


Swinging, instead of bathing

Instead of bathing workpieces (in a central cleaning bath) after each work step, executive producer make workpieces swing in the decentralised

 COLI-CLEANER, by thus saving remarkable cleaning costs. The cleaning result can individually be adapted to the specific requirements.

Some time ago an article about Ossberger GmbH + Co appeared in the Regio Press Magazine which was entitled „SMALL FRANCONIAN REVOLUTIONS SINCE MORE THAN 130 YEARS“.

Today Ossberger is the world market leader for hydro power stations of small capacities (up to 2.000 kW). Its PRESSBLOWER injection-blow moulders are exported to all parts of the world. More than 9000 Ossberger® Turbines running in 100 countries are presently producing environmentally friendly energy from water power. PRESSBLOWER injection blow moulders produce hollow plastic bodies of high quality for the plastic industries of the whole world. With its Coli-Cleaner, a cleaning system destined for decentralized workpiece cleaning, the company once again gives proof of its innovation force, presenting a new “revolution“ at the turntec 2004.



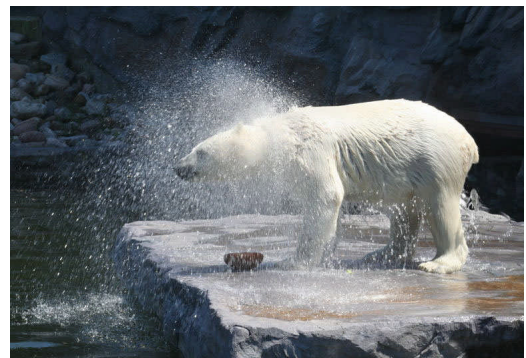
Coli-Cleaner

As this is the case in nature (just imagine a dog coming out of the water and shaking its body) the Coli-Cleaner overcomes the adhesion forces of solid and liquid contaminants that stick to the workpiece by vibrating. Solely by vibrating contaminants are thrown off and can be extracted by suction with only little energy. Here the example given by nature is left: Contaminants are not spread in the room, the workplace remains clean.

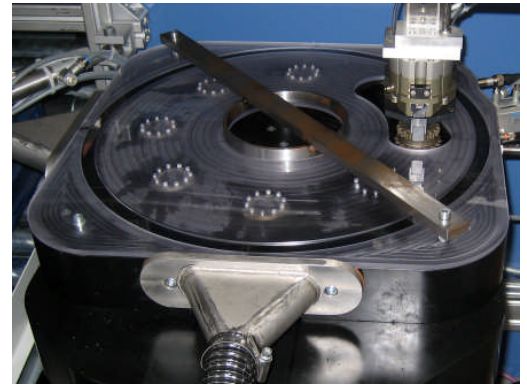
The Coli-Cleaner is composed of three important subassemblies:

- Vibrator
- part accommodation
- suction cleaning

AC voltage is available from the mains at 50 / 60 Hz. The frequency rectifier converts this AC voltage to swinging frequencies of 120 – 600 Hz, transmitting the same to swinging magnets. There the electrical energy is converted into mechanical one. The mechanical energy is transmitted to the swinging plate through special compression springs. Coli-Cleaners of the present generation can handle a mass of up to 25 kg.



A remarkable range of workpieces can be cleaned by the Coli-Cleaner. Vibration frequency and amplitude are adjustable within a wide range. The workpiece accommodation is of great importance, which must conform to the workpiece contour to make sure that during the vibration procedure the air current takes off all particles adhered thereto. For this purpose small boreholes are provided at the part accommodation, producing additional air vortices when air is extracted. The said vortices are also supporting the effect produced by the vibration, removing contaminants at the same time. Particularly in case of rotation-symmetrical parts a well-defined intentional turn of the element can be initiated additionally by a skilful arrangement of air intake and extraction bores.



Example for a part accommodation

The core of the extraction is a customary industrial exhauster with filter and separating device.

The cleaning time conforms to the geometry of the cleaned part, the contaminants degree and the cleaning result which is desired. These times may vary between some seconds and half a minute. A small oil layer still remains on the workpiece to prevent corrosion. The cleaning result is adjustable and reproducible. One further factor for the cleaning time are the cycles of the last and the following machine in the line.

On the whole the Coli-Cleaner offers a compact solution, furthermore it can automatically be integrated into the production procedure. It is not necessary to buy or dispose of dissolvents. The cleaned medium can immediately be returned to the production process. Except of its environmental friendliness and low energy consumption the argument of clean workplaces also speaks in favour of the Coli-Cleaner (no aerosols). The procedure is particularly suitable for rotation-symmetrical parts produced in large quantities. A small oil film remains, whereas cutting oils, chips and grinding remainders are removed completely.

Until now the Coli-Cleaner has been successfully utilized for the cleaning of common rail holders, switching sockets, drills, screws, aluminium wires and for the oiling and degreasing of steering chains. Its use is being envisaged already by well-renowned bearing manufacturers who are planning to reorganise their production.



Fig. 4: Coli-Cleaner for cleaning bush.



OSSBERGER GmbH + Co
Otto-Rieder-Str. 7
91781 Weißenburg / Bavaria

0049 (0) 9141/977-0
coli-cleaner@ossberger.de
www.ossberger.de