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## 1. Introduction

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### 1.1. General

The Axro binder is used to bind products such as bunches of flowers with elastic cord.

The standard machines are assembled and adjusted for the use of elastic cord with 1 rubber core. This elastic cord is about 1 mm thick.

On the customer's request, binders can also be assembled and adjusted for use with 3K elastic cord.

The machines are supplied for push-in operation from left to right or from right to left, and are available for a variety of voltages and frequencies.

On the customer's request the machine can also be fully modified and adjusted in accordance with the customer's wishes.

## 1.2. Versions

The standard EMT-Axro binder is available in a number of versions.

The following tables give a description of a number of specific versions:

Article No.	Article name	Description
87101400 through 87101491	Axro-RLC	<p>Standard machine, driven by a 1-phase hollow-shaft motor with brake.</p> <p>The start switch's pin projects from the top plate.</p> <p>The top plate can be lifted off the machine: a safety cut-out then switches off the machine.</p> <p>Available in both left and right versions, and for both standard and 3-K elastic cord.</p> <p>Available for a variety of voltages/frequencies.</p>
	Axro-RLC Basic	<p>Basic machine, driven by a 1-phase hollow-shaft motor with brake.</p> <p>The start switch's pin projects from the top plate.</p> <p>The top plate is fixed in place, and is not equipped with a safety cut-out.</p> <p>Available in both left and right versions.</p> <p>Available for a variety of voltages/frequencies.</p>
	Axro-RLC Marine	<p>Stainless steel version of the Axro-RLC.</p> <p>All parts are made from stainless steel or finished with a special coating</p>
	Axro-RLC MH30	<p>Raised version of the Axro-RLC.</p> <p>Designed for larger products.</p>
	Axro-RLC Cable	<p>Axro-RLC variant, designed for use with smaller (cable) bundles.</p> <p>Standard version equipped with a foot pedal</p>
	Options:	
	Top-switching	
	Cord-break detection	
	Foot pedal	

Article No.	Article name	Description
87101500 through 87101591	Axro-FQC	Standard machine, driven by a 3-phase, 230 V, hollow-shaft motor with brake. Equipped with a frequency controller for a faster binding cycle. This binder is particularly suitable for installation on/in a (flower) line. The start switch is suspended from the needle shaft The top plate can be lifted off the machine: a safety cut-out then switches off the machine. Available in both left and right versions, and for both standard and 3-K elastic cord.
	Axro-FQC MD35 Axro-FQC MD60 Axro-FQC MD90	Deeper version of the Axro-FQC. Designed for longer products.
	Axro-FQC RVS	Standard version of the Axro-FQC, but with a stainless-steel frame and stainless-steel panels. The other parts are standard.
	Axro-FQC Marine	Stainless steel version of the Axro-FQC. All parts are made from stainless steel or finished with a special coating
	Axro-FQC Food	Stainless steel version of the Axro-FQC. All mechanical parts of this binder are made from stainless steel. The control cabinet and drive are protected by stainless steel covers.
	Options:	
	Cord-break detection	
	Photocell instead of top-switching	
	Foot pedal	
	External start signal	

## 2. Safety precautions

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### 2.1. Explanation of the pictograms



*This pictogram is used for an urgent warning*



*This pictogram is used for a serious warning*



*This pictogram is used for an electrical hazard*

### 2.2. General warnings



*The machine may be used only by operators who know, understand and obey all safety precautions.*



*The machine may never be switched on when it is open (with the top plate removed).*

The employer is responsible for giving a sufficiently clear explanation of all the following safety precautions to all persons working with the machine.

All persons shall always obey the following rules:

*Do not access the machine while it is in operation.*

*In the event of any kind of problem whatsoever, always remove the plug from the socket immediately before opening the machine.*

*During maintenance the machine must be switched off by removing the plug from the socket.*

*Always keep children away from the machine.*

*Never use water or other liquids close to electrical components.*

*This machine is designed solely for binding bunches of flowers and products of a similar size.*

*Never crawl under the machine.*



*If anything unexpectedly goes wrong, always remove the plug from the socket immediately, or switch the mains switch to '0'!*

### 2.3. Using the machine



*Persons who are not aware of the following safety precautions may NOT operate the machine.*



*The machine may never be switched on when it is open (with the top plate removed).*



*If anything unexpectedly goes wrong, always remove the plug from the socket immediately, or switch the mains switch to '0'!*



*In the event of a malfunction, never touch the moving parts.*



*Note: on contacting the start switch the machine will begin operation. The needle will then descend rapidly.*



*Do not place any part of your body (hands, fingers, etc.) under the needle. The needle can injure your hand. Warn other people of this hazard.*



*Make sure that no-one places their hand on the start switch. In particular, make sure that children do not do so! The start switch should be operated by the product that is to be bound.*

### 2.4. Cleaning and maintenance

The machine must be disconnected from the power supply during cleaning and maintenance.



*Good cleaning is important to prevent the build-up of dirt and growth of mould!*



*Before cleaning or maintenance, always switch off the machine by removing the plug from the socket!*



*Never clean the machine with a high-pressure spray.*



*Maintenance work may be carried out only by persons who have read and understood the maintenance instructions.*



*Once the maintenance work has been completed always replace any guards removed during the work.*



*Never bridge the safety cut-out!*



*Note: the cutting blade is sharp.*



*Never adjust the safety clutch such that it is too tight, or even locked. The indicative force for the operation of the clutch is 3 kg imposed on the needle's point. An excessively tight clutch can cause severe injury.*



*The safety clutch must operate correctly to protect the machine's operator.*

## **2.5. Noise level**

The machine's noise level is 75 dB(A).



### 3. Transport, installation, dismantling

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#### 3.1. Transport

The machine weighs about 50 kg.

A transport frame is available for the binder. The frame is fitted with castors, and is intended for use in moving the machine short distances.

Once the binder has been moved always relock the castor brakes.

#### 3.2. Installing the machine

The binder's basic settings have been adjusted in the factory.

The machine must be set up in a dry production area. A general drawing and the dimensions of the machine are enclosed in Bijlage 1.

#### 3.3. Connecting the machine to the power supply

Verify that the mains voltage specified on the type plate fixed to the back of the machine is the same as the mains voltage supplied to the socket.

Before connecting the machine to the power supply you must make sure that you are familiar with the main parts and principle of the machine. For this reason you must read sections 4 and 5 before connecting the machine to the power supply.

Connect the machine to the power supply as follows:

*Pull the binder's needle upwards until it falls into the lock.*

*Put the plug in the socket*

*Set the mains switch to on.*

*Operate the start switch to have the machine work through a few cycles.*



***Verify that the power supply to the socket is the same as the power supply specified for the machine.***

#### 3.4. Dismantling

When dismantling the machine take account of heavy and sharp parts.

The parts must be disposed of in accordance with the regional and national environmental legislation.

## 4. Description of the machine

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### 4.1. Safety warnings



*Make sure that you - and others - do not place your hands under the needle!*



*If anything unexpectedly goes wrong, always remove the plug from the socket immediately, or switch the mains switch to '0'!*



*Never bridge the safety cut-out!*

### 4.2. Brief description of the machine's principle

*When the binder's main switch has been set to on and a reel of elastic cord has been fitted then pushing the product to be bound across the worktop will activate the start switch, and the machine will bind the product.*

*As the product is being pushed through it will pull the required length of cord with it.*

