

ASTEMO AMERICAS, INC.

APPLICATION for **TITLE V PERMIT RENEWAL**

Source ID # - 21-151-00042

Source AI # - 2859

August 2025

ASTEMO AMERICAS, INC.
301 Mayde Road
Berea, Kentucky 40403

EXECUTIVE SUMMARY

Astemo Americas, Ltd (Astemo, formerly Hitachi) is submitting this application for Permit Renewal of its existing Title V Operating Permit, which expires in January, 2026. Astemo, located in Berea, Kentucky, manufactures suspension and electric motor components for automobiles and light duty trucks. The site property is approximately 51 acres and is located in an industrial park setting. Currently permitted production processes at the facility include assembly, hard chromium plating, electrostatic and electrodeposition painting, and welding.

Proposed Permit Modification

Astemo currently operates two electrodeposition lines which apply a low-VOC, HAP-free coating to suspension products. The electrodeposition lines are currently permitted as Insignificant Activities. Astemo is proposing to install a new zinc coating process within the existing Line 2 electrodeposition line. The new zinc process will be installed following the surface pretreatment process and prior to the electrodeposition process. The zinc coating process will include one electrostatic disc applicator and one touchup electrostatic applicator which will be used as needed for touch-up. The process will also include a new drying / curing oven that will share the same natural gas-fired burner.

The applicable regulations associated with the proposed zinc coating process will include 40 CFR 63 Subpart MMMM, 401 KAR 59:010, and 401 KAR 59:225. However, in order to preclude the applicability of 401 KAR 59:225, Astemo is proposing to limit its actual plant-wide VOC emissions to less than 90 tons/year. Currently, Astemo's plantwide VOC PTE is approximately 74 tons/year. The primary source of potential VOCs is from Astemo's Electrostatic painting lines which include EP1 - Electrostatic Booth 1, EP02 - Electrostatic Booth 2, EP16 - Electrostatic Booth 3, and EP17 - Manual spray gun. The combined potential VOC emissions from these sources are approximately 69 tons. The current actual VOC emissions from the ES sources is approximately 20 tons/year. The estimated VOC PTE for the new zinc line is approximately 28 tons/year, which will result in a combined plant-wide VOC PTE of 102 tons/year. However, the current actual VOC emissions for the combined Electrostatic painting processes will remain at approximately 20-30 tons/year. Therefore, Astemo's actual plant-wide VOC emissions will remain well under 90 tons/year. Compliance with the 90 -ton VOC limit will be demonstrated with record keeping and emission calculations based on actual paint use and hours of operation.

The following sections provide the completed applicable DEP 7007 forms which outline detailed information of the production processes and associated emission data, along with facility information and SDSs for the applicable paints.

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FORM B – MANUFACTURING OR PROCESS INFORMATION

FORM K – SURFACE COATING OR PRINTING OPERATIONS

FORM N – EMISSIONS STACKS AND CONTROL INFORMATION

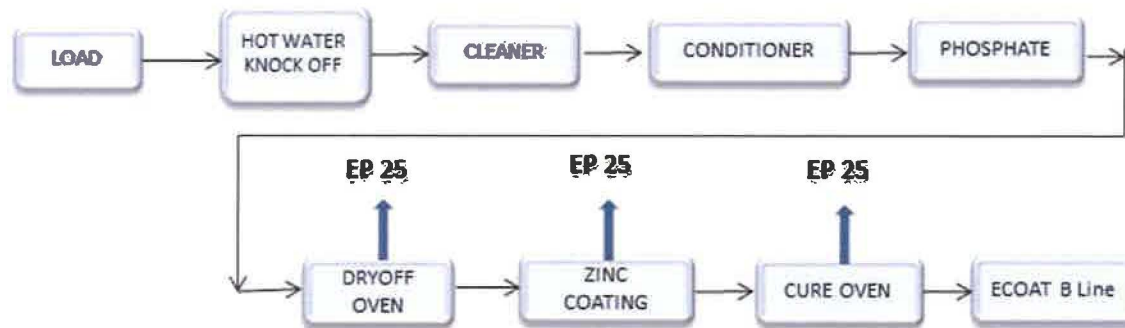
FORM V – APPLICABLE REQUIREMENTS AND COMPLIANCE ACTIVITIES

FORM GG – CONTROL EQUIPMENT

SECTION 3 PROCESS INFORMATION/SDS DATA



ASTEMO AMERICAS, INC.
PROCESS FLOW DIAGRAM
NEW ZINC LINE



SECTION 2

DEP 7007 FORMS

Division for Air Quality 300 Sower Boulevard Frankfort, KY 40601 (502) 564-3999	DEP7007AI Administrative Information Section AL1: Source Information Section AL2: Applicant Information Section AL3: Owner Information Section AL4: Type of Application Section AL5: Other Required Information Section AL6: Signature Block Section AL7: Notes, Comments, and Explanations	Additional Documentation Additional Documentation attached
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Source Name: Astemo Americas, Inc. - Berea
KY EIS (AFS) #: 21- 151-00042
Permit #: V-15-002 R3
Agency Interest (AI) ID: 2859
Date: Aug-25

Section AL1: Source Information			
Physical Location Address:	Street:	301 Mayde Road	
	City:	Berea	County: Madison
			Zip Code: 40403
Mailing Address:	Street or P.O. Box:	301 Mayde Road	
	City:	Berea	State: Ky
			Zip Code: 40403

Standard Coordinates for Source Physical Location	
Longitude: <u>-84.31194</u> (decimal degrees)	Latitude: <u>37.602778</u> (decimal degrees)

Primary (NAICS) Category: <u>Motor Vehicle Steering and Suspension; Electric Motors</u>	Primary NAICS #: <u>336330; 335312</u>
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Classification (SIC) Category: <u>3714</u>	Primary SIC #: <u>Motor Vehicle Parts and Accessories</u>
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Briefly discuss the type of business conducted at this site: Manufacture strut and suspension products and electric motors for automobiles.

Description of Area Surrounding Source:	☐ Rural Area ☐ Urban Area	☒ Industrial Park ☐ Industrial Area	☐ Residential Area ☐ Commercial Area	Is any part of the source located on federal land? ☐ Yes ☒ No	Number of Employees: 800
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Approximate distance to nearest residence or commercial property: 100 ft

Property Area: 42

Is this source portable? ☐ Yes ☒ No

What other environmental permits or registrations does this source currently hold or need to obtain in Kentucky?		
NPDES/KPDES:	☒ Currently Hold ☐ Need ☐ N/A	
Solid Waste:	☐ Currently Hold ☐ Need ☐ N/A	
RCRA:	☒ Currently Hold ☐ Need ☐ N/A	
IST:	☐ Currently Hold ☐ Need ☐ N/A	

Type of Regulated Waste Activity:	☐ Mixed Waste Generator ☐ U.S. Importer of Hazardous Waste	☒ Generator ☐ Transporter	☐ Recycler ☐ Treatment/Storage/Disposal Facility	☐ Other: _____ ☐ N/A
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Section AI.2: Applicant Information

Applicant Name: Astemo Americas, Inc. - Berea

Title: (if individual) _____

Mailing Address: **Street or P.O. Box:** 301 Mayde Road
City: Berea **State:** Ky **Zip Code:** 40403

Email: (if individual) _____

Phone: _____

Technical Contact

Name: John Zulick

Title: HSE Sr Administrator

Mailing Address: **Street or P.O. Box:** 301 Mayde Road
City: Berea **State:** KY **Zip Code:** 40403

Email: john.zulick.sj@hitachiastemo.com

Phone: (859) 985-2055

Air Permit Contact for Source

Name: John Zulick

Title: HSE Sr Administrator

Mailing Address: **Street or P.O. Box:** 301 Mayde Road
City: Berea **State:** KY **Zip Code:** 40403

Email: john.zulick.sj@hitachiastemo.com

Phone: (859) 985-2055

Section AI.3: Owner Information

☒ **Owner same as applicant**

Name: _____

Title: _____

Mailing Address: **Street or P.O. Box:** _____
City: _____ **State:** _____ **Zip Code:** _____

Email: _____

Phone: _____

List names of owners and officers of the company who have an interest in the company of 5% or more.

