

Numerical Control

DNC 600S

The DNC 600S numerical control with 2D graphic display is specifically designed for sheet metal working. Depending on the software installed, it can be used for synchronized or non-synchronized press-brakes, of up-stroking or down-stroking type (see list of versions below).

The standard version of the DNC 600S numerical control can control up to 4 axes, of which two are synchronized hydraulic axes, specifically designed for press-brakes. The large monochrome screen and a simplified keyboard with large keys make the DNC easy to program.

The software allows the machine manufacturer to configure axes, inputs/outputs, and auxiliary functions according to their needs.



Versions

DNC 600S PS, PSS Numerical control for synchronized press-brakes. Configurable from version PS, the version PSS is designed for single-cylinder presses.
Max. configuration: Y1-Y2, X, R, or other combinations (max. 2 motor axes).

Pressure and crowning control as standard

DNC 600S PC Like the DNC 600 PS, but for press-brakes with mechanical (or hydraulic) stops and beam control by means of a linear encoder. Max. 3 motor axes.
Max. configuration: Y0-Y, X, R, or other combinations (max. 3 motor axes).

Pressure and crowning control as standard

DNC 600S P Like the DNC 600 PC, but without linear encoder beam control
Max. configuration: Y, X, R, or other combinations (max. 3 motor axes).

Pressure and crowning control as standard

Order information

DNC 600S Panel	S-DNC 604S-PS/P
DNC 600S Box	S-DNC 604S-PS/B (including handle)

Axes and auxiliary functions for press-brakes

All features listed here are supported and can be configured in the standard software supplied with all numerical controls.

The number of features that can be installed on a machine depends on the number of axes and inputs/outputs available in its hardware.

Y1 – Y2	Synchronized axes for the beam (servo-valves, proportional valves). Should current output be needed, this would require the MSV 400 accessory, an external amplifier to be mounted inside the electrical cabinet (see data sheet of MSV 400).
Yo – Y	Press with mechanical stop: Yo = beam position measurement. Y = management of the depth stop.
X, X1, X2	Main backgauge axes.
X1 ABS, X2 REL	Secondary gauge axes in absolute or relative mode.
R, R2	Backgauge height adjustment axes.
Pressure Crowning	Voltage output (0-10VDC) for pressure valve control. Voltage output (0-10VDC) for adjustment of hydraulic crowning. Should current output be needed, CYBELEC recommends the MVP 100 accessory, an external amplifier to be mounted inside the electrical cabinet.
F1 to F5	Configurable auxiliary functions (possibly, the number of AFs may be limited, depending on the type of function and management). Voltage output (0-10VDC) or 24VDC digital outputs, with or without position control by means of a potentiometrical position transducer. Special controls for gauge fingers, bending aids, die movement.
Languages	Choice of 3 languages for the operator

The machine manufacturer may install a combination of up to 3 languages picked from the list below:

French, German, English, Chinese, Italian, Danish, Swedish, Finnish, Norwegian, Portuguese, Dutch, Spanish, Czech, Polish, Russian, Slovenian, Serbian, Turkish

