# DATA SHEET

**CYBELEC®**

*INFRANOR GROUP COMPANY*

**Numerical control for Press**

## VisiTouch 19
## VisiTouch 19 MX

VisiTouch 19 is an outstanding numerical control for press-brakes composed of two main hardware elements:

- A programming console with 19" modern streamlined glass surface touch screen, generally attached to a swiveling arm.
- A Numerical Control in an all-in-one housing, placed inside the electrical cabinet, with analog and digital I/ Os, sufficient to control 4 axes, typically Y1, Y2, X and R. For more complex machines, additional axes and I/O can be added via two CANopen® or one EtherCAT® field buses.

VisiTouch 19 is available in two versions:
- VisiTouch 19 with graphical profile drawing (Touch Profile), precise 2D program and 3D visualization
- VisiTouch 19 MX with 3D visualization, 3D import and full automatic solutions.

In addition to all the features available to control simple as well most sophisticated press brakes, VisiTouch offers also an open system allowing customization.

## Main CNC and HMI features

### Main features

Based on CybTouch software with a very user friendly HMI thanks intuitive programming and an ease to set up with dedicated wizards (auto-tuning).

All kinematics available for X, Xrelatives, Xslave, R, Rslave, and Z axes. For Back and Front multiples gauges. For bending aids.

Axis control through CANOpen with wide configuration capabilities.

Open system through customizable «User Cycles» and plug-in software modules.

Customizable User buttons for the machine operator.

### High-end features

Full 3D visualization and simulation.

Parts management with DXF flat pattern and 3D format files import.

Automatic solutions of complex parts: automatic bend sequencing, gauging, tooling and auto segmentation.

Running under Windows 10 for multitasking and networking.

All bending aid kinematics available. Back and Front multiples sets.

Angle measurement.

### Software open features

Interactions with the beam cycle.

Custom auxiliary functions. integration based on «UserCycles» for real time part and on plug-in for HMI part.

Custom User buttons.

| TFT screen | 18.5'' wide TFT 16:9 |
|---|---|
| Resolution | 1366 x 768, 24 bits (WXGA) |
| Touch screen | Multi-touch 10 fingers |
| Operating System | Windows 10 |
| CANopen compatible drives | Baumüller, Delta Electronics, Infranor, INVT, Schneider, etc. |
| Ethercat compatible drives | Delta Electronics, Infranor, Kollmorgen Europe Gmbh, OMRON, Panasonic, Yaskawa Electric, SanyoDenki Co., etc. |
| Security Systems Compatibilities | Fiessler FMSC, Fiessler FMSC Com, Fiessler FPSC, LazerSafe PCSS, Nuova MCS, etc. |
| USB ports | 1 x USB 2.0, 0.5 A current capability each |
| Power Supply | +24Vdc  @ 0.48A max. |
| Seal | IP65 - front side only |
| Handle | Included |
| Operating conditions | Min. 5° Celsius, max. 40° Celsius. If the ambient temperature approaches or exceeds 40° Celsius, it is advisable to install special ventilation, or even air-conditioning. Relative humidity (10 to 85% non-condensing). |
| EC Directives | IEC 61131-2 |
| Languages | Chinese (simplified and traditional), Czech, Dutch, English (reference language), Finnish, French, German, Italian, Polish, Portuguese (Brazil and Portugal), Russian, Slovenian, Spanish, Swedish, Turkish. |

