Environmental Assessment Registration
958 Topsail Road Cabinet Door Milling & Spray Booth

1. **NAME OF UNDERTAKING:** *958 Topsail Road Cabinet Door Milling & Spray Booth*

2. PROPONENT:

Name of Corporate Body: *Royal Wood Design Limited*

Address: 958 *Topsail Road, Mount Pearl A1N3K2*

Chief Executive Officer:

Name:	*James Walsh*
Official Title:	*Owner / Director*
Address:	958 *Topsail Road, Mount Pearl A1N3K2*
Telephone No:	(*709) 770 7881*

Principal Contact Person for purposes of environmental assessment:

Name:	*James Walsh*
Official Title:	*Owner / Director*
Address:	958 *Topsail Road, Mount Pearl A1N3K2*
Telephone No:	(*709) 770 7881*
Email:	*james.walsh@royalwooddesign.com*

3. THE UNDERTAKING:

3.1. Name of the Undertaking:

958 Topsail Road Cabinet Door Milling & Spray Booth

3.2. Purpose/Rationale/Need for the Undertaking:

3.2.1. Provide appropriate office space to allow for administration activities.

3.2.2. Provide a showroom to allow for interaction with clients.

3.2.3. Provide appropriate space to allow for milling of solid Cabinet Doors.

3.2.4. Provide appropriate operational space for painting of the doors.

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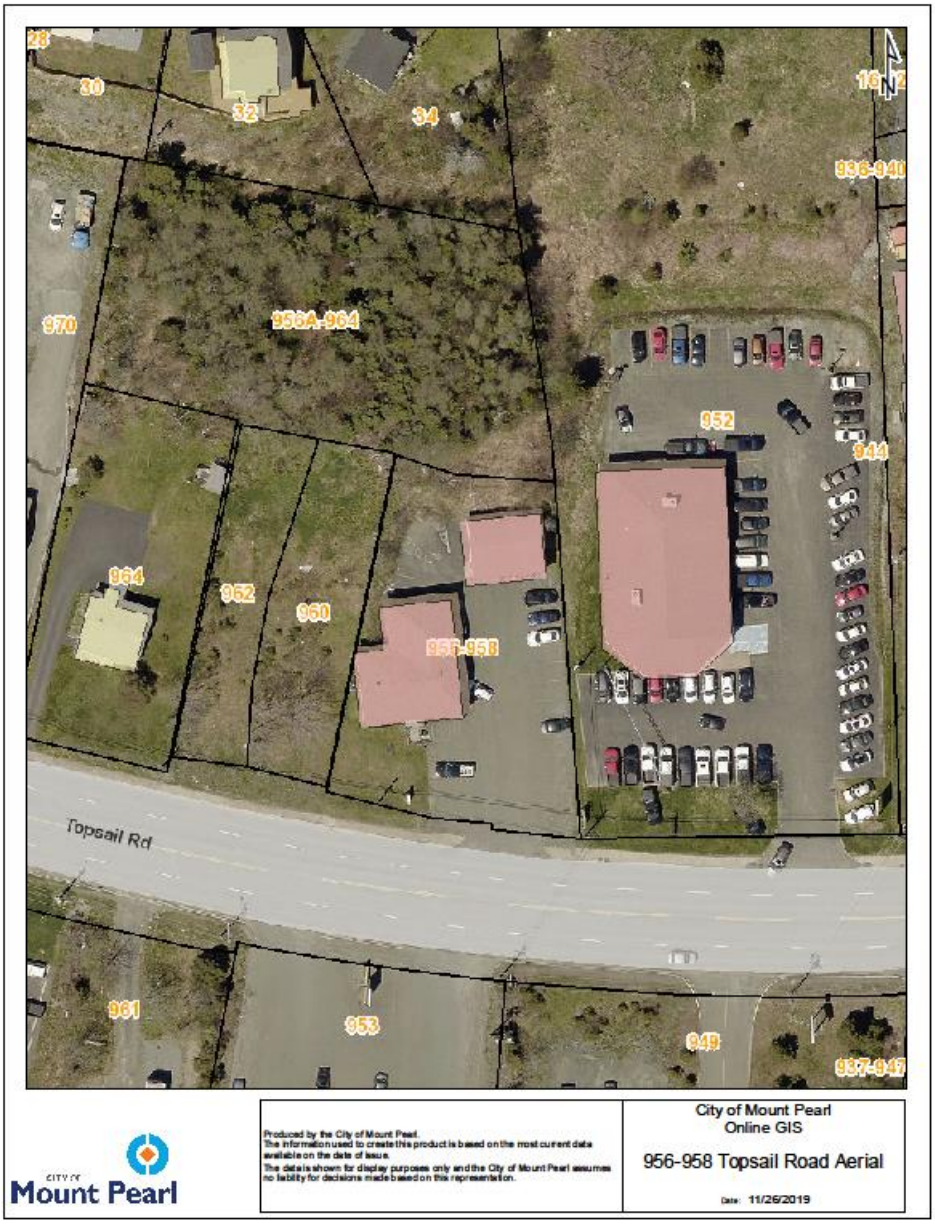
4. DESCRIPTION OF THE UNDERTAKING:

4.1. Geographical Location:

The undertaking is at 958 Topsail Road, Mount Pearl with direct access from Topsail Road.