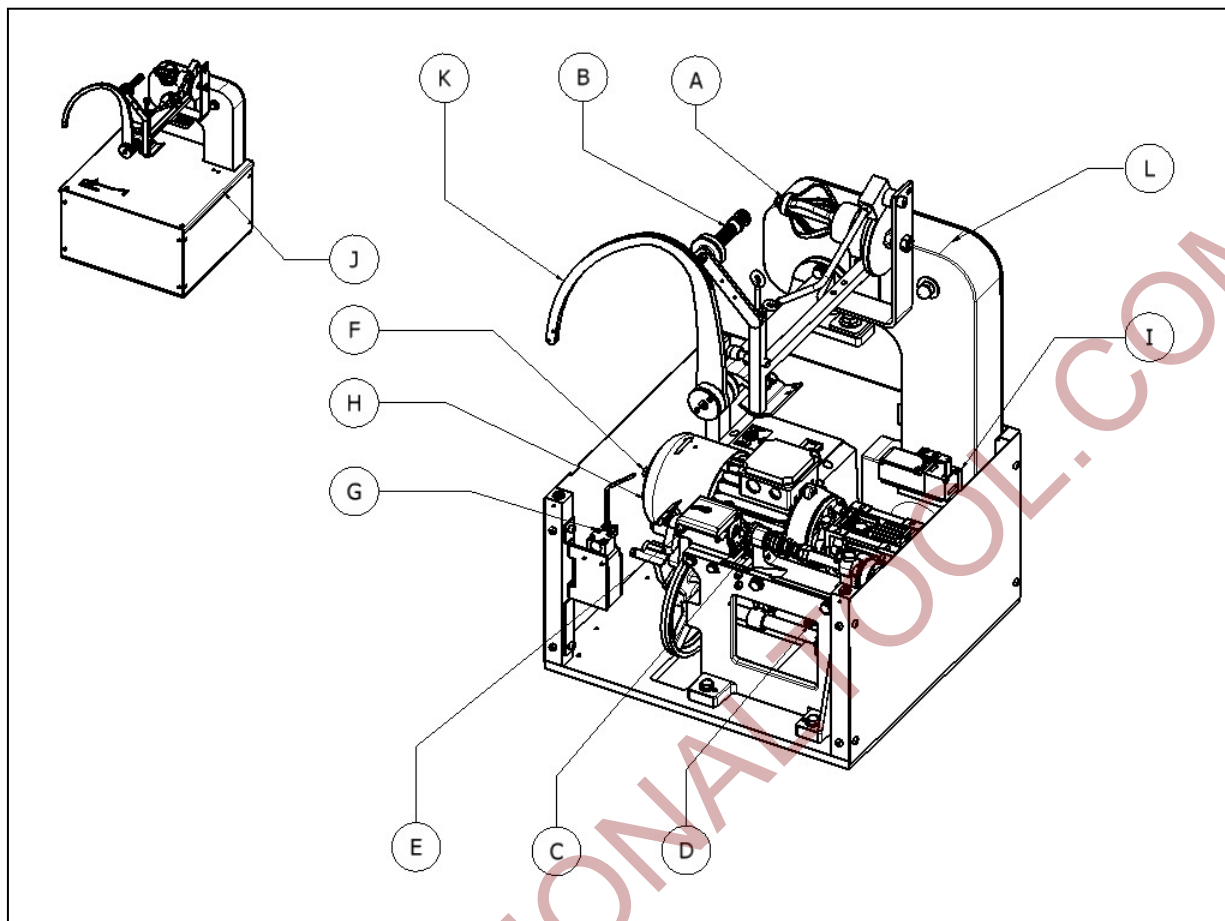
*The needle then automatically lowers and pulls a length of cord into the tying unit.*

*The other end of the cord has already fed into the tying unit. The tying mechanism ties the two cords together and then cuts the cord next to the knot. The ends are pulled through the knot. The length of cord attached to the reel is clamped by the clamping mechanism. The needle returns to its initial position.*

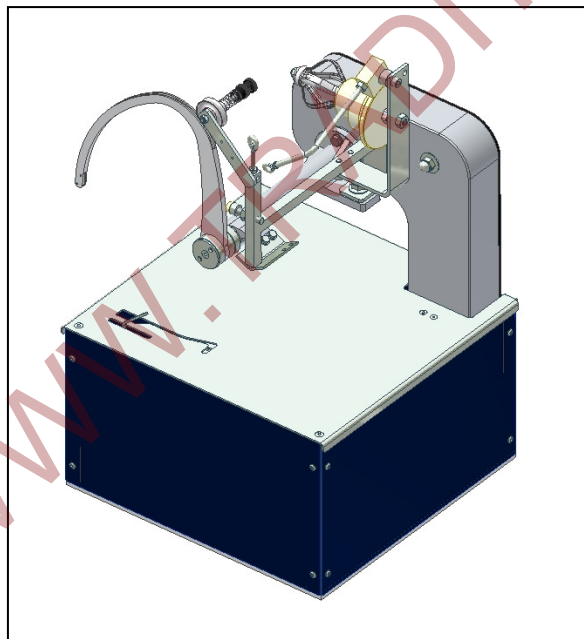


*Make sure that you - and others - do not place your hands under the needle!*

### 4.3. Main parts



**Figure 1: Main parts of the Axro binder**



**Figure 2: The standard version of the Axro binder**

No.	Name	Description
A	Reel holder	This holds the reel of binding material (elastic cord)
B	Elastic brake	The knurled nuts are turned to adjust the tension of the elastic cord binding the product
C	Clamping mechanism	Secures the cord during the tying process.
D	Conical gear wheel	This fixed transmission drives the various parts of the machine.
E	Tying mechanism	At the end of the binding cycle the two ends of the cord are tied into a knot and the cord is cut after the knot. The tying unit (not specified) is part of the tying mechanism. The binding set is the entire internal binding mechanism inclusive of the tying mechanism.
F	Opening	An Allen key can be inserted into this opening to turn the machine by hand.
G	Start switch	On activating the start switch the binder carries out a binding cycle. The switch can be fitted in the machine or above the machine at the level of the safety clutch (M). This latter version is referred to as a 'top-switching' version. The FQC version can be started by pressing a green pushbutton at the back of the machine.
H	Electric motor	The motor drives the binder
I	Safety cut-out	On removing the top plate the safety cut-out isolates the controls from the power supply. Other than the Basic version all RLC and FQR binders are equipped with this cut-out
J	Top plate	The top plate is fitted with dowel pins for simple removal and installation.
K	Needle	The needle brings the cord around the product to be bound and leads the cord to the tying and clamping units. The needle is fitted with a safety clutch that releases the needle if it blocks.
L	Crank mechanism	The crank mechanism converts the drive's rotary motion into a reciprocal motion

## 4.4. Operating controls

### 4.4.1. Mains switch

The machine is equipped with an orange mains switch to switch the power supply on or off.



**Figure 3: Mains switch used for the various versions**

*Set the mains switch to 1 to switch on the power supply.*

*Set the mains switch to 0 to switch off the power supply.*

The machine is not equipped with a separate emergency-stop button. In the event of an emergency the mains switch can be switched off or the plug can be removed from the socket:



*If anything unexpectedly goes wrong always remove the plug from the socket immediately, or switch the mains switch to '0'!*

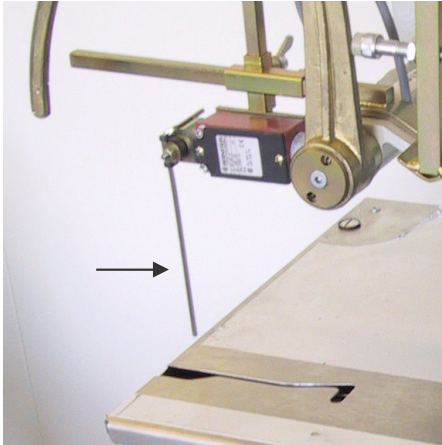
### 4.4.2. Start switch

The start switch of the RLC version is mounted in the top plate, see Figure 4.



**Figure 4: Start switch fitted to the standard version**

The start switch of the FQC is mounted above the machine at the level of the safety clutch, see Figure 5.



**Figure 5: Start switch fitted to top-switching version**

All FQC versions are equipped with a green pushbutton at the back of the machine. This can be pushed to start the machine to re-feed elastic cord, see Figure 6.



**Figure 6: Version fitted with pushbutton**

#### **4.4.3. Safety cut-out**

Other than the Basic version all binders are equipped with a safety cut-out under the top plate. This isolates the power supply as soon as the top plate is removed.



*Never bridge the safety cut-out!*

## 5. Using the machine

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### 5.1. Safety warnings



*Persons who are not aware of the following safety precautions may NOT operate the machine.*



*The machine may never be switched on when it is open (with the top plate removed).*



*If anything unexpectedly goes wrong always remove the plug from the socket immediately, or switch the mains switch to '0'!*



*In the event of a malfunction, never touch the moving parts.*



*Note: on contacting the start switch the machine will begin operation. The needle will then descend rapidly.*



*Do not place any part of your body (hands, fingers, etc.) under the needle. The needle can injure your hand. Warn other people of this hazard.*



*Make sure that no-one places their hand on the start switch. In particular, make sure that children do not do so! The start switch should be operated by the product that is to be bound.*

### 5.2. Switching on the power supply

The power supply to the machine is switched on as follows:

*Set the mains switch to '1'.*



*The machine may never be switched on when it is open (with the top plate removed).*

