Champaign County
Department of
PLANNING &
ZONING

Brookens Administrative Center 1776 E. Washington Street Urbana, Illinois 61802

(217) 384-3708 zoningdept@co.champaign.il.us www.co.champaign.il.us/zoning

# CASE 930-S-19

SUPPLEMENTAL MEMORANDUM #1 March 28, 2019

Petitioner: Dennis McCormick and Donald Rennels, d.b.a. RJD Machining, LLC

**Request:** Authorize a Contractor's Facility with or without Outdoor Storage and Outdoor Operations, in addition to an existing single-family dwelling,

as a Special Use in the AG-1 Agriculture Zoning District.

**Location:** A 3-acre tract in the Northwest Quarter of the Southwest Quarter of

Section 20, Township 17 North, Range 10 East of the Third Principal Meridian in Raymond Township with an address of 244 CR 1900E,

Longview.

Site Area: 3 acres

Time Schedule for Development: As soon as possible

Prepared by: Susan Burgstrom

Senior Planner

John Hall

**Zoning Administrator** 

#### **STATUS**

P&Z Staff requested additional information regarding the site plan and business. In an email received March 27, 2019, the petitioners responded to questions, revised their site plan, and provided specification sheets for the coolant and air purifier that they use. See the relevant sections below and the Attachments. New special condition F has been added for consideration by the Board.

#### **REVISED SITE PLAN**

The revised Site Plan received March 27, 2019, includes the new information listed below – see Attachment B. Red areas are existing features; green areas are proposed for the near future, and lavender areas are long term potential features that are contingent upon growth of the company.

- Driveway connecting to access drive on the property to the north, with a 20 feet wide entrance;
- The access road on the property to the north will be leased by the current property owners for a yearly fee, per Daniel Herriott, Busey Ag Services, who is the farm manager for the property to the north;
- The existing leach field is in the southeast corner of the subject property, and the new septic area for the business will be located south of the existing workshop;
- The existing well is located behind the house, and would be over 75 feet from the proposed septic area;
- A proposed 55 feet by 60 feet parking lot will be located north of the proposed addition; this area appears to be sufficient for the minimum required parking for the business; and
- Long-term potential features could include the "proposed extra shop area" on the east side of the property, and the "proposed extra parking lot" to the west of the proposed addition.

#### UPDATE ON DISPOSAL OF LIQUIDS USED DURING PRODUCTION

At the request of the Zoning Administrator, the petitioners provided a specification sheet for the ValCool VP 850 coolant they use in their machines – see Attachment C. The petitioners have already stated that they intend to have Safety-Kleen come out and dispose of used material as needed. In the email received March 27, 2019, Jacob McCormick added the following information:

"We mix this with water and that's what the machine will run on. It is usually around 10% concentration (9 parts water, 1 part coolant). The machine itself with recycle the coolant/water mixture for quite some time. After about a year, it is good practice to cycle out the mixture and put new coolant/water in. We have just done this on a machine which we emptied into 55 gallon barrels and will have SafetyClean in Champaign dispose of properly. We are reaching out to them currently to see if they will come get it or if we need to transport it in town. Although I don't believe it would be considered a hazardous material based on the information sheet, we have an employee which is licensed to transport such materials even if it were. We can sign a letter stating this disposal process if need be. Another thing to note regarding using the coolant is the impact on air quality. We purchased a "MistBuster" unit for each machine (500 units for small machines as suggested by their engineer, and 850 units for the larger machines)."

Attachment D is the specification sheet for the MistBuster units.

P&Z Staff recommend keeping Special Condition E for future application even though the petitioners have provided all information required currently. Attachment E is the statement signed by the petitioners that any disposal of these materials (liquids and waste products) will be done in compliance with Federal, State, and local regulations.

#### PROPOSED SPECIAL CONDITIONS

A. A Change of Use Permit shall be applied for within 30 days of the approval of Case 930-S-19 by the Zoning Board of Appeals.

The special condition stated above is required to ensure the following:

The establishment of the proposed use shall be properly documented as required by the Zoning Ordinance.

B. Certification from the County Health Department that the proposed septic system on the subject property has sufficient capacity for the proposed uses is a requirement for approval of the Zoning Use Permit.

The special condition stated above is required to ensure the following:

That the solid waste system conforms to the requirements of the Zoning Ordinance and any applicable health regulations.

C. The Zoning Administrator shall not authorize a Zoning Use Permit or a Zoning Compliance Certificate until the petitioner has demonstrated that any new or

proposed exterior lighting on the subject property will comply with the lighting requirements of Section 6.1.2.

