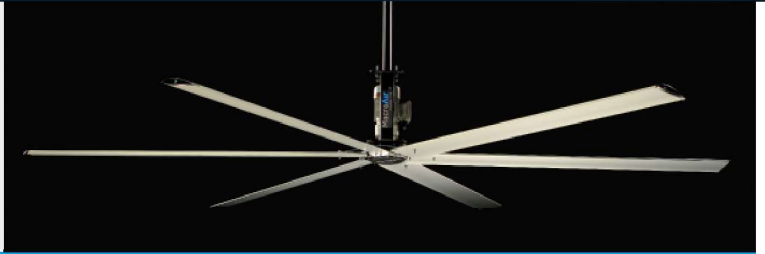
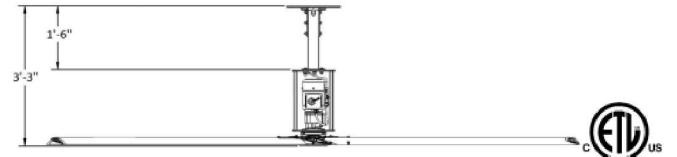


The AirLite sets the standard for DIY Industrial HVLS Fans and is perfect for small businesses, warehouses, workshops, garages and other spaces needing BIG air movement on a limited budget. It is powered by a reliable, industrial grade gearmotor and comes with everything needed to complete the installation. You get back to work faster and with a whole new level of comfort in your building.



STANDARD FEATURES

- 3/4 HP AC induction industrial gearmotor
- Clearcoat anodized airfoil blades
- Forward, reverse, variable speed
- Easy plug and play installation
- 10 ft input power cable with pre-wired 110-120V plug (for fast, easy connection of VFD wall control to wall outlet)
- Rigid mount without the need for guy wires



Intertek
Conforms to UL Std 507
Certified to CSA Std C22.2 No. 113
14ft

AIRFOIL DIAMETER	8ft	10ft	12ft	14ft
Airfoil Style	7.375" Extruded Anodized Aluminum Airfoil			
Number of Airfoils	6			
PERFORMANCE				
Max Speed	190 RPM	145 RPM	106 RPM	89 RPM
Recommended Spacing	24-37 ft [7.4-11.3 m]	30-46 ft [9.2-14 m]	36-56 ft [11-17.1 m]	42-65 ft [12.9-19.8 m]
Max Affected Area	2,880 ft ² [260 m ²]	4,800 ft ² [446 m ²]	6,400 ft ² [595 m ²]	8,000 ft ² [743 m ²]
HANGING REQUIREMENTS				
Hanging Weight	122 lb [55.3 kg]	128 lb [58.1 kg]	134 lb [60.8 kg]	140 lb [63.5 kg]
Max Torque	18 ft-lb [24.4 Nm]	23 ft-lb [31.2 Nm]	27 ft-lb [36.6 Nm]	40 ft-lb [54.2 Nm]
MOTOR AND DRIVE TRAIN				
Motor Type	AC Induction Gearmotor			
Horsepower Rating	3/4 HP			
Max Operating Temp	104 F° [40C°]			
POWER AND CONTROLS				
Power Source	110V-120V Plug			
Controls	Analog Remote			
INSTALLATION				
Mounting Hardware	Rigid Mount (no guy wires) / Optional Brackets for Glulam available for additional purchase			
Drop Length	3'-3" total drop			
RATINGS AND COMPLIANCE				
Washdown Rating*	IP55 (motor)			
Certifications	ETL/INTERTEK - Conforms to UL Std 507 / Certified to CSA Std C22.2 No. 113			

*Fan unit is IP55 rated for washdown, but without guy wires, fan is not rated for outdoor use and cannot be subjected to wind. Proper water ingress protection must be added to outlet in order to achieve full washdown rating.

MacroAir Warranty

MacroAir warrants the Products listed in the table below will be free from defects in materials and workmanship under normal use and maintenance for the applicable Warranty Period. Other than the Warranty set forth in this document, no other written or oral warranties apply, and no employee, agent, dealer, or other person is authorized to give any other warranties on behalf of MacroAir.

START DATE OF WARRANTY COVERAGE

Warranty Period for all fan models begins fifteen (15) days following shipment of the Product, or on the date the Product is installed (not to exceed sixty (60) days Customer receives the Product), whichever date is later. Customer should retain necessary documentation to verify the date of receipt and installation of the Product. Customer will be required to produce this documentation in order to obtain Warranty services from MacroAir. The Warranty specified herein applies only to Products purchased on or after March 15, 2021.

PRODUCTS AND SYSTEMS COVERED BY THIS WARRANTY AND APPLICABLE WARRANTY PERIODS:

Fan Type	Mechanical: Blades, Hub & Frame	Standard Electrical ¹ : Motor, Electrical Controls, Remote	Labor
AirVolution-DX	15 Years	10 Years*	1 Year
AirVolution	15 Years	7 Years*	1 Year
AirLegacy	15 Years	5 Years*	1 Year
AirVolution-D3	10 Years	7 Years*	1 Year
AirVolution-D 370	10 Years	5 Years*	1 Year
AirLite Shop Fan	5 Years	2 Years*	N/A

WARRANTY COVERAGE:

Subject to the exclusions herein, the MacroAir Warranty covers any defects in workmanship or materials of the covered Products under normal operation and prescribed maintenance when those defects adversely affect the ability of the Product to operate properly.² The Warranty only covers Products which have been installed in compliance with MacroAir's written installation instructions by a MacroAir approved installation technician or licensed electrical contractor and operated and maintained by the Customer in conformity with MacroAir's written instructions, and when the Product is purchased directly from MacroAir or a MacroAir Authorized Dealer.

This Warranty is subject to all provisions, conditions, limitations, and exclusions explained in this Warranty document. **leader**

***EXTENDED ELECTRICAL WARRANTY COVERAGE AVAILABLE FOR PURCHASE (OR PROVIDED WITH FACTORY CERTIFIED INSTALL)**

Fan Type	Extended Electrical Warranty Price per Year	Max Years Available for Purchase	Max Electrical Warranty after Extended Warranty Purchase
AirVolution-DX	\$200	5	15 Years
AirVolution	\$200	5	12 Years
AirLegacy	\$200	5	10 Years
AirVolution-D3	\$200	5	12 Years
AirVolution-D 370	\$200	5	10 Years
AirLite Shop Fan	\$200	3	5 Years

WHO MAY USE THIS WARRANTY?

This MacroAir Warranty may be used by the original purchaser of the Product and any subsequent owners, provided the fan has not been moved from its original installation location. The MacroAir Warranty is void once the Product is removed from its original installation location. This MacroAir Warranty is valid only within the fifty states of the United States, the District of Columbia, and all ten Canadian Provinces and Territories.

MacroAir will not, under any circumstances, provide Warranty coverage for a Product purchased from any reseller or internet site not approved by MacroAir.

¹"Standard Electrical" means any common electrical component that is utilized across more than one fan line will assume the higher warranty period.

²"Operate properly" applies only to mechanical, electrical, and structural systems of the Product.

MacroAir Warranty

WHAT HAPPENS WHEN I MAKE A WARRANTY CLAIM?

During the Warranty Period, MacroAir will, at its sole discretion and cost (as limited by this Warranty):

- Repair or replace parts of the Product, as necessary, to return the Product to proper operation; or
- Repair or replace the entire Product; or
- Replace the product with similar or like product of equal or better performance; or
- Refund the price you paid for the Product upon return of the Product to MacroAir. (You must pay shipping and insurance.)

REPAIR, REPLACEMENT, OR REFUND ARE THE EXCLUSIVE REMEDIES AVAILABLE UNDER THE MACROAIR WARRANTY. MACROAIR IS NOT RESPONSIBLE FOR DAMAGES OF ANY KIND, INCLUDING INCIDENTAL AND CONSEQUENTIAL DAMAGES.

For Products that qualify for extended labor, MacroAir will pay reasonable labor³ costs incurred to repair or replace defective parts or a defective Product at the original installation location. In the alternative and in its sole discretion, MacroAir may require you to return of the Product to MacroAir for repair or replacement.

MacroAir will ship the repaired Product or replacement Product to you at no charge; however, you are responsible for all costs of removal, reinstallation, and shipping of the Product to the MacroAir service center located at 794 South Allen Street, San Bernardino, CA 92408. If local laws require a certified electrician to reinstall the Product, MacroAir will reimburse the costs incurred to ship the Product to the MacroAir service center.

OBTAINING WARRANTY SERVICE:

Discovering a defect. If the Product is malfunctioning, turn it off immediately. Do not restart it until it has been examined by a MacroAir technician.

As soon as possible, contact MacroAir' Technical Support by visiting the MacroAir website and starting a technical support case at <https://macroairfans.com/support> or by calling the Technical Support phone number: (866) 668-3247

Provide information. Once you have initiated your technical support case, MacroAir will process it under the Warranty terms. A MacroAir representative will contact you and ask you to provide: Your contact information, including the installation address of the Product; the Product's brand name, serial number, purchase price, and verification of date of Product installation or, if you are not the original owner of the Product, the date you came into possession of the installation location; and a detailed description of the Product's problem.

Response from MacroAir. If MacroAir determines you have a valid Warranty claim, MacroAir will process your claim and respond appropriately. If the response requires shipment of a replacement part, MacroAir will provide you with any shipping labels and documents needed to return the original defective part, including a Return Materials Authorization (RMA) number.

When you accept delivery of a replacement part, you are also agreeing to return the defective part to MacroAir within fifteen (15) days of the date the replacement part was delivered to you. If you fail to return the original part, MacroAir will invoice you for the retail cost of the replacement part which must be paid immediately upon receipt of the invoice. MacroAir reserves all legal and equitable rights to collect payment for the replacement part if you fail to comply with these terms.

³ "Labor" means on-site technical service of the Product provided by MacroAir during applicable Warranty coverage time. At MacroAir's sole discretion, the person(s) providing this on-site service may be employees of MacroAir or qualified technicians contracted by MacroAir. MacroAir will not reimburse Customers or independent contractors for Product service performed without prior written approval from MacroAir. GST, Taxes, Service Charges, and Troubleshooting are excluded from Labor Coverage. MacroAir will reimburse the Customer in whose building the Product is installed, with such reimbursement limited to the reasonable cost paid by the Customer to an independent contractor hired to remove, dismantle, reassemble, or reinstall any of the Products under the Warranty during the applicable coverage period. MacroAir may request proof of payment by the Customer to the independent contractor of all service charges, and will reimburse the Customer only for those charges MacroAir, in its sole discretion, determines to be reasonable and necessary under the circumstances and inclusive of the cost of any lift or other equipment needed to service the Product.

MacroAir Warranty

Site visit or Product return. Depending on the issue your Product is experiencing, it may be necessary to have a MacroAir certified technician contact you to remove, repair, or replace the Product. For Products that qualify for extended labor, MacroAir will pay reasonable labor costs incurred to repair or replace defective parts or a defect Product at the installation location. Alternatively, MacroAir may, in its sole discretion, require you to return of the entire Product to MacroAir for repair or replacement. Should MacroAir ask you to ship the entire Product back to MacroAir for repairs or replacement, MacroAir will prepay the shipping and insurance for factory-installed Products for the first 365 days after the commencement of the Warranty Period.

WARRANTY CONDITIONS

—MacroAir reserves full, sole, and complete discretion to determine, based on its own evaluation and testing of the Product and its components, whether the problem reported by the Customer is a defect covered under the Warranty. (Non-covered problems are listed in the Exclusions section below.);

—If MacroAir determines, in its full, sole, and complete discretion, that the appropriate remedy under the Warranty is a refund, the refund amount will be limited to the price paid by the Customer for the Product, and under no circumstances will it include any other costs incurred or anticipated by the Customer, including labor, shipping, packaging, and other costs.

—If MacroAir determines, in its full, sole, and complete discretion, that a part or parts within the Product must be replaced or repaired, MacroAir may choose to use refurbished replacement parts.

—MacroAir warrants any replacement parts, whether refurbished or new, will operate properly and be free from defects in materials and workmanship for a period of ninety (90) days from the date the replacement parts are shipped to you, or for the remainder of the original warranty period, whichever is longer.

—If you return a Product to MacroAir for Warranty service and it has been modified in any way or if it is missing any parts, MacroAir reserves the right, in its full, sole, and complete discretion, to require you to pay one or more of the following: a service fee, parts replacement fee, and shipping fee. The amount of the fee(s) will be based on materials and labor costs necessary to return the Product to its original factory condition.

—The MacroAir Warranty gives you specific legal rights, and you may also have other legal rights which vary from state to state.

—MacroAir reserves the right to change this Warranty and its terms at any time without advance notice. You can view the most current version of this Warranty on the MacroAir website at macroairfans.com/warranty.

WHAT IS EXCLUDED FROM THIS WARRANTY?

1. Parts and Labor necessary to correct improper Product installation by someone other than MacroAir. Improper installation includes, but is not limited to:
 - Failure to follow MacroAir-supplied installation instructions and any other installation-related instructions supplied with the Product and related equipment;
 - Failure to follow all applicable codes and ordinances including, but not limited to, electric codes and local building codes;
 - Failure to follow electrical engineering industry standards for installation of electrical equipment similar to the Product and its related components, even if such standards are not expressly referenced in any MacroAir instructions or; and
 - Improper use of or failure to use installation and mounting hardware supplied or approved by MacroAir
2. Product failures arising from adverse site conditions, including, but not limited to, excessive dust, heat, and humidity; exposure to chemicals, salt water, acid rain or other corrosive elements, excessive humidity, snow, sleet, and/or wind; unstable electric service, lightning events, lack of phase protection, or any other unknown or unforeseen condition that affects the proper operation of the products).

MacroAir Warranty

3. Products purchased from someone other than MacroAir or a MacroAir Factory Authorized Dealer.
4. Products or components with missing or defaced serial numbers or part number stickers.
5. Normal operational noise or complaints or dissatisfaction with operational noise levels. The warranted Products produce some noise while operating within normal levels, which levels may vary due to the Product design and/or site conditions. A Product returned by a Customer because of noise concerns will be subject to MacroAir's Standard Return Policy.
6. Defects, malfunctions, failure or physical damage caused by unauthorized service, use of unauthorized parts, and/or improper installation.
7. Customer mishandling, modifications, or damage to the Product while in Customer possession, which includes, but is not limited to:
 - Any modification or alteration of, or adjustment to the Product;
 - Any modification or alteration of, or adjustment to the Product's control components, or mounting and installation hardware;
 - Disassembly of the Product and Product controls, including any attempt to diagnose or repair any problem, without prior written authorization from MacroAir's Technical Support Department;
 - Misuse, abuse, accidents, unreasonable use, or Acts of God;
 - Incorrect electric current, voltage, phase protection, or supply;
 - Failure to use the Product controls supplied by MacroAir unless the Customer has received pre-installation written permission from MacroAir and the controls are built, operated, and maintained according to specifications provided to and approved by MacroAir.
8. Failure to provide reasonable and necessary maintenance, which shall include, but not be limited to failure to perform periodic prescribed Product maintenance as detailed on the MacroAir website.
9. Consequential⁴ or incidental⁵ damages sustained by any person, entity, or structure and arising from any breach by Customer of any provision of this Warranty, except where such damages are not excludable by law.
10. Claims made for Products that have not been paid for in full.
11. Damage caused to the Product by structural defects, structural movement or settlement of the premises in which the Product is installed.
12. Normal changes to the Product's exterior finish caused by ordinary use.
13. Damage to any finish applied by someone other than MacroAir.
14. Damage or failure caused by use of the Product in conditions or environments outside its design limitations as specified in the Product's Owner's Manual.
15. Untimely reporting of defects. A report of a defect is untimely where Customer reports the defect to MacroAir more than ninety (90) days from when the defect was or should have been discovered.

