



Modified Downdraft Paint Booth – Nut and Bolt Assembly – Pre-Punched Panel Flanges

Thank you for the opportunity to work with you on your paint booth project. Below you will find specifications and descriptions of our standard equipment. Our goal is to provide you with the best combination of equipment for your specific application. In addition to the items listed below we can customize any portion of your paint booth. As part of our service to you we will co-ordinate our information with your Architects, Engineers, and General Contractors.

Modified Downdraft Paint Booth - Model # AMD-26-SB

Dimensions:

| | <u>Interior</u> | <u>Exterior</u> |
|---------|-----------------|---------------------------|
| Width: | 14'-0" | 14'-6" |
| Height: | 9'-0" | 11'-2" (plus exhaust fan) |
| Depth: | 26'-0" | 26'-4" |

Scope:

Air flows into the intake plenum located on top of the booth at the front of the paint booth next to the front doors. The clean air flows into the booth through the intake filters (located in the ceiling of the booth), moves downward through the work area and exits through the exhaust at the rear of the booth. Filtered exhaust air is drawn thru the exhaust plenum and discharged upward into the atmosphere through the exhaust stack.

Construction Features:

Panels – Nut and Bolt – Holes Pre-Punched on 6” Centers for Sure Panel Alignment:

- Panels are fabricated from 18-gauge prime quality G-90 galvanized steel. Panels are fastened together with 5/16” nuts and bolts for maximum rigidity and ease of assembly. Holes are precision CNC punched on 6” centers, this leads to true panel alignment and rigidity over time compared to using sheet metals screws. It costs us more to CNC punch the holes but you will appreciate it as you assemble your booth and as time passes. Sheet metal screws tend to loosen over time, they also require using “C” clamps to attempt to align the panels. Pre-punched holes assure true panel alignment.

Illumination – 10 Light Fixtures – Inside Access – Sealed and Gasketed – Includes Tubes:

- Lighting is provided by 48” long, 4-tube, 32 watt, T-8, fluorescent type fixtures. Fixtures are Inside Access rated for Class I Div. II Groups A, B, C, and D Class II Div. II Groups F & G. All fixtures are ETL listed and approved for their intended use and placement. Fixtures are supplied with dual ballasts to accept either 120V or 277V power. Ballasts carry a 5 year limited warranty.

Filtration:

- Intake air filters: Rated by UL as Class 2 and are EPA registered as environmentally safe. Filters are self-supporting in an internal frame sized 20" x 20" x 1". One set of filters will be supplied.
- Exhaust air filters are fiberglass paint arrestor pads made specifically for the collection of paint over spray. These filters are UL rated as Class 2. A filter holding grid is provided for each filter cell. This unit is provided with one set of filters and one manometer.

Exhaust – 12,600 C.F.M. Standard:

- Tube axial type duct fan(s) specifically designed and constructed for use in paint spray booths and similar applications is provided for exhaust. A precision balanced, fabricated, aluminum non-sparking fan blade moves the air through the fan. Bearings are permanently lubricated and mounted in rubber isolators for smooth operation. The motor, drive and bearings are isolated from the exhaust air stream. This unit will utilize one (1) 30" diameter fan driven by a 3 HP motor (208/230/460V/3PH/60HZ), operating at 12,600 SCFM at ½" static pressure.

Product Doors:

- One (1) set of tri-fold product entry doors with widows shall be provided. The doors are skinned with an 18 Ga. galvanized steel sheet, sealed to the frame, and welded in place. These doors are provided with a closed cell foam rubber weather stripping seal about the perimeter and a neoprene rubber sweep seal at the threshold. The mounting hardware provided includes a panic type safety latch and four 9" door pulls. These shall be double doors having a clear opening of approximately 9'-0" wide by 8'-10" tall.

Personnel Access Door with Window:

- Personnel access doors are provided as a double wall 18-gauge galvanized steel unit sized at 36" x 84" and is provided pre-hung in a heavy gauge steel frame ready for mounting to the spray booth. The mounting hardware includes a panic type safety latch and two 6" door pulls.

