CYBELEC®
INFRANOR GROUP COMPANY

CybTouch 8

User Manual

for Conventional Press Brakes

Sept.
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V2.1

Table of content

Safety

General Safety

The users must have Read and Understood, but most of all must Respect the directives described in this manual.

All people coming into contact with the machine on which the numerical control is installed, whatever their function or whatever state the machine is in (assembly, disassembly, start-up, production, maintenance, repairs) must have read and understood the requirements concerning the security and the entirety of the directives of operation described in the manuals delivered with the machine.

The operator must be properly trained to work with the machine on which the numerical control is installed. Improper use of the numerical control can cause heavy damage on equipment and/or injuries to people.

Modification of machine parameters can cause important material damage or lead to irregular product quality.

Do not expose the numerical control to excessive humidity so as to avoid any risk of electrocution and any deterioration of the equipment.

Make sure the numerical control is disconnected from the mains power before carrying out any cleaning. Do not use liquids based on alcohol or ammoniac.

In case of malfunction of the numerical control, call a technician.

Do not expose the numerical control to direct sun rays or any other heat source.

Do not place the numerical control in the neighborhood of magnetic equipment such as transformers, motors or devices which generate interference (welding machines, etc.).

Signs and Icons appearing in this Manual

While using this manual, you will come across the signs and icons represented here below: they are directly related to the safety and security of persons. Carefully follow this advice and inform others about it.

General warning

This warning sign appears in the manual whenever it is necessary to pay attention to rules, instructions or advice. The correct sequence of operations is to be followed in order to avoid damage to the machine.

Symbolizes a serious personnel danger

Information

This warning sign appears in this manual whenever an important information needs to be taken into consideration. Pay attention to this sign and follow the instructions given.

Settings

This sign appears in this manual whenever setting instructions are given. Pay attention to this sign and follow the sequence of instructions given.

Navigation

This icon appears in this manual to give navigation information, to give the path to the subject treated in the chapter.

Getting started with CybTouch 8 P

Depending on software evolutions and the press brake controlled by the CybTouch (configuration/capabilities), the present manual may not fully correspond to the CybTouch that you currently have. However, differences are only minor.

Touchscreens are pressure sensitive. Do not press down hard on the screen.

Pressing hard on the screen will damage the display. Such damage is not covered by manufacturer warranty!

Do not use sharp and/or pointed objects (sheet metal, screwdriver, metal pen ball, etc.) to touch the screen.

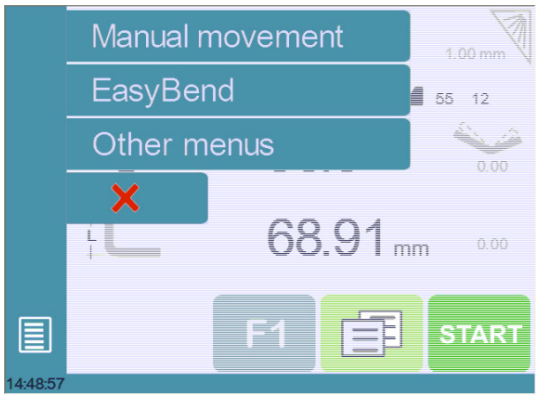
Only use your fingers (with or without gloves on) or a plastic pen. Make sure that your gloves do not have metal particles encrusted in the finger tips as they may also damage the screen.

Take a few minutes to practice pressing gently on the screen, you will find that the screen is very reactive and it is pleasant to use.

General navigation

Menu Button

The Menu button allows you to directly select (jump to) the desired screen. The content of the menu changes contextually.



Status Pages Zone

The Status pages zone gives access to the Status page (see page 5). This is really a zone that is active at any moment from any page (except the wizard's).

Screen Cleaning

To clean the screen while the CybTouch is on, touch the button.

Use only a damp and smooth cloth with soap or a neutral detergent.

NEVER use solvent, petrol, benzene, alcohols, etc.

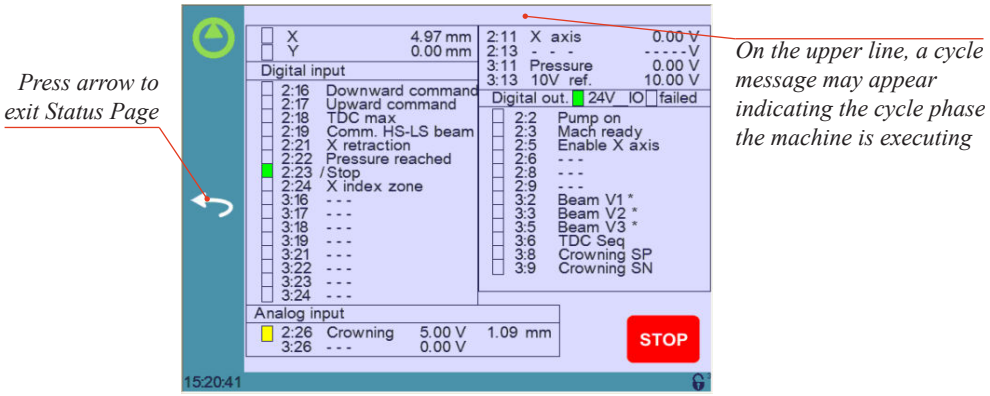
Status page

The Status page shows the status of all inputs and outputs and axes positions of the NC.

This feature is very useful during setup or during phone service with a machine installed in the field.

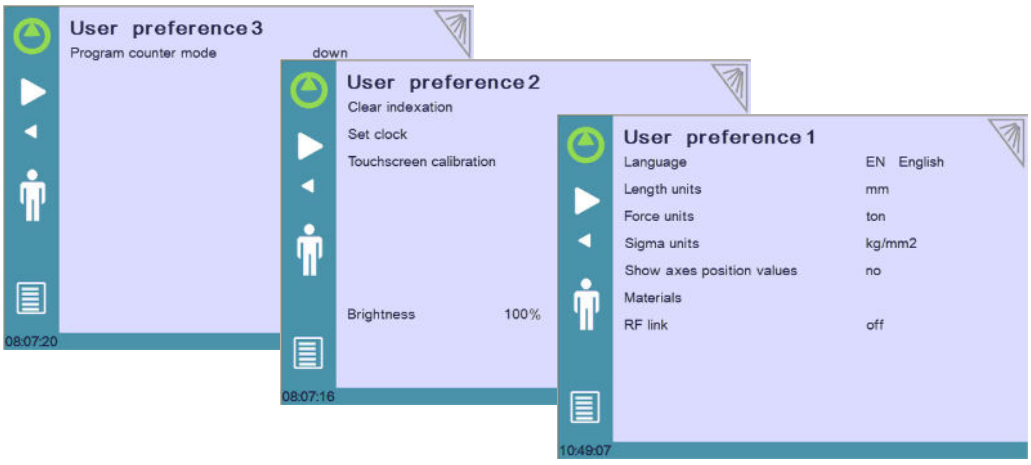
This page is accessed from anywhere by pressing the Status Pages Zone (see page 4).

To exit the Status page, press on the arrow on the left.



User Preferences

 (Menu Button) → Other menus → User preference



To exit the User Preference page, touch the  button.

Language

To browse through the available languages, simply touch **Language** on the screen.

Available languages are:

- **EN** English.
- **CN** 中文.
- **CZ** Český.
- **DE** Deutsch.
- **ES** Español.
- **FR** Français.
- **IT** Italiano.
- **NL** Nederlands.
- **PL** Polski.
- **PT** Português.
- **RU** Русский.
- **TR** Türkçe.
- **TW** 台灣.

The list of available languages is subject to change and may increase over time.

Length Units

This parameter allows choosing between **mm**, **inch** and **none** for the length unit to be used in the CybTouch.

