

Ecopaint Clean Car Body Cleaning Equipment

Function **Ecopaint Clean, the Cleaning Equipment to Clean Car Body Shells**

It is used to remove loose dust and dirt particles from the car bodies before the painting process. The car body is cleaned by rotating feather rollers when they brush across the body shell with a depth of immersion of approx. 40 mm. Through this movement across the car body surface, the dust on this surface is absorbed by the feather rollers and transported to the collector inside the feather roller housing. With each rotational motion, the feathers are ionised and cleaned by the dust collector.

Structure The **Ecopaint Clean F3** cleaning equipment is equipped with 3 and **Ecopaint Clean F5** with 5 feather rollers.

The feather rollers, which are installed at a roof machine, two slanted rollers (only F5) and two vertical rollers are mounted in such a way that the horizontal and vertical shell surfaces of different car body types can be cleaned.

The individual rollers treat specific car body areas: the roof roller cleans engine hood, trunk cover, front and rear area of the car body.

The slanted roller is used for the lateral cleaning of the car body in the area of the A, B, and C pillars. The vertical roller cleans in the area of the fender, doors and rear sidewalls.

The F3, the vertical roller, takes over the complete lateral cleaning.

Ionising stations are provided for the neutralisation of the electrostatic charge of the car body as a pre- and post-ionisation at the inlet and outlet of the station.

Highlights

- Cleaning of the car body shell
- Reproducible, high cleaning effect
- Up to 5 freely programmable feather rollers
- Pivoting movement of the roof roller for optimum cleaning of front and rear area
- Integrated collision protection
- Pre-ionisation/ionisation for the neutralisation of the electrostatic charge before the cleaning
- Post-ionisation to avoid resoiling
- In combination with **Ecopaint Blow-Off**, optimum cleaning of the car bodies inside and outside
- Installation is integrated in the booth wall
- High serviceability
- Small air consumption due to optimised air gaps
- Identical mechanical design of the roof machines of **Ecopaint Clean** and **Ecopaint Blow-Off**
- Continuous control, visualisation and drive concept on **Ecopaint** painting installations



Ecopaint Clean F5 in production operation

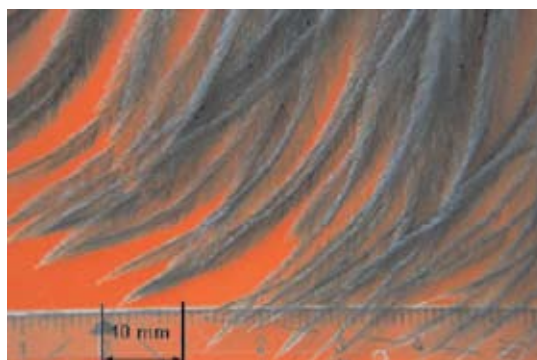
From back to front: roof roller, slanted roller, vertical roller, post-ionisation



Car body cleaning with the slanted roller and with the vertical roller



Installation visualisation system and operator terminal



Structure of an ostrich feather

Ecopaint Clean Technical Data

Ionising Station

Z axis working stroke (mm)	1300 or 2100
	freely programmable
Y axis working stroke (mm)	300
	manually adjustable
A axis working stroke (x°)	30
	manually adjustable
Height (mm)	2490 or 3290
Width (mm)	510
Depth (mm)	760



Tilting of B axis roof roller enables an optimum cleaning of front and rear area

Roof Roller

Z axis (mm)	1860 or 2080 or 2460
	freely programmable
B axis working stroke (x°)	± 80
	freely programmable
Roller speed (1/min)	15 - 75
	freely programmable
Height (mm)	3730 or 4180 or 4530
Width (mm)	1460
Depth (mm)	760
Roller widths (mm)	1800/2000/2200/2400

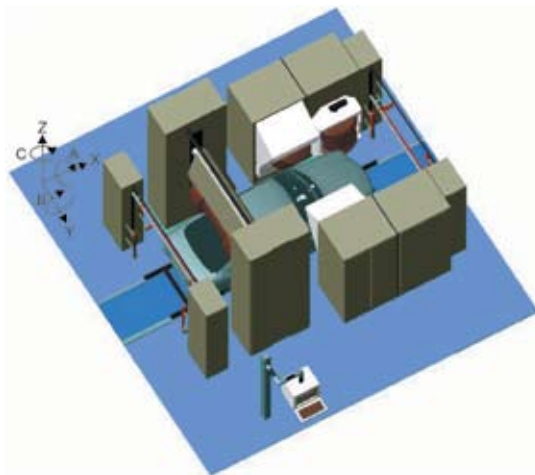


Diagram Ecopaint Clean F5 with pre-ionisation, roof roller, slant roller, vertical roller and post-ionisation

Definition of movement axes

Slanted Roller

Y axis (mm)	380 or 600
	freely programmable
A axis working stroke (x°)	30
	freely programmable
Roller speed (1/min)	15 - 75
	freely programmable
Height (mm)	2520 or 3030
Width (mm)	1224
Depth (mm)	1275
Max. roller height (mm)	850 or 1400

Vertical Roller

Y axis (mm)	In 380 or 600
	freely programmable
Roller speed (1/min)	15 - 75
	freely programmable
Height (mm)	2520 or 3030
Width (mm)	1224
Depth (mm)	1275
Max. roller height (mm)	850 or 1400

Power Rating

Air consumption (m³/h)	30000
Collector portion (m³/h)	10000
Voltage supply (V)	400
Power (kilowatt kW)	5.5

Capacity

Car bodies per hour (type-dependent)	90
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Emergency/Maintenance Drive

For emergency situations, a pneumatic drive is available that can move the roof roller to the top end position.

Pre-Ionisation

Station for the neutralisation of electrostatic charge at the inlet of the cleaning equipment.

Slanted Roller

The slanted roller may optionally be equipped with a lifting axis Z, working stroke 380 mm, (special machine).

Housing Doors

The doors are also available as folding doors.

Pneumatic Unit

Pneumatic unit in the tower of the roof station. The piping of the pneumatic unit is also available in stainless steel.

Hardware Limit Switch

In addition, electrical hardware limit switches can be used for the linear axes.

Door Safety Switch

The doors can be equipped with electrical door safety switches.

Central Lubrication

One manual (*EcoLube M*) or one fully automatic (A *EcoLube*) central lubricating system is available.

Options