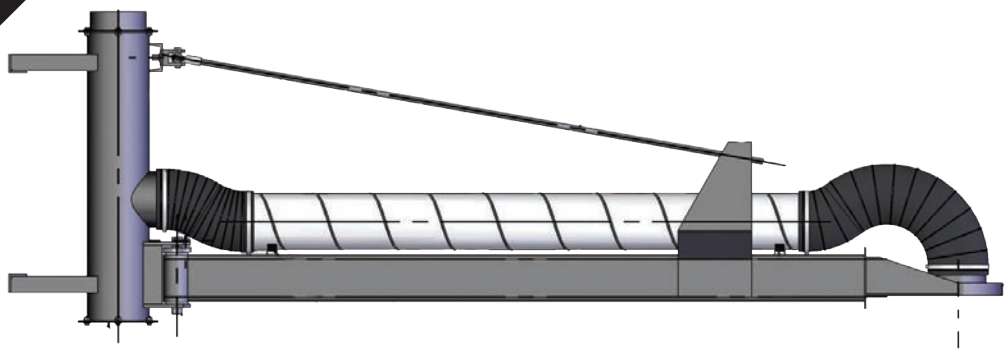
AQC

DUST COLLECTION
& SOURCE CAPTURE

Owner's manual for installation,
use and maintenance



MAXIREACH™

INDEX

1 INTRODUCTION

This present manual refers to the MAXIREACH extension single and double pivot swing boom. It includes important information concerning the installation, use and maintenance of your collector. Read this manual thoroughly and apply the directives and procedures. Staff and personnel using the system will have to trained on safety measures and maintenance instructions.

WARNING!

The use of the extension swing boom will require proper installation and handling. Contact A.Q.C. Inc. if you have any doubt in regard to the use of your extension swing boom.
Not following directives and procedures could cause injuries or property damages.

2 INFORMATION ON THE MAXIREACH EXTENSION SWING BOOM

Model: _____ Serial number: _____

Delivery date: _____ Date of installation: _____

Name of customer: _____

Address: _____

_____

_____

Accessories: _____

Other: _____

3 PRESENTATION

Pivoting extension pivot swing booms are designed to extend the working area of local extraction devices. They make it possible to reach areas where impurities are being created with, for example, a self-supporting arm, flexible hoses, hose reels etc.

Due to a wide range of reaches, the booms are especially useful for the extraction of dust or gas impurities from difficult to reach areas.

Additionally the booms can be used to suspend other equipment such as welding wire feeders, hose reels etc. within the range of permissible loads.

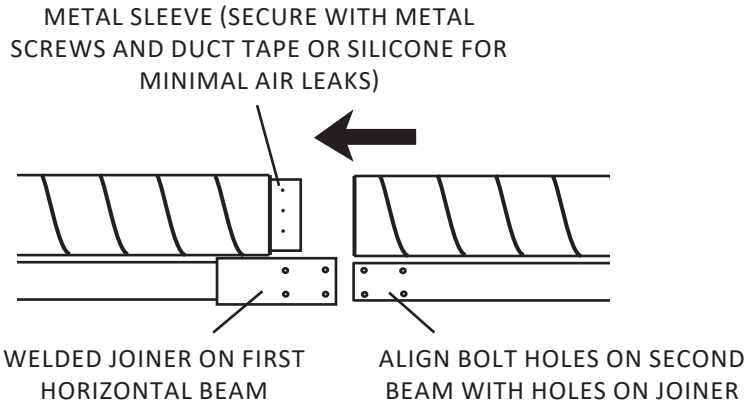
3.1 Each MAXIREACH unit includes:

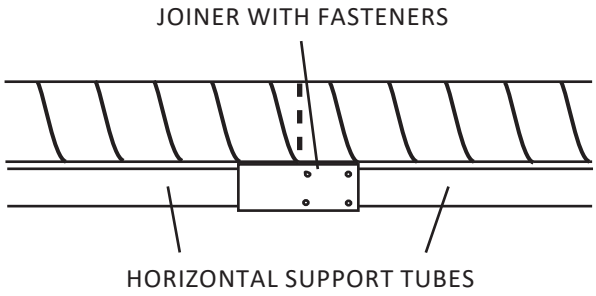
- Boom base with wall/column support plates.
- Horizontal painted steel tube(s) support.
- Spiral ducting and flexible hose connections with hose clamps.
- Companion flanges for fan or exhaust duct system.
- Pull rod for purpose of boom to be level.
- Friction disks with tension adjustment (on boom base pivot only).
- Middle pivot (for double action swing boom).
- 3 steps paint finish: degreasing, prime coat and polyurethane final coat.