Name

Position

Section A1.4: Type of Application

Current Status:	☒ Title V	☐ Conditional Major	☐ State-Origin	☐ General Permit	☐ Registration	☐ None
Requested Action: (check all that apply)	☐ Name Change	☐ Initial Registration	☐ Significant Revision	☐ Administrative Permit Amendment		
	☒ Renewal Permit	☐ Revised Registration	☒ Minor Revision	☐ Initial Source-wide Operating Permit		
	☐ 502(b)(10) Change	☐ Extension Request	☒ Addition of New Facility	☐ Portable Plant Relocation Notice		
	☐ Revision	☐ Off Permit Change	☐ Landfill Alternate Compliance Submittal	☒ Modification of Existing Facilities		
	☐ Ownership Change	☐ Closure				
Requested Status:	☐ Title V	☒ Conditional Major	☐ State-Origin	☐ PSD	☐ NSR	☐ Other: _____

Is the source requesting a limitation of potential emissions?

☒ Yes

☐ No

Pollutant:	Requested Limit:	Pollutant:	Requested Limit:
☐ Particulate Matter	_____	☐ Single HAP	_____
☒ Volatile Organic Compounds (VOC)	90 Tons	☐ Combined HAPs	_____
☐ Carbon Monoxide	_____	☐ Air Toxics (40 CFR 68, Subpart F)	_____
☐ Nitrogen Oxides	_____	☐ Carbon Dioxide	_____
☐ Sulfur Dioxide	_____	☐ Greenhouse Gases (GHG)	_____
☐ Lead	_____	☐ Other	_____

For New Construction:

Proposed Start Date of Construction:
(MM/YYYY)

10/2025

Proposed Operation Start-Up Date: (MM/YYYY)

12/2025

For Modifications:

Proposed Start Date of Modification:
(MM/YYYY)

Proposed Operation Start-Up Date: (MM/YYYY)

Applicant is seeking coverage under a permit shield.

☐ Yes

☒ No

Identify any non-applicable requirements for which permit shield is sought on a separate attachment to the application.

Section A1.5 Other Required Information

Indicate the documents attached as part of this application:

- | | |
|--|--|
| ☐ DEP7007A Indirect Heat Exchangers and Turbines | ☐ DEP7007CC Compliance Certification |
| ☒ DEP7007B Manufacturing or Processing Operations | ☐ DEP7007DD Insignificant Activities |
| ☐ DEP7007C Incinerators and Waste Burners | ☐ DEP7007EE Internal Combustion Engines |
| ☐ DEP7007F Episode Standby Plan | ☐ DEP7007FF Secondary Aluminum Processing |
| ☐ DEP7007J Volatile Liquid Storage | ☒ DEP7007GG Control Equipment |
| ☒ DEP7007K Surface Coating or Printing Operations | ☐ DEP7007HH Haul Roads |
| ☐ DEP7007L Mineral Processes | ☐ Confidentiality Claim |
| ☐ DEP7007M Metal Cleaning Degreasers | ☐ Ownership Change Form |
| ☒ DEP7007N Source Emissions Profile | ☐ Secretary of State Certificate |
| ☐ DEP7007P Perchloroethylene Dry Cleaning Systems | ☒ Flowcharts or diagrams depicting process |
| ☐ DEP7007R Emission Offset Credit | ☐ Digital Line Graphs (DLG) files of buildings, roads, etc. |
| ☐ DEP7007S Service Stations | ☒ Site Map |
| ☐ DEP7007T Metal Plating and Surface Treatment Operations | ☒ Map or drawing depicting location of facility |
| ☒ DEP7007V Applicable Requirements and Compliance Activities | ☒ Safety Data Sheet (SDS) |
| ☐ DEP7007Y Good Engineering Practice and Stack Height Determination | ☐ Emergency Response Plan |
| ☐ DEP7007AA Compliance Schedule for Non-complying Emission Units | ☐ Other: _____ |
| ☐ DEP7007BB Certified Progress Report | |

Section A1.6: Signature Block

I, the undersigned, hereby certify under penalty of law, that I am a responsible official*, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.


Authorized Signature


Type or Printed Name of Signatory


Date


Title of Signatory

*Responsible official as defined by 401 KAR 52:001.

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

Manufacturing or Processing Operations

Additional Documentation

☐ Attach a flow diagram

☐ Attach SDS

Astemo Americas, Inc. - Berea

21- 151-00042

V-15-002 R3

2859

Jul-25

[illegible]

Section B.2: Materials and Fuel Information

**Maximum yearly fuel usage rate only applies if applicant request operating restrictions through federally enforceable limitations.*

[illegible]

DEP7007K**Division for Air Quality**

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

Surface Coating or Printing Operations

- ☐ Section K.1: Process Information
☐ Section K.2: Coating Operations
☐ Section K.3: Other Operations
☐ Section K.4: Coatings/Printing Materials as Applied
☐ Section K.5: HAP-containing Coatings/Printing Materials
☐ Section K.6: Notes, Comments, and Explanations

Additional Documentation

- ☐ Complete DEP7007A1, DEP7007N, DEP7007V, and DEP7007GG.
☐ Attach SDS or Technical Sheets for all Coating/Printing Materials
☐ Attach a flow diagram

Source Name: Astemo Americas, Inc. - Berea

KY EIS (AFS) #: 21- 151-00042

Permit #: V-15-002 R3

Agency Interest (AI) ID: 2859

Date: Aug-25

Section K.1: Process Information

Emission Unit #: EU6

Emission Unit Name: EP25 ED Line 2/Zinc Coating Line

Coating/Printing Line Name: EP25 ED Line 2/Zinc Coating Line

Proposed/Actual Date of Construction: (MM/YYYY) Oct-25

List Applicable Regulations: 401 KAR 59:010; 40 CFR 63 Subpart M M M M, 401 KAR 59:225

Describe Overall Process: Application of zinc coating on shocks, struts, using electrostatic spray

Describe Coatings/Printing Materials: Zinc, solvent-based paints

Identify the Material that is Coated/Printed:

☒ Metal

☐ Vinyl

☐ Plastics

☐ Wood

☐ Foil

☐ Paper

☐ Other Substrate

Provide detailed description of material coated/printed:

Shock/Strut Housings

Provide approximate dimensions and range of sizes of parts being coated or printed:

Identify the Type of Operation:

☒ Continuous

☐ Batch

☐ Other:

Describe Surface Preparation/Pretreatment Steps:

Alkaline rinse, Phosphatizing, Coating

For Coating Operations:

☒ Spray

☐ Flow

☐ Dip tank

☐ Electrodeposition

☐ Brush

☐ Powder

☐ Roller Coat

☐ Other:

For Printing Operations:
(Select all that apply)

☐ Web

☐ Rotogravure

☐ Heatset

☐ Lithographic

☐ Other:

☐ Sheetfed

☐ Letterpress

☐ Non-heatset

☐ Flexographic

Describe Final Product:

Coated shocks/struts

Check the category that most closely describes this unit:

☐ Large Appliance Coating

☐ Auto or Light-Duty Truck Coating

☐ Metal Furniture Coating

☐ Metal Coil Coating

☐ Beverage Can Coating

☒ Miscellaneous Metal Parts Coating

☐ Magnet Wire Insulation Coating

☐ Flat Wood Panel Coating

☐ Fabric, Vinyl, or Paper Coating

☐ Boat Manufacturing/Ship Repair

☐ Pressure Sensitive Tape and Label Coating

☐ Magnet Tape Coating

☐ Publication Rotogravure Printing

☐ Coating of Plastic Parts for Business Machines

☐ Flexible Vinyl and Urethane Coating and Printing

☐ Other:

☐ Graphic Arts using Rotogravure and Flexographic Printing

Section K.2: Coating Operations

K.2A: For Spray Coating

Gun/Booth ID	Describe Function	Type	Mode	Maximum Design Application Rate (gal/hr or lb/hr)		Describe how maximum rate was determined
ED Line 2 Zinc-Disc	Electrostatic Spray Application of Zinc Coating with Robot Application	☐ Conventional Air Gun ☐ Airless ☐ HVLP ☒ Electrostatic ☐ LVLP ☐ Aerosol Spray Can ☐ Other	☐ Manual ☒ Automatic	24	gal/hr	☐ Testing ☒ Equipment Specification Sheet ☐ Estimation
ED Line 2 Zinc-Robot Touchup	Electrostatic Spray Touchup	☐ Conventional Air Gun ☐ Airless ☐ HVLP ☒ Electrostatic ☐ LVLP ☐ Aerosol Spray Can ☐ Other	☐ Manual ☒ Automatic	9.5	gal/hr	☐ Testing ☒ Equipment Specification Sheet ☐ Estimation
		☐ Conventional Air Gun ☐ Airless ☐ HVLP ☐ Electrostatic ☐ LVLP ☐ Aerosol Spray Can ☐ Other	☐ Manual ☐ Automatic			☐ Testing ☐ Equipment Specification Sheet ☐ Estimation

If spray guns are used simultaneously, describe:

--

K.2B: For Brush Coating

Describe Function:

--

Maximum Coating Application Rate:
(gal/hr)

--

K.2C: For Roller Coating

Roller Coat ID	Describe Function	Maximum Coating Application Rate (gal/hr)	Describe how maximum rate was determined
			☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
			☐ Testing ☐ Estimation ☐ Equipment Specification Sheet
			☐ Testing ☐ Estimation ☐ Equipment Specification Sheet

Section K.3: Other Operations

K.3A: For Finishing

Describe Finishing Processes:
Complete Form DEP7007B as applicable

K.3B: For Curing/Drying

Describe Curing/Drying Processes:	Description	Rated Capacity (MMBtu/hr)	Fuel	Control Device/Stack ID
Curing/Dry Off Oven @ 425 deg F	Combo Dry Off/Curing Oven	2	Nat Gas	No Controls/ EP 25

K.3C: For Purge

Type: _____ Water _____

Daily Usage: _____ 5 gal/day _____ gal/day

K.3D: For Clean-up

Type: ☐ Manual ☐ Automatic

Daily Usage: _____ hrs/day

Operating Hours: _____

K.3E: For Other Equipment

Describe Processes:

Section K.4: Coatings/Printing Materials As Applied

Include SDS or Technical Sheets for all coating/printing materials used.

[illegible]

*Emission factor for particulate matter (PM) should not include transfer efficiency.

Section K.5: Hazardous Air Pollutant-containing Coatings/Printing Materials

List each individual hazardous air pollutant (HAP) contained in each material.

[illegible]

Section K.6: Notes, Comments, and Explanations

Note : Production Bottlenecks will limit paint usage to 1.76 gal/hr

[illegible]

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(502) 564-3999

DEP7007N

Source Emissions Profile

- ___ Section N.1: Emission Summary
 ___ Section N.2: Stack Information
 ___ Section N.3: Fugitive Information
 Section N.4: Notes, Comments, and Explanations

Additional Documentation

Complete DEP7007AI

Source Name: Asterno Americas, Inc. - Berea

KY EIS (AFS) #: 21- 151-00042

Permit #: V-15-002 R3

Agency Interest (AI) ID: 2859

Date: Aug-25

N.1: Emission Summary

[illegible]

Section N.2: Stack Information

UTM Zone:

[illegible]

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007V

Applicable Requirements and Compliance Activities

- ☐ Section V.1: Emission and Operating Limitation(s)
☐ Section V.2: Monitoring Requirements
☐ Section V.3: Recordkeeping Requirement
☐ Section V.4: Reporting Requirements
☐ Section V.5: Testing Requirements
☐ Section V.6: Notes, Comments, and Explanations

Additional Documentation

☐ Complete DEP7007AI

Source Name: Astemo Americas, Inc. - Berea

KY EIS (AFS) #: 21- 151-00042

Permit #: V-15-002 R3

Agency Interest (AI) 2859

Date: Aug-25

Section V.1: Emission and Operating Limitation(s)

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)
EP25	ECoat Line 2 / Zinc Coating	401KAR 59:225	VOCs	< 90 tons	< 90 Tons		Recordkeeping / Operating Hours
EP1	Electrostatic Booth 1	401KAR 59:225	VOCs	< 90 tons	< 90 Tons		Recordkeeping / Operating Hours
EP02	Electrostatic Booth 2	401KAR 59:225	VOCs	< 90 tons	< 90 Tons		Recordkeeping / Operating Hours
EP16	Electrostatic Booth 3	401KAR 59:225	VOCs	< 90 tons	< 90 Tons		Recordkeeping / Operating Hours
EP17	Electrostatic Touchup Booth	401KAR 59:225	VOCs	< 90 tons	< 90 Tons		Recordkeeping / Operating Hours

Section V.2: Monitoring Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Monitored	Description of Monitoring
EP25	ECoatLine 2 / Zinc Coating	VOCs	401KAR 59:225	Plantwide VOCs	Monthly Paint Use Records and Hours of Operation
EP1	Electrostatic Booth 1	VOCs	401KAR 59:225	Plantwide VOCs	Monthly Paint Use Records and Hours of Operation
EP02	Electrostatic Booth 2	VOCs	401KAR 59:225	Plantwide VOCs	Monthly Paint Use Records and Hours of Operation
EP16	Electrostatic Booth 3	VOCs	401KAR 59:225	Plantwide VOCs	Monthly Paint Use Records and Hours of Operation
EP17	Electrostatic Touchup Booth	VOCs	401KAR 59:225	Plantwide VOCs	Monthly Paint Use Records and Hours of Operation

Section V.3: Recordkeeping Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Recorded	Description of Recordkeeping
EP25	ECoat Line 2 / Zinc Coating	VOCs	401KAR 59:225	Plantwide VOCs	Monthly Paint Use Records and Hours of Operation
EP1	Electrostatic Booth 1	VOCs	401KAR 59:225	Plantwide VOCs	Monthly Paint Use Records and Hours of Operation
EP02	Electrostatic Booth 2	VOCs	401KAR 59:225	Plantwide VOCs	Monthly Paint Use Records and Hours of Operation
EP16	Electrostatic Booth 3	VOCs	401KAR 59:225	Plantwide VOCs	Monthly Paint Use Records and Hours of Operation
EP17	Electrostatic Touchup Booth	VOCs	401KAR 59:225	Plantwide VOCs	Monthly Paint Use Records and Hours of Operation

Section V.4: Reporting Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Reported	Description of Reporting
EP25	ECoat Line 2 / Zinc Coating	VOCs	401KAR 59:225	Plantwide VOCs	Semi-Annual and Annual Reports of Plantwide VOC Emissions Submitted to the Frankfort Regional Office
EP1	Electrostatic Booth 1	VOCs	401KAR 59:225	Plantwide VOCs	Semi-Annual and Annual Reports Submitted to the Frankfort Regional Office
EP02	Electrostatic Booth 2	VOCs	401KAR 59:225	Plantwide VOCs	Semi-Annual and Annual Reports Submitted to the Frankfort Regional Office
EP16	Electrostatic Booth 3	VOCs	401KAR 59:225	Plantwide VOCs	Semi-Annual and Annual Reports Submitted to the Frankfort Regional Office
EP17	Electrostatic Touchup Booth	VOCs	401KAR 59:225	Plantwide VOCs	Semi-Annual and Annual Reports Submitted to the Frankfort Regional Office

Section V.5: Testing Requirements

[illegible]

(502) 564-3999

☐ Complete Sections GG.1 through GG.12, as applicable
☐ Attach manufacturer's specifications for each control device
☐ Complete DEP7007AI

Date: Aug-25[illegible]

[illegible]

SECTION 3

SDS / BOOTH INFORMATION

ZINC COATING AS-APPLIED

PPG Industries, Inc.