This map identifies the physical location of the building within the City of Mount Pearl.



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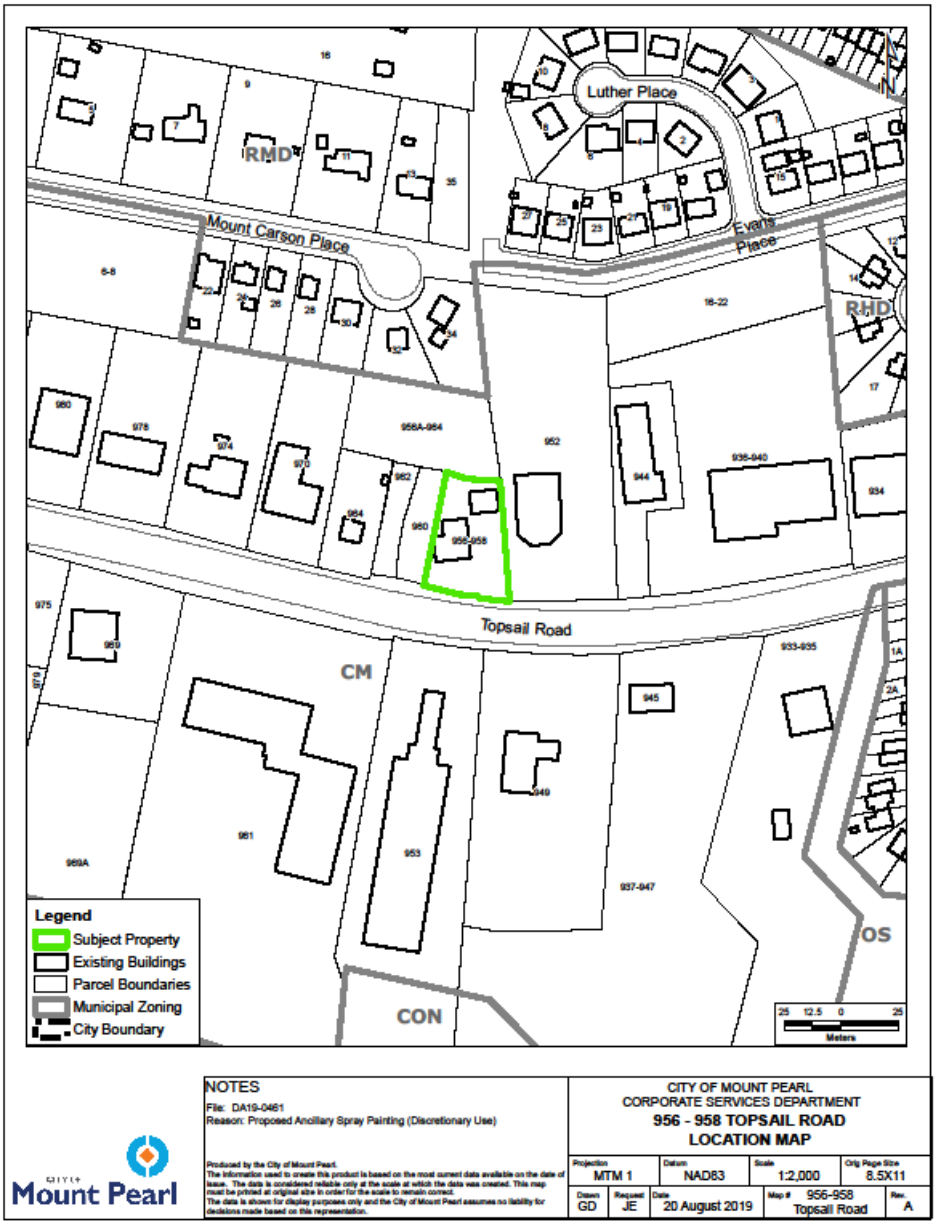
This map presents also identifies the proposed location and adjoining lots. The nearest residence is ~ 90 feet away. No significant water bodies are close.



Other cabinet businesses are located within ~ 5 kilometers of the proposed building.

4.2. Physical Features:

The building is a single story building with ~ 2200 square feet in total:

- *Office administration ~ 120 square feet (~ 5%).*
- *Client showroom ~ 775 square feet (~ 35%).*
- *Cabinet door milling & storage ~ 1053 square feet (~ 48%).*
- *Cabinet door spray booth ~ 252 square feet (~ 12%).*

10 Parking spaces are directly adjacent to this building. No other businesses or tenants exist in the building.

Centum Mortgage Place operates a business in a separate building that shares the larger parking lot. They are ~ 20 feet from this building with their own parking spaces.