⁴"Consequential damages" include but are not limited to the cost of repairing or replacing other property which was damaged if this product does not work properly.

⁵Incidental damages" include but are not limited to such damages as loss of time and loss of use.

MacroAir Warranty

16. When MacroAir evaluates electrical and electronic components of a Product in response to a Warranty claim, MacroAir will rely on the original manufacturer to determine whether the failure of the component was the result of a defect. Where the manufacturer of the component determines there was no defect and refuses to cover it under its own warranty, MacroAir will not provide Warranty service, repair, or replacement of the component unless MacroAir determines the failure of the component was the result of a defect of design, workmanship, or material within some other part of the Product.
17. Additional labor or equipment costs resulting from third party installations and/or parts of the fan being inaccessible (including, but not limited to fans above pools or specialty flooring, proximity to other equipment, cabling or electronic drive equipment housed within drywall, limited hours of accessibility, or remote geographic location).
18. When MacroAir evaluates electrical and electronic components of a Product in response to a Warranty claim, MacroAir will rely on the original manufacturer to determine whether the failure of the component was the result of a defect. Where the manufacturer of the component determines there was no defect and refuses to cover it under its own warranty, MacroAir will not provide Warranty service, repair, or replacement of the component unless MacroAir determines the failure of the component was the result of a defect of design, workmanship, or material within some other part of the Product.
19. No warranty or guarantee, unless and except by separate written agreement, is made regarding the volume of air movement generated by any Product or the effectiveness, fitness, or appropriateness of any Product for its intended purpose or for the Customer's particular application.
20. MacroAir will not reimburse Labor costs related to residential installations; installations to where a Product has been relocated after its original installation; or where any of the other Warranty Exclusion applies.
21. Replacement of functioning products in the vicinity of defective product when MacroAir replaces the defective product with similar or like product of equal or better performance.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE, AND OF ALL OTHER OBLIGATIONS AND LIABILITIES ON MACROAIR'S PART, AND MACROAIR NEITHER ASSUMES NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THE PRODUCTS COVERED BY THIS WARRANTY. NO OTHER WARRANTY EXPRESSED OR IMPLIED, WHETHER OF FITNESS FOR A PARTICULAR PURPOSE OR OF MERCHANTABILITY OR OF ANY OTHER KIND, WHETHER OR NOT SIMILAR IN NATURE TO ANY PREVIOUSLY SPECIFIED, SHALL EXIST WITH RESPECT TO SUCH PRODUCTS, ALL SUCH WARRANTIES BEING HEREBY EXPRESSLY DISCLAIMED BY MACROAIR AND WAIVED BY YOU, THE CUSTOMER. IN NO EVENT SHALL MACROAIR BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCTS OR FOR, WITHOUT LIMITATION, COMMERCIAL LOSS OF ANY SORT; LOSS OF USE, TIME, REPUTATION, OPPORTUNITY, GOODWILL, PROFITS OR SAVINGS; INCONVENIENCE; INCIDENTAL, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES; OR DAMAGES ARISING FROM THE USE OR INABILITY TO USE THE PRODUCTS, UNLESS SUCH DAMAGES CANNOT BE EXCLUDED BY LAW.

Installation Manual

Airlite Shop Fan

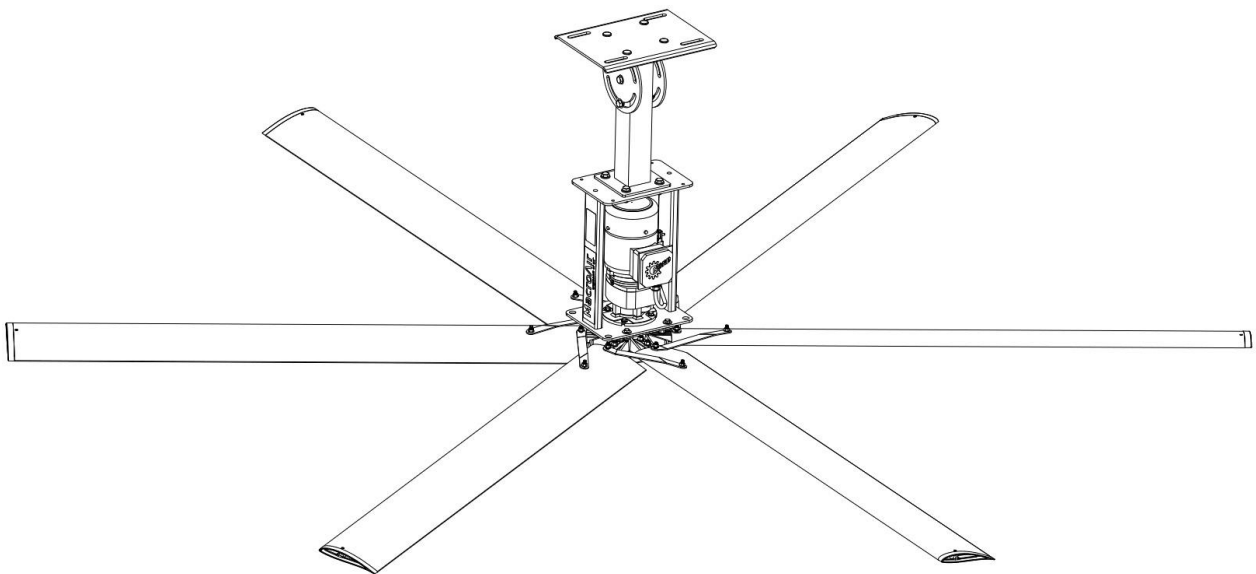


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Airlite Shop Fan

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Literature (Pg. 3)

- Order Verification.** I have verified the order information. All components are accounted for.
- Read.** I have read this Installation Manual and all other instructions before installing this fan.

Power (Pg. 3-4)

- Power Requirements.** I have verified the incoming power supply is sufficient for the fan.

Safety (Pg. 4-5)

- Safety Familiarity.** I am familiar with the safety components and features of the fan. I have verified the presence of a safety cable, and safety retainer links.

Airfoils (Pg. 5-7)

- Height from Floor.** I have verified the airfoils will be at least 10ft (3.05 m) above the floor.
- Application Clearance.** I have consulted the manual to determine that the airfoils will meet or exceed the clearance requirements regarding obstructions, or other fans.
- Airfoil Reach.** I have verified the airfoils will be mounted such that they are at least 3 feet away from any area where someone can extend outward and reach them.
- High Winds.** I have verified the fan will not be subjected to high winds from any outside influences, such as large garage door openings or HVAC systems.
- Diffuser Interference.** If diffusers are present, I will ensure that the fan is mounted at least 1.5X the diameter of the fan away from any source of airflow.
- Airfoil Compatibility.** I have verified the Airfoils and other fan components are those that shipped with the motor unit.
- Installing Multiple Fans.** I will not mix and match any hardware or blades.

Structure (Pg. 6-8)

- Application Suitability.** I have verified the application was approved by a structural engineer. I have checked the hanging weight and torque specs in the installation manual to ensure that the mounting structure can withstand the forces generated by the fan.
- Structural Suitability.** I have verified the building structure is suitable for this fan mounting. The fan will be mounted to an I-beam or Glulam or similar. I will not mount the fan to a single purlin, truss, or bar joist. I will consult a structural engineer for mounting not covered herein.
- Mount Suitability.** I have the appropriate mount for this application. I have verified in the installation manual that the mounting option provided is suitable for this application. I will consult a structural engineer for applications and mounting methods not covered herein.

Caution and Safety

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

⚠ ATTENTION: Safety. READ AND SAVE THE ENTIRE MANUAL BEFORE OPERATING THE FAN. Ensure that all safety procedures and instructions are followed during the installation, operation and servicing of the fan. Failure to apply these safety practices could result in death or serious injury. If you do not understand the instructions, please call our Technical department for guidance.

⚠ CAUTION: Non-Compliance. The fan installation should follow the recommendations outlined in this manual. MacroAir is not responsible for any injury or damage to persons or property because of 'not complying' with the recommendations outlined in the manual.

Electrical Guidelines

⚠ WARNING: Electrical Damage. Improper electrical installation can cause damage to the fan and interfere with other electronic equipment. In addition to standard electrical safety considerations, please observe the following:

- **MacroAir Cables.** The wiring from the control panel to the fan MUST be by MacroAir supplied shielded cable.
- **Electrical Interference.** Separate incoming power and motor control cables by a minimum of six (6) inches.
- **Individual Fan Wiring.** Run wiring for each fan separately.
- **Multiple Fans.** Do not attempt to control multiple fans from one (1) control panel.
- **ALWAYS GROUND PROPERLY.** Connect the supplied cable glands to each end of the motor cable and tighten them securely at both the fan motor and control panel ends. Connect the ground bar in the control panel to ground at the main breaker and test.
- **Read.** Please refer to the installation instructions for more information.

⚠ ATTENTION: Qualified Technicians. All fan controls should only be installed by qualified technicians familiar with the requirements of the National Electrical Code (NEC) and local codes. Refer to appropriate portions of this manual for other important requirements. Failure to follow these guidelines will void the manufacturer's warranty.

Electrical Guidelines cont.

⚠ ATTENTION: Factory Configured. All electrical controls are configured at the factory and are ready to use. No user adjustments are available. Follow the included wiring schematics and installation instructions when installing this device to ensure proper operation. Do not make any changes to any part of the motor control panel without first consulting MacroAir.

⚠ ATTENTION: Code Compliance. Installation is to be in accordance with the NEC, ANS/NFPA 70-1999 and local codes.

Hazard of Electrical Shock, Explosion or Arc Flash:

⚠ ATTENTION: Read. Read and understand this manual before installing or operating a fan unit. Installation, adjustment, repair, and maintenance must be performed by qualified personnel.

⚠ ATTENTION: Code Compliance. The user is responsible for compliance with all international and National Electrical Code requirements with respect to grounding of all equipment.

⚠ WARNING: Do Not Touch. Many of the parts of this unit operate at line voltage. DO NOT TOUCH.

⚠ WARNING: Covers. Install all covers before applying power or starting and stopping the unit.

Installation and Service

⚠ WARNING: Damage. Do not operate or install any fans or fan accessories that appear to be damaged.

⚠ WARNING: Death and Injury. Failure to follow this instruction can result in death, serious injury, or equipment damage.

⚠ WARNING: Disconnect Power. If the fan does not operate properly using the procedures in this manual BE CERTAIN TO REMOVE ALL POWER TO THE UNIT and contact our technical department for further assistance.

⚠ CAUTION: Moving Parts. Keep all body parts clear of moving parts at all times.

⚠ ATTENTION: Qualified Technicians. All electrical troubleshooting and repair must be done by a qualified technician and meet all applicable codes.

Key Safety Systems

⚠ ATTENTION: Safety. MacroAir fans are engineered with key safety features to prevent pieces of the fan from falling in the unlikely event of a catastrophic failure. Used together, these systems and devices provide comprehensive protection to people, equipment and property.

Key Safety Systems, cont.

⚠ WARNING: Safety Cable. Install safety cable on EVERY fan. The safety cable, if installed per MacroAir specifications, will prevent the fan from falling in the unlikely event that the mounting system should fail.

⚠ WARNING: Safety Cable. A MacroAir fan should never be run without a properly installed safety cable, which is supplied with every fan along with all required hardware. You must install a safety cable for the warranty to be in effect.

⚠ WARNING: Blade Safety Links. Install the complete set of extended blade safety links, which connect each blade to the adjacent blades and reinforce the area between the mounting holes. This is an important precautionary measure which will help prevent a blade from falling should one break off at the hub for any reason.

⚠ ATTENTION: Mark the Floor to Alert Personnel. When mounting a fan in an area where materials may be elevated into its path, MacroAir recommends marking or painting the floor with a large crosshatched circle to alert personnel of the overhead location of fans.

Mounting Guidelines

⚠ WARNING: Weight Considerations. We recommend that a building structure be capable of holding approximately twice the stated hanging weight of the fan. If there is some doubt of this, a professional contractor or architect should perform a thorough evaluation of the building prior to purchasing the fans. MacroAir provides guidelines for mounting fans; however, it is the sole responsibility of the building owner and installer to ensure the safety of the mounting system, that the building structure is sound, and that the installation complies with all federal, state, and local codes.

⚠ WARNING: Torque. The maximum torque (twisting force) that must be handled by the mounting system, including the building structure, occurs at fan startup. For this Airlite Shop fan, maximum potential starting torque is 743 Ft-Lbs. When standard electrical controls are installed, the fan will never begin to approach this maximum because the standard variable-speed control system uses the soft-start fail.

⚠ ATTENTION: Check Federal, State, and Local Codes. Check all relevant codes to make sure that all product certifications, product listings, and building regulations are met. Code compliance is the responsibility of the installer.

⚠ WARNING: Welding. DO NOT attach the fan or fan mounting components to the building structure by welding that component to the structure. DO NOT cement the fan to the structure.

Clearance Guidelines

⚠ ATTENTION: Sprinkler Systems and Fan Placement. In any installation where fire sprinklers are in place, do not interfere with their correct operation. Fans should be located no less than 3 feet below a sprinkler and placed central to each sprinkler quadrant. Our standard variable-speed control system can be connected to a fire suppression control system, which will emergency-stop the fans in case of fire.

⚠ ATTENTION: Sprinkler Systems and Code Compliance. Prior to installing fans, review all codes applicable to sprinkler systems and fans to ensure code compliance. Refer to the wiring diagrams packaged inside the control panel for proper installation. If further advice is needed, you may contact our support staff. However, it is your sole responsibility to see that the installation is completed to code and is correct.

General Information on Fan Placement and Spacing

⚠ ATTENTION: Strobe and Performance. If possible, avoid mounting fans directly below lights or skylights to avoid any strobe effect caused by moving blades.

⚠ WARNING: Mezzanine Placement. If the building has a mezzanine, fans should be mounted so a person cannot reach a fan in any way from the upper level/deck. Make certain that fans are positioned so that blade tips are at least 3 feet away from any area where a person may be able to extend outward to reach them.

