- POWERFUL
- HIGH PERFORMANCE
- ► VMD560CX



- ► Powerful latent fingerprint development
- High performance
- Easy to use
- Compact system
- Target DNA analysis



# **Vacuum Metal Deposition**

Vacuum Metal Deposition (VMD) is a powerful forensic technique that uses the sequential vacuum deposition of gold and zinc to develop latent fingerprints.

VMD can be used on a wide range of non-porous and semi-porous exhibits including flexible plastic packaging, plastic bottles, glass, fabrics, firearms, glossy paper or magazines.





The technique is quick (typically less than 15 minutes) and produces high quality images with '3rd' level detail of pores and ridge shapes.

The developed prints can be photographed immediately.

VMD develops approximately 15% more prints than the cyanoacrylate (superglue) fuming plus flourescent dyeing technique.





VMD can develop fingerprints on tight weave fabrics and clothing such as nylon, satin and polyester. On fabrics with a loose weave VMD can identify areas of contact i.e. grab impressions, that can aid more focused DNA swabbing/extraction.

VMD is also very effective for developing fingerprints on exhibits that have been submerged in water, even if they have been submerged for many years.



# VMD560CX

# **Powerful Vacuum System**

The VMD560CX has a powerful, high performance vacuum system comprising of a cryogenic vacuum pump and a double stage rotary pump to ensure the fastest possible chamber pump down time.

Under normal working parameters, with a trained operator, it is possible to complete a process cycle (start to finish) in less than 15 minutes.





# **PLC Control System**

The VMD560CX has a PLC control system with a full colour, touch sensitive HMI control screen. The control system provides simple automatic operation of the vacuum system start up, close down, chamber pump down and vent. It also gives semi-automatic control of the vacuum deposition process.

The VMD560CX also has the flexibility to provide vacuum deposition of other metal evaporation sources including aluminium, silver and copper. Silver, in particular, gives excellent results on thermo-sensitive paper, condom wrappers and cling film.





## Flexible Work Holder

The work holder is fully retractable and locks at three positions of 45, 90 and 180 degrees) for easy loading of exhibits. Flat exhibits can be secured easily with small magnets. Bulky exhibits can be suspended from the work holder by thin wire.

GoEvid

# **Key Features**



# VMD560CX

# Powerful Latent Fingerprint Development

- Fast processing with exhibits typically ready to photograph in under 15 minutes
- ► High definition technique, often revealing 3rd level detail
- Develops both fresh and aged fingerprints
- Develops fingerprints on aged exhibits, even after prolonged immersion in water
- ▶ Does not 'gum' up firearms, so can be used before ballistic testing

# Compact, Self-contained System

- ► Compact footprint (1150 mm W x 665 mm D x 1850 mm H)
- Fits through standard laboratory door
- Large horizontal cylindrical vacuum chamber (560 mm dia. x 610 mm)
- Powerful cryogenic high vacuum pump
- Low maintenance costs
- Low running costs only atomic layers of gold, zinc or silver required in each process run

## ► Flexible Operation

- ► Can process a range of exhibits from polymer bank notes to large plastic packaging sheets or fabrics up to 720 mm x 560 mm
- Adaptable work holder for processing bulky exhibits e.g. small firearms or bottles
- Can be used to evaporate other metals e.g. silver for exhibits such as plastic food wrap (Cling Film/Saran Wrap) or thermal paper
- Can be used to target areas for DNA analysis on fabrics and clothing
- Fully retractable work holder with locking positions at 45, 90 and 180 degrees for easy loading/unloading

## ► Innovative Design

- Only mains electric (110/230 V 50/60 Hz) and cooling water required
- Supplied with fully retractable semi-cylindrical work holder
- Powerful vacuum system for fast process times
- Stylish, modern design
- ► LED lighting gives excellent chamber illumination
- Integral modem for remote system diagnosis

# ► Easy to Use

- ► Full colour, touch sensitive 10.5" HMI control screen
- Intuitive menu driven control screens for ease of operation
- Magnetic work holder for simple, quick mounting of exhibits
- One button operation for automatic chamber pump down and vent
- Large 200 mm dia. chamber view port for easy viewing of exhibits and evaporation sources when processing

#### Facilities

**Electric Supply:** 

220 V, 1 ph, 50 Hz, 30 A

**Water Cooling:** 

Flow 3.2 lmin<sup>-1</sup> @ 20°C

Footprint (Floor Loading):

System: Water Chiller\*: Water Chiller\*: 1150 mm W x 665 mm D (680 Kg) 652 mm W x 575 mm D (113 Kg)\*\* 1266 mm W x 560 mm D (188 Kg)\*\*\*



<sup>\*</sup> Optional Extra

<sup>\*\*</sup> Chiller Inside

<sup>\*\*\*</sup> Chiller Outside

# The VMD Product Range







# ► VMD360

### Compact and affordable

The VMD360 offers the many benefits of vacuum metal deposition in a compact, low cost unit

#### **Key Features:**

360 mm W x 360 mm H x 300 mm D stainless steel front loading chamber

Hat plate and semi-cylindrical enamelled work holders

Full colour, touch sensitive 7" HMI control screen

Compact footprint 900 mm W x 600 mm D x 700 mm H

Smple installation – only mains electric required (110/230V 50/60Hz)

Can handle a plastic flexible sheet up to 285 mm x 480 mm

# ► VMD560

#### **High performance**

The VMD 560 is a self-contained unit with a high performance, cryogenic pumped vacuum system

#### **Key Features:**

560 mm dia.x 610 mm D front loading stainless steel chamber

High performance cryogenic vacuum pump (4,200 ls¹ H<sub>2</sub>O)

Full colour, touch sensitive 10.5" HMI control screen

Fully retractable semi-cylindrical work holder with enamelled finish for easy cleaning

Minimal installation requirements – only mains electric (110/230V 50/60Hz) and cooling water required

Can handle a plastic flexible sheet up to 560 mm x 782 mm

# ► VMD900

#### Large chamber

The VMD900 is the ultimate in VMD systems with a large, horizontal chamber and powerful vacuum pump system

#### **Key Features:**

760 mm dia.x 1110 mm D front loading stainless steel chamber

High performance cryogenic vacuum pump (5,960 ls¹ H<sub>2</sub>O)

Full colour, touch sensitive 10.5" HMI control screen

Fully retractable semi-cylindrical work holder with enamelled finish for easy cleaning

Available in standalone (pictured above) and through wall versions

Can handle a plastic flexible sheet up to 800 mm x 1214 mm