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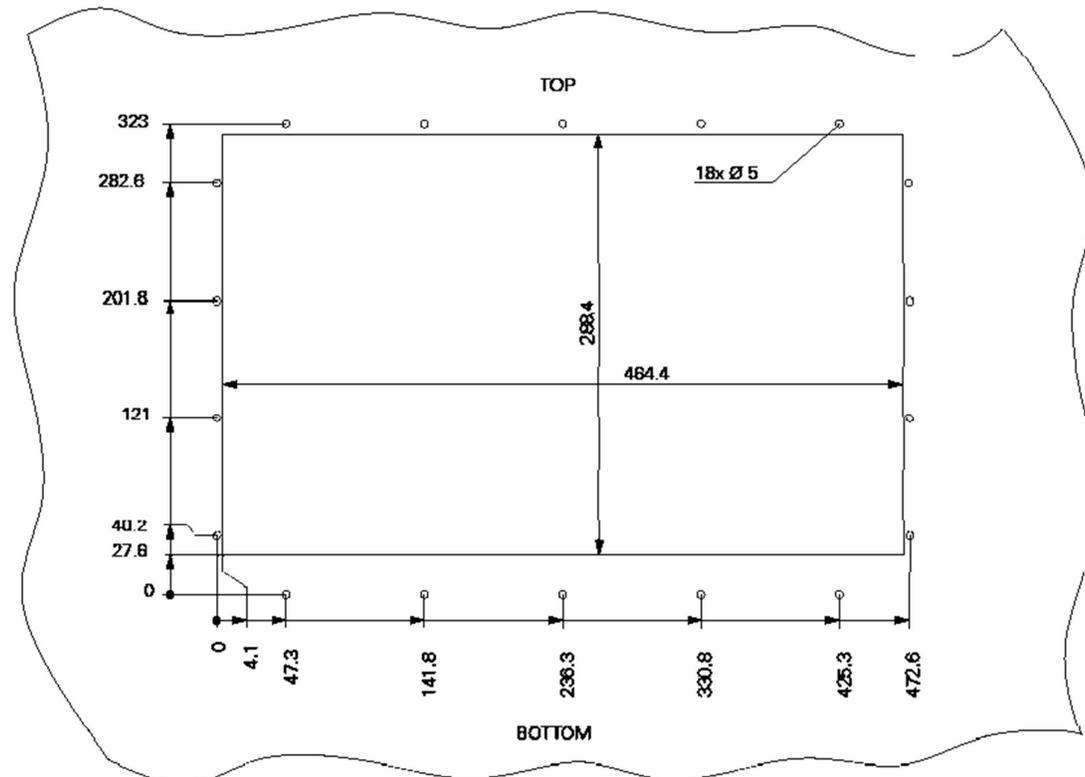| | | **C$_{yb}$CNC3 2D** | **C$_{yb}$CNC3 MX (3D)** |
|---|---|---|---|
| Processor Unit | Model<br><br>Graphic<br>RAM<br>Cooling | Intel® Atom x5-E3940 Quad-Core @1.6GHz<br>ATI Radeon HD series built-in<br>4 GB DDR3 RAM<br>Passive Heat sink, FAN less | Intel Atom x7-E3950 Quad core @1.6GHz<br>Intel Gen 9LP Graphics<br>8 GB DDR3 RAM<br>Passive Heat sink, FAN less |
| Mass Storage | Capacity<br>Interface | 32 GB  CFAST memory card<br>SATA | 32 GB  CFAST memory card<br>SATA |
| Display Interface | | DVI | Up to 1920x1200, single-link DVI-D interface |
| Communication Port<br>HMI non Realtime | | LAN<br>USB | 1 Gigabit Ethernet, RJ-45 (10/100/1000)<br>4 USB 2.0 port |
| Operating temperature | | 0 - 40°C | |
| Power Supply (Numerical Control) | | +24V$_{dc}$ | @0.4A typ.(CN without I/O – X1 connector) |
| RTC – Calendar Clock | | Battery | Lithium CR2032 / 3V @225mA/h |
| I/O Processor | | ARM Cortex M7 series | |
| Digital Input | | 32 | 4mA typ. according to IEC61131-2 type 1 & 3<br>Isolation 2kV<br>Filtering – debouncing and deglitching (by step of 250$\mu$s) |
| Digital Output | | 16<br>8 | 0.5A typ. /0.7A max. according to IEC61131-2 type 3<br>3A typ. /5A max. according to IEC61131-2 type 3<br>Isolation 2kV<br>Overvoltage and Short circuit protection<br>Status – output in fault and no 24V IO power supply |
| Analog Input | | 4 | Unifilar or differential<br>Resolution 0-10V  12-bit (11-bit + sign) |
| Analog Output | | 6 | Unifilar<br>Resolution ±10V  12-bit (11-bit + sign), output at 0Vin fault state<br>Resistive load 1kΩ min. / capacitive load 2.2nF max |
| Analog Voltage Reference | | 1 | Unifilar<br>Voltage 10.000 V  ±3mV  @ 50mA max. |
| Encoder Interface | | 4 | 5V or 24V, unifilar type PNP/NPN or differential<br>Frequency        500 kHz (signal A/B)<br>                      5 MHz (signal A/$\overline{A}$/B/$\overline{B}$)<br>Aux. Power – output 5V @ 1.0A (typically 4x 250mA) |
| Power Supply (Digital Inputs/Outputs) | | +24V$_{dc}$ @ 20A max. | |
| Serial Communication | | 1 | RS-232C/RS-485, D-sub 9-pin male<br>Data flow 115kbps |
| Fieldbus Interface | | 2 CAN<br>1 EtherCAT | 1Mbps CAN 2.0 A, RJ-45, CANopen Master<br>100Mbps EtherCAT, RJ-45, Master System |