4.3. Construction

The building will be modified to meet these minor requirements.

4.4. Operation:

The building will be open during core business hours (~ 0900 to 1700 hours) from Monday to Friday each week. The showroom will receive a small number of visitors, estimated at 5 people per week.

The plant area of the building (Cabinet door milling & Cabinet door spray booth) will have restricted access – only for production workers, shipping/receiving people and management.

The spray painting will be completed in a dedicated and isolated part of the building where spray machines are used. All paints will be stored in a steel storage locker.

Exit signs will be erected to facilitate egress.

Fire extinguishers will be available throughout the building.

The building will also be protected by a video system which will be monitored after hours.

4.4.1. Cabinet door milling

Solid cabinet doors are milled from solid Medium Density Fiber (MDF) to meet client requirements. Cabinet doors are programmed on a computer according to client requirements and a Computer Numerical Control (CNC) cutting machine quickly and accurately cuts the doors. The CNC is productive and minimizes waste. Other wood working tools may be used to ensure quality results. Mechanical fasteners and various door hardware may also be involved.

Dust or other contaminations would affect the quality of the finished product. The CNC is connected to a dust collecting (vacuum) system that removes most of the coarse and fine dust generated by the CNC machine into a dust collector inside the building. The dust collector is regularly serviced, emptied and then disposed of. Specifications on the CNC machine can be found in the Appendix.

4.4.2. Spray Booth

Spray painting is an essential part of the production process to ensure quality. Those milled cabinet doors will be sprayed with "water-based" paint to meet client requirements. The spray painting and drying will be completed in a dedicated and isolated part of the building.

The Spray Booth is an open face, modular design, constructed with single skin, 18-gauge G-90 galvanized steel, with pre-punched panels and nut and bolt assembly which provides effective structural integrity. This will occupy a space of ~ 7 high X 10 feet wide X 7 feet deep. Specifications on the Spray Booth can be found in the Appendix.

An employee will operate a High Volume Low Pressure (HVLP) hand spray unit to paint the milled cabinet doors with "water-based" paint. The room will be restricted to minimize contamination. Volatile Organic Compounds (VOCs) are organic chemicals that have a high vapor pressure at ordinary room temperature. Water-based paint generates low VOCs. The mechanical fan filters any VOCS from the "water-based" paint before exhausting the remaining air outdoors. The fan moves 9000 cubic feet of air per minute with the final exhaust pipe 7 feet above the ridge line.

The booth is expected to be used on a very minimal basis on average. During operations, the exhaust fans will ventilate to the roof, after removal of the particulates and any volatile organic compounds through the installed filters. Filters are used to minimize the air particulates. The paint to be used will be thinned latex (thinning is required to ensure smooth delivery through the paint sprayer) so that there will be minimal volatile emissions. The newest machines are designed to effectively reduce the overspray and any waste and thereby reduce emissions. The filters on the spray equipment and spray booth are replaced regularly using high quality filters. Again, the very high quality and appearance required of the finished products makes the coating process absolutely essential. Filters that have excessive air flow resistance will not produce adequate results with the coating operations and finishes. Consequently, the environmental impact of the air emissions to the surrounds of the plant is essentially eliminated.

Doors are then hung on a rack to air dry in the drying room. The drying room is a room for the coated work pieces to dry, for the coatings to completely cure, before they are further handled and moved out of the room.

4.4.3. Waste Collection & Disposal:

Solid non-hazardous waste generated during the operation of the Cabinet Milling operation will consist mostly of sawdust with some larger pieces of MDF. All non-hazardous recyclable waste will be maintained in the Cabinet milling area, segregated appropriately, periodically collected and disposed of at the Robin Hood Bay landfill.

Solid hazardous waste generated during the operation of the Spray Booth will consist of paint cans containing paint residue and empty paint cans with minimal dried residue. These will be maintained inside the general Spray Booth in a steel storage locker and then disposed of through the hazardous waste disposal site at Robin Hood Bay.

No adverse environmental impacts are expected.

4.5. Occupations:

The building will be occupied by a staff of ~ 2 to 3 during business and operational hours.

Existing operations and experienced staff will handle the business.

4.6. Project Related Documents:

Not Applicable.

5. APPROVAL OF THE UNDERTAKING:

Authorization	*Authorities*	*Comment*	*Attachment*
Occupancy Permit	*City of Mount Pearl*	*Originally approved but rescinded pending completion of the Environmental Assessment.*	

6. SCHEDULE:

Renovation of the building may take several months to complete.

7. FUNDING

No government agency funds have been requested.

