

*Machine for sticking headbands*

# **UNIBAND**

*Operating instructions*



Original operating instructions  
Before servicing or maintenance of this product study  
the operating instructions and become familiar with them  
EN 012019

# ***UNIBAND***

## **New control system**



The very compact X20 system offers high module reliability and is particularly efficient on wire and maintenance thanks to its 3-ply design.



### New features

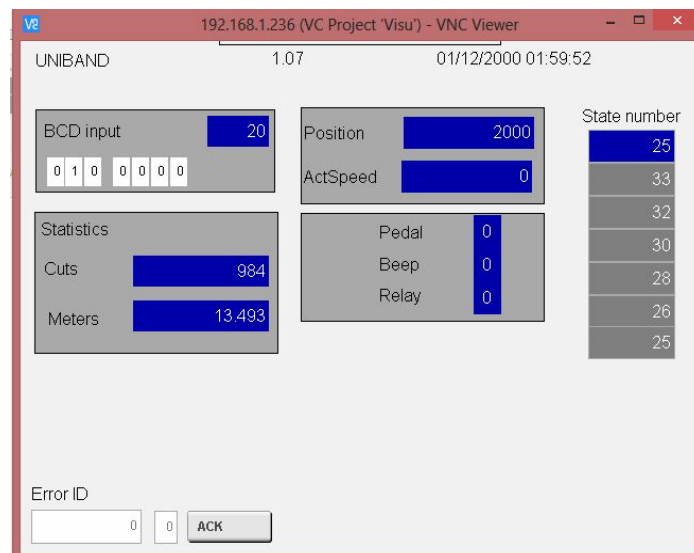
When the operator changes the set value, the machine automatically adjusts to the new value. This means, that it is possible to process books of different thicknesses, which is especially useful for digital production. The new value is confirmed by a short beep.

In case of service, it is possible to connect to the machine using a laptop.

You need to have a freeware VNC Viewer program installed from page:

<https://www.realvnc.com/en/connect/download/vnc/>

After entering the address 192.168.1.236 the service interface will be displayed



Through this interface, it is possible to check the actual input and output values, the number of work cycles etc.

When using software TeamViewer QuickSupport, you can connect to the machine from a remote computer.

**Notice: *When the machine is switched on, the system is initialized for about 20 seconds. After 3+1 short beeps, the machine is ready for operation.***

# Operating instructions

All technical and technological information stated herein as well as any drawings attached to these operating instructions are intellectual property of our company and may not be used for any other purpose except the operation of the machine, copied, made available or transferred to any other third party without the prior written consent of our company.

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# **1 Introduction**

## **1.1 Foreword**

These operating instructions serve for the operators of the machine, the staff servicing the machine and the staff responsible for purchase of spare parts.

The operating instructions contain all important and useful information for proper operation and maintenance of the machine as well as important instructions to prevent possible accidents or damages and to secure the safe and proper use of the machine.

**! Prior to putting the machine in operation read the operating instructions carefully, become familiar with the machine operation and adhere to the instructions strictly!**

The information stated in the operating instructions is in coherence with the most updated information at the time of making printed versions of the document.

However, the information stated herein may become a subject to their later modifications.

The company mind.ing reserves the right to modify the machine construction and its design without any obligation to modify previous models accordingly.

## **1.2 Safety**

The operating instructions contain instructions for the safe machine operation. The operators and the staff servicing the machine must familiarize themselves with the instructions. The operating instructions should be located in the immediate vicinity of the machine for operators.

It is forbidden to make any changes of the machine.

List of relevant symbol used in the instructions and their meaning are stated below.