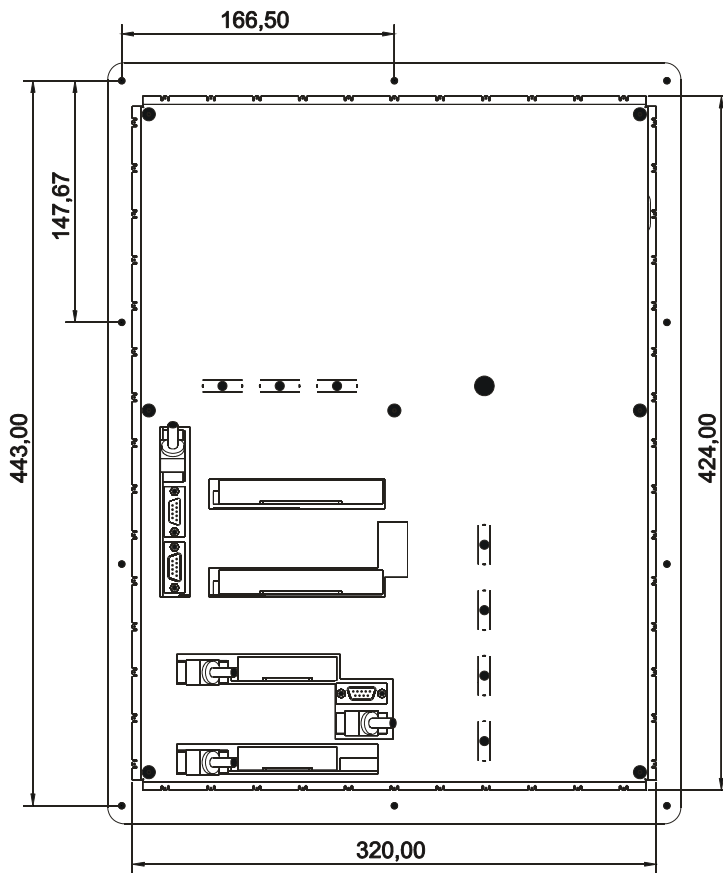
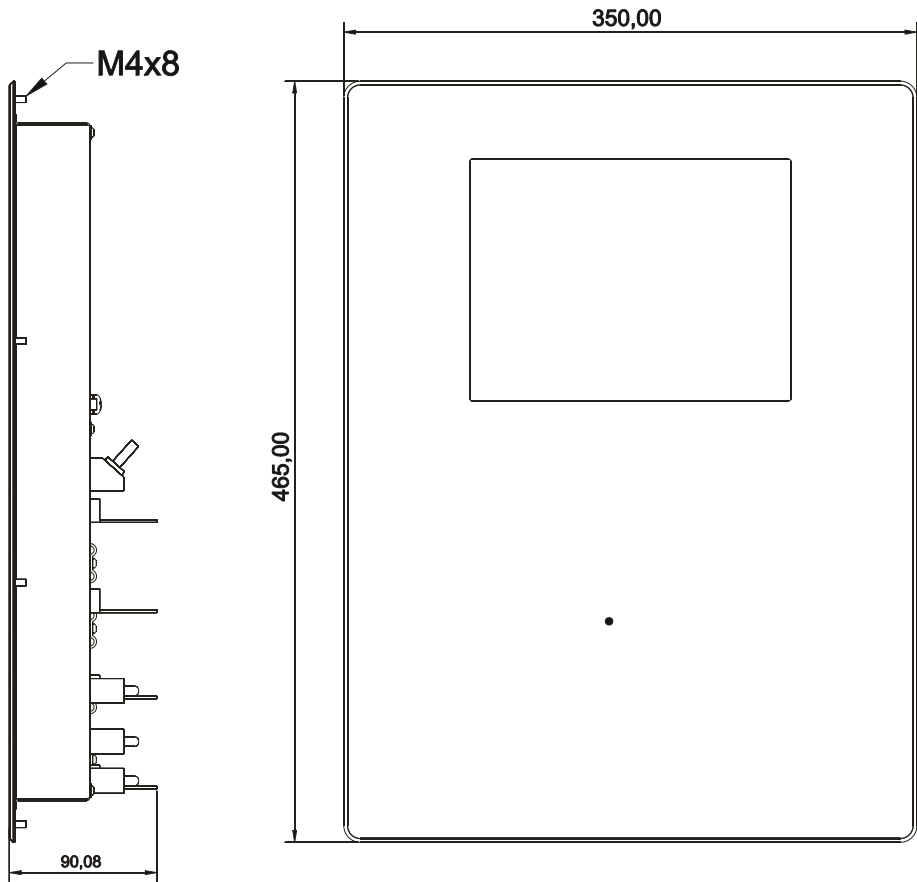
Standard characteristics

Keyboard	Keyboard with large keys.
Screen	Monochrome graphic LCD (STN) 9" screen
Processor	Multiprocessor design using ASIC and SMD components. This allows high integration and ensures great reliability.
Memory	Internal SRAM memory. FLASH memory with possibility to update the software via RS232
Backup	CYBACK program for external backup via RS 232 Internal backup capability
Axes	2 N2X axes with high speed counting (250 Khz) with PID regulator and programmable resolution. Conversion Inch/mm, TON/TONS, etc.
Power supplies	DNC: + 24 VDC (min. 18 – max. 35 VDC) max. 1 A (DNC) 20 W. Electrical cabinet: + 24 VDC \pm 10% for the digital inputs/outputs.
Encoder inputs	Line driver. i On this DNC, the inverted signals are compulsory.
Power supply for encoders	5 VDC (supplied by the DNC) max. 900 mA for all encoders.
16 digital inputs	Optocoupled inputs 24 VDC stabilized \pm 3 %. Optocoupled short circuit proof outputs. Source 24 VDC max. 0.3 A / output.
4 analog inputs	According to configuration 0-5, 0-10, 0-24 VDC.
Voltage outputs (axes, functions)	0-10 VDC output impedance $Z_{out} < 100 \Omega$, load $Z_I \geq 10 k\Omega$.
Serial port	1 RS232-port (J5)
Temperature, pollution level, relative humidity, and height during work	Min. 5° Celsius, max. 40° Celsius. Pollution level 2. Relative humidity (10 to 85% non condensing). Max. height 2000 m.

