

# Product Bulletin

For Blasting and Painting Specialists



## “How we removed ¼” (6mm) thick paint in record time – in fact we finished **73 hours** ahead of schedule!”

***“A large tank outage at a major water storage facility with a critical schedule.....***

.....involved removing 6mm of old and failed floor coating. The 3,000 square metre surface area meant that traditional abrasive blasting methods to remove the coating would have been slow, dusty and very expensive.

Using 40,000 psi water meant we removed the coating much faster than ever before, and saved 73 critical hours in the schedule.”

### **No abrasive**

The 40,000 psi Water Jetting System uses NO abrasive and completely removes ALL the coating and surface contaminants, leaving NO mess to clean up.

***“We then whip-blasted the cleaned surface using a fraction of the normal abrasive and had the coating on within 3 days.”***

This contractor claims to have saved in excess of 23% utilising.....



***The failed floor coating of this water tank was easily removed using Water Jetting.***

**Continued on Page 2 →**

## ← From Page 1

.....this NEW technology that provides a lower operating cost per square metre.

Water Jet technology will get your job done easier, faster and with no mess to clean up!

**Ask Blastmaster how you can reduce costs and increase profits on your next project.**

**Call 1800 882 229 to ask about a FREE Water Jetting demonstration.**

# Blast-Jet – putting water to work

**Versatility and Efficiency with Water Jetting really improves your productivity on your job site – prove the benefits for yourself!**



## Pipe Cutting

With an abrasive cutting system to adapt to your machine, you can slice through concrete with rebar, cut inspection openings in petrochemical tanks, and cut up steel, composites and many other hard materials. It's just as fast as an oxy-set, but without sparks.



## The Hand Lance

The lightweight ergonomic design of the Blast-Jet™ Water Jetting tool uses Air-Power to rotate the lance which enables rapid manual stripping of coatings and corrosion from steel. Dual trigger actuation ensures maximum safety and is uniquely designed for superior production performance and minimal maintenance.



## Pipe and Tube Nozzles

By far the most efficient way of cleaning pipe internals using Water Jetting technology. From slurry transfer pipes to coating lined pipes and heat exchanger tubing – whatever the application, we have the nozzle accessory to suit.

Get those pipes/tubes cleaned quickly and efficiently.



## Personal Protection Equipment

Make no mistake.....Water Jetting is a process with a whole lot of power behind it. Suitable protection for you and your water jetting personnel is paramount. From top to toe (literally) you and your team must be protected – TurtleSkin® and WaterArmour™ safety products are recommended and supplied by Blastmaster to ensure the highest level of protection.



## Deck Stripper

The Vortex SpinJet® Deck Cleaner from Blast-Jet™ will remove thick coatings and heavy rust from ship decks astonishingly fast. It also can be used for removing coatings from concrete, pavement markings, runway rubber and more! Water and debris are sucked away leaving the surface clean, dry and contaminant free.

## Blastmaster have experienced, qualified trainers to train your crews in correct use and procedures for operating Water Jetting equipment

Blastmaster have provided water jetting training to many crews, including personnel from Papua New Guinea and Antarctica. Qualified training in all areas of water jetting is essential to get the most out of your operators using this relatively new technology.

**For more information or for a FREE Overview Brochure on Water Jetting, call Blastmaster on 1800 882 229.**



*Papua New Guinea crew being trained in the use and maintenance of a Jet Pump unit.*



# Blastmaster – leading the way with HP and UHP technology, can supply Accessories and Spares for all brands

Here's just a few.....



*Flex Lances and Hoses*



*Safety and Signage*



*Dump Guns*



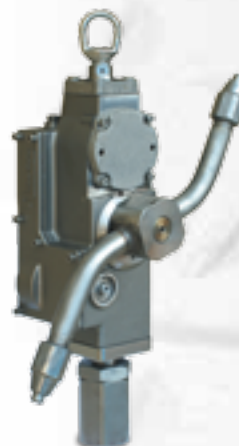
*Rotating Nozzle*



*Foot controls*



*Self rotating nozzles*



*3D Tank Cleaning Accessory*



*HP & UHP Safety Apparel*



*All types of Nozzles*

We have a huge range of parts and accessories to suit all major machines. For more information, call 1800 882 229.

