

CLEANING COMPLEX CASTINGS WITH CAVITIES

REQUIREMENTS

Castings are made from a wide range of materials and in all conceivable sizes. Especially in the case of smaller units, accessibility to the inside of the body for cleaning is not readily feasible.

In these instances it is usually a matter of cleaning off fine chips from the machining process, including oil / cooling lubricant and the so-called casting sand.

PREVIOUS TECHNIQUE

Typically, compressed air is used in the hope of completely blowing out contaminants, or ultrasonic cleaning technology is used in suitably sized baths. Both alternative techniques are not considered reliable and are rather an attempt by the user to minimise complaints.

OUR SOLUTION

With the low-pressure hot cleaning method, excellent results are achieved in practice even when cleaning complex cast bodies. These can be ideally cleaned in the parts cleaning level of the devices of the SR family. Even hollows and interior spaces can be reached and rinsed out with the help of various nozzles, such as the flexible nozzle (see accessories), despite the difficult accessibility.

Compared to ultrasonic baths or washing machines, low-pressure hot cleaning is therefore a much more efficient and faster process that is also significantly more cost-effective. Thanks to the low pressure of up to 7.5 or 14 bar, damage-free cleaning is possible without any problems, even on sensitive components.

If necessary, alkaline cleaners with corrosion protection may be added.

In this particular application, tests were carried out at the customer's site, using cast bodies covered with a Makrolon sheet. Cleaning was demonstrated using a flexible nozzle SR-FX in the cavities of the cast body.



1. Cast body closed, before cleaning:
Contamination in cavities not visible from the outside



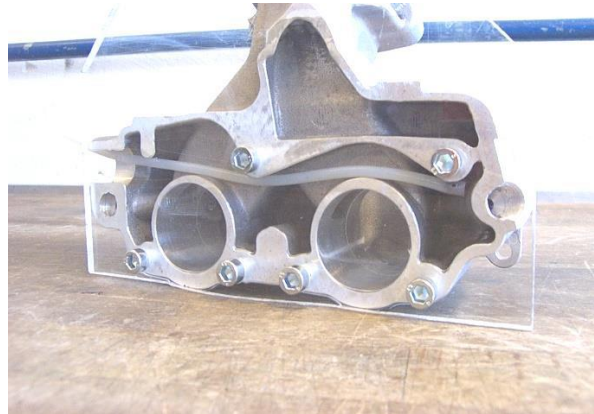
2. Cast body opened, with Makrolon sheet.
Cleaning inside the body with flexible nozzle

YOUR ADVANTAGES

- Efficiency: Contaminants are softened at up to 95°C and removed with minimal pressure.
- Time saving: This results in considerably shorter processing times and higher cleaning quality.
- Quality: Thanks to the flexible nozzle, even hard-to-reach areas, in this case even cavities, can be easily attained.
- Medium: Cleaning with water, if necessary with the addition of approx. 3% alkaline cleaner, or deionised water.
- Environment/chemistry: Therefore minimal use of chemicals, thus environmentally friendly and cost-saving.
- No damage to the workpiece, no rust formation.
- Increased safety at work: No risk of injury, no/low use of chemicals.
- Easy handling motivates employees.
- Economics: Low investment, low operating costs, high efficiency, and top quality.



3. High flushing and cleaning performance down to the chambers systems



4. Result, using flexible nozzle SR-FX:
Perfect cleaning even of the rear chambers