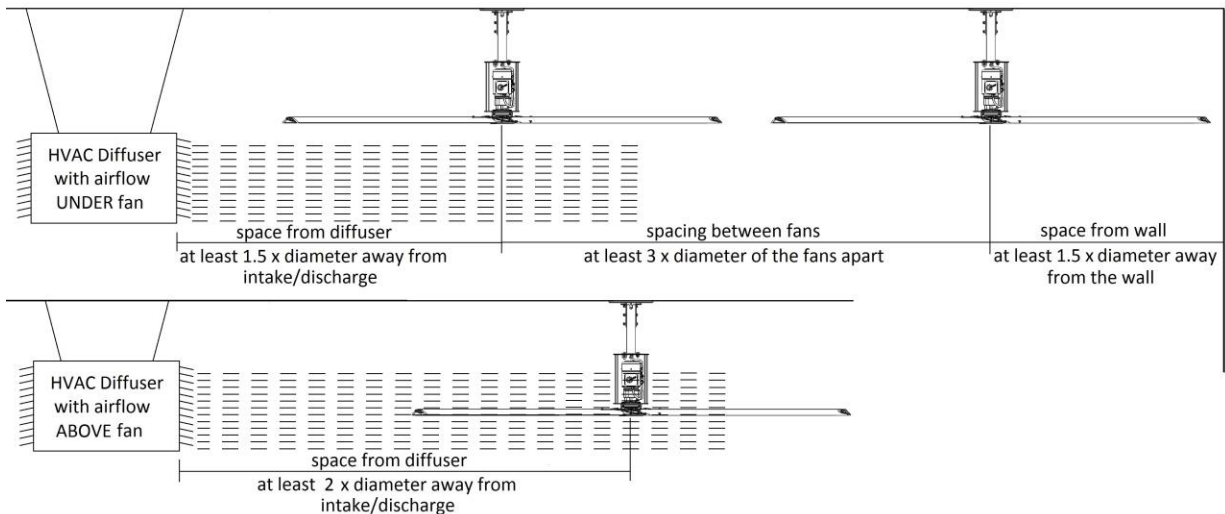


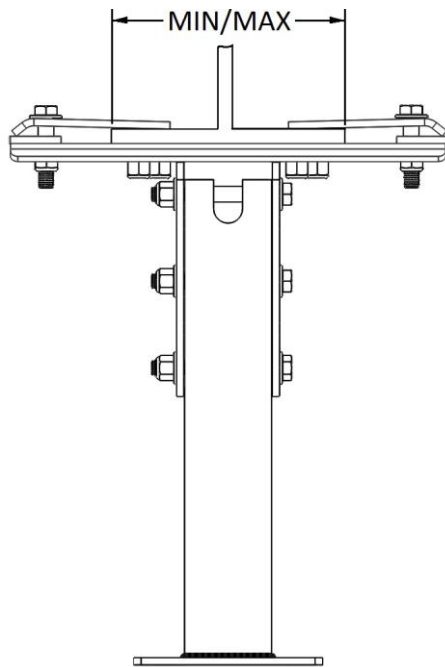
Figure 1: Fan Clearance and Placement

⚠ ATTENTION: The minimum distance of a fan to a wall or similar obstruction should be no less than 1.5 times the diameter of the fan. Reference Figure 1.

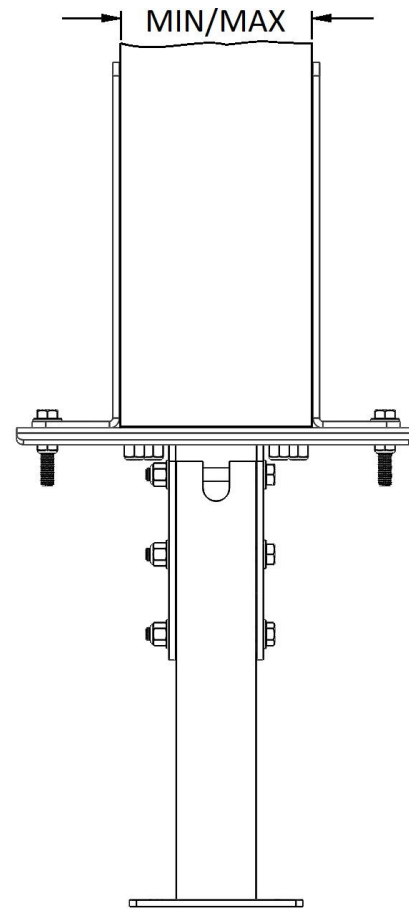
⚠ WARNING: FANS ARE NOT MEANT TO BE OPERATED IN WINDY CONDITIONS.

⚠ ATTENTION: Minimum Height. MacroAir requires that the fan blades must be a minimum of 10 feet (3.05 meters) above the floor. Contact MacroAir for assistance with fan placement.

I-Beam/Glulam Chart



I-Beam Size Chart	
Range	
Min	Max
6.88" - 11.75"	



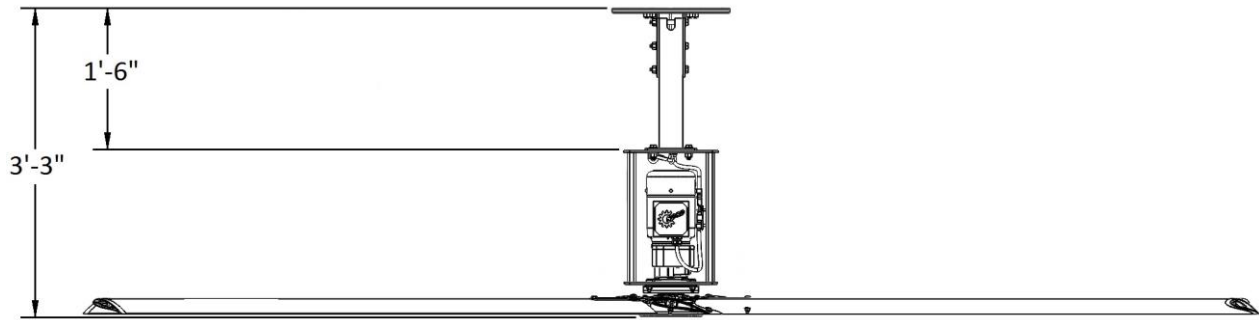
Glulam Size Chart	
Range	
Min	Max
4.63" - 10.00"	

The Min Range dimension is determined by using the inside slots of the Rigid Mount Bracket. The Max Range by using the outside slots of the Rigid Mount bracket.

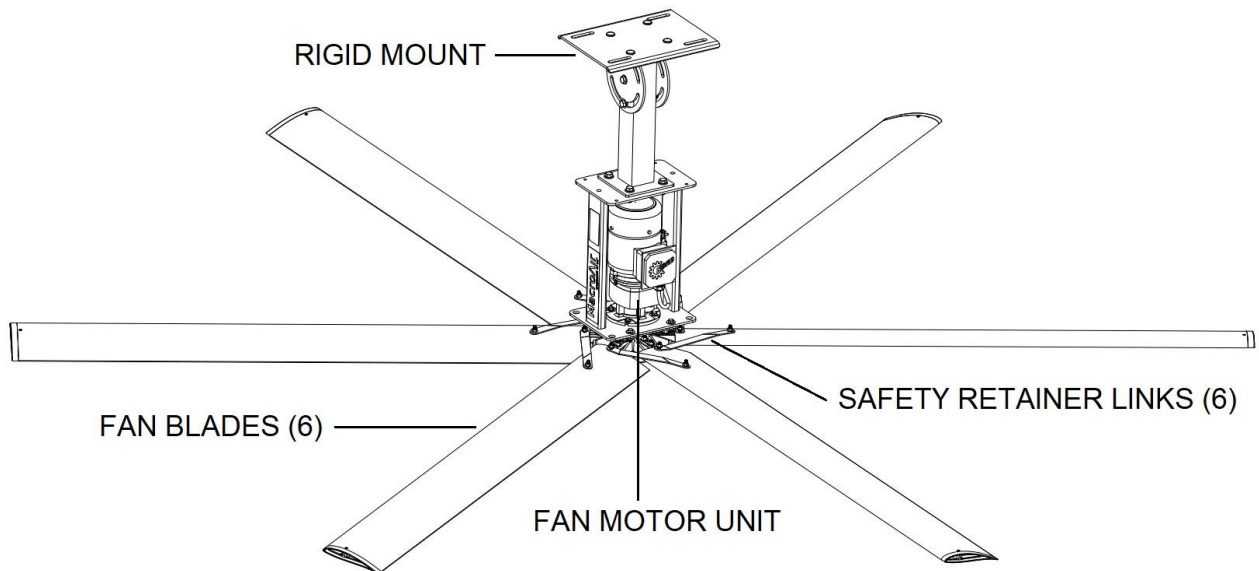
Max Amp Draw

VOLTAGE AND PHASE	VFD MAX AMP DRAW
120VAC / 1 PHASE	16A

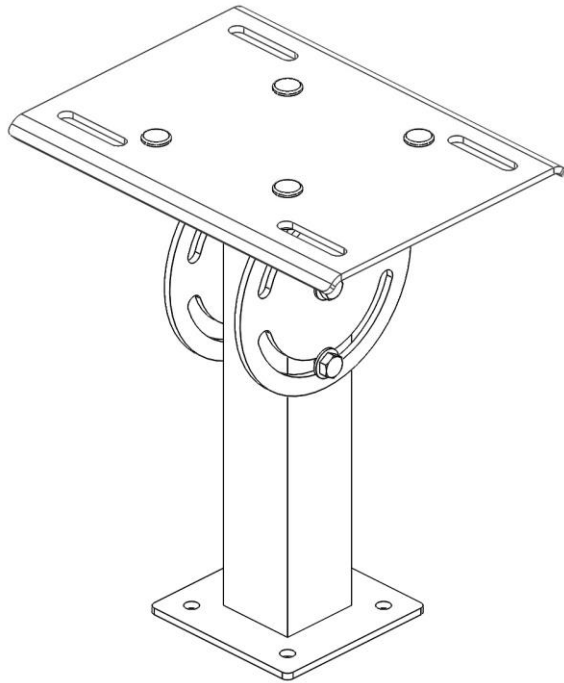
Fan Dimensions



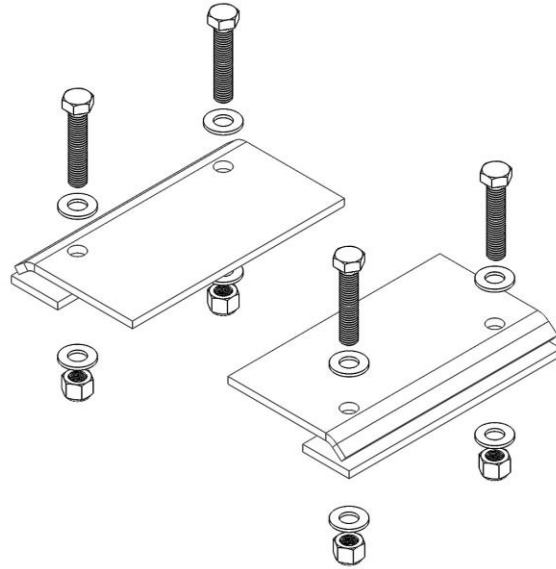
Fan Components



Rigid Mount & Components



Rigid Mount



I-Beam Clamps & *Bolt Kit

(2) I-Beam Clamps

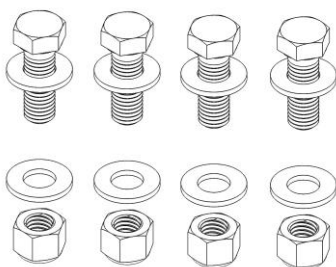
(2) I-Beam Shims

* (4) Hex Bolts 1/2"-13x2-1/2"

* (8) Washers, 1/2" Flat

* (4) Hex Nuts 1/2"-13, Nylon Lock

* Bolt kit also used to mount glulam option when present.



Rigid Mount Bolt Kit

(4) Hex Bolts 1/2"-13x1-1/2"

(8) Washers, 1/2" Flat

(4) Hex Nuts 1/2"-13, Nylon Lock

Unistrut Mount Bolt Kit (optional)

Hardware Required but Not Provided:

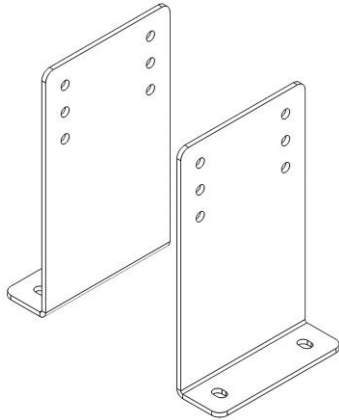
(4) 1/2"-13 x 1-1/2" Hex Bolts

(4) 1/2" Flat Washer

(4) 1/2" Unistrut Spring Nut

Images are not to scale

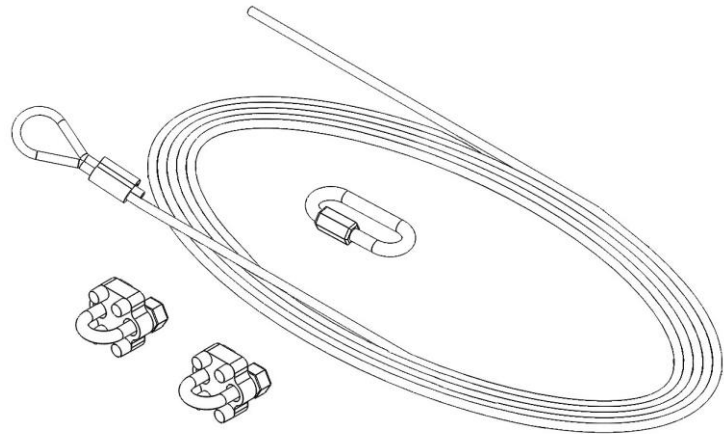
Rigid Mount & Components (cont.)



Glulam Brackets (optional)

Hardware Required but Not Provided:

- (4) 1/2"-13 Grade 5 Hex Bolts (at least 2-1/2" longer than Glulam)
- (8) 1/2" Flat Washers
- (4) 1/2" Nylon Lock Nuts



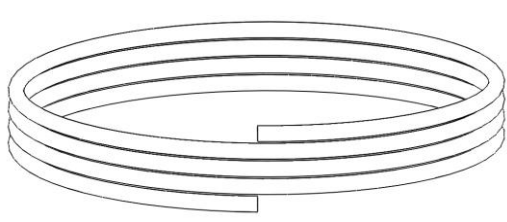
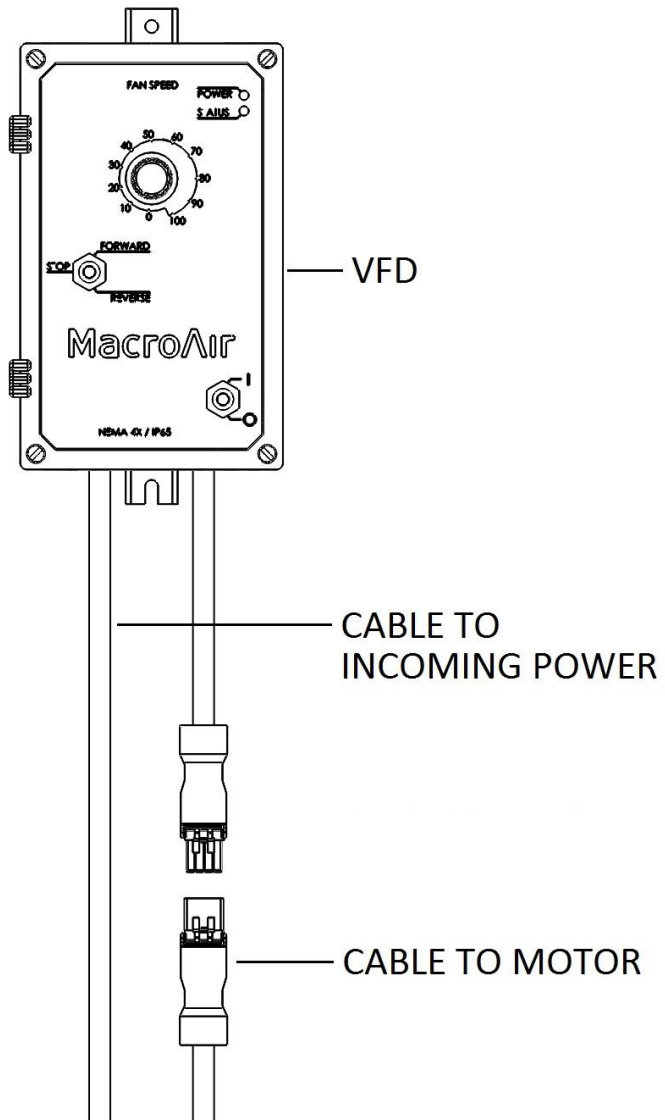
Safety Cable Kit