Environmental Data Sheet

Friday, August 01, 2025

Customer: Hitachi Astemo
301 Mayde Rd, Berea, KY 40403

PRODUCT DESCRIPTION: Mix

<u>PRODUCT ID</u>	<u>PARTS PER BLEND</u>
GXS63923 SPECTRATHIN REDUCER	1
SPR67868A SPIN COAT ZRC CHARCOAL	2

PRODUCT PHYSICAL CHARACTERISTICS:

WEIGHT PER GALLON:	13.17 lb/gal
DENSITY OF ORGANIC SOLVENT BLEND:	7.23 lb/gal
	<u>Weight</u> <u>Volume</u>
NON-VOLATILE:	72.7% 50.5%
VOLATILE:	27.3% 49.5%
PERCENT OF WATER:	0.0% 0.0%
PERCENT OF EXEMPTS:	0.0% 0.0%

VOC INFORMATION:

VOC/GAL LESS WATER (LESS EXEMPTS):	3.59 lb/gal	430 g/L
ACTUAL VOC/GAL (WITH WATER WITH EXEMPTS):	3.59 lb/gal	430 g/L
VOC PER GALLON OF SOLIDS:	7.12 lb/gal	853 g/L
VOC PER POUND OF SOLIDS:	0.38 lb/lb	

Product is photochemically reactive as per SCAQMD rule 102

VOLATILE COMPOSITION: PERCENT OF TOTAL FORMULA:

<u>Component</u>	<u>Name</u>	<u>Weight</u>	<u>Volume</u>
100-51-6	Benzyl alcohol	1.6	2.5
103-65-1	Propylbenzene	1.0	1.8
104-76-7	2-Ethylhexanol	2.2	4.2
108-67-8	1,3,5-Trimethylbenzene	1.0	1.8
1330-20-7	Xylenes	0.4	0.7
526-73-8	1,2,3-Trimethylbenzene	0.7	1.3
64742-95-6	Solvent naphtha, petroleum, light aromatic	10.5	18.8
71-36-3	1-Butanol	3.3	6.5
872-50-4	N-Methyl-2-pyrrolidone	0.1	0.2

95-63-6	1,2,4-Trimethylbenzene	6.0	10.8
98-82-8	Cumene	0.2	0.3

REGULATORY INFORMATION BASED ON 100 GALLONS DEFAULT

<u>Component</u>	<u>Name</u>	<u>lb</u>	<u>kg</u>	<u>HAPS</u>	<u>SARA</u>
100-41-4	Ethylbenzene	1.21	0.55	Yes	Yes
1330-20-7	Xylenes	4.85	2.20	Yes	Yes
71-36-3	1-Butanol	43.93	19.93	No	Yes
95-63-6	1,2,4-Trimethylbenzene	72.77	33.01	No	Yes
98-82-8	Cumene	2.43	1.10	Yes	Yes
*****	ZINC COMPOUNDS	613.27	278.18	No	Yes
*****	ZINC IN ZINC COMPOUNDS	607.96	275.77	No	Yes

POUND OF ORGANIC HAPS PER POUND OF SOLIDS: 0.00
POUND OF ORGANIC HAPS PER GALLON OF SOLIDS: 0.16
POUND OF ORGANIC HAPS PER GALLON OF PRODUCT: 0.08
PERCENT OF ORGANIC HAPS (VHAP): 0.6%

DISCLAIMER

This Environmental Data Sheet is not intended to replace the product's Material Safety Data Sheet.

The data contained in this Environmental Data Sheet is based on information provided to PPG by its suppliers and PPG's knowledge of PPG product formulations. PPG makes no representation or warranty regarding the accuracy of supplier furnished information or that this information or data will not change.

The information in this Environmental Data Sheet is not intended to and does not create legal rights or obligations. This information is provided for the sole use of PPG customers and is not for disclosure to competitors of PPG. PPG customers have an independent obligation to determine proper use of the information and that their use of the information is consistent with federal, state and local laws, rules and regulations.

Trace constituents present at levels less than 0.01 lb or kg are not included in the Regulatory Information section of this Environmental Data Sheet. Volatile HAPS present at levels less than 0.1% by weight for carcinogens and 1.0% for non-carcinogens will not be shown or will be indicated by a "No" in the Regulatory Section (under HAPS) of this Environmental Data Sheet.

Trace volatiles present at levels less than 0.1% by weight are not included in the Volatile Section of this Environmental Data Sheet.

Chemical compounds generated as a result of the curing process of this coating are not included on this Environmental Data Sheet.

The USEPA listing of VOC exempt compounds [40CFR51.1000(s)] is used in calculating VOC values.

REDUCER

PPG Industries, Inc.

Environmental Data Sheet

Friday, August 01, 2025

Customer: Hitachi Astemo
301 Mayde Rd, Berea, KY 40403

Product: GXS63923 SPECTRATHIN REDUCER

PRODUCT PHYSICAL CHARACTERISTICS:

WEIGHT PER GALLON:	7.28 lb/gal	
DENSITY OF ORGANIC SOLVENT BLEND:	7.28 lb/gal	
	<u>Weight</u>	<u>Volume</u>
NON-VOLATILE:	0.0%	0.0%
VOLATILE:	100.0%	100.0%
PERCENT OF WATER:	0.0%	0.0%
PERCENT OF EXEMPTS:	0.0%	0.0%

VOC INFORMATION:

VOC/GAL LESS WATER (LESS EXEMPTS):	7.28 lb/gal	872 g/L
ACTUAL VOC/GAL (WITH WATER WITH EXEMPTS):	7.28 lb/gal	872 g/L
VOC PER GALLON OF SOLIDS:	-- lb/gal *	-- g/L *
VOC PER POUND OF SOLIDS:	-- lb/lb *	

* Dashes indicate that the field does not apply based on product physical characteristics.

Product is photochemically reactive as per SCAQMD rule 102

VOLATILE COMPOSITION: PERCENT OF TOTAL FORMULA:

<u>Component</u>	<u>Name</u>	<u>Weight</u>	<u>Volume</u>
64742-95-6	Solvent naphtha, petroleum, light aromatic	52.2	51.9
95-63-6	1,2,4-Trimethylbenzene	30.0	29.7
103-65-1	Propylbenzene	5.0	4.8
108-67-8	1,3,5-Trimethylbenzene	5.0	5.1
526-73-8	1,2,3-Trimethylbenzene	4.0	3.9
1330-20-7	Xylenes	2.0	2.0
98-82-8	Cumene	1.0	1.0
100-41-4	Ethylbenzene	0.5	0.5
108-88-3	Toluene	0.1	0.1
TOTAL OF REMAINING VOLATILES < 0.1%		0.2	0.2

REGULATORY INFORMATION BASED ON 100 GALLONS DEFAULT

<u>Component</u>	<u>Name</u>	<u>lb</u>	<u>kg</u>	<u>HAPS</u>	<u>SARA</u>
100-41-4	Ethylbenzene	3.64	1.65	Yes	Yes
1330-20-7	Xylenes	14.55	6.60	Yes	Yes
95-63-6	1,2,4-Trimethylbenzene	218.31	99.03	No	Yes
98-82-8	Cumene	7.28	3.30	Yes	Yes

POUND OF ORGANIC HAPS PER POUND OF SOLIDS: 0.00

POUND OF ORGANIC HAPS PER GALLON OF SOLIDS: 0.00

POUND OF ORGANIC HAPS PER GALLON OF PRODUCT: 0.25

PERCENT OF ORGANIC HAPS (VHAP): 3.4%

DISCLAIMER

This Environmental Data Sheet is not intended to replace the product's Material Safety Data Sheet.