### 5.3. Fitting and threading the elastic cord

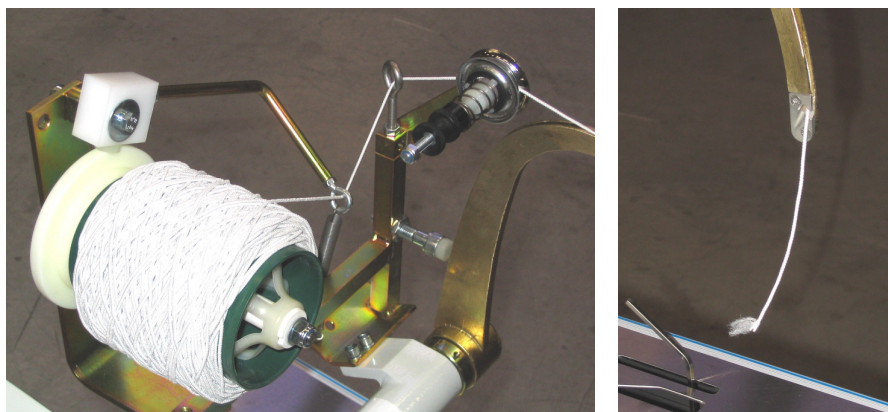


Figure 7: Elastic cord threaded into the machine

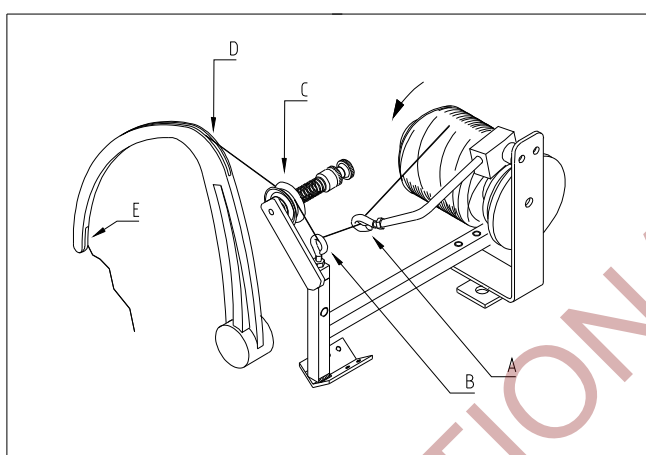


Figure 8: Fitting and threading the elastic cord

A reel of elastic cord is fitted and threaded into the machine as follows (see Figure 8):

1. **Fit** the reel on the holder, making sure that the cord unwinds in the correct direction (see arrow)
2. **Thread** the cord through the brake arm's guide eye (A)
3. **Pull** the cord through the fixed guide eye (B) and between the plates of the cord tensioner (C).
4. **Guide** the cord over the needle (D) and thread it through the eye (E)
5. **Hold** the end of the cord at the back of the needle, and activate the start switch with your other hand to operate the needle. Make sure that the needle does not hit your hand. The needle automatically threads the cord into the machine.

The binder is now ready for use.

### 5.4. Adjusting the cord tension

The tensioner (C) is used to adjust the cord tension.

The cord tension determines how tightly the cord will be wrapped around the product. A too-low cord tension will result in a poor knot, and the elastic cord around the product will be too loose.

The machine's settings do not need to be readjusted before binding products of different dimensions and shapes.



## 5.5. Using the machine



*Note: on contacting the start switch the machine will begin operation. The needle will then descend rapidly.*



*Do not place any part of your body (hands, fingers, etc.) under the needle. The needle can injure your hand. Warn other people of this hazard.*



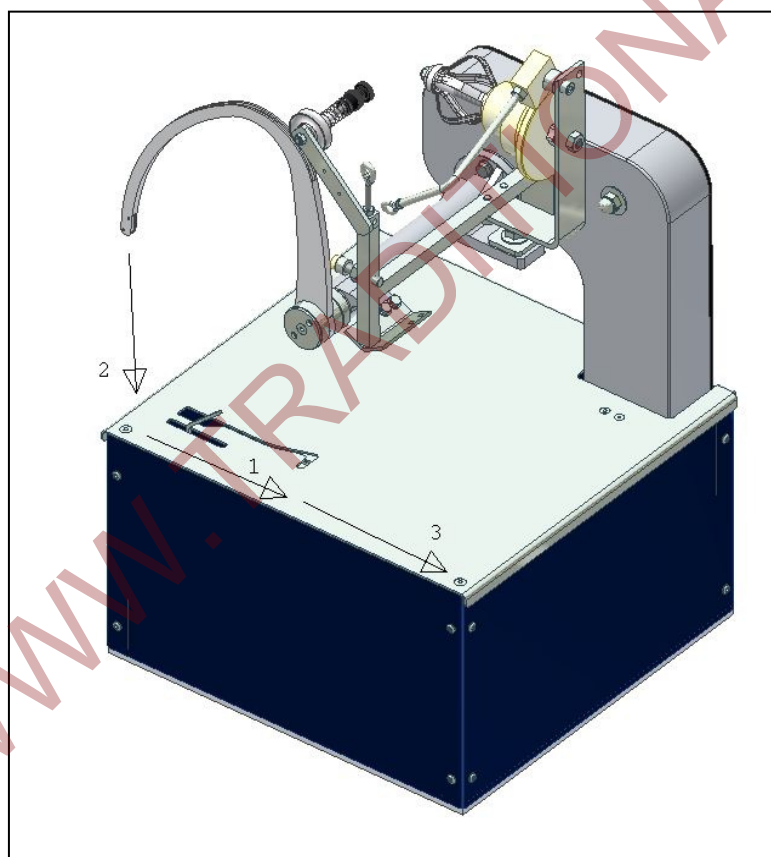
*Make sure that no-one places their hand on the start switch. In particular, make sure that children do not do so! The start switch should be operated by the product that is to be bound.*

Once the machine has been adjusted to the correct settings it is used as follows:

*The product is pushed as smoothly as possible over the top plate in the direction of the cord until the back of the product is above the tying mechanism (operation 1 in Figure 9).*

*The product contacts the start switch and starts the binder: the needle descends rapidly, and rises again (arrow 2).*

*The product can then be slid through (operation 3).*



**Figure 9: Using the binder**

## 5.6. Starting points and switching options

The time at which the machine is started depends on the selected switching operation. Three switching options are available:

### 5.6.1. Pre-switching

The machine is started as soon as the switching pin is operated, and the product is bound. This switching option is generally used when small products are to be bound rapidly after each other.

### 5.6.2. Post-switching

The machine is started as soon as the switching pin is released after it has been operated. This switching option is used when binding larger products or binding products after each other.

### 5.6.3. Pulse-switching

This switching option is used when, for example, a foot pedal is used to start the machine. The machine starts at once, but completes just one cycle. The next cycle begins on releasing the foot pedal and pressing it again.

### 5.6.4. Changing the switching option.

The operator can switch between the pre-switching and post-switching options. A small black switch on the control cabinet is used to select the required option. The label applied next to the switch indicates the relevant position of the switch.

## 5.7. Emergency stop



*If anything unexpectedly goes wrong always remove the plug from the socket immediately, or switch the mains switch to '0'!*



*In the event of a malfunction, never touch the moving parts.*

Stop the machine, and then follow the directions given in Section 8, 'Troubleshooting'.

## 5.8. Stopping the machine and switching off the power supply

*Set the mains switch to '0' to switch off the power supply to the machine.*

## 6. Cleaning and simple maintenance

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*Before cleaning or maintenance, always switch off the machine by removing the plug from the socket!*

Regular cleaning is extremely important if the machine is to be kept in good condition.



*Good cleaning is important to prevent the build-up of dirt and growth of mould!*

Cleaning can be carried out using a brush or a damp cloth.



*Never clean the machine with a high-pressure spray.*

### 6.1. Cleaning the interior of the machine

*Always switch off the power supply to the machine with the mains switch before cleaning. This will avoid you coming into contact with live or moving parts.*

*Remove the top plate from the machine. The procedure is as follows:*

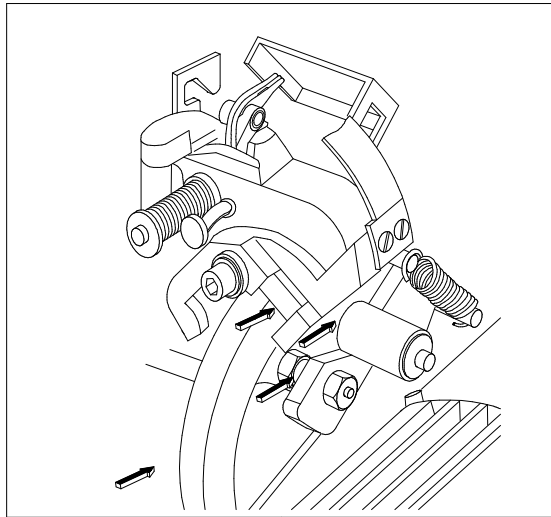
- Machines fitted with a safety cut-out: lift the top plate off the machine.
- Machines not fitted with a safety cut-out (Basic machines): the two screws at the front must be removed before you can lift off the top plate.