- (1) Wire Rope 3/16"
- (2) Wire Rope Clamps
- (1) Quick Link

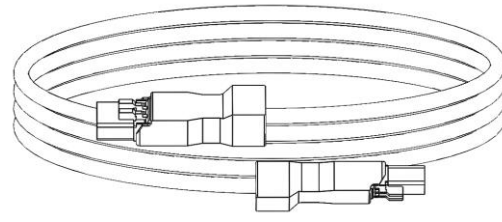
Images are not to scale

VFD Control Box & Components

VFD Assembly



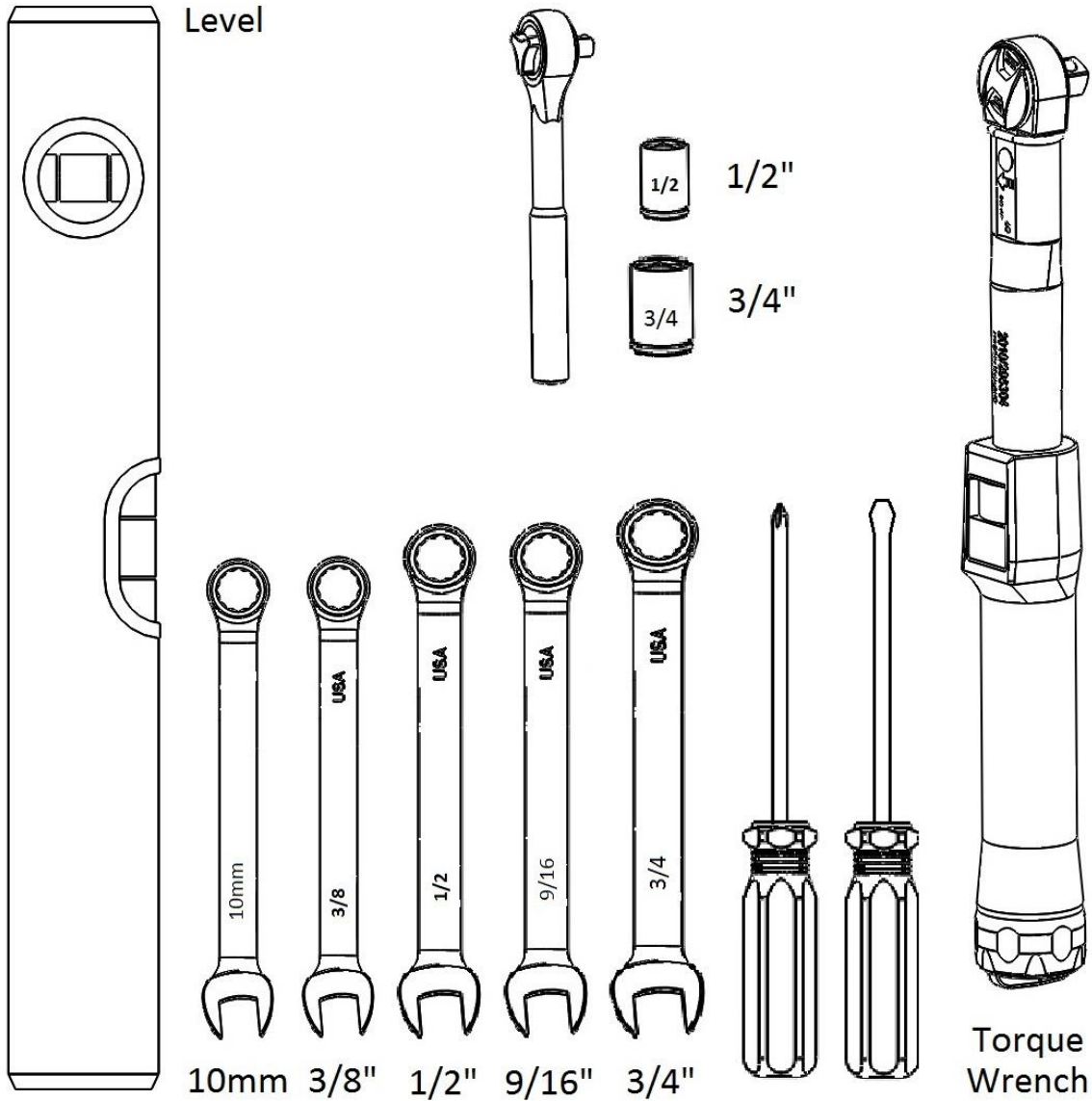
Incoming Power Cable (10FT)
(Part of VFD Assembly)



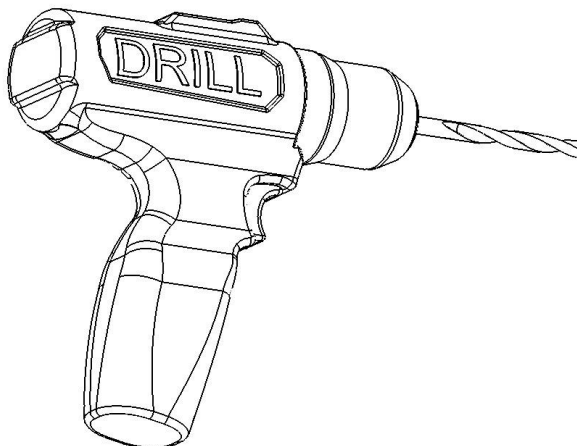
Motor Cable (50FT)

Images are not to scale

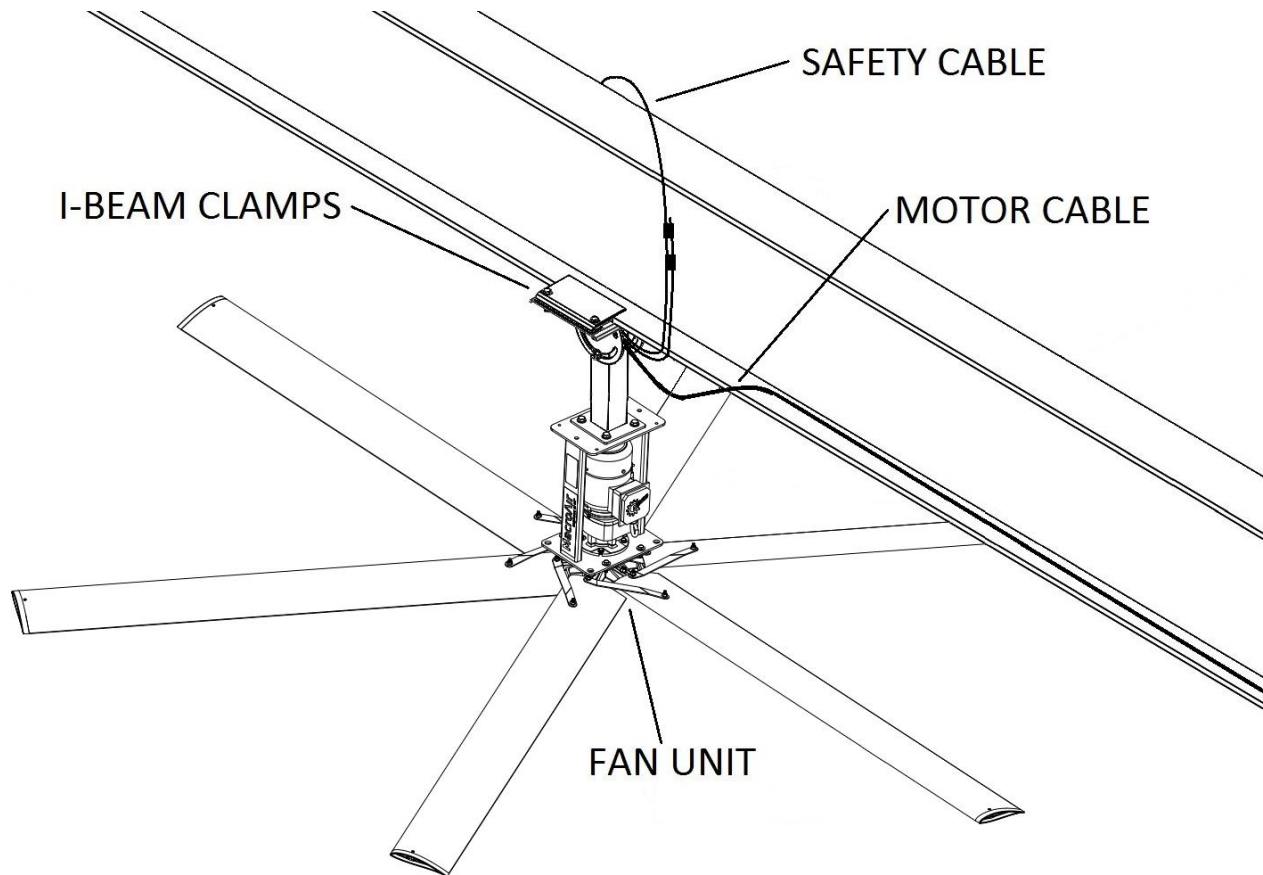
Tools Required



Note: A drill and drill bits will also be required when mounting brackets and control panel to Glulam.

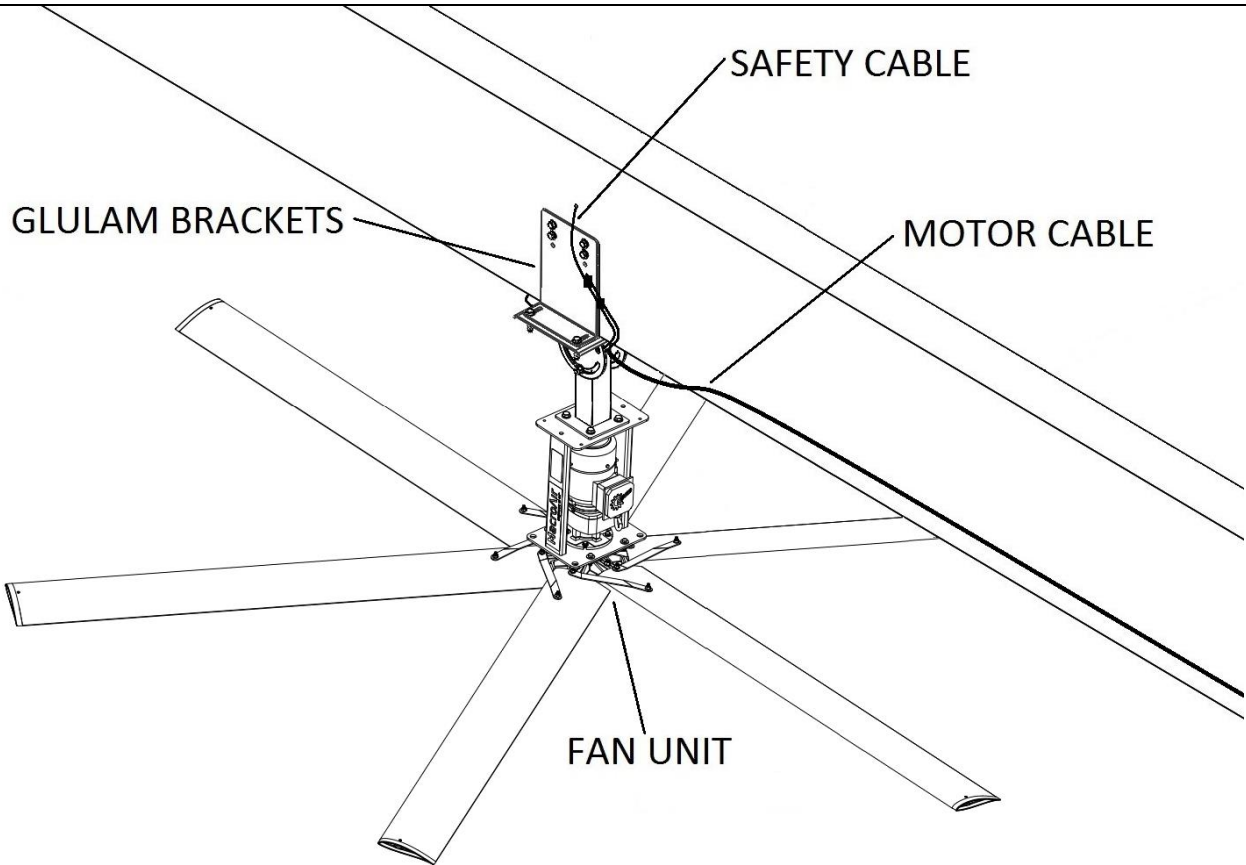


I-Beam



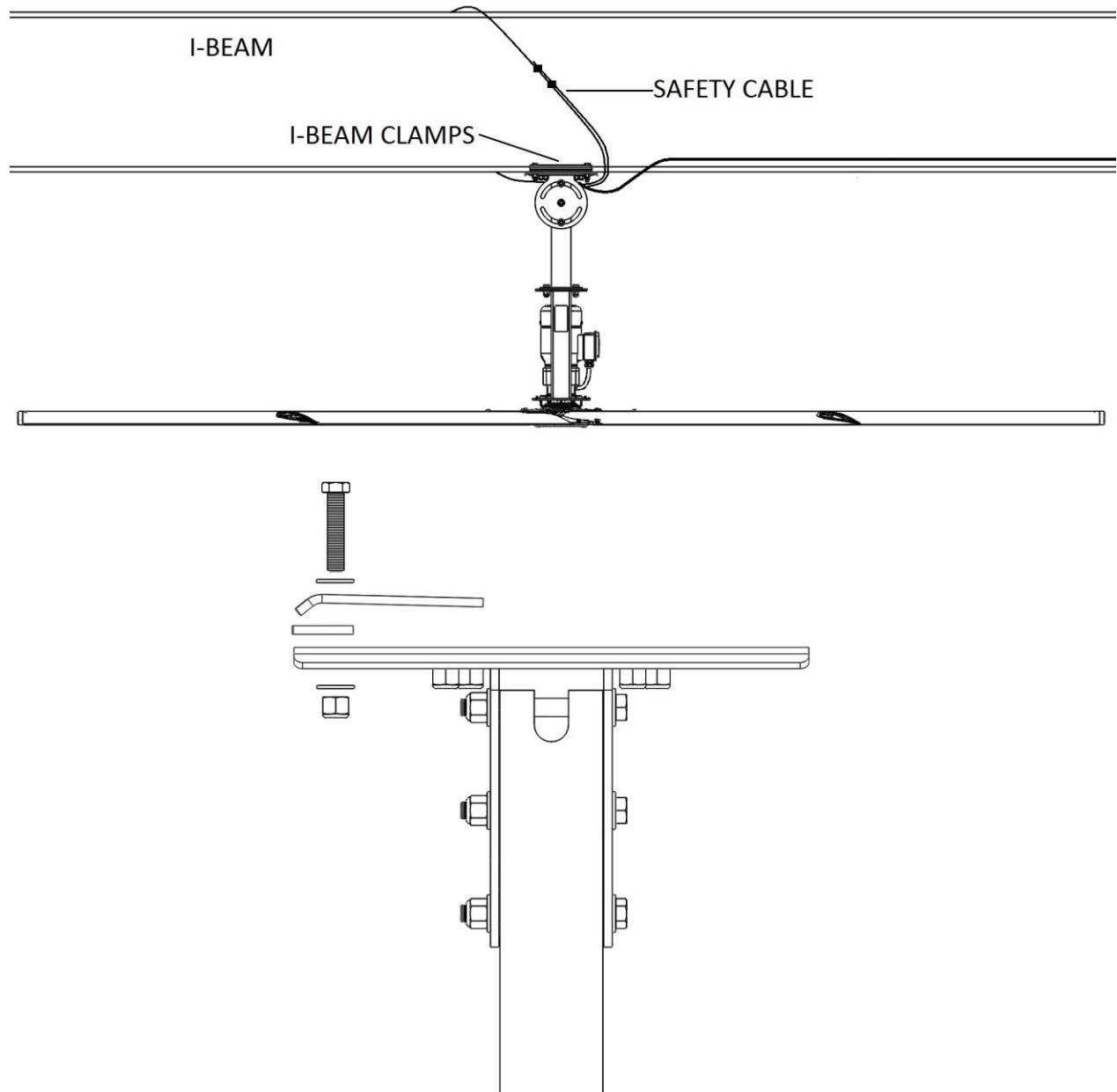
1. Mount Fan Unit to base of Rigid Mount using hardware pack, combination wrench, and socket wrench.
2. The Safety Cable needs to be fed from the quick link on the frame, through the Rigid Mount and then around the I-Beam.
3. 50 ft of Motor Cable is provided and used to connect the Fan Unit to the VFD. The cable is fed through the Rigid Mount to the Fan Unit Connection on the frame.