8. SIGNATURE

James Walsh December 11, 2019

Signature of Chief Executive Officer Date

9. Appendix

9.1. CNC Specifications.
9.2. Spray Booth Specifications.
9.3. Spray Gun Product Info
9.4. Water Based Pigmented Lacquer Product Info
9.5. Water Based Primer Product Info
9.6. Water Based Clear Lacquer Product Info
9.7. Particleboard Safety Data Sheet
9.8. Medium Density Fiberboard (MDF) Safety Data Sheet

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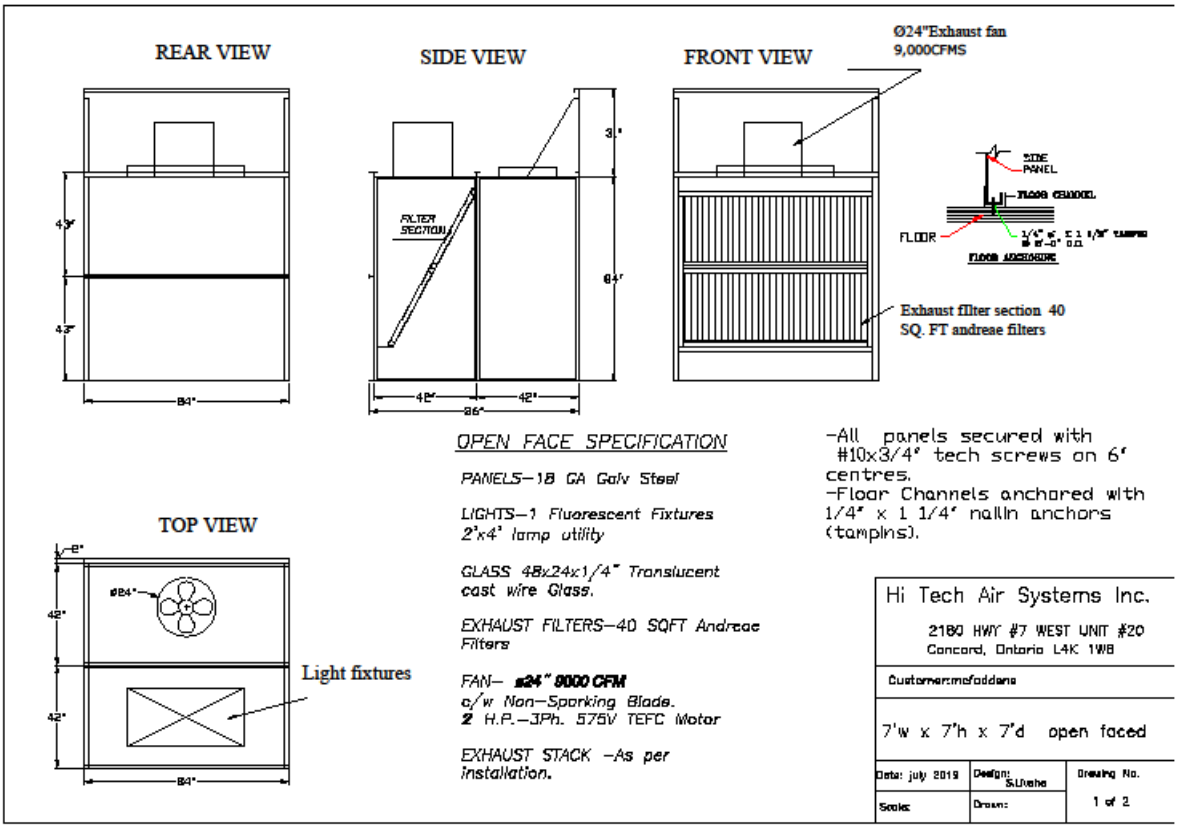
958 Topsail Road Cabinet Door Milling & Spray Booth