*Cleaning can be carried out using a brush or a damp cloth.*

*After cleaning fit the top plate back in place, and (where applicable) replace the screws and tighten them firmly.*

## 6.2. Weekly maintenance

The weekly maintenance may be carried out only by operators who understand and obey the following instructions:



*Switch off the power supply to the machine and remove the plug from the socket.  
Remove the top plate.  
Clean the machine with a brush or compressed air  
Oil the pivoting points and the rollers of the catcher and releaser  
Grease the control wheel.  
Fit the top plate to the binder, and check the machine's performance.*

**Figure 10: Lubrication points for weekly maintenance**

## 7. Maintenance

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The manufacturer's warranty never covers damage caused by inexperienced use, use of the machine for purposes other than which it is intended, or modifications made by the user or third parties.

### 7.1. Safety warnings



*The following maintenance work may be carried out only by qualified personnel who have read and understood the maintenance instructions.*



*Before cleaning or maintenance, always switch off the machine by removing the plug from the socket!*



*Once the maintenance work has been completed always replace any guards removed during the work.*



*Note: the cutting blade is sharp.*



*Never adjust the safety clutch such that it is too tight, or even locked. The indicative force for the operation of the clutch is 3 kg imposed on the needle's point. An excessively tight clutch can cause severe injury.*



*The safety clutch must operate correctly to protect the machine's operator.*

### 7.2. Turning the machine by hand

The machine will need to be turned by hand to carry out several tasks involved in the maintenance work. The procedure is as follows:

*Remove the plug from the socket.*

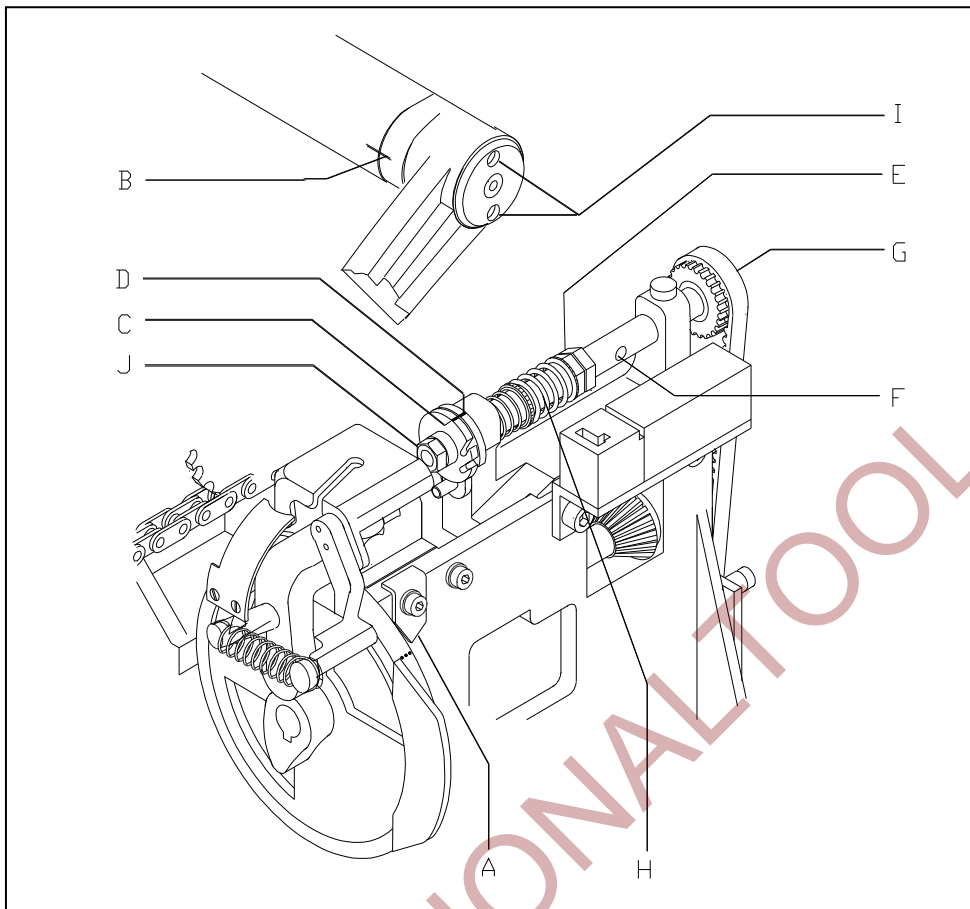
*Remove the worktop.*

*Insert an Allen key (5mm) in the relevant opening in the frame's side panel (see F in Fig. 11)*

*Pull the drive's brake lever backwards*

*Turn the Allen key in the indicated direction until the set (the loop mechanism) or needle is in the required position.*

### 7.3. Basic settings



**Figure 11: Basic settings**

#### 7.3.1. Alignment at the reference point

The binder must be aligned correctly at the reference point if a suitable knot is to be tied. The binder is adjusted to the correct setting in the factory. However, after maintenance it may be necessary to realign the binder at the reference point. The procedure is as follows:

*Turn the Allen key in the indicated direction until the reference mark on the drive wheel is aligned with the pointer (A).*

#### 7.3.2. Checking the setting of the rotor

The rotor (C) has two reference marks.

The rotor turns 180 degrees each time product is bound. The reference marks are at 180 degrees to each other, and consequently the adjustment can be made using either reference mark.

*When the reference mark on the drive wheel is aligned with the pointer the reference mark on the rotor (C) must be aligned with the reference mark on the stator (D) (this situation is shown in Fig. 11)*

If the setting of the rotor is not correct, then the procedure is as follows:

*Insert an object of a diameter of 6 mm (for example, a screwdriver) in the opening in the rotor shaft (F).*

*Loosen the clamping bush (G) with a 22-mm spanner.*

*Turn the shaft until the reference mark on the rotor (C) is aligned to the reference mark on the stator (D).*

*Tighten the clamping bush with a torque wrench set to 35 Nm. Make sure that the reference marks do not become misaligned whilst tightening the bush.*

*Turn the binding set through one revolution and check the reference marks again.*

Next, check that the rotor releases one cord before the blade cuts through the cord.

### **7.3.3. Checking the position of the needle**

Turn the drive wheel to the reference point.

Check that the reference mark on the needle carrier is aligned to the reference mark on the intermediate ring (see B in Figure 11 on page 22). If this is not the case, then the procedure is as follows:

*Remove the machine's back plate*

*Loosen the needle drive's clamping bush (see B in Figure 14 on page 26).*

*Align the reference marks on the needle carrier and intermediate ring by turning the needle.*

*Tighten the clamping bush with a torque wrench set to 50Nm. Check the alignment of the reference marks again.*

#### **7.3.4. Clamping pressure between the rotor and stator**

The clamping pressure between the rotor and stator depends on the binding material that is used.

The following check needs to be carried out to ensure that optimum clamping is achieved:

*Fit a reel of binding material, and thread it through the machine in the customary manner.*

*Allow the machine to complete a number of strokes.*

*Pull gently on the cord: it should slip through the rotor / stator without breaking.*

*Rethread the binding material, and allow the machine to complete a number of strokes.*

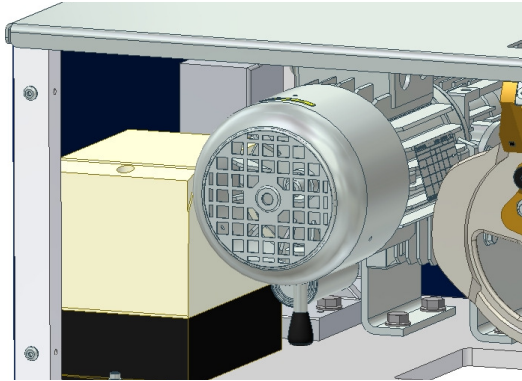
*Tug sharply and hard on the cord: if it breaks, then the setting is optimum.*

*The clamping pressure can be increased or decreased by adjusting the double nuts on the rotor shaft (see E in Figure 11 on page 22).*



#### 7.4. Six-monthly maintenance *(to be carried out by qualified personnel)*

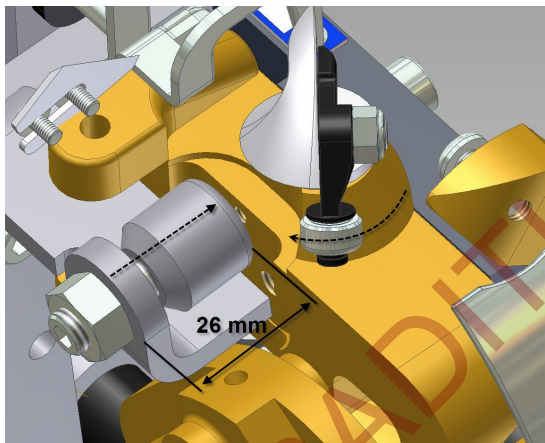
Switch off the power supply to the machine and remove the plug from the socket.  
 Remove the worktop, side panels and the cover from the crank mechanism.  
 Clean the machine with a brush or compressed air.



