

JULY 2017

THE BLASTING & FINISHING INDUSTRY BULLETIN



# PRIMED



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## Basically Zero Dust – Introducing the Mighty Mist Blaster™

**Finally, a vapor mist abrasive blaster that can do wet and dry blasting**

The BlastOne Mist Blaster™ improves dustless blasting performance by providing you with the ability to do dry blasting and vapor mist blasting with the same blast pot, and have an effective wash down cycle. This gives you the flexibility of a dry blasting or mist blasting ability as you need it coupled with the age old reliability you have come to expect from a standard blast machine.

The Mist Blaster™ is very versatile, allowing the operators ultimate flexibility in how much water they need for the task at hand.

- Uses as low as 1 quart per minute of water when blasting
- Can increase wash down speeds increasing by up to 10 times as fast
- Can retro-fit to your existing blast pot

Talk to BlastOne for more information

### TESTIMONIAL

*"...The Mist Blaster™ used ½ the amount of water and achieved 3 times the production"*

# Key Benefits of the Mist Blaster™

Mist Blasters™ are designed to minimize airborne dust particles. Mist blasting uses a mixture of compressed air, abrasive and water to suppress dust in a method that uses less water than a water ring.

## REDUCED AIRBORNE DUST

Mixing a mist of water with abrasive inside the blasting air stream reduces the airborne dust particles by up to 90%.

## LESS CONTAINMENT

Due to lower dust, some jobs you can use no, or little, containment. On some elevated projects this could save you substantial money.

## LESS ABRASIVE CONSUMPTION

Using the Mist Blaster™ equipment combined with ToughBlast Garnet, contractors can realize a 60-80% reduction in abrasive consumption compared to typical conventional abrasive with old technology equipment.

## FLEXIBILITY

The BlastOne Mist Blaster™ can be used for dry blasting as well as mist blasting. This means that a contractor no longer needs to purchase two different types of equipment to meet all their blasting needs.

# BlastOne Mist Blaster™ - P1

Finally, a vapor abrasive blaster that can do wet and dry blasting

## LOW WATER CONSUMPTION

Use as little as 1 quart per minute – up to ½ as much as other brands.

## TRUSTED RELIABILITY

The trusted reliability of your existing blast pot and existing technology.

## 3 SETTINGS AVAILABLE

1. Dry
2. Mist
3. Washdown

The ultimate in choices, you can use the same blast pot for all your projects



## WASHDOWN 10X FASTER THAN OTHER BRANDS

A simple turn of the switch and you have 10x the water at the nozzle.

## CAN RETROFIT ON TO YOUR EXISTING POT

Saves you \$15,000-\$30,000 per machine vs other brands.

## VAPORIZER

Ultimate control, introduces a fine mist of water to the air stream and allow huge volume washdown when in washdown mode.

# MIST BLASTER CASE STUDY



## Dry blasting was no longer an option for Vince...

Vince from Only Blasting, LLC was faced with an enormous problem. He had bid his project without containment and intending to dry blast. But once he started the job he realized this was no longer an option. Dust from dry blasting was rapidly spreading throughout other working areas causing disruption and nuisance dust.

To try and fix this dust issue, Vince then tried vapor blasting, but that used too much water and it was extremely difficult to clean up.

Vince needed a solution which would allow him to continue his project whilst adhering to site dust policies and required minimal cleanup.

### ENTER THE MIST BLASTER™

Water consumption rates dropped to just one quart per minute. The high-flow wash-down cycle meant that we could wash down in minutes without needing a pressure washer.

By using the BlastOne Mist Blaster™ Vince was able to continue his project without any additional containment costs. The Mist Blaster™ is an ideal tool for Vince, as it still allows him to use his blast pot for dry blasting on future projects.