**Personal hazard to the user. Strict and immediate adherence to the relevant instructions is required! Adhere to the instructions and warnings in a responsible manner. Ensure the safety of the personnel in the vicinity of the machine and its parts.**

**! Risk of damage or improper operation of the machine. Follow the relevant instructions to avoid the risk.**

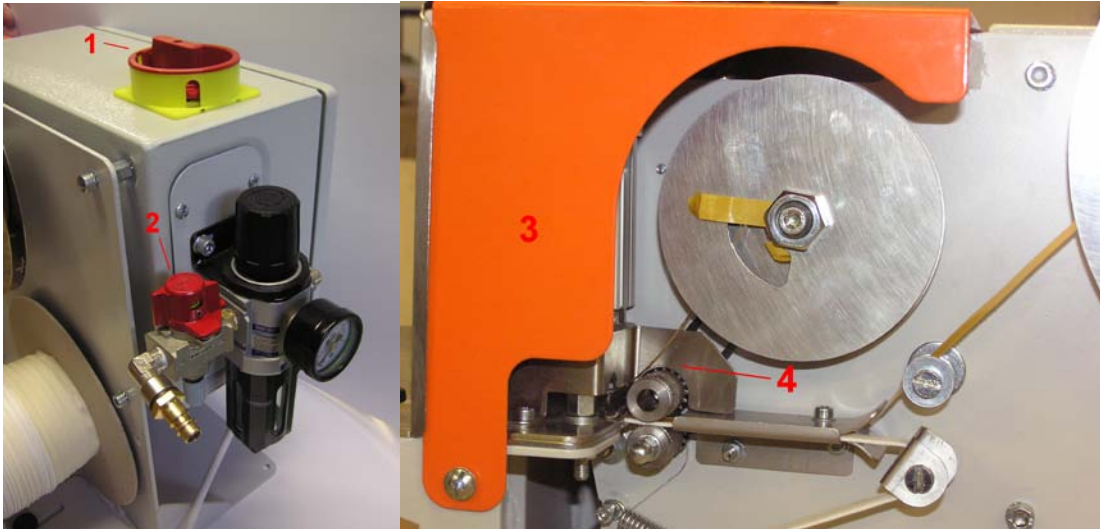


**Caution! Dangerous electrical voltage! Improper manipulation with the distribution box, wires or power cables may lead to a risk of electric shock and cause injury, burns or fatal accident.**

The company mind.ing has developed these operating instructions in a responsible manner. Despite this fact, the company mind.ing cannot guarantee the completeness of the information and therefore the company shall not be liable for any deficiencies in these instructions. The purchaser/user shall always be responsible for verification of all relevant information and for any additional and/or different safety precautions. The company mind.ing reserves the right to change the safety instructions.

### **1.3 Description and location of safety components**

1. Machine main switch (lockable) in the off position
2. Main closure of pressure air (lockable) in the off position
3. Protecting cover of the drive with coupling parts which remain on the cover after its dismantling
4. Protecting cover of the moving components with a safety distance of 6 mm



### **1.4 Maintenance of safety components**

Prior to the start of the machine operation check the function and presence of the safety components.

### **1.5 Guarantee**

According to the law, following conditions will lead to an immediate cancellation of the guarantee:

- Failure to follow the instructions for servicing and/or maintenance of the machine.
- Failure to follow the instructions for proper installation and operation of the machine.
- Modification of the product supplied without the previous written consent of our company.
- The use of spare parts other than original spare parts from the company mind.ing.
- The use of other materials or lubricants than recommended.
- The machine supplied is not used in compliance with its characteristics and/or purpose of the use.
- The machine supplied was used in an amateur, careless, improper and/or negligent manner.
- The machine supplied was damaged due to the circumstances over which our company has no control.

**The guarantee shall not cover any components that are subject to wear.**

## **1.6 Verification of supplied items**

After the delivery of the machine check that there are no damages of the consignment. In case of any damages and/or missing components prepare a report and hand it in to the carrier.

## **1.7 Instructions for transportation and storage**

### **1.7.1 Dimensions and weight**

The machine is too heavy to be moved manually. Use proper transport and lifting equipment. The dimensions and weight of the machine are an integral part of these operating instructions.

### **1.7.2 Use of pallets**

The machine is usually delivered on a pallet. Leave the machine on the pallet as long as possible to prevent it from damages and to make internal transportation easier.