**Figure 12: The motor brake**

##### 7.4.1. Cleaning and adjusting the motor brake

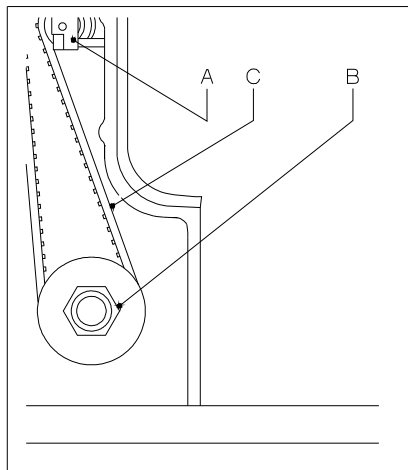
Remove the cover and the fan blade.  
 Dismantle the brake anchor.  
 Clean the brake anchor and the brake lining.  
 Carefully reassemble all parts.  
 Adjust the brake's air gap to 0.2 mm.



**Figure 13: Adjusting the knot release**

##### 7.4.2. Adjusting the knot release

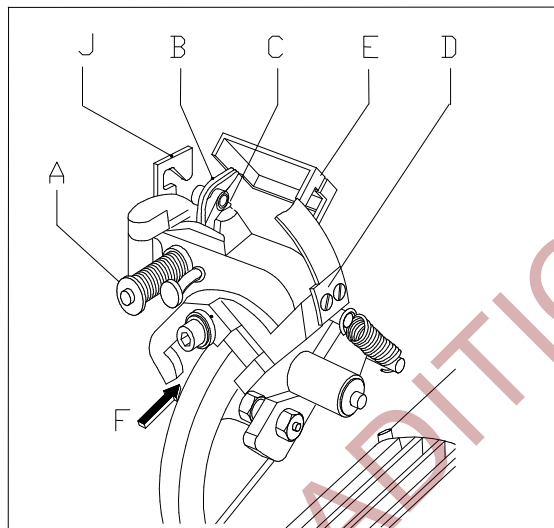
Adjust the front part of the pressure piece to a distance of 26 mm (see photo).  
 Adjust the cam of the knot release such that the pressure piece moves forward when the roller of the knot beak is just in front of the foot (see photo)



**Figure 14: Checking the needle drive**

### 7.4.3. Checking the needle drive

Check that the belt of the needle drive (C) is not damaged, and that the automatic tensioner (A) is working correctly.



**Figure 15: The tying unit**

### 7.4.4. Checking the tying unit

Dismantle the tying unit  
 Remove the catcher (D)  
 Remove the releser (E)  
 Check the bearing bushes and shafts of the pivoting points for wear  
 Check the tying gear wheel (F) for wear, in particular the flat above the teeth  
 Remove the tying jaw (C) and check the roller's play  
 Replace the bearings if necessary  
 Check all dismantled parts for burrs and/or sharp edges

Reassemble all parts in the tying unit

Refit the tying unit to the set, making sure that the tying head (B) is positioned as shown in the drawing.

Check that the clamping mechanism is working correctly.

It must be difficult or just impossible to pull the cord out of the clamping mechanism.

Check the settings of the mutual relationships between the movement of the needle, rotation of the set, and movement of the clamping mechanism

Check the stop position of the needle: this must stop at the highest point at the end of each cycle.

If this is not the case, then correct the position of the switching cam.

This switching cam is under the electrical unit, next to the conical gear wheels.

Lubricate the binder in accordance with the weekly maintenance schedule, i.e.:

Oil the pivoting points and the rollers of the catcher and releaser.  
 Grease the main curve  
 Grease the conical gear wheels  
 Grease the chain

*(The lubricants to be used are stated in Section 7.6)*

#### 7.4.5. Checking the cutting blade



**Note:** *the cutting blade is sharp.*

The cutting blade can be checked using one of two methods:

If the blade is still fitted to the machine, then the procedure is as follows:

*Reduce the tension of the cord feed to a very level*

*Use the machine to bind a test object*

*The cutting blade must still be able to cut the cord*

*If this is not the case, then the binder can still be used at the normal operating tension.*

*However, it will be advisable to ensure that a reserve blade is in stock.*

A loose cutting blade can be checked as follows:

*Hold a length of cord in your hand*

*Fold the cord over the cutting blade*

*It must be possible to cut through the cord by pressing the cutting blade gently against the cord and without moving it back and forth.*

Check that the binder is working correctly.

#### 7.4.6. Adjusting the blade

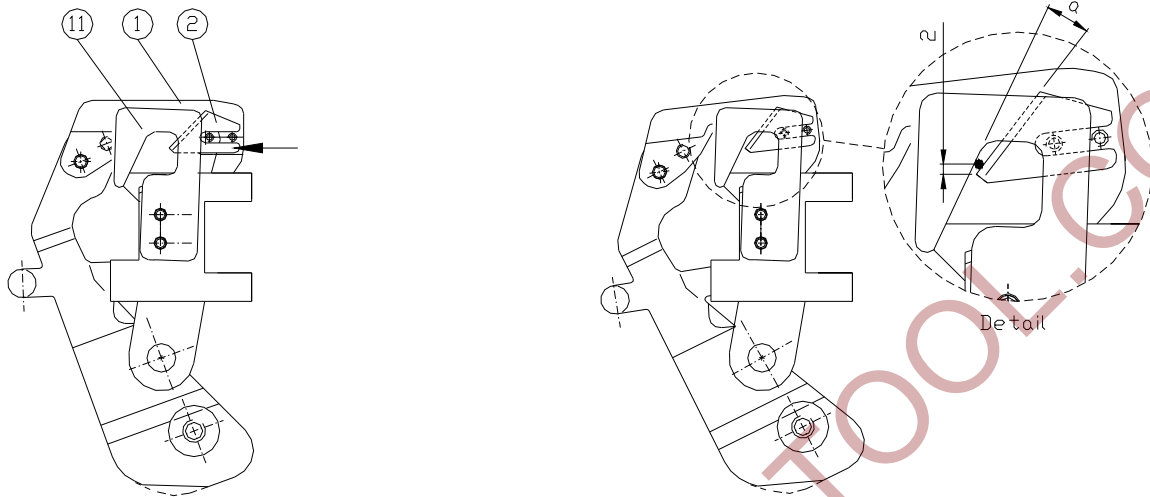
*Fit the blade (see 2 in Figure 16) to the releaser (1) and as close as possible to the counter blade (11).*

**Note:**

*The cutting blade may not contact the counter blade.*

*Make sure that a cutting angle ( $\alpha$ ) is retained between the cutting surface of the blade (2) and the cutting face of the counter blade (11) (see detail in Figure 16)*

*The contact point of the elastic cord must be located at  $\pm 2$  mm above the lowest point of the blade (see detail in Figure 16)*



**Figure 16: Adjusting the cutting blade**

## 7.5. Checking the safety clutch



*Never adjust the safety clutch such that it is too tight, or even locked. The indicative force for the operation of the clutch is 3-4 kg imposed on the needle's point. An excessively tight clutch can cause severe injury.*



*The safety clutch must operate correctly to protect the machine's operator.*

The safety clutch must operate correctly to protect the machine's operator.

The safety clutch is adjusted correctly when the vertical force required to pull the needle out of the clutch is about 30 N.

## 7.6. Lubricants

OIL : SAE 10W40

GREASE : Mobil grease HP 222 Blue grease

For Marine or Food-version binders:

OIL : SAE 10W40

GREASE : VG 02 (FDA-approved for use in the food industry  
USDA-H1-approved for contact with food)

## 8. Troubleshooting

Problem	Possible cause and solution
<b>The binder does not work at all</b>	<p>Check the power supply.</p> <p>Check that the top plate is fitted correctly to the machine, and that the safety cut-out is pressed in.</p>
<b>The needle stops mid-way, or irregularly</b>	<p>Activate the start switch again. If the needle <i>does</i> now stop correctly then the top plate may be fitted incorrectly.</p> <p>If the needle still stops irregularly then check the switching cam (next to the conical gear wheels) to verify that it is not loose.</p> <p>Check the adjustment of the motor brake.</p> <p>Blow the brake air gap clean, and adjust to a gap of 0.2 mm.</p> <p>Check the needle's safety clutch to determine whether the force is set too low.</p> <p>Two socket screws in the needle's pivoting point are used to adjust the safety clutch force (see M in Fig. 1)</p> <p>Recommendation: Begin by turning the socket screws anticlockwise as far as they will go (to against the disc), and then turn them clockwise through one turn.</p>
<b>The cord is not released from the tying unit</b>	<p>Increase the cord tension (see C in Figure 8).</p> <p>If this does not solve the problem then replace the cutting blade.</p> <p>Reduce the pressure on the tying unit (see A in Figure 8).</p> <p>Check that the tying jaw hinges smoothly: if this is not the case, then adjust the locking nut.</p>
<b>The cord is not taken up by the clamping mechanism</b>	<p>Check that the needle movement is correct relative to the rotation of the rotor: when the setting is correct the cord is clamped by the clamping mechanism when the needle approaches its extreme position.</p> <p>If this is not the case, then adjust the clamping mechanism in accordance with the basic settings.</p>

