

**Operating Manual**  
**Stripping and crimping machine**

**Crimpfix 2.5 M**



Fabrication number

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## 1. Terms of use

Please read carefully through this manual and observe the notes and explanations. Only by carefully following these instructions the proper and trouble free operation of the Crimpfix 2.5 M machine can be guaranteed.

These operating instructions have been written with due care and attention. However, unless otherwise required by law, we do not guarantee that the data, images and drawings are accurate or complete nor do we accept liability for their contents. Weidmüller's general terms and conditions of sale apply in their respective valid form. Subject to alteration without notice

## 2. Prescribed use

This device is intended for use in applications only as described in the operating instructions. Any other form of usage is not permitted and can lead to accidents or destruction of the device. Using the machine in non-approved applications will lead immediately to the expiration of all guarantee and warranty claims on the part of the operator against the manufacturer.

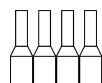
Using the selected machine for purposes other than those specified or failure to observe the operating instructions and warning notes can lead to serious malfunctions that may result in personal injury or damage to property.

Stripping of insulated wires according to	DIN VDE 0295/class 5 DIN VDE 0281/102 DIN VDE 0281/103
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Cross-section	0.5 – 2.5 mm <sup>2</sup> 0.34 mm <sup>2</sup> optional
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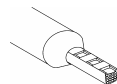
Feeding-length	40 mm
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Crimping of Weidmüller ferrules on reel with insulating collar:



H 0,34/12	optional
H 0,5/14	
H 0,75/14	
H 1,0/14	
H 1,5/14	
H 2,5/14	

Crimpform	
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Trapez-Indent
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The use of ferrules type H 0.34/12 is only possible with the 0.34 tooling set.

The indented use includes also the observance of all information in the operating manual and the compliance of the maintenance work. (See chapter 10)

### 3. Safety and the environment

#### 3.1 General

Only the intended using ensure the operational safety of the machine.

This manual contains important safety directions. All people working at the machine have to observe them.

#### 3.2 Safety instructions

Depending on the model, the Crimpfix 2.5 M is configured with a power supply for AC voltage of either 115 V or 240 V.

##### **Caution:**

Only plug the Crimpfix 2.5 M into an outlet with an earth (ground) connection.

The Crimpfix 2.5 M should only be operated in a dry environment with no exposure to moisture (splashed water, fog, etc.).

#### 3.3 Safety precautions

Read the following instructions carefully before starting up the Crimpfix 2.5 M. Observe the warnings and notes on the Crimpfix 2.5 M at all times.

- Do not insert any unsuitable objects into the openings.
- Do not spill any fluids onto the Crimpfix 2.5 M.
- The mains voltage must correspond to the system voltage given on the Crimpfix 2.5 M type plate.

##### **CAUTION!**

- Only connect the machine to a properly earthed and correctly-fused plug socket outlet.
- Do not use a plug socket outlet already being used by devices that are turned on and off in regular intervals, such as photocopiers or fans.
- Do not connect the Crimpfix 2.5 M to either a switched or a time – controlled plug socket outlet.
- Never use damaged or scuffed power cables.
- If you connect the Crimpfix 2.5 M to the power supply via an extension cable, ensure that the total nominal current of all the devices connected to the extension cable does not exceed the ampere rating for that extension cable. In addition, you should ensure that the total nominal current of all the devices plugged into the wall – mounted socket outlet does not exceed the ampere rating for that wall – mounted socket outlet.

##### **CAUTION!**

Do not carry out repairs to the device yourself.

**Unplug the Crimpfix 2.5 M and contact a qualified service engineer if anything of the following occurs:**

- The power cord or plug are scuffed or damaged.
- Fluid has penetrated the Crimpfix 2.5 M.
- The Crimpfix 2.5 M is fallen down or the enclosure is damaged.
- The Crimpfix 2.5 M does not operate normally or the standard of performance varies noticeably.

When contacting the manufacturer for any information please have the machine type and fabrication number available!(see type plate on the machine)

#### 3.4 Setup

Select a suitable location for the setup, considering the following factors:

- Place the Crimpfix 2.5 M on a flat, stable surface larger than the base area of the machine.
- Ensure that there is sufficient space to allow the operator to push in cables without any restriction

### 3.5 Symbols and indications



Before switching on the machine, read through the operating manual carefully.



Use the machine only at dry places.



#### **Caution!**

**This symbol indicates a possible hazardous situation.**

Failure to observe these warnings could result in moderate injuries or property damages.

### 3.6 Training of personnel

- Only trained and qualified personnel are allowed to handle the machine.
- The responsibilities of the personnel for operating, changing tools and maintaining must be defined.
- Only the manufacturer or authorized service workshops are entitled to repair these products.

### 3.7 Special obligations of the person in charge

- Knowledge about local regulations for safety and accident prevention.
- To take care that all safety and danger indications are clearly visible, replace them if necessary.
- To inform the manufacturer immediately if the machine and the application becomes unsafe.
- To change machine parts in defective condition immediately.
- To use only original spare and wear parts.
- Modifications or conversions at the machine require written approval by the manufacturer.

### 3.8 Using risks

- Operate the machine only when all safety systems are fully functional.
- The operator is only allowed to clear faults on which the cover does not have to be removed.
- Only trained and qualified personnel are allowed to open the cover and to do maintenance or repair.
- Before opening the machine and changing spare parts remove the plug.

## 4. Transport

- Use always the complete original packaging for transports.
- For service and repair work the machine must be sent with all accessories.
- Before returning the machine, empty the stripping-waste container.

