



Vapormatt



Vapormatting saves time, streamlines production and enhances quality

Fast cleaning

- Creates a fine grained surface ideal for rapid subsequent polishing
- Facilitates inspection so defects are easily seen
- Penetrates inaccessible areas

Gentle action

- Eliminates edge damage and substrate erosion
- Minimises die wear for longer die life

Wet processing

- Direct loading of dies whilst wet
- Traces of caustic materials flushed from cracks and holes

Versatile operation

- Manual or automatic processing options
- Purpose-designed jigs and infeed systems

Extrusion die cleaning

Extrusion die cleaning

Introduction

Vapormatt's wet blast process has been shown to provide a highly effective means of cleaning aluminium extrusion dies to remove surface contamination between manufacturing runs. The process can achieve important benefits and significantly streamlined the die cleaning operation.

Time saving benefits

In particular, substantial time savings can be made over the alternative process of dry blasting. Following removal from the extrusion press dies are usually first treated with a caustic solution to remove surplus aluminium and then undergo a water rinse. With wet blasting the dies can be processed immediately after rinsing – still in a wet condition. With dry blasting, a lengthy drying-off period is necessary in order to avoid the risk of water contaminating the blast media and clogging the machine.

Gentle cleaning action

Wet blasting also offers other significant advantages. The process has been found to provide a more gentle cleaning action than conventional dry shot blasting, with less potential substrate damage, which helps to extend die life and minimise the risk of damaging delicate edges – there is no edge burring or excessive "rounding". Added to this, because the process creates a finer surface, dies can be utilised for longer periods before re-cleaning becomes necessary due to the build-up of surface contamination.

Surface defects, such as micro-cracks, are also more easily identified following wet blasting as the process produces a fine-grained surface. Additionally vapormatt continually washes the surface to remove trace elements of caustic materials that can remain in cracks. As dies are often nitride or PVD coated following cleaning, this can help to ensure better coating adhesion.

Loading

Dies are normally loaded into the Vapormatt machine by overhead hoist and are retained vertically in a specially designed fixture attached to a roll-in turntable mechanism. The fixture is easily adjustable to accommodate different die sizes. Once in the sealed processing enclosure, accessed through a safety-interlocked door, the turntable can be rotated to facilitate all-round cleaning using the manually operated blast nozzle.

Automatic machines can be configured either with a simple turntable or with universal, vertical fixtures that allow fully automatic vapormatt, rinsing and drying of both faces of the dies without the need for any operator intervention.

VAPORMATT WET BLAST CLEANING OF ALUMINIUM EXTRUSION DIES ACHIEVES IMPORTANT PRODUCTION BENEFITS.

The wet blast process

Vapormatt wet blasting (or 'Vapormatt') is a solvent- and dust-free simultaneous cleaning and degreasing process that employs an operator-safe cleaning solution comprising of a special mix of water, detergent and media – a glass bead mixture is normally used. This is projected at the component through an advanced blast nozzle. The operating pressure of the process is highly controllable and effluent from the machine is processed through a filtration system, which separates out solid waste for safe disposal and allows the water to be recycled. Because no solvents or other potentially hazardous chemicals are used by the wet blast process, it is not subject to stringent EU solvent emission, VOC or dust emission legislation.

Vapormatt manufactures a wide range of wet blasting cleaning and degreasing systems, extending from small manual cabinets suitable for automotive workshops to large automatic machines used for special applications such as the surface preparation of wire and extruded products and the automatic cleaning of intricate components and dies.

Vapormatt | Cougar manually operated machine



Vapormatt | Leopard automatic machine



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