Glulam



1. The Safety Cable needs to be fed through a hole in the Glulam, preferably above the center line of the Glulam.
2. 50 ft of Motor Cable is provided and used to connect the Fan Unit to the VFD. The cable is fed through the Rigid Mount to the Fan Unit Connection on the frame.
3. The Glulam brackets need to be through-bolted to the Glulam as high as possible.
4. Attach fan frame to the bottom of the Rigid Mount with the provided hardware, combination wrench, and socket wrench.

Rigid Mount I-Beam Mounting

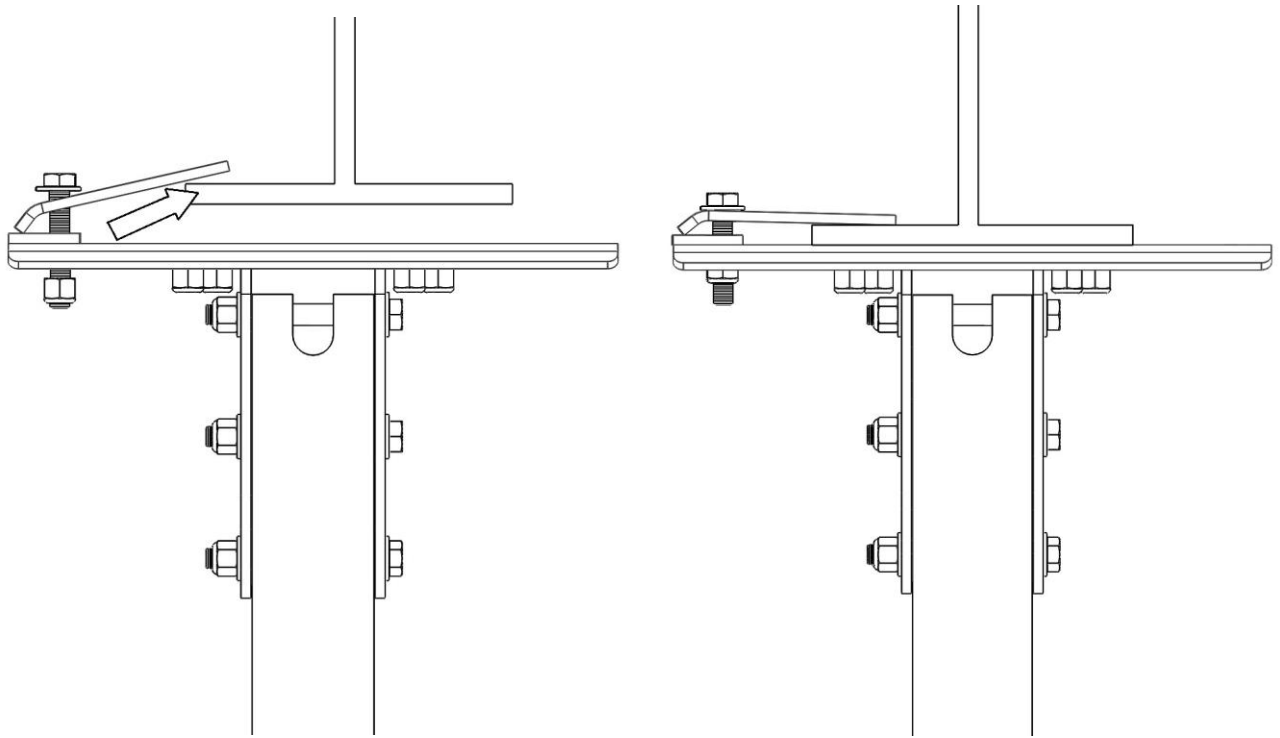


1. Assemble one side of I-Beam Mount with (1) Clamp, (1) Shim and Hardware.
2. Hand tighten Nuts to secure Clamp and Shim in place.

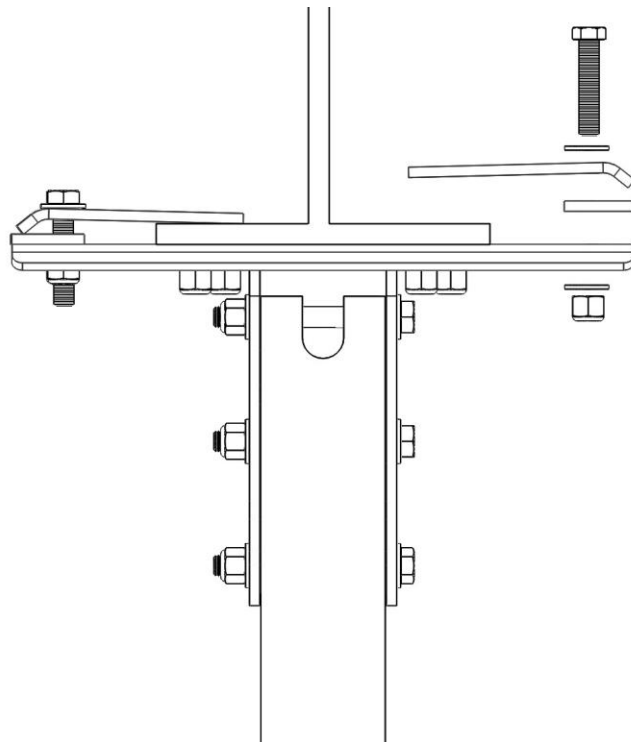
I-Beam Clamps & I-Beam Bolt Kit

- (2) I-Beam Clamps
- (2) I-Beam Shims
- (4) Hex Bolts 1/2"-13x2-1/2"
- (8) Washers, 1/2" Flat
- (4) Hex Nuts 1/2"-13, Nylon Lock

Rigid Mount I-Beam Mounting (cont.)

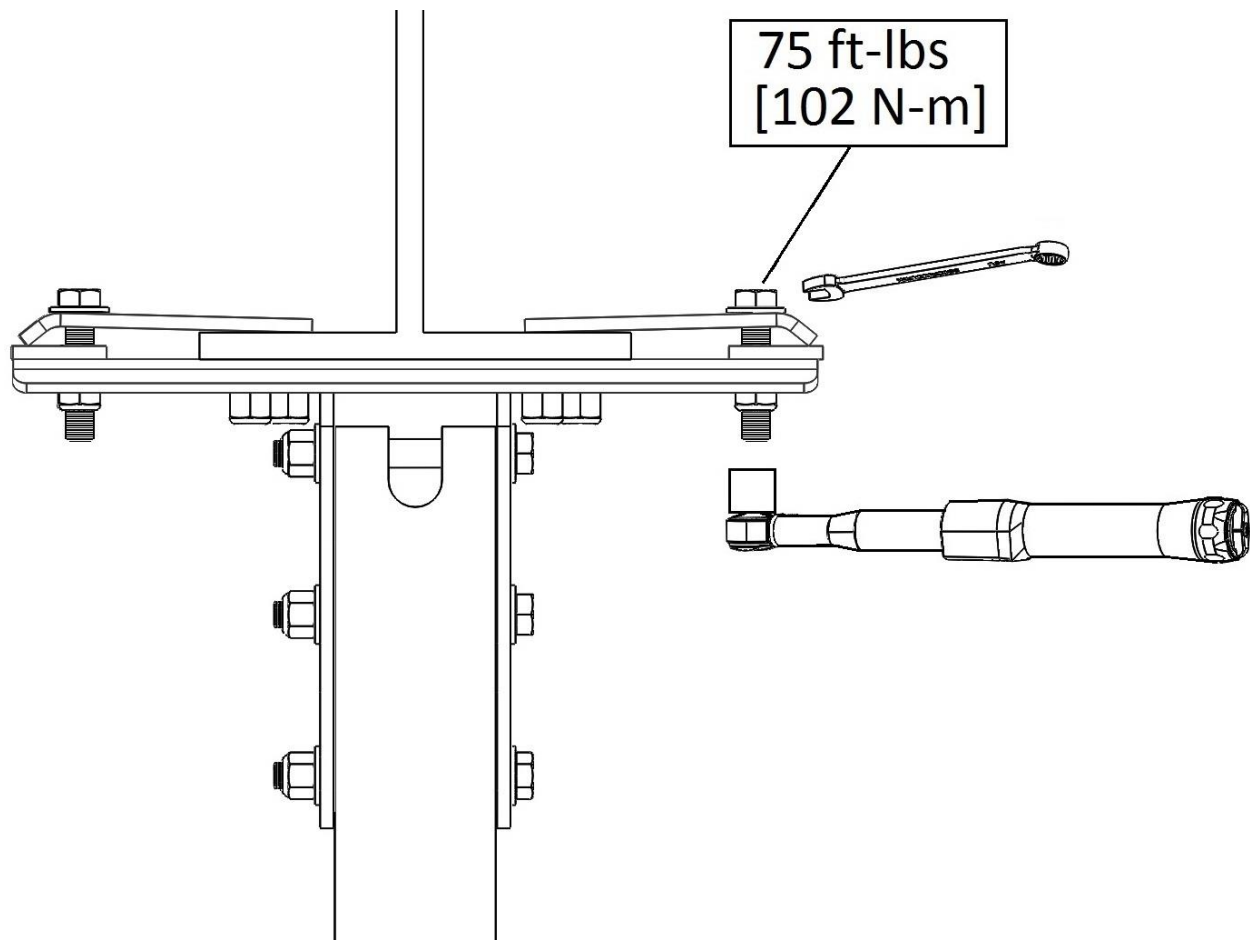


3. Position the Rigid Mount under the I-Beam so that one side of the beam is between the clamp and Rigid Mount.



4. Assemble other side of I-Beam Mount with (1) Clamp, (1) Shim and Hardware.
5. Hand tighten nuts to secure Clamp and Shim in place.

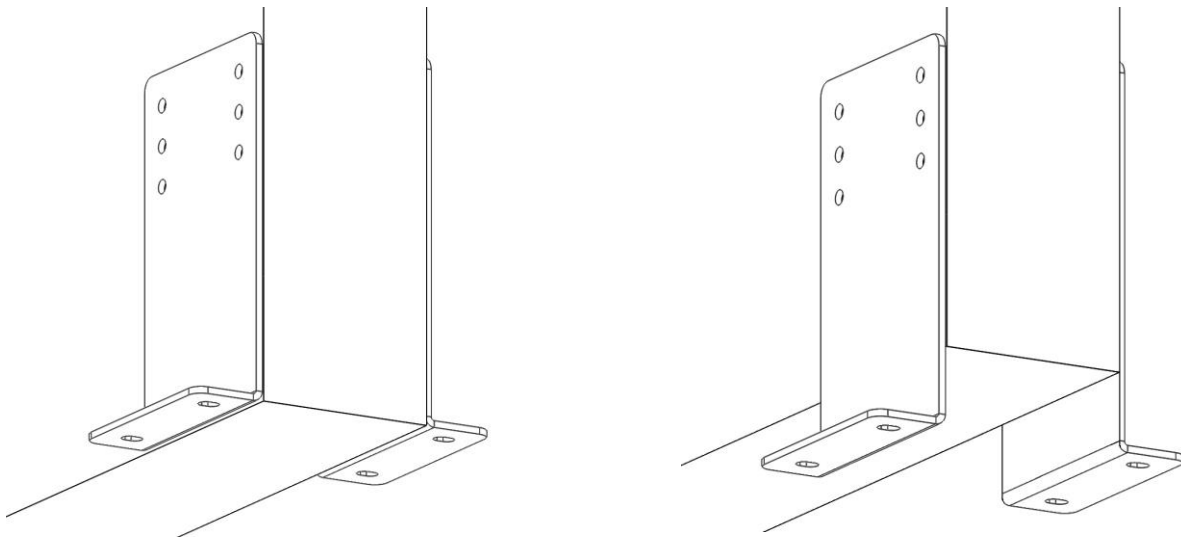
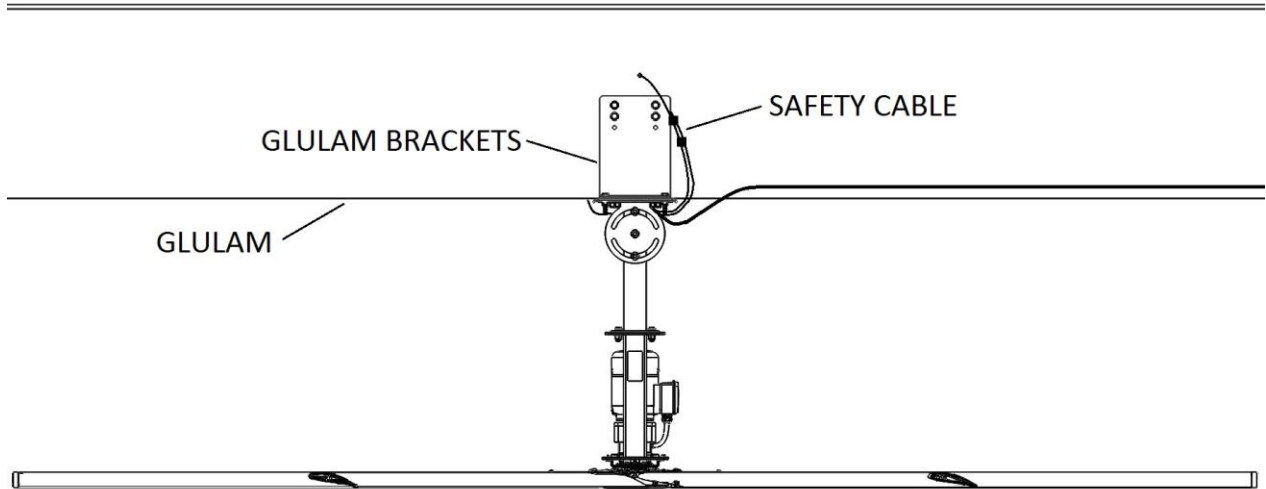
Rigid Mount I-Beam Mounting (cont.)



