

BUSINESS CASE

Electrification solution for vibratory plates

efa
Industrial Parts & Equipment



"The electrification of our whole product range is for us an inevitable step in the future. We are very happy that efa could provide with their EPC series a **global solution for the electrification process of our product lines from 2.4 to 6 kW**. The collaboration was easy because we had a fixed contact person in their engineering department. We value their **professional and straightforward approach** with focus on time, budget and technical needs."

◆ The Client

A leading producer of vibratory plates who wanted to electrify part of its product range.

◆ The Problem

Our client wanted to respond to the growing market demand of electrified construction equipment. **The goal was to electrify part of its range of vibratory plates all at once.**

The engineering department of our client was faced with the problem that they could not use one electrification solution for all their machines. Each machine weighs between 400 and 600kg and needs between 2.4kW and 6.0kW.

◆ The Challenge

Power: The client's engineers could not find an existing solution with more than 2kW and they had limited data about actual power consumption and duty cycles of their machines.

Improved quality: With the electrification process the overall reliability of the machine should improve

Time to market: The client wanted to present the new product range on an important machine exhibition. So, meeting the deadline was a strict requirement.

Costs: The client needed a calculation of the serial production costs from the beginning of the project.



Quick and easy integration



Technical expertise, a team of 25 engineers with **focus on knowledge transfer**



Continuous operation, thanks to **swappable batteries**



Electrification with efa's EPC Series

- ◆ From 2.4 to 6.0 kW
- ◆ Power requirements covered for light and heavy machines
- ◆ Plug & play
- ◆ B14 standard coupling, other couplings on request
- ◆ No limits
- ◆ Swappable batteries allow continuous operation
- ◆ Machine upgrade
- ◆ Zero noise, zero pollution, zero maintenance

◆ The Solution

efa supplied their **Electric Power Core (EPC)**, a standard solution from its **technical modular system with an integrated suitable e-motor, inverter and battery**. Integrating the EPC as an off-the-shelf solution ensured a quick time to market.

To simplify the design and improve service life, the clutch was removed from the vibratory plate. Due to its versatility of competencies and services efa could also provide a **customized control command**, so that no other players needed to be involved. This way, every interfacing other than mechanical was excluded, too.

As durability was a main interest, an analysis of the components was carried out in cooperation with the supplier partners to **validate the ageing of the solution** after 500 operating hours.

◆ The Result

efa provided with the EPC a **plug & play solution** adapted to the application of the client. **The time between the order and the delivery of a validated and tested solution was only 8 weeks.**

Because knowledge transfer is a part of efa's mission, a **training of the client's engineers on the programming of Curtis Instruments controllers** was organised as well.



Example of application types

Need information ? Contact us : sales@efa-france.com

www.efa-controls.com - 02 47 61 78 50 - 3 Rue Claude Chappe, 37230 Fondettes