**! When using a fork-lift or a low-lift truck lift the consignment by both lifting forks to prevent from overturning! Avoid vibrations of the machine during the transportation!**

## **1.8 List of spare parts**

These operating instructions contain a list of spare parts recommended by the company mind.ing. In case of ordering spare parts or any written communication regarding the machine always write all the data marked on the machine type label. Should you have any other questions in relation to specific topics, please contact the company mind.ing.



## **2 General information**

### **2.1 Description and use of the machine**

The machine serves for sticking the headbands onto backs of separate book blocks. The machine joins a headband with a double sided adhesive tape and unwinds a required length of headband with double sided adhesive tape. The operator then inserts a book-block into the machine and after stepping on the pedal the headband is stripped off and further material is fed in to allow the processing of a next book block.

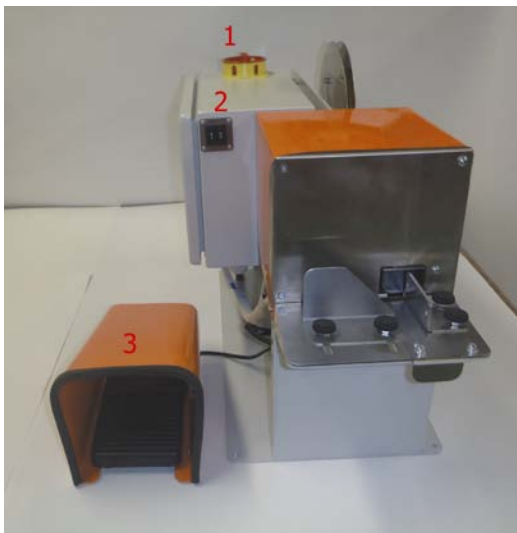
### **2.2 Machine construction**

The machine complies with the requirements for the CE marking - see the EC Declaration of Conformity. All the requirements of international standards for hygiene, ergonomics and occupational safety standards have been fully taken into account in the machine design. The machine complies with the requirements to bear CE marking.

### **2.3 Description of working site**

The machine is designed for the use solely in internal environment and it is of desk-top design. The recommended height of the desk is 90cm.

### **2.4 Operating and control components**



#### **1. Machine main switch - lockable**

Power supply is switched on and off by the main machine switch. When the main switch is in "I" position, the machine is ready for operation.



**When the main switch is in the off position, the surrounding part remains energized!**

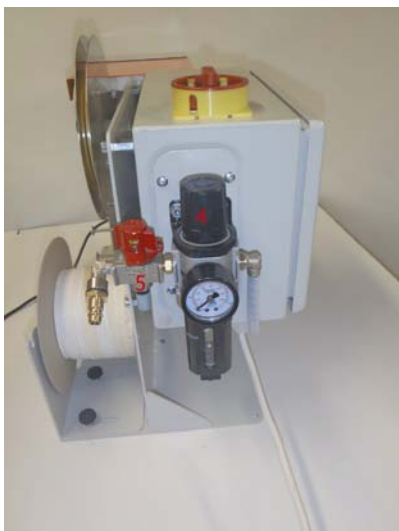
#### **2. Setting of headband length**

The setting serves for adjustment of the required headband length.

#### **3. Control pedal**

The pedal serves for the start-up of the cycle.

Picture 1



#### **4. Pressure regulator with condensate separator**

It serves for adjustment of operating pressure and manual condensate drainage.

#### **5. Main closure of pressure air - lockable**

It enables to disconnect pressure air and vents the pneumatic circle of the machine.

