



SPRAYBOOTH.NET

Manufacturing Company

Operation and Product Manual

FOR THE FOLLOWING MODELS

- ECO 50
 - VECTOR 150
 - DELTA 250
 - STEALTH 350
 - CARGO 550
 - PREP STATION 150, 250, & 350
 - MIXING LABS
-
- Components Details and Use
 - Ducting Assembly
 - Assembly Diagrams
 - Assembly Tools Needed
 - Test Reports and Certifications
 - Warranty Information
 - LED Lights Assembly
 - Scheduled Maintenance

EXHAUST FAN

Tube Axial Exhaust Fan (TAF)



Streamlined belt tunnel isolates the motor, drives, and bearings from the air stream. Designed to operate in any position and utilizes precision balanced, spark-resistant aluminum fan blades. Steel fan housing is finished with an acrylic epoxy finish. Cast iron sheave is installed on fan shaft. Fans may be ordered with drive package that include motor and drives.

Shown with optional belt guard

Max inlet air temperature: 200°F
Permanently lubricated ball bearings
Belt guard included

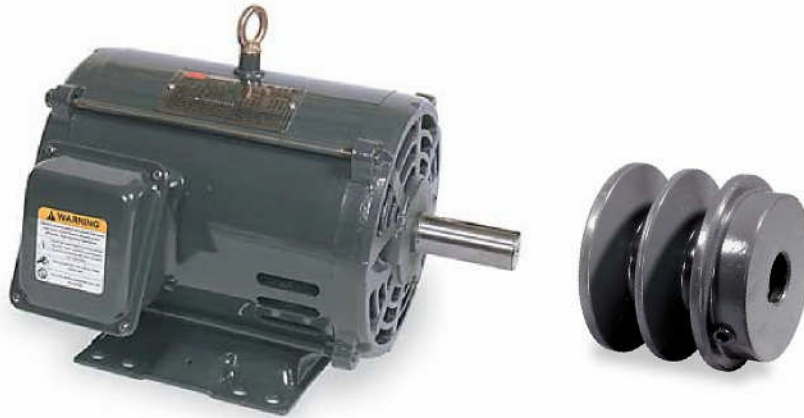
Note: Review OSHA codes. OSHA compliant guards are required when fan blades are exposed and within reach of personnel. Use a hazardous location motor where flammable vapors are present.



MOTOR AND DRIVE

Exterior mounted fan motor and pulley

Motor mounts to fan base with supplied hardware



Fixed bore cast Iron 2 groove sheave or 1 groove sheave mounts to motor shaft depends on your equipment.

Open bore pulley



Split taper bushing



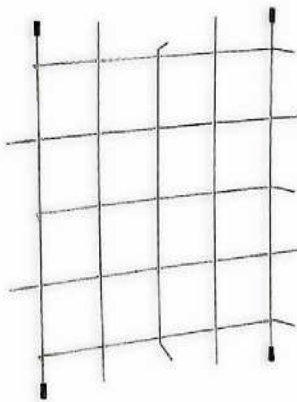
EXHAUST FILTERS

20" x 20" x 2" Paint arrestor filter pads

20" x 20" x 2" Filter cell



20" x 20" Wire grid mounts in filter cell frame 1/8" wire with rubber tips to hold Cell in. Each cell uses 1 grid, in the back of filter pad.



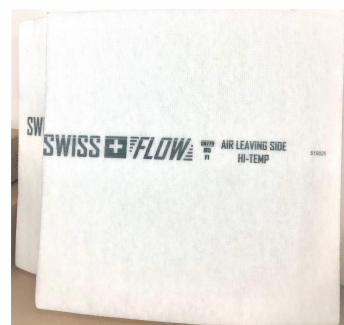
Mounting process:

First insert grid in cell with holders out, then insert filter with white side outside of spray booth.

INTAKE FILTERS



20" x 20" x 2" Intake air filter Mounts in air intake cell. Self sealing perimeter with build in wire. Filter pushes into cell for mounting



37"x117" Intake ceiling filters are place on the top portion of the spray booth to allow air to enter the booth.

DOOR HAREWARE

Large Door Latch



Supplied black bolts

1/4" black bolt screw mounts latch to front main doors and man access door.

3 Large latch mounts for all doors (2 for front main doors & 1 for man access door)

Door latch mounts to spray booth doors with supplied mounting screws. Latch holds door closed. Cast iron construction with 3/8" mounting holes.

Door Handle



3 piece door handles mount to front and side man door with supplied black bolts

ACCESSORIES

Air Solenoid Valve

The air solenoid valve is part of the booth safety circuit. It is used to prevent spraying operations when doors are open.



The valve is UL listed for use with air.

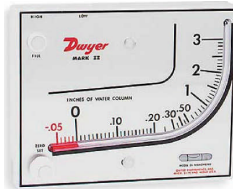
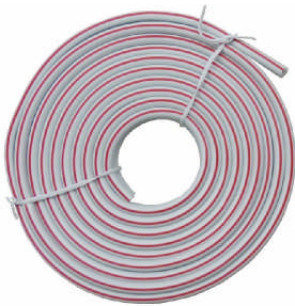
The pressure rating is 3-150 psi.

Electrical rating is 240 VAC, 60Hz, 8W.

Comes with conduit connection on solenoid coil.

Compressed air pipe connections are 1/2" NPT.

Manometer Tubing and Pressure Indicator Fluid



The tubing is used to connect the manometer High and Low pressure ports to the spray booth cabin and plenum. Barbed fittings, washers and nuts are also provided in the kit for spray booth wall penetration.

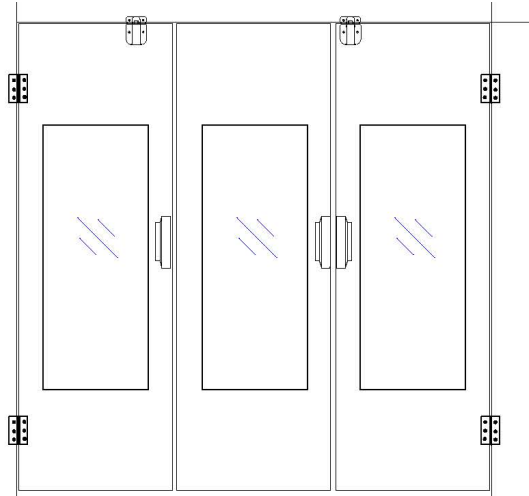
Fill gauge with red indicator fluid according to the manometer instructions.

Door Gasket Seal

The door gasket is used to prevent dust and other shop contaminants from entering the spray booth environment. The door seal comes in 25' rolls in 3/16" W x 1/2" H or 3/8" W x 3/4" H dimensions. The back of the door seal is coated with adhesive for easy installation.



DOOR INSTALLATION DETAIL



Basic Door Mounting and Set up:

1. Square front opening to match doors dimensions.
2. Do not anchor hinge panels until doors are hung. Hinge panels may need to be moved right or left to set center gap dimensions.
3. Block bottom of door at 3/4" and top at 1/4".
4. Set side gaps at 5/16", center gap will be about the same.
5. Mount doors with self tapping screws, Screw through hinge into hinge panel.
6. Mount hinge panels to floor and set bottom gap all dimensions.

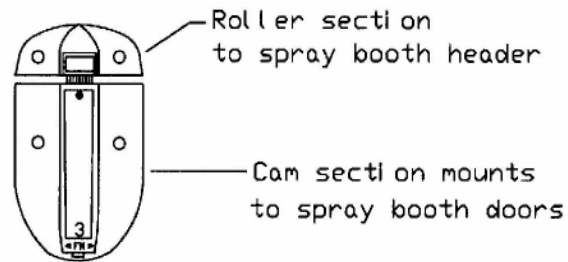


Bottom Door Seal

The bottom door flat seal is used to prevent dust and other shop contaminants from entering the spray booth environment. The flat rubber seal comes in 10' roll with a metal frame for easy installation.

