



# Vapormatt



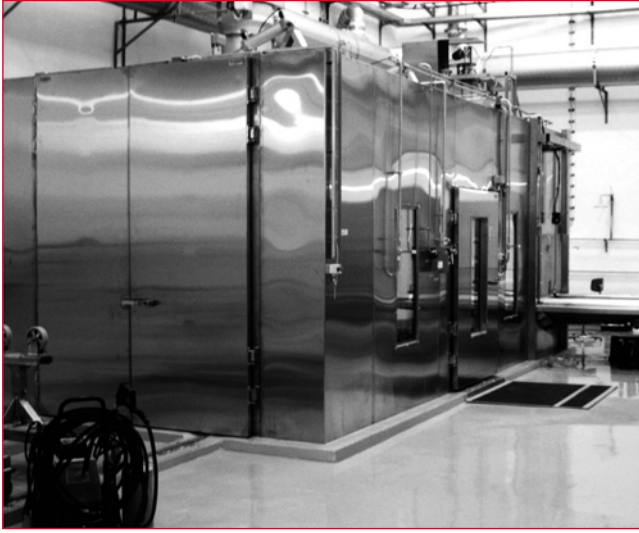
Decomatt high-speed cleaning and decontamination without component damage

Decomatt provides tremendous volume reduction savings allowing free release of many components

Save many critical hours of unnecessary worker exposure with the Decomatt systems

## **Decomatt** for Nuclear Decontamination

# Decomatt for Nuclear Decontamination



**Walk In or Remote Controlled Booth System**



**Manually Operated Glove Box System**

The Decomatt Systems are designed and engineered to fit into the tight space requirements found in most nuclear facilities.

## How the system works in nuclear applications

DECOMATT is today's answer for cleaning and decontaminating radioactive parts and equipment in nuclear establishments.

Proven in nuclear power stations throughout the world, Liquid Abrasive Decontamination provides for controlled cleaning and free release of components, tools and parts for reuse or for conventional disposal. DECOMATT is a must for your volume reduction program.

The DECOMATT principal is the bombardment of components or equipment with a high-volume recirculated flow of solid particles in water. The solid media (stainless steel, aluminium oxide or glass beads) does the decontamination work,

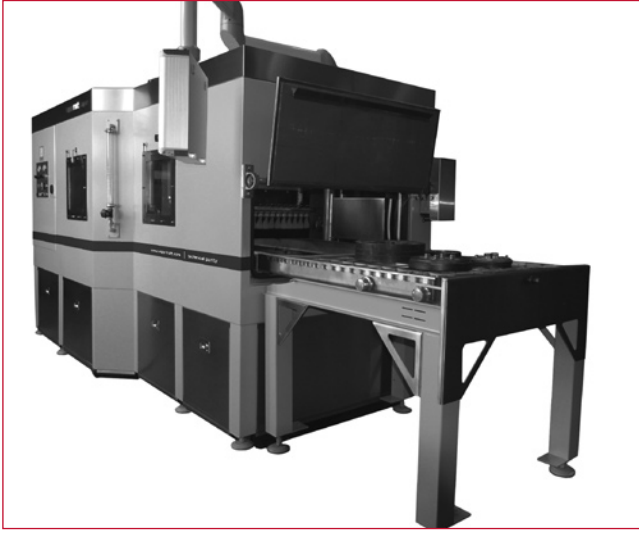
but there is always a cushion of water between the component surface and the media particles. This prevents impregnation, surface damage and excessive breakdown of the media while removing the fixed or smearable contamination.

Unlike other equipment the DECOMATT system contains all pressured abrasive delivery lines within the cabinet to completely eliminate the danger of leakage as a result of component failure. In addition, the design minimises space required which is at a premium in nuclear plants. This design maximises the equipment which can be placed within your decon shop.

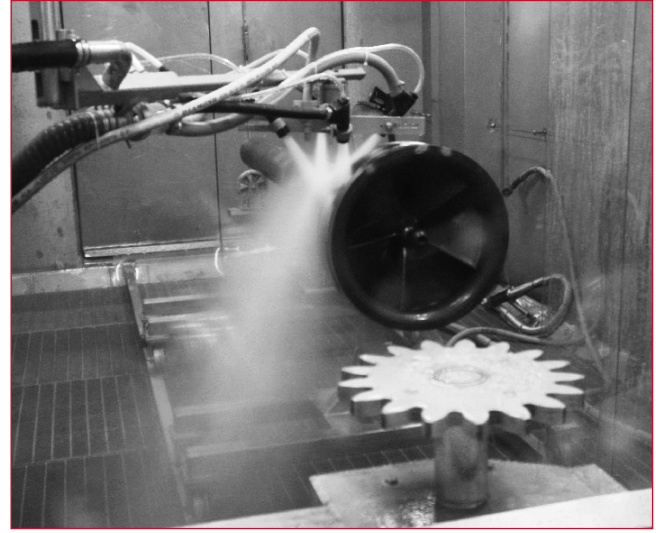
The DECOMATT pump mounts through the sump wall so that the pump itself is submerged. This unique pump features a packingless, glandless design and utilises a water seal for long life. It was specifically designed for the DECOMATT system and is not a commercial pump adapted for this purpose.

Due to the compact design of the DECOMATT pump it is possible to provide multiple sump units. This allows us to design and build large walk-in booth units in areas with low ceiling clearance.

High and medium pressure water pumping units can be incorporated into the Decomatt systems to maximise the usefulness of the equipment by combining decontamination technologies into a single booth.