Picture 2

## **2.5 Scope of supply**

The UNIBAND machine

1 pc double sided adhesive tape

1 pc reel with headband

1 pc pincers

1 pc imbus key 3 mm

1 pc distribution box key

1 pc spare O- ring with dimensions of 54 x 3,5

2 pc spare knives

1 pc operating instructions

## **2.6 Technical data**

length 690 mm

width 290 mm

height 420 mm

weight 22 kg

power supply 230 V, 50 Hz

input power 0.4 kW

operating pressure 0.6 MPa

pressure air consumption cca 3l/min

noise 73 dB

max. length of unwinding 79 mm

### **3 Putting the machine in operation**



Prior to putting the machine in operation test and check the operational safety of the machine to exclude any damages or failures of the machine.

Check particularly:

condition of electrical wires, sockets and joints. Make sure that all parts of the machine are bolted firmly and properly.



After the detection of any damage or failure, you must not operate the machine unless the damage or failure is not properly repaired.



Any servicing or maintenance of the machine is only allowed with the machine main switch in the off position; electric power supply cable must be unplugged and the supply of pressure air disconnected!!! Inserting the hands into the area of cutting knife during operation is stringently banned. The operator is obliged to use the supplied pincers to remove or feed any material from and into the machine.

#### **3.1 Placing and connection of the machine**

The machine is of a desk-top design. The recommended height of the desk is approx. 90 cm. After placing the machine on the desk plug the connecting cable into the power supply socket. Then connect the pressure air supply to the pressure control device inlet, open the air supply into the machine by turning and adjust the air input pressure to 0.6 MPa (6 kg/cm<sup>2</sup>). The operating reliability and service life of pneumatic components depend largely on the quality of pressure air. The machine is ready for operation after the main switch is turned on.

**!** After turn on the main switch, you need wait for the processor to initialize. After 3+1 short beeps, the device is ready for operation.

**!** Make sure that the quality of pressure air is adequate so that there is no leakage of water or oil into the machine pressure air circuit.

### **4 Operation**



During transportation, installation and machine dismantling as well as during machine operation, servicing and maintenance you must always adhere to the all relevant national and international legal regulations and occupational safety acts in force even when it is not expressly stated in these operating instructions.



Prior to troubleshooting, cleaning and maintenance of the machine set the main switch into the "0" position and lock it. Remove the plug and disconnect the pressure air supply by turning and locking the main closure of pressure air. Ensure that it is not possible to connect the machine into the power supply and pressure air supply during the execution of the works stated above.

#### 4.1 Installation of a double sided tape and headband

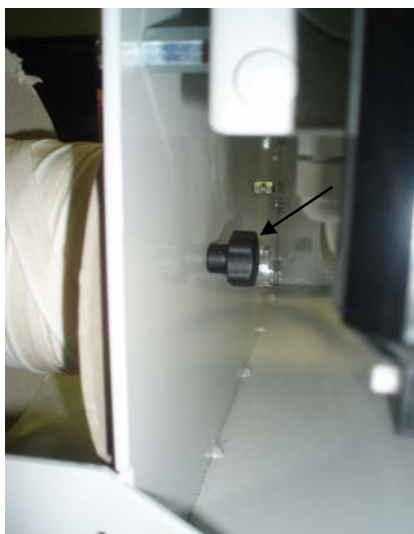


The installation of a double sided tape and headband is only allowed when the machine is switched off and the supply of pressure air disconnected!

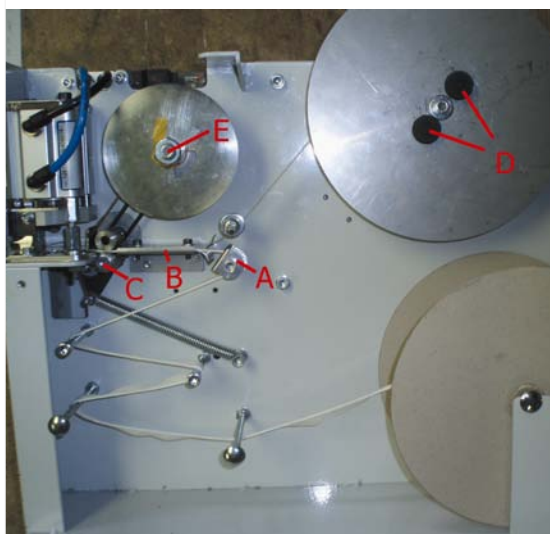
**!** We recommend that a double sided tape such as that supplied by Tesa, for example, of 9 mm width with the length of 50 m, and a headband of 15 mm width with the length of 200 m, supplied by Pega Krnov, is used.

