

50% more productivity with vacuum handling



Project information

Industry Metal
Sector Sheet-metal processing
Customer Pro Metall Blechverarbeitung GmbH, Achern-Fautenbach, Germany

Application Loading and unloading a CNC punching and nibbling machine

Schmalz products VacuMaster Comfort 750-6 und WKL 6/1000 wall-mounted slewing crane

Customer benefits

- Efficient machine loading
- Better occupational safety
- Handling workpieces without damage
- Single-person handling

The task

Pro Metall needed to find a way to load a CNC punching and nibbling machine with raw sheet-metal and then remove the processed metal parts from the machine table - a task that was previously done manually, usually by two persons and with

the help of a forklift. The whole process needed to become more efficient, more reliable, and needed to involve fewer personnel. Occupational safety was also a concern.

Requirements

- Handling raw sheet -metal with a format of up to 3,000 x 1,500 mm, a thickness of between 1 and 20 mm and a weight of up to 700 kg
- Ergonomic, fast machine loading and unloading that does not damage

- workpieces
- The ability to handle sheets that are oily or have a very dirty surface
- Devices that are wear-resistant and can be operated in multiple shifts

Solution

The vacuum lifting device VacuMaster Comfort 750-6 for handling loads of up to 750 kg. This device is designed for horizontal handling and is manufactured using standard components only. It features a gripper beam with 6 suction plates. These are individually spring-mounted on joints to allow them to reliably handle thin, unstable metal-sheets. The Comfort version also comes with the following additional features:

- Ergonomic operating unit with integrated

pushbutton control of chain hoist and vacuum

- Integrated vacuum pump with energy saving function
- Electromagnetic valve with two-hand-vacuum-off function to protect against unintended release of the load

WKL 6/1000 wall-mounted slewing crane for handling loads of up to 1,000 kg. Its 180° swivelling range and 6 m jib ensure that it can be used in a large working area around the machine.



A complete vacuum handling system comprising a VacuMaster Comfort vacuum lifting device and a slewing wall crane loading a CNC punching and nibbling machine with raw sheet-metal

Customer benefits

- 50% more productivity through reductions in machine downtime and the number of personnel required
- Transporting workpieces without damaging them guarantees high product quality and avoids rejects

- Ergonomic sheet handling protects employees' health and reduces work accidents
- Machine can be operated in two shifts, 5 days a week



The VacuMaster Comfort vacuum lifting unit's ergonomic operating unit