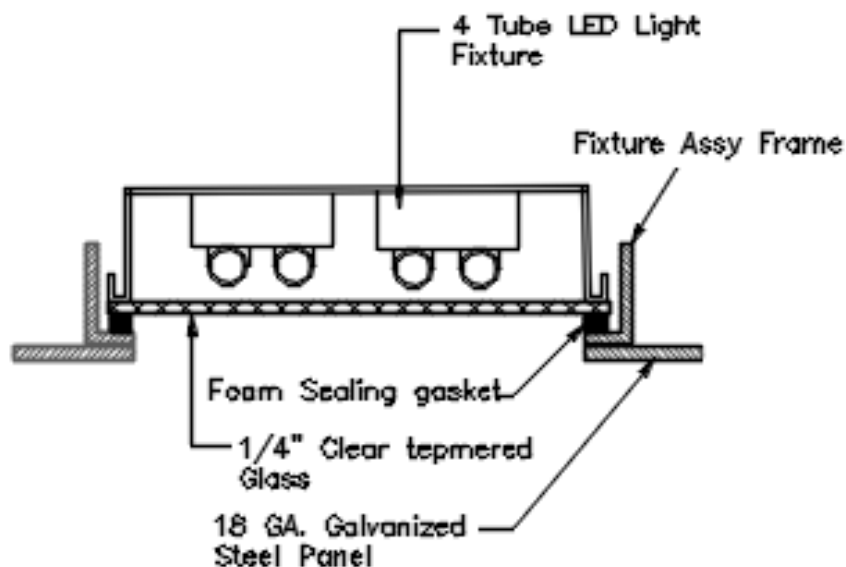
LATCH INSTALLATION DETAIL

Model 176 Latch
Vertical Mount

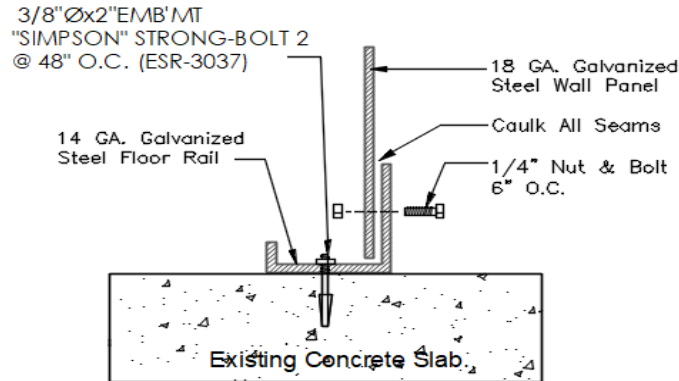


Attach cast latch to door
and header with mounting screws
Gap between latch and
cam should be 1/16" to 1/8" max clearance
for proper space. Latch may not
operate properly if distance is greater.

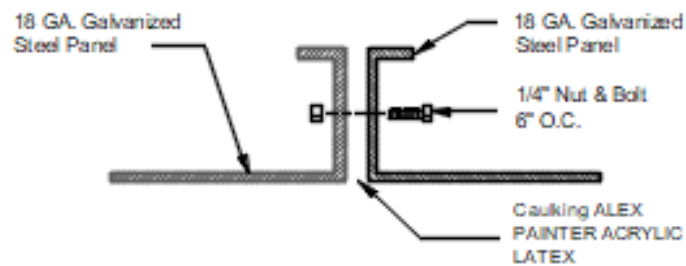
LIGHT FIXTURE DETAIL



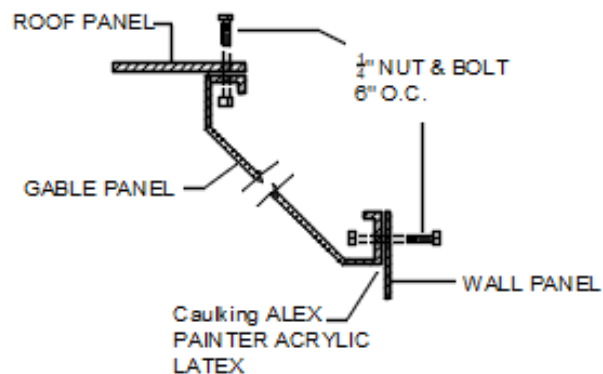
ANCHORAGE ALONG SIDE WALL DETAILS



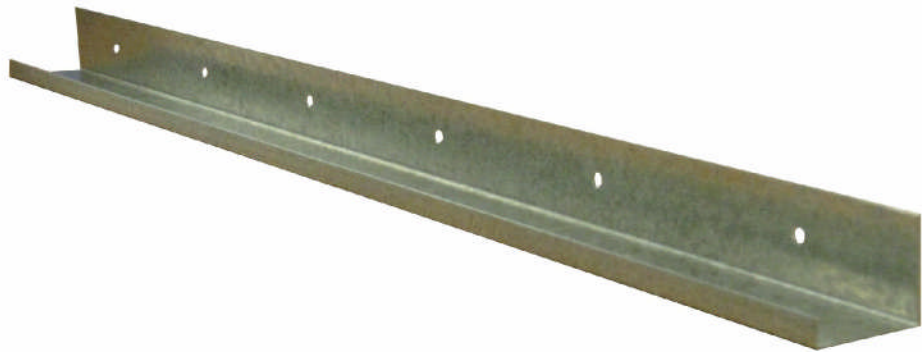
PANEL TO PANEL DETAIL



ROOF TO WALL PANEL DETAIL

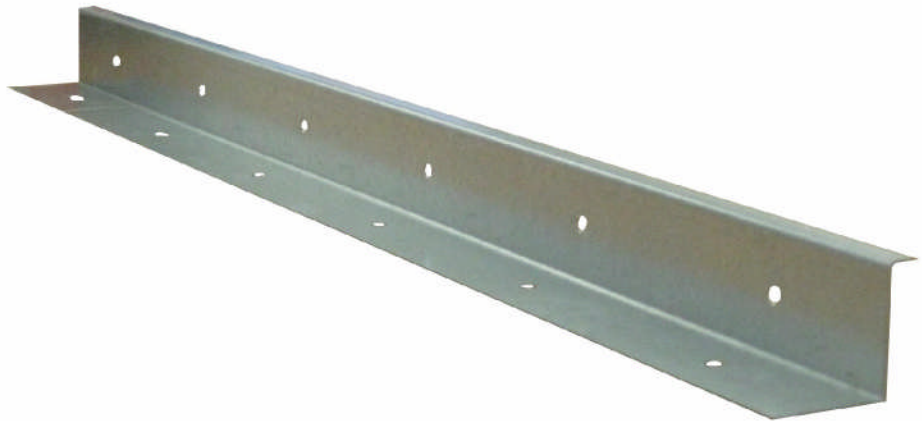


Floor Rail



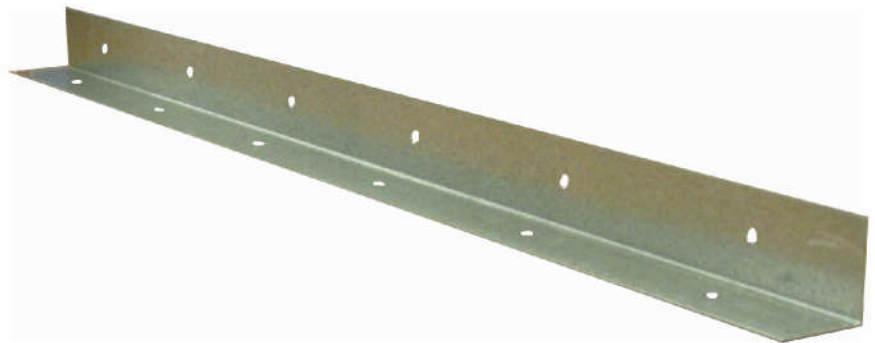
Floor rail connects wall panels to floor

Z Bar



Z bar connects wall panels to ceiling panels

L Angle



Utility L mounting angle Used to mount panels and parts together. May be used in place of floor rail at man door

Certificate



Certificate no.

