

Ecopaint Robot Painting Stations

Function *Ecopaint* Robot painting stations are optimised for automatic surface coating of bodies and add-on parts in production line painting and are used for ESTA, AIR and powder application. The robot can be used for any interior and exterior body painting. All paint materials such as solvent-based paints, water-borne paints and powder paints can be used.

The combination of the robot arm concepts, use as a stationary unit or with travelling axes, handling robots for door and hood opening and the Dürr control concept allow the robot station to be flexibly adapted to the relevant task in accordance with customer requirements. The station configuration for the specific painting task is determined using offline simulation depending on the conveyor, body and painting parameters.



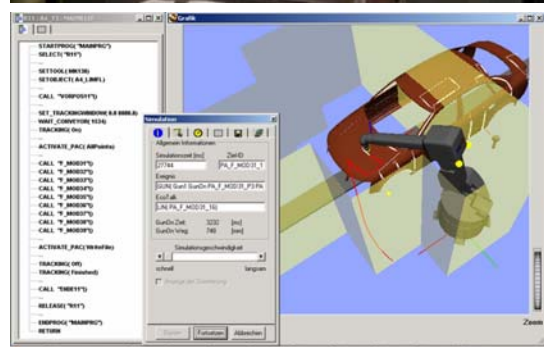
Exterior painting
ESTA wet paint
and powder



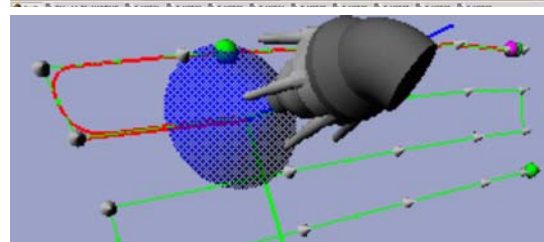
ESTA and AIR
interior painting



Add-on part
painting



EcoScreen
3D-OnSite
with display of
virtual workspace
and monitoring
points of
EcoMotionGuard S
in 3D view



Automatic
painting path
generation with
EcoScreen
3D-OnSite

- Highlights**
- Application equipment integrated in the robot and hose guidance for minimum paint and solvent loss, short rinsing times and minimal soiling
 - High voltage insulation by means of fibre glass reinforced plastic robot arm
 - Robot arms for painting processes with colour changers and metering pump, pigging technology or piston metering equipment with different arm lengths for adaptation to the booth and the body
 - Closed surfaces - optimum cleaning
 - Space saved by solenoid valve and supply cabinets for paint and electrical systems in *EcoRail House*
 - Explosion protection by means of overpressure
 - *EcoRail* travelling axes with horizontal L-shaped or vertically arranged guides for use inside and outside the painting booth
 - Dürr robot controllers with integrated application control / process control
 - Common control architecture for the entire paint shop
 - Full graphic operator interface using *EcoScreen*
 - Onsite and offsite programming with *EcoScreen 3D-OnSite*
 - *EcoMotionGuard S* for reliable monitoring of robot working area - less safety distance required
 - *EcoVision*: computerised image processing system for determining exact body position
 - ATEX-compliant, FM approval
 - Robot validation in accordance with ISO 9283



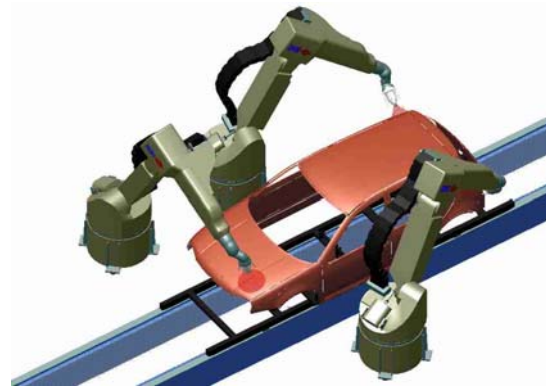
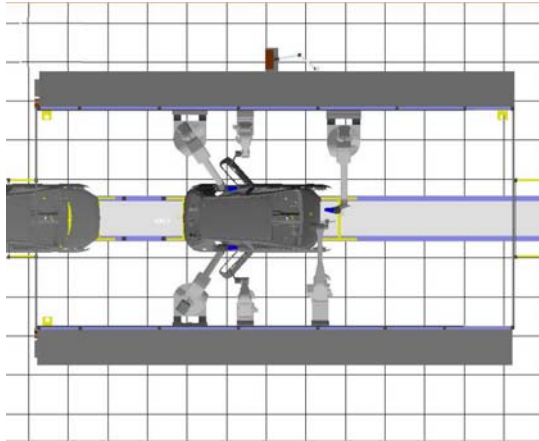
Typical Station Layouts