The data contained in this Environmental Data Sheet is based on information provided to PPG by its suppliers and PPG's knowledge of PPG product formulations. PPG makes no representation or warranty regarding the accuracy of supplier furnished information or that this information or data will not change.

The information in this Environmental Data Sheet is not intended to and does not create legal rights or obligations. This information is provided for the sole use of PPG customers and is not for disclosure to competitors of PPG. PPG customers have an independent obligation to determine proper use of the information and that their use of the information is consistent with federal, state and local laws, rules and regulations.

Trace constituents present at levels less than 0.01 lb or kg are not included in the Regulatory Information section of this Environmental Data Sheet. Volatile HAPS present at levels less than 0.1% by weight for carcinogens and 1.0% for non-carcinogens will not be shown or will be indicated by a "No" in the Regulatory Section (under HAPS) of this Environmental Data Sheet.

Trace volatiles present at levels less than 0.1% are not listed individually in the volatile section of this EDS. Total trace volatiles is reported as "Total of remaining volatiles < 0.1%".

Chemical compounds generated as a result of the curing process of this coating are not included on this Environmental Data Sheet.

The USEPA listing of VOC exempt compounds [40CFR51.000(s)] is used in calculating VOC values.

PPG Industries, Inc.

Environmental Data Sheet

Friday, August 01, 2025

Customer: Hitachi Astemo
301 Mayde Rd. Berea, KY 40403

Product: SPR67868A SPIN COAT ZRC CHARCOAL

PRODUCT PHYSICAL CHARACTERISTICS:

WEIGHT PER GALLON:	16.12 lb/gal	
DENSITY OF ORGANIC SOLVENT BLEND:	7.21 lb/gal	
	<u>Weight</u>	<u>Volume</u>
NON-VOLATILE:	89.1%	75.7%
VOLATILE:	10.9%	24.3%
PERCENT OF WATER:	0.0%	0.0%
PERCENT OF EXEMPTS:	0.0%	0.0%

VOC INFORMATION:

VOC/GAL LESS WATER (LESS EXEMPTS):	1.75 lb/gal	210 g/L
ACTUAL VOC/GAL (WITH WATER WITH EXEMPTS):	1.75 lb/gal	210 g/L
VOC PER GALLON OF SOLIDS:	2.31 lb/gal	277 g/L
VOC PER POUND OF SOLIDS:	0.12 lb/lb	

Product is NOT photochemically reactive as per SCAQMD rule 102

VOLATILE COMPOSITION: PERCENT OF TOTAL FORMULA:

<u>Component</u>	<u>Name</u>	<u>Weight</u>	<u>Volume</u>
71-36-3	1-Butanol	4.1	9.8
104-76-7	2-Ethylhexanol	2.7	6.2
100-51-6	Benzyl alcohol	2.0	3.7
64742-95-6	Solvent naphtha, petroleum, light aromatic	1.0	2.3
95-63-6	1,2,4-Trimethylbenzene	0.6	1.3
872-50-4	N-Methyl-2-pyrrolidone	0.2	0.3
103-65-1	Propylbenzene	0.1	0.2
108-67-8	1,3,5-Trimethylbenzene	0.1	0.2
TOTAL OF REMAINING VOLATILES < 0.1%		0.2	0.5

REGULATORY INFORMATION BASED ON 100 GALLONS DEFAULT

<u>Component</u>	<u>Name</u>	<u>lb</u>	<u>kg</u>	<u>HAPS</u>	<u>SARA</u>
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71-36-3	1-Butanol	65.89	29.89	No	Yes
*****	ZINC COMPOUNDS	919.90	417.27	No	Yes
*****	ZINC IN ZINC COMPOUNDS	911.94	413.65	No	Yes

POUND OF ORGANIC HAPS PER POUND OF SOLIDS: 0.00
 POUND OF ORGANIC HAPS PER GALLON OF SOLIDS: 0.00
 POUND OF ORGANIC HAPS PER GALLON OF PRODUCT: 0.00
 PERCENT OF ORGANIC HAPS (VHAP): 0.0%

DISCLAIMER

This Environmental Data Sheet is not intended to replace the product's Material Safety Data Sheet.

The data contained in this Environmental Data Sheet is based on information provided to PPG by its suppliers and PPG's knowledge of PPG product formulations. PPG makes no representation or warranty regarding the accuracy of supplier furnished information or that this information or data will not change.

The information in this Environmental Data Sheet is not intended to and does not create legal rights or obligations. This information is provided for the sole use of PPG customers and is not for disclosure to competitors of PPG. PPG customers have an independent obligation to determine proper use of the information and that their use of the information is consistent with federal, state and local laws, rules and regulations.

Trace constituents present at levels less than 0.01 lb or kg are not included in the Regulatory Information section of this Environmental Data Sheet. Volatile HAPS present at levels less than 0.1% by weight for carcinogens and 1.0% for non-carcinogens will not be shown or will be indicated by a "No" in the Regulatory Section (under HAPS) of this Environmental Data Sheet.

Trace volatiles present at levels less than 0.1% are not listed individually in the volatile section of this EDS. Total trace volatiles is reported as "Total of remaining volatiles < 0.1%".

Chemical compounds generated as a result of the curing process of this coating are not included on this Environmental Data Sheet.

The USEPA listing of VOC exempt compounds [40CFR51.000(s)] is used in calculating VOC values.



Safety Data Sheet

according to JIS Z 7253 : 2019

Issue date: 3/1/2010

Revision date: 10/25/2023

1. Chemical product and company identification

Substance name	: MOLTON #808 TOKICO
Reference Number	: E-M006E-5
Recommended uses and restrictions	: For industrial and meter products
Company information	
Company Name	: TOKYO PAINT CO.,LTD.
Company Address	: 3435 Mida,Kohnosu-ehi,Saitama-ken,365-0062,Japan
Department	: Quality control office
Name of The Contact Person	: Quality control general manager
Telephone Number	: +81-48-5063211
Facsimile Number	: +81-48-5063545

2. Hazards identification

GHS classification

Physical hazards	Flammable liquids	Category 4
Health hazards	Acute toxicity (Inhalation:gas)	No classification
	Acute toxicity (Inhalation:vapours)	Category 3
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Carcinogenicity	Category 2
	Reproductive toxicity	Category 2
	Specific target organ toxicity (single exposure)	Category 1 (respiratory system)
	Specific target organ toxicity (single exposure)	Category 2 (systemic toxicity, central nervous system, blood system, liver, kidneys, blood)
	Specific target organ toxicity (repeated exposure)	Category 1 (respiratory system)
	Specific target organ toxicity (repeated exposure)	Category 2 (blood system)
Environmental hazards	Hazardous to the aquatic environment, short-term (acute)	Category 1
	Hazardous to the aquatic environment, long-term (chronic)	Category 2

Label elements

Hazard
pictograms
(GHS JP)



Signal word (GHS JP)

: Danger

Hazard statements (GHS JP)

: Combustible liquid (H227)
Causes skin irritation. (H315)
Causes serious eye irritation. (H319)
Toxic if inhaled. (H331)
Suspected of causing cancer. (H351)
Suspected of damaging fertility or the unborn child. (H361)
Causes damage to organs (respiratory system). (H370)

MOLTON #808 TOKICO

Revision date: 10/25/2023

May cause damage to organs (systemic toxicity, central nervous system, blood system, liver, kidneys, blood). (H371)
 Causes damage to organs (respiratory system) through prolonged or repeated exposure. (H372)
 May cause damage to organs (blood system) through prolonged or repeated exposure. (H373)
 Very toxic to aquatic life. (H400)
 Toxic to aquatic life with long lasting effects. (H411)