6. Center the Rigid Mount on the I-Beam.
7. Using a 3/4" combination wrench and a 3/4" socket and torque wrench tighten all hardware to 75 ft-lbs. [102 N-m].

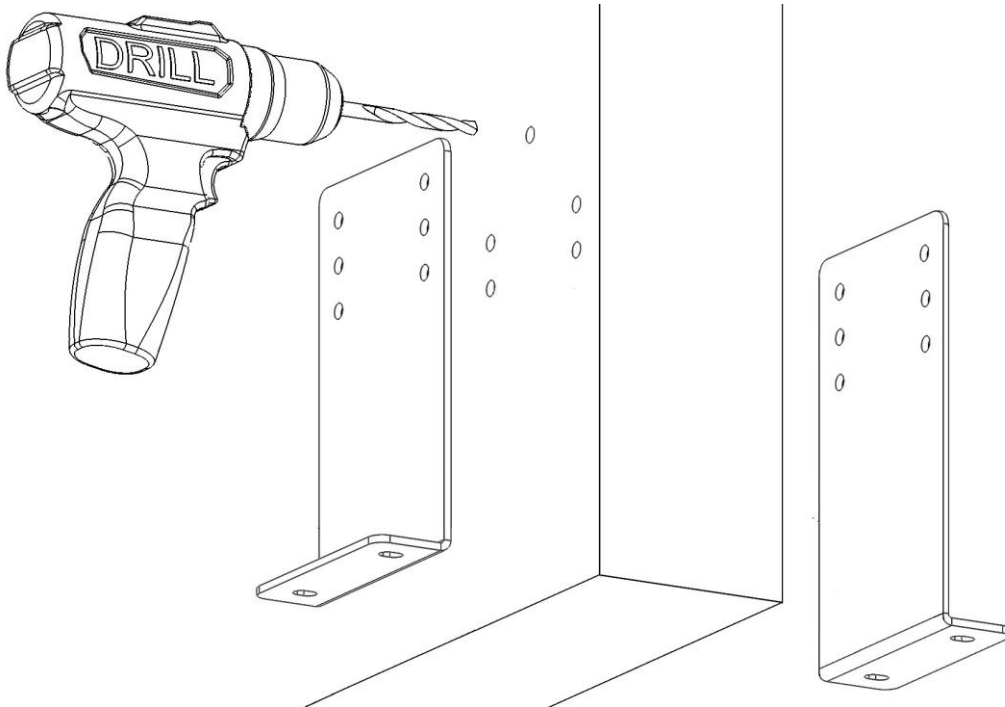
Rigid Mount Glulam Mounting

This method is recommended for Glulams or wood beams 5-1/8" or wider. For narrower beams, span across two or more beams using the Unistrut mounting method. (Refer to page 23)

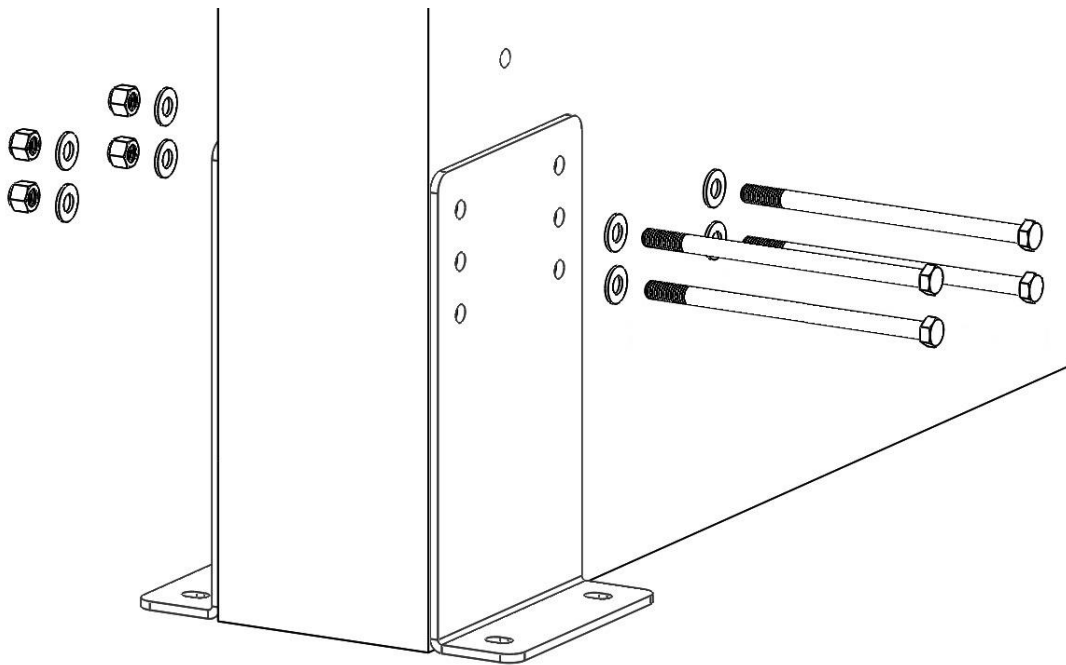


1. The Brackets can be located below the glulam if necessary but is not recommended. Locate brackets even with bottom of glulam.

Rigid Mount Glulam Mounting (cont.)

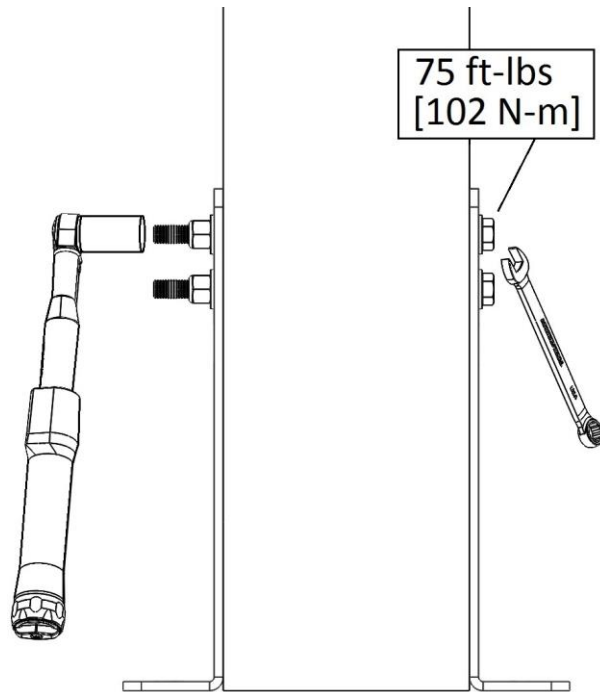


2. Drill maximum 5/8" diameter clearance holes through the glulam for (4) 1/2"-32 mounting bolts and (1) hole for the 3/16" diameter safety cable. The highest bolt hole should not be below the beam's center line unless the glulam is too tall. The hole for the safety cable should be centered above the brackets (preferably above the center line of the glulam).

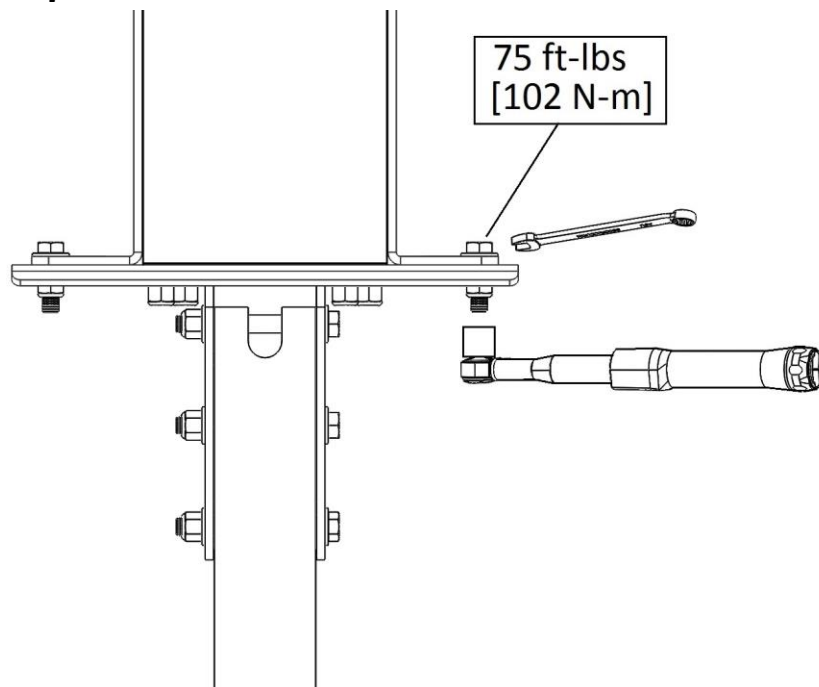


3. Secure the Glulam brackets to the Glulam via (4) 1/2"-13 grade 5 bolts (long enough to go through the entire beam with nylon lock nuts). Stack the Bolt, washer, and washer, nut as shown above.

Rigid Mount Glulam Mounting (cont.)



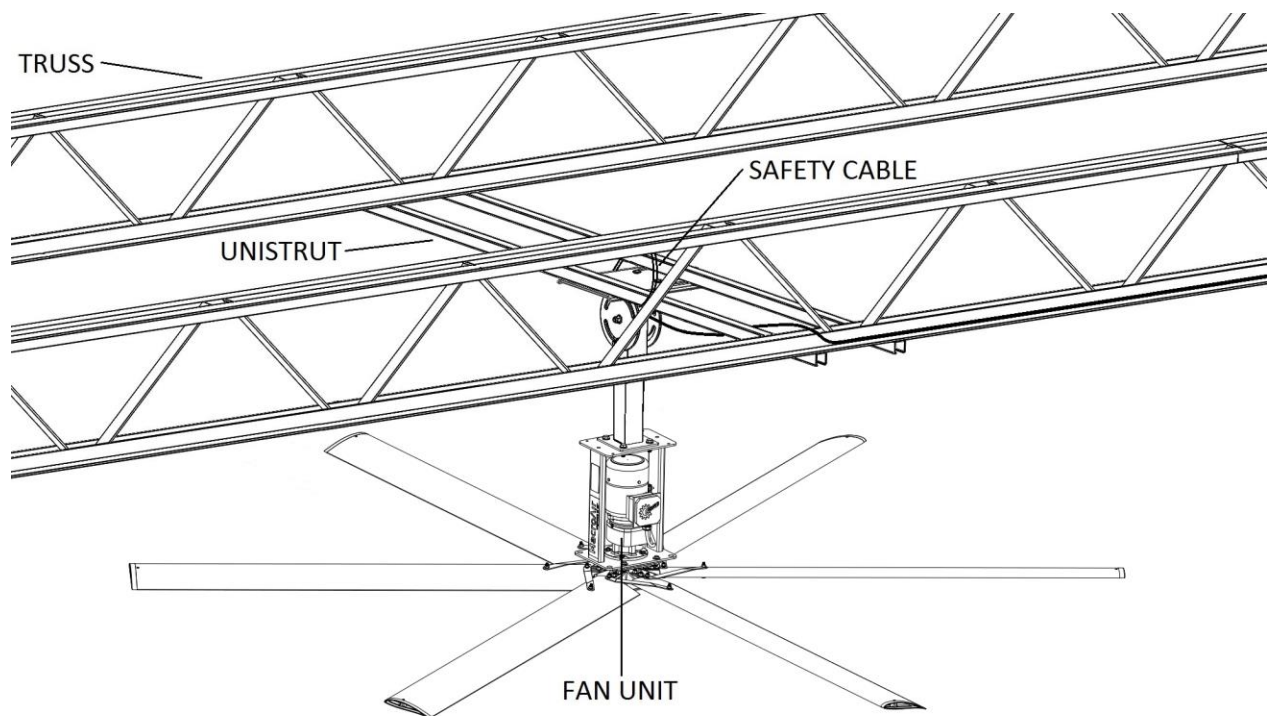
4. Using a 3/4" combination wrench and a 3/4" socket and torque wrench tighten all hardware to 75 ft-lbs.[102 N-m].
5. Mount the Rigid Mount to the glulam brackets using the supplied I-Beam Bolt Kit which contains (4) 1/2"-13 x 2.50" Hex Bolts, (8) 1/2" Washers and (4) 1/2"-13 Nylon Lock Nuts. Using a 3/4" combination wrench and a 3/4" socket and torque wrench tighten all hardware to 75 ft-lbs. [102 N-m].



Rigid Mount Unistrut Mounting

This method is used to span components of a building structure. Attachment points to the building structure can vary greatly, so we recommend contacting Unistrut, so they can recommend the best method for attaching the Unistrut (www.unistrut.us).

1. Two (2) pieces of 1-5/8" x 1-5/8" 12-gauge Unistrut need to span the trusses. Distance apart to be centered over the widest hole pattern in the Rigid Mount being used (see step 2). Maximum allowable distance between trusses is 8 ft. If the spanning distance is greater than 8 feet, please consult a Structural Engineer. Please refer to page 5 for the maximum torque and weight values.

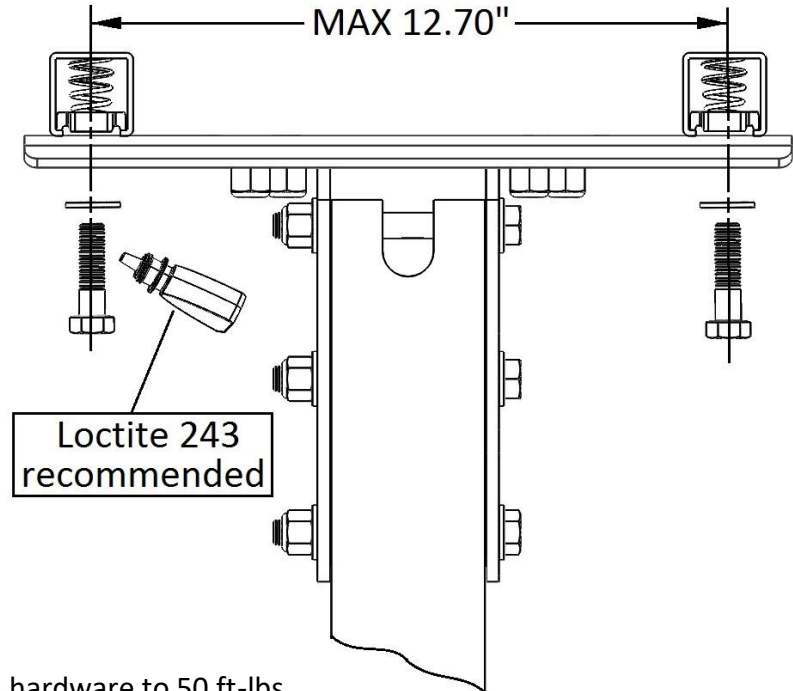


Hardware Required but Not Provided:

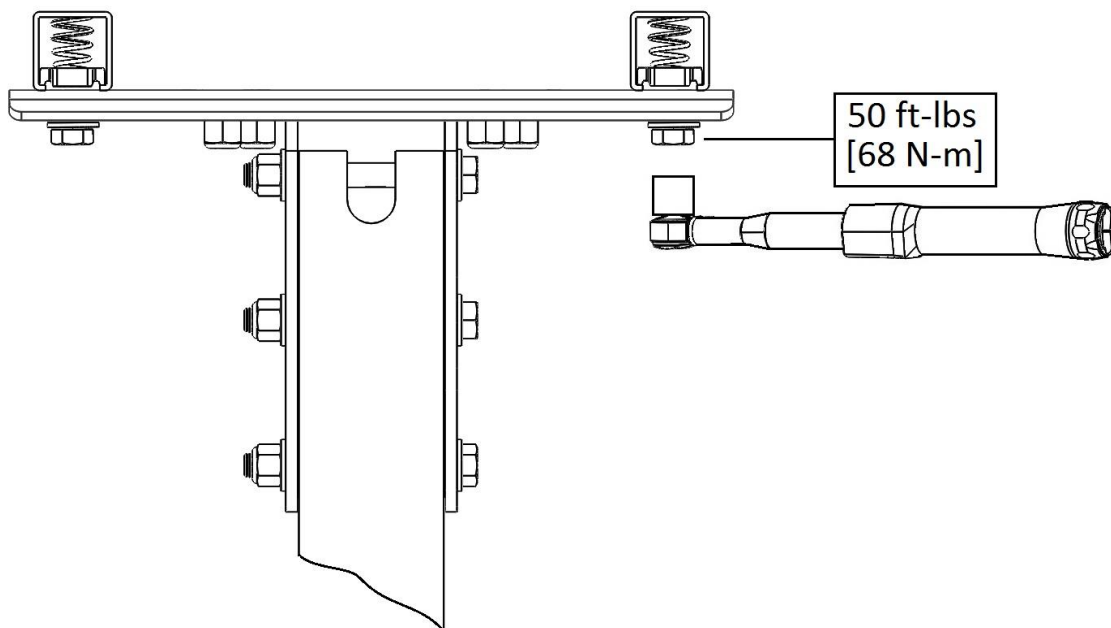
- (4) 1/2"-13 x 1-1/2" Hex Bolts
- (4) 1/2" Flat Washer
- (4) 1/2" Unistrut Spring Nut
- (1) Loctite 243

Rigid Mount Unistrut Mounting (cont.)

