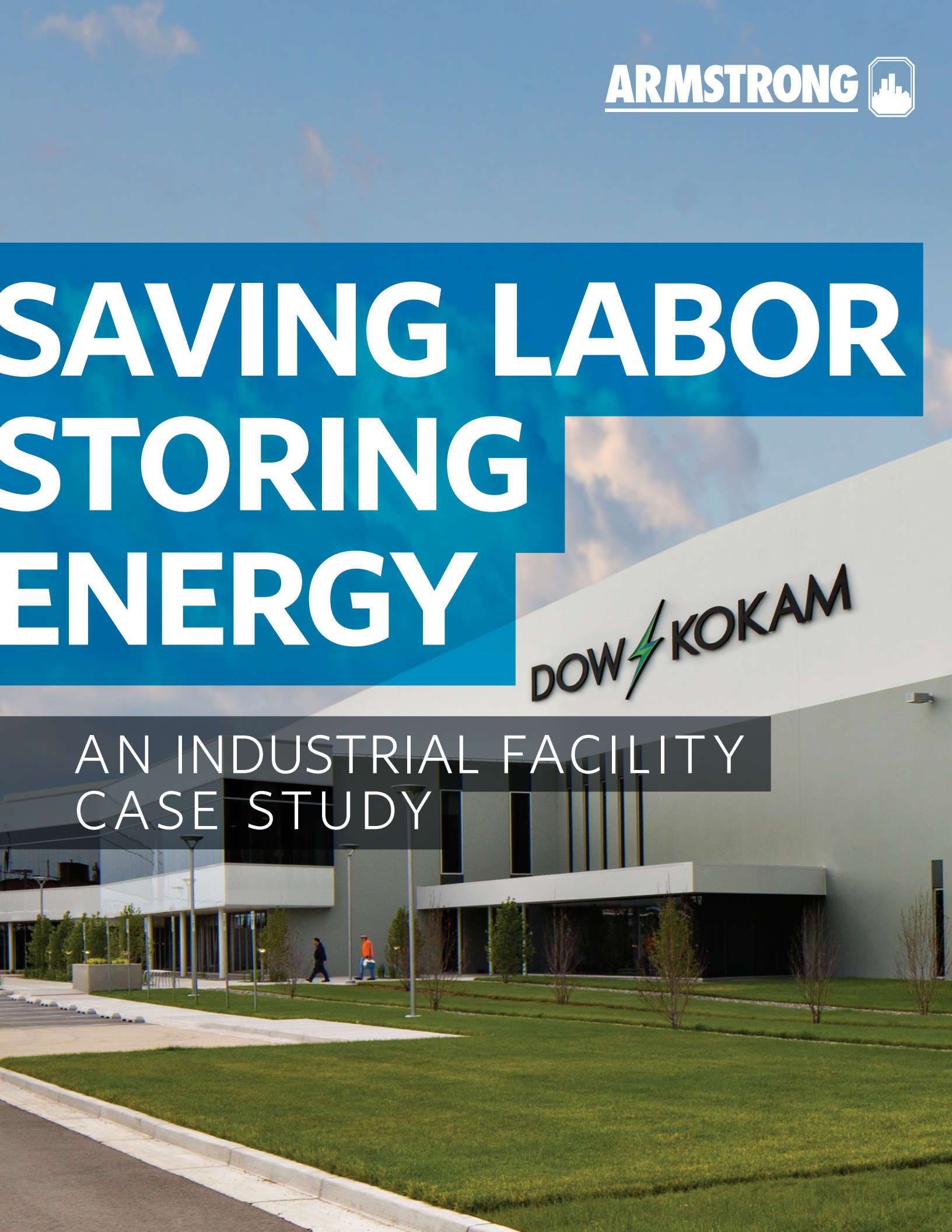


SAVING LABOR STORING ENERGY

DOW  KOKAM

AN INDUSTRIAL FACILITY
CASE STUDY



Armstrong helped Limbach Company and Dow Kokam save money on their process cooling system with VIL pumps that are less expensive to purchase and faster to install.

Dow Kokam

Armstrong Vertical In-Line (VIL) pumps require less floor space for installation, because of the vertical orientation, and the elimination of housekeeping pads.

“We are extremely happy with the pumps used on this project. The 4300 Vertical In-Line pumps are easy to service, installation friendly, and require no alignment.”

Kris Thorne
Vice President
Limbach
Company LLC

Background

Dow Kokam is a joint venture where The Dow Chemical Company is the majority shareholder of Dow Kokam along with Townsend Ventures LLC, TK Advanced Battery LLC, KA Founders LLC and Groupe Industriel Marcel Dassault. The company was established in 2009 to develop and manufacture advanced energy storage technologies and systems for use in the transportation, industrial, energy storage and defense industries.

The new Dow Kokam Midland Battery Park facility is a 400,000 square-foot, large-format cell and battery manufacturing center located in Midland, Michigan. The facility has capacity to manufacture 600 million watt hours of large-format affordable lithium-ion batteries – enough to power 30,000 fully electric or hybrid electric vehicles annually. When complete, the facility will support up to 300 full-time positions.

Michigan Air, the local Armstrong representative, was invited to participate and played a key role in influencing the design of the HVAC system. As the mechanical room was originally laid out, design drawings called for horizontal base-mounted pumps.

Armstrong and Michigan Air worked closely with Limbach Company, the HVAC contractor and engineer of record for the project, to convince them of the cost savings involved with using Vertical In-Line pumps.

After several presentations by Armstrong and Michigan Air, Limbach agreed to approach Dow Kokam and propose the use of Vertical In-Line pumps instead of horizontal.

The proposed design change was approved and Armstrong provided ten 4300 Vertical In-Line pumps to support a 7000 ton process cooling system.

Benefits

The contractor and building owners are very pleased with the end result. The senior project manager from Limbach commented to Armstrong on the easy installation and resulting labor savings. With the use of Vertical In-Line pumps, the mechanical room is less crowded. This makes it easier to access the pumps for maintenance, and also means there is extra space available in the mechanical room to accommodate future pumps as the Dow Kokam facility expands battery production.

Tech-Facts

Mechanical contractor:

Limbach company

Mechanical engineer:

Limbach Engineering and Design Services

Total pump scope:

10 × 4300

2 × 4030

Other equipment:

Two steam to water shell and tube heat exchangers

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