10/S Light CNC

>> **10/Series high-performance compact CNC**

The OSAI architecture incorporates a series of products, combining simple and cost effective hardware with high-end performance. The complete version has been called "**10 Series Light**" to represent this concept. This product line is characterized by an up-to-date PC technology hardware platform which runs our proprietary multi-tasking, real-time, Operating System. The whole software environment and all available tools remain fully compatible with the other products in the OSAI 10/Series Family, this version being specifically optimized to offer the best performance with OSAI OS-Wire Digital Package.

The **10/S Light** family gives a choice of two different architectures:

♦ **10/510 Light**: a black box, network connectable CNC, available in two versions: **10/510S Light** and **10/510i Light**, that differ only in CPU Power.
In addition to the optimum architecture, **OS Wire** interface for Axes and I/O, this version also allows different analogue or digital axes cards and many alternative I/O fieldbus to be used. It also allows a choice between Solid State or Hard Disk mass storage. This makes the 10/510 Light the most flexible solution available. OSAI **WinMedia** range of intelligent operator panels is the most appropriate user interface, developed specifically for this product.

♦ **10/110 Light OS-Wire**: a single unit, integrating 10.4" TFT LCD Screen, CNC CPU, solid state mass storage, 48 Inputs, 24 Outputs and a OS-Wire Interface for up to 6 Axes.

The 10/S Light family is best integrated in the OS-Wire Architecture, which includes I/O devices, available in modular or compact version, **OS^3** Family **Digital Servo Drives** and **OS^3 brushless Servo Motors**. This architecture, thanks to the high throughput **OS-Wire bus**, provides a truly flexible and powerful global solution to highly demanding, cost effective CNC applications.
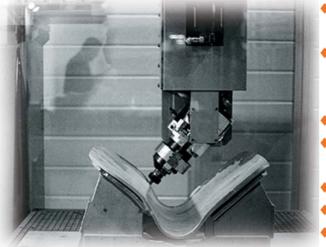
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>> The OSAI **10/S Light**, just like all CNCs in the 10 Series Family, is based on a sophisticated Real-time Operating System, allowing many powerful features including the following:

♦ Multiple CNC Process Management (up to 20 Processes).

♦ Multitasking Integrated-PLC execution. The PLC programming environment, **WinPLUS**, is a **ISO 6-1131-3** compliant tool, to develop and debug machine logic in the Windows environment, and the execution in real-time on the CNC CPU.

♦ Customization of the real-time environment of the CNC, developing executable code in C-Language to be executed on-board and interfacing all system routines and resources through specific **DLL libraries**.

♦ The Operator Interface can be "semi-graphical" (on the 10/110 Light) or can be run in Windows environment (on 10/510 Light), thanks to the **Provideo** environment of the **WinNBI** software, which also allows the fully graphical screen layouts, with animations, to be customized or by developing Visual-C code via a complete set of DLLs.

♦ **WinNBI** software also integrates graphical Windows-environment tools for all development activities, commissioning and maintenance, through multi-CNC network connectivity with Ethernet.

Of course the 10/Series Light CNC offers the same advanced CNC features as the rest of the 10 Series family of controls, including the following, available as a standard or as options:

♦ Standard ISO programming plus a optional extended instructions set (**ASSET**).

♦ Multiple kinds of Interpolation and axes geometry: Linear, Circular, Helical, Master/Slave, **Electronic Cam**, **Gantry (split) Axes**.

♦ Tool center point programming (**TCP**).

♦ **High Speed cutting** algorithms with Polynomial Interpolation approach.

♦ Configurable multi block **Look Ahead**.

♦ **Jerk control**.

♦ Complete 3D roto-translations.