## Console version



## Attachment dimensions



**A**

☐ 40 x 95

**B**

☐ 60 x 60 or 65 x 65

△ 80 x 80 x 80

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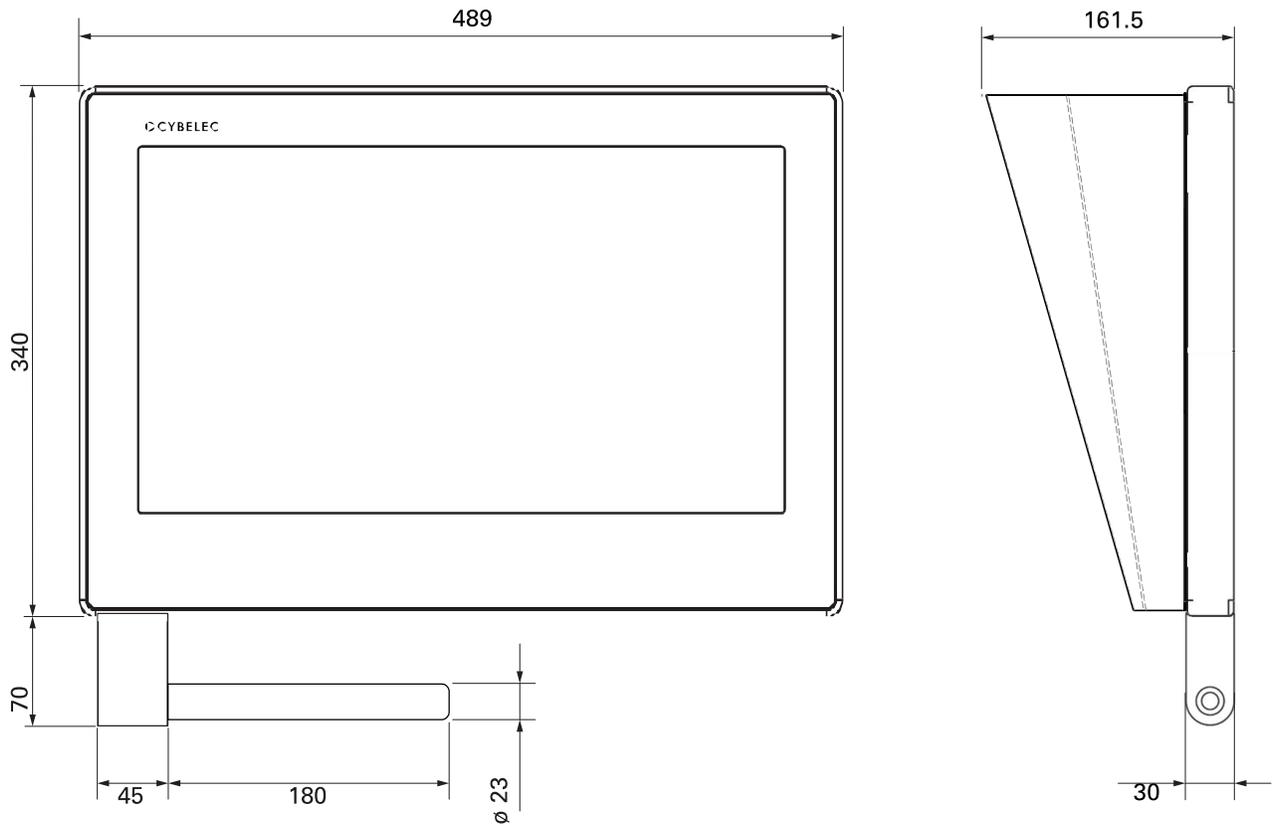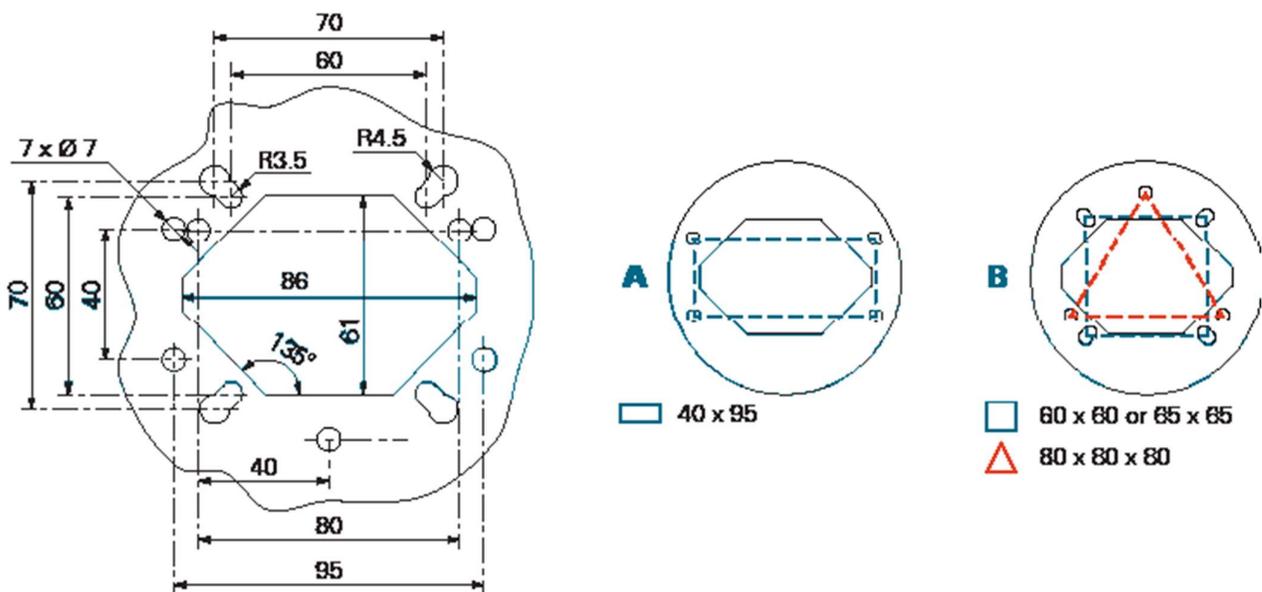
# Dimensions