Precautionary statements (GHS JP)**Prevention**

- Obtain special instructions before use. (P201)
- Do not handle until all safety precautions have been read and understood. (P202)
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210)
- Do not breathe dust/fume/gas/mist/vapours/spray. (P260)
- Wash hands, forearms and face thoroughly after handling. (P264)
- Do not eat, drink or smoke when using this product. (P270)
- Use only outdoors or in a well-ventilated area. (P271)
- Avoid release to the environment. (P273)
- Wear protective gloves/protective clothing/eye protection/face protection. (P280)

Response

- IF ON SKIN: Wash with plenty of water. (P302+P352)
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. (P304+P340)
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
- IF exposed or concerned: Get medical advice/attention. (P308+P313)
- Call a POISON CENTER or doctor. (P311)
- Get medical advice/attention if you feel unwell. (P314)
- Specific treatment (see supplemental first aid instruction on this label). (P321)
- If skin irritation occurs: Get medical advice/attention. (P332+P313)
- If eye irritation persists: Get medical advice/attention. (P337+P313)
- Take off contaminated clothing and wash it before reuse. (P362+P364)
- In case of fire: Use Suitable extinguishing media to extinguish. (P370+P378)
- Collect spillage. (P391)

Storage

- Store in a well-ventilated place. (P403)
- Store in a well-ventilated place. Keep container tightly closed. (P403+P233)
- Store locked up. (P405)

Disposal

- Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. (P501)

3. Composition/information on ingredients

Distinction of substance or mixture : Mixture

Generic name : Water dispersion epoxy resin enamel (For Bayding)

Name	Concentration (%)	Reference number in the gazette list		CAS-No.
		CSCG No.	ISHL No.	
Ethylene glycol mono-n-butyl ether	6.3	(2)-407,(2)-2424,(7)-97	-	111-76-2
Ethylene glycol monopropyl ether	1-5	(2)-2424	Existing Chemical Substance	2807-30-9
Triethylamine	1.5	(2)-141	Existing Chemical Substance	121-44-8
Carbon black	1-5	-	-	1333-86-4
Zinc oxide (ZnO)	1-5	(1)-561	Existing Chemical Substance	1314-13-2
Neodecanoic acid, cobalt salt	0.1-0.5	(2)-615	Existing Chemical	27253-31-2

June 19, 2025
OYC ESG
Kyle Conley
Ref: Hitachi

DISC BOOTH

Cross Draft Booth

RTT Engineered Solutions is pleased to offer the following proposal for your consideration. **(1) IB model IB-07-09-07-00**
Interior working dimensions of: **7'-0" wide X 9'-0" tall X 7'-0" long**. Approximate overall dimensions of: **7'-4" wide X 9'-2" tall X 9'-2" long**.

Note:

- Disc Booth
- 42" x 96" Open Front
- W6x9 Support Included
- No Lights
- Ref: SO72810 for design specifics.

Industry Leading 5-Year Warranty

The quality and workmanship of RTT spray booths allows us to be the only Spray Booth Manufacturer to offer a Five (5) Year Warranty* provided the customer utilizes our RTT high-performance RP "W-Series" exhaust filters. These filters have been designed, tested and approved to provide superior paint particle separation while restricting the least amount of air flow in accordance with ASHRAE 52.1.

RTT AMU's are included in this warranty if purchased with the spray booth.

Please Note (*): The utilization of spray booth exhaust filters other than the RTT RP W-Series filters will reduce the RTT spray booth and AMU warranty period to one (1) year. Temperature and humidity-controlled systems do not qualify for the 5-year warranty. Please contact your local distributor or RTT if you have any questions regarding this program. RTT reserves the right to deny warranty claims if proper booth maintenance is not performed. This warranty is for parts only. Labor is not included. This warranty is not transferrable. Equipment registration is required at time of order.

Scope:

Air is drawn in through the open face at the front of the spray booth. This air flows through the booth's working area, into the exhaust plenum at the rear of the booth and then flows out to the atmosphere via the exhaust stacks. This booth is provided complete, with all necessary hardware to meet the applicable national requirements established by OSHA and the NFPA for paint booth construction.

Panels:

Panels are fabricated from 18-gauge quality galvanized steel, flanged and precision punched on 6" centers for maximum rigidity. Panels are fastened together with 5/16" bolts and are to be sealed with the provided caulk following assembly.

A total of (2) 4,000 Lm light fixtures will be provided for illumination:

Illumination (LED)

Fixtures are Maintenance-Free rated for Class I Division II Groups A, B, C, D; Class II Division II Groups F & G. Fixtures are ETL listed and approved for their intended use and placement. Lighting is provided by innovative LED technologies consisting of multiple high efficiency flux boards paired with high efficiency drivers. Fixtures are designed to accept either 120VAC or 277VAC power. Drivers and boards carry a 5-year limited warranty.

Filtration: 20x20

- Exhaust Filters: RTT's RP Arrestor W-Series 5100 Ultra-Efficiency Filtration. The RP Arrestor W-Series filtration has six layers of expanded paper to create an alternating labyrinth upstream of a heavy polyester backing. This combination yields higher efficiency while still providing ample holding capacity in a wide variety of applications. Filters are lab tested with over a 99.8% particulate removal efficiency.
- A Dwyer Mark II manometer will be provided with the unit to monitor the filter resistance and thereby offer a visual indicator of the filter's life and efficiency.

Air Solenoid Valve:

1/2" 120V solenoid valve will be provided with this booth.

(1) - 18" 1.0 HP Exhaust fan rated for 2,140 CFM @ 0.75" Static Pressure

Total CFM exhausted: 2,140 CFM.

A tube axial type duct fan 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 mounted in rubber isolators for smooth operation. The motor, drive, and bearings are isolated from the exhaust air stream. The bearings are sized with a minimum average life, per AFBMA, in excess of 200,000 hours when operating at the maximum RPM of the fan size.

Controls by others.

Code Compliance:

All RTT booths are designed to meet or exceed the requirements and recommendations of the National Fire Protection Association (NFPA), Standard Number 33, as well as the Occupational Health and Safety Administration (OSHA) CFR 29.1910.107 covering the operation and construction of spray booths.

Exhaust Duct quoted per customer request

Thank you for the opportunity to quote your needs. We realize that in some cases, slight equipment revisions may be required. Therefore, as part of this proposal, RTT has allowed for up to (2) Customer-driven revisions during the approval process; additional revisions will be subject to possible engineering fees and any equipment changes that may impact the cost. Approval drawings (if required), after receipt of down payment, will be available in approximately two weeks depending on project complexity. Ship dates are established once the final receipt of signed approval. Prices quoted are F.O.B. point of manufacture. All RTT terms and conditions apply.

RTT Engineered Solutions: Advanced Control Systems for Spray Booths

RTT Engineered Solutions offers a range of advanced control systems designed to enhance the efficiency, safety, and performance of spray booths. Our control panels are listed under UL 508A, ensuring compliance with industry standards and providing reliable operation.

Filter Monitoring:

Effective filter oversight is crucial for maintaining optimal spray booth performance and ensuring a safe working environment. RTT's Filter Monitoring provides comprehensive monitoring and control of filter conditions.

- **Filter Monitor Pro:**
 - Visual and electronic notifications for filter maintenance.
 - User-adjustable set points for warning, replacement, and shutdown pressures.
 - Data acquisition and recording for maintenance scheduling and cost estimation.
 - Email and text notifications for timely alerts.
 - Pre-Assembled M12 Cable System for easy connection (Optional)
- **Benefits:**
 - Prevents unnecessary filter change-outs, reducing operational costs.
 - Ensures consistent airflow and optimal paint application.
 - Enhance safety by preventing filter overload and potential system failures.
 - Enhances employee safety and risk of exposure to harmful airborne compounds.

Filter Management:

Take the RTT Filter Monitoring Pro System to a higher level with the Filter Management System. The Filter Management System includes all the features and benefits of the Filter Monitor Pro but adds the ability to track filtration inventory consumption and stocking.

