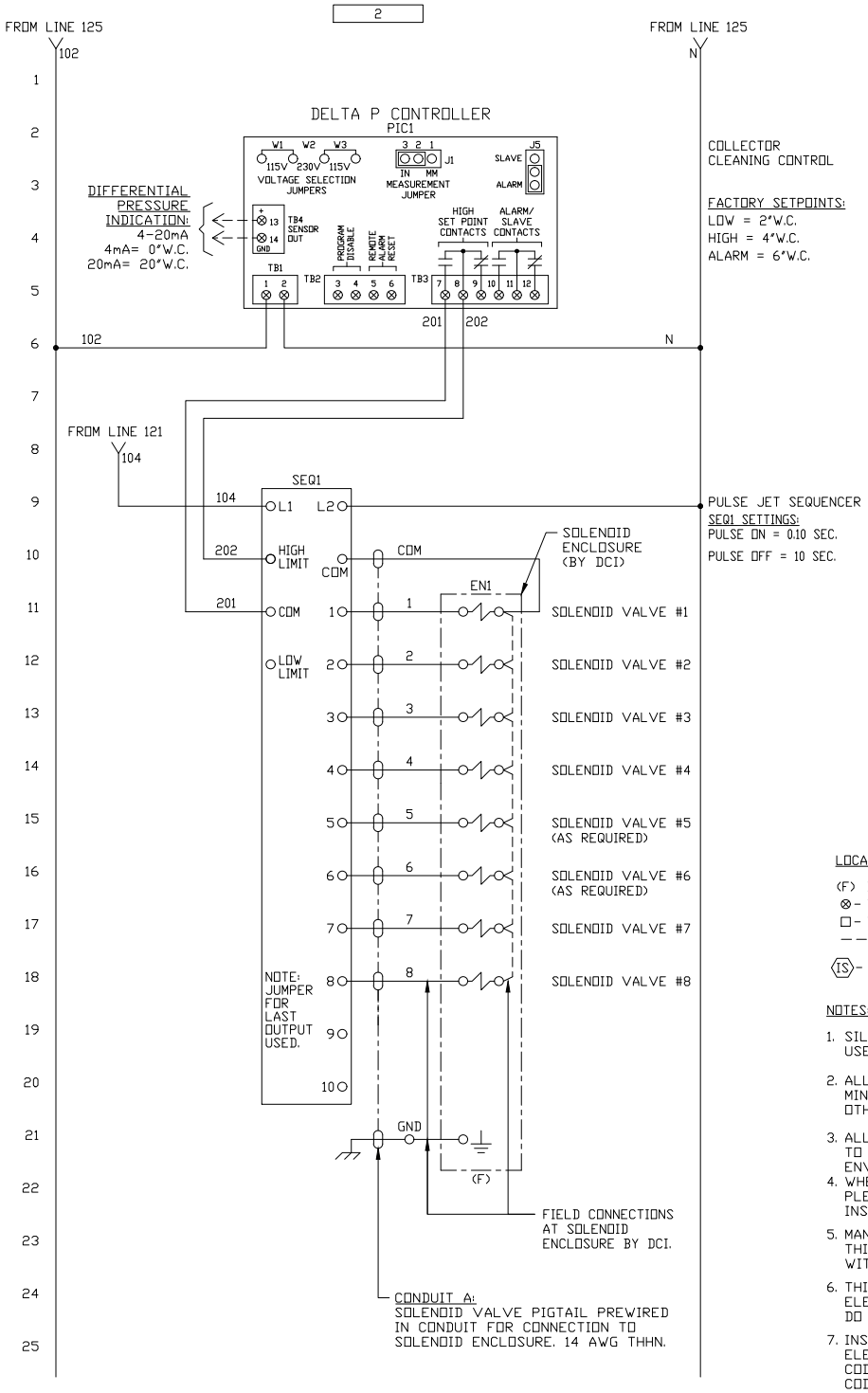


Figure 8-1. Circuit Diagram (460V Model)



LOCATION CODE:

(F) DEVICE LOCATED IN THE FIELD
⊗- TERMINAL IN CONTROL PANEL
□- TERMINAL IN JUNCTION BOX
— — — INDICATES FIELD WIRING

(IS)- INTRINSICALLY SAFE WIRING SEE WIRING RULES ON SHEET 8

NOTES:

1. SILICONE BASED PRODUCTS SHALL NOT BE USED ANYWHERE IN THIS ASSEMBLY.
2. ALL FIELD CONTROL WIRE TO BE MINIMUM 14 AWG COPPER, UNLESS OTHERWISE NOTED.
3. ALL CONDUIT HUB RATINGS MUST BE EQUAL TO OR SURPASS THE ASSEMBLY ENVIRONMENTAL RATING.
4. WHEN ORDERING REPLACEMENT PARTS, PLEASE SUPPLY THE JOB NUMBER AS SHOWN INSIDE THE CONTROL PANEL DOOR.
5. MANUFACTURERS OF COMPONENTS USED IN THIS ASSEMBLY ARE SUBJECT TO CHANGE WITHOUT NOTICE.
6. THIS DOCUMENT IS TO REMAIN IN THIS ELECTRICAL CONTROL ENCLOSURE. PLEASE DO NOT REMOVE.
7. INSTALL IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) OR CANADIAN ELECTRIC CODE (CEC), AND ANY APPLICABLE LOCAL CODES BASED ON THE INSTALLATION LOCATION.

⚠ WARNING	• Do not touch live electrical parts. • Disconnect input power or stop engine before servicing. • Do not operate with covers removed. • Have only qualified persons install, use, or service this unit.
ELECTRIC SHOCK HAZARD	

Notes

Notes

Notes

TRUE BLUE® WARRANTY

Effective January 1, 2025 (Equipment with a serial number preface of NF or newer)
This limited warranty supersedes all previous Miller warranties and is exclusive with no other guarantees or warranties expressed or implied.

LIMITED WARRANTY - Subject to the terms and conditions below, Miller Electric Mfg. LLC, Appleton, Wisconsin, warrants to authorized distributors that new Miller equipment sold after the effective date of this limited warranty is free of defects in material and workmanship at the time it is shipped by Miller. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

Within the warranty periods listed below, Miller will repair or replace any warranted parts or components that fail due to such defects in material or workmanship. Notifications submitted as online warranty claims must provide detailed descriptions of the fault and troubleshooting steps taken to diagnose failed parts. Warranty claims that lack the required information as defined in the Miller Service Operation Guide (SOG) may be denied by Miller.

Miller shall honor warranty claims on warranted equipment listed below in the event of a defect within the warranty coverage time periods listed below. Warranty time periods start on the delivery date of the equipment to the end-user purchaser.

1 5 Years Parts — 3 Years Labor

- Original Main Power Rectifiers Only to Include SCRs, Diodes, and Discrete Rectifier Modules in non-inverter products

2 4 Years Parts (No Labor)

- Auto-Darkening ClearLight 2.0 and 4x Helmet Lenses

3 3 Years — Parts and Labor Unless Specified

- Auto-Darkening Helmet Lenses (No Labor)
- Copilot Collaborative Welding Systems
- Engine Driven Welder/Generators (Including EnPak) **(NOTE: Engines are Warranted Separately by the Engine Manufacturer.)**
- Handheld Laser Power Sources
- Insight Welding Intelligence Products (Except External Sensors)
- Inverter Power Sources
- Plasma Arc Cutting Power Sources
- Process Controllers
- Semi-Automatic and Automatic Wire Feeders
- Transformer/Rectifier Power Sources

4 2 Years — Parts and Labor

- Auto-Darkening Weld Masks (No Labor)
- Fume Extractors - Filtair 215, Capture 5, Purifier, and Industrial Collector Series

5 1 Year — Parts and Labor Unless Specified

- ArcReach Heater
- AugmentedArc, LiveArc, and MobileArc Welding Systems
- Automatic Motion Devices
- Bernard BTB Air-Cooled MIG Guns (No Labor)
- CoolBelt, PAPR Blower, and PAPR Face Shield (No Labor)
- Desiccant Air Dryer System
- Field Options **(NOTE: Field options are covered for the remaining warranty period of the product they are installed in, or for a minimum of one year — whichever is greater.)**
- RFCS Foot Controls (Except RFCS-RJ45)
- Fume Extractors - Filtair 130, MWX and SWX Series, Standard, Telescopic, and ZoneFlow Extraction Arms and Motor Control Box
- Handheld Laser Torches (No Labor)
- HF Units
- Induction Heating Power Sources, Coolers **(NOTE: Digital Recorders are Warranted Separately by the Manufacturer.)**
- Insight Sensors
- Laser Welding Helmets (No Labor)
- Load Banks
- MDX Series MIG Guns (No Labor)
- Motor-Driven Guns
- Positioners and Controllers
- Racks (For Housing Multiple Power Sources)
- Running Gear/Trailers
- Spoolmate Spoolguns (No Labor)
- Subarc Wire Drive Assemblies
- Supplied Air Respirator (SAR) Boxes and Panels
- TIG Torches (No Labor)
- Tregaskiss Guns (No Labor)
- Venture 150 Battery (Warranted for 1 year or a number of full charge cycles as defined in the product documentation)
- Water Cooling Systems
- Wireless Remote Foot/Hand Controls and Receivers
- Work Stations/Weld Tables/Weld Booths (No Labor)
- XT Plasma Cutting Torches (No Labor)

