WATER BLAST SYSTEM

- **WBS500 – Manual Blast Cabinet**
  - **Flexible nozzle control**
  - **Totally enclosed cabinet**
  - **3 jaw clamping mechanism**
  - **Integrated control cabinet**

- **WBS750 – Manual & Automatic Blast Cabinet**
  - **Programmable automatic cycle**
  - **Twin rotating automatic nozzle**
  - **Single cabinet, manual & automatic blasting**
  - **Integrated control cabinet**

- **WBS Ancillary Components**
  - **Drag Conveyor System**
  - **High Pressure Pump**
  - **Filtration System**

WBS500 & WBS750 – WATER BLAST CABINETS

WATER BLAST SYSTEM

WBS500 & WBS750 – ANCILLARY COMPONENTS

- **WBS Drag Conveyor System**
  - **Easily Integrates into cabinet control system**
  - **Sturdy stainless steel construction**
  - **Custom made to suit customer bin requirements**

- **WBS High Pressure Pump**
  - **Easily Integrates into cabinet control system**
  - **Quality Gardner Denver Partek Pump**
  - **10,000 psi high pressure**

- **WBS Filtration System**
  - **Easily Integrates into cabinet control system**
  - **Provides clean, chilled water to protect pump components**
  - **Re-use up to 95% of input water**

WBS 500

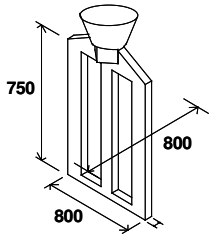
The WBS 500 manual blast cabinet has been designed with maximum flexibility in mind. The totally enclosed cabinet ensures operator safety while the large viewing window maintains excellent vision of the part:

Design Features:

- **Flexible nozzle control**
  The nozzle tilt functions are controlled via the operator joystick movement while up/down, in/out and tree rotate functions are actioned via the joystick buttons. The blast force is not transferred onto the operator, reducing operator fatigue, however the responsive control still maintains a degree of 'feel' within the nozzle movements.
- **3 Jaw clamping mechanism**
  The three jaw system utilises the pouring cup of the investment casting runner tree forming a secure grip. The tree is clamped using high force only once the tree is safety within the blast cabinet, minimising the risk or injury. The jaws can be custom designed to suit a wide range of cup sizes (Cup Dimension are required before acceptance of order).
- **Integration**
  The WBS 500 control cabinet easily integrates the drag conveyor, high pressure pump and filtration system into one system, providing one easy to use control panel which will also display fault messages and protect other system components in the event of malfunction.

Specifications:

	US	Metric
A. Overall Length	47 in	1200 mm
B. Overall Width (Approx.)	47 in	1200 mm
C. Overall Height	94 in	2400 mm
D. Pressure Requirements	10,000 psi	700 Bar
E. Part Rotation	360°	360°
F. Machine Weight (Approx.)	1750 lb	1500 Kg



* Approx tree size only – contact A W Bell Machinery for more detail

WBS 750

The WBS 750 adds to the WBS 500 cabinet an automatic nozzle, enabling automated blasting of the investment cast tree. The single chamber system allows maximum shell removal from the automatic cycle before removing hard to access shell material with the manual blast nozzle, without any additional loading or unloading of the part from the cabinet.

Design Features:

- **Programmable cycle**
  The fully programmable automatic cycle provides for part storage of over 500 different parts. Stored parameters include tree dimensions and blast patterns to accurately and efficiently remove maximum shell material.
- **Twin rotating nozzle**
  The twin rotating nozzle maximises shell removal by providing a wider blast pattern as well as a pulsating effect caused by the nozzle rotation on and off the part.
- **Manual nozzle**
  The ability to blast using the manual nozzle allows more difficult areas to be targets while limiting the manual handling of the tree.
- **Integration**
  Like the WBS 500, the WBS750 control cabinet easily integrates the drag conveyor, high pressure pump and filtration system into one system, providing one easy to use control panel which will also display fault messages and protect other system components in the event of malfunction.

Specifications:

	US	Metric
A. Overall Length	47 in	1200 mm
B. Overall Width (Approx.)	47 in	1200 mm
C. Overall Height	94 in	2400 mm
D. Pressure Requirements	10,000 psi	700 Bar
E. Part Rotation	360°	360°
F. Machine Weight (Approx.)	1750 lb	1500 Kg

WBS - DRAG DEBRIS CONVEYOR

The WBS – Drag debris conveyor removes the shell material from the blast cabinet and dumps into a customer supplied bin.

Design Features:

- **Custom sizing**
  The drag conveyor can be manufactured to suit a customer-supplied bin. Bin information to be supplied to A W Bell Machinery for suitability.
- **Integration**
  The drag conveyor control is integrated into the WBS blast cabinet. This integrates all safety functions and overloads into the main control panel to ensure easy operation and maintenance.

WBS – HIGH PRESSURE PUMP

The WBS – High pressure pump provides the working media to the blast cabinet. A W Bell Machinery uses Gardner denver partek pumps, an industry leader in water jetting technology.

Design Features:

- **Soft start & fast unloading**
  Soft start reduces starting current while the high pressure unloading valve immediately takes load off the pump when parts are being loaded, greatly reducing operating and maintenance costs
- **Pressure measurement**
  Analogue transducers measure pump pressure and feed the information back to the operator. This feedback can alert the operator to any losses in pressure as soon as they occur.
- **Integration**
  The pump control is integrated into the WBS blast cabinet. This integrates all safety functions and overloads into the main control panel to ensure easy operation and maintenance.

Specifications:

	US	Metric
A. Overall Length	59 in	1500 mm
B. Overall Width (Approx.)	40 in	1000 mm
C. Overall Height	28 in	700 mm
D. Maximum Pressure	10,000 psi	700 Bar
E. Weight (Approx.)	2220 lb	1000 Kg

WBS – FILTRATION SYSTEM

The WBS – Filtration system, developed with the help of Ebbco filtration products, provides clean water down to 0.35 micron. Up to 95% of the input water for the water blast pump can be recycled using the filtration system.

Design Features:

- **Variable control**
  The variable pressure control ensures that the water is circulated through the filtration system with minimum of pressure. This greatly increases the life of the filter media, reducing consumable costs.
- **Chiller system**
  The high pressure pump and nozzles can increase the temperature of the water significantly. The chiller system keeps temperature down do an optimum level, reducing wear on pump components.
- **Integration**
  The filtration control is integrated into the WBS blast cabinet. This integrates all safety functions and overloads into the main control panel to ensure easy operation and maintenance.

Specifications:

	US	Metric
A. Overall Length	59 in	1500 mm
B. Overall Width (Approx.)	94 in	2400 mm
C. Overall Height	47 in	1200 mm