When **none** is selected, the units used are millimeters.

Force Units

This parameter allows choosing between **ton**, **kN** and **tons** for the force unit to be used in the CybTouch.

Sigma Units

This parameter allows choosing between **kg/mm²**, **N/mm²** and **psi(*1000)** for the sigma unit to be used in the CybTouch.

Show axes position values

This function will display the axes positions on the Bend Numerical Page (see page 14).

- When set to **no**, the positions of the axes are displayed during the respective movements.
- When set to **yes**, the positions of the axes are constantly displayed under their respective set-point values.

RFLink

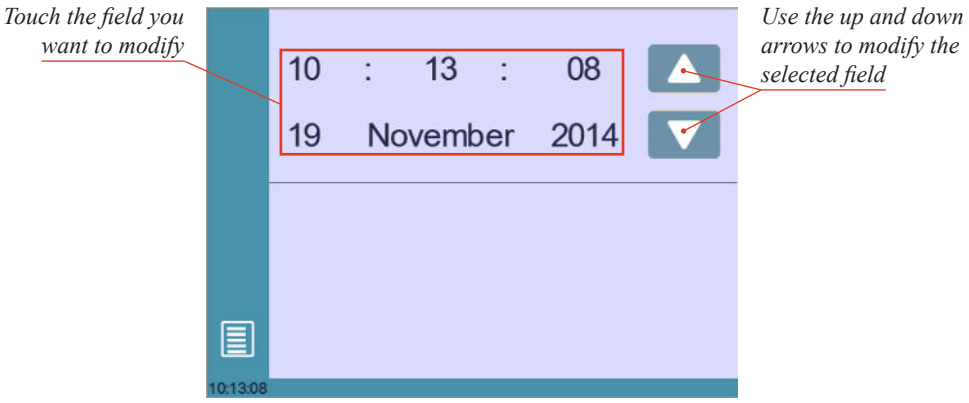
When activated, this function allows communication between the CybTouch and a laptop computer, onto which Cybelec's RFLink dongle is plugged in. This function's default status is **off**, and it is automatically reset to **off** every time the NC is turned on.

Clear indexation

When activated, this function clears the index and the machine will search for them, as it does when turning the power on, allowing the operator to re-index its machine without turning it off.

Set Clock

Allows the user to set the time and date on the CybTouch.



Touchscreen Calibration

As a tall operator will tend to touch higher than a smaller one on the screen, this function allows the calibration of the touch screen, and also makes sure that it is operating correctly.

Setting Instructions:

Simply follow the instructions on the page to calibrate the touchscreen.

Use your finger or the plastic tip of a pen to calibrate the Touchscreen. Never use sharp objects as this will damage the screen.

Brightness xx% Eco xx%

Here the brightness of the screen for normal mode and Eco mode can be defined:

1. Touch the mode for which you want to modify the brightness.
2. Use the − + buttons to set the brightness.

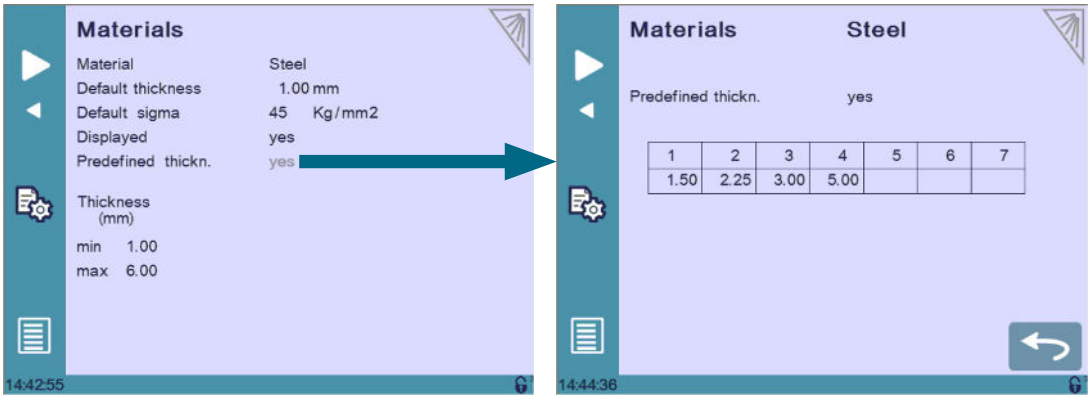
Program counter mode

This parameter allows defining the counting mode of the part counter. When set to **up**, the counter will count up to the desired number. When set to **down**, the counter will count from the desired number down to 0.

Materials

Touching **Materials** opens the Materials page, where the default characteristics for each material can be changed, or a new material can be configured.

This page may not be available, depending on the machine parameters' configuration. To be allowed to access the Materials page, a level 2 password is required.



The Materials page displays:

- **Material**: Selected material (here **Steel**).
- **Default thickness** for the material.
- **Default sigma**: Default sigma for the material (here **45**).
- **Displayed**: If the material will be available to be selected for use (here **yes**).
- **Predefined thickn.**: Allows defining up to 7 different predefined thicknesses for the selected material.
- **Thickness min/max**: determines the maximum and minimum accepted thickness for the selected material.

Three predefined default materials are available (steel, stainless steel, aluminum), but others can be added.

To add a material:

1. Touch **Material** and select a non-configured material (Mater X) from the list.
2. Enter the new material's characteristics.
3. Touch the name (Mater X) to display the keyboard and enter the name of the new material.

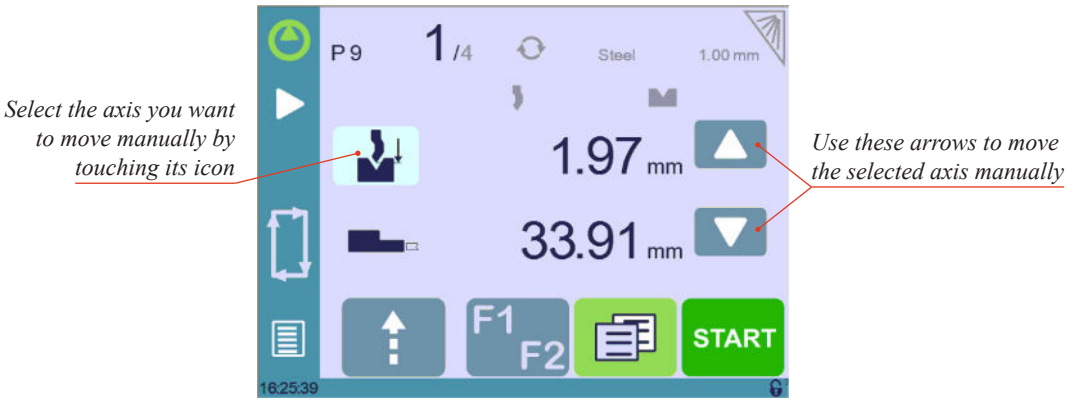
Manual Axes Movement

In the course of setting up a machine, it is sometimes necessary to be able to move the axes manually, for example when changing the tooling. This can be done from two different places:

- In the Program or EasyBend page.
- In the Manual Movement page.

In the Program or EasyBend page

In the Program or EasyBend page, axes can be moved manually only when the tool management is deactivated.