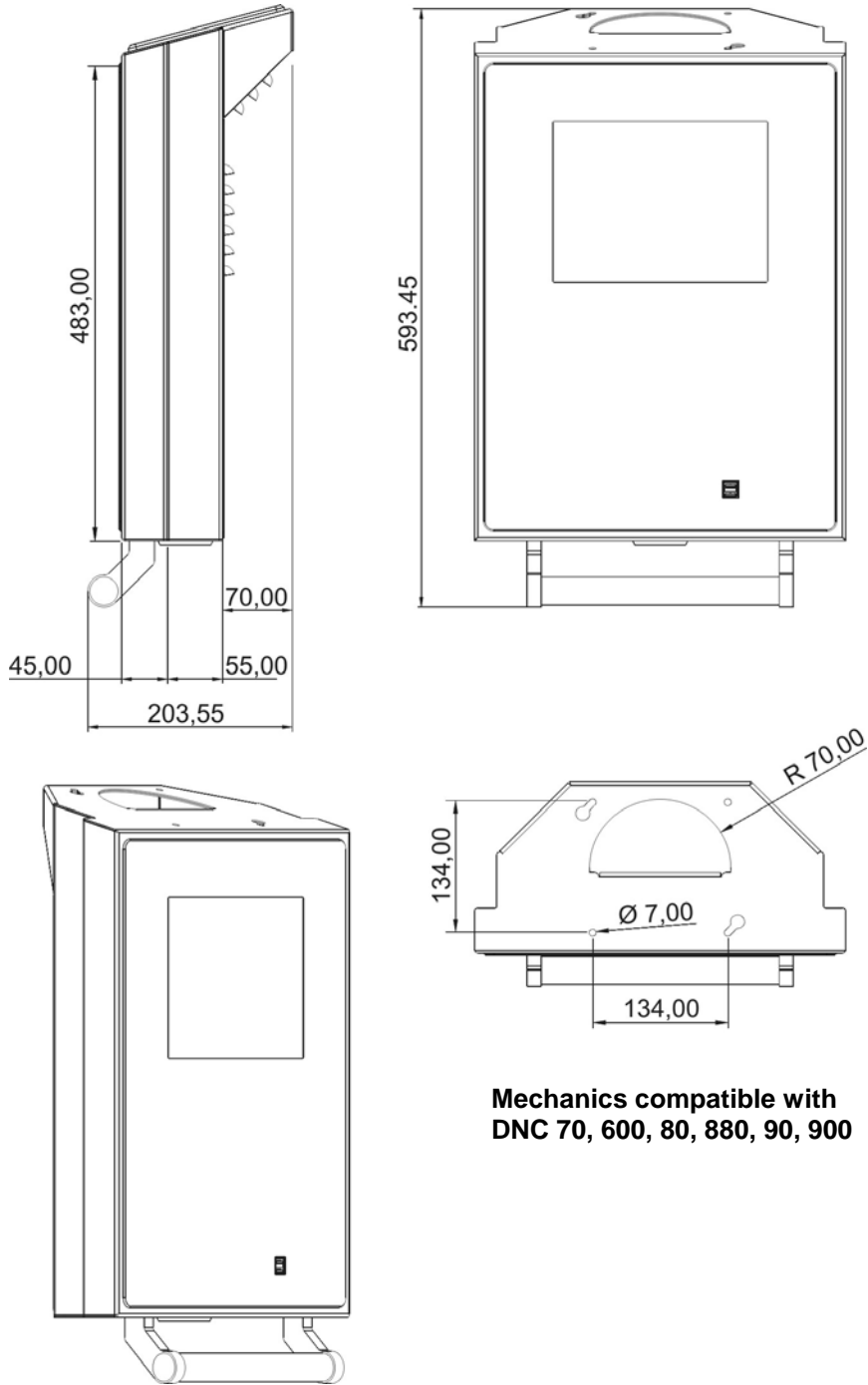
EC Directives

Directives	Our numerical controls comply with the EC Directives EN 61000-6-4 EN 61000-6-2
------------	--

Panel Design



Box Design



Auxiliary Box (Option)

