



IDENTICOAT 500

Vacuum Metal Deposition System

Vacuum Metal Deposition (VMD) is a powerful forensic technique which can develop latent fingermarks on difficult surfaces that cannot be detected by other techniques.

The Identicoat 500 uses Vacuum Metal Deposition (VMD) to develop latent fingermarks by coating them with small amounts of metal. VMD was first used in Forensic Science in 1976, and systems using this technique are now widely used around the world. The technique has proven to be a cost effective and successful crime fighting tool.



HHV Identicoat 500 VMD system

The Advantages of Vacuum Metal Deposition

Effective Development

Vacuum Metal Deposition reveals latent fingermarks on most surfaces and is especially effective on surfaces where prints are difficult to detect, such as plastic and paper.

Operational evidence and scientific testing* has shown that the VMD process reveals up to 15% more identifiable fingermarks than cyanoacrylate fuming. On month old evidence, VMD develops up to 70% more fingermarks.

Identifiable marks are typically developed on 50% of all articles processed.

The sensitivity of VMD has even developed prints on surfaces that have been immersed in water for several weeks.

Cost Effective

VMD detects virtually all latent fingermarks maximising the value of the available evidence. In many cases, this high success rate makes the search for further evidence unnecessary. In a busy laboratory the Identicoat 500 can pay for itself by shortening the investigation time.

Proven Technology

ID-series Vacuum Metal Deposition systems have been manufactured for over 40 years. More than 20 VMD systems are in use in the United Kingdom alone.

Ease of Use

The Identicoat is simple and straightforward to use and no previous vacuum knowledge is required.

Typically, the processing time is less than 15 minutes from loading to unloading. Articles with dimensions up to 72 cm by 56 cm can be processed in a single cycle. The system is easy to install and no special power or facilities are required.

** A.H.Misner, RCMP, 1992*

The VMD Technique

Evidence is attached to the Identicoat 500 work holder by means of small magnets. Once placed in the vacuum chamber, the single push of a button initiates the automatic vacuum pumping system. Once the chamber has been evacuated the operator uses the evaporation power supply to heat a few milligrams of gold. The gold is then vaporised. The gold vapour recondenses on the article of evidence. The gold atoms that condense on fingermark residue are absorbed into the fingermark deposit.



The Identicoat 500 with evidence holder partially withdrawn



View inside the Identicoat 500 chamber showing the evaporation sources and shields

The second stage is to heat and vaporise zinc metal. Zinc vapour only condenses onto another metal. The zinc, therefore, only condenses onto the gold layer and not onto the fingermark, which has absorbed the gold. The result is a clear, high contrast and long lasting fingermark that can be photographed without the need for further processing.

Features

- Automatic vacuum control
- Large capacity chamber
- Rapid 15 minute processing times

Specification

The Identicoat 500 comprises a vacuum base cabinet with PLC vacuum controller plus pumps and power supplies. The chamber is fitted with a slide-out evidence holder and a set of chamber lights is provided to assist viewing of the process. The compact system is fitted with castors to allow easy movement within the laboratory or positioning and maintenance purposes

The Identicoat 500 is supplied fully assembled although some parts may be removed for safe transport.

Services

Electrical Supply: 210 - 250 Volts, 1 phase, 50/60Hz

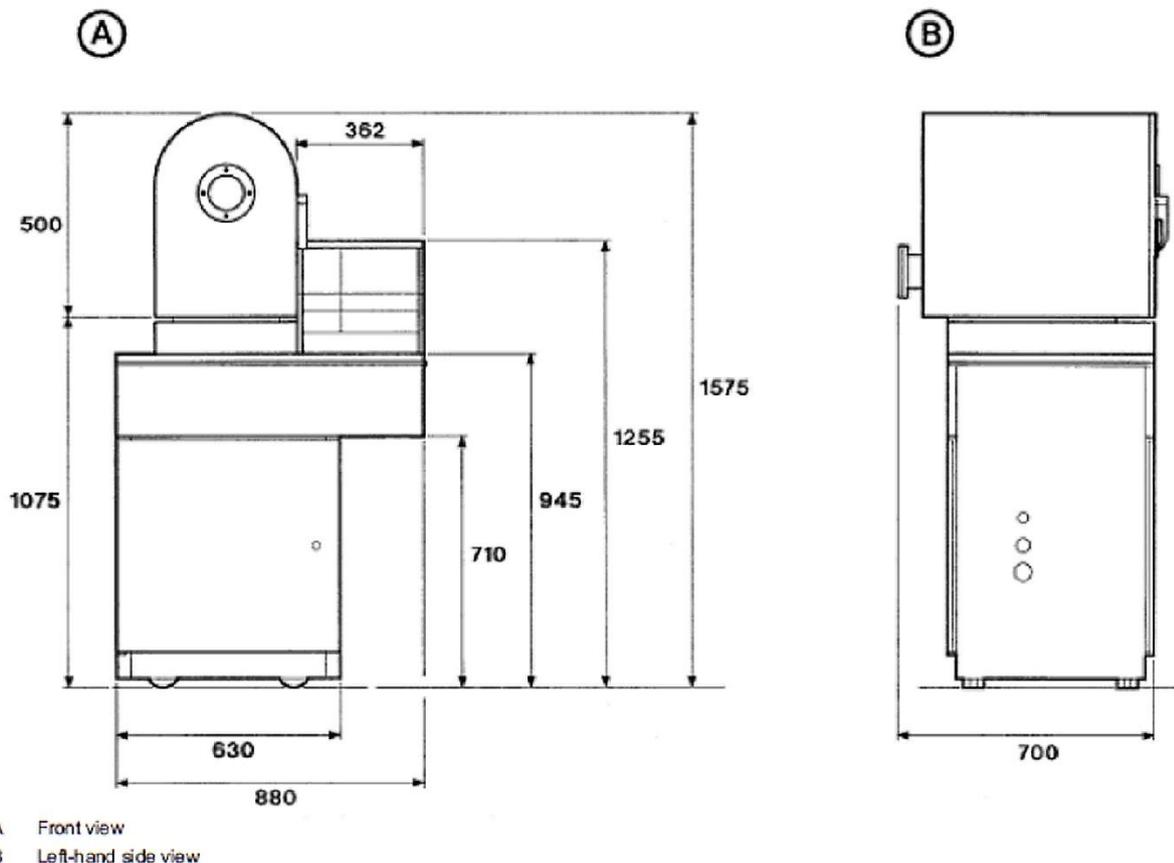
Power Consumption: 3000 VA (max)

Water Cooling: 75 litres/hour at 20°C.



For further details, please contact:

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ID500 system dimensions.