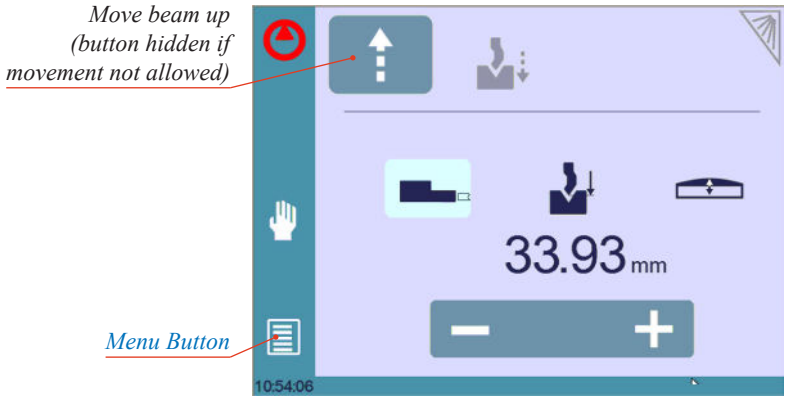
Setting Instructions:

1. Touch the button and then touch the icon (if available); it will become gray.
2. Touch the button to come back to the program page.
3. Touch the Y axis icon and use the manual buttons (and) to move it.
4. Proceed in the same manner to move the back gauge axis.

In the Manual Movement page

The manual movements also have their dedicated page, which can be accessed following the link below.

(Menu Button) → Manual movement

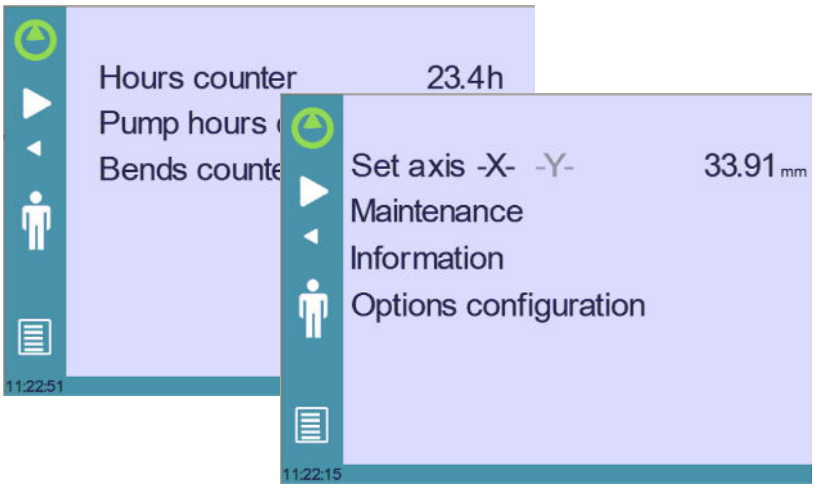


SETTING INSTRUCTIONS:

1. Select the axis that you want to move:
   - for the back gauge X axis.
   - for the back gauge R axis.
2. Touch the buttons to move the selected axis.
3. Use the foot switch (Low Speed Down movement) and this button (High Speed Up) to move the beam.

Service Page

(Menu Button) → Other menus → Service → Service



Set Axis

Allows the operator to manually adjust the position of the back gauge (axis X) and the beam (axis Y, if available).

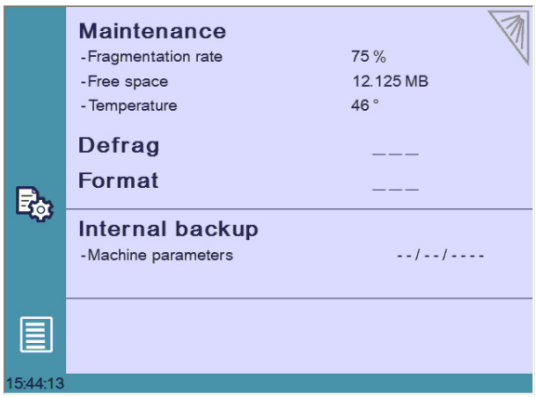
This function must be used with utter care and only by experienced personnel. Wrong settings may mechanically damage the machine.

Settings are lost after indexing the machine.

Maintenance

The Maintenance page displays the hardware status of the CybTouch and lets the operator perform different maintenance actions.

(Menu Button) → Other menus → Service → Service → Maintenance



All the following actions require codes and should only be performed by technicians or upon request of a technician.

Defrag

This function will rearrange the memory space of the CybTouch. Simply touch it and follow the instructions given in the yellow pop-up window.

Format

This function will erase all data in the CybTouch. Only use this with the help of a technician.

Internal backup

This function is specially designed for OEM and support.

Usually a machine parameters' backup is made by the machine manufacturer or the company who services the machine. This backup allows a maintenance technician to restore original working parameters if necessary.

Should there be a need to restore parameters, call on a maintenance technician and follow his instructions.

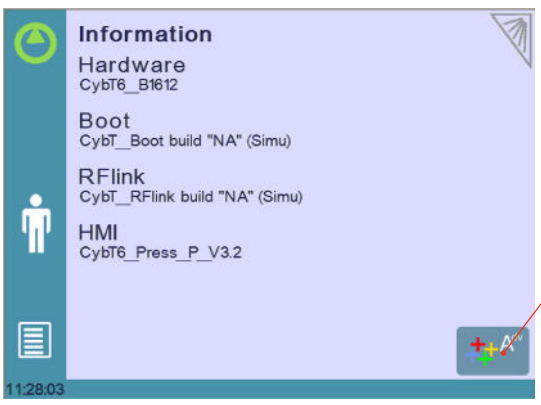
Do not try to use this function unless you are in dire need.

Before using this last function, make sure that all your files have been transfered outside the CybTouch (using CybTouchTools, see the relevant Instructions manual).

Information

The Information page displays the names and versions of the softwares installed on the CybTouch. Pressing the Advanced button shows more detailed information.

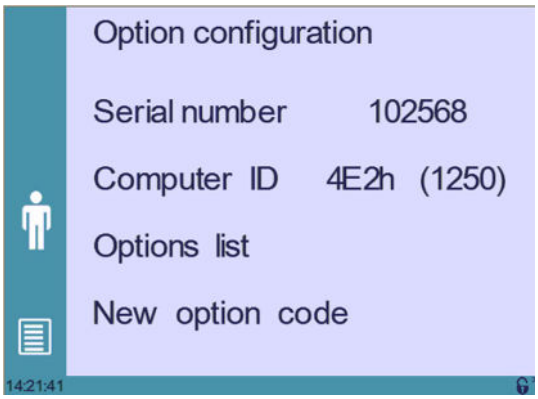
 (Menu Button) → Other menus → Service → Service → Information



Configuration options

Touching this menu opens the following page, where one can find the computer's identification and manage the machine's options.

(Menu Button) → Other menus → Service → Service → Configuration options



Serial number

This is the serial number of the CybTouch. It is entered at the factory at the end of the machine's initial setup and is related to the machine's option list.

Changing the serial number means that all the options installed on the machine can be lost.

Computer ID

This line displays an identification code that is unique to each CybTouch and guarantees, together with the serial number, a correct identification of the machine.