**!** Prior to installing the machine adjust the headband length setting to 00 value. /with this setting the length of material unwound each time upon switching the machine on will be 10 cm without cutting. /

Upon releasing the nut shown in Picture 3 remove the shaft and insert the reel with headband in a manner ensuring that the headband is always unwinding in direction as per Picture 4 and the braiding is directed towards the disk outer edge. Then refasten the shaft with nut again.



Picture 3



Picture 4

As shown in Picture 4 the headband should be moved out to and passed through the router A; see Picture 5. Then insert the headband in between the guiding metal sheets B and advance it by means of pincers towards the small guiding wheels C. Then gently push the bottom guiding wheel downwards to create a gap for inserting the headband. Then release the two screws D on the double sided tape unwinding mechanism cover and remove the cover. /Make sure that the screw in the middle remains untouched, because this only serves for adjusting the unwinding force./ Place on the disk with double sided tape and reinstall the cover. The tape should be moved out to the headband and over the router and attached to using the pincers approx. 1 mm below braiding over approx. 20 mm length. After releasing the nut E on the cover remove the winder little cover.

Switch the machine on /pressure air remains disconnected/ and step on the pedal to feed a headband for a few advances so that the headband with the glued on tape sticks out from the machine for approx. 20 cm.



Picture 5

Remove the tape base from the headband and with the use of pincers move it backwards through the slot shown on Picture 6 towards the tape base winder. Then insert the tape base through the cover and reinstall the cover in place securing it with a nut in a manner so that the nut secures the end of the tape. Tighten the tape by manually rotating the winder. If necessary, use the pedal to advance the tape and manually rotate the reel on the winder. Connect the supply of pressure air and adjust the value of winding force on the headband winder. Advance the machine by making a single step without any book inserted so that the required length of headband sticks out. Then use the pincers to remove the surplus length of the headband.

Warning! The cover of the moving parts on the Picture 6 was removed for better visibility.

**! Make sure, when using the pincers in the cutting knife proximity, that the knife is not damaged due to an accidental careless movement.**



Picture 6

## 4.2 Machine operation

Enter the required headband length. The set value is confirmed by a short beep.

Adjust the backstops shown in Picture 7 so that there is sufficient space for inserting the book into the machine. Insert the book between the backstops and by stepping on the pedal advance the machine for one cycle. Then remove the book because after 1s the headband will be advanced again. If the book has curved backs the procedure is as follows: Measure the necessary headband length and the thickness of the book block to be processed. Deduct the value of book thickness from the total required length of the headband and divide the obtained figure by two. The result is the required thickness of cardboard to be attached by means of a small strip of double sided adhesive tape onto the back wall of space intended for inserting the book. We shall thus gain the necessary spacing for proper sticking of the headband. Upon inserting the book and advancing the machine for a single cycle make sure that you manually force the headband against the book block. In case the curved backs of separate books due to a variety of reasons are of different dimensions, or the books are too heavy and big to allow the manual insertion and the headband fails to properly stick on, **upon folding down the plastic cover** on the cutting knife chamber the headband may be removed /Picture 8/ and sticking on the book done manually



Picture 7



Picture 8



During operation of the machine the operator shall follow unwinding of separate materials and tape base winding. In case the reel with a wound on tape base is full the wound on waste material should be removed. When the double sided adhesive tape reel is empty the headband being released from the machine has no adhesive layer. In such case the operator should install a new reel and continue the operation.

An important moment occurs when only little material on the reel with headband is left. The operator must monitor the situation and install a new reel with material on the machine.