4 MODEL NUMBERS

Models Numbers	Reach of work [feet] / [m]			Ducting diameter [inches] / [mm]	Mimimum mounting height [feet] / [m]	Boom load capacity [lb] / [kg]	Number of pivots	Weight [lbs] / [kg] whitout fan
	A	B	Total					
EBS-605	5 / 1.55	—	5 / 1.55	6 / 152	7.8 / 2.4	150 / 70	1	124 / 58
EBS-610	10 / 3.10	—	10 / 3.10	6 / 152	7.8 / 2.4	150 / 70	1	144 / 67
EBS-615	15 / 4.60	—	15 / 4.60	6 / 152	7.8 / 2.4	150 / 70	1	168 / 77
EBS-620	20 / 6.15	—	20 / 6.15	6 / 152	7.8 / 2.4	150 / 70	1	200 / 91
EBD-60302	3 / 0.92	2 / 0.60	5 / 1.55	6 / 152	7.8 / 2.4	75 / 34	2	170 / 77
EBD-60703	7 / 2.15	3 / 0.92	10 / 3.10	6 / 152	7.8 / 2.4	75 / 34	2	177 / 82
EBD-61005	10 / 3.10	5 / 1.55	15 / 4.60	6 / 152	7.8 / 2.4	75 / 34	2	185 / 84
EBD-61505	15 / 4.60	5 / 1.55	20 / 6.15	6 / 152	7.8 / 2.4	75 / 34	2	200 / 91
EBS-805	5 / 1.55	—	5 / 1.55	8 / 200	7.8 / 2.4	150 / 70	1	195 / 88
EBS-810	10 / 3.10	—	10 / 3.10	8 / 200	7.8 / 2.4	150 / 70	1	214 / 97
EBS-815	15 / 4.60	—	15 / 4.60	8 / 200	7.8 / 2.4	150 / 70	1	235 / 107
EBS-820	20 / 6.15	—	20 / 6.15	8 / 200	7.8 / 2.4	150 / 70	1	254 / 115
EBD-80302	3 / 0.92	2 / 0.60	5 / 1.55	8 / 200	7.8 / 2.4	75 / 34	2	230 / 104
EBD-80703	7 / 2.15	3 / 0.92	10 / 3.10	8 / 200	7.8 / 2.4	75 / 34	2	255 / 116
EBD-81005	10 / 3.10	5 / 1.55	15 / 4.60	8 / 200	7.8 / 2.4	75 / 34	2	272 / 124
EBD-81505	15 / 4.60	5 / 1.55	20 / 6.15	8 / 200	7.8 / 2.4	75 / 34	2	298 / 135

The MAXIREACH swing boom is shipped partly assembled but requires minimal final field assembly. Because of carrier restrictions, swing booms horizontal steel tubes longer than 10' (3 meters) are shipped in two (2) pieces. A joiner with fasteners is included for field assembly.





5 OPERATION AND PURPOSE

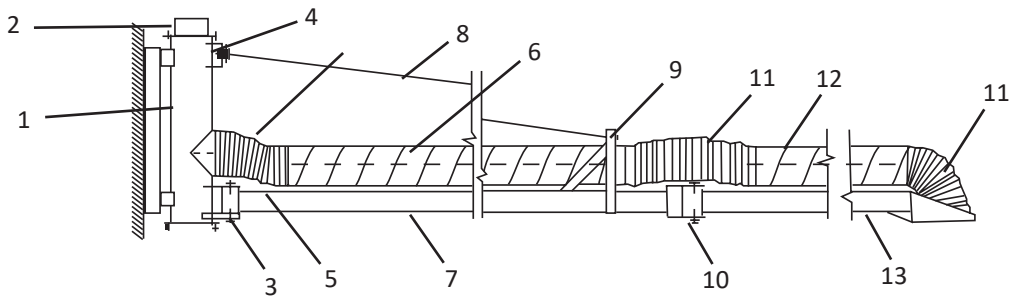
During normal operation, the MAXIREACH swing boom is pulled or pushed into position for source capture to vacuum dust or smoke laden air into the attached equipment such as the MAXAIR fume arm. Particles are vacuumed into the equipment toward an exhaust fan and into a dust collector or exhausted outside (when permitted).