CNC Specifications



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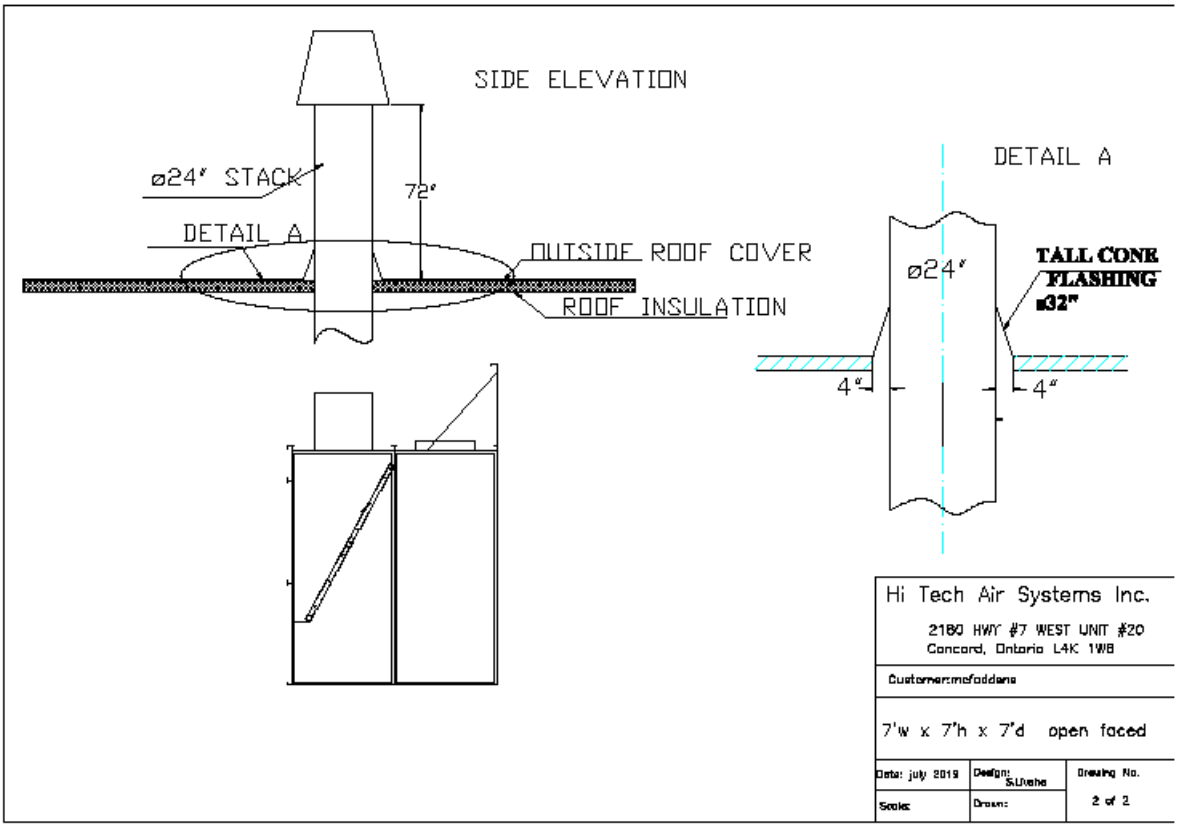
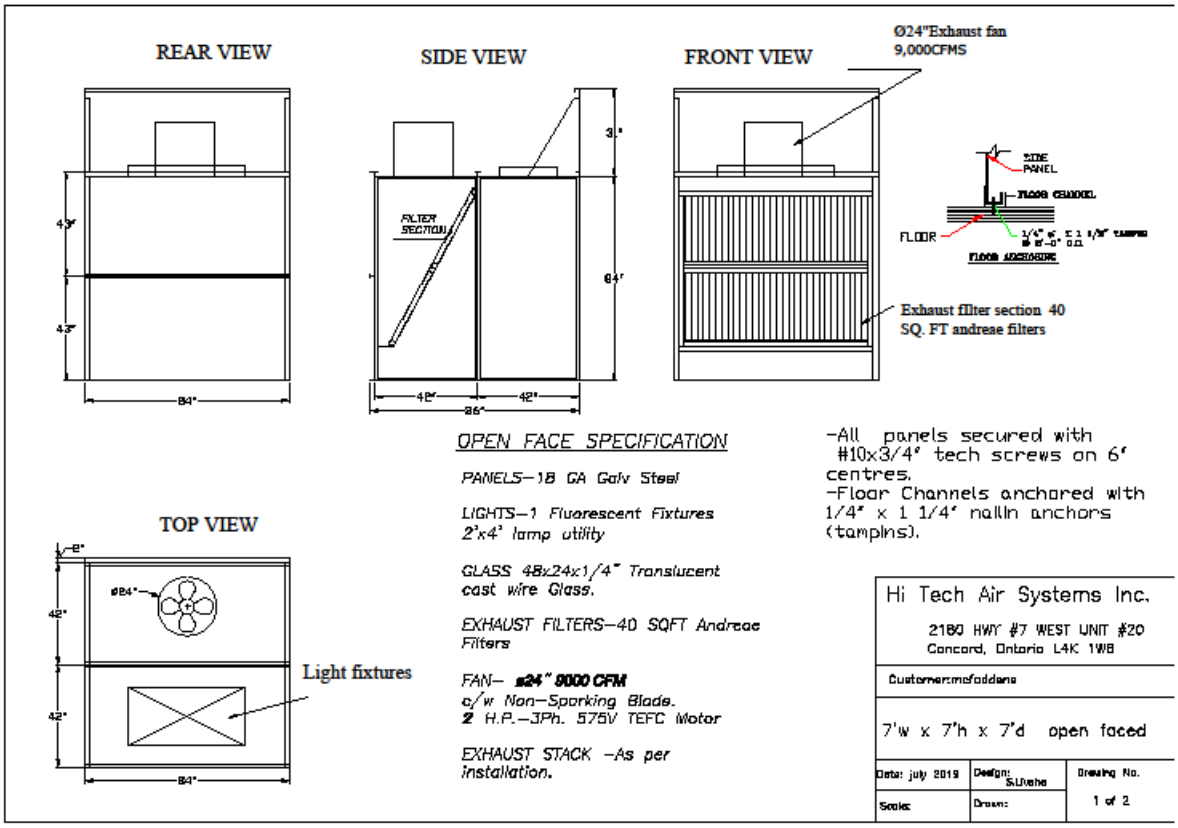
958 Topsail Road Cabinet Door Milling & Spray Booth

