



# YASKAWA

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## Shaker Conveyor with V74X Drive

### Process Brief:

A well-known Michigan equipment manufacturing company builds a variety of machines designed for the processing of seed and grain.

Placed right in the field, the machines allow the user to process the grain on-site. The company has earned a worldwide reputation for designing and fabricating high quality process equipment.

One popular model, a seed and grain cleaner, using an adjustable frequency drive to control the separator screens, works like a shaker conveyor. Characteristics particular to this process include an unusually high amount of regeneration on the drives DC bus due to the screens rapid movement from side to side. This high amount of regeneration, when left unchecked can overload the DC bus and result in an Over Voltage condition. The additional requirement of this specific application was the need for the drive is mounted to the machine exterior.

### The Solution:

Yaskawa Electric proposed its' V74X Drive as a solution for meeting the drive specification for the equipment. Yaskawa was able to demonstrate after numerous visits and extensive field testing, that the V74X Drive's standard parameters could be programmed via its digital keypad to eliminate the over voltage condition and accomplish this without the need to add a dynamic braking resistor. To alleviate environmental concerns, the V74X has an integral enclosure with Nema Type 4X/12 characteristics.

The V74X AC Drive met all of the drive specification requirements and demonstrated that Yaskawa Electric was able to supply the correct product and provide the appropriate technical and engineering support to meet the customer's needs, at a competitive price.