Option list

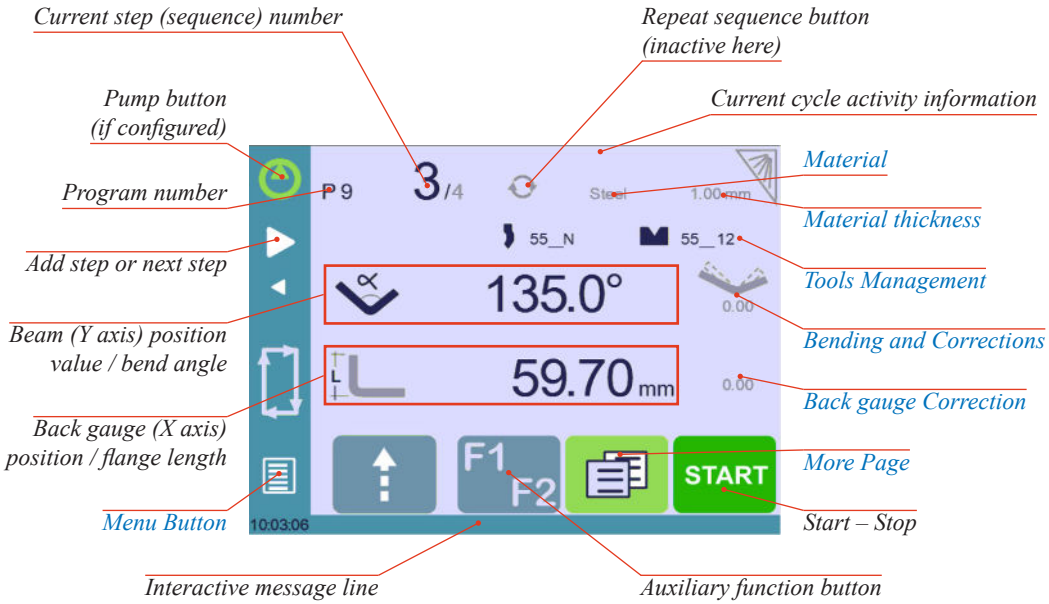
This function opens a yellow pop-up window where all the options installed on the CybTouch are displayed.

New option code

The function opens an alphanumerical pad where the code of the new option must be entered. The format of an option code is: ABC-DEF-GHI-JKLM

Basic Page Description

Bend Numerical Page



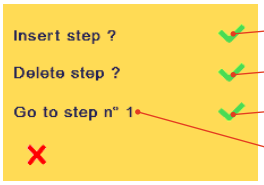
Available functions on the Bend Num page

The Bend Numerical Page is normally the working page, from which the bends are executed, and most of the navigation originates from and leads to.

Current step (sequence) number

Touching the step number will open a yellow pop-up window as shown here, with 3 different actions to choose from:

- **Insert step**: this function will insert a step after the current one.
- **Delete step**: this function will erase the current step.
- **Go to step**: this function allows jumping directly to the desired step.



Insert step here
Delete current step here
Go to selected step here
Select the step to jump to here

More Page

Bend Numerical Page →

Available functions on the More page

The More page displays parameters related to the part, and depending on the CybTouch configuration and the type of action performed, it also displays various settings for the current bend.

Tooling management

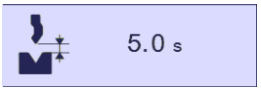
When deactivated (grayed), this icon disables the Punches (see page 19) icon and the Dies (see page 20) icon from the Bend Numerical Page (see page 14) (see also Bending without Tools Management, page 26).

Back gauge retraction

The back gauge retraction can be activated/deactivated using this icon. It is possible to modify the value by touching it. This is a sequence parameter, meaning it can be modified with each step of the program.

Force

The force is automatically calculated by the CybTouch, according to the Material, the Material thickness, the Material sigma and the Bending length. The value can also be manually modified here.



Opening (TDC)

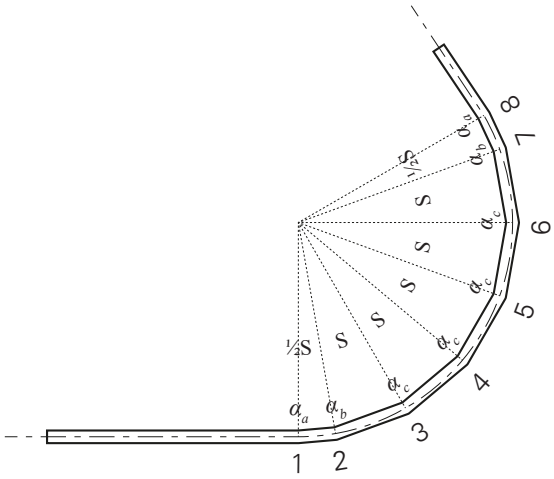
When activated, this parameter allows defining the duration during which the beam moves back up from BDC. This value must be set to allow the operator enough room to extract its bent part from between the tools.

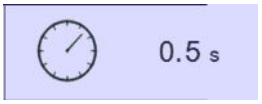
When this field is deactivated (grayed), the beam moves back all the way up to its maximum limit switch.

Step bending

Activating this field allows programming a large radius bend, by entering the value of the radius and in how many steps we want to make it.

For the result to be coherent, the number of bends to realize the angle must be such that the length of each segment is greater than half the length of the V opening of the die.





Dwell time

Allows defining the duration of the dwell time, meaning the time during which the punch remains at BDC before coming back up.

When this field is deactivated (grayed), the default Dwell Time value defined in the machine parameters is applied.

Number of parts

The operator can enter here the total amount of parts to be produced. Every time all the sequences of the program are executed, hence a part is completed, this counter is updated of one unit (increased or decreased, see Program counter mode, page 8).
When the amount of parts is reached, a yellow pop-up window signals it to the operator.

Back gauge manual control

Activating this parameter gives manual control over the back gauge movement. This means the operator must personally give the start to the back gauge movement, using for example the foot switch or the start button.

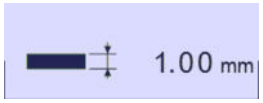
Bending length

This parameter defines the width of the sheet metal part that will be pinched between the tools. It is used to calculate the bending force.

If this parameter is not activated (gray), the CybTouch will not calculate the bending Force and the Crowning.

Material

This is not a sequence parameter, but of course a part parameter. Each touch on the material's name selects the next available from the list of Materials (see page 8).

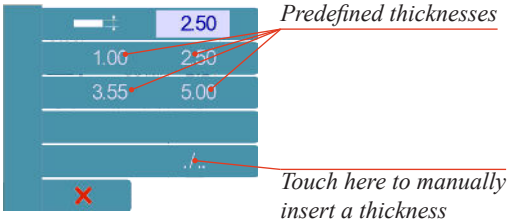


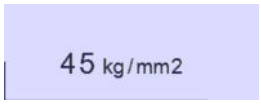
Material thickness

The default thickness, defined in Materials (see page 8), is automatically displayed when changing material. It is however possible to change it simply by touching this icon.

If on the other hand, the parameter **Predefined thickn.** (see page 8) is set to **yes**, a touch on this icon will open a numerical pad as show to the right, where the operator will be able to select directly one of the predefined thicknesses.

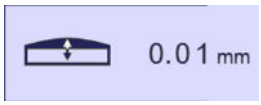
This is a part parameter.





Material sigma

The default sigma, defined in Materials (see page 8), is automatically displayed when changing material. It is however possible to change it simply by touching this icon. This is also of course a part parameter.



Crowning

The crowning function is activated here. It is automatically calculated, according to the Material, the Material thickness, the Material sigma and the Bending length.

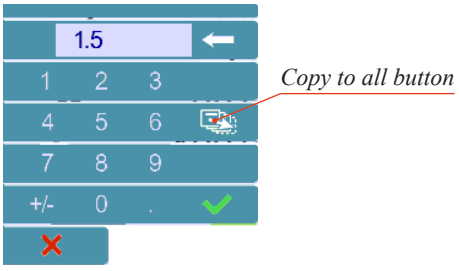
The value can be manually changed by operator. It will however be automatically recalculated if any of the values used for its calculation is changed.

The mechanical crowning system can only move when the beam is at TDC.

When the crowning function is deactivated (gray icon), the crowning system physically remains to its last position and does not automatically return to 0.0 mm. Keep that in mind when using this function – or not – between one sequence and the following.

Copy to All Function

This function allows copying a defined value to all the steps of the current program. It appears in the numerical pad of relevant fields, such as Force, Bending and Corrections, etc.



