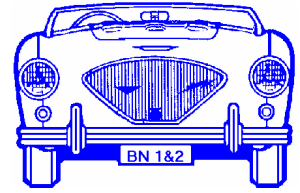


100 TECH 01

BEAD BLASTER



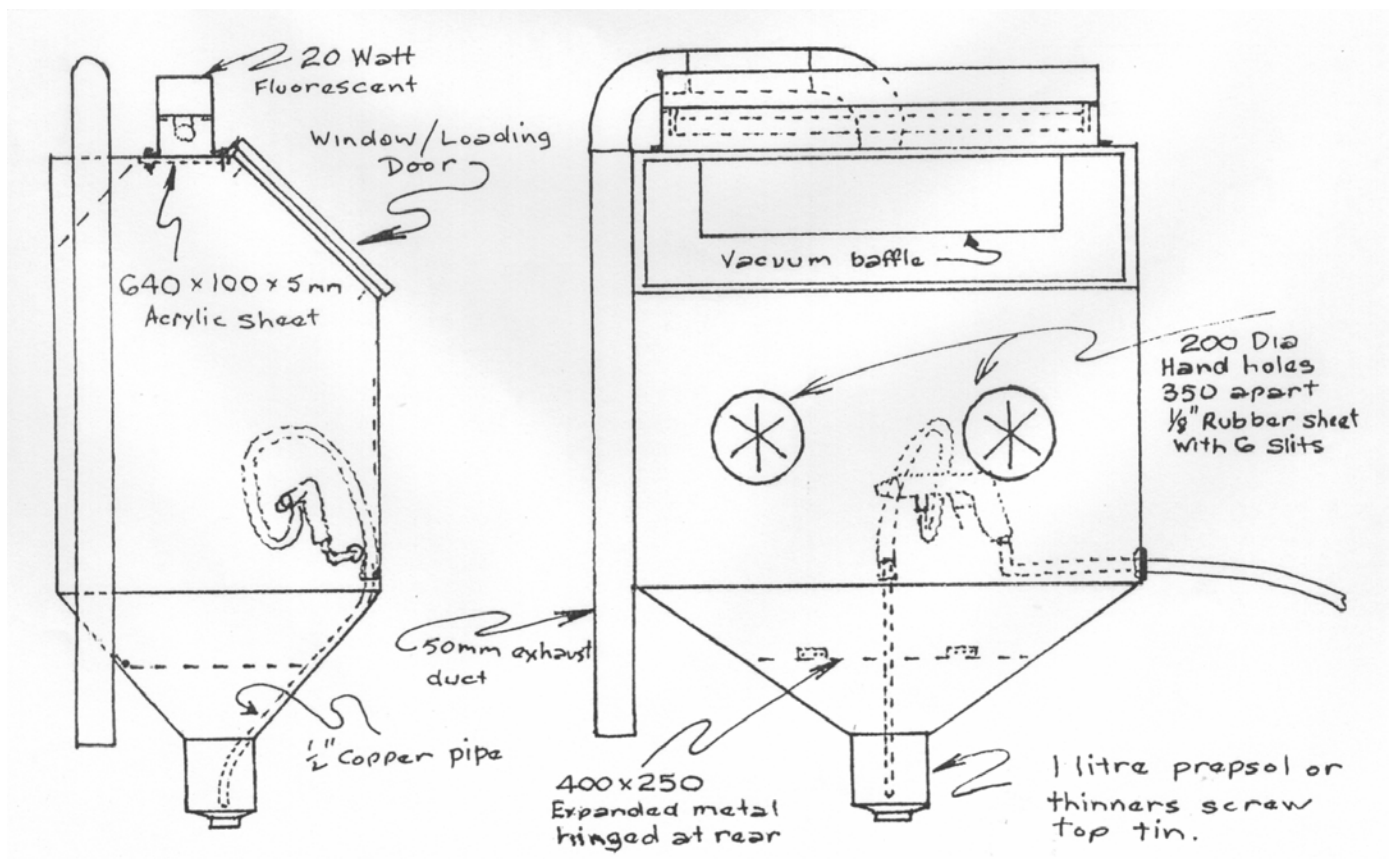
In 1992 I constructed a bead blasting cabinet and thought this might be of interest to club members.