## 5. Technical specifications

Drive .....	Electric motor
Power supply .....	1~230 V / 50 Hz
Power consumption .....	100 VA
Fuse (line filter) .....	2 x T2AH250V
Protecting class .....	IP20
Cycle time .....	1.5 s
Continuous sound level .....	< 70 dB(A)
Dimensions (w x d x h) without reel and holder .....	(292 x 310 x 260) mm
Colour .....	RAL 7021
Weight.....	15 kg
Temperature	
Operating .....	+10°C - +45°C
Storage/Transport.....	-20°C - +70°C
Relative humidity	
Operating .....	5% - 95% (no bedewing)
Storage/Transport.....	5% - 95% (no bedewing)
Barometric pressure	
Operating .....	1080 - 795 hPa
Storage/Transport.....	1080 - 660 hPa

### 6. General view of the machine

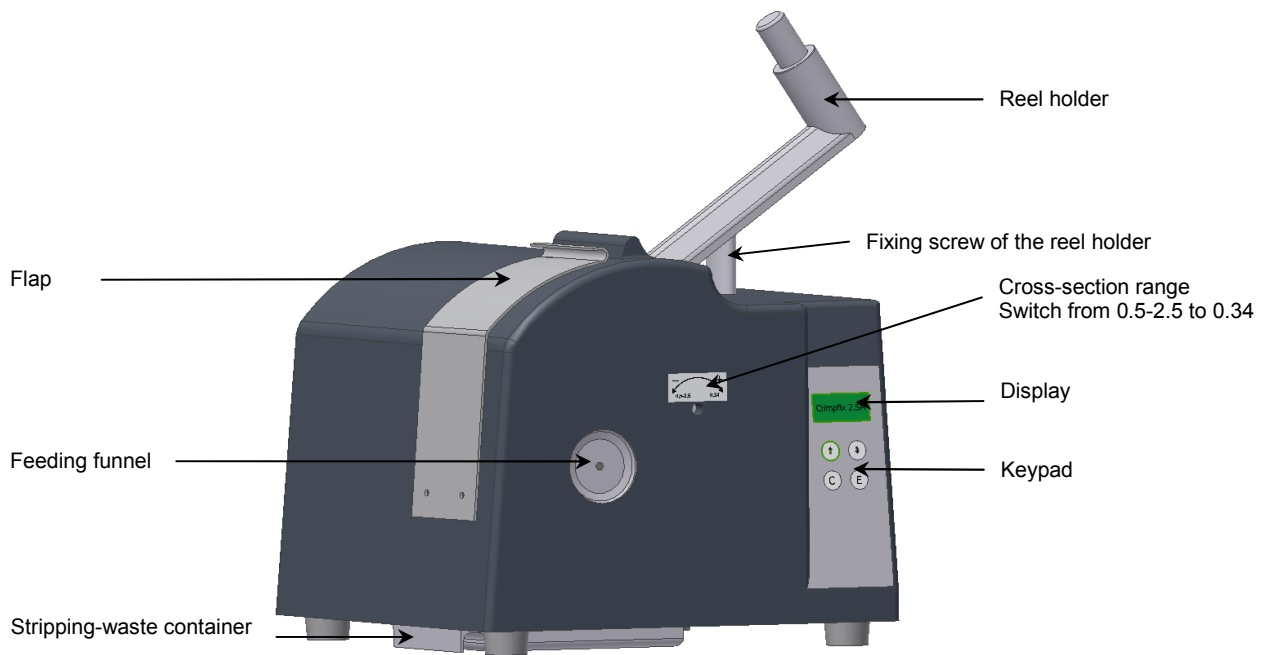


Figure 1: Front view

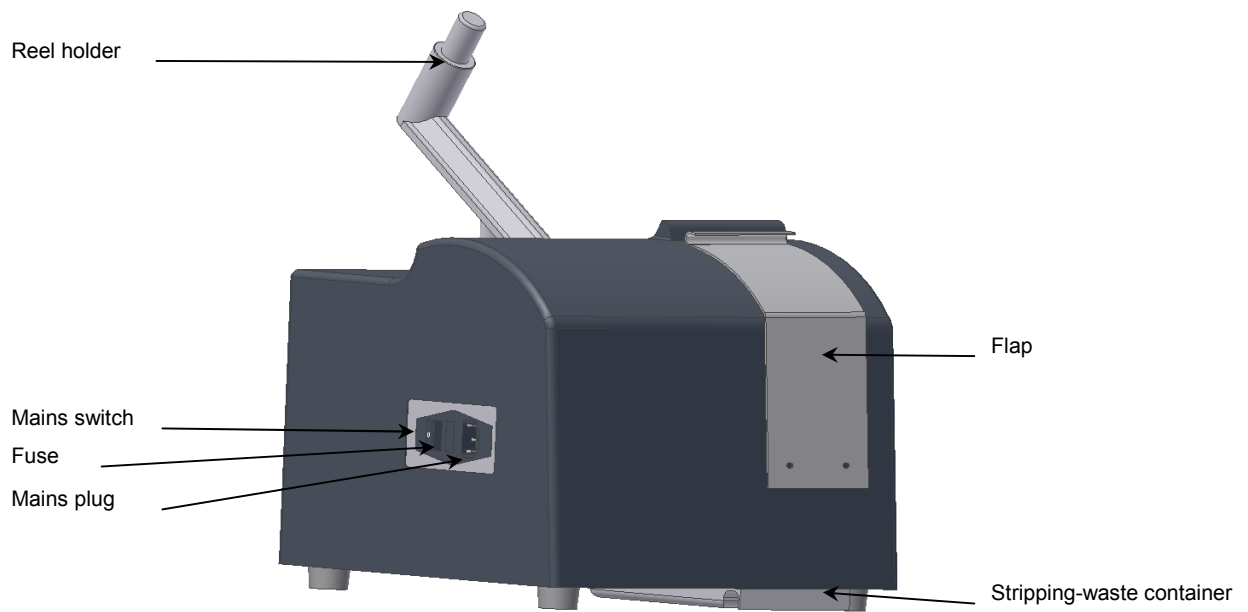


Figure 2: Back view

## 7. Operating instructions

### 7.1 Putting into operation

- Put in the stripping-waste container. Take care that the container is completely inserted.
- Connect the mains cable to the machine and to the electrical supply. (The data on the type plate must agree with the mains supply.)

### 7.2 Starting the machine

- Actuate the main switch on the back side of the unit.
- The operating-menu appears on the display and the last selected program is loaded.

### 7.3 Inserting ferrules

- Open the flap.
- Release the locking pin (see Figure 3) and remove the magazine.