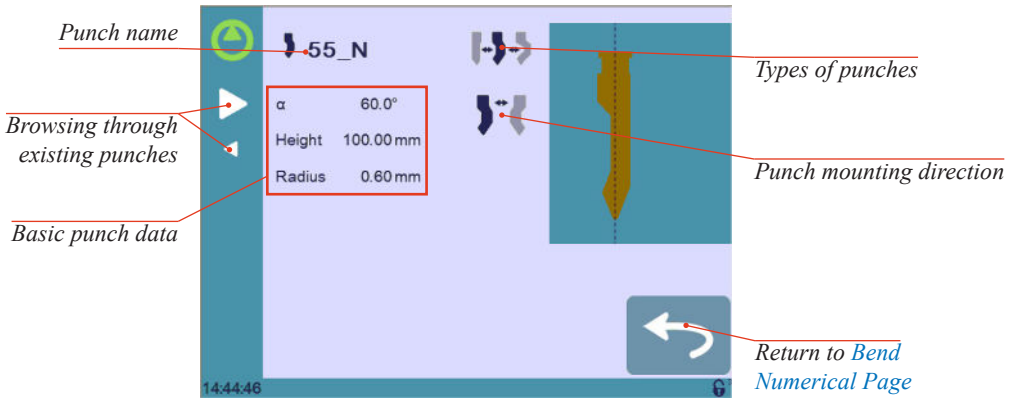
Tools Management

Tools management allows the creation and configuration on the CybTouch of the tools to be used on the machine. These tools are then taken into account in bend calculations.

Depending on the CybTouch version and the press brake configuration, punch and die management may not be available on the CybTouch you have.

Punches

Bend Numerical Page →



Setting Instructions:

To select a punch, simply browse through the existing punches in your library using the arrows buttons, and then return to Bend Numerical Page.

How to create or modify a punch?

If no punch is yet created, the punch will have no name (**???** is displayed). If a punch already exists, then the last punch used will be selected, here **55_N** (modifications will not alter the existing punch as they will be saved under another name).

1. Touch the button and then touch the icon to activate tool management if necessary.
2. Touch the punch icon to access the punch details.
3. Enter the characteristics (**α** (punch angle), **Height** and **Radius**) for the new punch to be created.
4. Select the punch type (straight, normal or gooseneck) with this icon. This characteristic is only an information for the operator.

5. Touch the button to invert the punch if necessary.

To be allowed to save a tool, a level 2 password is required.

6. Touch the punch name (here **55_N**).
7. Touch **Save punch** to overwrite the existing tool or **Save punch as** if you want to save your tool under another name.
8. Enter the name of the new punch using the alphanumerical keypad.

We recommend that you follow the naming conventions explained in Naming Tools (see page 22).

9. Touching the button brings you back to the program page, with the punch you just saved being selected and ready to be used.

Dies

Bend Numerical Page →

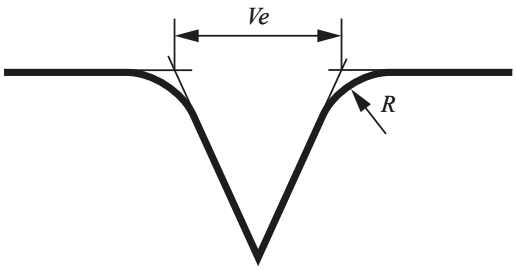
Setting Instructions:

Selecting a die is the same as selecting a punch; simply browse through the existing dies in your library using the arrows buttons, and then return to Bend Numerical Page.

How to create or modify a die?

If no die is yet created, the die will have no name (**???** is displayed). If a die already exists, then the last one used will be selected, here **55_12** (modifications will not alter the existing die as they will be saved under another name).

1. Touch the button and then touch the icon to activate tool management if necessary.
2. Touch the die icon to access the die details.
3. Enter the characteristics (**Ve** (die width), **α**, **Height**, **Radius** and **Safety XS**) for the new die to be created.



Safety XS defines the security distance between the tool and the back gauge for X axis.

4. Touch the button to invert the die if necessary.

To be allowed to save a tool, a level 2 password is required.

5. Touch the die name (here **55-12**).
6. Touch **Save die** to overwrite the existing tool or **Save die as** if you want to save your tool under another name.
7. Enter the name of the new die using the alphanumerical keypad.

We recommend that you follow the naming conventions explained in Naming Tools (see page 22).

8. Touching the button brings you back to the program page, with the die you just saved being selected and ready to be used.

Naming Tools

It is recommended that you use naming conventions for your tools.

Below you will find a simple convention allowing you to precisely identify a punch or die through its name.

Of course, depending on your needs you may need to create more rules for punch and die naming.

Punches

The name of the punch should be built in the following manner: first its angle, followed by its type, and then whether it is inverted or not.

Punch angle (°)		Punch type		Inverted or not
30 60 90	_	N = Normal S = Straight G = Gooseneck	_	i = If inverted

Following these rules, here are some examples of punch names: **90_N_i**, **60_G**, **30_S**, and so on, and so forth.

Dies

The name of the die should be built in pretty much the same manner: first its width (Ve dimension), followed by its angle, and then whether it is inverted or not.

Ve (mm)		Die angle (°)		Inverted or not
12 16 20	_	30 86	_	i = If inverted

Following these rules, here are some examples of die names: **12_86_i**, **16_86**, **20_30**, and so on, and so forth.

Creating a Part Program

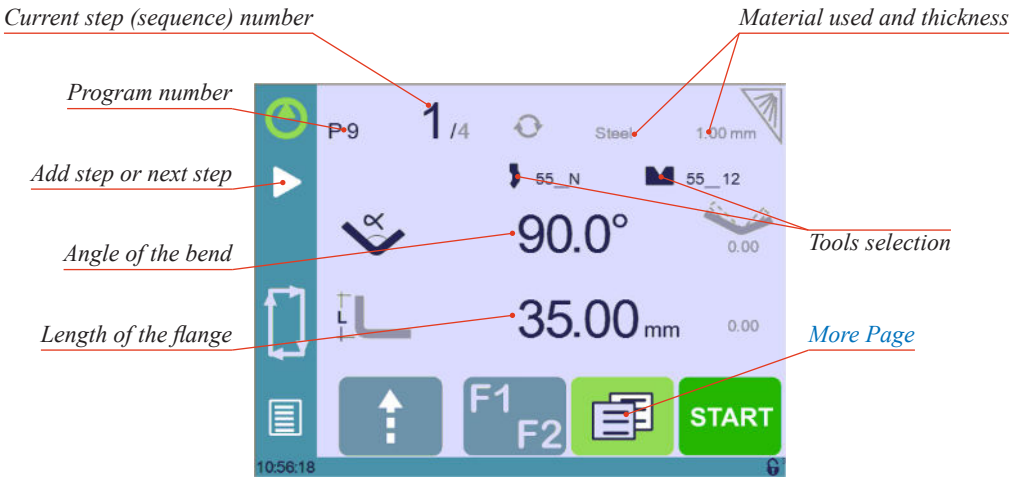
Most versions of CybTouch 6 for press have Tools Management (see page 19), which can be activated or deactivated (see Tooling management, page 15). However, some versions, depending on the press brake manufacturer, do not have tools management at all. This changes a bit the procedure, and you can find them here:

- Bending with Tools Management,
- Bending without Tools Management (see page 26).

In this chapter the machine is considered operational: machine parameters, tools (see Tools Management, page 19) are already configured and programmed.

Bending with Tools Management

The first page displayed when you switch on the CybTouch is the Bend Numerical Page. This is where one can create programs containing the bend sequences required to produce a complete part.



Setting Instructions:

1. Touch the program number and select **New program** in the list.
2. Touch the material's thickness (here **1.00**). The More Page (see page 15) is displayed.
3. In the More Page, enter the Material thickness, the Force, and other sequence parameters (Opening (TDC), Back gauge retraction, etc.).
4. If necessary, touch this button to activate the Tools Management (see page 19).
5. Touch the button to return to the Bend Numerical Page.
6. Select the tools to be used for the part by touching their respective icons (see Tools Management, page 19).

