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Chamber Cleaning Combined with Deburring by means of Brushes

A wide range of parts and components to be cleaned is found all over the various industries, among them are vehicle parts, engine components and even parts for the aircraft industry. Due to the complex and variable construction of the cleaning machines several process steps can be realized within one machine.

Cleaning of cam shafts

Due to the CBN-technology the grinding pressure is increased, which generates swarf cuttings at the edges of the cam shafts. In order to prevent the bearing from being damaged by swarf cuttings while the engine is in operation, a deburring of the cam shafts by means of brushes can avoid a flaking of the flashes. All steps needed for the washing programme are done in the chambers, namely deburring by means of brushes, pre-cleaning, after-cleaning and finally vacuum drying.

Automatic adjustment to the different types of cam shafts

Loading and unloading are effected automatically by means of a loading/unloading portal. As the camshafts are picked up on the face by centring tips, they can be turned while they are being brushed. An exact positioning of the cam shaft toward the brush is essential, because otherwise the brush would not be able to touch the outline of the cam shaft. The upstream machine element informs the system control about the cam shaft type, which means that the following cleaning processes can be adjusted automatically to the workpiece without any retooling.

Various process steps in one machine

Before the deburring process takes place, the components are rinsed in order to remove all relevant particles. Due to the preset cycle time two brushes are in use. During the deburring the brushes are sprinkled with the rinsing medium in order to be cooled. After the brushing process the mobile centring tip returns into its initial position and the cam shaft is transported by the portal into the second chamber, where a final cleaning- and drying process takes place according to the requirements.

A longer lifetime thanks to integrated fine filters

In order to enable a permanent discharge of the soiling, all technical options are exhausted. A water circulation system is realized in order to remove the dirt and to obtain a long lifetime. The filtration systems are adjusted innovatively according to the client's demands and the machine conception.