- Put on the ferrule reel, so that it rotates in clockwise direction.
- While inserting the ferrules, the transporting pusher must be retracted. If the pusher juts out, you have to press it back.
- Insert the belt until the **first** ferrule is snapped in. Be careful that no ferrule sticks out of the magazine.
- If the locking lever was pressed, the transporting pusher must be retracted and the ferrule belt must be reloaded again.
- Put in the magazine until it snaps in and close the flap.

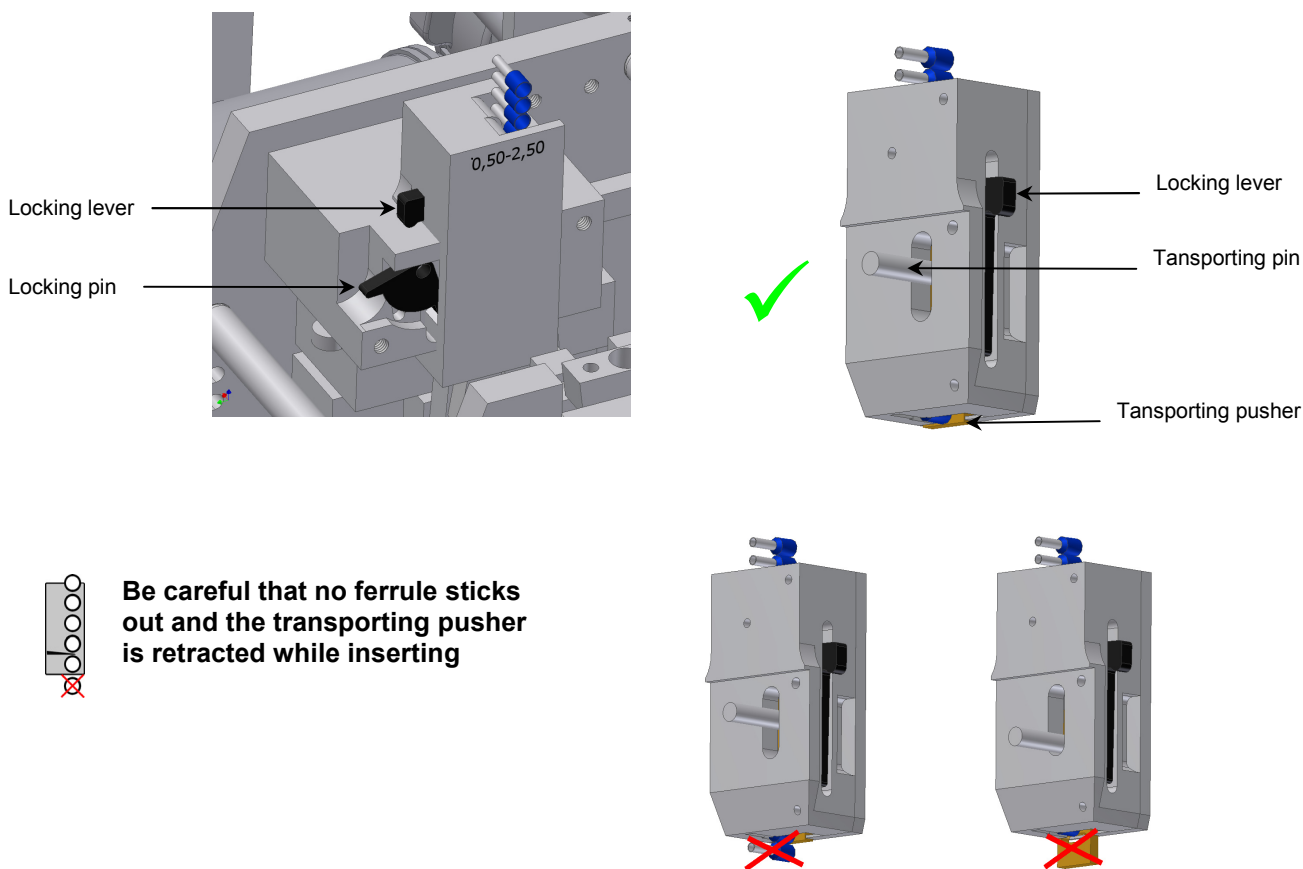


Figure 3: Magazine



## 7.4 Changing the ferrule belt

- Open the flap.
- Release the locking pin (see Figure 3) and remove the magazine.
- Push the transport pin completely up and take out the ferrule belt.
- Put on the new ferrule reel, so that it rotates in clockwise direction.
- While inserting the ferrules, the transporting pusher must be retracted. If the pusher juts out, you have to press it back.
- Insert the new belt until the **first** ferrule snaps in. Be careful that no ferrule sticks out of the magazine.
- If the locking lever was pressed, the transporting pusher must be retracted and the ferrule belt must be reloaded again.
- Put in the magazine until it snaps in and close the flap.
- Take care that you have selected the correct cross-section program.