To work without tools, see Bending without Tools Management, page 26.

7. Touch the numerical value next to the angle icon  , and enter the value for the first bend you wish to create (here **90°**).
8. Touch the numerical value next to the segment length icon  , and enter the value for the first segment you wish to create (here **35.00 mm**).

This dimension is the external dimension of the flange, calculated according to DIN 6935. If you want to enter the position of the flange manually, touch this icon  . It will switch to this one  .

9. Add the next bend to the program by touching  .
10. Proceed in the same manner to create the other segments of the part.
11. Go to the desired step touching the Current step (sequence) number (see page 14) or using this  button.
12. Start the hydraulic pump motor (by pressing this button  if available. It turns red when the motor is running).
13. Press the  button to position the machine according to the data that were just entered.
14. When the machine is ready to bend, a  button is displayed.
15. If you want to repeat the same step in order to apply all the necessary corrections to it, switch to the Semi-Automatic mode.
16. Press the foot switch to execute the bend.

Bending and Corrections

All program corrections are made in the Bend Numerical Page (see page 14). According to his preferences, the operator can choose to execute all the steps of the program one after the other, making corrections along the way. Or he can choose to apply all the corrections necessary to the same step before moving to the next one using the Semi-Automatic mode.

Corrections can be made to:

- The angle (Y-axis, see Angle Correction, page 25).
- The back gauge position (X-axis, see Back gauge Correction, page 25).

Semi-Automatic mode

The semi-automatic mode allows repeating the same sequence indefinitely. It is used when the operator wants to apply corrections to his part one bend after another. He can thus execute the same step until he gets the desired result, before moving to the next one by means of the button.

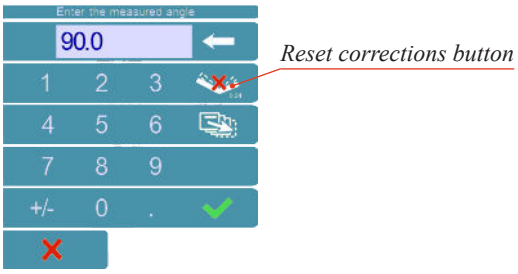
The semi-automatic mode is activated (and deactivated) by touching for more than one second on the button.

Angle Correction

After physically measuring the angle, if corrections are to be made, they must be done as follows, and not directly in the program step.

SETTING INSTRUCTIONS:

1. Touch the angle correction icon, and enter the physically measured value of the angle. The numerical control will automatically calculate the Y axis correction.



Pressing this button will reset all angle corrections.

Back gauge Correction

2. Corrections can be applied in the very same manner to the back gauge X axis position, simply by touching the small number to the right of the flange length. The correction required (in positive or negative) must be entered manually.

Bending without Tools Management

For versions that do not have tool management, it is impossible for the operator to select with or without tool management (see Tooling management, page 15). The selection is simply not available.

Working without tools management means that you can program the back gauge value for X axis and the bend depth value for Y axis only in mm (or inch).

All corrections are thus also manually made in mm/inches.

This procedure is also valid if tools management has been disabled (see Tooling management, page 15).

Setting Instructions:

1. Touch the program number and select **New program** in the list.
2. Touch the material's thickness (here **1.00**). The More Page is displayed.
3. In the More Page, enter the Material thickness, the Force, and other sequence parameters (Opening (TDC), Back gauge retraction, etc.).
4. Touch the button to return to the Bend Numerical Page.
5. Enter the bend depth value for Y axis (here **150.97**). One can also touch the Y axis icon and use the manual buttons (and) to move it.
6. Enter the back gauge position value for X axis (here **33.91**). One can also touch the X axis icon and use the manual buttons (and) to move it.
7. Touch the button to add another step.

Click on OK when prompted to create new step.

8. Proceed in the same manner to create the other segments of the part.
9. Go to the desired step touching the Current step (sequence) number (see page 14) or using this button.

10. Start the hydraulic pump motor (by pressing this button if available. It turns red when the motor is running).

11. Press the START button to position the machine according to the data that were just entered.

12. When the machine is ready to bend, a OK button is displayed.

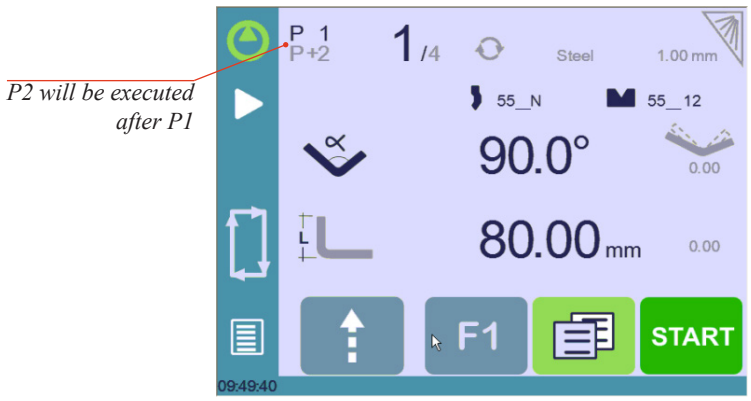
13. If you want to repeat the same step in order to apply all the necessary corrections to it, switch to the Semi-Automatic mode (see page 25).

14. Press the foot switch to execute the bend.

Next-Part Function

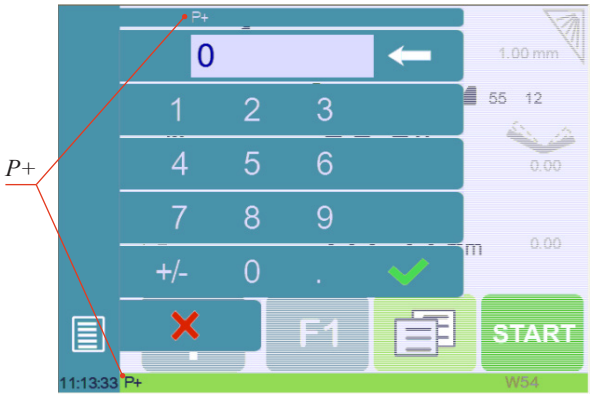
This function allows the operator to run two, or several, part-programs one after another. This is very handy when one wants to make a three dimensional part, like a box for example, or make a final product composed of several parts.

The CybTouch will execute the current program. At the end of the last sequence, instead of returning to the first sequence of the current program, the CybTouch switches to the program selected as **P+nn** (i.e. the next one). It goes on like this, as long as a part is programmed with a next one.



Setting Instructions:

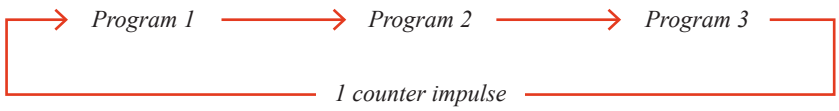
1. To activate the Next-Part function, touch the Program number (e.g. **P1**) and keep it pressed until the following numerical pad is displayed.



2. Enter the number of the program that must be executed at the end of the current one.
3. Save the program (see Saving a Program, page 29).

Cycles and quantities

It is naturally possible to cycle the programs, meaning that the program following the last one is the first one. There are however some specificities to take into consideration when one wants to produce certain amount of cycled programs.



In the diagram above, an assembly needs 3 programs to be completed: program 1 is followed by program 2, which in turn is followed by program 3. To complete the cycle, program 3 is programmed to be followed by program 1. In such a case, the value of the part counter will be updated (see Number of parts, page 16) of 1 unit when it goes from program 3 to program 1.

