

Pantomime Cleaning Process of Casting Parts using Robotics and Optical-Motion-Tracking (OMT)

*Pantomime Cleaning
Process of Casting Parts
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In the foundry industry, the current method of manual casting cleaning (Gating and feeder system as well as casting flash removed with angle grinder, pneumatic chisel and hammer) is increasingly no longer implementable due to extremely unattractive work conditions and the personnel shortage, or can only be implemented with increased costs or declining quality. The market urgently needs a casting cleaning cell where skilled workers can use their expert knowledge in a familiar way without the need for additional programming skills.

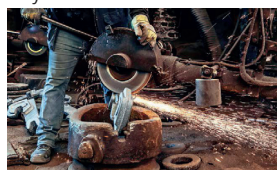
Research hypothesis: »Skilled workers without programming skills can also teach a robot to clean castings.«



manual cleaning is unattractive
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Cleaning process for pantomime casting cleaning

A skilled worker performs the necessary cleaning steps with a much lighter dummy-tool in a clean and quiet environment. These are recorded by the OMT system and automatically translated into robot instructions by software. The actual mechanical cleaning process of casting parts takes place by a robot after cooperative process. By shifting the strenuous cleaning work to the robot, the work conditions become much more attractive, and at the same time, in an aging workforce, a greater supply of personnel can be drawn upon. In addition, the expert knowledge of the existing personnel is utilized and retained, as they continue to carry out the processes with which they are familiar.



pantomimie cleaning is attractive
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Contact

Rui Li
+49 (0)89 350946 133
rui.li@igcv.fraunhofer.de

**Fraunhofer Institute for
Casting, Composite and
Processing Technology IGCV**

Lichtenbergstraße 15
85748 Garching | Germany

www.igcv.fraunhofer.de/en

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