

Platform strategy combines company and customer benefits

A desire to improve the effectiveness of product development and end products leads to a process for making highly customised products with all the price and delivery benefits of standard production

When in the mid-1990's Danfoss Drives began to evaluate the concept of technology platforms, the aim was to make development and production of variable speed drives more efficient, speedier and less costly in order to meet customers' needs. The process led to a wide range of additional benefits, including a new way of setting up the factory, and eventually a new generation of variable speed drives.

Identified standard architecture

During the process of developing technology platforms, Danfoss Drives engineers identified what is called a "standard architecture" of a variable frequency drive – basic elements and functions with carefully specified interactions with neighbouring elements and functions.

This was a paradigm shift that eventually influenced all processes in developing, manufacturing, selling and installing variable frequency drives. Traditionally, project teams took one product design from scratch to market. The goal of the standard architecture concept was to develop each element in modular form so that solutions would be useful for future products and needs.

Faster to market

Obviously, this way of developing products requires the consideration of an entire concept rather than a single product. Once a feature is developed, it will be ready for use in a range of different products. If cleverly done, each element will adapt to future technological evolutions.

Developing each element as a module, of course, subjects it to numerous limitations and complications, but in the end it can be used for the whole product series. This means that as the need for even broader product diversity arises, the concept will support market demands in an affordable and effective way. Since every element of the product has precise specifications, it is possible to develop a variety of versions without altering other parts of the product structure.

Customised standard products

In the drives market, and especially with large customers, customised products are in high demand. The modular concept described above provides opportunities to configure each drive specifically for an individual customer but without the high cost of a custom product.

Defining a general architecture also supports rational and effective production. Basic elements can be produced in greater scale and – due to precise specifications – are easily outsourced.

This situation fits perfectly the Danfoss Drives method for production layout: Components are produced in-house or bought from external suppliers for the whole range of products. Basic elements are produced in great numbers – ready to be used in highly customised and specialised products.

Danfoss Drives keeps no stock of complete products. The modules and elements are lined up waiting for the customer to specify his needs. Once the order is received, the customised product is ready, checked and shipped within 24 hours. Even the manual is customised according to the customer's specifications. Texts and illustrations for each feature are ready in common languages in the database and are configured in the same way as the product. Automation ensures that the right manual in the right language is dropped in the right box on top of the right drive – even if it is a one-of-a-kind drive produced and sold.

Variety and familiarity

But even if a customer has a wide range of drives needs, he will enjoy the familiarity of the series. Once developed, a facility will be reused, and everyone that handles the products, including electricians, users, design engineers, commissioners or OEM's will recognise it.

Software and hardware elements can be used in different drives and the need for spare part inventory is diminished. Upgrading is supported by the platform strategy, as most of the modules can be replaced individually. The customer is free to buy according to present needs, sparing his resources until future needs require an upgrade.



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