6 NORMAL USE

The MAXIREACH swing boom is designed to remove fumes, gases or dust from the air resulting from a fabrication process. Each MAXIREACH swing boom is built as per the criteria and information supplied by the customer for a specific application and should not serve any other application without the approval of A.Q.C. Inc.

7 COMPONENTS (SINGLE AND DOUBLE PIVOT)

1. Boom base
2. Duct companion flange
3. Boom base pivot joint
4. Boom base tie rod end support bracket
5. Boom base flexible hose
6. Ducting system spiral pipe
7. Horizontal steel tube support
8. Pull rod with tie rod end
9. Pull rod support bracket
10. Middle pivot
11. Flexible hose
12. Ducting system spiral pipe
13. Support beam made of square tubing with bracket to mount Maxair self-supporting arm



8 INSTALLATION

WARNING!

Installation of equipment must be performed as per local building laws and regulations. Structure must meet proper weight support of arm and equipment.

8.1 Inspection of goods

The MAXIREACH swing is shipped partly assembled or in sections. Proceed with a visual inspection upon receiving the material and check for any apparent damage that may have occured on freight. Generally, shipment includes the boom base, horizontal tubes, spiral duct and flexible hose. Other optional components such as fume arms, hose reels or hose drops may be delivered on separate skids.

8.2 Location

1. The wall or column where the swing boom will be installed should be able to support the weight of such along with the accessories and / or attached equipment. Such support structure should be level for the swing boom to remain steady when not in use.
2. The span or reach of the swing boom should not be encumbered by overhead cranes, lighting, jigs or any other equipment.
3. Install the swing boom in a way to have access to the levelling pull rod, friction disks or any other equipment that may require scheduled maintenance.
4. If the swing boom is supplied with optional equipment, refer to the proper manual for installation and guidance.

9 ASSEMBLY

WARNING!

Installation of swing boom and optional equipment will require a lifting device. Such lifting device will need to stay in place and hold horizontal steel tube until all equipment is installed. It is advised to use a work platform at horizontal steel tube level to perform work around the unit. Lifting device will be required for final adjustment and to level horizontal swing boom appropriately.

9.1 Required tools

The following tools and equipment are required for the assembly of the swing boom:

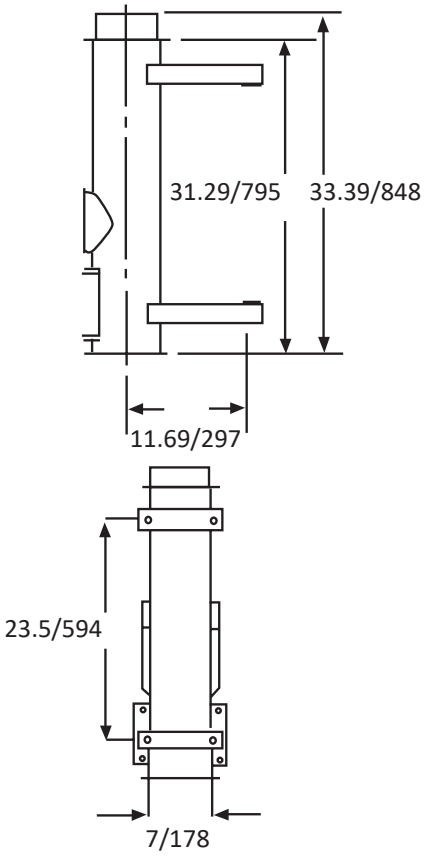
- Crane or lift truck
- Chains
- Slings
- Shackles
- Eye bolts
- Spikes
- Wrench
- Sockets
- Power drill
- Concrete drill bit
- Anchors
- Bolts
- Self tapping screws

Other tools may be required. It is advised to obtain services from a qualified contractor with appropriate equipment for proper installation.

