


EcoCMat 600



Ecoclean

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The *EcoCMat* system, developed by Felsomat and Dürr Ecoclean, combines the latest wash technology with a flexible storage and retrieval cell to clean and dry workpieces in baskets without manual stacking and de-stacking, and without the floor-space requirements of traditional solutions. Degreasing and automation in a single package! 

The cleaning system

The treatment and supply modules integrate cleanly with the storage and retrieval cell by simply hooking in on the side. The convenient design allows any number of modules to be used in any position.

The number of treatment modules is determined by the system's cycle time.

The basic model of the *EcoCMat* 600 consists of one treatment module that provides injection flood washing, spray cleaning, blow-off and vacuum drying in sequence. Up to three treatment modules can be integrated in each cell to achieve cycle times of 1.5 minutes per treatment module.

The connecting pipes between the treatment modules and the supply module run along the outer wall of the cell. The supply module is made up of a stable base frame with an integrated base pan. Containers and units are located inside a sound-insulated cubicle. The central control panel is attached directly to the side frame or rear panel of the cell, making the *EcoCMat* 600 a completely self-contained and compact system. 

The Storage and Organisation System FlexCell

Wire baskets carrying the components are stacked on trolleys and enter the FlexCell via three loading/unloading stations. On completion of the cleaning cycle the baskets are re-stacked on the trolley for removal by the operator through one of three doors.

The logistics within the FlexCell are implemented by its intelligent production management system to ensure organisational transparency of the process. Inside the

FlexCell, part carriers are handled by an integrated telescopic lift system. This three-axis unit takes the part carriers to the appropriate positions in the FlexCell, which may be either a buffer station or a cleaning module. ■■■■■■

Production and application advantages of the *EcoCMat*:

The *EcoCMat* 600 system is affordable and environmentally friendly. Patented innovations improve media processing, extend tank life, and improve the treatment of exhaust air.

- Cleaning system and Automation from a single source
- Space-saving combination – approximately 60 % smaller footprint compared to conventional solutions
- Parts traceability possible at any time
- Cell contents can be inspected at any time on the control panel
- Automatic management of workpiece stocks and variants
- Largest number of pallets / basket storage spaces in a compact production area
- Increased productivity through reduction of handling
- Modular design – the system can be extended at any time to cater for different types of production
- Central loading and unloading position for the operator
- Closed design prevents oil from escaping and contaminating the production area



Type of construction

The modular system consists of standardized units. All major components that come into contact with the treatment liquid are of stainless steel construction. The design also meets all environmental protection regulations in force.

The stable base frame makes it easy to transport the system fully assembled, which dramatically reduces the setup and startup time. The entire control technology (SPC, control and operator elements) is integrated into the system, allowing users to perform a preliminary startup under real-world production conditions.

And the user-friendly visualization software makes operating the system a breeze. ■■■■■■

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Specifications

System dimensions

Length	5,760 mm
Width	1,400 mm
Height	5,490 mm
(with 3 treatment chambers)	

Weight approx. 7,000 kg (empty)

Batch size

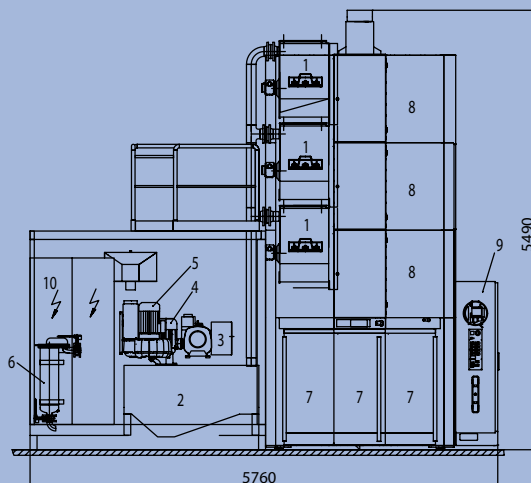
Length	600 mm
Width	400 mm
Height	300 mm

Batch weight 45 kg

Electrical connection values

Connected load	approx. 60 KW
Water consumption	approx. 5l/h
Compressed air consumption	approx. 2 Nm ³ /h
Tank volume	1,000l
Sound level	78 dB(A)

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- 1 Treatment chambers
- 2 Tank
- 3 Vacuum pump
- 4 Wash pump
- 5 Side-channel compressor
- 6 Bag filter
- 7 Basket pile slide-in
- 8 Batch storage
- 9 Control cabinet/Pile cell control panel
- 10 Control cabinet/supply module