Interior painting with *EcoRP7* robots

Travelling axis: *EcoRail V*

Door opener: *EcoOpener D*

Opener for hood and hatchback: *EcoOpener H* travelling



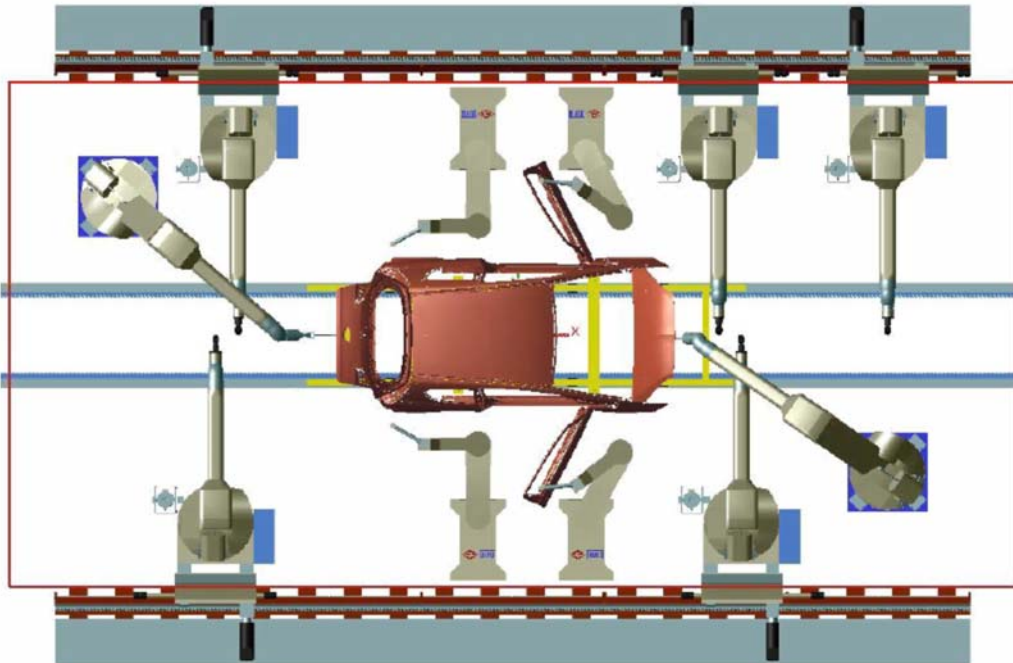
Exterior painting with *EcoRP6* painting robots in tracking mode

Interior painting station with *EcoRP7* painting robots

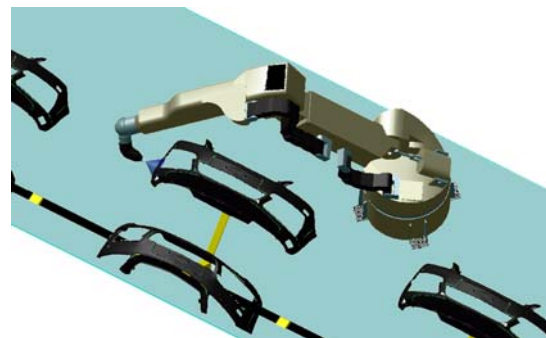
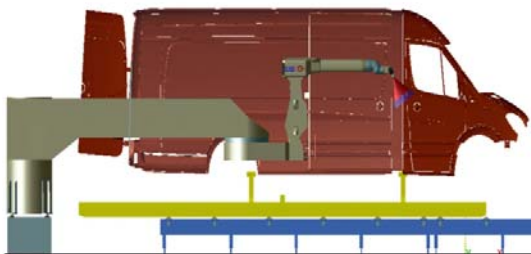
Travelling axis: *EcoRail V*

Door opener: *EcoOpener D* Scara

Opener for hood and hatchback: stationary *EcoRP6*



Interior painting of delivery truck with *EcoRP Swing* painting robot



Bumper painting with *EcoRP6* painting robot in tracking mode