

The solution for your individual drive system

# FUXX

## Ventura

**FuXX** Pilot



**FuXX** Control



**FuXX** Drive



# Fuxx Pilot

Ventura IPC and motion software

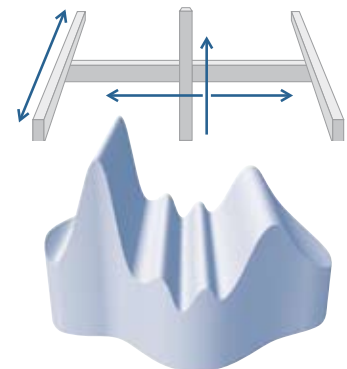
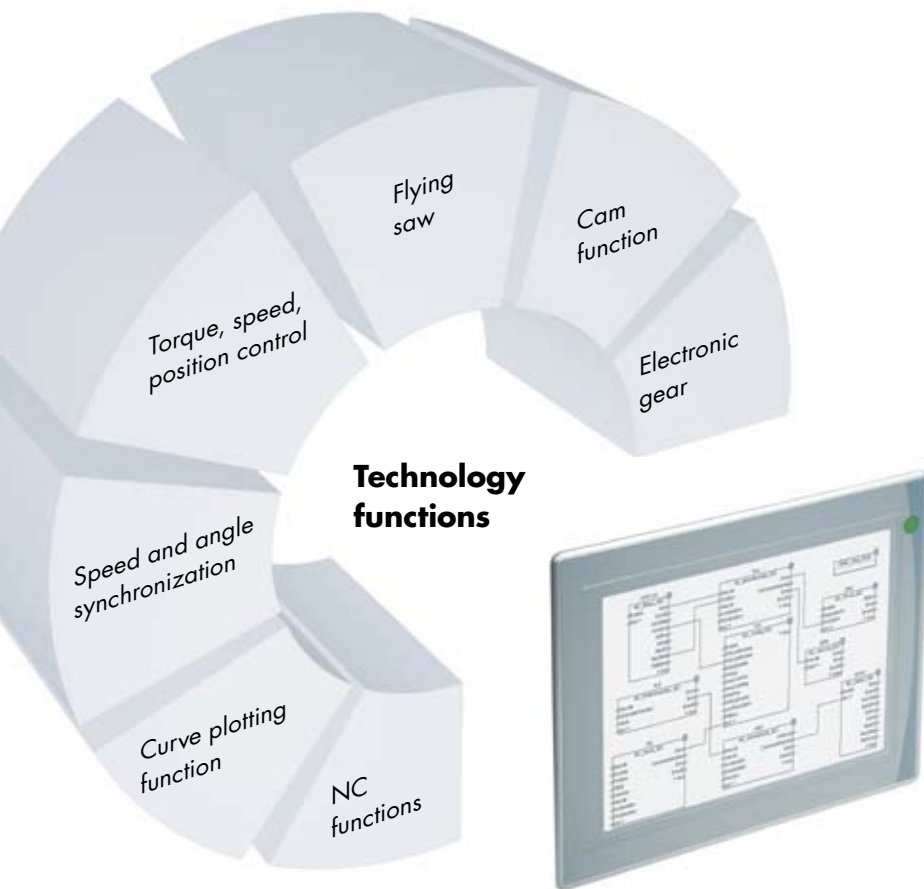
The motion software **Fuxx** Pilot is easy to integrate into existing controller concepts and is based on CoDeSys, the hardware-independent IEC 61131-3 programming system under Windows® for creating controller applications.

The hardware and software are harmonized throughout to reduce the complex programming workload for drive applications significantly. Sophisticated drive application projects can now be taken on even without expert knowledge.

The programming workload for single- and multi-axis functionalities is reduced thanks to:

- Cam and contouring editors,
- Motion Control Libraries,
- type-specific parameterization and diagnosis programs.

Existing visualization modules support fast commissioning of drives.