The special condition stated above is required to ensure the following:

That the proposed uses are in compliance with the Zoning Ordinance.

D. The Zoning Administrator shall not authorize a Zoning Compliance Certificate until the petitioner has constructed one loading berth meeting the requirements of Paragraph 7.4.2 on the subject property.

The special condition stated above is required to ensure the following:

That off-street parking is in compliance with the Zoning Ordinance.

- E. The Zoning Administrator shall not authorize a Zoning Use Permit until the petitioners have demonstrated that they will responsibly and legally dispose of any liquids and/or waste by providing a copy of the following to the Zoning Administrator:
  - (1) The Material Safety Data Sheet for the coolant(s) used by RJD machining.
  - (2) Information on the recommended protocols of disposal for the coolant(s) and any other liquids used and/or waste products created by the company's machining processes.
  - (3) A statement signed by the petitioners that any disposal of these materials (liquids and waste products) will be done in compliance with Federal, State, and local regulations.
  - (4) The petitioners shall retain records of all disposal of waste and shall make the records available to the Zoning Administrator when requested.

The special condition stated above is required to ensure the following:

That no potentially hazardous materials used or created by the business contaminate the environment.

F. The Special Use Permit shall become void if the current business ceases and no new business is established within 180 calendar days.

The special condition stated above is required to ensure the following:

That the Special Use Permit for this unique land use will cease if not used.

#### **ATTACHMENTS**

- A Email from Jacob McCormick received March 27, 2019
- B Revised Site Plan received March 27, 2019
- C ValCool VP 850 coolant product sheets received March 27, 2019
- D MistBuster product sheets received March 27, 2019
- E Statement regarding materials disposal received March 28, 2019

#### Susan Burgstrom

From: jacob.mccormick@rjdmachiningllc.com Sent: Wednesday, March 27, 2019 3:49 PM

To: Susan Burgstrom

'Dennis McCormick'; donaldrennels@yahoo.com Cc:

Subject: RE: site plan and other questions

Attachments: Revised Plans - Including Septic.pdf; MistBusterNextGen rev6-12-13.PDF; Coolant

Information Sheet.pdf

Follow Up Flag: Follow up Flagged Flag Status:

RECEIVED MAR 2 7 2019

CHAMPAIGN CO P & Z DEPARTMENT

Hi Susan,

I've gotten you the information on the questions previously posed:

- 1. I've attached a marked up drawing of the current plans (which include the septic). The items in red already exist, the items in green are the items we'd be doing with the proposed addition once approved, and the items in Purple are items that I'd call possible projects in the coming years with expected growth.
- 2. The proposed expansion plan would be more work space to fit more CNC machines (work space, not admin space). The work conducted should be the same work already undertaken as I don't imagine we'll branch into any other areas of fabrication. I would imagine about the only scenario (knock-on-wood) that we would consider moving from this location entirely would be if we were hit by a natural disaster that demolished the structures and equipment. Barring that, in the unlikely event we moved, the building itself would stay put, while all of our machines would be moved. The structure itself would remain functional as a general shop or storage area with additional office space (which can also be used for storage) for anyone who should need it. A more likely scenario could be that we decide to have this shop AND also have a expand into a separate facility in town if we ever bought another company out or something (this option would obviously be years and years down the road depending on growth).
- 3. I've attached the coolant's information sheet. We mix this with water and that's what the machine will run on. It is usually around 10% concentration (9 parts water, 1 part coolant). The machine itself with recycle the coolant/water mixture for quite some time. After about a year, it is good practice to cycle out the mixture and put new coolant/water in. We have just done this on a machine which we emptied into 55 gallon barrels and will have SafetyClean in Champaign dispose of properly. We are reaching out to them currently to see if they will come get it or if we need to transport it in town. Although I don't believe it would be considered a hazardous material based on the information sheet, we have an employee which is licensed to transport such materials even if it were. We can sign a letter stating this disposal process if need be. Another thing to note regarding using the coolant is the impact on air quality. We purchased a "MistBuster" unit for each machine (500 units for small machines as suggested by their engineer, and 850 units for the larger machines).

If I am missing anything or if you have any further questions, please let me know.

Otherwise thank you so much for all of your help!