After looking at bead blasting cabinets in several catalogues and Eric Rudd's in the flesh (or should I say metal), I designed and built one that was the largest I could get out of an 8'x 4' sheet of zinc coated steel.

In the following pages are construction details and plans, also included are plans for an inexpensive sheet metal folder for those without access to one.

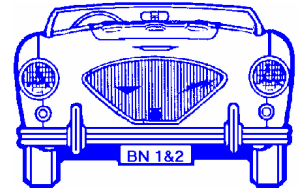
So get folding and have a blast.

DON (THE MASTER BLASTER) HARDIE



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BEAD BLASTER



CABINET

The Steel Store at Brookvale supplied the Zinc Sheet and for \$10 cut it up as per plan
Fold as per the plan to the required angles and assemble by spot welding or pop rivets, bolts, etc.
Cut a hole in the bottom of the hopper, leaving sufficient to turn down a flange, and attach a bottomless 1-litre screw cap tin (inverted).
Seal all seams, pop rivets, etc. I used 3 M Brush On Seam Sealer.
The finished Cabinet can be mounted on the wall or on 50mm angle iron legs.

WINDOW / LOADING DOOR

The glass is 700mm x 280mm x 6mm Laminated Safety Glass.
The frame is 20mm x 12mm x 2.5mm aluminium channel, hinged at the top and sealed with a strip of foam plastic attached to the cabinet.
The weight of the door is sufficient to maintain a seal.

VACUUM SYSTEM

Two bends and a length of 50mm down pipe were fitted as shown and connected to a Sadie Vacuum Cleaner with a piece of 50mm flexible demister hose.
The baffle was tack welded in place. This allows fine dust rust etc. to be sucked out but not the beads.

LIGHT

I used a 20 watt fluoro and a box to suit, cut a 600mm x 60mm hole in the top of the cabinet and mounted on the top and a 640mm x 100mm piece of clear acrylic (suitably sealed) inside the cabinet
Make sure the cabinet is electrically earthed.

GUN

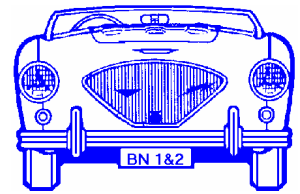
Bring the compressed air line through the side, (a plastic fitting used for protecting electric cables going through holes in steel sheet works well) to a right angle fitting on the gun.
The rigid suction line is 12mm copper pipe secured by two saddles finishing 10mm above the screw cap.
The flexible suction line is 500mm of 12mm car heater hose, fitted as shown to allow free movement of the gun.

USE

1/2 fill the sump tin with beads turn on the vacuum and light and blast away using full compressor pressure.
Use gloves when blasting, I use chemical proof red gauntlets.
Beads will last longer if parts are cleaned of grease, dirt and loose rust first.

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BEAD BLASTER



COST IN 1992	\$
8' X 4' Zinc coated steel sheet (The Steel Store at Brookvale).....	36.00
“ “ “ “ “ Cutting charge.....	10.00
700 x 280 x 6 laminated glass.....	18.00
50mm down pipe and 2 90deg bends (Hardware and General Brookvale)	19.00
Sadie Vacuum Cleaner (Narrabeen Flea Market).....	20.00
Bead Blasting Gun (Peninsula Tools Brookvale).....	22.00
Balotin Blasting Beads (Repcos Brookvale).....	48.00
	=====
	\$173.00

All the remaining bits I had on hand.

THE UNIT HAS BEEN VERY SUCCESSFUL AND USED FREQUENTLY, SO I NOW HAVE A FEW MORE TIPS.

Sometimes the beads compact down in the sump, when this happens just put your finger over the end of the gun and press the trigger. This blows air back down the suction line and aerates the beads.

