D571C

CNC for Retrofit of Synchronous Running Cutting-To-Length Devices (Flying Saws)

The CNC D571C was designed to upgrade facilities with older OPTRONIC controls D115, D141, D151, and D171. The interfaces of the D571C are mostly compatible to the control to replace. With the existing mechanics and only minor adjustments to the existing electrical equipment, a state-of-the-art system functionality can be achieved.

In addition, the basics for the realization of previously impossible high-level functions like process data management, remote monitoring, and network integration are available.

The CNC D571C is based on the CompactPCI system D500, and the operating station E3000.

CNC D115 and CNC D141

Controls of the series D115 and D141 were put into operation in the years 1982 to 1992, and 1984 to 1997, respectively.

From 1990 to 1999, controls of the series D151 with operating stations E102 came into operation, thereafter controls of the series D171.

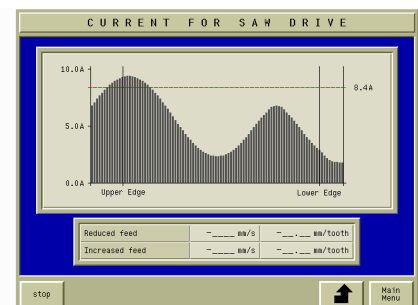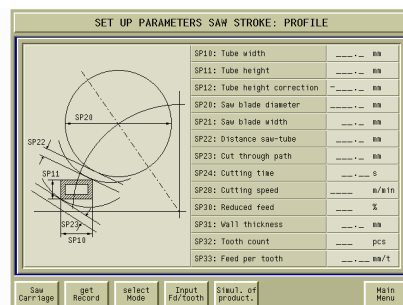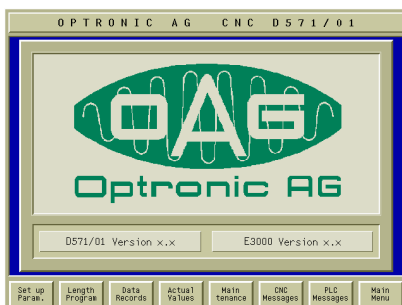**CNC D151 with operating station E102**

CNC D571C Features

- Closed loop position and speed control for the saw carriage to enable position and speed synchronous driving with the cut-off point.
- Closed loop position and speed control for the saw stroke with programming of the upper and lower position for the cut, by use of the geometry (saw blade diameter and material cross section) or teach-in.
- Adaptive control of the motion-sequences in order to prevent the drives from damage and to optimize the cycle time.
- Fault detection, fault tracking, and position accurate fault marking. Sorting out of faulty pieces by use of various fault criteria.
- Residual length optimization and scrap minimization.
- Digital and analog outputs used as subsidiary signals for plant control.
- Programming of the lengths and quantities to be manufactured.
- User-friendly operation, powerful visualization software.
- Testing mode with simulation of control system external components (PLC, drives, etc.) for commissioning support and problem analysis.
- Simulation of the production (virtual run of the production process) to determine cycle times, to optimize parameter settings, and to test alternative production data. The simulation can be executed while running normal production.
- TCP/IP networking. Data exchange with Windows and Linux computers by use of the protocols FTP, SMB, and NFS.
- Optionally with data base to store process data.
- Optional with integrated modem for remote monitoring purposes

Operating Station E3000

The D571 is completely parameterized by use of the operating station E3000. The E3000 also serves to backup and restore machine constants and data sets. The user interface is implemented as simple as possible, so that it is easy to use by the operator. The E3000 is equipped with eight softkeys, four cursor keys, and a numeric key pad.