



CASE HISTORY

HANDLING PAPER OR PLASTIC BAGS IN THE CHEMICAL INDUSTRY



CHALLENGE

Workers of a Company manufacturing mixtures for soaps must **handle plastic or paper bags weighing about 25 kg in very frequent and repetitive work cycles**. Manual load handling without any lift assist device is not allowed as it can be harmful for the operator and would imply possible slowdown or stops of the work flow. It is also necessary to avoid that the powder contained in the bags come in contact with the workers' hands to avoid skin irritation; powder is also present in small amounts also on the surface of the bags, therefore **picking and holding the bags with bare hands is not allowed**.

A hoist is not the right solution, due to its fixed speed for the up/down movements and the need for the operator to keep a button pressed all the time. Such features make this device a non-ergonomic nor productive solution.

A pneumatic manipulator is not the right solution as well, because it does allow to lift and position loads in a fast and smooth way as it is, instead, required for these repetitive handling work cycles. In fact the inertia forces typical of a pneumatic manipulator in the direction change, in speed increase/decrease of load displacement along the vertical axis, as well as in load positioning, adversely affect the level of ergonomics and safety for the operator.

SOLUTION

The only solution that could fully satisfy all the above mentioned requirements is the installation of column mounted INDEVA® manipulators, Liftronic® model with a high vacuum pump.

An INDEVA® industrial manipulator, thanks to its electronic control which eliminates all inertia forces, allows for smooth, quick yet precise movements and load positioning.

Very important as well the fact that an INDEVA® Liftronic® L80 allows a vertical excursion of about 3 meters, making it suitable for reaching different pick/release heights.

The INDEVAs feature anti-load release safeties, which prevent the load to fall in case of power failure and consequently prevent risks for the operator and for the integrity of the bag. In case of power failure, the bag won't be abruptly released, but it will remain firmly gripped by the suction cups, while the gripping tool slowly descends down until the load reaches a stable support.

An INDEVA® is a truly auto weight sense and auto balancing lift device and gets adjusted to different weights in an automatic and continuous mode.

This allows the operator to work with lots of bags of different weights without having to adjust the system to the new weight or to pre-select a different setting each time.

See all solutions provided from INDEVA® at <https://www.indevagroup.com/best-solutions-for-material-handling/>