## Hydrodemolition is the right way to go for FAST concrete removal

Water jetting is the cheaper, faster, cleaner, quieter alternative.

Up until now, concrete removal methods have usually involved using breakers, saws and jackhammers etc. These methods are costly, time consuming and moderately noisy.

The main advantages of water jetting for concrete removal include:

- No dust
- Reduced noise = less complaints
- Produces superior substrate bonding surface
- Elimination of additional structural damage
- Selectively removes inferior concrete



*Hydrodemolition leaves rebar clean and free of damage – this is ideal for new overlay bonding.*

- Embedded reinforcement is cleaned, descaled and free of mechanical damage
- Faster than previously used methods
- Minimises the removal of sound concrete.

Phone Blastmaster on 1800 882 229 for more information and a free 'Introduction to Hydrodemolition' booklet.

# How to get the maximum efficiency with your nozzles

They affect the Air and Abrasive consumption

## Nozzle Thread Identification

1. Coarse 2" UNC (50mm) "Contractor" Thread, or "C" Thread	2. Fine 1 1/4" NPSM (32mm) "Industrial" Thread, or "F" Thread
 <p>The "Contractor" Thread has become the Industry Standard and is the recommended choice</p> <ul style="list-style-type: none"> <li>• Greatly reduces chance of cross-threading</li> <li>• Easier to install and/or remove</li> <li>• More thread depth – safer at higher pressures</li> <li>• Reduces chance of binding/galling</li> <li>• <b>4 1/2 Threads per inch (TPI)</b></li> <li>• Measures 2" (51mm) across threads</li> </ul>	 <ul style="list-style-type: none"> <li>• <b>11.5 Threads per inch (TPI)</b></li> <li>• Measures 1 1/16" (42mm) across threads</li> </ul>

## Measuring Nozzle Size is important

How much Air and Abrasive are you using?

### Size Indicator Test

- Uses tapered probe gauge with a graduated scale to indicate nozzle size
- Probe gauge features internal crayon compartment with screw top cap
- Pouch fits onto blaster's belt for convenience.



*Measuring is quick and easy – using the crayon supplied, rub on the tapered side and insert into nozzle entry. Simply see where the mark is on the graduated gauge to find what the new size is.*



*The Nozzle sizing gauge kit.  
Order No IN H131-PBAQ*

## Air Consumption (CFM) per Blast Nozzle – using Garnet Abrasive

Nozzle Size		Nozzle Pressure							
		50 psi	60 psi	70 psi	80 psi	90 psi	100 psi	120 psi*	140 psi*
No. 2	1/8"	14	17	19	21	24	26	30	34
No. 3	3/16"	32	37	42	47	52	57	67	77
No. 4	1/4"	57	66	75	84	93	103	119	136
No. 5	5/16"	89	103	117	131	145	158	186	214
No. 6	3/8"	129	149	169	189	209	229	269	309
No. 7	7/16"	176	203	230	258	285	312	367	422
No. 8	1/2"	229	265	300	336	371	407	478	549
No. 10	5/8"	356	412	468	524	580	632	744	856
No. 12	3/4"	516	596	676	756	836	916	1076	1236
EFFICIENCY		47%	55%	64%	74%	86%	100%	130%	165%

**NOTE: Efficiency drops approximately 1.5% for every 1 psi below 100 at the nozzle.** This means a 14% efficiency drop at 90psi, 26% efficiency loss at 80psi and almost half loss of efficiency at 60psi! Efficiency rises as pressure increases. 120psi improves performance by approximately 30%. Actual efficiency increase/decrease will vary depending on abrasive type and size, nozzle design, size and wear, hose sizes and wear, temperature, moisture content of compressed air etc. Make allowance for increased air consumption due to nozzle wear, air leaks, Breathing Airline Filter, respirator breathing air and any pneumatic equipment using air from the compressor. **A good rule of thumb** is to use a compressor **twice** the capacity of the expected blast nozzle consumption.



