

# Sustainability that pays off.

## Less noise with multi-channel compressed air nozzles



Noise reduction and energy saving due to multi-channel compressed air nozzles

By changing to multi-channel compressed air nozzles, NETZSCH Pumpen & Systeme achieves a clear noise reduction by 6 dB. In addition, the reduced line pressure lowers energy costs considerably. The nozzles can be machined on conventional grinding blocks, which gives them a very long service life. The purchasing costs, however, are about 3 times higher than for conventional nozzles.

Before cast parts are coated, the surfaces of the parts have to be cleaned in suitable baths. After the bath, blind holes in particular are purged with compressed air to remove any remaining cleaning agents from the components. At NETZSCH Pumpen und Systeme GmbH, the cleaning basin is located directly adjacent to goods receipt.

The employees blasting the blind holes with high pressure and a standard nozzle do not mind the noise, as they expect the sudden noise level and are protected with suitable personal protective equipment (PPE).

Unsuspecting employees in the neighbouring area, however, can be startled and are significantly impacted by the noise emission. Following corresponding market research and tests on site, we have found a solution for eliminating this problem using noise-reduced multi-channel compressed air nozzles. In addition to reducing the noise by 6 dB, we were able to reduce the pressure in our compressed air lines by 4.4 bar, which resulted in substantial energy savings on the compressor of about 50%.

In addition to health and safety, there were also benefits for the environment thanks to the reduced noise emission and the energy savings. In addition to all this, worn multi-channel nozzles can

# NETZSCH

### Contact:

NETZSCH Pumpen & Systeme GmbH

Contact: Johann Vetter

Head of Integrated Management Systems

Phone: +49 8638 632076

E-Mail: [johann.vetter@netzsch.com](mailto:johann.vetter@netzsch.com)

Internet: [www.netzsch.com](http://www.netzsch.com)

simply be reground on the grinding block, thereby significantly increasing the service life compared to conventional systems, which in turn also saves resources.

Overall, the higher price is offset by the advantages of the multi-channel nozzles. Because we should not forget why we introduced this measure in the first place – for our employees. And they are now clearly more comfortable at their work stations and feel more appreciated.

### Facts:

- Reduction of noise in the workplace by 6 dB
- Reduction of pressure in the compressed air line from 7.4 to 3.0 bar
- Reduction of energy in the overall system by more than 50%
- Employees who are more comfortable at their workstation again

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