## Panel version
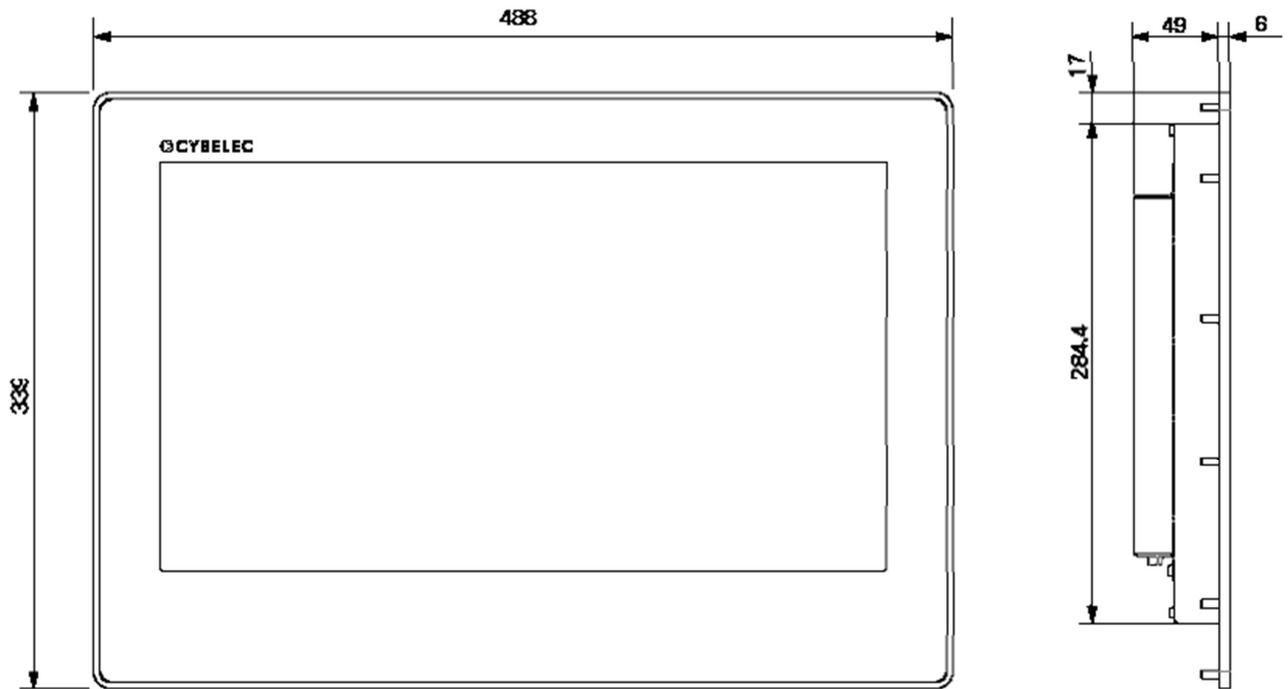


## Integrating opening dimensions



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# Dimensions

## Auxiliary box



## CybCNC3 controls

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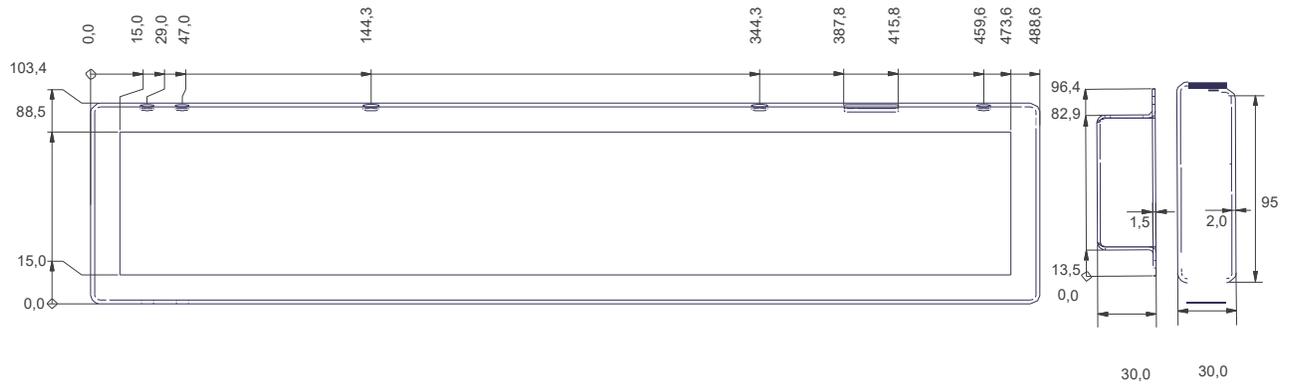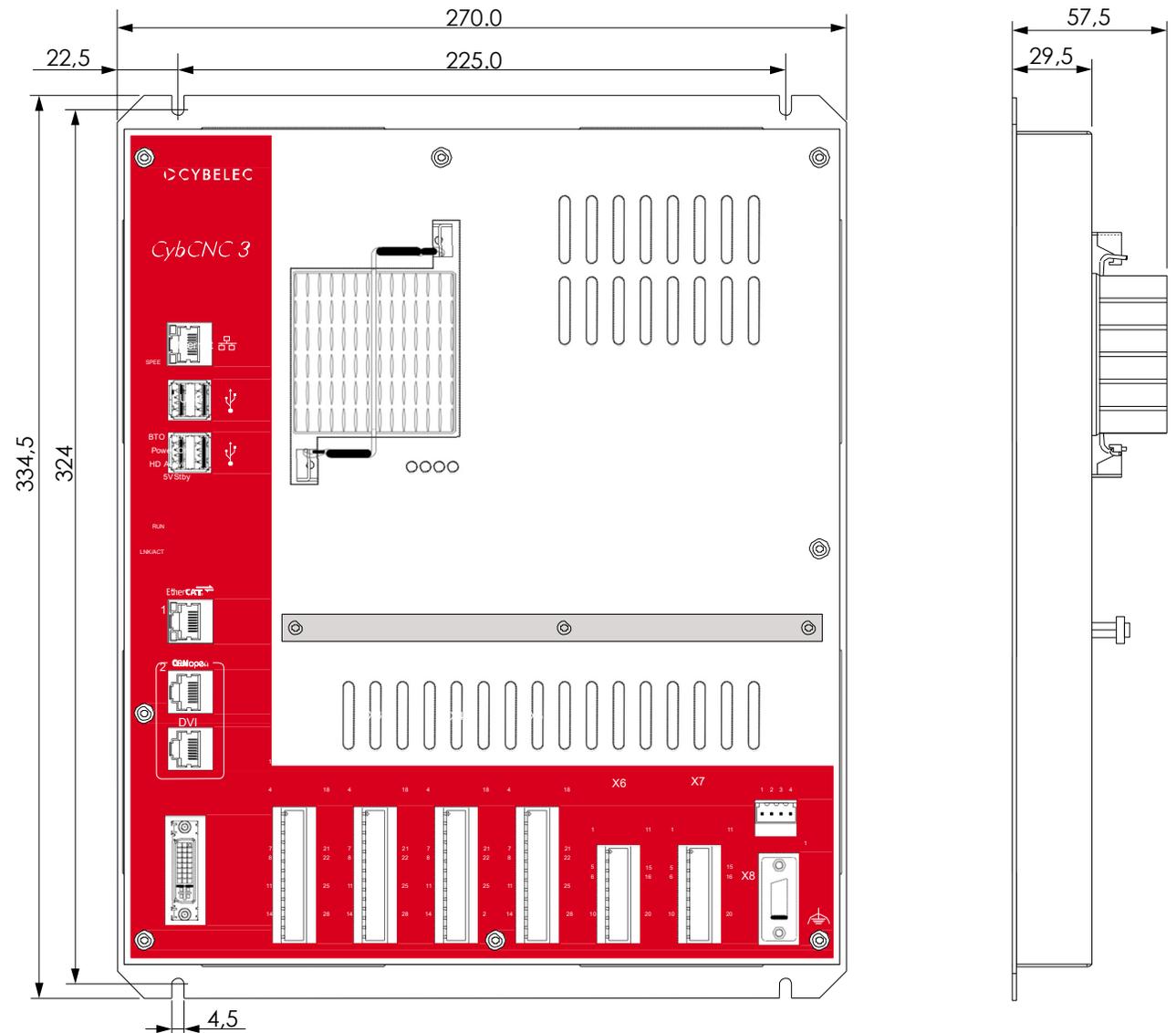
### Consoles VisiTouch 19

| | |
|---|---|
| VST-19 | Console touchscreen 19" |
| VST-19-075 | Console touchscreen 19" with DVI and USB wires 7.5m |
| VST-19-100 | Console touchscreen 19" with DVI and USB wires 10m |
| S-OPT-BTAUX-S/E | Auxiliary box |
| VST-19/P | Panel touchscreen 19" |
| VST-19/P-075 | Panel touchscreen 19" with DVI and USB wires 7.5m |
| VST-19/P-100 | Panel touchscreen 19" with DVI and USB wires 10m |