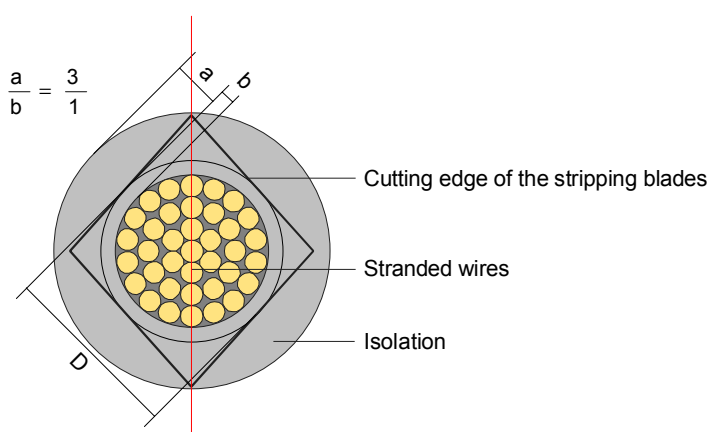
## 7.5 Adjustment of the cross-section

- ⏴ program
- ⏵ confirm
- ⏴ ⏴ select the right cross-section (P1 - P6)
- ⏵ confirm and back to the operating menu

## 7.6 Control of the stripping quality

Necessary after each change of wire type, cross section or wire manufacturer!

- Choose the right cross section program.
- Open the flap.
- Release the locking pin (see figure 3) and remove the magazine.
- Close the flap.
- Put the wire in the feeding funnel until a new cycle starts.
- Check the stripping and if necessary adjust the stripping depth. (See chapter 9.2)



The cut edge of the stripping blades have to look like a rue and must be symmetrical to the stranded wires

Figure 4: Top view of a correct stripping

### 7.7 Wire feeding - Wire section

- The wire has to be cut off straight and may not have any bends or bows.
- Insert the wire into the feeding funnel until the working cycle is triggered.
- After triggering hold the wire.

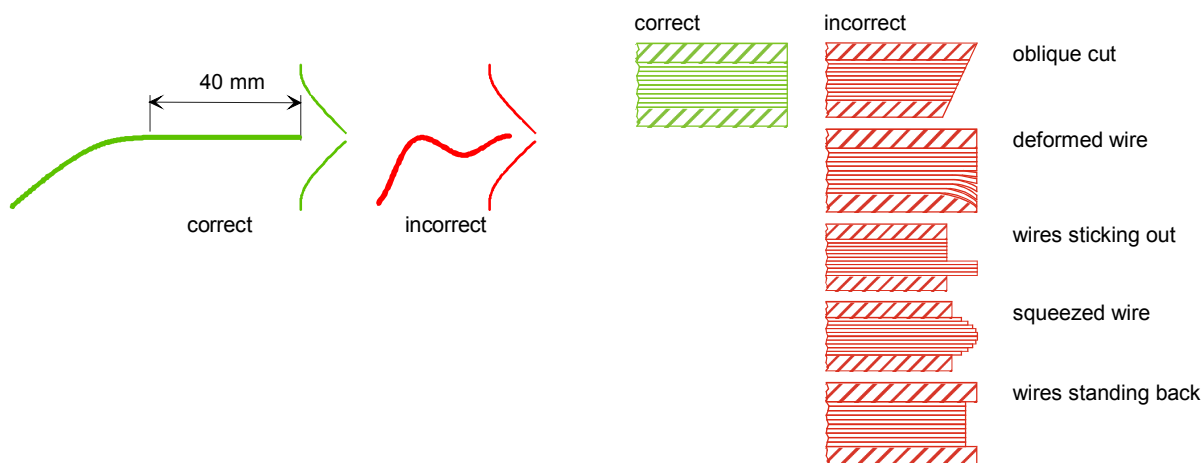


Figure 5: Wire feeding - Wire section

### 7.8 0.34-Tooling Set (optional)

Contents: Magazine 0.34  
Feeding funnel 0.34  
Label

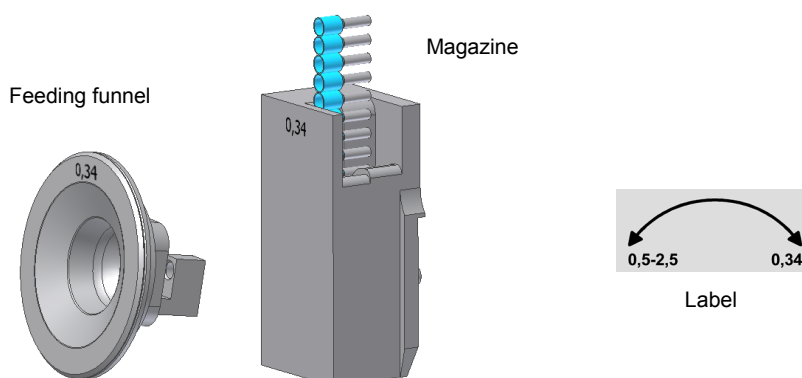


Figure 6: 0.34-Tooling-Set (optional)

The H 0,34/12 ferrules may be handled only with the 0.34-tooling set.