**BLASTER BOB**  
has a tip on  
**WHEN TO**  
**REPLACE YOUR**  
**BLAST NOZZLE**

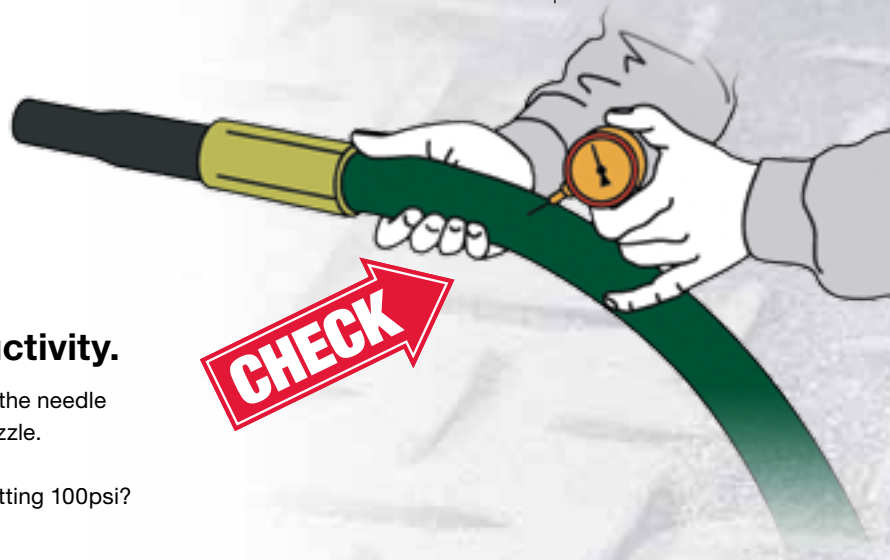
*"Even a very small increase in nozzle bore size due to wear will result in a very large increase in 'Air and Abrasive consumption'. If the bore of a blast nozzle has increased by say, 1/16" (2mm), it's time to replace the nozzle.*

*Use a Nozzle Size Analyser Gauge to check your nozzle size regularly (I recommend at least **once per week**). You will be surprised how much your production has decreased with a worn nozzle – this is costing you money!"*

# Work under the **right** pressure.

## Check nozzle pressure for productivity.

Use a hypodermic needle pressure gauge kit, and insert the needle into the blast hose slowly, a few inches back from the nozzle. Point the needle toward the nozzle, and at a slight angle. Insert slowly until you get a constant reading. Are you getting 100psi?



## Measuring Pressure Drops in a Blasting System



- 1 Exit of Compressor** – This is your **maximum** pressure. If this is lower than 'normal' – you have a compressor problem.
- 2 Entry to AirPrep Air Dryer or Receiver** – A drop in pressure here could be due to a leak in your bull hose or connection point(s), or insufficient hose diameter.
- 3 Exit of AirPrep Air Dryer or Receiver** – A significant drop in pressure at this point could mean the AirPrep is not working at its rated efficiency or leakage in hose connections.
- 4 Entry to Blast Pot** – Hose leak, hose connection leakage or insufficient hose diameter would be the cause of a pressure drop here.
- 5 Exit of Blast Pot** – A pressure drop here would be caused by a leaking hose connection point or more than likely, a leak within the Blast Pot configuration.
- 6 Just behind the Nozzle** – This is the most critical measurement of pressure drop, it is the difference between maximum pressure point **1** and output pressure point **6**. If the pressure only drops in this last section, it would be caused either by blast hose leakage, blast hose connection leakage, lengths of Blast Hose that are too long or insufficient ID of Blast Hose.



## Need the Humidity levels to be lowered?

## Drop the water content in the air with a Dehumidifier.

Dehumidification is not about just heating the air or simply reducing the relative humidity (RH).

If you just heat, a lower RH will enable the air to hold more water before saturation, ie no water is actually removed.

Dehumidification effectively reduces the actual water content by drying the air – the dry air displaces the air that contains water.

## Where and why would you use Dehumidification?

In the abrasive blasting and coating industry, it can be the difference between a successful outcome with more potential projects, or a failure as your project loses money every day. Preparing surfaces in tanks, large pipes etc can be a headache for contractors who have to be a 'slave' to the prevailing weather patterns. With a Dehumidifier, you create your own ideal conditions to either 'hold the blast' or continue painting.