CU 72191985 01

License Holder:

The NVME Group Inc.
dba: RGI Spraybooths.net
1852 W. 11th Street Suite 159
Tracy CA 95376
USA

Manufacturing Plant:

RGI Spraybooths.net
410 East Grant Line Road Bldg 1
Tracy CA 95376
USA

Test report no.: USA-AM 31982728 001

Client Reference: Napoleon M. Garcia

Tested to: UL 1598:2018
CAN/CSA-C22.2 No. 250.0-18

Certified Product: Recessed Luminaire

License Fee - Units

Model Designation: RGI-LED

7

Rated Voltage: AC 100-277V, 50/60Hz

Rated Power: 72W

Protection Class: I

Appendix: 1, 1-10

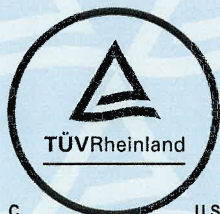
7

Licensed Test mark:

Date of Issue

(day/mo/yr)

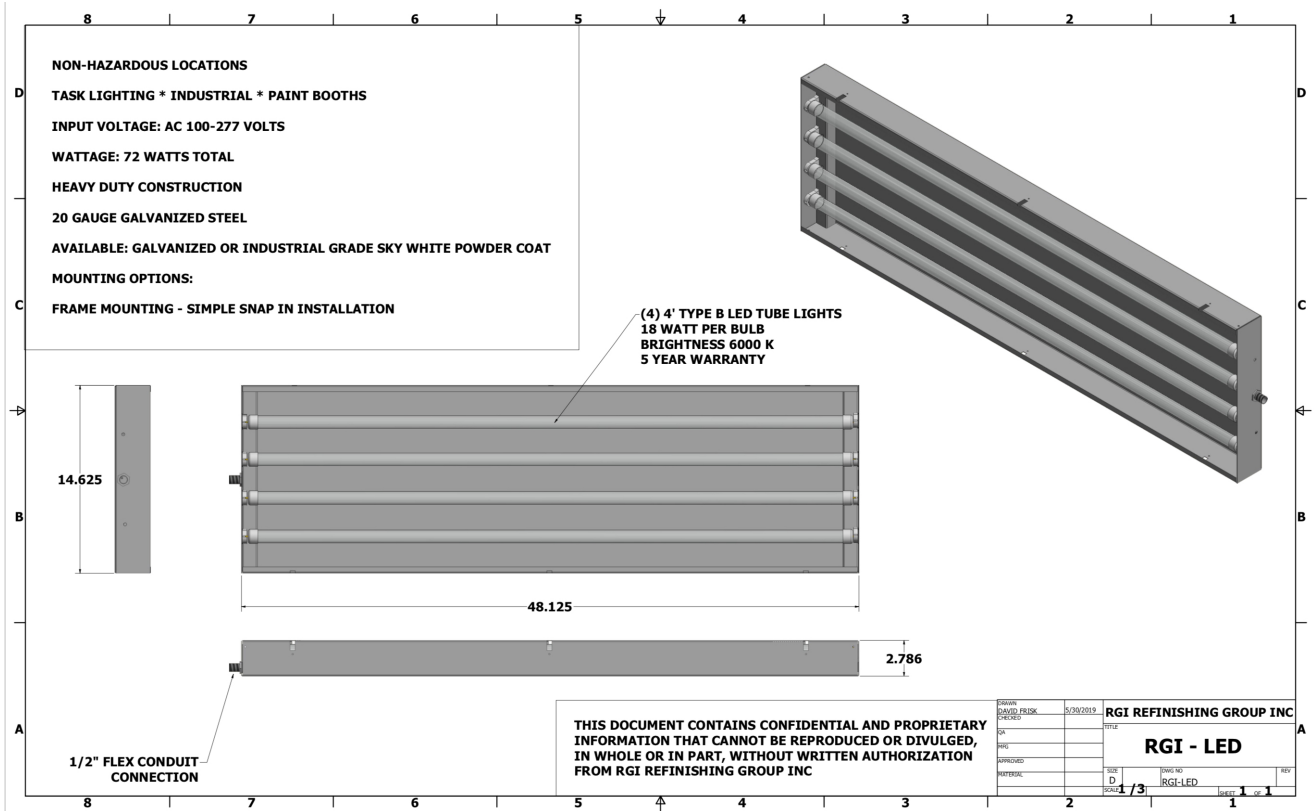
24/11/2019



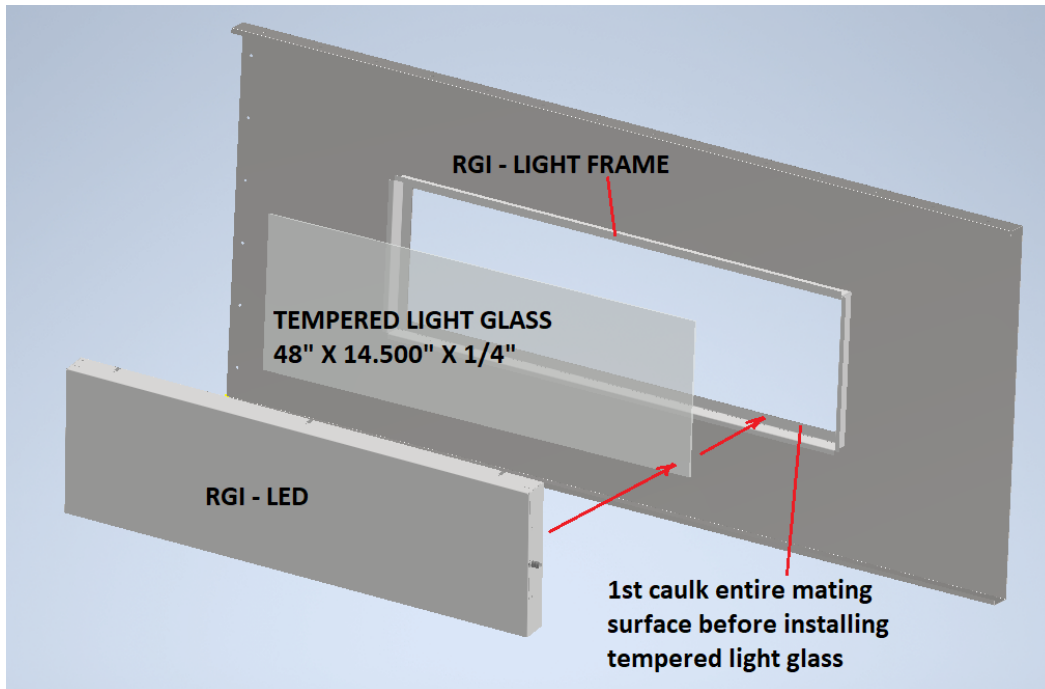
LIGHT FIXTURES

RGI LED Fixture

					OUTPUT AT 5000K CCT	
SOURCE	WATTAGE	INPUT VOLTAGE (VAC)	INPUT CURRENT (A) @ 120V	INPUT CURRENT (A) @277 V	LUMEN OUTPUT (DIFFUSED LENS)	LUMEN OUTPUT (NO LENS)
RGI-LED	72	120-277V	0.62	0.26	8200	8,800



Spray booth wall or panel mounted design



WIRING RGI - LED



Uncoil wire bundle.