9.2 Assembly (boom base pivot)

1. Prepare the area where the swing boom will be installed making sure it is clear and free of any obstacle.
2. Install boom base at appropriate or specified height. It is suggested to use minimum grade 5 fasteners to support boom base on support structure. Boom base may also be welded to support structure when permitted. **CAUTION:** Boom base has to be installed level (horizontally and vertically) to prevent "coasting" of horizontal steel tube.

6" (150MM) DIAMETER BOOM BASE DIMENSIONS



9.2.1 Assembly (first pivot)

3. Once the boom base is secured to support structure, align horizontal steel tube (#7) to pivot joint (#3) boom base pivot support bracket. Remove friction disks (#10) and steel pin (#13) from boom base pivot bracket.

4. Slide horizontal steel tube pivot section into boom base pivot bracket. NOTE: Do not attempt to remove pivot bushings (# 12) from pivot joint.

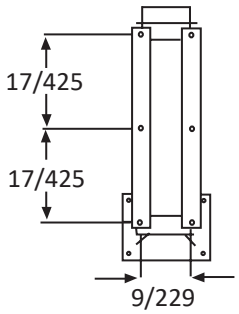
5. Insert one (1) friction disk (#10) over the pivot section and one (1) under the pivot section. Insert steel pressure plate (#9) over the top friction disk, sandwiched between the friction disk and the boom base top of pivot bracket.

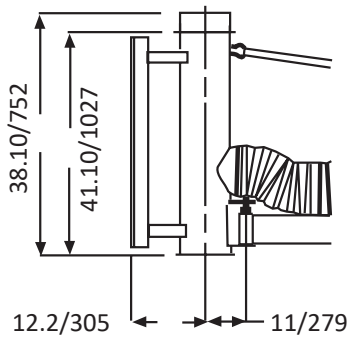
6. Using a spike, align holes of friction disks and pressure plate to pivot assembly, ready for steel pin insertion. NOTE: Ensure pressure plate grooves are aligned with holes on top part of pivot boom base support section.

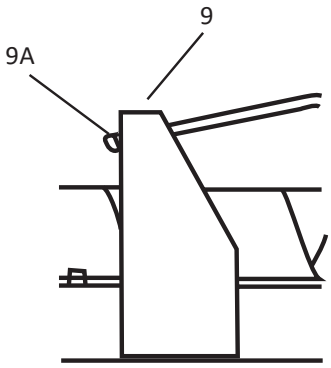
7. Remove cotter pin from steel pin (#13). Insert steel pin from underneath boom base pivot support bracket until completely through. Secure with cotter pin.

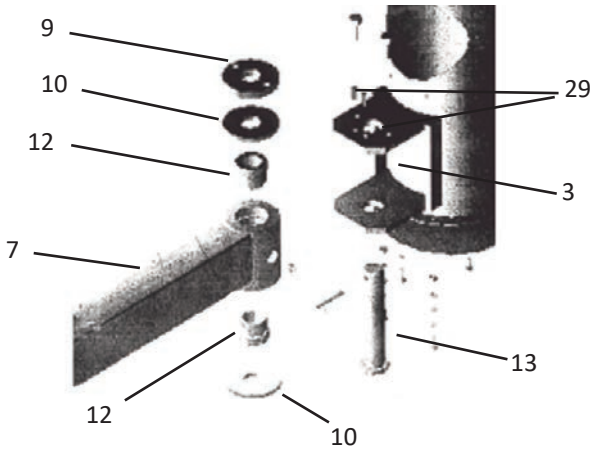
8. Temporarily secure the steel pressure plate by slightly screwing the (2) screws (#29) into steel pressure plate grooves.

9. Remove last nut and washer from threaded end of pull rod. Insert pull rod threaded section into pull rod horizontal support bracket (#9a) about 12" (30 cms) into the bracket.

