

# Guyson 'AM' Blast Range

blast finishing equipment

## Blast finishing for additive manufacturing



# Additive manufactured parts finishing

## Specifically designed to mitigate the explosion risks



Guyson International's range of Formula and Euroblast manual blast cabinets are used by many in the Rapid Prototyping, 3D Printing and Additive Manufacturing (AM) sectors to deliver value adding surface profiles to the full range of metal and plastic prototypes.

Blast finishing is often used to remove surface step lines from ABS prototypes, create a bright surface finish on dull AM parts and also provide a paint and coating receptive surface by removing the smooth shine from plastic prototypes and replacing it with a finely controlled textured surface that improves adhesion. It is also used for surface finishing and removing semi-adhered particles from laser melted titanium parts - such as textured medical implants and the surface etching of build plates, for improved adhesion, from which these parts have previously been cut by EDM machine.

### Additive Manufacturing (AM) Bead Blasting

Specifically devised for the Additive Manufacturing (AM) market Guyson offers variations of the Guyson Euroblast® 4SF and 6SF (Suction Fed) blast cabinets. These particular bead blast systems, have been designed specifically for the blasting of Stainless, Aluminium, Titanium or Inconel built components which often used in aerospace and medical AM sectors. Some of these exotic materials have the potential to create explosive dust when blasted, so special provision has been made with these Guyson blast systems to mitigate those risks.

The Guyson 'AM blast systems' can be specified with a variety of options that can be chosen, appropriate to the level of perceived risk involved, options including: full earth braiding to the cabinet, gun, dust collector and hose and include ground nuts on all the main contact points to prevent any static spark generation and also anti-static fabric gauntlets to allows the operator greater flexibility when blasting whilst preventing media escape. Also externally located LED lighting, for good illumination of the blast area, so as to not create any chance of a spark within the blast chamber.



# Bead blasting delivers a variety of surface finishes

## Wide range of equipment options to suit components

### Additive Manufacturing (AM) Dust Collectors

The Guyson AM blast cabinets are complemented with a new range of AM specified dust collectors. Initially the mid-range C600-AM dust collector has been designed to accompany the Euroblast 6SF-AM. Again conscious of the explosive potential of some of the materials that can be involved in additive manufacturing the C600-AM dust collector has a host of features and options to minimise risks including; explosion relief valve, explosion isolation valve, secondary HEPA filtration, waste bin balance pipe - this enables dust collection in a plastic bag (located in the collection bin hopper) that can be quickly sealed on removal, minimising dust in the open atmosphere and a waste bin level sensor. Depending on the specific zone or environment, the AM dust collector range can be specified with an optional ATEX compliant motor, controls and switchgear.

### Euroblast blast cabinet range

The Euroblast 4 and 6 AM blast cabinets are part of a range of seven 'standard' cabinet sizes in which Guyson's premier quality Euroblast cabinets is supplied. Built to high quality standards, the blast cabinets are highly durable, rigid and tightly sealed, being fabricated and welded in 16 gauge sheet steel.

The full Euroblast range also includes sit-down and variable height cabinet designs and a tumbleblast option, together with choices of blast guns, suction or pressure fed operation, machine lifting options and a vast range of options and special features to aid component handling.



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# Guyson 'AM' blast range

## Euroblast 4 AM Blast Cabinet

### Features include:

- Full metal construction - 16 gauge sheet steel
- Euroblast 4 - Overall dimensions: (H) 1655 mm x (W) 815 mm x (D) 560 mm
- Euroblast 4 - Internal blast chamber - (H) 715 mm x (W) 800 mm x (D) 540 mm
- Blast gun - Model 400 (11 to 25.2 m<sup>3</sup>/hour @ 5bar)
- Full earth bonding
- Rubber gauntlets
- LED lighting (240 v)
- Air wash gun
- Door interlocks
- Large viewing window - protected by anti frosting sheet

## Euroblast 6 AM Blast Cabinet

### Features include:

- Full metal construction - 16 gauge sheet steel
- Euroblast 6 - Overall dimensions: (H) 1825 mm x (W) 1070 mm x (D) 760 mm
- Euroblast 6 - Internal blast chamber - (H) 880 mm x (W) 1050 mm x (D) 740 mm
- Blast gun - Model 900 (18.7 to 45.9 m<sup>3</sup>/hour @ 5.5 bar)
- Full earth bonding
- Antistatic blast gloves
- LED lighting (240 v)
- Air wash gun
- Door interlocks
- Large viewing window - protected by anti frosting sheet
- Fork and pallet truck lifting channels

## C600 Dust Collector

### Features include:

- Dust collector (W) 596 x (D) 595 x (H) 2093 mm
- Bin balance pipe
- Auto reverse pulse for filter cleaning
- Waste bin level sensor
- Full earth bonding, including antistatic hose
- Atex zone 20/21 inside primary filter chamber
- Magnahelic Gauges for primary and secondary filters to indicate filter replacement - standard
- Filter area 10m<sup>2</sup>
- Airflow 11m<sup>3</sup> / min
- 230 v / 50 Hz / 5.5 amp full load current 0.75 kW

### Options include:

- HEPA 14 filter
- Atex 22 externally (EX 113D IP65) fan and controls
- No earth bonding
- Explosion relief valve
- Explosion isolation valve
- Single or 3 phase option
- Fascia mounted or remote starter option
- Manual pulse
- Wheels



Euroblast 4



Euroblast 4 inside



Euroblast 6



Euroblast 6 inside