Jacob

Jacob McCormick, CPA Controller

E: jacob.mccormick@rjdmachiningllc.com

**RECEIVED** 

MAR 2 7 2019



Name: VP 850

SDS Date: 11/10/2016

ValCOOL, LLC 5230 Brittmoore Rd. Houston, TX 77041

#### SECTION 1: PRODUCT AND COMPANY INFORMATION

**Product Name:** 

**VP 850** 

Supplier:

ValCOOL, LLC

5230 Brittmoore Rd. Houston, TX 77041

Telephone:

(800) 244-9004

Fax:

(888) 695-6449

Email:

support@valcool.com

In case of Emergency:

CHEMTREC

1-800-424-9300

CHAMPAIGN CO P & Z DEPARTMENT

**Product Description** 

Heavy-duty non-chlorinated general purpose fluid with low-

foaming tendencies in all applications

#### **SECTION 2: HAZARD IDENTIFICATION**

#### **GHS Classification**



GHS07

Skin Sens. 1B - H317 - May cause an allergic skin reaction.

**GHS Label** 

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictogram



GHS07

Signal word

Warning

Hazard-determining components of labeling

2,2',2"-nitrilotriethanol Tolyltriazole sodium salt

TOFA DIPA Amide

3-Iodo-2-propynylbutylcarbamate

Hazard Statement May cause an allergic skin reaction.

#### Precautionary statements

Prevention Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves

Response Wash contaminated clothing before reuse.



SDS Date: 11/10/2016

ValCOOL, LLC 5230 Brittmoore Rd. Houston, TX 77041

If skin irritation or rash occurs: Get medical advice/attention.

Disposal Dispose of contents/container in accordance with

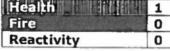
local/regional/national/international regulations.

#### **Classification System**





HMIS-ratings (scale 0 - 4)



Health = 1 Fire = 0 Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable. vPvB: Not applicable.

#### **SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Characterization: Mixture

Description: Mixture of the substances listed below with nonhazardous additions.

Components/Ingredients	CAS No.	%
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	10-<25%
TOFA DIPA Amide	38618-12-1	2.5-<10%
Borate Amine	26038-87-9	2.5-<10%
2,2',2"-nitrilotriethanol	102-71-6	2.5-<10%
2-methylpentane-2,4-diol	107-41-5	0.1-< 2.5%
Borate Amine	26038-90-9	0.1-≤ 2.5%
Tolyltriazole sodium salt	64665-57-3	0.1-<1%
3-Iodo-2-propynylbutylcarbamate	55406-53-6	0.1-<1%

#### **SECTION 4: FIRST AID MEASURES**

Eye Contact Rinse opened eye for several minutes under running water. Then consult a

doctor.

Skin Contact Wash exposed area with soap and water for at least 15 minutes. Call a

physician if rash or other symptoms develop. Launder clothes before reuse.

**Ingestion** Do not induce vomiting. Seek medical attention immediately.



SDS Date: 11/10/2016

ValCOOL, LLC 5230 Brittmoore Rd. Houston, TX 77041

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If

breathing is difficult, give oxygen.

Get medical attention immediately.

Information for doctor:

Most important symptoms/effects, acute and delayed

No further relevant information available.

Description of necessary first aid measures / specific treatments

No further relevant information available.

#### **SECTION 5: FIREFIGHTING MEASURES**

agents

mixture

#### **Extinguishing Media**

Suitable extinguishing

Water, Water Spray, Foam, Dry powder, Carbon Dioxide (CO2).

Special hazards arising from the substance or

No further relevant information available.

Special Fire Fighting Instructions

Full protective clothing and approved self-contained breathing

apparats if necessary for fire fighting personnel.

Protective equipment

No special measures required.

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment & emergency procedures

Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water

course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Methods and materials for containment and cleaning up

Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.



SDS Date: 11/10/2016

ValCOOL, LLC 5230 Brittmoore Rd. Houston, TX 77041

#### **SECTION 7: HANDLING AND STORAGE**

Handling

Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Information about protection

against explosions and fires

Keep respiratory protective device available.

Storage

Requirements to be met by Keep container closed when not in use. Store in a cool, dry, storerooms and receptacles

well ventilated place away from incompatible materials.

Information about storage in Keep container tightly closed in a cool, well-ventilated place.

one common storage facility Keep away from source of ignition.

Further information about Keep receptacle tightly sealed

storage conditions

Specific end use(s) No further relevant information available.

#### SECTION 8: EXPOSURE CONTROL AND PERSONAL PROTECTION

Additional information about design of technical systems - No further data; see item 7.