CNC Specifications



Environmental Assessment Registration
958 Topsail Road Cabinet Door Milling & Spray Booth

Spray Booth Specifications



Environmental Assessment Registration
958 Topsail Road Cabinet Door Milling & Spray Booth

Spray Gun Product Info

C.A.Technologies

CPR-G

GRAVITY FEED SPRAY GUN
PRODUCT INFORMATION

CAT PR Pressure Reduced

The CPR-Gravity gun comes equipped with both a pressure reduced air cap 23-2101 and a HVLP air cap 23-1301 for areas requiring HVLP compliance.

23-2101 - consumes 11 cfm at 29 psi gun inlet.
23-1301 - consumes 13.5 cfm at 29 psi gun inlet.

23-2101 pressure reduced air caps can be used with the 0.8 mm - 1.7 mm fluid orifices listed below.
23-1301 HVLP air caps can be used with the full range of fluid orifices listed below.

HVLP/PRESSURE REDUCED AIR CAP AND FLUID NOZZLE CHART

MODEL NO.	AIR CAPS	FLUID TIP RANGE	*MAX GUN INLET PRESS. FOR HVLP	FAN CONTROL	SCFM @ MAX GUN INLET	STANDARD IN CAT PACK	AVAILABLE FLUID NOZZLES TIPS	NEEDLES / marking on needle
CPR-G	23-2101 CPR (Pressure Reduced)	0.8 - 1.7	29*	60-1504 (S)	11		33-0208 0.8mm (.022")	40-1308 (308)
						W, W-PPS	33-0210 1.0mm (.040")	40-1310 (310)
							33-0212 1.2mm (.046")	40-1312 (312)
						W, A, PPS	33-0213 1.3mm (.052")	40-1313 (313)
							33-0214 1.4mm (.055")	40-1314 (314)
	23-1301 (HVLP)	0.8 - 2.2	29*		13.5	W, A, PPS	33-0215 1.5mm (.059")	40-1315 (315)
						W, A, PPS	33-0217 1.7mm (.070")	40-1317 (317)
							33-0219 1.9mm (.075")	40-1319 (319)
							33-0222 2.2mm (.086")	40-1322 (322)

Actual fluid nozzle and air cap combinations are determined by application (see application chart page 4)
*Note: Air cap test gages are available to confirm HVLP compliance.
*Gun inlet pressures may vary as required by application

W = Wood
A = Automotive
PPS = 3M™ PPS™

Coating Atomization Technologies 337 South Arthur Avenue, Louisville CO 80027 Phone: 888.820.4498, Fax: 303.438.5708
www.spraycat.com

Environmental Assessment Registration
958 Topsail Road Cabinet Door Milling & Spray Booth

Water Based Pigmented Lacquer Product Info

M.L. CAMPBELL®
WOOD FINISHING SYSTEMS

M.L. Campbell
224 Catherine Street
Fort Erie, Ontario L2A 5M9 Canada
Tel: 1(800) 364-1359
Web: www.mlcampbell.com

Product Information (PI) Sheet

Product: **Aqualente Plus Water Borne Pre-Cat Pigmented Lacquer**

Code(s):	W136252 Dull	W136254 Satin	W136258 Gloss	

Description: A technically advanced, GREENGUARD Certified, VOC compliant, easy sanding, HAPs Free, pre-catalyzed water borne coating for interior wood surfaces. Aqualente Plus is based on breakthrough proprietary resin technology that produces no hazardous off-gassing during cure. Its new technology provides fast dry and trouble-free application as well as a beautiful appearance, mirroring its solvent-based counterpart – pre-catalyzed lacquer. Aqualente Plus passes all KCMA tests, AWI System 2, Pre-catalyzed Lacquer and System 8, Water Base Acrylic Cross Linking chemical and moisture resistance tests.

Uses: For use on kitchen and bathroom cabinets, dormitory, household and office furniture. Also for use on toys, paneling and display fixtures.

Other Products: For primer requirements, see M.L. Campbell W136259 Aqualente Plus Stain-blocking WB White Primer.