<p><b>The cord flies off the product or out of the machine</b></p>	<p>Use an Allen key (6 mm) to turn the machine by hand.          Check whether the cord is clamped properly by the rotor at the right time.          Pull on the clamped cord to check that it cannot readily be drawn out of the rotor and stator.          Check that the rotor does not release the cord too early (the cord may be released from the clamping mechanism only once the tying unit is completely closed and the releaser moves forward).</p>
<p><b>The cord is jammed between the rotor and stator</b></p>	<p>The rotor can be dismantled very easily after removing the hexagonal M8 nut.          Remove the cord, and fit the rotor back on the key.          Do not overtighten the M8 nut. The nut will not come loose due to the direction of rotation of the rotor.</p>

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## **Bijlage 1. Machine data and general drawing**

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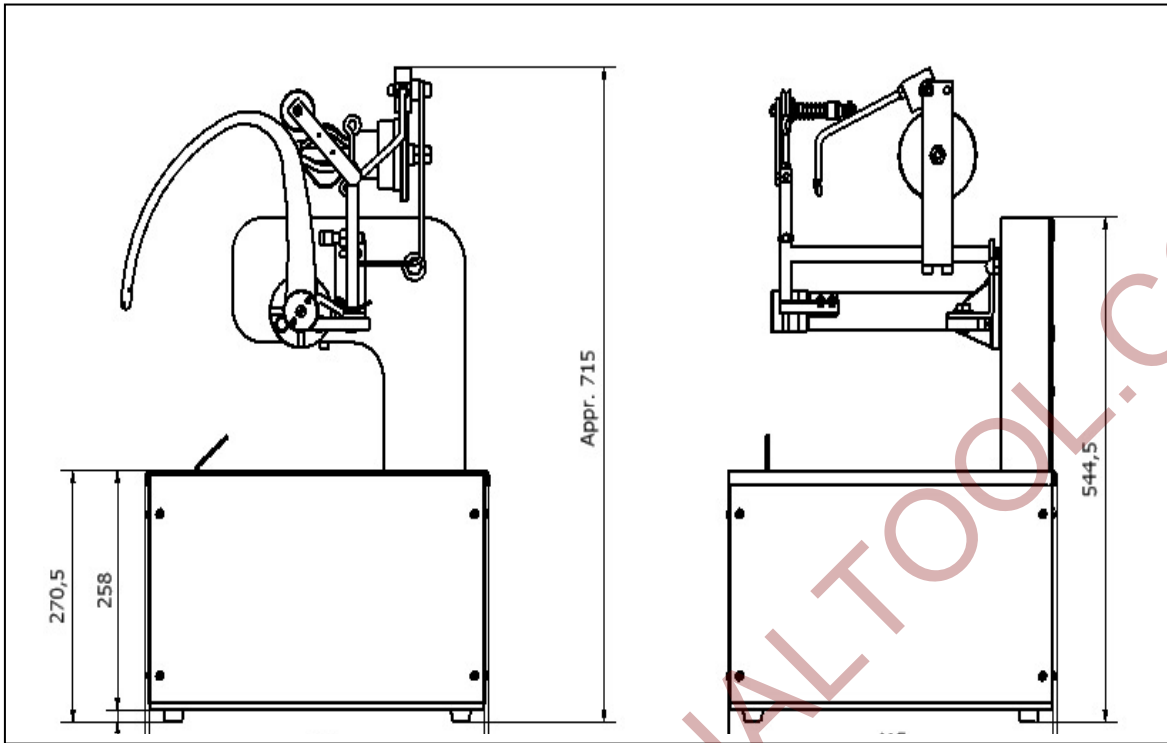
### **B 1.1. Machine data**

Capacity	: cycle time 0.67 sec.		
Clear height	: 155 mm		
Clear depth	: 260 mm		
Power supply	: 230V / 50 Hz	200V / 50 Hz	200V / 60 Hz
(depending on the version)	: 100-120V / 50 Hz	100-120V / 60 Hz	
Motor power rating 1Ph	: 0.22 kW		
Motor power rating 3 Ph	: 0.18 kW		
Weight	: approx. 45 kg		
Noise level	: 75 dB		

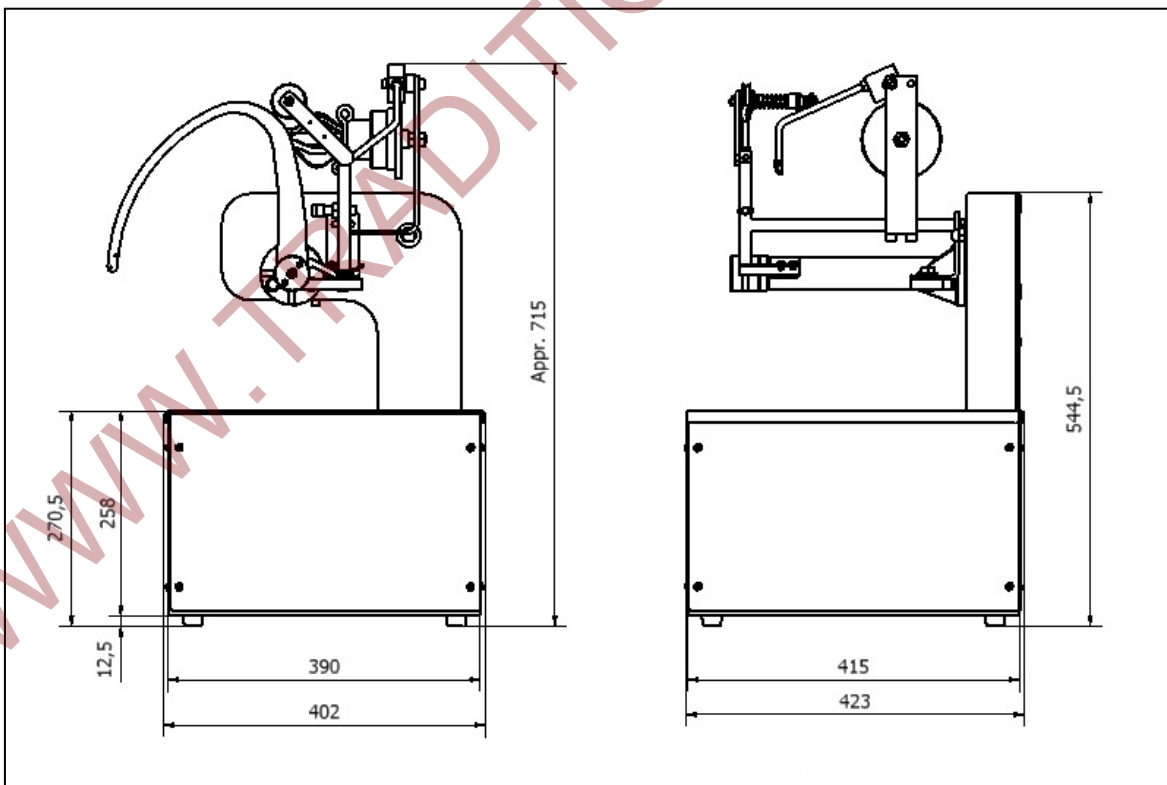
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**B 1.2. General drawings**