#### Control parameters

Components with limit values that require monitoring at the workplace

2,2',2"-nitrilotriethanol 102-71-6

TLV Long-term value: 5 mg/m<sup>3</sup>

2-methylpentane-2,4-diol 107-41-5

> REL Ceiling limit value: 125 mg/m<sup>3</sup>, 25 ppm TLV Ceiling limit value: 121 mg/m³, 25 ppm

. Additional information The lists that were valid during the creation were used as basis

#### **Exposure controls**

#### Personal protective equipment

General protective and Keep away from foodstuffs, beverages and feed.

hygienic measures 
Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.



SDS Date: 11/10/2016

ValCOOL, LLC 5230 Brittmoore Rd. Houston, TX 77041

Eye / Face Protection



Tightly sealed goggles

Hand Protection



Protective Gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. When contact is likely wear chemical

resistant gloves and boots. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

#### Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

#### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Respiratory Protection In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use

respiratory protective device that is independent of

circulating air.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### **Appearance**

Form

Liquid

Color

Light yellow

Odor

Mild

Specific Gravity at 20°C (68°F)

0.98 g/cm3 (8.178 lbs/gal)

Density

N.D.

**Evaporation rate** 

Not determined.

Flash Point

Not applicable.

Auto-ignition Temperature

Does not ignite.

Danger of explosion

No Danger

Boiling Point / Range

< 100 °C (< 212 °F)

pH- Value at 20 °C (68 °F)

9.4



SDS Date: 11/10/2016

ValCOOL, LLC 5230 Brittmoore Rd. Houston, TX 77041

Solubility in Water

Soluble

Viscosity

**Kinematic** 

Not determined.

Organic solvents

3.0 %

**VOC** content

3.0 %

(Neat):115 q/L (Working Solution): 11.5 g/L

Solids content

0.4 %

Other information

No further relevant information available.

#### **SECTION 10: STABILITY AND REACTIVITY**

Reactivity

No further relevant information available

**Chemical Stability** 

Thermal decomposition

**Conditions to Avoid** 

Stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reactions known

Conditions to Avoid

No further relevant information available

Incompatibility with other Do not mix with oxidizers

Materials

Hazardous decomposition

materials

Carbon Dioxide and Carbon Monoxide and various unidentified

organic hydrocarbons.

#### **SECTION 11: TOXICOLOGICAL INFORMATION**

#### **Acute toxicity**

#### Primary irritant effect

Eye Contact Product is classified as moderately irritating to the eyes.

Skin Contact This product is not expected to be toxic in contact with the

skin.

Sensitization Sensitization possible through inhalation.

Additional toxicological

information

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful



SDS Date: 11/10/2016

ValCOOL, LLC 5230 Brittmoore Rd. Houston, TX 77041

3

#### Carcinogenic categories

IARC 102-71-6 2,2',2"-nitrilotriethanol

(International Agency for Research on Cancer)

NTP None of the ingredients is listed.

(National Toxicology Program)

OSHA-Ca None of the ingredients is listed.

(Occupational Safety & Health Administration)

#### **SECTION 12: ECOLOGICAL INFORMATION**

#### **Toxicity**

Aquatic toxicity No further relevant information available

Persistence and degradability No further relevant information available

#### Behavior in environmental systems

Bioaccumulative potential No further relevant information available

Mobility in soil No further relevant information available

#### Additional ecological information

General notes Not readily biodegradable.

Does not hydrolyse.

Results of PBT and vPvB PBT: Not applicable.

assessment vPvB: Not applicable.

Other adverse effects No further relevant information available

#### **SECTION 13: DISPOSAL CONSIDERATIONS**

#### Waste treatment methods

Recommendation Must not be disposed of together with household

garbage. Do not allow product to reach sewage system.

#### Uncleaned packagings

Recommendation Disposal must be made according to official regulations.

Recommended cleansing Water, if necessary with cleansing agents

agent



SDS Date: 11/10/2016

ValCOOL, LLC 5230 Brittmoore Rd. Houston, TX 77041

#### **SECTION 14: TRANSPORT INFORMATION**

**DOT Classification** 

**UN** number

Not Regulated

UN proper shipping name

Not Regulated

Transport hazard class(es)

Not Regulated

Packing group

Not Regulated

**Environmental Hazards** 

Not applicable

Special precautions for user

Not applicable

Transport in bulk according to Annex II of MARPOL73/78

Not applicable

and the IBC Code

**UN "Model Regulation"** 

Not Regulated

#### **SECTION 15: REGULATORY INFORMATION**

Sara

Section 355

None of the ingredients is listed.