V-12 AMU - Air Make-Up Unit Features:

- 12,600 CFM Direct Fired Gas Heated Air Make-up Unit (V-12) to replace the exhaust air from the paint spray booth. Air Make-up Unit features 100% fuel efficiency.
- V12 Vertical Unit Arrangement with Side Discharge
- 100% Replacement Air
- 12,600 SCFM / 0.38 Duct SP - Electric Current: 208-230-460/60/3 3-wire
- ETL Label
- High Efficiency Motor
- Burner/Blower Service Switches
- Stainless Steel Burner /Aluminum Casting
- Outdoor Safety Switch (Disconnect) and Motor Starters
- Unit Location: Outdoor Installation
- 7.5 HP Motor - ODP - High Efficiency EPACT
- 1,320 BTUH (in 1000's)
- 125° F Temperature Rise
- Gas Pressure: 1# to 5# (Natural Gas or Propane)
- Gas Manifold: ANSI w/2 Solenoid Gas Valves
- Temperature Control System: 401M - Maxitrol
- "M Series" Programmable Temperature Controller
- G-90 Galvanized Casing - Unpainted Casing
- Flame Failure Light & High Temp Limit
- Burner On/Off Intake Air Duct-stat
- **Fused Disconnect**
- **Automatic Discharge Damper with Actuator**
- **3 H.P. V.F.D. for Exhaust Fan**
- **V-Bank Pre Filter System with 2" Cleanable Filters**
- **Deluxe Remote Control Panel with and Variable Frequency Drive for Exhaust**
- **Spray and Bake Modes**

Deluxe Digital Control Panels:

- NEMA 1 Enclosure
- Spray Push Button - Bake Push Button
- Emergency Stop Push-Pull Switch
- Digital Bake Timer
- Delay Start Timer
- Purge Timer
- Cool Down Timer
- Spray Mode Light - Bake Mode Light
- Purge Mode Light
- Cool Down Mode Light
- Photohelic Pressure Gauge

Programmable Variable Airflow Control Systems – Saves Energy – Improves Efficiency:

- The air flow system has been designed for ideal air flow control providing you the ability to adjust to different types of paint such as **water based and solvent based**. The system also allows you to adjust to different outdoor air conditions such as humidity. The higher the humidity the greater the air flow required to efficiently flash or cure your paints.
- We offer the ability to flash and cure at 100% airflow and high temperatures. We can provide 100% airflow and a 125 Degree temperature rise over the outside air temperature. If it is 20 Degrees outside our system can provide 100% airflow at 145 Degrees.
- Most systems in the industry can only provide these temperature rises at 50% air flow. Proper total control over air flow and temperature are necessary to deal with the different chemistries of different paints and to deal with changes in ambient air conditions in your area.
- This system allows you to control how much air is used by the air make-up unit allowing you to control operational costs as well. System includes Variable Frequency Drives for both intake and exhaust volume control. Includes Programmable Digital Control Panel. Includes a booth pressure Auto Balance system. Just set the pressure desired in the booth and the air flow desired from the Air Makeup Unit and the booth through the readings on the photohelic and the preset pressure settings will automatically balance the fans to maintain the desired air flow and pressure. Cut energy costs by up to 50% in some cases.

Automatic Booth Pressure Balancing Control System:

- No more need for constantly adjusting the exhaust fan as the exhaust filters load up with paint. No more doors blowing open. The Automatic Balancing System speeds up the exhaust fan to keep the pressure balanced in the booth and the airflow at a proper speed. Set the pressure desired in the booth and the system through the readings on the photohelic booth cabin pressure sensor will automatically adjust the speed of the exhaust fan to maintain the desired preset pressure.