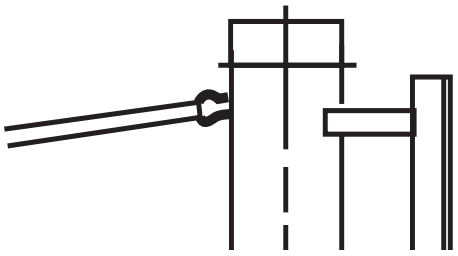






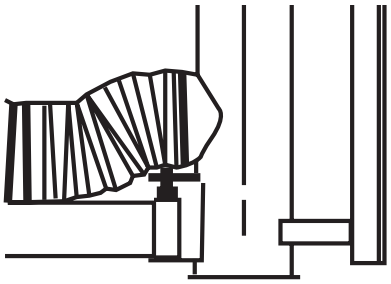


10. Insert tie rod end section of pull rod into boom base pull rod support bracket and attach with fastener. Replace last nut and washer onto threaded end of pull rod.



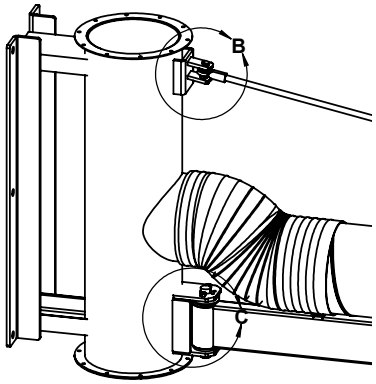
Note: At this point, do not try to adjust and level the horizontal support beam. Wait until optional equipment at end of swing boom has been installed.

11. Using the hose clamps supplied, fasten flexible hose from spiral pipe section to boom base flexible hose flange.



9.2.2 Assembly (middle pivot, if ordered)

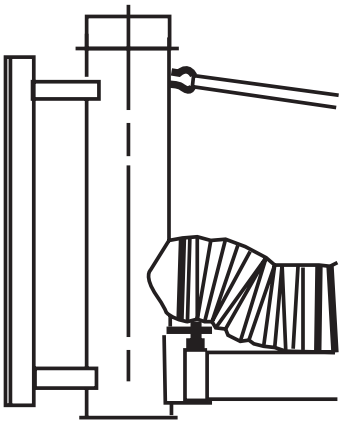
1. Remove friction disks and fasteners from horizontal steel tube middle pivot bracket.
2. Slide middle pivot assembly into pivot bracket.
3. Insert (1) friction disk (#10) over and under the pivot section.
4. Using a spike, align holes of friction disks to pivot assembly, ready for fasteners insertion.
5. Insert bolt and washer from the top of assembly and attach with nut and washer underneath pivot assembly.
6. Using the hose clamps supplied, fasten flexible hose from spiral pipe section to middle section.



9.3 Connection of boom base to exhaust ductwork

MAXIREACH extension swing booms are supplied with one (1) duct companion flange. By factory standards, companion flange is installed on the upper (top) part of the boom base. Field modification to have companion flange installed at the bottom is as follows;

1. Remove duct companion flange from upper boom base section
2. Remove boom base cover plate from lower boom base section
3. Install duct companion flange on lower boom base section
4. Install boom base cover plate on upper part of boom base.



9.4 Assembly of optional equipment on swing boom

9.4.1 MAXAIR fume arm

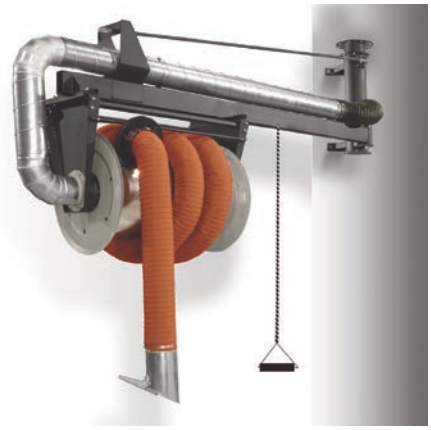
Refer to MAXAIR installation manual.

9.5 MAXIDROP hose drop system

Refer to MAXIDROP installation manual.