**RLC-Binder**



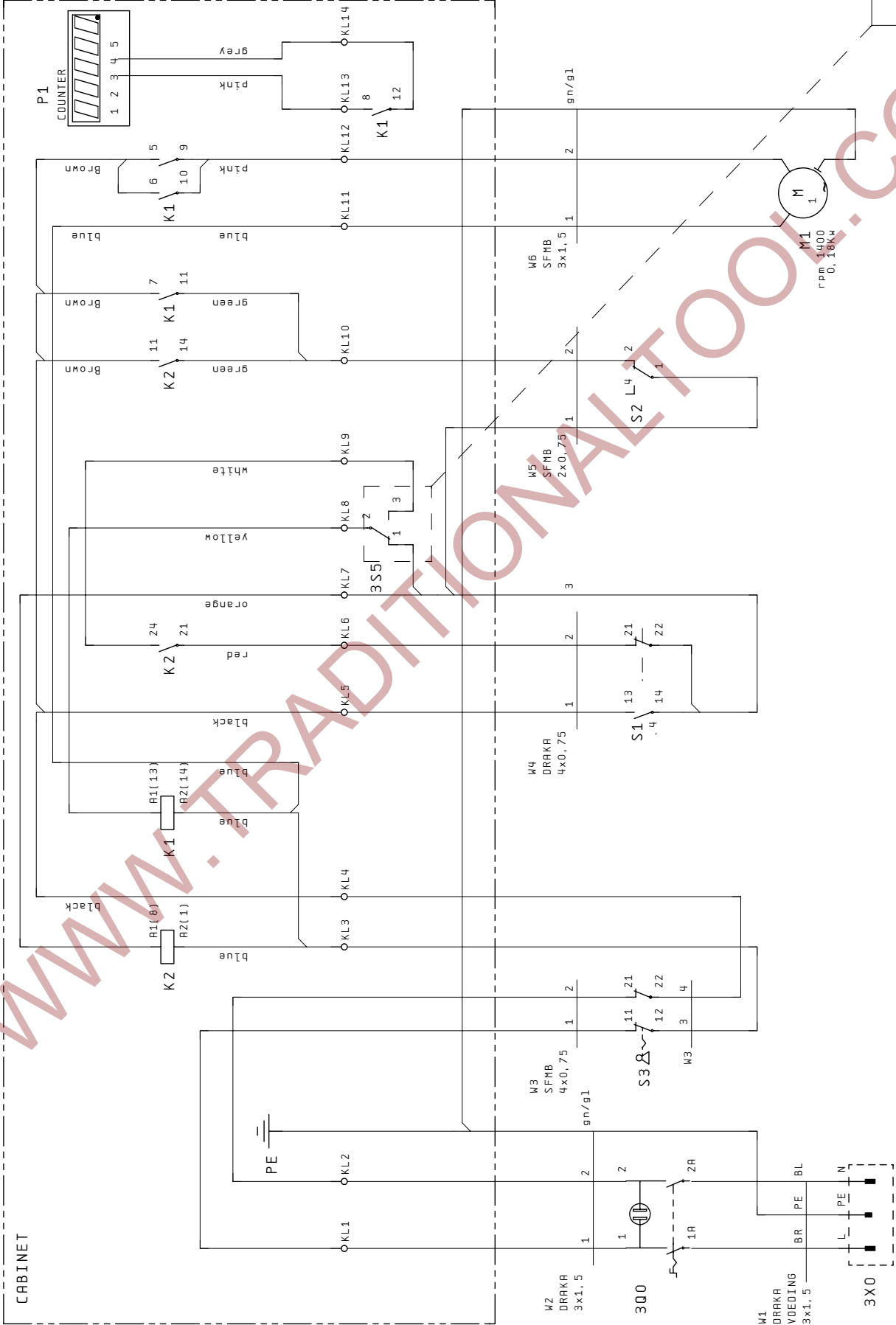
**FQC-Binder**

## **Bijlage 2. Diagrams**

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1. Control circuit diagram, Axro-RLC 230V
2. Control circuit diagram, Axro-RLC Basic
3. Control circuit diagram, Axro-RLC Pulse
4. Control circuit diagram, Axro-FQC page 1
5. Control circuit diagram, Axro-FQC page 2

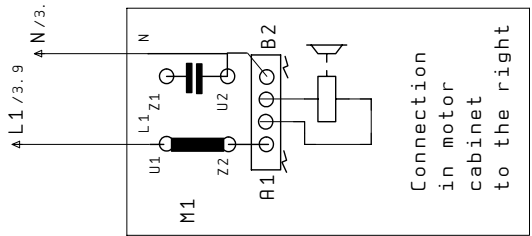
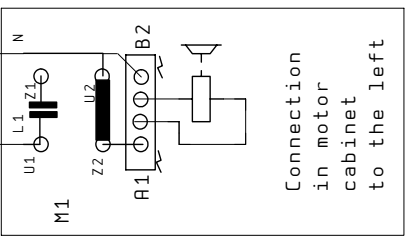
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1.K0

CABINET

4L1/3.9  
N



For preswitch  
displace option switch 3S5  
Selector to After

Power  
230V

TABLE  
PROTECTION  
SWITCH

TABLETOP  
SWITCH

STOP

TOPSWITCH

Motor  
1P 230V

M1  
1400  
rpm  
0,18kW

W2  
DRAKA  
3x1,5

W3  
SFMB  
4x0,75

W4  
DRAKA  
4x0,75

W5  
SFMB  
2x0,75

W6  
SFMB  
3x1,5

300

gn/g1

gn/g1

gn/g1

TABLE  
PROTECTION  
SWITCH

TABLETOP  
SWITCH

STOP

TOPSWITCH

Motor  
1P 230V

M1  
1400  
rpm  
0,18kW

W2  
DRAKA  
3x1,5

W3  
SFMB  
4x0,75

W4  
DRAKA  
4x0,75

W5  
SFMB  
2x0,75

W6  
SFMB  
3x1,5

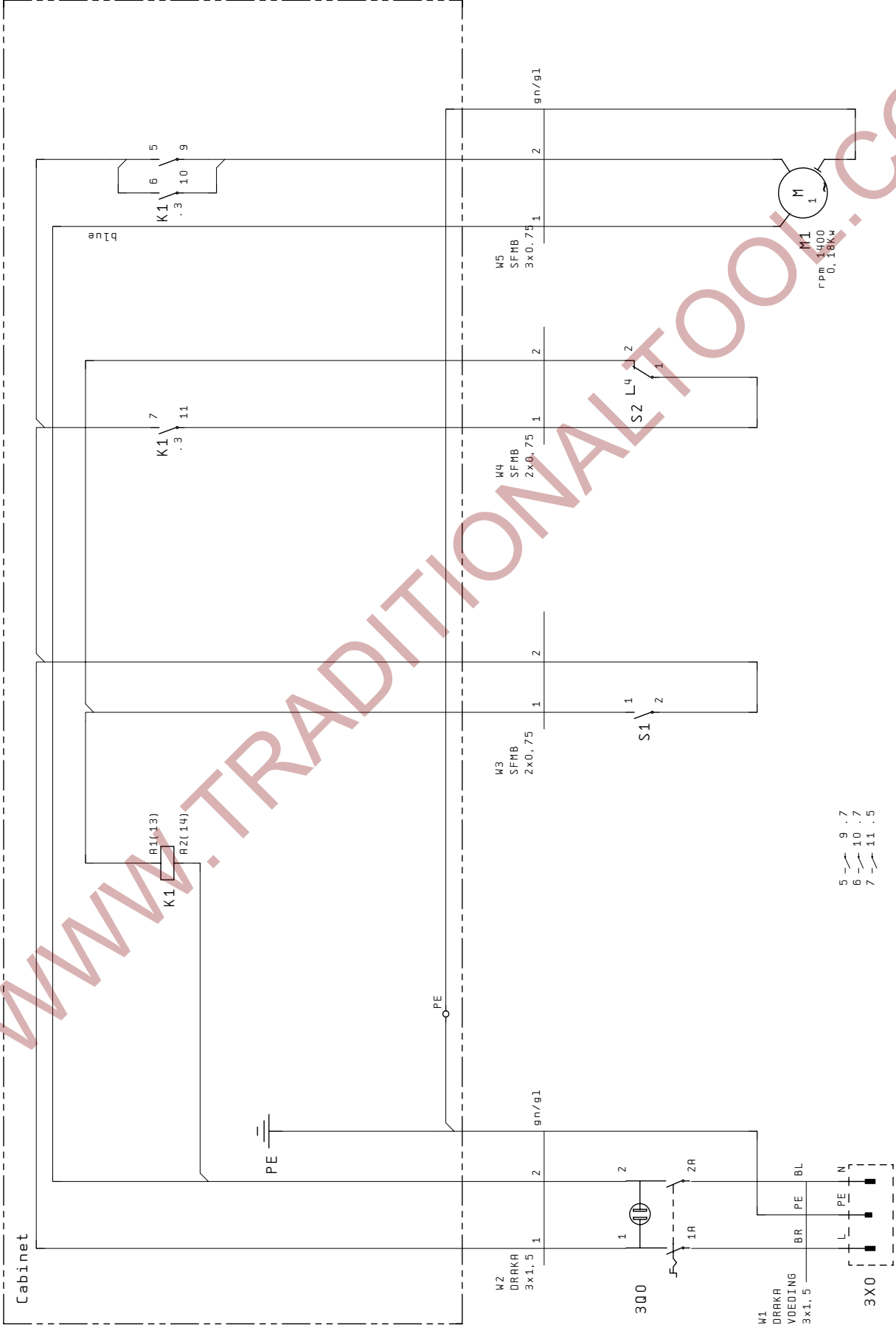
300

gn/g1

gn/g1

gn/g1

0 1 2 3 4 5 6 7 8 9



1.K0

Cabinet

PE

W2  
DRAKA  
3x1,5

300

W1  
DRAKA  
VOEDING  
3x1,5

2A

1A

BR PE BL

3X0

L PE N

PE

W3  
SFMB  
2x0,75

1 2

W4  
SFMB  
2x0,75

1 2

W5  
SFMB  
3x0,75

1 2

gn/g1

9 . 7

10 . 7

11 . 5

K1

A1(13)  
H2(14)