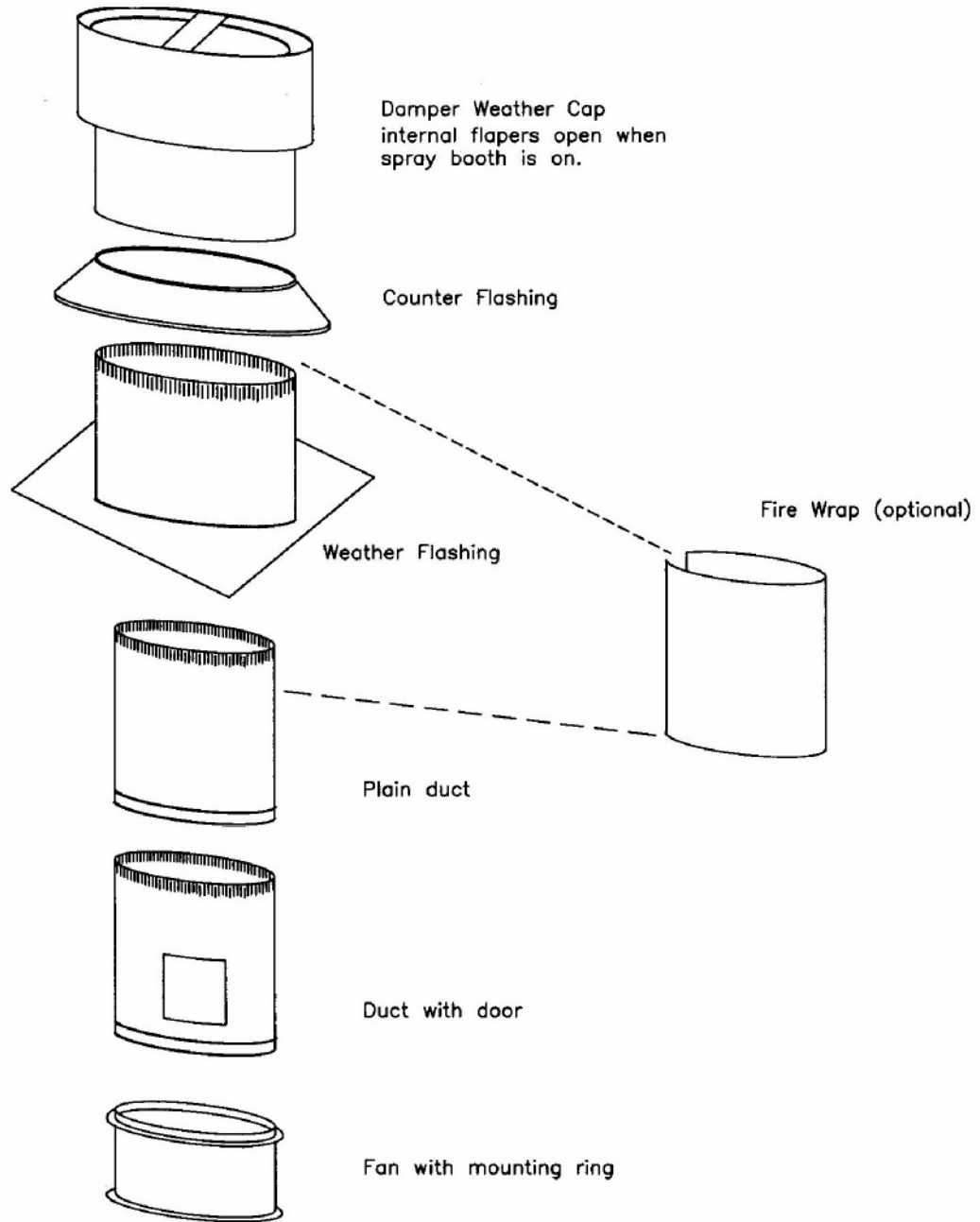
Feed wires through 1/2" conduit shown.



Connect conduit to the mating fitting on the RGI - LED. Connect to mating wires at junction box. See wiring diagram. The services of a licensed electrician may be required in your jurisdiction district.

EXHAUST DUCT INSTALLATION DETAILS

Typical Duct System



DUCT ACCESSORIES

Damper weather cap



Offset elbow (Optional)



Damper weather cap opens automatic when fan is turned on. Damper mounts above roof line for exhaust air

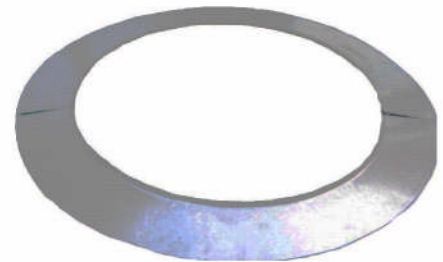
Plain Duct



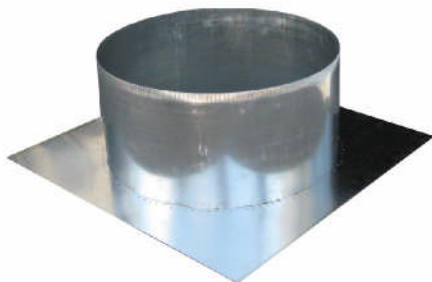
Plain duct joints connect together with crimp and bead.