Exhaust Ducting Package for 16 ' Roof:

- 1 - Auto Damper Stack Head
- 2 - 3' Sections Plain Pipe
- 1 - 3' Section w/ Cleanout Door
- 1 - Duct Connecting Rings
- 1 - Roof Flange and Storm Collar

Modified Downdraft Paint Booth with Heat, Cure, Variable Airflow, and Auto Balance

| | Description | | Cost |
|----------------|--|--|------|
| 1 | AMD-26-SB - 14' W x 9' T x 26" D – Nut and Bolt Assembly | | |
| 1 | Heated Air Makeup Unit with Stand – Spray and Bake Modes | | |
| 1 | Variable Airflow Control System (Air Makeup Unit VFD and Gas Controls) | | |
| 1 | Intake Fan Variable Frequency Drive | | |
| 1 | Exhaust Fan Variable Frequency Drive | | |
| 1 | Automatic Booth Pressure Balance System | | |
| 1 | Paint Gun Air Lock Out Solenoid Valve – Required by Code | | |
| 1 | Upgrade to Inside Access Sealed and Gasketed Light Fixtures | | |
| 1 | Tri-Fold Entry Doors with Windows | | |
| 1 | Exhaust Duct Package for a 16' Roof | | |
| OPTIONS | | | |
| 1 | Powder Coat Booth | | |
| 1 | Drive Through Booth – Entry Doors at Each End | | |
| 1 | Reverse Airflow Booth | | |
| 1 | Door Limit Switch / Explosion Proof – Required by Code in Many Areas | | |
| 1 | Mount Air Makeup Unit On Top of Paint Booth | | |
| 1 | Freight Billed at Cost | | |

The following may be required for your equipment but are **not** included by AEI in this proposal: Installation, freight, electrical controls wiring, piping, intake ductwork, exhaust ductwork, fire protection, taxes or permits.

Code Compliance:

- All AEI are designed to meet or exceed the requirements and recommendations of the National Fire Protection Association (NFPA), Standard Number 33, as well as Occupational Health and Safety Administration (OSHA) CFR 29.1910.

Warranty:

- AEI warrants to buyer that the equipment to be free from defects of materials or workmanship under normal use and maintenance for a period of one year.
- All components supplied but not produced by AEI shall carry the warranty of the manufacturer.

I thank you for the opportunity to submit a bid for your project and for your time and consideration. If I can be of any further assistance, please feel free to call me at any time.

