

“Open Motion Control” – openness extends to drive technology

The much publicized openness in control technology is customary at Beckhoff: from the hardware and software support of all common fieldbus systems to open PC-based control technology and the development of customer-specific solutions, Beckhoff's open control philosophy is reflected in all business areas.

It is therefore only consistent that we should also offer our customers openness in drive technology. Depending on the area of application, many mechanical engineering companies



Christian Mische, Product Manager, Drive Technology

use very special motors: this could be a milling spindle in a wood-working machine, a specially geared motor in a high-bay warehouse, a washdown motor in the food industry or a motor for the area subject to explosion hazards in a chemical plant. All of these motors are tailored precisely to a special task, for example, to produce a perfect milling result or to polish without streaks; or they fit in the opening provided on the machine due to very specific dimensions. These are all reasons for the mechanical engineer to use precisely this motor. In addition

to that, there is the case where a user wishes to use Beckhoff drive technology without changing the mechanics, because they use special sizes of flange and shaft.

Beckhoff has developed the AX5000 Servo Drive series with a multi-motor and multi-feedback system for these customers. Whether it is a three-phase induction motor or a high-end linear motor; whether it is a standard servomotor or a high-frequency spindle; whether it is a torque motor or a linear actuator – regardless of the type of feedback system the motor is equipped with, the AX5000 can drive these motors.

The AX5000 Servo Drive series has been designed for worldwide use in single- or multi-axis applications. The wide voltage range of 100 – 480 V AC provides the flexibility for virtually every mains supply network in the world. The development of the AX-Bridge provides further openness in machine design: single- or double-axis drives are mounted in the direct vicinity of the motor in order to save cost-intensive motor and feedback cables; by means of snapping on the AX Bridge, a multi-axis system is created with DC-Link coupling and integrated brake energy management.

We presented the latest expansion of our AX5000 series for the first time at Hanover Fair 2009: the EtherCAT drives have been supplemented with six versions featuring higher rated currents of up to 170 A (see page 18). The 120 kW power packs can be used as replacements for hydraulic drives or as the main drives in machine tools or printing machines.

Challenge us with your special drive requirements!

Christian Mische
Product Manager, Drive Technology