Duct is 4' lengths

Flashing



Counter flashing seals opening in flashing. Mounts to plain duct

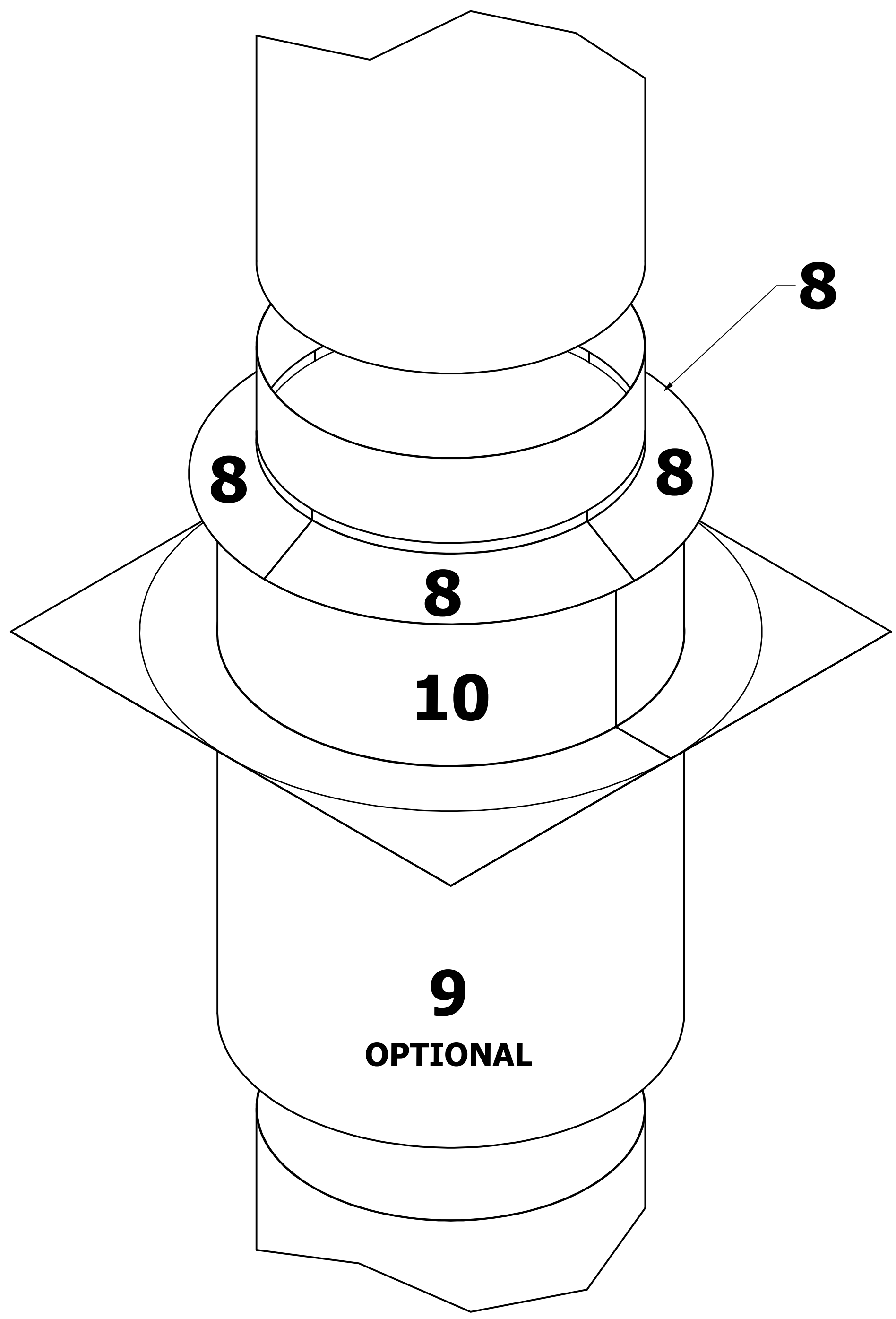


Weather flashing

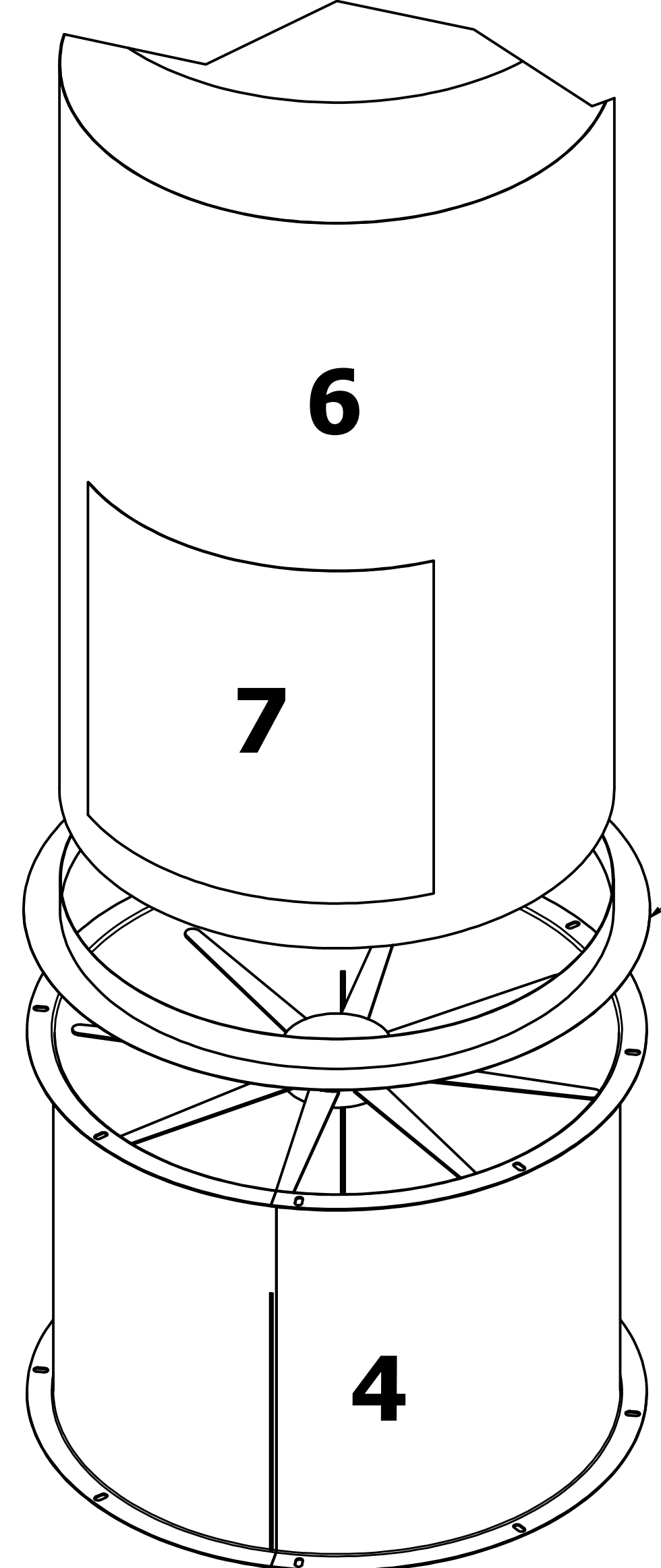
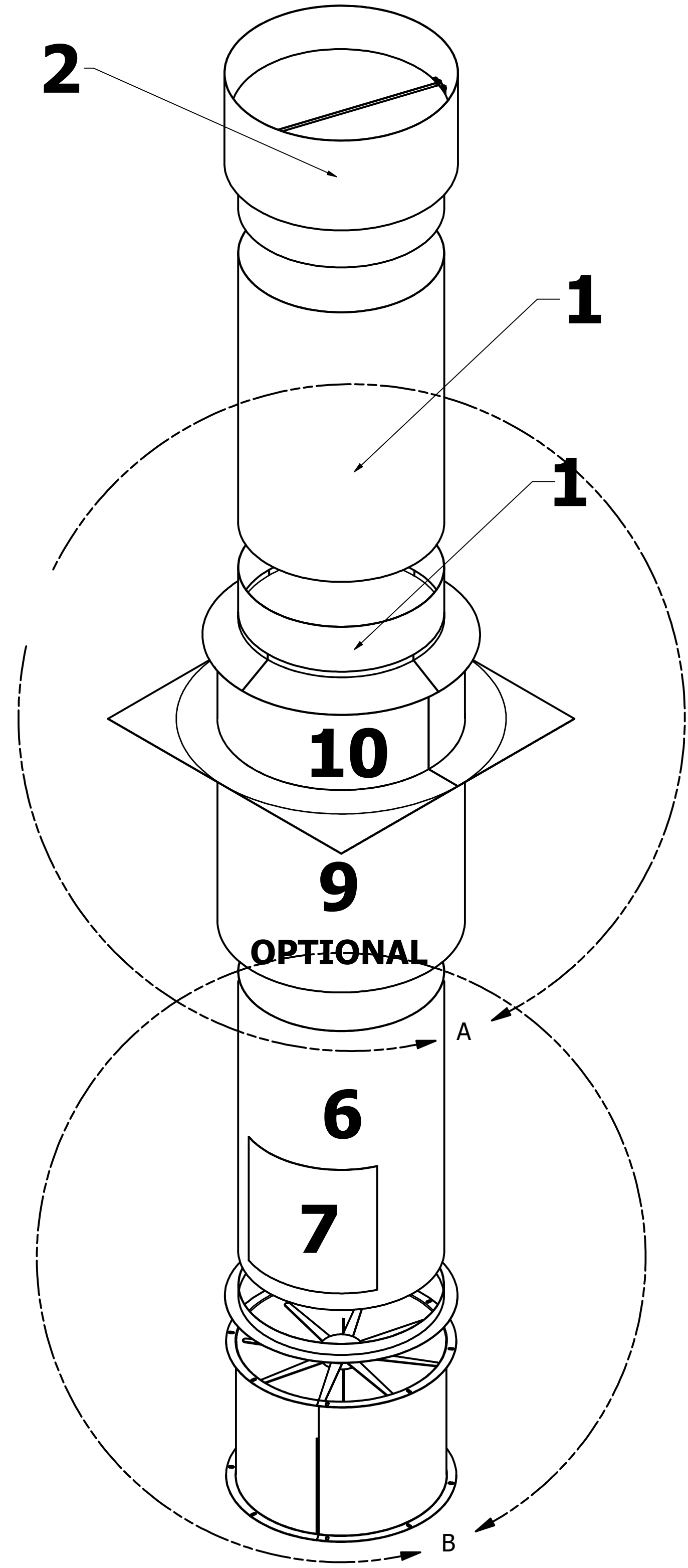
Weather flashing mounts on roof top. Flashing is nailed in place on roof top and sealed with tar

8 7 6 5 4 3 2 1

PARTS LIST			
ITEM	QTY	PART NUMBER	EXTRA QTY
1	2	DUCT	
2	1	DUCT DAMPER	
3		45 DEG ELBOW (ONLY IF REQUIRED)	
4	1	FAN	
5	1	RING	
6	1	DUCT INSPECTION	
7	1	DUCT INSPECTION COVER	
8	4	DUCT QUARTER SECTION SKIRT (COLLAR)	
9	1	DUCT FIRE WRAP DUCT DIAMETER + 2" - LENGTH 36" OPTIONAL	
10	1	DUCT FLASHING DUCT DIAMETER + 6"	



DETAIL A
SCALE 1 / 7



NOTES: 1) MALE (CRIPPED END) OF DUCT MUST BE UP
FEMALE END IS DOWN
2) FIRE WRAP IS USED ON WOODEN ROOFS

DETAIL B
SCALE 1 / 7

ORDER		CUSTOMER	
DRAWN	2/12/2021	RGI SPRAY BOOTHS	
CHECKED		TITLE	
QA		DUCTING KIT	
MFG		SIZE	DWG NO
APPROVED		D	FAN & DUCT KIT
MATERIAL		SCALE	REV
		1 / 14	SHEET 1 OF 1

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8 7 6 5 4 3 2 1

PANELS

Gable panel with light opening



Fan panel with cut out for mounting fan



Standard panel for walls or ceiling areas



Man access door with view window



Corner panel rear wall gable booth



Standard panel with light opening



Metallurgical Test Report and Certification

P.O. NUMBER 4164-08
 VEHICLE ID CUSTOMER TRUCK

MILL ORDER NUMBER NS3741901 TALLY TF297274
 SHIP DATE 10-15-2021

SOLD TO: 0060252 001
 MERIT ENDS INC
 620 CLARK AVENUE
 PITTSBURG, CA 94565-5099

SHIP TO:
 MERIT ENDS INC
 620 CLARK AVENUE
 PITTSBURG, CA 94565-5099

PREPARED BY THE OFFICE OF:
 RONNIE PIERCE
 MANAGER QA

ON:
 DATE 10-15-2021
 TIME 05:15:40

PREPARED BY MANAGER OF QA
<i>Ronnie Pierce</i>
UPI

SPEC: GALVANIZED SHEETS, ASTM A653-20 SS GRADE 33, MIN
 SPANGLE, G90, CHEM TREAT, NO OIL, 1/3 STD MIN
 GAUGE TOLERANCE, 1/3 STANDARD FLATNESS TOLERANC,
 THICKNESS TOLERANCE IS BASED ON ASTM SUPPLEMENTARY
 REQUIREMENTS

CERT: THIS IS TO CERTIFY AND GUARANTEE THAT THE MATERIAL
 DESCRIBED HEREIN WAS MANUFACTURED, SAMPLED, TESTED,
 AND/OR INSPECTED BY UPI AND MEETS THE REQUIREMENTS
 OF THE STATED SPECIFICATION.