6 6 Months — Parts

- 12 Volt Automotive-Style Batteries

7 90 Days — Parts

- Accessories (Kits)
- ArcReach Heater Quick Wrap and Air Cooled Cables
- Canvas Covers
- Induction Heating Coils and Blankets, Cables, Rolling Inductor, and Non-Electronic Controls
- M-Guns
- MIG Guns, Subarc (SAW) Torches, and External Cladding Heads
- Remote Controls and RFCS-RJ45
- Replacement Parts (No labor)

Miller's True Blue® Limited Warranty shall not apply to:

1. **Consumable components; such as contact tips, cutting nozzles, contactors, brushes, relays, work station table tops and welding curtains, or parts that fail due to normal wear. (Exception: brushes and relays are covered on all engine-driven products.)**
2. Items furnished by Miller, but manufactured by others, such as engines or trade accessories. These items are covered by the manufacturer's warranty, if any.
3. Equipment that has been modified by any party other than Miller, or equipment that has been improperly installed, improperly operated or misused based upon industry standards, or equipment which has not had reasonable and necessary maintenance, or equipment which has been used for operation outside of the specifications for the equipment.
4. Defects caused by accident, unauthorized repair, or improper testing.

MILLER PRODUCTS ARE INTENDED FOR COMMERCIAL AND INDUSTRIAL USERS TRAINED AND EXPERIENCED IN THE USE AND MAINTENANCE OF WELDING EQUIPMENT.

The exclusive remedies for warranty claims are, at Miller's option, either: (1) repair; or (2) replacement; or, if approved in writing by Miller, (3) the pre-approved cost of repair or replacement at an authorized Miller service station; or (4) payment of or credit for the purchase price (less reasonable depreciation based upon use). Products may not be returned without Miller's written approval. Return shipment shall be at customer's risk and expense.

The above remedies are F.O.B. Appleton, WI, or Miller's authorized service facility. Transportation and freight are the customer's responsibility. TO THE EXTENT PERMITTED BY LAW, THE REMEDIES HEREIN ARE THE SOLE AND EXCLUSIVE REMEDIES REGARDLESS OF THE LEGAL THEORY. IN NO EVENT SHALL MILLER BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOSS OF PROFIT) REGARDLESS OF THE LEGAL THEORY. ANY WARRANTY NOT PROVIDED HEREIN AND ANY IMPLIED WARRANTY, GUARANTY, OR REPRESENTATION, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE, ARE EXCLUDED AND DISCLAIMED BY MILLER.

Some US states do not allow limiting the duration of an implied warranty or the exclusion of certain damages, so the above limitations may not apply to you. This warranty provides specific legal rights, and other rights may be available depending on your state. In Canada, some provinces provide additional warranties or remedies, and to the extent the law prohibits their waiver, the limitations set out above may not apply. This Limited Warranty provides specific legal rights, and other rights may be available, but may vary by province.

Warranty Questions?

Call 1-800-4-A-MILLER for your local Miller distributor.

Your distributor also gives you...

Service

You always get the fast, reliable response you need. Most replacement parts can be in your hands in 24 hours.

Support

Need fast answers to the tough welding questions? The expertise of the distributor and Miller is there to help you, every step of the way.

Owner's Record

Please complete and retain with your personal records.

Model Name | Serial/Style Number

Purchase Date (Date which equipment was delivered to original customer.)

Distributor

Address

City

State | Zip

For Service

Contact a DISTRIBUTOR or SERVICE AGENCY near you.

Always provide Model Name and Serial/Style Number.

Contact your Distributor for:

- Welding Supplies and Consumables
- Options and Accessories
- Personal Protective Equipment (PPE)
- Service and Repair Replacement Parts
- Training (Schools, Videos, Books)
- Welding Process Handbooks

To locate a Distributor or Service Agency visit www.millerwelds.com or call 1-800-4-A-Miller

Contact the Delivering Carrier to:

File a claim for loss or damage during shipment.

For assistance in filing or settling claims, contact your distributor and/or equipment manufacturer's Transportation Department.

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For International Locations Visit
www.MillerWelds.com

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