Set the cross-section range by rotating the adjustment screw on front of the machine.

- Take out the plastic plug.
- Turn the screw clockwise with an Allen key to the limit stop.

To setup the machine back to the range of 0.5 – 2.5 mm<sup>2</sup> proceed in opposite direction.

### 7.9 Feeding funnel

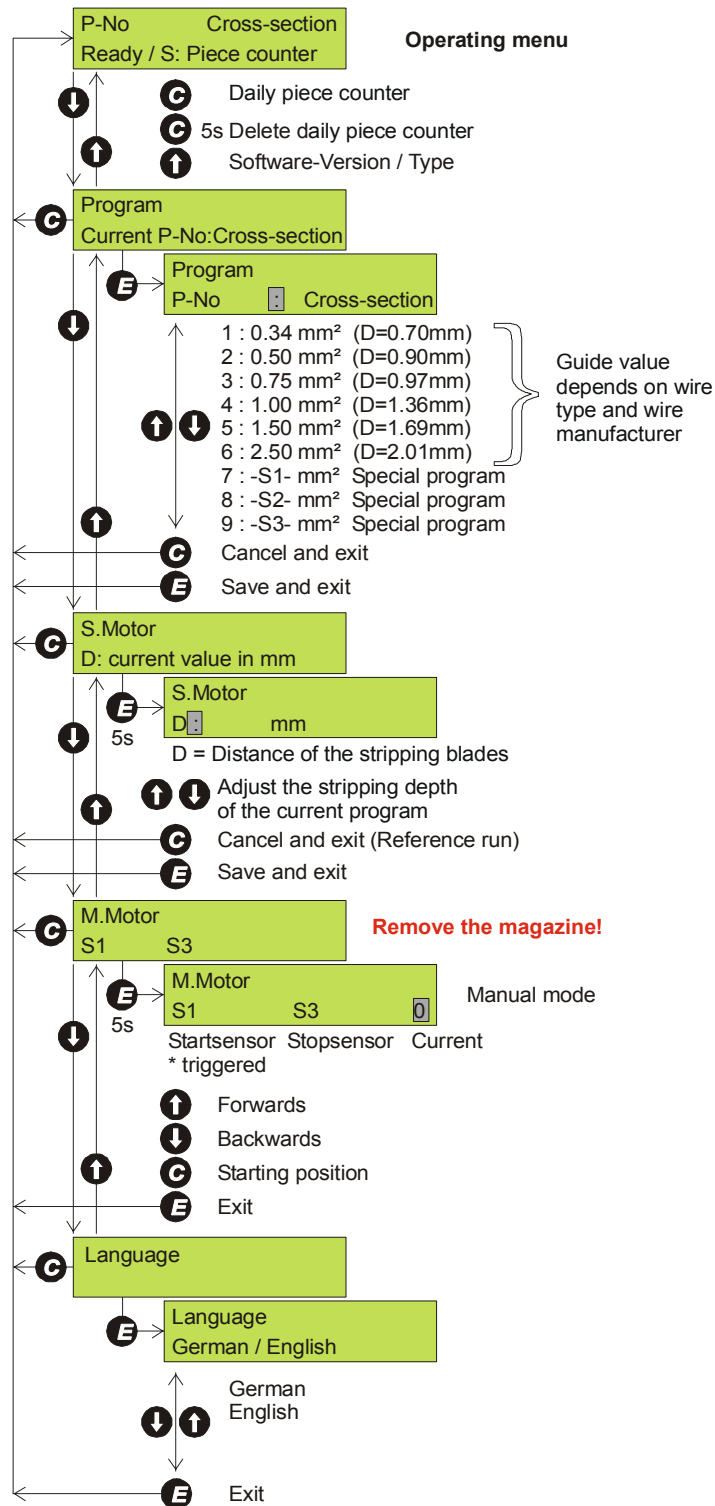
Remove feeding funnel

- Loosen the screws.
- Take out the feeding funnel

Install feeding funnel

- Insert the feeding funnel that the marking is on top.
- Tighten the screws evenly.

8. Main menu



## 9. Special functions

### 9.1 Display Contrast

Mains switch + **⬆**

**⬆** **⬇** Edit

**E** Exit

### 9.2 Adjusting Stripping Depth

Remove the magazine

Close the flap

2x **⬇** S-Motor

**E** Press it 5 seconds till cursor starts blinking

**⬇** Reduce D → enhance cutting depth

or

**⬆** Enhance D → reduce cutting depth

**E** Confirm and back to the operating menu

Check the stripping quality after changing the stripping depth. (Chapter 7.6)