NOTE: THE MATERIAL DESCRIBED HEREIN WAS MELTED
 AND MANUFACTURED EXCLUSIVELY IN THE UNITED STATES.

MATERIAL DESCRIPTION: .0575 MIN X 48.0000

MELTED, Poured AND MANUFACTURED IN THE UNITED STATES.

HEAT# 114031 SOURCE HEAT# 21123242-2021 EAF
 C=.040, MN=.26, P=.016, S=.003, SI=.030, CU=.09, NI=.04, CR=.05,
 MO=.009, AL=.029, N=.009, V=.001, TI=.000, B=.006

HEAT NUMBER	TICKET ID	TEST PIECE IDENT	YIELD	TENSILE	ELONG.%	N-VALUE%		N-VALUE%			
			33KSI MIN.	45KSI MIN.	IN 2 20%MIN	IN BND	HRB	WGT	4TO6	VARIABLE	
114031	GTPL62	057MK1	45	55	35	OK	63	19940	.208	.199	10-20%3A
	GTPL63	057MK1	45	55	35	OK	63	19960	.208	.199	10-20%3A

Metallurgical Test Report and Certification

P.O. NUMBER 4087-06
 VEHICLE ID CUSTOMER TRUCK

MILL ORDER NUMBER NS3643401 TALLY TF291464
 SHIP DATE 09-01-2021

SOLD TO: 0060252 001
 MERIT ENDS INC
 620 CLARK AVENUE
 PITTSBURG, CA 94565-5099

SHIP TO:
 MERIT ENDS INC
 620 CLARK AVENUE
 PITTSBURG, CA 94565-5099

PREPARED BY THE OFFICE OF:
 RONNIE PIERCE
 MANAGER QA

ON:
 DATE 09-01-2021
 TIME 05:04:14

PREPARED BY MANAGER OF QA
<i>Ronnie Pierce</i>
UPI

SPEC: GALVANIZED SHEETS, ASTM A653-17 SS GRADE 33, MIN SPANGLE, G90, CHEM TREAT, NO OIL, 1/3 STD MIN GAUGE TOLERANCE, 1/3 STANDARD FLATNESS TOLERANC, THICKNESS TOLERANCE IS BASED ON ASTM SUPPLEMENTARY REQUIREMENTS

CERT: THIS IS TO CERTIFY AND GUARANTEE THAT THE MATERIAL DESCRIBED HEREIN WAS MANUFACTURED, SAMPLED, TESTED, AND/OR INSPECTED BY UPI AND MEETS THE REQUIREMENTS OF THE STATED SPECIFICATION.

NOTE: THE MATERIAL DESCRIBED HEREIN WAS MELTED AND MANUFACTURED EXCLUSIVELY IN THE UNITED STATES.

MATERIAL DESCRIPTION: .0356 MIN X 48.0000

MELTED, Poured AND MANUFACTURED IN THE UNITED STATES.

HEAT# 113303 SOURCE HEAT# 21102282-2021 EAF
 C=.030, MN=.24, P=.010, S=.003, SI=.030, CU=.09, NI=.04, CR=.04,
 MO=.010, AL=.028, N=.006, NB=.001, TI=.000, B=.0064

HEAT NUMBER	TICKET ID	TEST PIECE IDENT	YIELD 33KSI MIN.	TENSILE 45KSI MIN.	ELONG. % 20%MIN	IN 2	IN BND	HRB	WGT
113303	GTMM12	015MHL	45	55	31	OK	64	19980	
	GTMM13	015MHL	45	55	31	OK	64	19980	

General Component Use and Location

Some items are optional and not supplied on all types of spray booths.

Nuts, bolts and screws

Use nuts and bolts to fasten panels and components together. Tighten each nut and bolt securely.

1/4 x 20 Nuts

To bolt panels together. Combine with 1/4 x 20 bolt. 7/16" socket is used.

1/4 x 20-1/2, 3/4 Bolts

To bolt panels together with 1/4 x 20 nuts.

10 x 5/8 small self tapping screws

To mount light fixtures with L brackets. Connecting duct works. Mount wiper rubber brackets at bottom of doors. Mount small miscellaneous brackets or parts. Use a 5/16" drive socket or nut set.

1/4 x 14 x 1 large screws

Mount miscellaneous angles or brackets on spray booth. Use a 3/8" drive socket.

black bolts

To mount doors with hinges. Mounting door latches and door handles.

Mount or attach medium to heavy miscellaneous angles or brackets on spray booth.

Caulking

Used as final seal on seams of spray booth panels to prevent air and contaminants from entering the spray booth. Caulking to be applied inside of booth at panel seam only after booth has been erected, cleaned and anchored to floor. Also used to seal lights by caulking the glass from interior of booth. Light glass may also be caulked into holding cell from exterior.

General Component Use and Location

Large Door Latch

Mounts onto main doors and man door to hold door closed. Adjust door opening force to less than 15lbf. See detail for mounting instructions.

Manometer

Mounts to side of booth at air exhaust chamber. Manometer is designed to measure the pressure differential between the spray area and an exhaust plenum. Manometers measure the filter's resistance to air flow. The dirtier the filter get the less air it lets through. As spray booth airflow decreases, booth performance diminishes. Manometer should be calibrated to 0 inch WC with the booth running and new clean filters installed. The recommended change point is at .30"WC. See installation instructions.

Pulley (fixed or bush bore)

Mounts on motor as a fixed unit or with taper lock bushing.

Bushing

Mounts to pulley to clamp on to motor shaft. Bushing will match motor shaft diameter. When bolts are inserted through bushing into pulley, the bushing will clamp on to the shaft of the motor. The head of the bushing faces outwards. Tighten the bolts progressively alternating from side to side until they are tightened to manufacturer's specifications.

Belts

Fans are supplied with V-type drive belts. Belts should be inspected periodically and changed as needed. Mount per manufacturer's guidelines.

Door Rubber Seal

Mounts to bottom of door to provide seal. Rubber is held in place with wiper rubber holders. Rubber seals the open space between the bottom of the doors and the floor. See mounting instructions detail.

General Component Use and Location

Door Handles

Fasten door handles to main entry doors and man doors. Handles mount with 5/16 black bolt screws. Handles should be mounted on square tubing frame with 5/16 socket head cap screws through the sheet metal area. (Door handle comes in three pieces)

Door Rubber Gasket

Main use is to rubber seal door frames. Do not use as a gasket for lights or light glass. Apply rubber seal tape on all door jams including main doors and man door. Main use to seal and gasket doors. All areas must be clean and free of oil or grease prior to applying gasket materials.

Tube Axial Fan

The fan is designed specifically for paint spray booth applications. Fan is belt driven in order to position fan outside of exhaust duct. The motor is mounted on an adjustable base for easy belt tensioning. The fan has an aluminum blade. Fan bearings are sealed and permanently lubricated. Typical mounting location is on top of booth on fan panel. Use 5/16" nuts and bolts to mount fan to fan panel.

Motor

WEG electric motor is to be mounted on the fan with the supplied hardware. Motor drives the fan blade on the fan. Mount and install motor per supplied fan instructions.

Filters

Exhaust Filters 20"x20"

Exhaust filters are 20" x 20" x 2". They are designed to capture paint over spray. Exhaust filters mount in exhaust cells with wire grids.

Exhaust Filter Rolls varies of sizes 20"w, 30"w, 42"w, etc.. They are designed to capture paint over spray.

