

Identifying weak points and cutting painting costs

Painting Process Quick Check

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Are your painting costs spiraling out of control? Do you need stable painting processes to meet the requirements of your painted end products? Are you planning a new painting process in the mid or long term, or do you need to invest in a new paint shop?

With our *Painting Process Quick Check*, we identify the root causes of current weaknesses in your paint shop and painting process. We pinpoint initial fields of action to improve process stability & control as well as quality & paint shop safety – not only straightaway but also in the long term. Together with your production managers and technical experts, we analyze the current situation qualitatively and supplement the results with available key painting figures.

The Quick Check in four steps:

Step 1: During an on-site visit, we take a systematic look at your painting processes, paint shop and related areas, paying particular attention to parts pre-treatment, paint application, drying, materials handling, paint layer structure, coating properties, painting costs, quality indicators, workplace design, personnel deployment and paint losses, as well as energy

& water consumption and maintenance costs. Our aim is to achieve a common understanding of the painting process and its requirements in terms of quality, costs and efficiency.

Step 2: During the inspection and assessment of the status quo, we identify the first obvious weak points and flaws in order to address the most serious problems as quickly as possible. We also keep a record of the effects on the coating process and the identified causes.

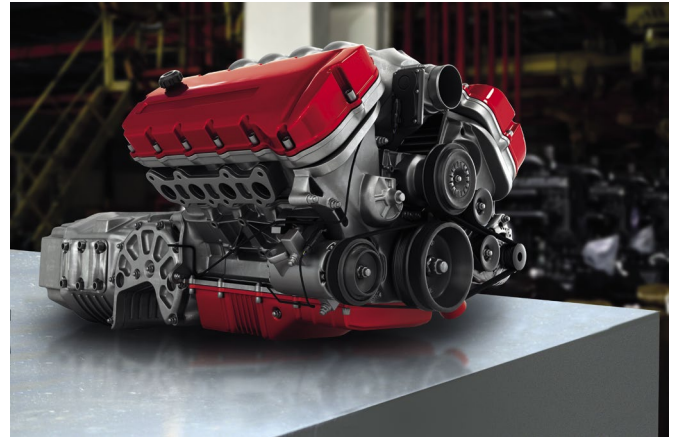
Step 3: We develop an initial company-specific action and optimization concept (short- to long-term) based on the latest state of the art. We first concentrate on easy-to-implement measures which, based on our experience at Fraunhofer IPA, often lead to a recognizable improvement in process stability. The optimization concept also includes measures that may necessitate investments. An initial estimate of the short, medium and long-term measures is made on the basis of a rough cost calculation.

Step 4: Presentation of the overall results and compilation of a catalog of measures (weak points, action to be taken, savings potential). If required, we also draft preliminary concepts for a new painting process or a new paint shop and structure the relevant tasks to create a rough roadmap.

When carrying out the Quick Check on your painting process, we use recognized tools, evaluation methods and suitable testing and measuring instruments which are at our disposal in our institute's research environment. All tests are carried out in line with your specific requirements. The costs incurred are taken into account in subsequent projects as part of the painting process development, such as planning a new paint shop or conducting a detailed analysis to optimize the painting process.

The above-mentioned services usually cost EUR 4,900*.

* The description of services listed here, and the fixed price quoted are non-binding examples. We reserve the right to make any changes. In individual cases, Fraunhofer IPA will prepare a separate offer based exclusively on the "General Terms and Conditions for the Performance of Research and Development contracted to Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. Version 2002/ II".



A practical example from an engine manufacturing company:

Assignment

Quick Check to increase capacity

Current situation

- Assembly of single parts, some of which are pre-coated
- Application of a primer to ensure a uniform color
- Top coat (gray)
- One spray booth for applying the primer and top coat

Solution

- Compile a list of all single components and their pre-coatings
- Analyze claims regarding corrosion
- Draw up a requirements catalog
- Use of light gray spray primer instead of black dip coating for suppliers' pre-coated parts

Results

- Spray primer is no longer required for 50% of all engines. For the remaining engines, the cycle time for applying the primer can be cut by around 30%.
- In 3-shift operation, approx. 50% more engines can be sprayed per day.
- An expansion of the paint shop is not necessary
- Painting costs can be significantly reduced

Summary

By designing parts to make them suitable for painting, by using appropriate materials, and by transferring painting work to the pre-fabrication stage, substantial savings can be achieved.

Let us help you optimize your painting results. Easily and promptly with a Quick Check. Get in touch with us!

Contact

Dr. rer. nat. Volker Wegmann

Phone +49 711 970-1753

volker.wegmann@ipa.fraunhofer.de

Dipl.-Ing. (FH) Metin Kuyucu

Phone +49 711 970-3709

metin.kuyucu@ipa.fraunhofer.de

Fraunhofer Institute for Manufacturing Engineering
and Automation IPA

Nobelstrasse 12 | 70569 Stuttgart | Germany

www.ipa.fraunhofer.de/en.html