### TESTIMONIAL

#### VINCE – PROJECT MANAGER, ONLY BLASTING, LLC

*"I can tell you that the Mist Blaster™ is the most versatile wet abrasive blaster on the market!"*

## TRADE IN OFFER ON YOUR OLD BLAST POT

### SPECIAL OFFER DURING JULY AND AUGUST 2017

#### TRADE IN YOUR OLD BLAST POT!

Until August 31st 2017 only, you could earn up to \$1,000 when you trade-in your old blast pot for a new ultimate Mist Blaster™\*

**CALL BLASTONE ON 800-999-1881**

\*Blast Pot must be in a safe and operating condition

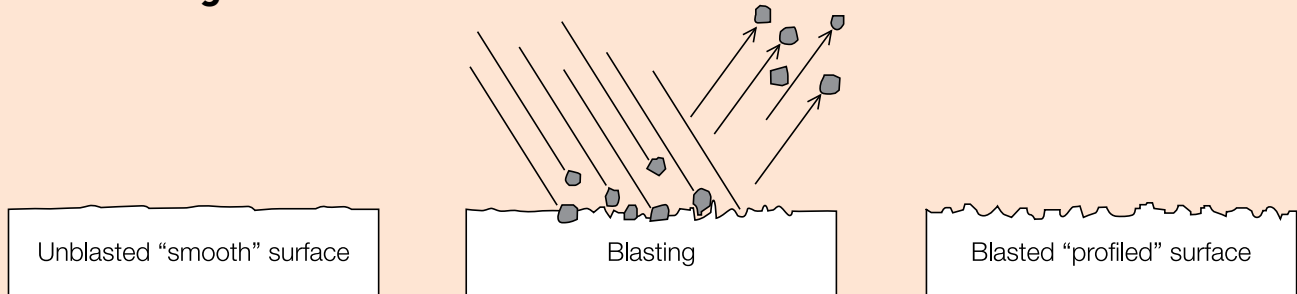




# NEVER STOP LEARNING

## Surface Profile – a critical element of surface preparation

### Understanding Surface Profile



In the blast cleaning process, grains of abrasive are propelled with great force and energy at the work surface. Upon impact, the grains 'dig' into and then rebound out off the surface leaving a rugged, miniature 'mountain – and – valley' finish.

This surface roughness/etch/texture is the surface profile.

Surface profile is critical to coating performance by:

- 1) increasing the surface area
- 2) providing a 'key/tooth/anchor pattern' for the coating to lock and adhere to.

### The difference between Surface Profile and Class of Blast

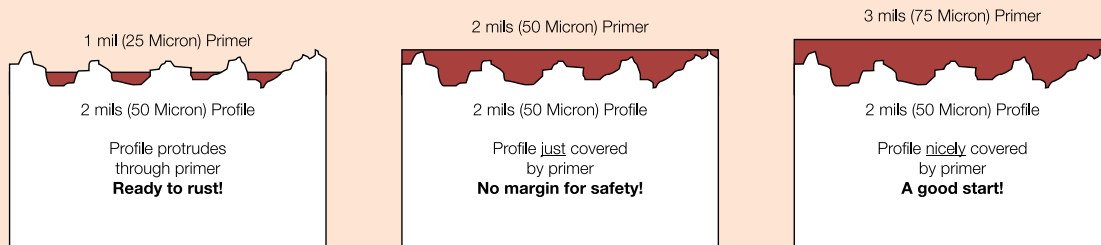
Surface profile is concerned with the 'shape' of the surface finish (and measuring the size of the 'shape' created) whereas Class of Blast is concerned with 'cleanliness' of the surface finish. (Putting it another way – Class of Blast is determining to what degree the rust, paint and other contaminants have been removed).

Both the Profile and the Class of Blast are important features of the surface finish and need to be separately specified in preparing a blast cleaned steel surface.

### The pitfalls of Surface Profile

**Excess Profile** – While an absence of profile can be detrimental to coating adhesion, it can be equally disastrous to have an excessive profile height causing premature rusting and coating failure. In addition more profile means using more paint to cover the surface!

Consider these cases...



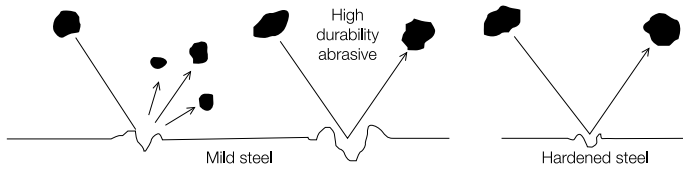
Rule of Thumb #1: Profile height should not exceed the primer coat DFT (Dry Film Thickness).

Rule of Thumb #2: Profile height should not exceed  $\frac{1}{3}$  the total coating system DFT.

Embedment – Embedment of abrasive particles in the surface is a threat posed by friable, irregular shape abrasives. The embedded particle or fragment can stand out as a 'rogue' peak above the surrounding profile and may protrude through the applied coating.