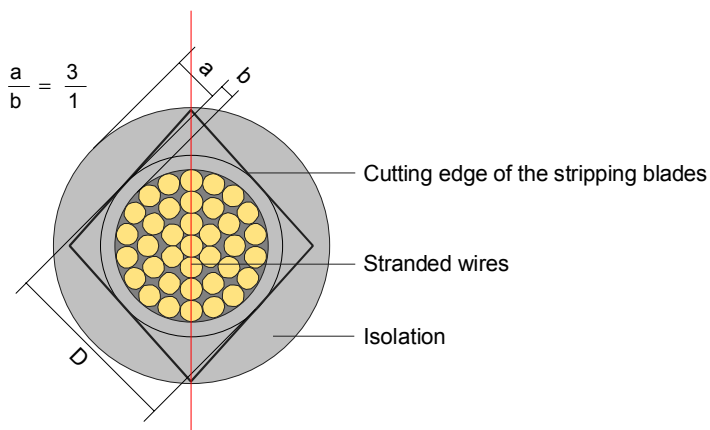


Figure 7: Top view of a correct stripping

The cut edge of the stripping blades have to look like a rue and must be symmetrical to the stranded wires

	Program	Cross section	Diameter	Wire type	Wire manufacturer
The adjusted guide values depend on wire type and wire manufacturer and can be used for new intact stripping blades.	1	0,34 mm <sup>2</sup>	1,20 mm	LiY	LAPPKABEL
	2	0,5 mm <sup>2</sup>	1,40 mm	H05V-K	
	3	0,75 mm <sup>2</sup>	1,60 mm	H05V-K	
	4	1,0 mm <sup>2</sup>	1,80 mm	H05V-K	
	5	1,5 mm <sup>2</sup>	2,10 mm	H07V-K	
	6	2,5 mm <sup>2</sup>	2,45 mm	H07V-K	

## 10. Maintenance

See chapter 3.8. Using risks

### 10.1 Stripping-waste container

- Regularly empty the stripping-waste container.

### 10.2 Interior

- Switch off the machine and unplug it.
- Remove the stripping-waste and other impurities
- Do not clean with compressed air.
- Do not oil and/or lubricate the machine.