**Fully Automated Batch  
Decontamination Machine**

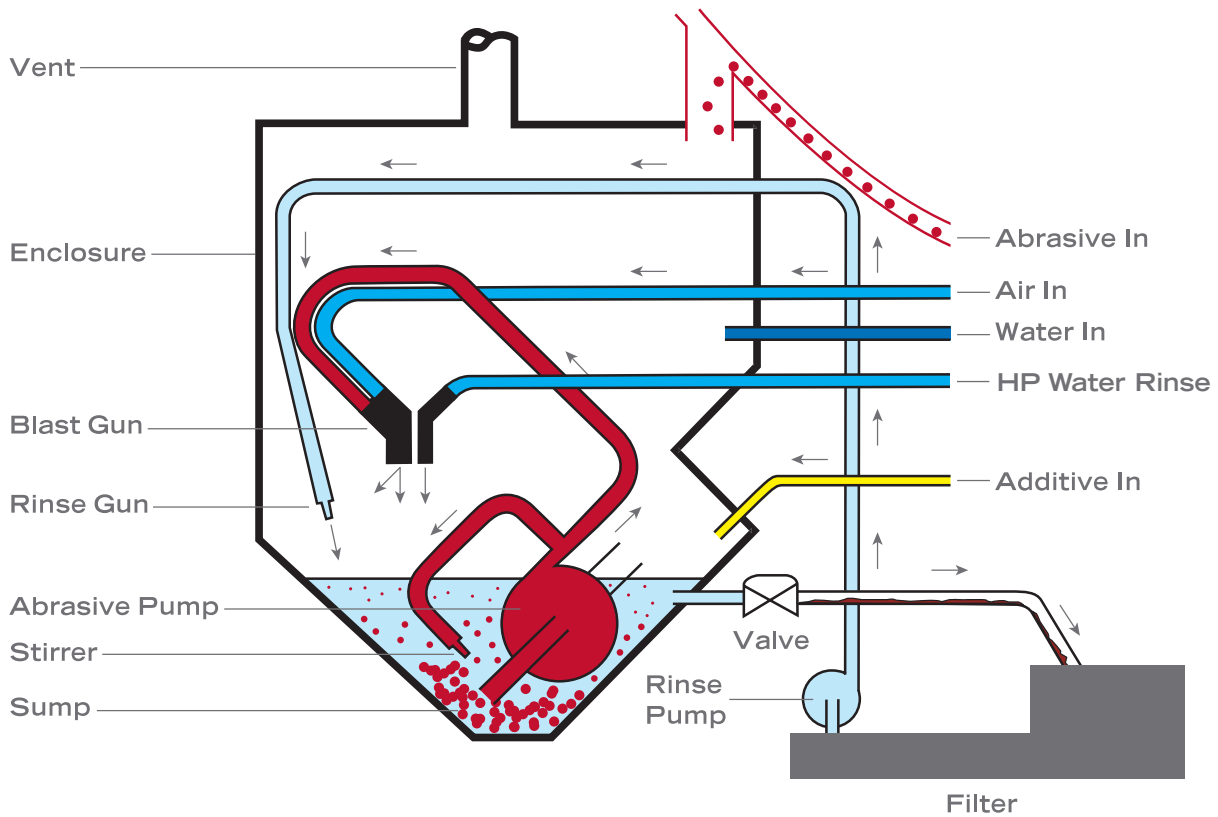


**Remote Controlled Decomatt  
in Action**

## DECOMATT - Nuclear safety engineered into each system

- System uses approximately 50 gallons of water and 75 pounds of inert abrasive - low waste volumes.
- Cyclone separators, using automatic valves, remove solids from the slurry down to five microns.
- Glove box stations can be provided with lead shielding and leaded glass for operator protection.
- The DECOMATT Pump System can be removed without draining the liquid in the sump.
- DECOMATT Systems are constructed from stainless steel to the relevant Q.A. standard.
- The DECOMATT Pump, located in the sump, allows all pressurised abrasive conduits and pumping elements to be positioned inside the process cabinet eliminating any potential for a spill or leak in the event of a component failure.
- The lightweight process gun makes the machine much easier and less tiring for the operator.
- Closed loop rinse systems can be provided which eliminates any water going to rad waste drains with the exception of periodic clean out.

# The Wet Blast Process



## Typical decontamination levels achievable with the Wet Blast Process

Component	Before		After	
	Dose Rate 1.3	Smearable 1.2	Dose Rate 1.3	Smearable 1.2
General maintenance tools	18K dpm fixed (approx)	None	< 1K dpm/100cm <sup>2</sup>	None
Steel pipe (painted)	<0.1mR/hr to 4mR/hr	0.67K to 200K dpm/100cm <sup>2</sup>	<0.1mR/hr	250 dpm/100cm <sup>2</sup>
Lead shielding	1mR/hr	50-100K dpm/100cm <sup>2</sup>	< 1K dpm/100cm <sup>2</sup>	None
Rubber-insulated cable	1800 dpm fixed	None	< 1K dpm/100cm <sup>2</sup>	None
Reactorhead seal-ring plate	1mR/hr gamma 65mRad/hr/beta	20K dpm/100cm <sup>2</sup>	<0.1mR/hr	<250 dpm/100cm <sup>2</sup>
Template for steam-generator nozzle dam	10mR/hr gamma 145mRad/hr beta	1mR/hr 86mRad/hr beta	1mR/hr	5.1K dpm/100cm <sup>2</sup>

Decomatt is the Registered Trade name of Vapormatt for their Nuclear Decontamination Process

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