9.6 MAXIREEL exhaust hose reels

Note: The following MAXIDROP and MAXIREEL installation procedures should include a hanging cable with handle for lateral displacement of MAXIREACH extension swing boom. A.Q.C. usually supplies cable and handle. Contact factory or representative if piece is missing.



BOOM LATERAL POSITIONING
CABLE AND HANDLE KIT

WARNING!

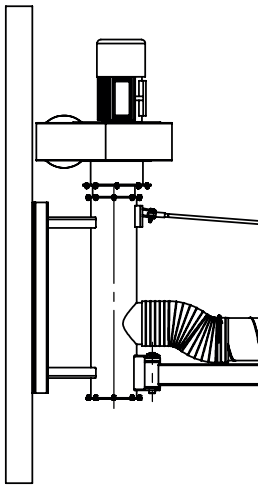
Because of hose reel weight, it is not recommended to install such equipment on double pivot swing booms. Maximum weight tolerance of reel with SINGLE pivot booms has to be approved by A.Q.C.

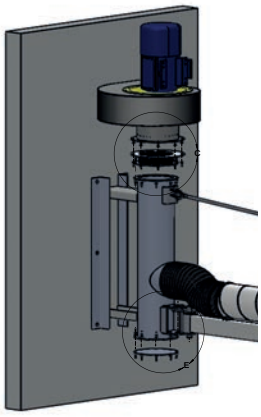
9.7 MAXIDRIVE exhaust fans (discard duct companion flange for direct boom base fan mount)

MAXIDRIVE fans can be installed on top or bottom of boom base. Direction of exhausted air has to be confirmed by customer or engineer.

1. Prior to installing the fan, ensure direction of ductwork connected to fan outlet will not come in direct contact with obstacles such as overhead cranes, light fixtures, etc. Usage of elbows or bends are allowed.
2. Install fan on boom base using the fasteners. Bolt pattern on 1HP fan inlet match 6" boom base flanges and 2HP fan inlet matches 8" boom base flange.
3. Connect exhaust ductwork to fan outlet.

Note: if a 2HP fan (8" inlet) is used with a 6" diameter swing boom, installer will need to supply an offset bend such as drawing below in order for fan scroll to clear support wall or column. A.Q.C. may supply offset if specified.





WARNING!

Refer to the Safety section prior to proceeding with any maintenance or inspection on the extension swing boom.

10. START UP

10.1 Check list

1. Move extension boom from right to left and ensure it does not "jerk".
2. Ensure extension boom does not "swing" excessively.
3. Ensure swing boom does not hit obstacles such as lights, columns, etc.
4. Ensure exhaust duct is sealed and installed properly.
5. Ensure all flexible hoses are clamped tight.

11 MAINTENANCE AND INSPECTION

The chart indicated below shows different inspections and the frequency at which they should be performed.

Frequency of inspections	Components	Procedures
Daily	Pivot joints	Move extension boom left and right and ensure boom moves in desired location.
	Support base	Push extension boom up and down. Ensure there is no excessive "play" in movement.
Weekly	Flexible hoses	Ensure hose clamps are secured.
		Check for cracks or tears in fabric. Replace if necessary.
Yearly	All components	Check sturdiness of support base installation.
		Check wear on pivot friction discs and steel pins.
		Check all welds.

12 TROUBLESHOOTING

Problem	Probable cause	Solution
Extension boom does not stay in place	Boom base not level	Ajust level on boom base.
	Friction discs worn out	Replace friction disks.
Insufficient suction of dust or smoke	Tear or hole in flexible hose fabric	Replace flexible hose.
	Hose clamps loose	Tighten clamps or replace if necessary.

13 WARRANTY

13.1 ***Coverage:*** Aireau Quality Control Inc. or its designated affiliate (the "Seller") selling the product (the "Product"), warrants that the Product sold by Seller will be free from defects in material and workmanship for a period of 12 months from the date of its installation or 14 months from the date of shipment by Seller, whichever date is earlier (the "Warranty Period").