### 10.3 Stripping blades changing position

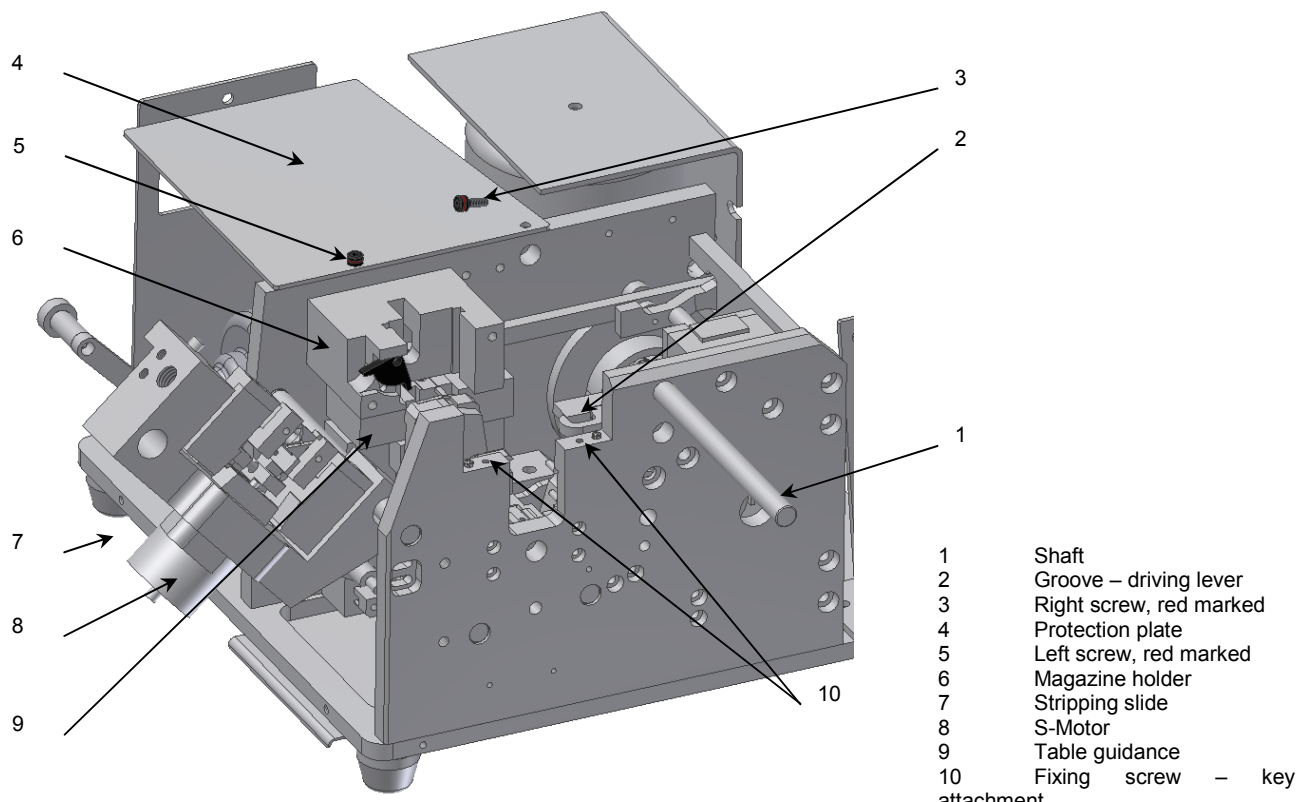










Figure 8: Stripping blades changing position

→ Stripping blades changing position	→ Basic position
<ul style="list-style-type: none"> <li>• Remove the magazine</li> <li>• Unscrew and remove the feeding funnel</li> <li>• 3x  M.Motor</li> <li>•  5s Confirm</li> <li>•  Starting position</li> <li>•  Press until Motor stops.</li> <li>• Switch off the machine and unplug it.</li> <li>• Remove the stripping waste container</li> <li>• Unscrew and remove the reel holder</li> <li>• Unscrew and remove the flap</li> <li>• Remove the cover. (Screws at the bottom plate and at the line filter)</li> <li>• Remove right, red marked screw (3).</li> <li>• Push the shaft (1) to the front and remove it.</li> <li>• Loosen the plug connection at the S-Motor (8).</li> <li>• Remove the two fixing screws of the key attachment (10) and take it out to the front with the key.</li> <li>• Turn the stripping slide (7) to the left.</li> </ul>	<ul style="list-style-type: none"> <li>• Take care that the pin at the bottom side of the stripping slide (7) snaps into the groove (2) of the driving lever when it swings back.</li> <li>• Push the shaft (1) back and fix it with the right, red marked screw (3). Take care that the screw (3) snaps into the groove of the shaft(1).</li> <li>• Assembly the cover, the reel holder and the flap.</li> <li>• Put the stripping waste container in.</li> <li>• Put the machine into operation again.</li> <li>• 3x  M.Motor</li> <li>•  5s Confirm</li> <li>•  Start position</li> <li>•  Quit menu and back to main menu.</li> <li>• Put in the magazine again.</li> <li>• Control the stripping quality.</li> </ul>



Danger! Blades are sharp.

10.3.1. Changing stripping blades	10.3.2. Changing ferrule cutting blade
<ul style="list-style-type: none"> <li>• Stripping blades changing position</li> <li>• See Figure 9: Stripping slide (backside)</li> <li>• Remove the fixing screws of the blade fasteners (1) at the stripping unit.</li> <li>• Remove the blade fasteners.</li> <li>• Loosen the fixing screws of the blades (2). Open them for only 1 – 2 rotations but do not unscrew them completely.</li> <li>• Take out the blades.</li> <li>• Put the new blades in correct position up to the limit stop and screw them on.</li> <li>• Mount the blade fasteners and screw them on.</li> </ul>	<ul style="list-style-type: none"> <li>• Stripping blades changing position</li> <li>• See Figure 8: Striping blades changing position</li> <li>• Remove the left, red marked screw (5) and the protection plate (4).</li> <li>• Unscrew both fixing screws of the table guidance (9) from the back.</li> <li>• Pull the table guidance (9) to the front down of the two guiding pins and take it out to the right below the magazine holder (6).</li> <li>• Remove the flat head screw above the ferrule cutting blade and change the blade.</li> <li>• Take care that the ferrule cutting blade fits in the groove and up to the limit stop before bolting the flat head screw.</li> <li>• Put the table guidance from the right side below the magazine holder onto the lower slide. Push it careful on the two guiding pins and screw it on from the back.</li> <li>• Fix the protection plate (4) with the red marked screw (5).</li> </ul>

Fixing screws

- 1 Blade fasteners
- 2 Blades

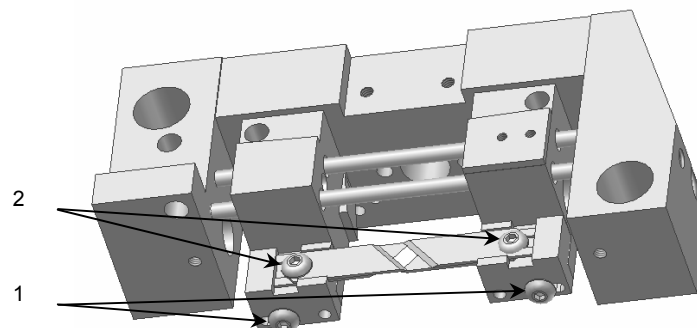


Figure 9: Stripping slide (backside)

## 11. Trouble shooting

See chapter 3.8. Using risks

Trouble	Elimination
Double crimp	See Jammed wire
Jammed wire	<p>Remove the Magazine. If there is a ferrule in the crimping tool, take it away. Remove the feeding funnel.</p> <p>If the feeding funnel is not removable:</p> <p>3x ⬇ M.Motor  ⓔ 5s Confirm → manual operation  ⬆ or ⬇ Move carefully stepwise forwards or backwards until the feeding funnel is removable.  Ⓢ Starting position  Take out stripping waste.  Insert the feeding funnel and fix it.  ⓔ Exit and back to the operating menu  Insert in the magazine.</p>
Not able to put in a cable	<p>Holding clamps are not in starting position</p> <p>Remove the magazine</p> <p>3x ⬇ M. Motor  ⓔ 5s Confirm → manual operation  Ⓢ Starting position  ⓔ Exit and back to the operating menu  Insert in the magazine.</p>
Machine is not starting	<p>Machine is not in operating mode</p> <p>Remove the magazine</p> <p>3x ⬇ M. Motor  ⓔ 5s Confirm → manual operation  Insert wire  Starting switch S1 is triggered (*) or damaged.  Ⓢ Starting position  ⓔ Exit and back to the operating menu  Insert in the magazine.</p>
Wire is not stripped correct	<p>Stripping depth is not adjusted correctly. See chapter 9.2 Adjusting Stripping Depth</p>
Single strands are cut	<p>Stripping depth is not adjusted correctly. See chapter 9.2 Adjusting Stripping Depth</p>