## Technical data - Ventura IPC

- Scalable processor output (300 MHz - 1 GHz)
- No rotating mass memory
- Fanless operation
- 24 V power supply
- Expansion socket point
- Interfaces: 2 x USB, 2 x Ethernet, 2 x COM, CANopen
- 2 CF card drives or hard disk
- Display connection per DVI
- Short boot times
- Operating systems: Microsoft® Windows® CE.NET/ Microsoft® Windows® XP embedded



## ► Harmonized software tools

### Parameterization and diagnosis program

- Simple setting of all controller parameters
- Clearly laid out display of operating parameters, such as speeds, currents, torques, status displays, error messages etc.
- Extensive online help (context-sensitive)
- Automatic user guidance on initial operation
- Graphic display of structures
- Oscilloscope function

### Interpolating multi-axis motion program

In conjunction with the KUNHKE Ventura IPC, ARS-series drive controllers can execute interpolating multi-axis movements such as cam, contouring control or NC functions.

To do this, position target values are predefined in a fixed time grid. The servo position controller then interpolates the data values between two support points autonomously. Communication is normally via the EtherCAT® field bus. PROFIBUS, CANopen and SERCOS are available as further interfaces.



# Fuxx Control

Drive controller

The **Fuxx** Control servo position controllers are intelligent servo inverters with extensive parameterization and expansion options. They can be flexibly adjusted to numerous applications of various types. **Fuxx** Control units are drive controllers that can be operated with CoDeSys-supported hardware and software (MC modules and PC tools).

The following are presently supported:

- **Fuxx** Control 683
- **Fuxx** Control ARS
- **Fuxx** Control DIS-2
- **Fuxx** Control BG\*  
(\*in preparation)



## Compactness

- Smallest dimensions
- Directly alignable
- Full integration of all components for control and output unit, including RS232 and CANopen interface
- Integrated brake chopper
- Integrated EMC filter
- Conforms to current CE and EN standards without additional external measures

## Integrated CANopen interface

- Integrated CANopen interface
- Protocol per CANopen standards DS 301 and DSP 402
- Includes "Interpolated Position Mode" for multi-axis applications

## Universal motor feedback interface

Integrated universal encoder analysis for the following feedback systems:

- Resolver, high control quality through very high-quality sensors
- Incremental encoder with/without commutating signals, absolute-value device with HIPERFACE, high-resolution Heidenhain incremental encoder, absolute-value device with EnDat

## ▶ Power range 50 W to 25 kW

### Motion Control

- Operating mode as torque, speed or position controller
- Acceleration as optimum-time trapezoid function or as shock-free sinus function
- Speed and angle synchronization

### Motor variants

- AC servo motors, synchronous linear and torque motors
- Brushless EC motors
- Direct current motors

### Field bus and expansion modules

- CANopen, PROFIBUS, SERCOS, EtherCAT®
- I/O module, 8/8
- Service memory module

# Fuxx Drive

Motors

The **Fuxx** Drive servo motors meet the highest demands in terms of dynamics and precision. Different sizes and lengths offer the right torque for almost any application. Implementation of different encoder systems or integrated holding brakes is possible at any time.

All drives that can be operated with CoDeSys-supported hardware and software (MC modules and PC tools) are suitable for **Fuxx** Custom Drive.



Fuxx Drive SH



Fuxx Drive SH with DIS-2



Fuxx Drive BG/EC



**Fuxx** Custom Drive  
EC motor with special gearbox,  
maximum torque 120 Nm

### Standard types

- **Fuxx** Drive BG/EC  
(small DC motors 24 - 60 V DC)
- **Fuxx** Drive SH, small servo  
(24 - 60 V DC)
- **Fuxx** Drive SH, servo motors  
(230/400 V AC)