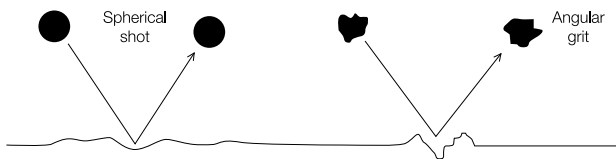
## Factors which have an effect on Surface Profile

### Abrasive Durability – Surface Hardness e.g. Bicarb media vs Alox, Mild Steel vs Hardened Steel



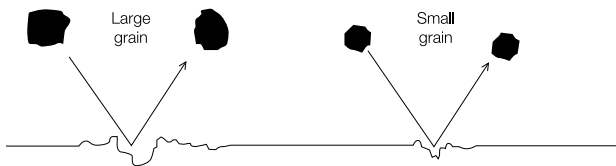
VARIABLE		EFFECT
More durable abrasive	=	Deeper profile
Less durable abrasive	=	Shallower profile
Hardened steel	=	Shallower profile
Mild steel	=	Deeper profile

### Abrasive Shape e.g. Steel Shot vs Steel Grit



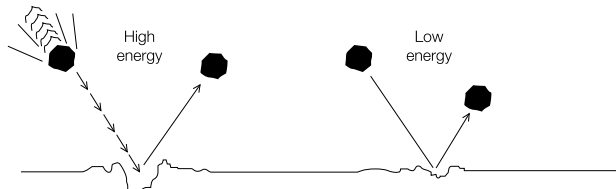
VARIABLE		EFFECT
Round abrasive	=	Dimpled, peened profile
Angular abrasive	=	Sharper, rugged profile

### Abrasive Size e.g. #20/40 Garnet vs 80# Garnet



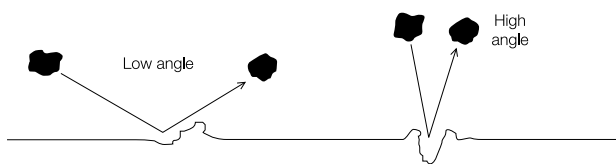
VARIABLE		EFFECT
Larger abrasive	=	Deeper profile
Smaller abrasive	=	Shallower profile
See charts on next page for further details		

### Impact Energy e.g. Nozzle pressure (abrasive velocity), nozzle wear, nozzle standoff distance, dwell time



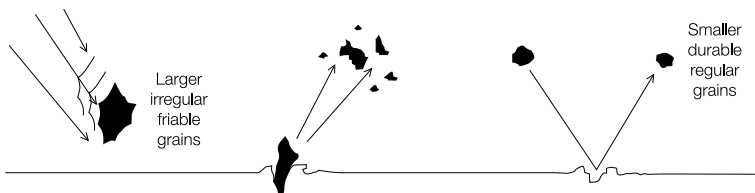
VARIABLE		EFFECT
Greater energy	=	Deeper profile
Lesser energy	=	Shallower profile
See charts on next page for further details		

### Impact Angle e.g. Straight on blasting vs side reach blasting



VARIABLE		EFFECT
Low angle	=	More scuffed profile
High angle	=	More peak 'n' valley even profile

### Embedment e.g. Slag vs Garnet



VARIABLE		EFFECT
Large friable irregular grains	=	Higher risk of embedment
Smaller durable regular grains	=	Lower risk of embedment

See page 435 of the BlastOne catalog.

# Go home earlier! Warrior cleans up faster so you can have more quality time of your own

## Eliminates slow, messy pressure pots!

Toss out your messy pressure pots and sub-standard pumps, the Warrior with real power will surprise you with its never-say-die attitude. The Warrior saves you time, solvent, paint, mess and money!