**! Otherwise there is some hazard that the adhesive tape without the headband gets into the machine which may result in fouling the machine with double sided adhesive tape residues. If this occurs clean the guiding elements from trapped dirt.**

## **5 Machine maintenance**



**During transportation, installation and machine dismantling as well as during machine operation, servicing and maintenance you must always adhere to the all relevant national and international legal regulations and occupational safety acts in force even when it is not expressly stated in these operating instructions.**

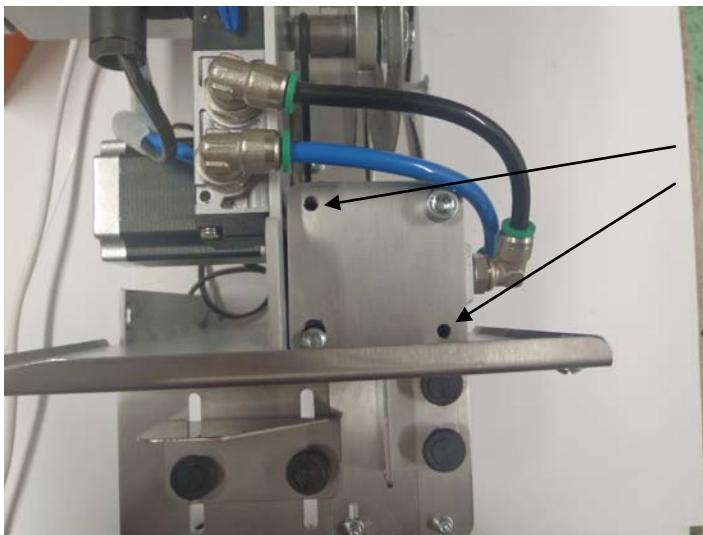


**Prior to troubleshooting, cleaning and maintenance of the machine set the main switch into the "0" position and lock it. Remove the plug and disconnect the pressure air supply by turning and locking the main closure of pressure air. Ensure that it is not possible to connect the machine into the power supply and pressure air supply during the execution of the works stated above.**

### **5.1 Condensate drainage**

It is necessary to regularly inspect the indicated condensate level on the pressure control device or in the condensate tank. The surplus condensate may be drained off with the use of a manually operated piston located on the bottom side of the condensate tank, or the condensate may be drained off automatically upon disconnecting the pressure air supply.

### **5.2 Plan of lubrication**



We also recommend that you fill a few drops of oil into the two holes situated on the upper side of the pneumatic cylinder, which will provide for proper lubricating of all linear guiding elements once a month. The holes may be filled after the machine cover has been removed

Picture 9

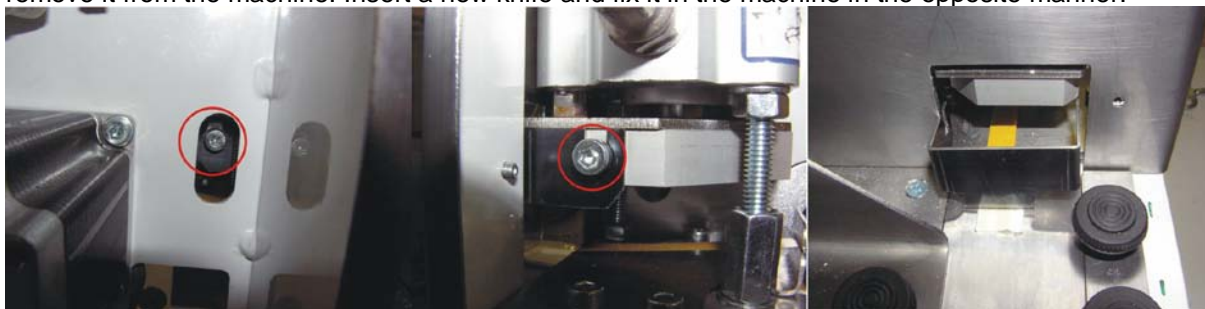
### 5.3 Replacing the cutting knife

The cutting knife is a consumer product and its wear depends on material properties of which the headband and double sided adhesive tape is made. If cutting of material is not perfect first try to adjust the bottom finishing metal sheet by shifting it a little forward or backward into a new position. The movement of finishing metal sheet is possible after releasing the fastening screw. Another option is to change the springing force between the finishing metal sheet and cutting knife by adjusting three screws from the bottom side.