(extremely hazardous substances)

Section 313 (Specific toxic chemical listings)

55406-53-6 3-Iodo-2-propynylbutylcarbamate

TSCA (Toxic Substances Control Act)

64742-52-5 Distillates (petroleum), hydrotreated heavy naphthenic

38618-12-1 TOFA DIPA Amide

26038-87-9 Borate Amine

102-71-6 2,2',2"-nitrilotriethanol

107-41-5 2-methylpentane-2,4-diol

55406-53-6 3-Iodo-2-propynylbutylcarbamate

**Proposition 65** 

Chemicals known to cause cancer

None of the ingredients is listed.

Chemicals known to cause reproductive None of the ingredients is listed.

toxicity for females

Chemicals known to cause reproductive None of the ingredients is listed.

toxicity for males



SDS Date: 11/10/2016

ValCOOL, LLC 5230 Brittmoore Rd. Houston, TX 77041

Chemicals known to cause developmental toxicity

None of the ingredients is listed.

Carcinogenic categories

(Environmental Protection Agency)

None of the ingredients is listed

(Threshold Limit Value established by ACGIH)

None of the ingredients is listed

NIOSH-Ca

None of the ingredients is listed

(National Institute for Occupational Safety and Health)

**GHS Label** 

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictogram



GHS07

Signal word Warning

Hazard-determining components of labeling 2,2',2"-nitrilotriethanol Tolyltriazole sodium salt

TOFA DIPA Amide

3-Iodo-2-propynylbutylcarbamate

Hazard Statement May cause an allergic skin reaction.

Precautionary statements

Prevention Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves

Response Wash contaminated clothing before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

Dispose of contents/container in accordance with

local/regional/national/international regulations.

National regulations

limitation of use

Information about Workers are not allowed to be exposed to the hazardous carcinogenic

materials contained in this preparation.

Exceptions can be made by the authorities in certain cases.

Chemical safety

A Chemical Safety Assessment has not been carried out.

assessment



SDS Date: 11/10/2016

ValCOOL, LLC 5230 Brittmoore Rd. Houston, TX 77041

#### **SECTION 16: OTHER INFORMATION**

Revision Date: 11/10/2016 - 8

#### Abbreviations and acronyms:

DOT: US Department of Transportation

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit

Skin Sens. 1B: Sensitisation - Skin, Hazard Category 1B

#### HMIS:

**Disclaimer:** The information presented herein has been compiled from sources considered to be dependable and is accurate as of the date issued. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use are beyond our control, we make no warranty regarding the accuracy of such data or its suitability for any use or for any consequence of its use. The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. Safe handling and use remains the responsibility of the purchaser and the purchaser has the sole responsibility to determine the suitability of the materials for any use and the manner of user contemplated. We assume no responsibility for injury to the recipient or to third persons or for any damage to any property and the recipient assumes all such risks.

## Next Generation MistBuster®: 500, 500 Media, 850, 2000, Infinity

# Supplying Clean Air to Industry



The MistBuster family of self-contained mist removal systems is designed to capture mist and smoke from metalworking applications in the industry. Air Quality Engineering's loyal community of global users provides the continuous input needed to design new generations of mist collection solutions. Research and development focuses on meeting the demands of today's high-speed machining operations associated with oil, water soluble or synthetic coolants, using high pressure coolant pumps on a variety of metals.

The MistBuster can be direct mounted to machine tools or ducted using a flexible array of optional accessories. MistBuster is the superior alternative to conventional centrifugal and media-type systems. Its design maximizes filtration efficiency and minimizes maintenance requirements by attacking possible points of failure found with other mist collection systems.



### MistBuster is the best value for a compact, energy efficient, reliable mist collection solution.

- High efficiency air filtration through the use of industrial grade electronic cells designed for low static pressure with ultimate efficiency up to 97.8% on all submicron particles, as measured by an independent lab test in accordance with ASHRAE standard 52.2 at 500 CFM.
- Reliable operation based on in-depth knowledge of air filtration design, all electrical components are in a sealed compartment, isolated from the air stream and added to our patented AQE Advantage™ cell to reduce maintenance.
- Versatile design through a patented coolant selector switch, the MistBuster electronic line of air cleaners can handle the electronic requirements of water based or oil based coolant collection that cause other air cleaners to fail.