- Save 80% of clean-up time
- Use only 25% of thinners
- Less paint wastage
- No messy, dirty pressure pots to clean out
- Can spray zincs - including waterbourne's
- Can agitate coatings during operation
- 5 minute color change
- Greater suction power



A PROFESSIONAL WORKING WITH A WARRIOR CART MOUNT PACKAGE



**WARRIOR CART MOUNT PACKAGE**  
Our most popular model



The Warrior 4000 pump has taken the pressure pot market by a storm! Saves 80% of clean up time



**WARRIOR STANDARD MOUNT PACKAGE**  
Stable design prevents spillage



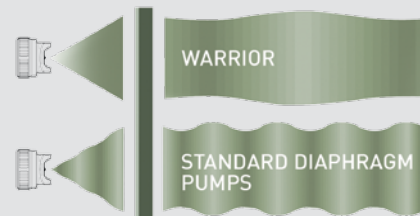
**WARRIOR PAIL MOUNT PACKAGE**  
Pail mount convenience

## SUPERIOR FINISH QUALITY

- Better pattern and film thickness
- Constant flow to the spray gun

Warrior pumps provide 50% less pressure pulsation than standard diaphragm pumps.

**CALL BLASTONE TECHNICAL TEAM FOR MORE INFORMATION ON 800-999-1881**



Note: Pump-to-pump comparison without fluid regulator

# Is your blast helmet a 'pain in the neck'?

**The RPB Nova 3 – lighter, better balance and more comfortable.  
Take the strain off your neck!**



The RPB Nova 3 has a revolutionary, weightless design. Engineered to distribute weight evenly across the head and shoulders.

## MOLDED INNER PADDING DESIGN

Designed to fit closely to the head, spreading the weight evenly and reducing fatigue.



## RATCHET ADJUSTABLE PADDING SYSTEM

Customized to suit individual needs, creating a secure and custom fit.



**FREE  
30-DAY  
TRIAL!**

CALL BLAST-ONE  
ON 1800 190 190  
TO ARRANGE YOUR  
FREE TRIAL

RPB NOVA 3 HELMET  
With L4 blast light



## INDUSTRIAL SYSTEMS CASE STUDY

### Save \$250,000 by multi-tasking your factory space

The Retractable Spray Booth helps make in-house spray finishing a possibility when factory space and work piece size challenges arise.

#### DO YOU NEED TO SPRAY LARGE OR HEAVY ITEMS?

The Retractable Spray Booth can be pulled into position around it.

#### HAVE YOU GOT COMPETING DEMANDS FOR FLOOR SPACE?

The Retractable Spray Booth allows you to conduct spray finishing activities and then fold it away for other uses.

#### DO YOU ONLY OCCASIONALLY NEED SPRAY FINISHING?

Don't allocate valuable real estate to fixed use, an Retractable Spray Booth ensures optimum space utilization.



## TESTIMONIAL

### PLANT MANAGER – STEEL FABRICATOR, LOUISVILLE KY

*"We saved ourselves \$250,000 in capital expenditure by using a retractable spray booth in our facility, we could have never added our finishing division without this solution from BlastOne."*

# Do you know BlastOne stocks all this and much, much more?

## THOMPSON II VALVE

Rugged, simple, bolted construction. Threaded-plunger metering design ensures accurate abrasive metering. Suitable for use with all approved blasting abrasives.

See page 169 of the new BlastOne catalogue for a breakdown diagram



## GRACO NXT SPRAYER

The NXT is built for extreme conditions and will easily spray medium to ultra-high viscosity coatings.

See page 340 of the new BlastOne catalogue for more information on the awesome pump!



## NYLON BLAST SUIT

Heavy duty nylon to protect the wearer from abrasive rebound. Breathable cotton back is designed to help keep you cool.

See page 240 of the new BlastOne catalogue for more information on sizes



## 360° NOZZLE

Good for small pipes / low production jobs. Tungsten carbide tip is fully replaceable. Adapts to standard contractor threaded nozzle holders.

See page 248 of the new BlastOne catalogue for more information



## PAINT INLINE SWIVELS

Provides free movement of hose without kinking and enables operator to overcome 'hose fighting'.

See page 365 of the new BlastOne catalogue for information on sizes available



## SPRAY HOSE

Swivel nut female connectors for easy fitup – connector locks up rigid when tightened.

See page 369 of the new BlastOne catalogue for more information on sizes



## DEFELSKO REPLICA TAPE READER

Simple, durable and accurate unit for measuring and recording surface profile parameters using Testex replica tape

See page 320 of the new BlastOne catalogue for different models



## TRELAWNY NEEDLE SCALERS

Heavy duty, easy to handle. Requires no additional tools for changing needles or chisels. Engineered to exceed industry expectations

See page 256 of the new BlastOne catalogue for different options



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