Intake Filters 20"x20"

Intake filters are three-ply 20" x 20" x 2" filters designed to filter intake air from particulate matter. Intake filter mounts in cell. Filters install with the green side to the interior of the booth and the white side to the incoming air.

Intake Filter Blanket Varies in Sizes 38"W, 56"W, 60"W, etc.. filters designed to filter intake air from particulate matter. Filters install with the writing facing down and the tacky white side to the incoming air.

General Component Use and Location

Filter Wire Grids

Grids retain exhaust filters in exhaust plenum holding cells. Place one grid in the filter cell with the prongs facing toward you. Push the grid in as far as it will go. Place a filter in the cell. The rubber tips on the grids are to secure the grid and help to take up any room between the filter cell and the grid.

Floor Rail

Used to mount wall panels to floor. This is a 14 Ga. galvanized steel rail with 6" OC pre-punched holes. Wall panels and floor rails should be connected before wall panels are erected. Floor rail should be anchored to floor at not more 36" intervals with an approved anchor type fastener.

Standard Panels

Panels are 18 Ga. galvanized steel construction. Panels have 2" x 1/2" flange along sides and are open on the ends. Panels have pre-punched holes on flanges for easy and accurate assembly.

Z Bar

The Z bar can be easily identified by its Z shape. Used to connect the wall section of the booth to the top section. The Z bar is formed from 18 Ga. galvanized steel with 6" holes on center. Z bar shall be bolted with supplied 1/4" nuts and bolts.

Gable Panels

Gable panels are the angle panels that join the wall section and the top section of the spray booth together. Gables may have light openings for fluorescent fixtures. Gables have pre-punched holes on flanges for easy assembly.

Support Header

The header is attached to the front of the booth to flanges of wall panels. The header provides the mounting point for top panels. The header also provides flame curtain.

General Component Use and Location

Clear Tempered Safety Glass

Provides fire barrier between interior of spray booth and light fixtures. Glass should be kept clean and free of over spray.

Main Doors

Tube frame construction. Installs into front of booth between hinge panels and under the header. Doors have pre-welded hinges that bolt to hinge panels.

Man Access Door

Tube frame construction. Installs into wall section of spraybooth. Door frame is pre-punched to install into floor rail. Door has mounting base for small latch on side of door. Door also has plate on top for door switch.

Door Stop Angle

Used to stop the bottom of the door when it is closed. This angle should be mounted to the floor with anchors bolts.

Door Switches

Mounts on outside of booth on man door and main doors. Door limit switch turns off compressed air when the door is opened in spray mode. The door limit switch turns off the flame when the door is opened in bake mode.

Motor Cover

Motor cover mounts on fan to cover motor and drive on fan. Motor cover has vented screens for cooling motor.

Fan Panel

Fan panel has round opening that fan mounts on. Support angles are welded on fan panel to support fan and motor.

Mag Starter

Starts and stops motor. Provides over load and single phase protection on three phase service. Starter provides control for the spray air interlock system. Starter should be mounted at least 36" away from any opening on the spray booth.

Air Solenoid Valve

The 240VAC normally closed valve installs into the compressed air line. The valve opens during the spray cycle when the exhaust fan is running. The valve closes when the spray cycle stops.

Warranty

LIMITED WARRANTY

All paint spray booths manufactured by RGI Mfg. Co. (RGI are warranted by RGI, against defects in workmanship for materials under normal use for one year after the date of purchase from RGI. Any part which is determined by RGI to be defective in material or workmanship and is returned to RGI, shipping cost prepaid, will be, as the exclusive remedy, repaired or replaced at RGI's option.

LIMITATIONS OF LIABILITY

Any liability of consequential and incidental damages is expressly disclaimed. RGI's liability in all events is limited to, and shall not exceed, the replacement price of the part.

PRODUCT SUITABILITY

All states and localities have codes and regulations governing the construction, installation and/or use of paint spray booths, which may be interpreted differently from those in neighboring areas. While RGI attempts to assure that it's spray booths comply with such codes, it cannot guarantee compliance, and cannot be responsible for how the spray booth is installed or used. Before the purchase and use of a spray booth, please review the spray booth application, and national and local codes and regulations, and be sure that the product, installation and use comply with them.

FREIGHT LOSS OR DAMAGE POLICY

Unless otherwise specified, RGI accepts no responsibility for loss or damages to products shipped from RGI unless said products are shipped freight prepaid by RGI. Exception: If it is determined by RGI that loss or damage occurred as a result of negligence on the part of RGI, RGI will replace the lost or damaged articles. If such a determination is made by RGI, replacement of lost or damaged articles will occur only after receipt of a written request, from the purchaser.

Warnings

Spray Booth Functions

- Provide a healthy working environment for the painter.
- Isolate the application of potentially hazardous substances from other operations in the workplace.
- Control overspray emitted to the outside environment.
- Improve the quality of the finished product by providing a clean, well lit area in which to apply surface coatings.

Installation, Operation and Maintenance

Many states and localities have codes and regulations governing sales, construction, installation and/or use of products for certain purposes, which may vary from those in neighboring areas. Before purchase and use of a product please review the product application and national and local codes and regulations to be sure that the product installation and use will comply with them.

A permit might be required to install this product.

There are inherent hazards associated with the operation and service of this equipment. For your personal safety, observe all of the safety information. Failure to observe these safety practices can result in personal injury or death.

It is impossible to list all potential hazards of this equipment.

Observe all warnings and make sure you are thoroughly familiar with this manual and the equipment.

RGI spray booths are designed to be installed and maintained by trained and qualified spray booth professionals.

All operators, users and service personnel have to be trained in the following:
Potential safety and health hazards. Operation, maintenance, and emergency procedures.
Importance of constant operator awareness.

All training has to be documented on the Booth User Training Sheet as per NFPA 33 Chapter 18.

Warnings

General

Follow all general standards for installation and safety for work on installations.

Follow all good practices for the proper use of lifting tackle and equipment.

Proper protective equipment such as safety goggles, gloves and protective footwear must be used.

Use ear protection when sound pressure levels exceed 85 decibels.

Guards and covers that prevent contact with electrically energized or moving parts must not be removed or left open during operation.

Safety Signs and Markings

Safety signs, panels, and labels that are normally affixed to the product must be replaced immediately if illegible or missing.

New or replacement parts that are installed during repair or maintenance must include all safety signs, panels, and labels as specified by the manufacturer. These must be affixed to the new or replacement parts as specified by the manufacturer.

Electrical

Installation must meet all applicable national, state, and local electrical codes.

Electrical installation shall be done by a qualified electrician.

All field wiring provided must be done in accordance with local codes or, in the absence of local codes, the National Electrical Code (NFPA 70).

All wiring must conform to the latest NEC codes 500, 501, 502, 505, 516.

Disconnect and lock out the main electrical service before installing, adjusting, or servicing the product.

Ensure that all electrical components are grounded to a central ground.

For grounding purposes, pre-coated panels or powder coated panels and prop fans must have one pair of star washers per nut/bolt set for each panel joint that penetrates the pre-coat finish (NFPA 33).

Provide overload protection for exhaust fan motor(s).

In most cases a spray air interlock is required to prevent spraying when the exhaust fan is not operating. Check local codes.

Warnings

Make sure that all spray booth components are properly bonded together to avoid the possibility of sparks caused by static electricity.

Fire Codes

Portable fire extinguishers need to be provided and located in accordance with NFPA 10.

Install the booth in compliance with the standards of the NFPA.

Local fire and building codes may require fire protection. Check with local inspector authorities for requirements.

A fire suppression system is required by the NFPA. A fire suppression system is not supplied with this booth.

Exhaust

Duct the exhaust air from the fan away from the working environment to the outdoors.

Ventilation and exhaust systems have to be designed and installed per NFPA 91. Isolate the outdoor vent from air-conditioning intakes, windows, and any other equipment that may recirculate the exhaust indoors.

After spray operation, ventilation has to operate long enough to exhaust the vapors from the drying object.

Spray Booth Operation

Turn the exhaust fan on before using the spray booth. Ensure that the exhaust fan is operating correctly before entering the booth.

Spraying operation should not be performed unless the exhaust fan is on.

This spray booth is only designed to remove particulate matter from the air. Reduction of volatile organic compounds (VOCs) requires either coating reformulation or optional, additional equipment.