- Ease of installation through direct machine mount, ceiling mount, wall mount, or floor mount via a pedestal stand.
- Comprehensive solutions for a wide range of machining operations designed for single to multiple machine tool applications using electronic precipitation and for applications requiring it — media and odor control based systems.
- Compact, energy efficient design drawing as little as 1 amp under full load, and as small in size as a household microwave.

Air Quality Engineering stands behind the quality of the MistBuster with a limited 36 month warranty.



Air Quality Engineering, founded in 1973, is proud to offer a continued, superior level of experience in manufacturing complete air filtration systems that provide the highest performance, efficiency, and capacity for the money. Our sales and engineering team's mission is to identify the most cost-effective, high-quality solutions for our customers' needs, whether commercial, industrial or residential.

## **Next Generation Technology**

While electrostatic mist collectors provide a high-efficiency filtration system for mist and smoke collection, they sometimes require frequent washing of the electronic filter cell. Cell washing is required when collected contaminants cause a short circuit in the cell. Using next generation technology, individual test sites have seen service intervals increase from monthly washing, to yearly washing of the collector cells. Individual results will vary.



MistBuster's patented next generation technology aims to minimize the short circuits which require the washing of the electronic filter cells through:

- · Floating ionizer contact
- · Proprietary ceramic insulator design
- · Enhanced cell end plates
- Patented collector fin design
- Internal cabinet "air break"
- Patented variable voltage coolant selector

(Patents #6428611 and #7717984)

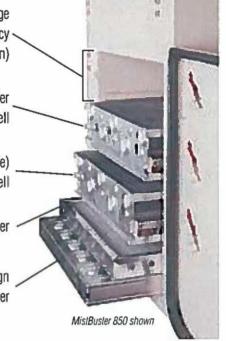
Optional 3rd Stage MistBuster High-Efficiency Cell (not shown)

> MistBuster High-Efficiency Cell

AQE Advantage™ (Long Life) Electronic Cell

Aluminum Mesh Impinger

Durable Metal Design Baffled Impinger



## MistBuster® Family - The Next Generation in Coolant and Smoke Collection

The MistBuster product family consists of electrostatic precipitators (MistBuster 500, MistBuster 850, and MistBuster 2000) and media based filtration systems (MistBuster 500 Media and MistBuster Infinity).

Model	MB500	MB500 Media	MB850	MB2000	MB Infinity
Airflow	Variable to 500 cfm	Variable to 500 cfm	Variable to 850 cfm	Variable to 1650 cfm @ .6" W.C.	Variable up to 1000 cfm
Primary Filter	Electrostatic	Disposable Media	Electrostatic	Electrostatic	Disposable Media
Cabinet	16 gauge steel cabinet with powder coated chemical resistant baked enamel, available in ivory or gray textured finish	16 gauge steel cabinet with powder coated chemical resistant baked enamel, available in ivory or gray textured finish	16 gauge steel cabinet with powder coated chemical resistant baked enamel, available in ivory or gray textured finish	16 gauge steel cabinel with powder coaled chemical resistant baked enamel, available in ivory or gray textured finish	16 gauge steel cabinet with powder coated chemical resistant baked enamel, available in ivory or gray textured finish
Power Input	115 Vac, 60 Hz, 1 ph, 2 amps 230 Vac, 60 Hz, 1 ph, 1 amp	115 Vac, 60 Hz, 1 ph, 3.5 amps 240 Vac, 60 Hz, 1 ph, 1.7 amps	115 Vac, 60 Hz, 1 ph, 3.5 amps 240 Vac, 60 Hz, 1 ph, 1.7 amps	115 Vac, 60 Hz, 1 ph, 4 amps 240 Vac, 60 Hz, 1 ph, 2 amps	115 Vac, 60 Hz, 1 ph, 9.5 amps 230 Vac, 60 Hz, 1 ph, 4.75 amps
Efficiency	Ultimate efficiency up to 97.8% on all submicron particles as measured by independent lab test in accordance with ASHRAE standard 52.2 at 500 CFM.	95% MERV 14 Filter	Ultimate efficiency up to 99.6% on all submicron particles as measured by independent lab test in accordance with ASHRAE standard 52.2 at 500 CFM.	Ultimate efficiency up to 99.6% on all submicron particles as measured by independent lab test in accordance with ASHRAE standard 52.2 at 1000 CFM.	95% MERV 14 Fitter
Filtration Stages	1st Stage: 2" batfled inertial impinger 2nd Stage: 2" aluminum mesh impinger 3rd Stage: AQE Advantage (Long Life) Electronic Cell 4th Stage: Optional HEPA filter 99.97% efficiency, ESF Filter, or Carbon Module	1st Stage: 2" baffled inertial impinger 2nd Stage: 2" aluminum mesh impinger 3rd Stage: 95% efficient MERV 14 pleated filter 4th Stage: Optional HEPA filter 99.97% efficiency or Carbon Module	1st Stage: 2" baffled inertial impinger 2nd Stage: 2" aluminum mesh impinger 3rd Stage: AGE Advantage (Long Life) Electronic Cell 4th Stage: MistBuster (High-Efficiency) Cell 5th Stage: Optional MistBuster (High-Efficiency) Cell 6th Stage: Optional HEPA filter 99.97% efficiency, ESF Filter, or Carbon Module	1st Stage: 4" aluminum mesh impingement 2nd Stage: ADE Advantage (Long Life) Electronic Cell x 2 3rd Stage: MistBuster (High-Efficiency) Cell x 2 4th Stage: Optional MistBuster (High-Efficiency) Cell x 2 5th Stage: Optional HEPA filter 99.97% efficiency, ESF Filter, or Carbon Module	1sl Stage: 4" aluminum mesh impingement 2nd Stage: 58 sq. ft of lofted microfine fiberglass media 3rd Stage: Optional HEPA filter 99.97% efficiency, ESF Filter, or Carbon Module