Bill Peckham
AEI Paint Booths
Office: 800-348-1097
www.aeipaintbooths.com

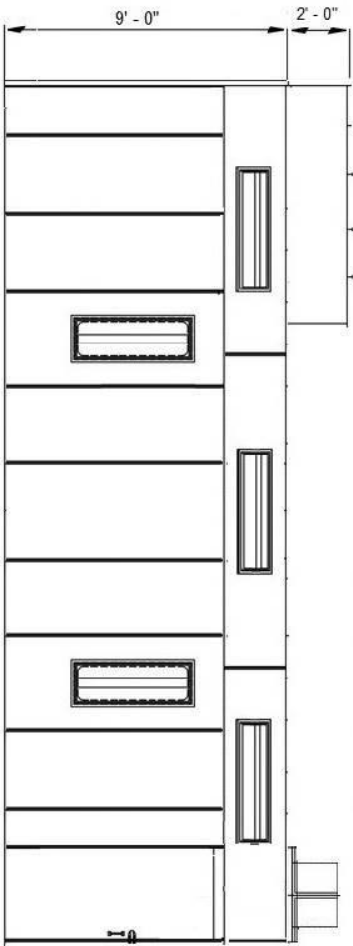
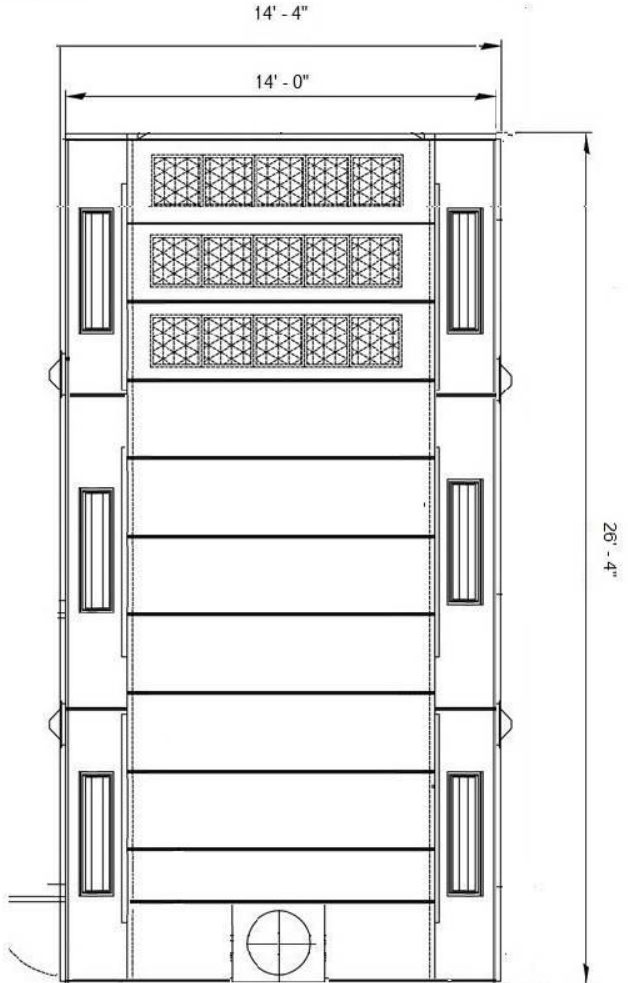
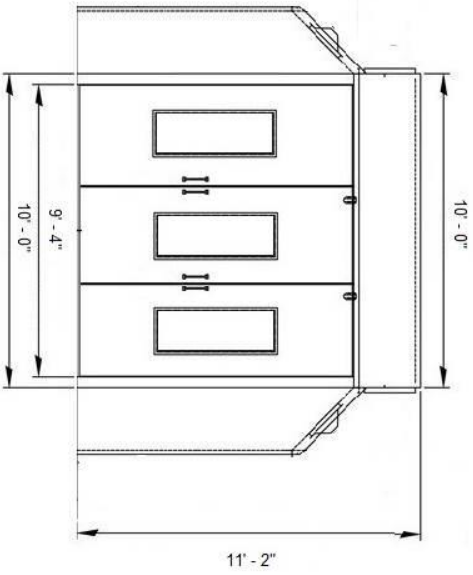
AMD-26-SB Semi Downdraft Paint Booth

Panels Fabricated with G-90 Galvanized Steel
Panels Flanges CNC Pre-punched on 6" Centers
Assemblies with 5/16" Nuts and Bolts

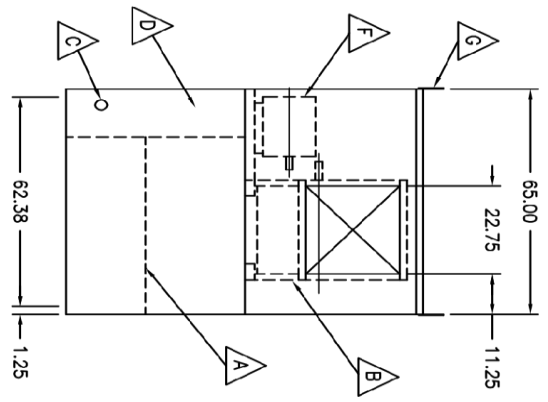
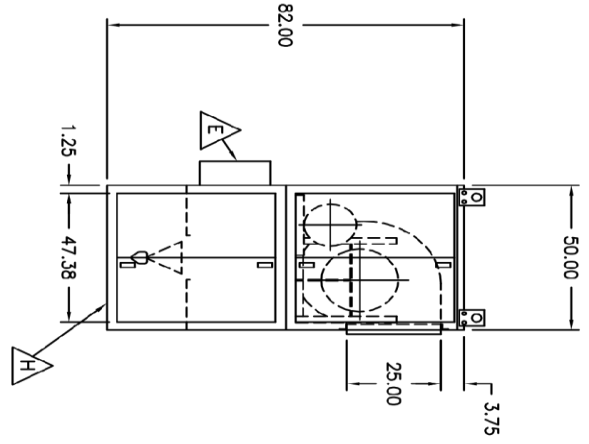
- 1 - 30" Diameter Tube Axial Fan with 3 H.P. Motor 208/230/480 Volt
- 10 - Inside Access, Sealed and Gasketed, 4' Long, 4-Tube Light Fixtures
- 1 - Set of Product Entry Doors - 9'0" Wide x 8'10" Tall
- 1 - Personnel Access Door with Viewing Window - 3' Wide x 7' Tall
- 1 - Full Set of UL Class 2 Intake and Exhaust Filters
- 1 - Manometer
- 1 - Paint Gun Solenoid Lockout Valve
- 1 - Light Switch
- 1 - Exhaust Fan Switch
- 1 - 3 H.P. Variable Frequency Drive for Exhaust Fan Speed Control
- 1 - 30 Amp. Square "D" Fused Disconnect / Breaker