13.2 ***Exceptions:*** This warranty does not apply to any Product or portion thereof that: (i) has been used in a manner not in compliance with Seller's or manufacturer's documentation and instructions, (ii) has had changes, alterations or repairs made by a person other than a person authorized by Seller, (iii) has been improperly installed or used or has been installed or used contrary to applicable codes, standards, laws and regulations, (iv) has been subjected to improper storage, accident, neglect, misuse or abuse, (v) has been damaged during shipping, (vi) has been subject to damages resulting from normal wear and tear, (vii) has not been used with appropriate fire protection systems or explosion venting when required or (viii) has not been installed by a licensed contractor with experience in fire and explosion hazards and applicable codes, laws and regulations . For greater certainty, this warranty does not apply to filters sold as part of, or for use with, the Product. Unless specifically accepted otherwise in writing by Seller, Seller does not warrant that electrical equipment will comply with any laws or regulations of the customer's jurisdiction.

13.3 ***Claims:*** To benefit from this warranty, customer must notify Seller in writing of the Product defect, which notice shall include a reasonable description of the defect, within 10 days from the date such defect is discovered or ought to have been discovered.

13.4 ***Remedy:*** During the Warranty Period and subject to the terms herein, Seller will, at its option, either: (i) repair or replace the Product or any defective parts or components (except for filters) with Product, parts or components (except filters) free from defect or (ii) credit or refund the purchase price of the Product. If Seller so requests, customer must return the defective Product to Seller's place of business determined by Seller. Shipping, installation, removal and re-installation costs will be solely borne by the customer. **The foregoing shall be customer's sole and exclusive remedy for any defect in the product, its parts and components and for any breach of the warranty herein.**

13.5 ***Disclaimer:*** **Except as set forth in this section 1, each of seller, its affiliates and their directors, officers, subcontractors and representatives (the "seller parties") disclaims all representations and warranties, whether written, oral, express, implied, statutory, or otherwise, including all implied warranties of merchantability, quality, fitness for a particular purpose, non-infringement, and warranties arising from a course of dealing, course of performance, usage, or trade practice and customer hereby expressly waives any right related thereto. Without limitation to the foregoing and except as expressly set out herein, the seller parties do not represent or warrant that: (a) the use of the product will be timely, uninterrupted or operate in combination with any other hardware, software, system or data or (b) the product will meet customer's intended use, requirements or expectations.**

14 LIMITATION OF LIABILITY

14.1 ***Limitation of Liability:*** **Notwithstanding anything to the contrary, in no event will the seller parties' liability arising out of, or related to, the product or its parts and components, whether pursuant to contractual or extracontractual liability, tort or under any other theory of liability, exceed the price paid to seller for the product giving rise to such liability.**

14.2 ***Exclusion of Consequential and Similar Damages:*** **Notwithstanding anything to the contrary, in no event will the seller part ies be liable for any indirect, punitive, special, exemplary, incidental, consequential or other similar damages of any type or kind (including loss of revenue, profits, use or other economic advantage, damages due to product failure, work stoppage or delays in delivery) arising out of, or in any way connected to, the product or its use, breach of contract, tort (including negligence), strict liability, product liability, or otherwise, regardless of cause, even if the seller parties had previously been advised of the possibility of such damages or could have reasonably foreseen them.**

14.3 ***Fire and Explosion and Acceptance of Risk:*** Customer acknowledges that improper installation or use of the Product may result in fire or explosion. To minimize such risks, proper installation, operation, and maintenance of the Product in accordance with all applicable codes, standards, laws and regulations is critical. Prior to installation and use, customer shall ensure that the Product meets the applicable codes, laws and regulations, including those related to the addition of appropriate fire protection systems or explosion venting. Installation shall be performed by a licensed contractor with experience in fire and explosion and applicable codes, laws and regulations.

15 APPLICABILITY

15.1 The terms herein constitute the only warranty given by Seller with respect to the Product. No other terms and conditions, whether included on a purchase order or in any other document, shall apply or bind the Seller with respect to the Product warranty and all such terms and conditions and documents are expressly disclaimed.

16 GOVERNING LAW

16.1 These warranty terms will be governed by and construed under the laws in force in the Province of Ontario, Canada, excluding its conflict of law rules.