Specifications subject to change without notice.



7140 Northland Drive North, Brooklyn Park, MN 55428-1520, USA

PHONE: 763-531-9823 • FAX: 763-531-9900 • TOLL FREE: 1-800-328-0787

EMAIL: info@air-quality-eng.com · www.air-quality-eng.com

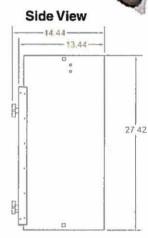
Model	MB850	
Airflow	Variable to 850 cfm	
Cabinet	16 gauge steel cabinet with powder coated chemical resistant baked enamel, available in ivory or gray textured finish	
Power Input	115 Vac, 60 Hz, 1 ph, 3.5 amps 240 Vac, 60 Hz, 1 ph, 1.7 amps	
Efficiency	Ultimate efficiency up to 99.6% on all submicron particles as measured by independent lab test in accordance with ASHRAE standard 52.2 at 500 CFM.	
Filtration	1st Stage: 2" baffled inertial impinger	
Stages	2nd Stage: 2" aluminum mesh impinger	
	3rd Stage: AQE Advantage (Long Life) Electronic Cell	
	4th Stage: MistBuster (High-Efficiency) Cell	
	5th Stage: Optional MistBuster (High-Efficiency) Cell	
	6th Stage: Optional HEPA filter 99.97% efficiency, ESF Filter, or Carbon Module	
Features	Two self-regulating, dual voltage solid state power supply	
	Patented water/oil coolant collector selector	
	Backward curved, vibration-free, direct drive motorized impeller rated at 850 cfm @ .7" W.C.	
	Ten-foot power cord with molded plug	
	Quick release connectors for fast, easy side panel access	
Dimensions	Cabinet: 27.10"L x 13.44"W X 27.42"H	
Inlet Opening	16.62" x 9.08"	
Weight	99 lbs installed; 111 lbs shipping (2 Cells) 113 lbs installed; 125 lbs shipping (3 Cells)	
Accessories	Machine Mount Stand   Pedestal Stand Ceiling Mount Kit   Wall Mount Kit Plenum   Diffuser   HEPA Postfilter ESF Postfilter   Carbon Module	

Side-swinging door for easy access

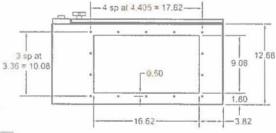
AQE Advantage\*\* (Long Life) Electronic Cell

Front View

27.10



#### **Bottom View**



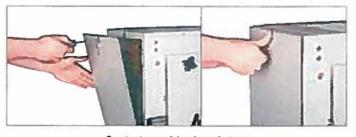
Specifications subject to change without notice.