Code Compliance:

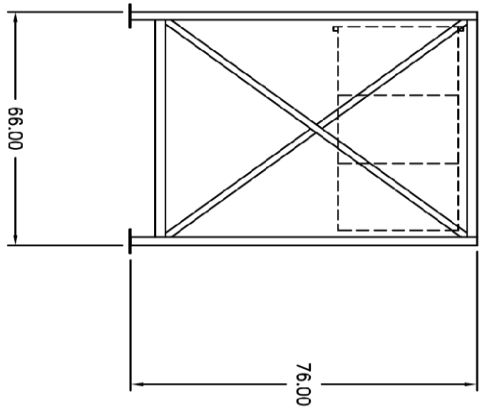
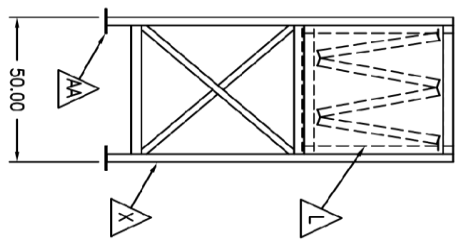
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ThermoTek TTV-20 Vertical Heated Air Makeup Unit with Stand



- ▲ A BURNER PROFILE
- ▲ B FC DWDI BLOWERS
- ▲ C GAS CONNECTION
- ▲ D ELEC./MANIFOLD CONTROLS VESTIBULE
- ▲ E MAIN DISCONNECT SWITCH
- ▲ F SUPPLY FAN BLOWER MOTOR
- ▲ G REMOVABLE LIFTING LUG
- ▲ H FRESH AIR INTAKE OPENING
- ▲ L FRESH AIR INTAKE FILTER



- ▲ X VERTICAL MOUNTING STAND
- ▲ AA 6" x 6" x 1/4" PADS (4-PADS)

Est. Weight = 2,313 LBS
 Unit Input BTUH = 1,620,000
 Gas Inlet Connection = 1.50 IN

NOTES:
 -1" CONNECTION FLANGES SUPPLIED AROUND ALL OPENINGS
 -REAR ACCESS DOORS PROVIDED ON ALL SPLIT MODELS
 -MODELS 22 THRU 36 IS BUILT AS A SPLIT UNIT
 -REAR ACCESS DOOR PROVIDED ON MODELS 22 THRU 36

-FA FILTER QUANTITY = (1)2"20" x 25"

| | | | |
|----------------|--|----------|-----------|
| | | DATE | 2/23/2007 |
| | | DESIGNER | BEJ |
| DRAWING NUMBER | MS TTV-20 | | |
| MODEL | MODEL-20 DIRECT-FIRED MAKE-UP AIR UNIT | | |
| ARRANGEMENT | ARRANGEMENT V2 RIGHT HAND DISCHARGE | | |
| TITLE | | | |
| REVISION | | | |
| BY | | | |
| CHECKED | | | |
| DATE | | | |

DO NOT SCALE DRAWING. USE DIMENSIONS SHOWN.
 ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.