The indication of when to change the beads, is when they wear down in size and don't fall down the sloping hopper into the sump. They can also fill the cabinet with a fog when they are very small in size.

Beads will escape around your arms and through the slits in the rubber seals. I have extended the gauntlets with vinyl and attached this around the holes.

A number of cabinets have now been made with some variations to the original design eg.

An end opening door for easier loading.

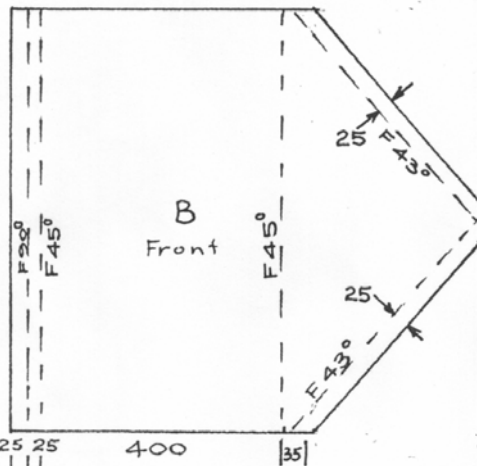
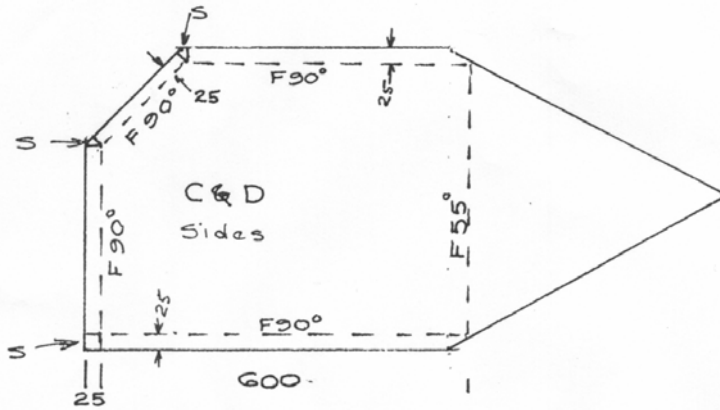
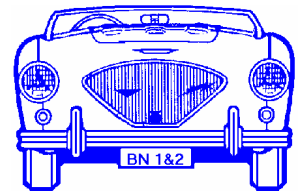
Larger in size to accommodate wheels etc.

Steeper hopper angle so that the beads more readily gravitate to the bottom.

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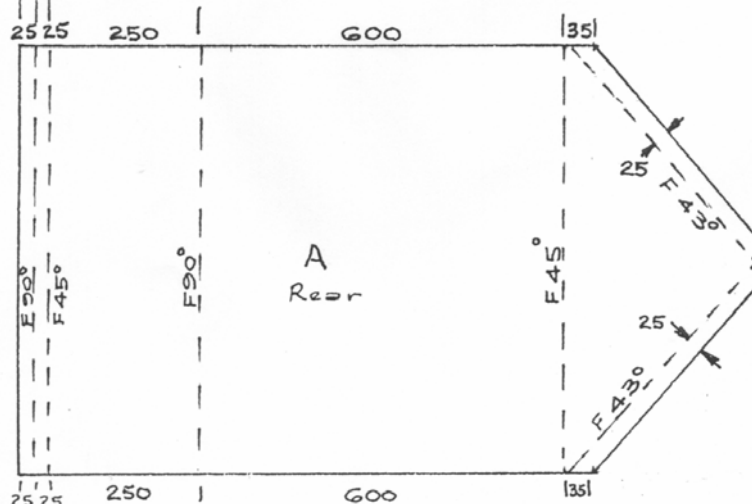
BEAD BLASTER

POSITION & ANGLES OF FOLDS



NOTES

1. "F 45" Denotes fold line & angle.
2. C & D are handed i.e. 1 Right Hand & 1 Left Hand.



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BEAD BLASTER