**If the cutting knife needs replacing this is allowed only after prior disconnecting the machine from the power supply and pressure air supply!!!**

Release the two screws on side walls of the orange cover and using the gentle force remove the cover upwards by rotating it. Dismount the plastic protection on the knife and the side stop. By using the gentle force release the screws on the left and the right side of the knife. Pull the knife downwards and remove it from the machine. Insert a new knife and fix it in the machine in the opposite manner.



Picture 10

## 6 Troubleshooting



**The troubleshooting table does not replace the instructions described in the chapters of these operating instructions. Follow the safety instructions and warnings described in the relevant chapters!**

Problem	Probable cause	Remedy
<b>Motor does not run</b>	No power supply	Check the power supply and plug-in the inlet socket if necessary
		Check the breaker in the distribution box
<b>Cutting of material is not perfect</b>	Low or no air pressure	Check the air pressure
	The bottom finishing metal sheet is worn	Shift the bottom finishing metal sheet a little forward or backward
	The springing force between the finishing metal sheet and cutting knife is weak	Change the springing force at the required point by adjusting one of the three screws from the bottom side



<b>Cutting of material is not perfect</b>	The cutting knife is worn	Change the cutting knife
<b>Headband is twisting too much after sticking from the machine</b>	High braking force on the double sided adhesive tape unwinding mechanism	Decrease the braking force on the double sided adhesive tape unwinding mechanism. Release two nuts on the unwinding mechanism central axis and slightly turn the middle screw to the left. Retighten the nuts. The reel will be unwound with a lower resistance.
<b>Headband advances too much upwards after sticking from the machine</b>	Full reel of the tape base	Remove the wound on tape base from the reel

## **7 Spare parts and accessories**

**! Use solely the spare parts and accessories supplied by the company mind.ing. The company mind.ing s.r.o. shall not be liable for any damages arising out of the use of unauthorized spare parts or accessories. The manufacturer shall not be liable for any damages arising out of arbitrary modifications of the machine.**

Please apply for the list of spare parts and accessories from our company.  
In case of any questions or placing of order please contact our dealer.

## 8 **EC Declaration of Conformity**

In accordance with Directive 2006/42/EC on machinery, Annex II.A

Manufacturer: mind.ing s.r.o.  
Medzilaborecká 17  
821 01 Bratislava  
The Slovak Republic

The person authorized to elaborate the documents:

Ing. Milan Minda  
mind.ing s.r.o.  
Medzilaborecká 17  
821 01 Bratislava  
The Slovak Republic

The undersigned hereby declares that the line referenced below has been designed and constructed in conformity with the basic health and safety requirements of the EC Directive on machinery.

Product: Machine for sticking headbands

Type: UNIBAND

Serial number:

Year of manufacture:

The manufacturer declares that the product is in conformity with the following EC directives:

- |  |  |
|--|--|
| 1. Directive EC on machinery                     | <b>2006/42/EC (Regulation of the Government of the Slovak Republic No. 436/2008 Coll.)</b> |
| 2. Low Voltage Directive                         | <b>2006/95/EC (Regulation of the Government of the Slovak Republic No. 308/2004 Coll.)</b> |
| 3. Electromagnetic Compatibility Directive (EMC) | <b>2004/108/EC (Regulation of the Government of the Slovak Republic No.245/2004 Coll.)</b> |

The EC declaration of conformity has been elaborated on the basis of the inspection report and certificate issued by the duly accredited person, No.I 001 Technická inšpekcia, a.s., office in Banská Bystrica, No. 01469/2/2012

Bratislava, dated on.....

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Responsible person of the  
manufacturer