Physical Properties (packaged)	
Weight per Gallon:	10.15 lbs. ± 0.2 lbs/gal
Viscosity - Ford #4 at 77°F/25°C:	35 – 45 seconds
% Solids - by Weight:	51.0 ± 3
% Solids - by Volume:	40.0 ± 3
Theoretical Coverage at 1 Mil Dry: (Coverage figures DO NOT INCLUDE spray loss. Also allow for surface irregularities and porosity of wood surface to be finished.)	620 – 675 sq. ft. per gallon
Flash Point (PMCC):	Not Combustible
Color:	White/Opaque
Sheen (60° Glossmeter):	Dull 15 ± 2, Satin 35 ± 2, Gloss 80+
Packaged VOC:	105 - 135 g/l (0.80-1.10 lbs./gallon)
Volatile HAPS (lbs/lbs of solids):	0.00 lbs/lb
Photochemically Reactive:	No

Surface Preparation	
New Work:	Remove any dirt, grease or other contamination and sand as required.
Old Work:	Remove any dirt, grease, or other contamination from surface. Sand well to improve adhesion.

Reduction
Product does not require reducing, but can be thinned with distilled water (use very small amounts at a time). Thinning should be limited to 5%. Over thinning can cause sags due to high solids content of product.

Environmental Assessment Registration
958 Topsail Road Cabinet Door Milling & Spray Booth

Water Based Primer Product Info

M.L. CAMPBELL®
WOOD FINISHING SYSTEMS

M.L. Campbell
224 Catherine Street
Fort Erie, Ontario L2A 5M9 Canada
Tel: 1(800) 364-1359
Web: www.mlcampbell.com

Product Information (PI) Sheet

Product: **Aqualente Plus Stain-blocking Water Borne White Primer**

Code(s):	**W136259**			

Description: Aqualente Plus Stain-blocking WB White Primer is a GREENGUARD certified, fast drying, easy sanding water borne white primer made with a very unique all acrylic polymer that has built in functionality to help prevent tannin / stain migration. Special polymers lock in water-soluble tannins to help prevent them from bleed through while also creating an ideal smooth basecoat for water borne pigmented topcoats.

Uses: As a primer / undercoater on unfinished MDF and softwoods such as pine and cedar. Also, ideal applied to hard woods such as oak, poplar, birch and maple.

Other Products: Polystar Lacquer, Aqualente Plus Pre-Catalyzed and Aguatana Post-Catalyzed Water Borne Clear and Pigmented topcoats.

Physical Properties (packaged)	
Weight per Gallon:	11.08 ± 0.25 lbs/gal
Viscosity - Ford #4 at 77°F/25°C:	40 – 50 seconds
% Solids - by Weight:	57.0 ± 2
% Solids - by Volume:	43.0 ± 2
Theoretical Coverage at 1 Mil Dry: (Coverage figures DO NOT INCLUDE spray loss. Also allow for surface irregularities and porosity of wood surface to be finished.)	685 sq. ft per gallon
Flash Point (PMCC):	Not Combustible
Color:	White
Sheen (60° Glossmeter):	N/A
Packaged VOC:	42g/l (0.35lbs/gallon) ±3%
Photochemically Reactive:	No

Surface Preparation	
New Work:	Remove any dirt, grease or other contamination and sand as required.
Old Work:	Strip old finishes completely and remove all contaminants from the surface. Make sure surface is dry. Finish as new work.

Reduction

No reduction is required. However, small amounts of clean water may be used for specific equipment. Over-thinning due to the high solids content of this product can cause sags and potentially reduce stain-blocking properties. Thinning should be limited to 5-10%.

Tinting

Aqualente Stain-blocking WB Primer White can be tinted with Pratt & Lambert or Puratoner colorants, up to 3 ounces per gallon maximum.

Application Procedure

Environmental Assessment Registration
958 Topsail Road Cabinet Door Milling & Spray Booth

Water Based Clear Lacquer Product Info

M.L. CAMPBELL®
WOOD FINISHING SYSTEMS

M.L. Campbell
224 Catherine Street
Fort Erie, Ontario L2A 5M9 Canada
Tel: 1(800) 364-1359
Web: www.mlcampbell.com

Product Information (PI) Sheet

Product: **Aqualente Plus Water Borne Pre-Catalyzed Clear Lacquer**

Code(s):	C136352 Dull	C136354 Satin	C136358 Gloss	

Description: A technically advanced, GREENGUARD Certified, VOC compliant, easy sanding, HAPs Free, pre-catalyzed water borne coating for interior wood surfaces. Aqualente Plus is based on breakthrough proprietary resin technology that produces no hazardous off-gassing during cure. Its new technology provides fast dry and trouble-free application as well as a beautiful appearance, mirroring its solvent-based counterpart – pre-catalyzed lacquer. Aqualente Plus passes all KCMA tests, AWI System 2, Pre-catalyzed Lacquer and System 8, Water Base Acrylic Cross Linking chemical and moisture resistance tests.