Some spray activities may require the use of respiratory protection. Use an OSHA-approved paint spray respirator when spraying in the booth.

All spraying operations should occur within the confines of the booth.

Coatings to be applied in the booth should be contained in a sealed vessel and should not be mixed or stored in the booths.

Filters

Do not overfill the manometer, allowing fluid to collect in the flexible plastic connecting loop in the back of the manometer. This could cause a serious reading error.

Warnings

Do not operate the spray booth when the manometer indicates that the filter pads needs to be replaced.

When the exhaust fan is turned on the manometer should be checked. If the reading is greater than .25 inches of Water, the exhaust filters should be changed.

Treat used arrestor filter pads and any other paint-contaminated items as flammable products and dispose of them properly and safely.

Install and use Spray Booth at your own risk:

Waiver: RGI accepts no liability for injuries, damages, losses any other incurred or incidental loss during installation or use of this product. Beginning installation purchaser, installer, user, operator or other waives and releases RGI from any and all liabilities for damages, injuries or losses.

Specifications

RGI Spraybooths.net are manufactured along the guidelines of the following standards and codes.

National Electrical Code (NEC) 516

National Fire Protection Association article (NFPA) 33, 70 and 101

Uniform Fire Code (UFC) article 45

Occupational Safety & Health Administration (OSHA)

These represent many critical manufacturing and performance standards for airflow and material specifications.

Air Flow

Components with specifications to provide a minimum of 100 linear feet per minute cross section face velocity in the booth.

Air velocity shall be designed, installed and maintained such that the average air velocity across the filter section of the booth during spray paint shall be not less than 100lin./min.

Spray booth shall have a adequate amount of filters to ventilate spray booth or a minimum of one filter per 1,000 CFM.

Manometer air flow gage with warning label equipped with booth to indicate when exhaust filters are dirty as to advocate proper function of the spray booth.

Exhaust Fan

Exhaust fan blade is non-ferrous metal. Aluminum blade will not spark on accidental contact with housing.

Fan motor is mounted out of the air flow to keep the potential ignition source it away from VOCs and over spray.

Paint spray gun is interlocked with exhaust fan through an air solenoid valve to prohibit spray painting when the exhaust fan is off.

Structure

Spray booth is constructed of a minimum of 18 gage galvanized steel. All panels are pre-punched 6" on center and they are nut and bolt construction.

Man access and exit doors are a minimum of 3'-0" x 7'-0" in dimension.

The interior of the spray booth is smooth and continuous and shall not have baffles or deflectors interfering with the air flow or causing overspray accumulation.

Specifications

Filtration

Filters are 20" x 20" x 2" non flammable Class 1 or Class 2 paint arrestors. Filters shall contain overspray matter in retainer pad.

Spray booth filter shall be of industry standard weight and thickness.

Filtration design and performance shall be consistent with local and national Air Quality Guidelines.

Electrical

Any light fixture shall be mounted on heat treated tempered glass to effectively isolate the Class 1 spray booth interior area from the exterior area.

Exhaust duct

Duct shall be equipped with inspection door to view fan and blade.

Duct shall be of 18 gage galvanized steel or adequate minimum gage by diameter.

Exhaust duct system shall not exceed a 90 degree turn in any system.

If duct is run through combustible roof the proper 2" insulation material shall wrap duct 18" above and below roof line to insulate and separate roof from exhaust duct. Wrap shall be of 22 gage galvanized steel or adequate minimum gage by diameter.

Installation and use

Spray booth shall be installed and operated in a covered building in accordance to all national and local codes governing use and operation of the spray booth.

Foundation shall be non flammable cement base or sealed foundation to mount spray booth. Booth shall be anchored to foundation in accordance to UBC and local codes.

All flame cutting, welding or grinding shall take place 20' away from the spray booth. Any exterior electrical devices like lights, motors, controls, etc. shall be a minimum of 5' from any open area on the spray booth.

Any exterior electrical devices: light, motor, control, etc. shall be a minimum of 3' from any closed area on the spray booth.

Spray booth shall be equipped with an automatic fire sprinkler/suppression system to provide contained fire protection in the booth in the event of a fire. System shall be provided and designed by authorized and licensed fire protection contractor.

All safety interlocks and proper control devices shall be installed and utilized on spray booth during operation to provide proper and safe function of spray booth. All national and local codes governing installation and use shall be followed.

Maintenance

Due to the wide variety of coatings applied in spray booths, the frequency with which maintenance operation should be carried out varies substantially. The following items should become a regular part of your maintenance procedure, and be carried out on a schedule dictated by the use of the booth. You should periodically reevaluate and amend this schedule to ensure that it fits your needs exactly. An easily changeable electronic version is available upon request from RGI.

Warning!

Disconnect electrical power before servicing lights or the ventilation system.

RGI Spraybooths.net Maintenance Check List

To be cleaned and Inspected	Daily	Weekly	Monthly	⁶ Months
Check manometer for exhaust filter performance and replace if needed	x			
Visually check intake filter and replace if dirty	x			
All internal spray booth surfaces cleaned from overspray	x			
Clean regulators and other equipment surfaces from overspray	x			
Replace burned out light bulbs	x			
Visually check Manometer oil level		x		
Exhaust ductwork			x	
Intake ductwork			x	
Lubricate exhaust fan bearings				x
Check and replace exhaust fan belt if needed				x
Check exhaust fan belt tension				x
Check pulley alignment				x
Inspect exhaust fan blades				x
Clean exhaust fan blades				x
Clean exhaust motor housing				x
Lubricate exhaust motor				x
FOLLOW MANUFACTURER'S MAINTENANCE INSTRUCTIONS ON ALL OTHER EQUIPMENT				

Installation

Waiver: RGI accepts no liability for injuries, damages, losses and/or other incurred or incidental loss during installation or use of this product. At the beginning of installation purchaser, installer or other waives and releases RGI from any and all liabilities for damages, injuries or losses.

Inventory spray booth and components upon arrival. All damages must be reported to selling party within 24 hours of receipt and freight claim filed with the carrier to uphold or honor any damages or freight loss.

A non-combustible flat, smooth, level surface is best suited for installation of any spray booth. If necessary, make corrections to surface prior to installing spray booth. The booth will be installed as level as the surface it is mounted on. During installation tighten all nuts and bolts on panel flanges securely as to properly seal all panes seams and to make safe strong connections. All floor rails must be bolted securely to booth walls and then fastened to floor with approved anchoring device.

Most fire departments and city departments will require a certain clearance distance around spray booths for adequate cleaning and fire separation. Check with local city and county officials for other options for installation and special requirements.

During installation it is necessary to support all walls and gables prior to attaching roof panels. This is to insure a safe and accurate installation.

Under no circumstances shall the booth be considered or used as a load bearing structure. Do not walk stand or use the spray booths as a support structure before, during or after installation.

Spray booths are manufactured and designed for indoor use only. They are not weather proof or designed to be installed outside.

During installation continuously check all dimensions. Check walls, ceiling height and front end opening for square and level.

Installation Tools

The following tools may be needed to complete the mechanical installation of the spray booth

Tool:	Size:	Type:	Usage:
electric drill	1/4" or 3/8"	hand held with chuck	self tapping screws and holes
caulking gun	tube 10.5 oz.	hand held	caulking seams on booth
C-clamps	11 -R	Peterson	fastening panels together
drift punches	1/8" to 3/8"	8" to 12" long	aligning pre-punched panel holes
impact ratchet	3/8"	air or electric	tighten nuts and bolts
socket	3/8" x 7/16"	standard or impact	tighten nuts and bolts
magnetic nut driver	3/8"	standard	drilling self tapping screws
magnetic nut drivers	5/16"	standard	drilling self tapping screws
chalk line	50'	standard colored	align walls of booth
drill bits	1/4"	jobber	reaming out pre-punched holes
ladder	7'	standard	reaching high points of spray booth
1 ton puller-binder	1 ton	ratchet-electric	pull and square booth
7' 8' 9' ladder	standard	construction	general installation of booth
Level	6'	construction	level booth walls and top
cement drill bit kit	1/4" to 3/8"	hammer-impact	floor and door anchor bolts
impact wrench	3/8"	hammer-impact	drill in concrete

