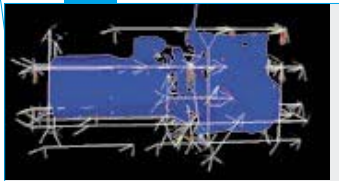
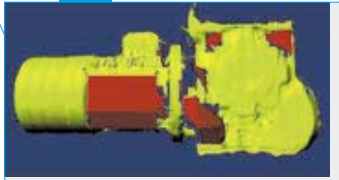
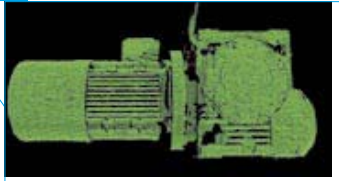


AUTOMATIC SOLUTION



Scanning

The part is scanned by 3D sensors right before painting.

Image Acquisition

An image of the part is established by use of sensor data (or existing CAD-data).

Feature Extraction

Significant geometric surface features are recognized. These will be painted using appropriate painting procedures.

Planning of Painting Motions

Motions for the paint tool are automatically generated by INROPA™. Special motions are applied for special features.

Generation of Collision-free Robot Motion

The paint tool motions are converted to robot motions and simulated. Collision-free robot motions are generated automatically.

Generation of Executable Robot Program

An executable robot program is generated for any type of robot. The program is generated and executed without manual interaction.

Use Robots for Small Batch Sizes

Using INROPA™ makes it profitable to utilize robots for painting of small batches. You can increase profitability and improve the working environment by using robots in your paint shop. Even for small batch sizes INROPA™ facilitates the use of automated painting processes to ensure constant product quality.

INROPA™ uses Your Painting Expertise

INROPA™ gives you the possibility to integrate your own painting expertise. INROPA™ can adapt knowledge from human painters in order to meet your specific quality requirements. This is realized by letting experienced painters specify special painting procedures.



INROPA™ can also control robotic pre-painting of positions which are not reachable by electrostatic reciprocators.

Different Degrees of Automation

INROPA™ is applicable in different degrees of automation. The fully automatic version uses integrated 3D sensors in front of the paint cabin. Semi-automatic versions use either 3D sensors separated from the paint line or available 3D CAD models of the part to be painted. Both semi-automatic versions can be upgraded to a fully automatic system at a later stage.



Painting Process

INROPA™ is applicable for wet painting and powder painting with or without high voltage.