Uses: For use on kitchen and bathroom cabinets, dormitory, household, and office furniture. Also for use on toys, paneling, and display fixtures.

Other Products: For stain requirements, see M.L. Campbell WoodSong II Series Water Borne Stains and Toners For sealer requirements, see M.L. Campbell C136359 Aqualente Plus Sealer.

Physical Properties (packaged)	
Weight per Gallon:	8.60 ± 0.2 lbs/gal
Viscosity - Ford #4 at 77°F/25°C:	32-37" Ford 4
% Solids - by Weight:	35.20 ± 3
% Solids - by Volume:	32.10 ± 3
Theoretical Coverage at 1 Mil Dry: (Coverage figures DO NOT INCLUDE spray loss. Also allow for surface irregularities and porosity of wood surface to be finished.)	490-520 sq. ft. per gallon
Flash Point (PMCC):	Not Combustible
Color:	Milky White
Sheen (60° Glossmeter):	Dull 15 ± 2, Satin 35 ± 2, Gloss 80+
Packaged VOC:	120-131 g/l (1.0-1.09 lbs./gallon)
Volatile HAPS (lbs/lbs of solids):	0.00 lbs/lb
Photochemically Reactive:	No

Surface Preparation	
New Work:	Remove any dirt, grease or other construction contamination from surface. Sand wood as required. No sealer is required.
Old Work:	Remove any dirt, grease, or other contamination from surface. Sand well to improve adhesion.

Particleboard Safety Data Sheet

Safety Data Sheet

Particleboard

Section 1: Identification

Product Name • **Particleboard**

Synonyms
- UltraPB, Duraflake, Rezflake, Vesta PB

This SDS is applicable for standard Arauco North America particleboard manufactured at the sites noted below including specialty products such as moisture-resistant (MR), panels manufactured with ultra-low emitting resins (branded Vesta), and panels laminated with thermally fused laminate (TFL)/melamine.

Product Description
- A wood product composed of wood and cured amino resins

Recommended use
- Building Materials –Decorative, Furniture, General Construction

Manufacturing Sites
- Albany, OR
  Bennettsville, SC
  St. Stephen, NB
  Moncure, NC

Supplier
- ARAUCO North America

400 Perimeter Center Terrace Suite 750
Atlanta, GA 30346 USA
http://www.arauco-na.com/

Telephone (General)
- 800-261-4890

Regional Support Centers

- **Canadian Regional Center**
  80 Tiverton Court, Suite 701
  Markham L3R 0G4
  Canada
  Tel: (905) 475-9686
  Fax: (905) 475-3827

- **US Eastern Regional Center**
  515 River Crossing Drive,
  Suite 110
  Fort Mill, SC 29715
  Tel: (877) 273-7680
  Fax: (800) 808-1454

- **US Western Regional Center**
  2550 NE Old Salem Road
  Albany, OR 97321
  Tel: (888) 650-6302
  Fax: (541) 928- 4116

Environmental Assessment Registration
958 Topsail Road Cabinet Door Milling & Spray Booth

Medium Density Fiberboard (MDF) Safety Data Sheet

Safety Data Sheet

Medium Density Fiberboard

Section 1: Identification

Product Name
- **MDF**

Synonyms
- Trupan MDF; Fibrex®; Trupan VESTA MDF; Trupan VESTA FR MDF
  This SDS is applicable for all ARAUCO North America Medium Density Fiberboard manufactured at the sites noted including MDF specialty products such as Fibrex® thin HDF, moisture-resistant (MR), flame-retardant (FR), panels manufactured with ultra-low emitting resins, and panels laminated with thermally fused laminate (TFL)/melamine.

Product Description
- A wood product composed of wood and cured amino resins

Recommended use
- Building Materials – Decorative, Furniture, General Construction

Manufacturing Sites
- St. Stephen, NB
  Sault Ste. Marie, ON
  Bennettsville, SC
  Moncure, NC
  Malvern, AR
  Eugene, OR

Supplier

ARAUCO North America
5901-B Peachtree Dunwoody Rd NE,
Suite 500
Atlanta, GA 30328
USA
http://www.arauco-na.com/

Telephone (General)
- 800-261-4890

Suppliers
- **Canadian Regional Center**
  80 Tiverton Court, Suite 701
  Markham L3R 0G4
  Canada
  Tel: (905) 475-9686
  Fax: (905) 475-3827

US Eastern Regional Center
515 River Crossing Drive,
Suite 110
Fort Mill, SC 29715
Tel: (877) 273-7680
Fax: (800) 808-1454

US Western Regional Center
2550 NE Old Salem Road
Albany, OR 97321
Tel: (888) 650-6302
Fax: (541) 928- 4116