



Cobotised finishing can count on increasing interest

22 September 2022, 16:09

Bart Verlinden

Jan Kempeneers

Workpieces often require finishing stages, such as deburring or sanding, to achieve the required final quality. In the COBOFIN project, Sirris is investigating the extent to which these operations can be automated by cobots. The project is at cruising speed and interest from the companies continues to increase.

The COBOFIN project started on 12 January 2021 at the height of the COVID pandemic. Despite this, there was already great interest from companies. This is not surprising, since the finishing of workpieces is a real headache for many companies. These operations are mainly manual (because of the smaller series) and often involve boring, repetitive and dirty work, which the operators experience as additionally burdensome. Classic automation is not an option in most cases, given the variety of products that need to be finished. The aim of automating these processes flexibly by having a cobot assist the operators was music to the ears of many companies.

Six generic cases

The main focus during the first months of the project was on asking the target group of companies in more depth about their specific challenges. From this analysis, six generic cases were selected for further investigation. These cases cover the most common challenges encountered in finishing processes, both in terms of materials (steel, cast iron, plastic, composites, etc.) and complexity

(from flat surfaces to double-curved). Various realistic situations are also covered in terms of processing strategy (number of steps, tools used, etc.). In parallel with this, a benchmark overview was made on possible 'offline robotic programming' (OLRP) tools.

We are currently building a demonstrator for each case in order to evaluate the technical feasibility of cobotised finishing. The cases require various iterations, but the results are certainly promising. The results were discussed in detail during the fourth guidance group.

Do you have any questions? Then don't hesitate to contact us!

To give practical insight into the potential for using cobots in finishing operations for small series, Sirris organises a number of webinars and workshops. During the webinar '[OnLine Robot Programming \(OLRP\) van krachtgestuurde processen met Finishing Copilot van Robotiq](#)' (OnLine Robot Programming (OLRP) of Force Controlled Processes with Robotiq's Finishing Copilot) on 4 October, the possibility of programming finishing processes online with Robotiq software will be demonstrated in collaboration with Gibas.

Authors



Bart Verlinden



Jan Kempeneers