### CybCNC3 controls

| | |
|---|---|
| CNC-34PS24-2 | 4 axes (Y1, Y2, 2 axes), 32I/24O, PS-2D |
| CNC-34PS24-MX | 4 axes (Y1, Y2, 2 axes), 32I/24O, PS-MX (3D) |
| CNC-34PS24-MXIMP | 4 axes (Y1, Y2, 2 axes), 32I/24O, PS-MX and Import |

### Software options

| | |
|---|---|
| OFT-AX | Additional axis license |
| OFT-IO | Additional user IO license; 4DI/4DO/1AI/1AO |
| OFT-BA | Bending aids and sheet support (require axes licenses) |
| OFT-SS | Sheet support (require axes licenses) |
| OFT-AM1 | Automatic angle measurement (one station) |
| OFT-AM2 | Automatic angle measurement (two stations) |
| OFT-GP | Group of parts and batch management |
| OFT-TM | Tandem management |
| OFT-IMP | MX Import license, DXF flat, IGES, STEP, SAT, X_T |
| OFT-CB | Slanted / conical bending for CybCNC3-2D |
| OFT-TS | Tools stations management for CybCNC3-2D |
| OFT-AT | Automatic thickness measurement |
| OFT-BC | Plugin for communication with Barcode reader, generic |
| OFT-SB | Plugin for communication with Lazer Safe Smart Brackets |
| OFT-RCG | Plugin for comm. with arm robot (incl. OFT-BA and OFT-SS) |
| OFT-RCA | Robot control for Cartesian robots |
| OFT-RAS | STEP Arm Robots control interface |
| OFT-ST | Statistics |
| OFT-I4M | Industry 4.0, statistics, status (MES) |
| OFT-PG | Authorization for plugin installed by customer |

### PC offline software

| | |
|---|---|
| OFT-VST-2 | PC offline software VisiTouch (2D) |
| OFT-VST-MX | PC offline software VisiTouch MX |
| OFT-VST-MXIMP | PC offline software VisiTouch MX including Import |

### Valve amplifier modules

#### Analog modules

| | |
|---|---|
| S-CAH-VA6 | Y1, Y2, with feedback |
| S-MVP-100/A | Pressure valve amplifier |
| S-MSV-402/A | Servo valve amplifier +/-350mA or +/-50mA |

#### CANopen modules (require axes licenses)

| | |
|---|---|
| MVA-0 | Y1, Y2, without feedback |
| MVA-F0 | Y1, Y2, with feedback |
| MVA-F0 | Y1, Y2, with feedback, 2 analog axes |
| MVA-F2 | Y1, Y2, with feedback, 4 analog axes |
| MVA-F4 | Y1, Y2, with feedback, 6 analog axes |
| MVA-F8 | Y1, Y2, with feedback, 8 analog axes |
| MVA-A0 | Y1, Y2, servo-valve or with integrated amplifier |
| MVA-A2 | Y1, Y2, servo-valve or with integrated ampl., 2 analog axes |
| MVA-A4 | Y1, Y2, servo-valve or with integrated ampl., 4 analog axes |
| MVA-A6 | Y1, Y2, servo-valve or with integrated ampl., 6 analog axes |
| MVA-A8 | Y1, Y2, servo-valve or with integrated ampl., 8 analog axes |

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# VisiTouch 19

## Intuitive Programming

The VisiTouch 19 is a 2D graphical numerical control for CNC press brakes. It aims at making the operator's work easier, even for demanding programming and setting-up tasks.