2. Attach the Rigid Mount in the most desired position between the trusses using hardware indicated (not provided). Apply Loctite 243 to the 1/2"-13 bolts prior to mounting. Unistrut clamps are not permitted in this mounting method.



3. Using a Torque wrench, tighten hardware to 50 ft-lbs.

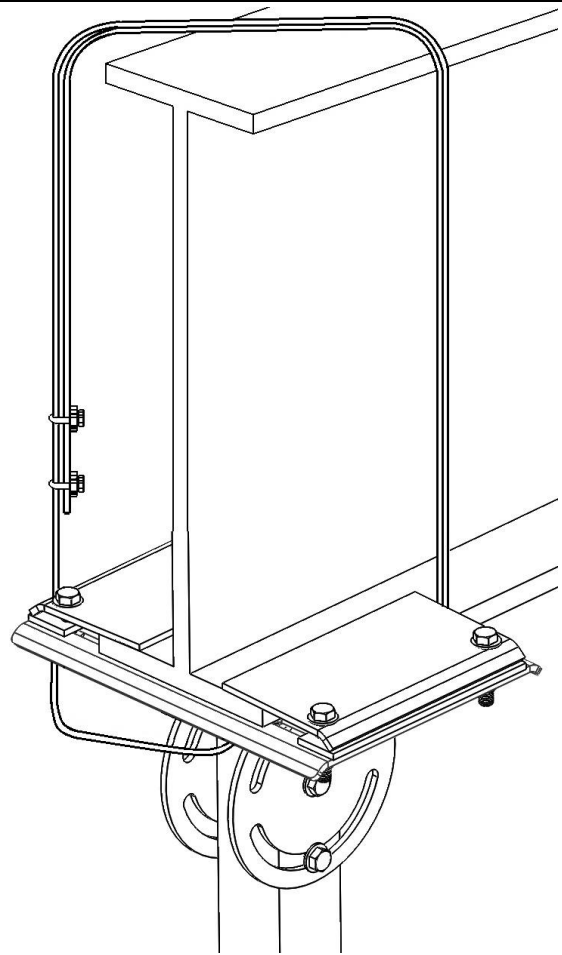
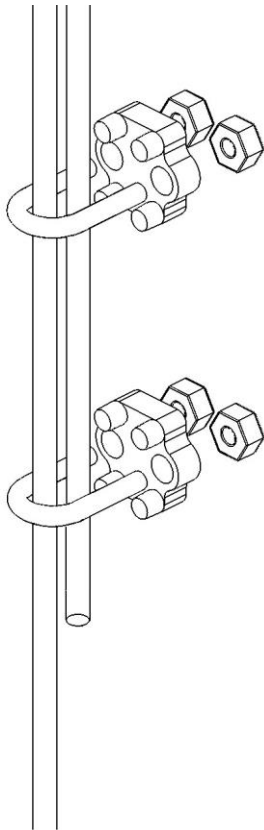


NOTE: Mounting to C- and Z-purlins requires Unistrut span mounting. Mounting to trusses under three (3) inches in width requires two or more trusses to be linked with Unistrut. We recommend contacting Unistrut, so they can recommend the best method for attaching the Unistrut (www.unistrut.us).

Safety Cable Installation

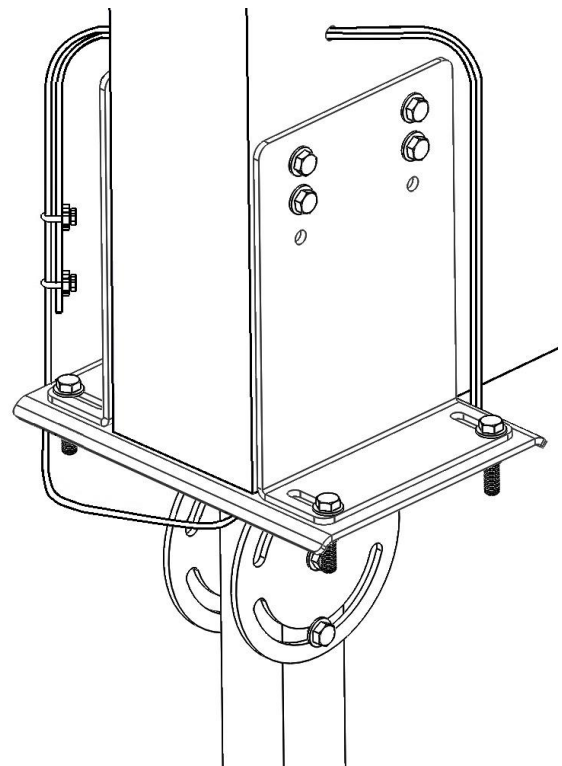
I-Beam

1. Attach safety cable to fan frame with quick link, feed up through Rigid Mount and around I-beam .
2. Secure two (2) safety cable clamps around the wire. Pull the cable taut and tighten both nuts using 3/8" combination wrench.



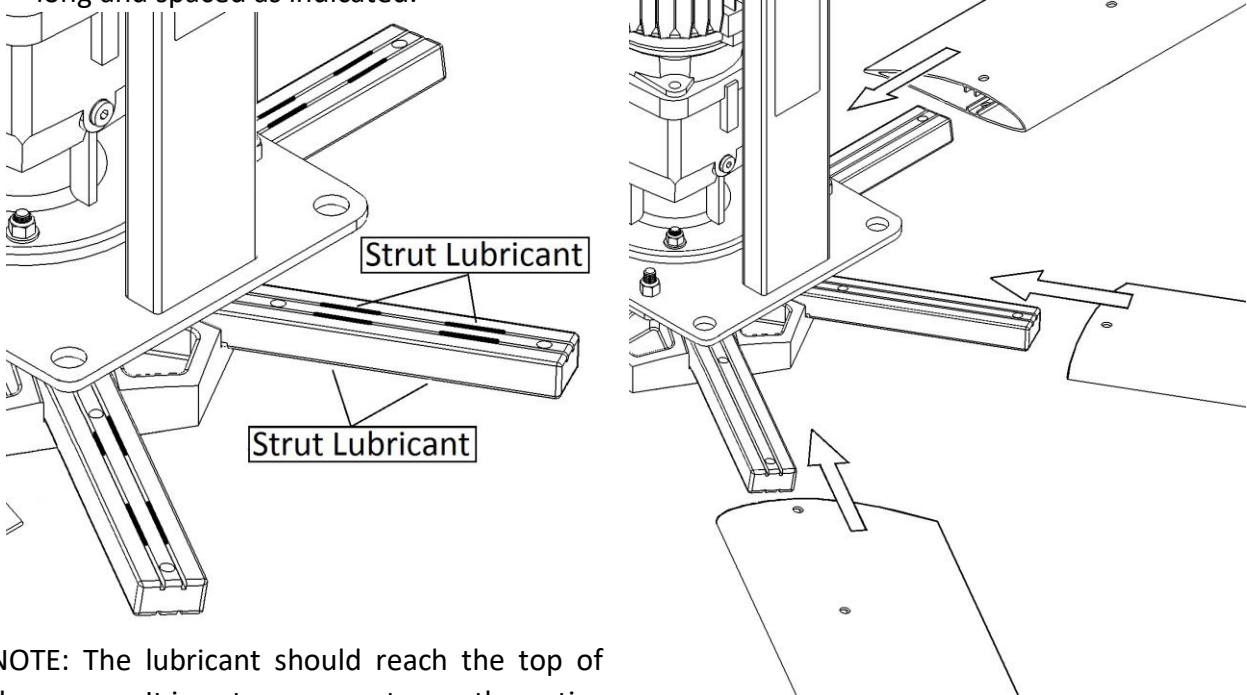
Glulam

1. Attach safety cable to fan frame with quick link, feed up through Rigid Mount and through hole drilled in Glulam above brackets.
2. Secure two (2) safety cable clamps around the wire. Pull the cable taut and tighten both nuts using 3/8" combination wrench.



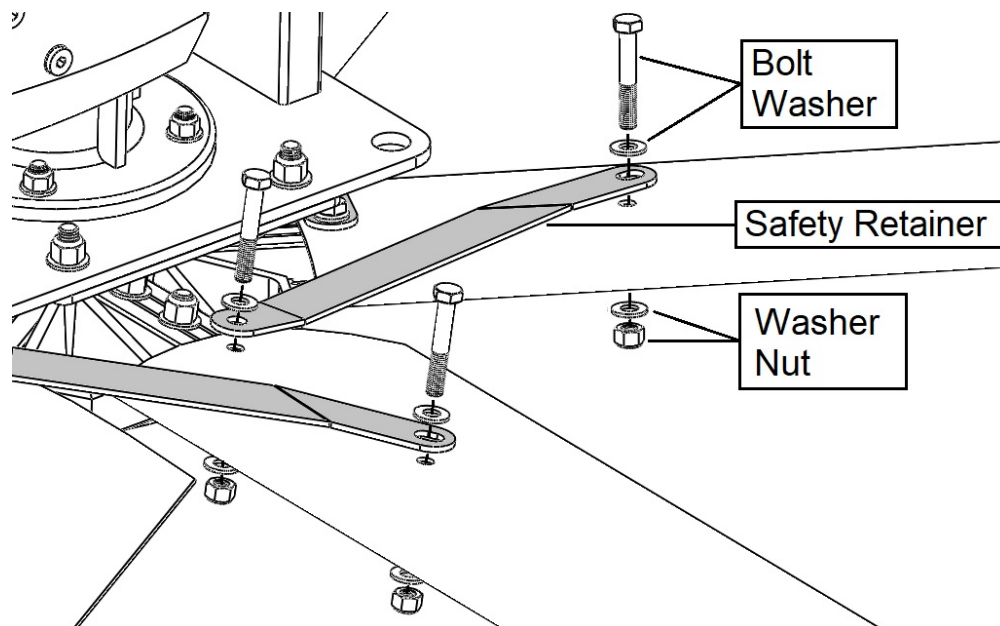
Blade & Safety Link Assembly

1. Apply the provided lubricant in 4 spots on the top and 4 spots on the bottom of each strut as indicated. Each line of lubricant should be in a groove of the strut, approximately 1"-1.5" long and spaced as indicated.



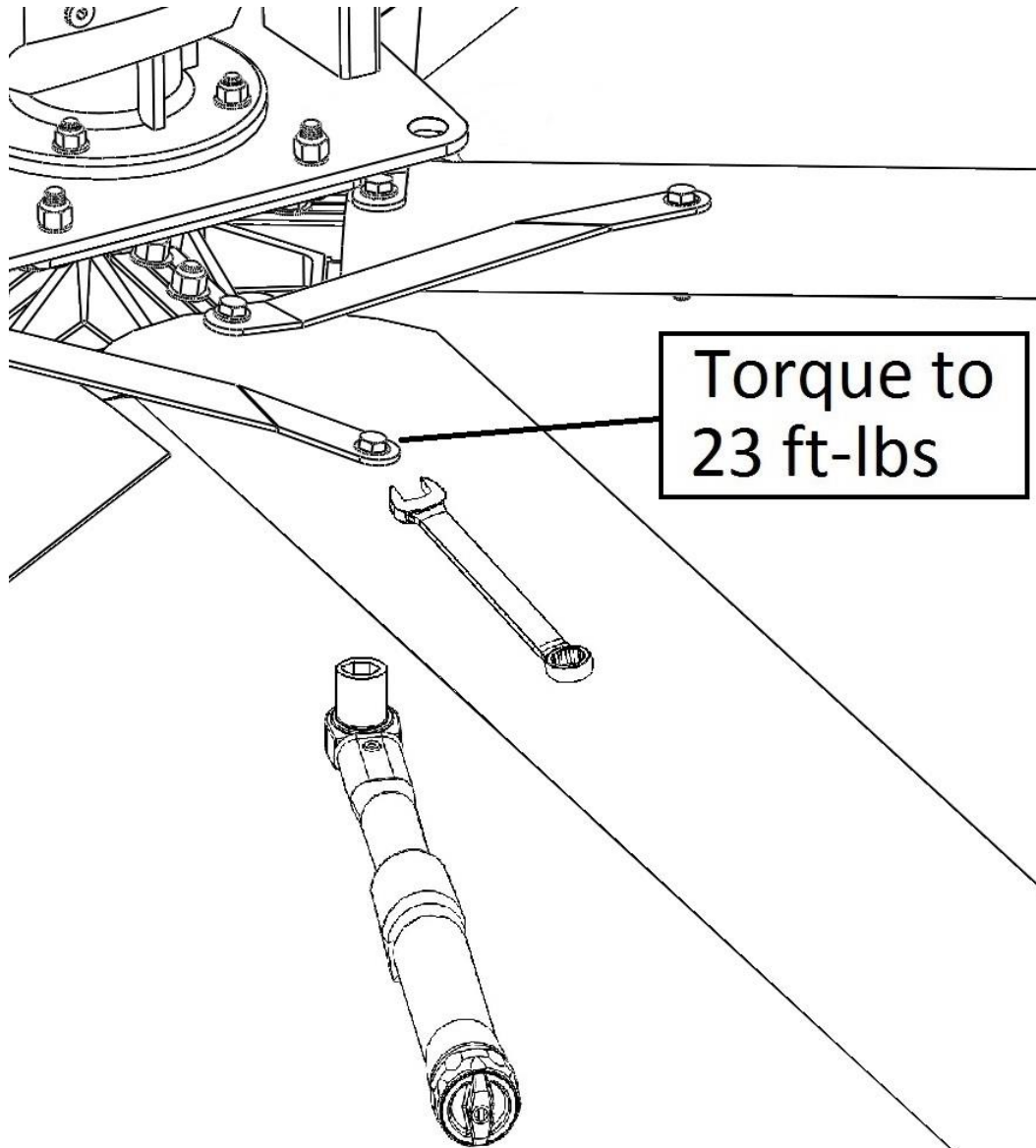
NOTE: The lubricant should reach the top of the groove. It is not necessary to use the entire tube.