## ► Torques from 0.05 to 120 Nm

### Small drives/positioning drives

DC/EC motors 24 V DC

- Up to approx. 1 Nm
- CANopen DS 402
- EtherCAT®

### Small servo

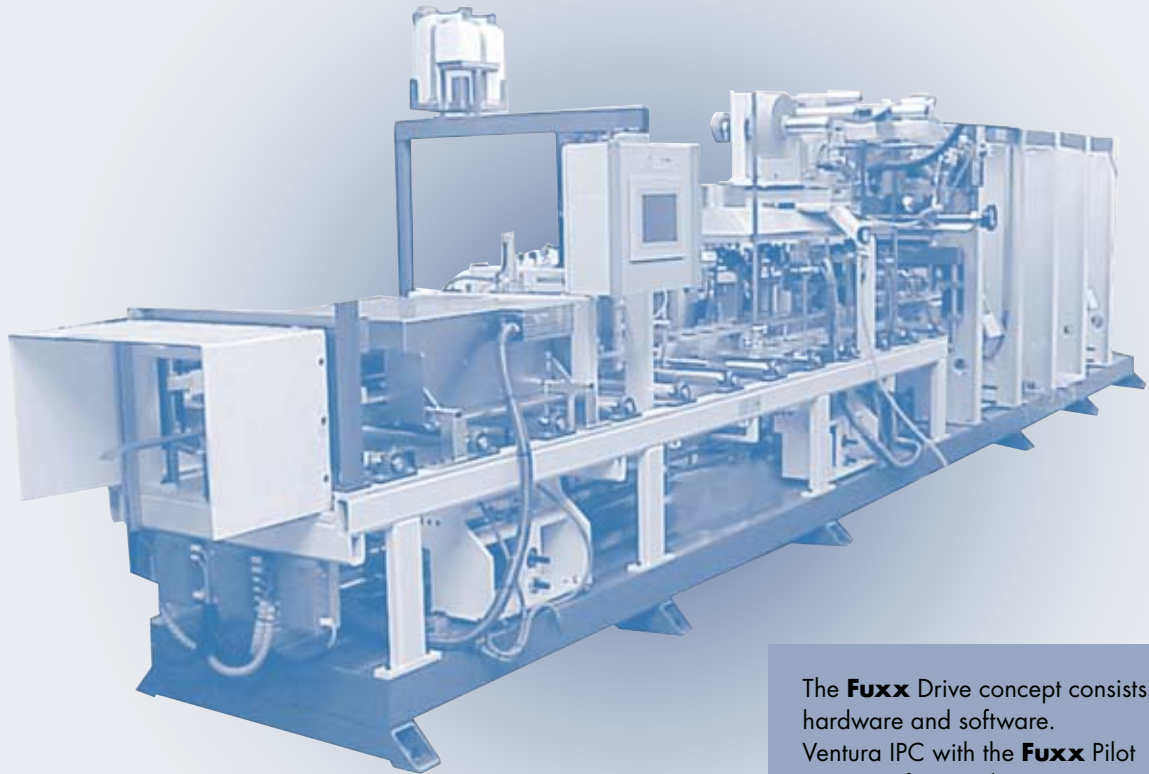
AC servo motors 24/60 V DC

- Up to approx. 3 Nm
- CANopen DS 402
- PROFIBUS DP
- EtherCAT®

### Servo motors

Servo motors 230/400 V AC

- Up to approx. 100 Nm
- CANopen DS 402
- PROFIBUS DP
- EtherCAT®



The **FuXX** Drive concept consists of hardware and software. Ventura IPC with the **FuXX** Pilot motion software, the **FuXX** Control drive controllers and the **FuXX** Drive motors, that is motion programming that runs.



## FuXX Pilot

### Application example

The slot PLC in the Ventura+, programmed with CoDeSys, controls the world's first automatic profile sheathing machine. Menus on a Ventura touch-panel in conjunction with a database system guide the user.



## FuXX Control

Up to 40 axes can quickly and easily be set up by using the **FuXX** Drive concept. This method reduces set-up times to a precisely defined and so far unprecedented minimum.



## FuXX Drive





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