- **Filter Management:**
 - All benefits of the Filter Monitoring Pro
 - Filter Inventory is maintained on a minimum required system.
 - Automatic alerts are sent via text or email when inventory reaches minimum levels.
 - Each filter within the system is traceable for usage and filter changeouts by location.
 - Inventory is automatically adjusted when filter changeout occurs.
 - Connects the production floor to the front office via automatic electronic communications.

RTT Engineered Solutions' control systems and filter management solutions are designed to optimize the performance and efficiency of your spray booth operations. By integrating advanced technology and user-friendly interfaces, we provide reliable and cost-effective solutions for your business.

For more information, visit our website: www.RTTolutions.com/products/controls/

June 25, 2025
OTC ESG
Gabe Severyn
Ref: Hitachi

ROBOT BOOTH

Modified Down Draft Booth

RTT Engineered Solutions is pleased to offer the following proposal for your consideration. **(1) EIB-MD model EIB-MD-06-09-08-P-SB** Interior working dimensions of: **6'-0" wide X 9'-0" tall X 8'-0" long**. Approximate overall dimensions of: **6'-4" wide X 11'-2" tall X 10'-10" long**.

Note:

- Conveyor opening in each side wall 6" wide x 48" tall. TOR 8'.
- Key slot above the conveyor opening 12" Wide x 2' tall.
- (Conveyor/ conveyor support by others)
- Access door is in front wall.
- See Drawing for conveyor spacing and light location

Industry Leading 5-Year Warranty

The quality and workmanship of RTT spray booths allows us to be the only Spray Booth Manufacturer to offer a Five (5) Year Warranty* provided the customer utilizes our RTT high-performance RP "W-Series" exhaust filters. These filters have been designed, tested and approved to provide superior paint particle separation while restricting the least amount of air flow in accordance with ASHRAE 52.1.

RTT AMU's are included in this warranty if purchased with the spray booth.

Please Note (*): The utilization of spray booth exhaust filters other than the RTT RP W-Series filters will reduce the RTT spray booth and AMU warranty period to one (1) year. Temperature and humidity-controlled systems do not qualify for the 5-year warranty. Please contact your local distributor or RTT if you have any questions regarding this program. RTT reserves the right to deny warranty claims if proper booth maintenance is not performed. This warranty is for parts only. Labor is not included. This warranty is not transferrable. Equipment registration is required at time of order.

Scope:

Clean air flows into the booth through the intake plenum (located towards the front of the booth), passing through the work area, and exits through the exhaust plenum located in the rear of the booth. Filtered exhaust air is drawn thru the exhaust plenum and discharged upward into the atmosphere through the exhaust stack(s). This booth is provided complete with all necessary hardware to meet the applicable national requirements established by OSHA, and the NFPA for paint booth construction.

Panels:

Panels are fabricated from 18-gauge quality galvanized steel, flanged and precision punched on 6" centers for maximum rigidity. Panels are fastened together with 5/16" bolts and are to be sealed with the provided caulk following assembly.

A total of (1) 4,000 Lm light fixtures will be provided for illumination:

Illumination (LED)

Fixtures are Maintenance-Free rated for Class I Division II Groups A, B, C, D; Class II Division II Groups F & G. Fixtures are ETL listed and approved for their intended use and placement. Lighting is provided by innovative LED technologies consisting of multiple high efficiency flux boards paired with high efficiency drivers. Fixtures are designed to accept either 120VAC or 277VAC power. Drivers and boards carry a 5-year limited warranty.

Air Solenoid Valve:

1/2" 120V solenoid valve will be provided with this booth.

Filtration:

- Exhaust Filters: RTT's RP Arrestor W-Series 5100 Ultra-Efficiency filtration roll media and FilterLoc filter management system. The RP Arrestor W-Series filtration has six layers of expanded paper to create an alternating labyrinth upstream of a heavy polyester backing. This combination yields higher efficiency while still providing ample holding capacity in a wide variety of applications. Filters are lab tested with over a 99.8% particulate removal efficiency. FilterLoc track is mounted to the exhaust chamber providing a tighter seal to help eliminate overspray bypass. The roll media is secured in the FilterLoc track using the provided FilterLoc Tool. The new technology provides savings by allowing the utilization of roll media reducing overall cost and decreases overall filter change out time.
- A Dwyer Mark II manometer will be provided with the unit to monitor the filter resistance and thereby offer a visual indicator of the filter's life and efficiency.
- 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 with this unit.

(1) - 24" 3 HP Exhaust fan rated for 7,000 CFM @ 0.75" Static Pressure

Total CFM exhausted: 7,000 CFM.

A tube axial type duct fan 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 mounted in rubber isolators for smooth operation. The motor, drive, and bearings are isolated from the exhaust air stream. The bearings are sized with a minimum average life, per AFBMA, in excess of 200,000 hours when operating at the maximum RPM of the fan size.

(1) - 24" 1.5 HP Intake fan rated for 7,000 CFM @ 0.25" Static Pressure

A tube axial type duct fan specifically designed and constructed for use in paint spray booths and similar applications is provided for intake. A precision balanced, fabricated, aluminum non-sparking fan blade moves the air through the fan. Bearings are mounted in rubber isolators for smooth operation. The motor, drive, and bearings are isolated from the intake air stream. The bearings are sized with a minimum average life, per AFBMA, in excess of 200,000 hours when operating at the maximum RPM of the fan size.

(1) - Personnel access doors:

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

No Product Door

Code Compliance:

All RTT booths are designed to meet or exceed the requirements and recommendations of the National Fire Protection Association (NFPA), Standard Number 33, as well as the Occupational Health and Safety Administration (OSHA) CFR 29.1910.107 covering the operation and construction of spray booths.

Controls by others.

Enough exhaust ductwork for a typical 30' **flat roof** (estimated) installation **terminating at 6'** above the roof line is quoted for estimation purposes. Duct support by others. Actual ductwork requirements will be dictated by field conditions including but not limited to verified roof height, roof pitch, obstructions and local code restrictions.

Thank you for the opportunity to quote your needs. We realize that in some cases, slight equipment revisions may be required. Therefore, as part of this proposal, RTT has allowed for up to (2) Customer-driven revisions during the approval process; additional revisions will be subject to possible engineering fees and any equipment changes that may impact the cost. Approval drawings (if required), after receipt of down payment, will be available in approximately two weeks depending on project complexity. Ship dates are established once the final receipt of signed approval. Prices quoted are F.O.B. point of manufacture. All RTT terms and conditions apply.

*NFPA-33 Chapter 13.3.1.3.2 requirement where industrial air heaters are used to elevate the temperature for curing means shall be provided to deter entry into chamber and interlocks shall be provided to shut down the chamber if entry is made.

Note: When you have a straight run of duct over 21' in length, RTT suggests using Spiral Pipe. For pricing on Spiral Pipe upgrade, please contact a RTT Engineered Solutions sales representative

Cross Draft Booth

RTT Engineered Solutions is pleased to offer the following proposal for your consideration. **(1) IB model IB-07-08-7.5-00**
Interior working dimensions of: **7'-2" wide X 8'-0" tall X 7'-4" long**. Approximate overall dimensions of: **7'-6" wide X 8'-6" tall X 10'-4" long**.

Note:

This booth will be designed similar in design to SO72291. Interior working height will be 8'.

2- sets of w6x9 support will be included.

Booth will have a front opening of 4'-2" wide.

Industry Leading 5-Year Warranty

The quality and workmanship of RTT spray booths allows us to be the only Spray Booth Manufacturer to offer a Five (5) Year Warranty* provided the customer utilizes our RTT high-performance RP "W-Series" exhaust filters. These filters have been designed, tested and approved to provide superior paint particle separation while restricting the least amount of air flow in accordance with ASHRAE 52.1.

RTT AMU's are included in this warranty if purchased with the spray booth.