**There are 3 main areas to take advantage of using this system.....**

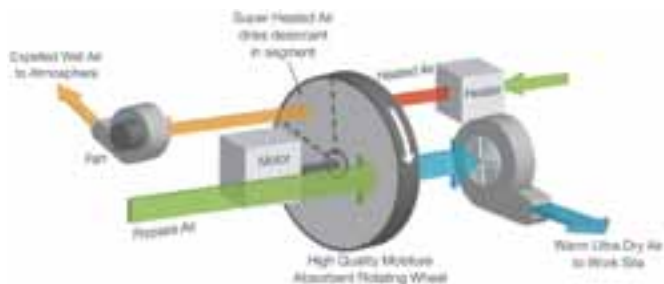
**a) Surface Preparation   b) Drying   c) Preservation**

## Surface Preparation

During Abrasive Blasting and immediately after, the RH is a critical factor, as the substrate surface becomes very vulnerable to corrosion, such as flash rusting. The electrolyte in atmospheric corrosion is usually the water in the air. A dehumidifier can reduce the RH significantly! If the RH is reduced below 50%, you can effectively 'Hold the Blast' on uncoated, blasted steel for days – sometimes weeks! This would have a huge impact on the production cycle – **imagine being able to blast non-stop for a week before having to stop, clean up and paint, again, again and again.**

## Drying

Use Dehumidifiers with construction jobs – they will save you time and money! Curing times for concrete walls and floors can be drastically reduced – so too the drying time of the paint – which reduces the overall job time. Who cares about the bad, wet weather conditions that prevail outside, your schedule will not be affected in your enclosed or undercover work area.



**Simplified diagram showing the operation of a desiccant dehumidifier.**



## Preservation

During maintenance of equipment such as boilers, turbines etc, a Dehumidifier can be used near the work area. Inner parts not normally exposed to atmosphere are very vulnerable to corrosion, so protection with dry air during scheduled maintenance can be advantageous.

## Types of Dehumidifiers

The main 2 types of Dehumidifiers are:

**a) Desiccant   b) Refrigeration.**

With the **desiccant** Humidifier, the air is 'passed through' a desiccant wheel, for instance, that consists of silica gel. This gel readily attracts the moisture from the air. The desiccant is then rotated through a heater section which regenerates the material so it can attract more moisture. This is the standard cyclic arrangement of this type of Dehumidifier.

A **refrigeration** type of Dehumidifier operates by air being passed over chilled coils where the temperature is lowered below the dew point temperature. This causes the moisture in the air to condense on the cooling coil which is then drained away.

Note that in a desiccant unit, the air is discharged at a lower dew point, but higher temperature, while a refrigerant Dehumidifier discharges air at a lower dew point and at a lower temperature.

**Call Blastmaster for more information on Dehumidifiers – Rent or Buy 1800 882 229.**

## 20% off Airless Hoses during October!

### Superior quality 1/4" High Pressure Airless Spray Hoses

Get the ones you can trust – and save money too..... during October only, at a reduced price.

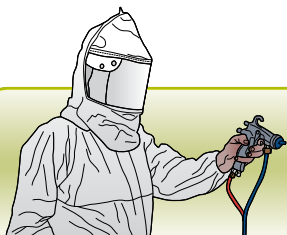
Part Number	Product	Colour
SP H0677-50	UltraSpray 1/4" Airless Hose 7700psi – 50ft (15m)	Light Green
SP H0660-50	UltraSpray 1/4" Airless Hose 6000psi – 50ft (15m)	Dark Green
SP H0668-50	GoldFlex 1/4" Airless Hose 6800psi – 50ft (15m)	Gold

- GoldFlex / UltraSpray – Steel braid hose.
- Swivel nut female connectors for easy fit up – connector locks up rigid when tightened.

**We have pallets of new hose, so stock up NOW!**

**Phone Blastmaster to order:**

**1800 882 229**



## PAINTER PETE has some helpful hints on: SPRAY TIPS

### Start with the right Tip for the job

Choosing the right tip is extremely important to achieve maximum productivity, because the Tip determines the fluid flow and the size of the spray pattern – the fan size. Using the right Tip results in maximum control and minimum overspray, which means you work quicker and use less paint.

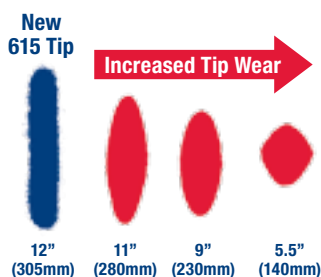
To select the right spray Tip, you need to consider several factors, such as the material thickness, the sprayer's maximum flow rate and the best fan size for the job. Knowing when a tip is worn and why it should be replaced are also important factors.