The CybTouch is designed like this: every time the program following the current one has a smaller number, the counter value is changed.

When a series of programs corresponds to one single part, make sure that their intrinsic numbers increase chronologically.

Saving and Loading a Program

Saving a Program

After creating a program, an operator can save the program in order to use it again:

1. Touch the Program number (e.g. **P0**).
2. Touch **Save program**.
3. Enter the number you wish to give to the program (e.g. **1** for **P1**), followed by ✔.
4. The program is now called P1 and is saved in the CybTouch.

Loading a Program

To call (load) a program:

1. Touch the Program number (e.g. **P1**).
2. Touch **Call program**.
3. Select the program to be loaded from the list (e.g. **002** for **P2**).
4. The selected program (**P2**) is then loaded into the work memory and is ready to be used.

Deleting a Program

To delete a program:

1. Touch the Program number (e.g. **P1**).
2. Touch **Delete program**.
3. Select from the list the program to be deleted.
4. Touch ✔ to confirm.

EasyBend Page

(Menu Button) → EasyBend

The EasyBend page is used for individual bends, for example when an external worker needs to interrupt production just to make a single bend (usually with the same tools).

The program currently being used for production is only temporarily interrupted (no need to save it) when switching to the EasyBend page, and then resumed again when returning to the program page (Menu Button → Current program).

Making a bend on the EasyBend Page

See Basic Page Description, page 14 for more information on the different controls on the EasyBend page.

Setting Instructions:

1. Touch the material's thickness (here **1.00**). The More Page is displayed. Enter the Material thickness and the Force.
2. If necessary, touch one of the tool's icon (or) to select a punch or die. (To learn how to configure tools, please refer to section Tools Management, page 19).
3. Enter the angle for the bend you wish to create (here **90°**).
4. Enter the flange's length (here **275.00 mm**).
5. Press this button to go to the More Page (see page 15) and enter the eventually required extra data for the bend.
6. Start the hydraulic pump motor (by pressing this button if available. It turns red when the motor is running).
7. Press the START button to position the machine according to the data that were just entered.
8. When the machine is ready to bend, a OK button is displayed.
9. Press the foot switch to execute the bend.

Error and Warning Messages

Following is a list of warning and error messages which may be displayed on the interactive message line of the CybTouch. There are two types of messages:

- Warning Messages, which are displayed on a green background. They are information or instructions that will disappear automatically.
- Error Messages (machine or NC errors), which are displayed on a red background. They inform the user of an error occurring on the machine or NC, and sometimes require intervention by the end user or a technician.

When reporting error messages, please ALWAYS indicate the error number at the end of the line. This number also refers to the first column in the section below.

Warning Messages

Msg Nr.	Message	Description
W02	Ignore	This message appears when the desired action makes no sense, like for example clearing the indexation when the indexation was not made.
W03	Code accepted	This message is displayed when the correct password has been entered.
W04	Please press 3 seconds	This message reminds the operator to keep the start pump button pressed for 3 seconds.
W05	The pump is on	This message appears after the pump starting cycle has been correctly executed.
W06	The pump is off	This message indicates that the pump has been stopped.
W07	Machine not indexed	Before the machine is indexed, the NC doesn't know where the axes are. In manual page, movements are authorized but the electronic stroke limits are not activated. Operator is responsible for stopping axis movement before mechanical limit is reached.
W08	Touch OK to continue	Indicates that a validation is required to continue.
W10	Cycle in progress	While this message is displayed, the machine cycle is in progress and the screen is locked, except for the Stop button.
W11	Machine is indexed	Indicates the indexation cycle was successful.
W12	Identification OK	In the Axis Wizard, indicates the identification cycle was successful.
W15	Input in programming mode !	The "Next Seq+Start" or the "Pressure reached" input is activated while NC is in programming mode. If the message persists, check the machine status.
W16	Eco mode	This message appears when the Eco mode starts, after the timer defined in the machine parameters is over.

Msg Nr.	Message	Description
W17	Enter the measured angle	This message is displayed when the operator must enter the physically measured angle value in the Bending and Corrections page.
W18	Empty field	Operator did not enter a value.
W19	24V I/O power on	24V to the inputs/outputs is now available.
W20	Please select a field	This message is displayed when trying to set the time (see Set Clock, page 7) and no field (minute, seconds, etc.) has been selected.
W21	Set seconds	In the Set Clock (see page 7) page, when the corresponding field is selected, indicates that it can be set using the up and down arrows.
W22	Set minutes	
W23	Set hour	
W24	Set day	
W25	Set month	
W26	Set year	
W29	End of list	This message is displayed when reaching the end of the list in one of the different menus  .
W30	Serial number from 100'000 thru 231'071	This message appears only when entering the serial number. It indicates the range of the number to be entered. Attention, this operation is normally done at the factory, with a serial number is related to the options installed on the machine. Do not change it!
W31	New option code	When installing a new option in the Service Page (see page 11).
W32	Data entry in progress	Operation impossible: data entry in progress. Wait until the data is entered to try again.
W33	Indexation in progress	Operation impossible: indexation in progress. Wait until the indexation is finished to try again.
W34	RFlink disconnected	When the RFLink connection to a laptop has been shut down from the latter.
W35	Access not allowed	Operator needs another level password.
W37	Moving direction has been inverted	Wizard message: Rotary direction of the motor has been changed.
W38	Counting direction has been inverted	Wizard message: Counting direction of the axis has been changed.
W39	Moving and counting directions have inverted	Wizard message: Both the rotary direction of the motor and the counting have been changed.
W40	OK	Indicates a cycle or operation has properly ended.
W41	No movement executed	Axis Wizard message: Operator pressed  but no movement was made.
W45	Enter unlock interface password	This message is displayed when parameter P02.04 Level 0 Lock HMI is set to **yes** and the screen is touched.
W46	Enter password level 1 or greater	This message is displayed when a password of level 1 or higher is needed to execute a specific operation.
W47	Enter password level 3	This message is displayed when a password of level 3 or higher is needed to execute a specific operation.
W48	Enter new password	These messages are displayed when changing passwords.
W49	Confirm new password	
W50	Enter password for backup	This message is displayed when trying to create a backup.
W51	Enter password for restore	This message is displayed when trying to restore a backup.

Msg Nr.	Message	Description
W52	Enter password for init	This message appears on the page displayed after the system crashed (soft or hardware problem), when the operator tries to format the machine.
W53	Enter password for delete all backups	This message is displayed when trying to delete all backups.

Error Messages

Msg Nr.	Message	Description
E01	Y - beam collision. Move the beam up	Bending depth mechanical stop axis Y cannot move. The beam is too close to it. Move the beam upward before being able to modify the position of axis Y (depth stop).
E02	Pump motor off	The pump motor needs to be on for the sequence to start.
E03	Buffer Full	The part-program memory is full, you cannot add another sequence.
E04	Code refused	The level code to access the selected page is not correct. Try again or ask for it if you do not have it.
E05	File not compatible	The loaded part-program is incompatible with the NC. This part should be deleted.
E06	Machine parameter file problem	This file is corrupt and cannot be saved. Try to restart the NC. If the problem persists, format the memory.
E07	Machine parameters not compatible, please format data	This message appears when a software update has been made over a much older version and the parameters are no longer compatible. It can also appear if the uploaded parameters (with RFlink) are much older or newer than the current software version and they are not be compatible. A new start up of the machine must be made. Contact your dealer.
E08	Lismisc File not compatible	Information message, which will disappear when restarting the NC.
E09	Save program problem	This file is corrupt and cannot be saved. Try to restart the NC. If the problem persists, format the memory.
E10	File not found [ ]	A file is missing and the code indicates which one. Call Cybelec with this code to know which file is missing.
E11	Write to file problem	This file is corrupt and cannot be saved. Try to restart the NC. If the problem persists, format the memory.
E12	X smaller than minimum limit	Operator entered a value under the limit, or a memorized value in the program is under the limit. The wrong value flashes and must be corrected.
E13	X over maximum limit	Operator entered a value over the limit, or a memorized value in the program is over the limit. The wrong value flashes and must be corrected.
E14	Fw SetVar Error [ ]	May occur when a feature is configured, but the dedicated input/output is not configured. Usually this is solved by loading the default input/output configuration (see the machine parameters).
E15	Table locked	In the machine parameters (pages “Options” and “Control valves”), there is a small padlock preventing unwanted changes. This message is displayed when trying to modify the table with a closed padlock.
E16	Fw Axes Error [ ] ...	Axis manager error. The number gives more information. Most common errors are described in messages E55 to E68. If other error numbers are listed, please send conditions of problem, traces and parameters to the Cybelec Technical support for assistance.
E17	Programming error	Machine parameters incorrectly configured, the error page is displayed.
E18	X under die limit	This message appears when the operator programs a value for the back gauge position (X axis) inferior to the **Safety XS** parameter of the die (see How to create or modify a die?, page 21).

