BUSCH

VACUUM SOLUTIONS

CASE STUDY
BLOCK HOUSE FLEISCHEREI GMBH

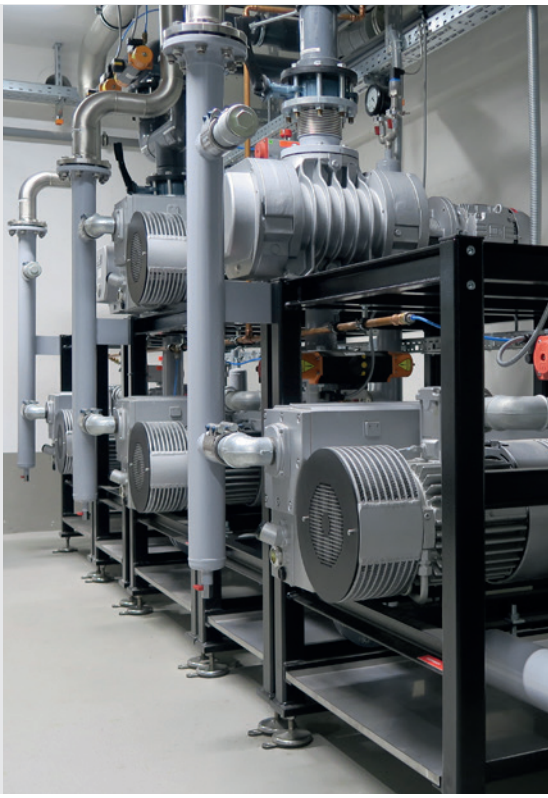
Energy efficiency in **vacuum packaging**

OUR SOLUTION

The new centralized vacuum system has been in operation since September 2015. One vacuum module consisting of one rotary vane vacuum pump and one vacuum booster has a purely stand-by function and is only used if maintenance must be performed during operation. The centralized vacuum system is one floor down, located underneath the production areas in a separate room and is thus completely separated from production.

In addition to saving energy and reducing CO_2 emissions, the Block House butchery had an additional goal for the replacement of the vacuum supply: they also wanted to guarantee high availability of the vacuum supply and remove the vacuum pumps from the production areas to avoid waste heat and noise pollution in the workplace. Furthermore, maintenance personnel should not enter these areas if possible.

Together with the vacuum specialists from Busch, a concept was developed to find an energy-efficient solution that would also ideally eliminate all the other previous disadvantages. The team quickly agreed that central vacuum supply of the packaging machines would be the ideal solution.



A CENTRALIZED VACUUM SUPPLY OF THE PACKAGING MACHINES IS THE IDEAL SOLUTION FOR INCREASING ENERGY EFFICIENCY AND REDUCING GREENHOUSE GAS EMISSIONS.

BLOCK HOUSE

COMPANY PROFILE

- Meat Processing
- Hamburg, Germany
- www.block-house.de

APPLICATION PROFILE

- Packaging machines
- R5 rotary vane vacuum pump
- Centralized vacuum system

The system is operated according to demand. The individual vacuum modules are switched on or off depending on the pressure using pressure transmitters. Thanks to this control and 9.9 kilowatts less energy consumption than the previous decentralized supply, the Block House butchery has 4,356 euros in energy cost savings each year. The energy saved is equivalent to 22.8 tonnes of CO_2 emissions.

Block House is convinced that they installed the most advanced vacuum technology with the new centralized vacuum system from Busch. The modular design makes it virtually impossible for the vacuum supply to fail. The stand-by vacuum module also offers an additional element of security. The installation of the vacuum system in a separate room enables savings of 23.1 kilowatts of cooling output for the cooling unit in the production areas. This corresponds to annual cost savings of 2,541 euros or reduces the CO_2 emissions by 13.3 tonnes. If the energy cost savings of the centralized vacuum supply and the cooling output are added together, it comes to annual total savings of 6,897 euros. Maintenance of the centralized vacuum system is performed once a year by a Busch service technician. By linking the centralized vacuum system to the operational process control system, it can be constantly monitored and possible irregularities can be immediately recognized.

"WITH THE NEW CENTRALIZED VACUUM SYSTEM FROM BUSCH, WE HAVE INSTALLED THE MOST ADVANCED VACUUM TECHNOLOGY" - FRANK DAMAST (TECHNICAL DIRECTOR)