7

11

blue

K1

.3

5

6

9

10

M1

1P 230V

rpm 1400

0,18Kw

4L1/3..9

N

4N/3..9

U1

L1

Z1

U2

Z2

A1

B2

Connection in motor cabinet to the left

U1

L1

Z1

U2

Z2

A1

B2

4L1/3..9

N

4N/3..9

U1

L1

Z1

U2

Z2

A1

B2

Connection in motor cabinet to the right

U1

L1

Z1

U2

Z2

A1

B2

4L1/3..9

N

4N/3..9

Power  
230V

TABLETOP  
SWITCH  
START

TOPSWITCH  
STOP

MOTOR  
1P 230V

4

2

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Chg	Date	Name	Norm

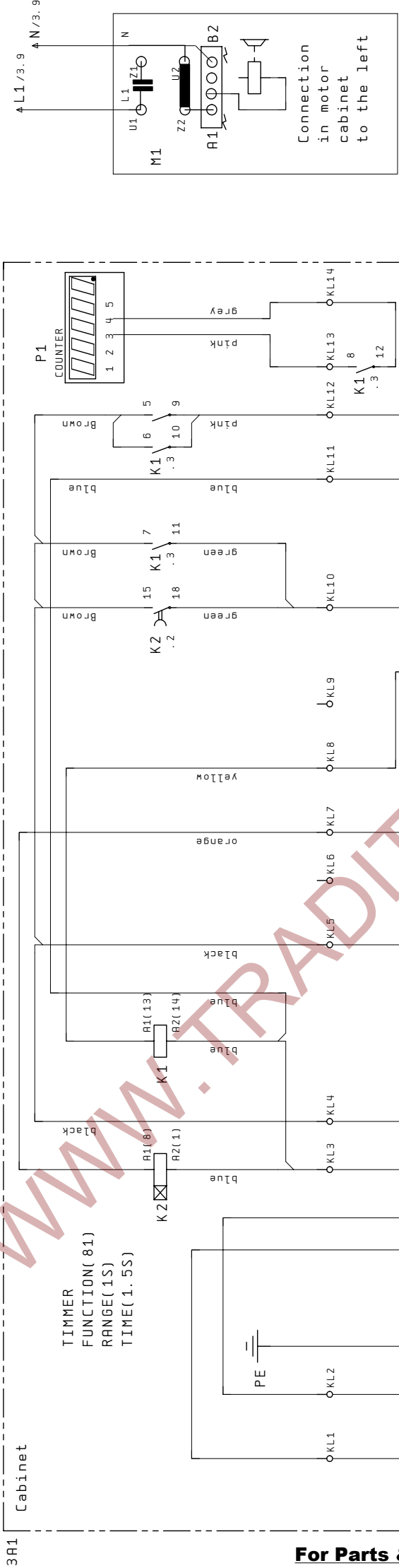
CYKLOP NEDERLAND B. V.  
B. FRANKLINSTRAT 5  
8013 NC ZWOLLE

EMT-AXR0-230V-BASIC  
SCHEME

THE  
STRAPPING  
COMPANY  
INTERNATIONAL

Benjamin Franklinstraat 5  
8013 NC ZWOLLE  
Tel. 038 - 4675600  
Fax. 038 - 4675699

0 1 2 3 4 5 6 7 8 9



3A1

TIMMER  
FUNCTION(81)  
RANGE(1S)  
TIME(1.5S)

Cabinet

Power  
230V

TABLE  
PROTECTION  
SWITCH

TOPSWICH  
STOP

FOOTSWICH  
START

Motor  
1P 230V

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2

30. Jun. 2006

CYKLOP NEDERLAND B. V.

EMT-AXR0-230V-PULSECIRCUIT  
scheme pulsecircuit

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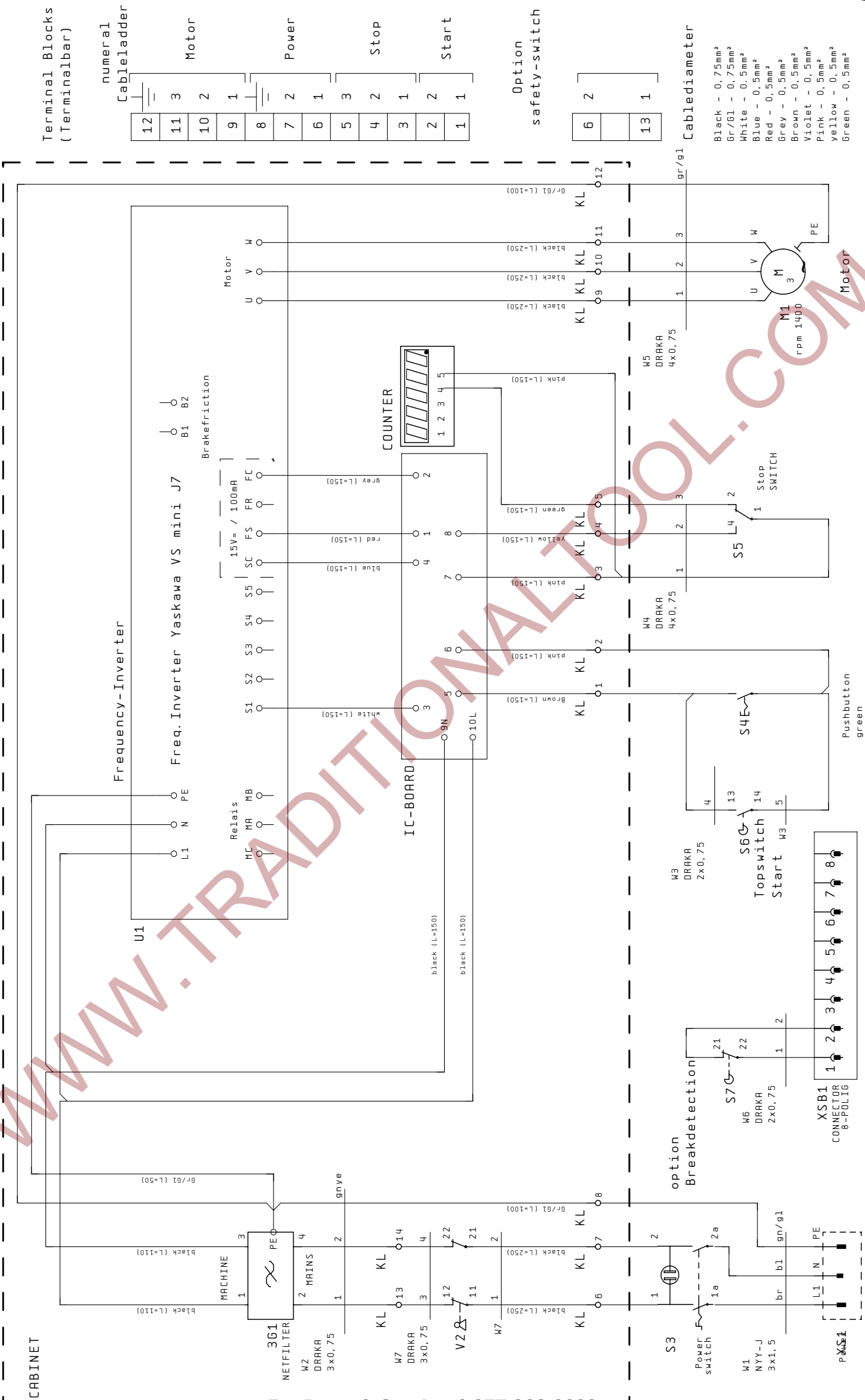
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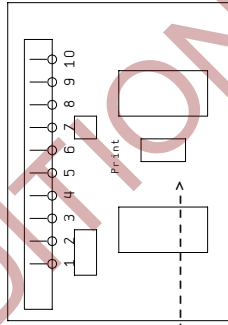
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Preswitch

Afterswitch

Machine for afterswitch  
 move jumper on IC-board  
 see image

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R	TVP	27-0400Ze	21. Apr. 2006
		Eng.	TVP
		Chkd	24. Okt. 2008
Chg	Date	Name	Norm

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 B. Franklijnstraat 5  
 8013 NC ZWOLLE

Axro Mini  
 Afterswitch



THE STRAPPING COMPANY

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