Electrical components isolated from air stream



Patented coolant selectors



Quarter-turn quick-release fastener

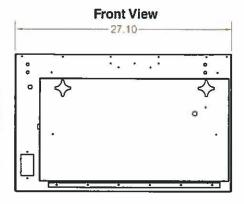


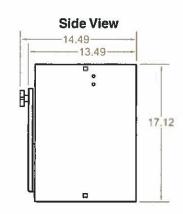
7140 Northland Drive North, Brooklyn Park, MN 55428-1520, USA **PHONE**: 763-531-9823 • **FAX**: 763-531-9900 • **TOLL FREE**: 1-800-328-0787

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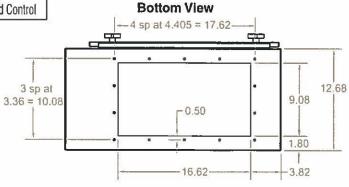
Model	MB500
Airflow	Variable to 500 cfm
Cabinet	16 gauge steel cabinet with powder coated chemical resistant baked enamel, available in ivory or gray textured finish
Power Input	115 Vac, 60 Hz, 1 ph, 2 amps 230 Vac, 60 Hz, 1 ph, 1 amp
Efficiency	Ultimate efficiency up to 97.8% on all submicron particles as measured by independent lab test in accordance with ASHRAE standard 52.2 at 500 CFM
Filtration	1st Stage: 2" baffled inertial impinger
Stages	2nd Stage: 2" aluminum mesh impinger
	3rd Stage: AQE Advantage™ (Long Life) Electronic Cell
	4th Stage: Optional HEPA filler 99.97% efficiency, ESF Filter, or Carbon Module
Features	Self-regulating, dual voltage solid state power supply
	Patented water/oil coolant collector selector
	Patented design for long term high efficiency
	Backward curved, vibration-free, direct drive motorized impeller rated at 710 cfm
	Ten-foot power cord with molded plug
	Quick release connectors for fast, easy side panel access
Dimensions	Cabinet: 27.10 "L x 13.49 "W X 17.12"H
Inlet Opening	16.62" x 9.08"
Weight	65 lbs installed; 76 lbs shipping Capable of being shipped via UPS
Accessories	Machine Mount Stand   Pedestal Stand Ceiling Mount Kit   Wall Mount Kit   Plenum Diffuser   HEPA Postfilter   ESF Postfilter Carbon Module   Machine Tool Activated Control







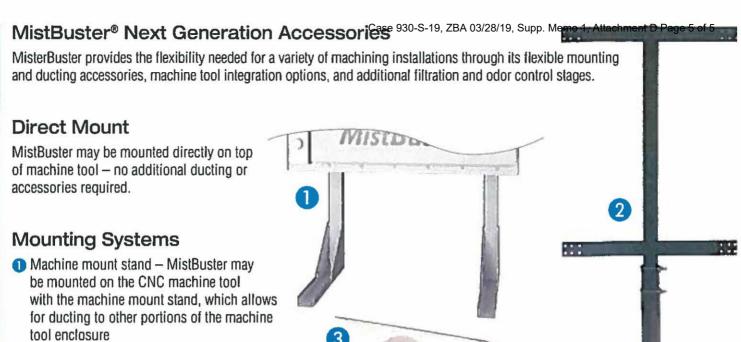
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2 Floor mount stand — MistBuster may be mounted on a floor stand and ducted to the CNC machine tool

Ceiling mount and wall mount kits available.

## **Ducting Components**

- Oucting plenum
- 4", 6" and 8" hose mounting flange and collars
- 6 4", 6" and 8" ducting hose

#### Cleaner

- 6 Total cell cleaner
- Cell cleaning tank

## Enhanced Filtration And Odor Control

HEPA filter option ESF postfilter kit Odor module kit

## Machine Tool Integration Controls

Optional control of MistBuster via CNC machine control program





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# RJD MACHINING LLC



MAR 2 8 2019

CHAMPAIGN CO. P & Z DEPARTMENT

## **MEMORANDUM**

To: Champaign County Zoning Board of Appeals From: RJD Machining LLC

#### COOLANT DISPOSAL STATEMENT

Dennis McCormick and Donald Rennels, on behalf of RJD Machining, do hereby establish the following procedures for the safe disposal of its coolant chemicals:

- RJD Machining identified Safety-Kleen as a reputable waste management provider with a location at 500 W Anthony Drive, Champaign, IL 61801
- Per a telephone call with Safety-Kleen, it will come on-site and pump out waste material for a minimum quantity of 100 gallons per trip
- At such times that RJD Machining LLC collects 100 gallons (approximately 2 drums of liquid coolant waste), it will utilize Safety-Kleen Systems to come to RJD and pump the mixture to ensure its safe disposal
- RJD will retain documentation as provided by Safety-Kleen to verify its compliance with these procedures, which be available on request

Dennis McCormick, Member

Donald Rennels, Member