The elegant and powerful design and interface let the operator exploit the full range of features with his fingertips. Programming numerical or with the 2D graphical profile and setting up the bending of a part on the large 19" becomes really quick, easy and efficient.

Behind the scene, the VisiTouch 19 is a powerful numerical control that can be adapted to standard press-brakes, up to the most sophisticated models controlling any number of axes.

With its capacity to manage sophisticated features such as complex bending aids, or slave axes, combined with a wide range of parameters allowing a complete use of the press brake performances and setup wizards, the VisiTouch 19 will give a press brake the decisive competitive edge.

## Main features for the user

- 19" modern streamlined glass surface touch screen that can be used with gloves.
- User friendly HMI, similar to the CybTouch's one, thanks to an intuitive programming and dedicated set-up wizards (auto-tuning).
- 2D graphical profile drawing (Touch Profile) and precise 2D program creation.
- 3D visualization of imported parts
- Angle measurment with various angle protractors
- Automatic bending sequence calculation.
- Running under Windows 10 for multitasking and networking.
- Internal backup and restore functions.
- Outstanding diagnostic tools.

## Main features for the OEM

- All kinematics available for X, Xrelatives, Xslave, R, Rslave, and Z axes. For back and front multiples gauges.
- All bending aid kinematics available. Back and front multiples sets.
- Axis control through CANopen with wide configuration capabilities.
- Customizable User buttons for the machine operator.
- PLC programming for customized functions.
- Open system allowing customization (User Cycles and Plug-in software modules).

## Ordering information

- VST-19
  VisiTouch console 19".
- CNC-34PS24-2
  4 axes, 2D programming and 3D vizualization.

## Options

- VisiTouch 19 offline software.
- VisiTouch MX offline software.
- Bending aids and sheet support.
- Automatic angle measurement.
- Tandem management.
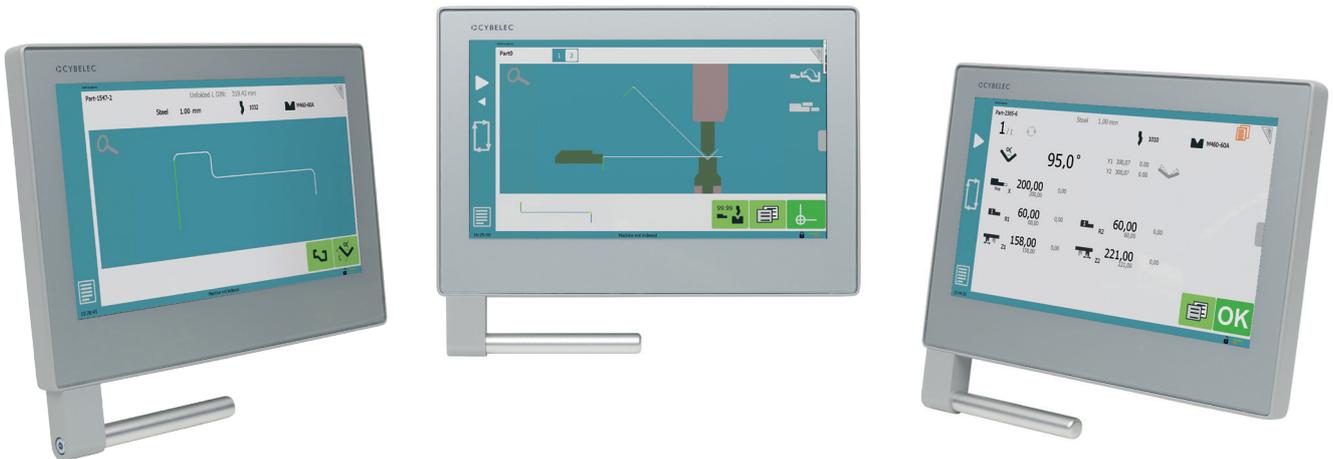


**Easy operating, better bending and powerful features characterize VisiTouch 19**

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