

CLEANING THE INSIDE OF BORE HOLES

REQUIREMENTS

Cleaning a bore from the inside is often a particular challenge with conventional cleaning methods such as washing machines, cold wash basins or ultrasonic cleaning, as dirt cannot be effectively removed from the bottom of deep blind holes or from internal threads. The problem is even more acute with small diameters.

In practice, it is usually necessary to clean off chips, oils, drawing greases and cooling lubricants from machining without leaving any residue. Especially in maintenance, oily contamination often has to be removed from boreholes, internal threads or cavities.

PREVIOUS TECHNIQUE

Often the corresponding bores or workpieces are cleaned with solvent-based chemicals on cold wash tables. This method is laborious, tedious and does not produce reliable results.

In addition, the solvent-based chemicals are expensive and detrimental to the environment, and harmful aerosols are formed.

OUR SOLUTION

Here, low-pressure hot cleaning technology offers a simple, cost-effective and highly flexible alternative. The devices work with low pressure (from 3 to 7.5 or up to 14 bar) and high water temperature (up to 95°C). Thanks to the low pressure, parts are not damaged and the process can be used in the workshop without harming people or the environment.

The cleaning effect results primarily from the high temperature. The combination of high temperature and low pressure together with the right tools allows to clean and rinse blind holes down to the bottom, internal threads and even cavities quickly, efficiently and without residues.



Cleaning the inside of a deep blind hole in a shaft



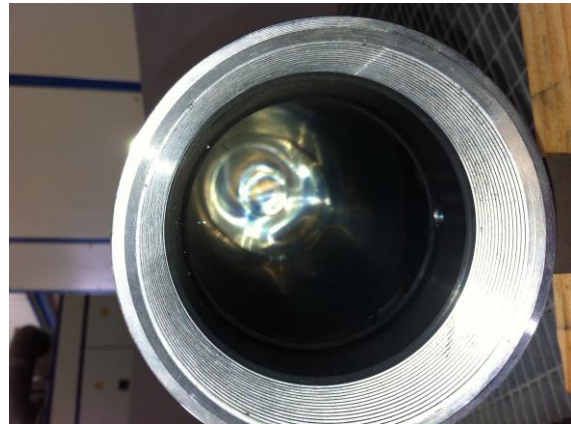
Cleaning the inside of a deep blind hole in a shaft - detail

In most cases, (expensive and environmentally harmful) chemicals can be dispensed with, as the cleaning effect is achieved via the high temperatures.

Flexible nozzles and various lances are available for the internal cleaning of bores. With the flexible nozzles from a diameter of 2.5 mm and in almost any length, even sensitive components with curvatures or narrow passages in the interior can be cleaned. Thin bores can be rinsed out with needle nozzles.

Of course, the process is also suitable for cleaning the outside of the components. Larger and heavier parts can be cleaned on stationary collectors, whereby the cleaning medium can be circulated via our special recycling process and thus reused.

In addition to process-related parts cleaning, the cleaning devices can also be used in maintenance and for machine upkeep. Particularly worth mentioning is the possibility of cleaning machine tools directly with the cooling lubricant of the machine tool.



Hydraulikzylinder – innen gereinigt mit
Niederdruck-Heißreinigungs-Verfahren

YOUR ADVANTAGES

- Efficiency/quality: Fast and thorough cleaning, especially of greasy and oily contamination. With the right spray accessories, problem-free cleaning of demanding shapes, such as internal threads and thin and deep bores down to the bottom.
- Costs: Considerable time savings compared to conventional methods, especially cold wash tables; at the same time often considerably more efficient than e.g. washing machines and cheaper than ultrasound.
- Automation: Easy integration into semi- or fully-automated production processes.
- Mobility: On-site cleaning – devices are mobile and generally self-sufficient.
- Occupational safety and environmental protection, chemicals: No or only very few chemicals are required; this protects the environment, increases occupational safety and reduces costs.
- Universal application of hot cleaning devices: These can also be used for maintenance and servicing, or for cleaning machines and parts.
- Economics: Significantly less cleaning time, no or hardly any chemicals.
- Overall: Comparatively low investment and hardly any running costs, but high efficiency and top quality.

SEE ALSO

- On the subject of internal cleaning: Application report Cleaning complex cast bodies
- Video Lüttge brass instruments (trumpets)