For **optimum** performance – replace your tips when required.

Look for obvious signs of a worn tip – runs, lines or sags in the spray pattern will let you know **it's time**. Do not increase your gun pressure to compensate for this – the situation will only get worse.

### Five ways to extend a tip's life

- Spray at the lowest pressure that atomises the material
- Strain the material before you spray it
- Use the correct size filters
- Clean the filters after every use



- Clean the tip with a soft-bristled brush.

Remember, an abrasive material sprayed at too high a pressure or through a tip too small, causes premature tip wear, wasted time, wasted paint and wasted money.

For more detailed information, look at pages 300 and 301 of the 2011 Blastmaster catalogue.



### Basic tips on Tips

1. Use smaller orifice sizes to spray lower viscosity materials such as finish top coats. Use larger orifice sizes for heavier viscosity coatings such as high build epoxy/high volume solids paints.
2. Spraying at the lowest possible pressure will greatly extend the service life of major pump components – and spray tips too!
3. You can extend the life of your gun with a daily maintenance routine. At the end of each day's painting, clean and oil your gun with a lightweight spray oil such as WD-40.



## Breathe-safe™ Filter Cartridges

Snap together for multiple filtration. Suitable for Half Mask or Full Mask cartridge respirators.

See Blastmaster Catalogue p160 for more information.



## Safety Warning Signs

Blastmaster has a range of signs for blasters & painters for fence mounting or a swing stand.

See Blastmaster Catalogue p169 for more information.



**50% OFF**  
all Carton Quantities  
This Month Only

## Masking Tape

What size masking tape do you use? What type do you like? Call Blastmaster for all your requirements.

See Blastmaster Catalogue p333 for more information.



## Repair Kits for Pumps

Does your Painting Pump need a repair kit? Try Blastmaster for Graco, Binks, Wagner and Speedflo spare parts.

See Blastmaster Catalogue p314-317 for more information.

## Can we help you?

Need parts fast? Help to understand Industry Regulations? Can't find the correct spare parts?

Call the Blastmaster Customer Service Team! This team of Sales Engineers have been extensively trained to help you and are waiting for your call.

They will go **out of their way** to help you solve your problems fast!

**When you purchase from Blastmaster – good service is always included in the deal.**

Blastmaster Customer Service.  
**Phone 1800 882 229.**



## Blast Machine Screens & Lids

Make sure you've got these on every Blast Pot. Sieves out foreign matter. Keeps the rain out.

See Blastmaster Catalogue p122 for more information.



## High Pressure Paint Filters

Long High Pressure Filter screens are in stock for most brands of pumps. Screen sizes from 30 mesh to 200 mesh. Try us out!

See Blastmaster Catalogue p323 for more information.



## Nozzle Size Analyser Kit

How do you check on the wear of your nozzle? Even a small increase in size will result in a large increase in air and abrasive consumption and/or loss of pressure! Use this wear gauge to check your Blast Nozzle regularly.

See p4 of this Bulletin for more information.



**SAVES TIME**

## Pressure Rollers

Hook this roller up to your airless spray gun and complete the job twice as fast! Never stop to dip and reload in a tray.

See Blastmaster Catalogue p294 for more information.



## Blast Hose Safety Cable

The WhipCheck is a very important addition to all hose connections. Safety whip restraint in case of accidental disconnection.

See Blastmaster Catalogue p81 for more information.



**Have you got our NEW CATALOGUE?**

## Blastmaster Catalogue – FREE \$125 VALUE

This is an absolutely must-have that features over 250 new products, money saving ideas and easy ordering for over 3000 items.

Call Blastmaster on 1800 882 229 for your FREE copy.

**30 DAY MONEY BACK GUARANTEE ON ALL PRODUCTS!**

\*All prices exclude GST and freight charges.



**BLASTMASTER®**

1-12 Bruce Avenue  
PO Box 1144  
Marleston,  
South Australia 5033



Telephone **08 8292 2000** Fax **08 8292 2001**  
Toll Free **1800 882 229** **1800 BLAST-IT**  
Email **sales@blastmaster.com.au**  
Website **www.blastmaster.com.au**