2. Slide the blades onto the blade struts and align the mounting holes in the blade with the mounting holes in the blade struts.
3. Once all the blades are in place, install the safety retainer links and blade bolts, washers, and nuts in a clockwise or counter-clockwise manner.



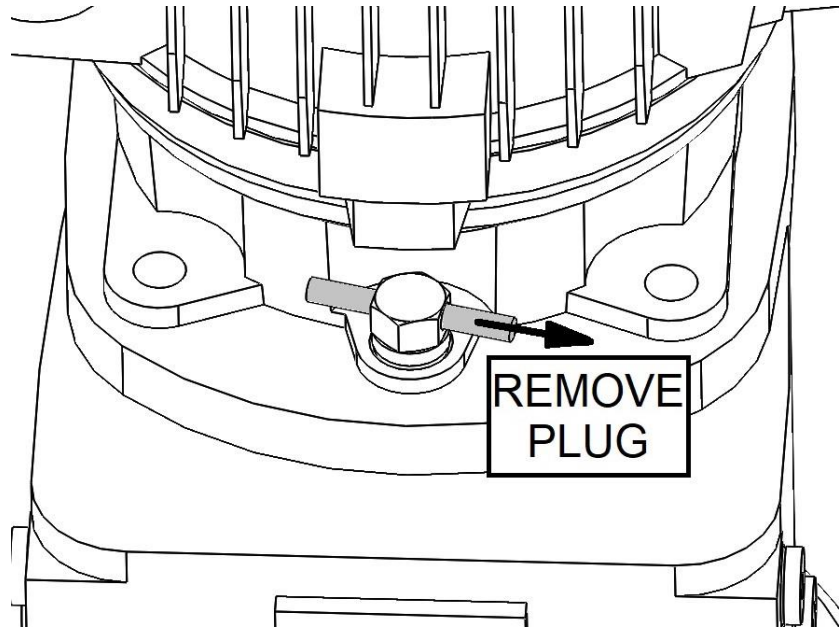
Blade & Safety Link Assembly (cont.)

- Using a 1/2" combination wrench and a 1/2" socket and torque wrench tighten all blade hardware to 23 ft-lbs.



Remove the Gearmotor Breather Plug

The breather plug must be removed from the gearbox before attempting to run the fan. There will be a label indicating this near the location of the plug to be removed.



Once the breather plug is removed, any tag or sticker instruction illustrating the plug removal may be discarded also.

⚠ WARNING: Do not remove the breather plug prior to completing the mounting of the fan as any other orientation of the fan other than upright will allow lubricant to weep from the breather opening.

Electrical & Safety Cable Installation

⚠ WARNING: MOTOR CABLES AND INCOMING POWER MUST NEVER BE RUN IN THE SAME CONDUIT. FAILURE TO INSTALL PER MACROAIR INSTRUCTIONS, INCLUDING WIRING, MAY BE HAZARDOUS, CAUSE PREMATURE FAILURE, AND VOID THE MANUFACTURE'S WARRANTY.

⚠ ATTENTION: Regulatory Notice, EMI (Electromagnetic Interference)

Electromagnetic Interference (EMI) is any signal or emission, radiated in free space or conducted along power or signal leads, that endangers the functioning of radio navigation or other safety services or seriously degrades, obstructs, or repeatedly interrupts a licensed radio communications service. Radio communications services include but are limited to AM/FM commercial broadcast, television, cellular services, radar, air-traffic control, pagers, and personal communications services (PCS). These licensed services, along with unintentional radiators such as digital devices, variable frequency drives (VFDs), and other equipment such as fans with VFDs, contribute to the electromagnetic environment.

Electromagnetic compatibility is the ability of items of electronic equipment to function properly together in the electronic environment. MacroAir Fans variable frequency drives, VFDs, are designed to be in compliance with regulatory agency limits for EMI. However, there is no guarantee that interference will not occur in a particular installation. If MacroAir's products (fans) do cause interference with radio communications services, which can be determined by turning the fans off and on, please notify MacroAir technical support.

MacroAir Technologies' products are designed, tested, and classified for their intended electromagnetic environment. These electromagnetic environment classifications generally refer to the following harmonized definitions:

Class A is typically for business or industrial environment.

Class B (MacroAir products are **NOT** designed for typical residential environments covered under this classification).

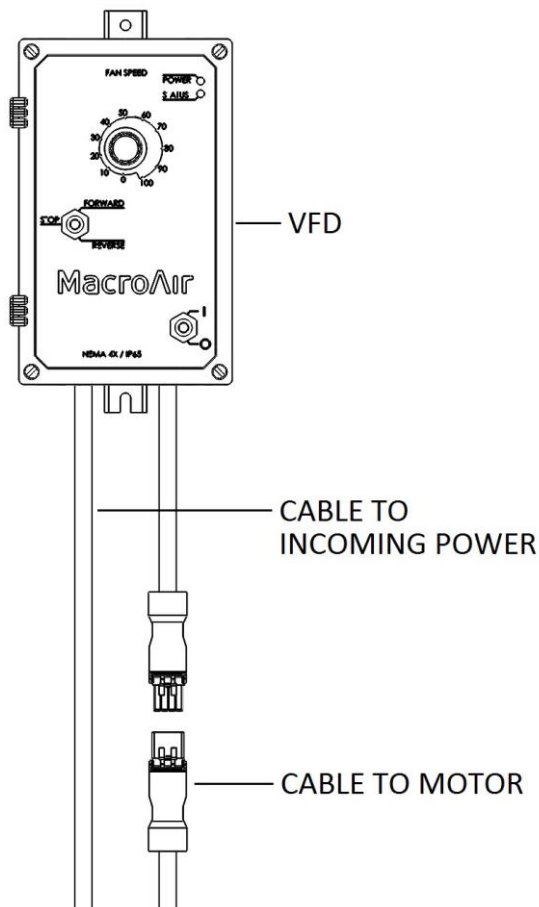
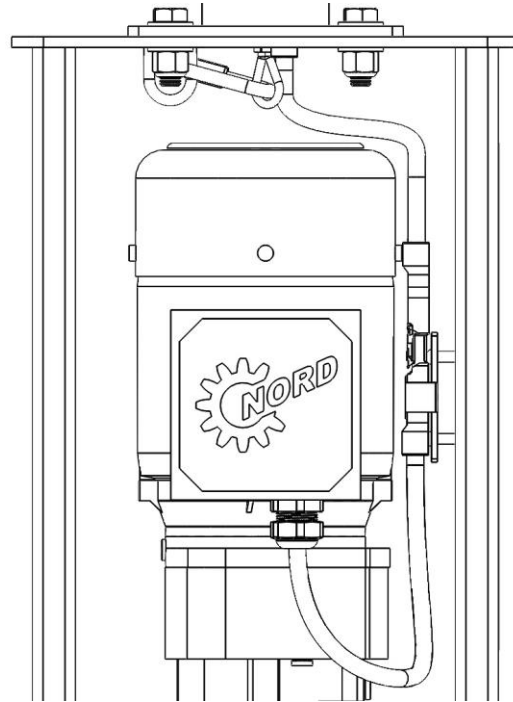
CODE COMPLIANCE IS THE RESPONSIBILITY OF THE INSTALLER, AND ULTIMATELY, THE END USER. All wiring should conform to the National Electric Code (NEC) 2005, ANSI/NFPA 70-1999, and all local codes. This fan control should only be installed by qualified technicians familiar with the requirements of the NEC and local codes.

Note: MacroAir Technologies has a policy of continuous product improvement and reserves the right to change design and specifications without notice.

If you have any questions, please contact MacroAir technical support.

Attach to VFD

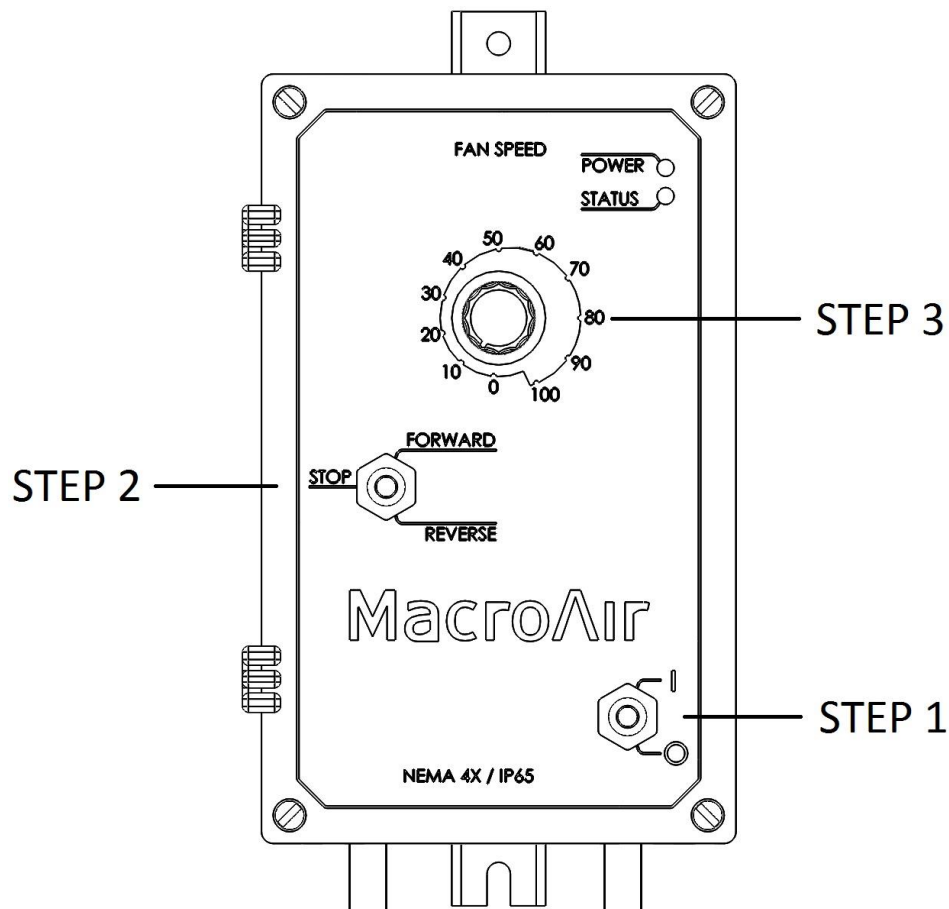
1. Feed one end of the 50' cable through the Rigid Mount and the top of the frame and plug it into the receptacle on the frame.



2. Attach the other end of the 50' cable to the receptacle on the VFD whip. Plug VFD into incoming power.

Fan Operation

1. Step 1: Turn on the fan.
2. Step 2: Select forward direction for cooling or reverse for destratification (heating).
3. Step 3: Adjust the speed dial to control how fast the fan rotates.



Maintenance

Airfoil Cleaning: Depending on the type of commercial application the MacroAir fan is in, there can be quite a bit of dust or other particulates that cling to the fan's airfoils. While this may not affect fan performance, we recommend fan owners keep airfoils clean by having a maintenance person or skilled trade professional – who has experience using a lift – wipe the fan airfoils with a rag or sponge using hot water or mild cleaning solutions. Please do not use chlorine or any chemicals containing chlorine.

Safety Cable Check: Each MacroAir fan comes with a safety cable. Depending on the fan model, the safety cable either wraps around the building structure and the fan frame or comes out of the top of the fan and wraps around the building structure. The safety cable is an important part of the safety system and acts as a last resort should an earthquake, collision, or similar catastrophic event occur. As such, it's vital for fan owners to ensure that the safety cable is intact and properly secured.

Reverse Operation: The beauty of MacroAir HVLS fans is that they are built to run in forward and reverse mode. However, changing the direction of your fan can put initial stress on the fan if it has not been properly checked. It is a good idea to make sure safety cables and all bolts and nuts are tight. Cleaning the fan before switching directions will prevent dust and other particles from falling off the fan airfoils when turning in the opposite direction.

Maintenance Plan: Things to look for include properly torqued fasteners, rust, cracked welds, unusual noise, hub migration or movement.

Years 1-10: One inspection on lift per year.

Year 11 and beyond: Annual inspections from a lift and seasonal inspections both before and after the busy season from the ground.

NOTE: If there are issues or concern discovered during an inspection, please contact the service and technical support department at MacroAir for help.

CONTACT US: For installation assistance, application questions, technical sales support & any other inquiries, please contact us at **(866) 668-3247**.

Troubleshooting

Please refer to the table below if you experience issues with the fan operation.

Symptoms	Possible Solution
The fan is not turning and the lights on the VFD are lit.	Flip disconnect switch to "OFF" for 30 seconds and then flip to "ON". Ensure that the VFD is properly connected to the motor.
The fan is not turning and the lights on the VFD are NOT lit.	Confirm that there is power coming from the building.
The fan is making a loud "clicking" noise.	Ensure that the anti-seize was properly applied to every blade strut.
The fan is operating noisily.	Confirm that there is nothing interfering with any moving parts.
The fan is wobbling.	Confirm that the fan is level and properly installed and tightened.

If your issue cannot be resolved using the table above, please contact MacroAir technical support at **(866) 668-3247**.

Warranty

MacroAir warrants the Products listed in the table below will be free from defects in materials and workmanship under normal use and maintenance for the applicable Warranty Period. Other than the Warranty set forth in this document, no other written or oral warranties apply, and no employee, agent, dealer, or other person is authorized to give any other warranties on behalf of MacroAir.

START DATE OF WARRANTY COVERAGE

Warranty Period begins fifteen (15) days following shipment of the Product, or on the date the Product is installed (not to exceed sixty (60) days Customer receives the Product), whichever date is later. Customer should retain necessary documentation to verify the date of receipt and installation of the Product. Customer will be required to produce this documentation in order to obtain Warranty services from MacroAir. The Warranty specified herein applies only to Products purchased on or after April 15, 2021.

PRODUCTS AND SYSTEMS COVERED BY THIS WARRANTY AND APPLICABLE WARRANTY PERIODS:

Fan Type	Mechanical: Blades, Hub & Frame	Standard Electrical ¹ : Motor, Electrical Controls, Remote	Labor
AVDX	15 Years	10 Years	1 Year
AirVolution	15 Years	7 Years	1 Year
AirLegacy	15 Years	5 Years	1 Year
AirLite	2 Years	2 Years	1 Year
AVD3	10 Years	7 Years	1 Year
AVD 370	10 Years	5 Years	1 Year

WARRANTY COVERAGE:

Subject to the exclusions herein, the MacroAir Warranty covers any defects in workmanship or materials of the covered Products under normal operation and prescribed maintenance when those defects adversely affect the ability of the Product to operate properly.² The Warranty only covers Products which have been installed in compliance with MacroAir's written installation instructions by a state-qualified or licensed electrical contractor and operated and maintained by the Customer in conformity with MacroAir's written instructions, and when the Product is purchased directly from MacroAir or a MacroAir Authorized Dealer.

This Warranty is subject to all provisions, conditions, limitations, and exclusions explained in this Warranty document.

*Scan QR code or visit macroairfans.com/warranty for full warranty information.



¹ "Standard Electrical" means any common electrical component that is utilized across more than one fan line will assume the higher warranty period.

² "Operate properly" applies only to mechanical, electrical, and structural systems of the Product.

MA

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Social



Website

www.macroairfans.com

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