Msg Nr.	Message	Description
E19	Quantity = 0	When pressing start, the programmed amount of parts to be made is '0'. See Number of parts, page 16 for more information.
E20	Cycle repeat = 0	Cannot start cycle because repeat cycle function is set to "0".
E21		
E24	Identification Error [ ]	During the Axis Wizard, there was an error identifying one of the axes. The error number (typically E55, E56 or E57) gives more information. See also message E16.
E25	No FAST task running [ ]	Switch OFF the machine for 1 min and restart it again.
E26	NULL pointer to axis struct.	This message indicates a software bug. Write it all down and contact Cybelec.
E27	MUTEX Error [ ]	This message indicates a software bug. Write it all down and contact Cybelec.
E28	No I/O 24V or overload (output in safety off)	The 24V power supply for the inputs/outputs is no longer present or an output is overloaded. Reset any safety device on the machine, check protection grids and rear guards are closed, etc. If the problem persists, switch machine OFF for 3 min and restart it again. If the problem still persists, check the machine manual and/or ask a service technician to check your machine.
E29	Radio link error, code [ ]	The RFlink chip has detected an error. Check the environment for disturbances (cell phone, wi-fi) and that the material works properly. If the problem persists, write the error number down and send it Cybelec.
E30	Touchscreen error, code [ ]	Please contact your machine dealer with this specific code and details.
E31		
E32		
E33	Syntax error in XML file	This file is corrupt and cannot be used. Try to restart the NC. If the file is a part-program, try to delete it.
E34	Memory allocation problem (xml)	There was a problem while trying to read a file in the memory. The file is probably corrupted. The number gives more information, write it down.
E35	Endless loop on process task	Process error. Please restart the NC and inform your dealer.
E36	"Pedal" input refused	The pedal command is not accepted in this page/situation.
E37	WARNING: Overloop intern	This error should normally never happen on the machine. It means there are too many elements in a coded list.
E38	Unknown key	There is a list of known screen zones, and the pressed zone is not in it. This error can normally not happen in the field.
E39	"Start" input refused	The start command is not accepted in this page/situation.
E40	Y smaller than minimum limit	The programed position value for axis Y is below the value of the minimum limit switch position.
E41		
E42		
E43	Configuration error	Input/output incorrectly configured in machine parameters, the faulty input/output page is displayed. Check for unauthorized doubled outputs or inputs. This message can also be displayed if the chosen configuration requires more icons on the first page than there room available.
E44	"External stop" input is active	External stop may be caused by safety devices, emergency buttons, rear protection guards, etc. See machine instructions.

Msg Nr.	Message	Description
E46	"Pressure" analog output not configured	While configuring (setting up) the NC, dedicated input or output are not configured but are requested to run properly.
E47	Y over maximum limit	The programed position value for axis Y is above the value of the maximum limit switch position.
E48	File access error	There was an error when trying to access a file while programming an option. Make sure that the code was entered properly. If it is not working try and restart the NC. If the problem persists, contact Cybelec.
E49	Unknown error	An unknown error occurred while trying to program an option. Contact Cybelec.
E50	Value out of limit	This message is displayed when the value the operator is trying to be program is bigger than the maximum authorized value.
E51	Error[ ][ ][ ][ ]...	Internal management error. Write the error's codes down and the software's number (see Information, page 12) and call Cybelec.
E52	Punch does not exist	This message is displayed when trying to create a new part before having selected a punch in the list (see Punches, page 19).
E53	Die does not exist	This message is displayed when trying to create a new part before having selected a die in the list (see Dies, page 20).
E55	Identification Error 1 (No motion detected)	No motion detected. Should not happen if you started the Wizard from the beginning. If the error remains, check limit switches, drive, wiring, etc.
E56	Identification Error 2 (Not enough oscillations)	Not enough oscillations Increase the identification time. See machine parameters manual.
E57	Identification Error 3 (Amplitude of the oscillation)	Oscillation amplitude. Increase the identification voltage. See machine parameters manual.
E58	Fw Axes Error 32 [Trajectory tracking error]	This is a regulator error. The axis could not follow its trajectory. This may be due to high friction, resistance or an obstacle on the axis movement. This may also be a drive problem. Call a technician.
E59	Fw Axes Error 311 [MaxSpeed too high !]	Max speed or encoder resolution too high.
E60	Fw Axes Error 312 [MaxSpeed too small !]	Max speed or encoder resolution too low.
E61	Fw Axes Error 313 [Acceleration too small or MaxSpeed too high !]	Acceleration too low (mm/s^2) or max speed too high. This needs to be corrected. Please note that acceleration is not a ramp distance.
E62	Fw Axes Error 314 [Acceleration too high or MaxSpeed too small !]	Acceleration too high (mm/s^2) or max speed too low. This needs to be corrected.
E63	"X retraction" digital input not configured	While configuring (setting up) the NC, dedicated input or output are not configured but are requested to run properly.
E64	"Pressure reached" digital input not configured	
E65	"Pressure" analog input not configured	
E66	Fw Axes Error 33 [Maximum voltage time exceeded (10V)]	This is a regulator error. The axis could not follow its trajectory. This may be due to higher friction, resistance or an obstacle on the axis movement. It may also be a drive problem. Call a technician.

Msg Nr.	Message	Description
E67	Fw Axes Error 39 [Speed tracking error]	This is a regulator error. The axis could not follow its trajectory. It may be due to higher friction, resistance or an obstacle on the axis movement. It may also be a drive problem. Call a technician.
E68	Fw Axes Error 316 [MinPosition or MaxPosition outside limit !]	Axis position counter is out of max or min limit. Verify physical axis position and set the axis counter accordingly.
E69	"Downward command" digital input not configured	While configuring (setting up) the NC, dedicated input or output are not configured but are requested to run properly.
E70	Progr. angle is smaller than the die angle	The programmed angle is smaller than the die angle. Change die.
E71	Progr. angle is smaller than the punch angle	The programmed angle is smaller than the punch angle. Change punch.
E72	Depth safety	The calculated angle causes the punch, material, and die to collide and approach coining mode. Operator must confirm to proceed.
E73	"Comm. HS-LS beam" digital input not configured	While configuring (setting up) the NC, dedicated input or output are not configured but are requested to run properly.
E74	"Beam" encoder not configured	This message is displayed on PL types of machine, where the "Beam" encoder must be configured.
E75	Next program error	This message appears when there has been a problem with the Next-Part Function (see page 27). It can be either a problem while changing mode, that the next part doesn't exist, or could not be read.