Please Note (*): The utilization of spray booth exhaust filters other than the RTT RP W-Series filters will reduce the RTT spray booth and AMU warranty period to one (1) year. Temperature and humidity-controlled systems do not qualify for the 5-year warranty. Please contact your local distributor or RTT if you have any questions regarding this program. RTT reserves the right to deny warranty claims if proper booth maintenance is not performed. This warranty is for parts only. Labor is not included. This warranty is not transferrable. Equipment registration is required at time of order.

Scope:

Air is drawn in through the open face at the front of the spray booth. This air flows through the booth's working area, into the exhaust plenum at the rear of the booth and then flows out to the atmosphere via the exhaust stacks. This booth is provided complete, with all necessary hardware to meet the applicable national requirements established by OSHA and the NFPA for paint booth construction.

Panels:

Panels are fabricated from 18-gauge quality galvanized steel, flanged and precision punched on 6" centers for maximum rigidity. Panels are fastened together with 5/16" bolts and are to be sealed with the provided caulk following assembly.

A total of (2) 4,000 Lm light fixtures will be provided for illumination:

Illumination (LED)

Fixtures are Maintenance-Free rated for Class I Division II Groups A, B, C, D; Class II Division II Groups F & G. Fixtures are ETL listed and approved for their intended use and placement. Lighting is provided by innovative LED technologies consisting of multiple high efficiency flux boards paired with high efficiency drivers. Fixtures are designed to accept either 120VAC or 277VAC power. Drivers and boards carry a 5-year limited warranty.

Filtration: (20x20)

- Exhaust Filters: RTT's RP W-Series Ultra Efficiency filters have a custom designed layering system to increase the overall efficiency of the booth. Filters are lab tested with over a 99.8% particulate removal efficiency. A filter holding grid is provided for each filter cell. Every new spray booth is provided with one set of filters.
- A Dwyer Mark II manometer will be provided with the unit to monitor the filter resistance and thereby offer a visual indicator of the filter's life and efficiency.

Air Solenoid Valve:

1/2" 120V solenoid valve will be provided with this booth.

(1) - 24" 3.0 HP Exhaust fan rated for 6,000 CFM @ 0.75" Static Pressure

Total CFM exhausted: 6,000 CFM.

A tube axial type duct fan 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 mounted in rubber isolators for smooth operation. The motor, drive, and bearings are isolated from the exhaust air stream. The bearings are sized with a minimum average life, per AFBMA, in excess of 200,000 hours when operating at the maximum RPM of the fan size.

Optional UL/Listed Control Equipment:

A NEMA12 enclosure pre-wired and tested by RTT for simple hookup. Control panel includes main disconnect switch, class 10 motor protection, light contactor, fuse block, and field wiring terminal strip to easily connect interlock circuits such as door limit switches, light lens limit switch, air solenoid, and fire suppression. The class 10 motor protector offers maximum motor protection by being individually calibrated for the smallest and largest current it can handle, and includes automatic ambient temperature compensation over a range of -13F to +140F.

Code Compliance:

All RTT booths are designed to meet or exceed the requirements and recommendations of the National Fire Protection Association (NFPA), Standard Number 33, as well as the Occupational Health and Safety Administration (OSHA) CFR 29.1910.107 covering the operation and construction of spray booths.

Enough exhaust ductwork for a typical 30' **flat roof** (estimated) installation **terminating at 6'** above the roof line is quoted for estimation purposes. Duct support by others. Actual ductwork requirements will be dictated by field conditions including but not limited to verified roof height, roof pitch, obstructions and local code restrictions.

Thank you for the opportunity to quote your needs. We realize that in some cases, slight equipment revisions may be required. Therefore, as part of this proposal, RTT has allowed for up to (2) Customer-driven revisions during the approval process; additional revisions will be subject to possible engineering fees and any equipment changes that may impact the cost. Approval drawings (if required), after receipt of down payment, will be available in approximately two weeks depending on project complexity. Ship dates are established once the final receipt of signed approval. Prices quoted are F.O.B. point of manufacture. All RTT terms and conditions apply.



Paint Overspray Collectors



Columbus Industries' collection media are designed using baffle/strainer technology, as shown above, for optimum performance and extended service life.

Description:

Columbus Industries' combination baffle/strainer-type overspray collectors are constructed of layers of silt and expanded kraft with an optional final layer of duo-density synthetic polyester backing to maximize efficiency and strength. The front layers of this collector employ larger baffle openings followed with layers of progressively smaller "diamond" design and an optional final back layer of dense non-woven polyester. This filter design allows CI to provide products that address the filtration goals of your specific application.

Features and Benefits:

- Layers of silt and expanded kraft with multistage designed baffle openings. Supra® products incorporate a final layer of non-woven polyester for additional efficiency and filter service life.
- Broad offering of products to provide optimum filtration for a wide range of coatings and applications
- Extended service life for fewer change-outs
- Ease of handling, installation and disposal
- Both flame retardant and non flame retardant versions available
- Available in rolls and cut pads for easy installation

Applications:

Columbus Industries' paint overspray collector products are designed to meet the ever-changing needs of the finishing industry. The extensive line of filter designs and technical support provided allows end-users to select the perfect filter for their specific coating, application and filtration goals.



or BETTER, when tested in accordance with 40 CFR PART 53
SUPPORT 9000000 (ASTM Method D2-111) (Nonwovens) and (Test
and Procedures for Testing Air-Cleaning Devices Used in General
Ventilation for Removing Particulate Matter) (June 4, 1995)

Columbus Industries has a Continual Product Improvement Process to constantly introduce new and improved products. Therefore, prices and specifications are subject to change without notice.

Performance Data

Product:

Paint Overspray Collectors - Expanded Kraft and Supra[®]

Clean Resistance to Airflows:

Velocities (FPM)	Resistance ("H ₂ O)
100	0.015 - 0.070
150	0.025 - 0.100
200	0.045 - 0.140

Performance Data:

Coating Type	Filter	Expected Efficiency Range	Expected Holding Capacity (lbs)
Air Dry Enamel	Standard & Standard MM*	96.5 - 98.0%	2.30 - 2.70 @ 0.50" W.C.
	High-Capacity Mini-Mesh*	96.0 - 98.0%	4.80 - 5.20 @ 0.50" W.C.
Waterborne Enamel	Standard & Standard MM*	96.0 - 98.0%	3.50 - 3.80 @ 0.50" W.C.
	High-Capacity Mini-Mesh*	96.0 - 98.0%	6.80 - 7.20 @ 0.50" W.C.
High-Solids Bake Enamel	Supra I Mini-Mesh	99.7 - 99.9%+	5.30 @ 0.35" W.C.
	Supra II Mini-Mesh	98.5 - 99.5%	5.80 @ 0.20" W.C.
	Supra A Mini-Mesh	99.55 - 99.94%	5.84 @ 0.74" W.C.
	High-Capacity Supra I & II Mini-Mesh	98.5 - 99.9%+	9.40 @ 0.20" W.C.
	High Capacity Supra A Mini-Mesh	99.17 - 99.71%	5.57 @ 0.56" W.C.
Waterborne	High-Capacity Supra II	95.5 - 97.5%	1.11 @ 0.50" W.C.
	High-Capacity Supra I	97.5 - 99%	.81 @ 0.50" W.C.
	High Capacity Supra A Mini-Mesh	97.82%	1.34 @ 0.57" W.C.

* These results were gained using Standard or High-Capacity Mini-Mesh collectors in tandem. Only the front pad is loaded and requires changing each time.

Note: Tests were conducted using modified ASHRAE STANDARD 52-76 test apparatus and procedures. Tests filter consisted of 20" x 20" pads held in a frame/gnd module as used in the field. Overspray was generated by an air atomizing gun with an initial air velocity of 150 fpm. Actual resistances, arrestances and holding capacities may differ due to the variations in paint make-up, mixing ratios, viscosities, booth conditions, etc.

Manufactured by:

Performance Engineered Air Filter Products
CI Columbus Industries, Inc.

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