Display is not readable	Contrast setup is not ok. Mains switch + <b>↑</b> <b>↑</b> <b>↓</b> Edit <b>E</b> Exit
Key presses are not accepted	Keyboard is damaged Keyboard check Main switch and <b>C</b> <b>↑</b> 0c <b>↓</b> 0e <b>C</b> 0f <b>E</b> 0d                      Back to main menu
Ferrule misses on the stripped wire	Open the flap and remove the magazine. If there is a ferrule in the ferrule holder take it out. Insert the magazine and close the flap.
Wire is not stripped though the machine is correct adjusted	Turn off the machine and wait 30 s. Start the machine and make a stripping test. (see chapter 7.6)

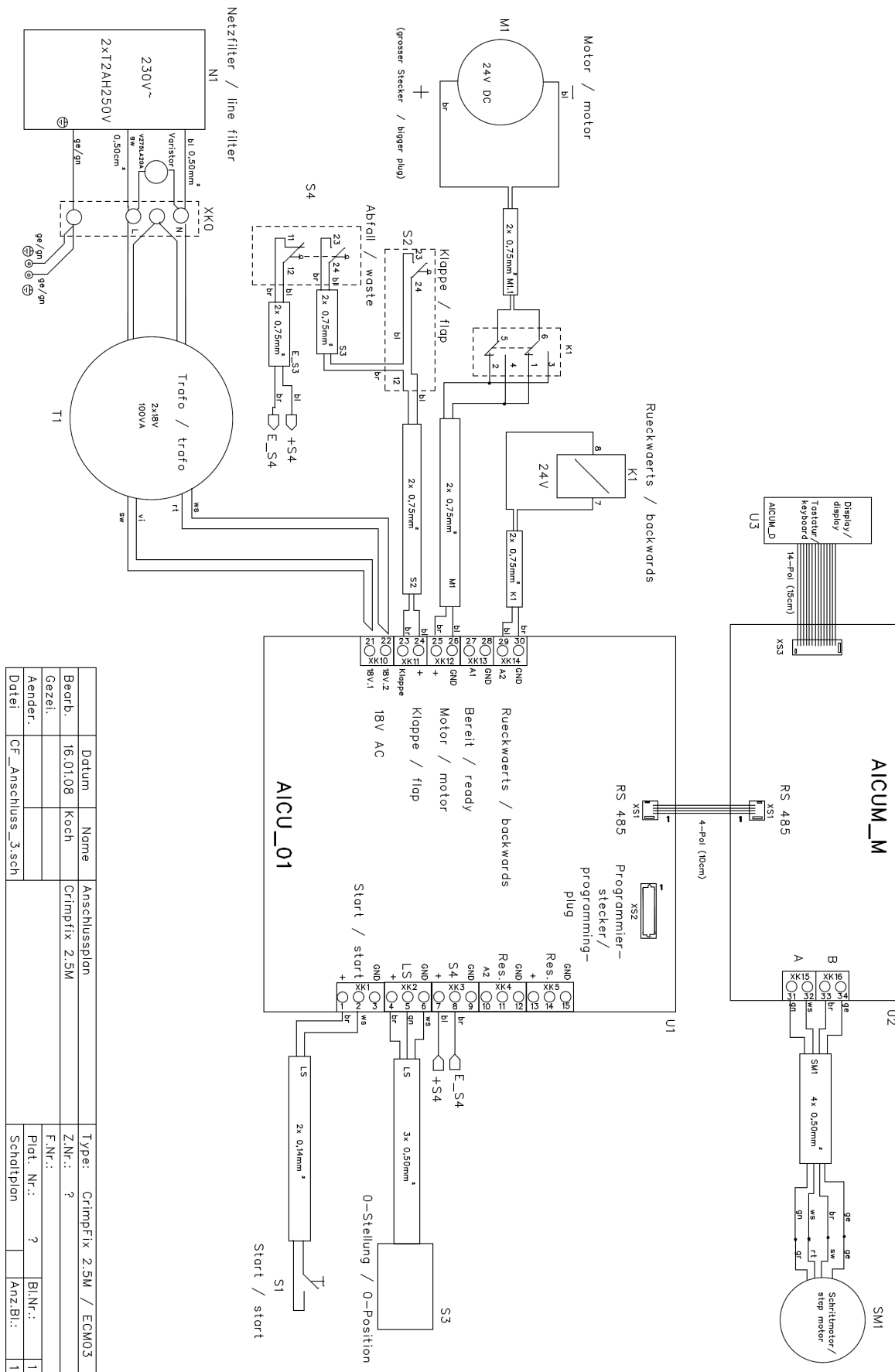


### 11.1 Error messages

The error messages are shown on the display. The error messages are deleted by pressing key **E**.

Code	Fault	Elimination
Flashe.	Saving or loading error	Turn machine off and on or call the service.
RS485-TO	Timeout interface	
S.motore	Stepping motor at the limit stop or blocked or timeout	Turn the machine off an on and choose the program again.
Curr.e.	Current to high Machine is rough-running or blocked	3x <b>↓</b> M.Motor <b>E</b> 5s Confirm → manual operation <b>↑</b> or <b>↓</b> Move carefully stepwise forwards or backwards until the feeding funnel and the magazine are removable. <b>C</b> Starting position Insert feeding funnel and fix it. <b>E</b> Exit and back to the operating menu Insert the magazine.
Start=0	Wrong triggering The starting switch S1 is activate short.	Remove magazine Press <b>E</b> . The machine goes to the starting position. Insert the magazine.  If you don't remove the magazine, the right treatment of the ferrule can't be guaranteed.
Start=1	Start position error Starting switcis used	3x <b>↓</b> M.Motor <b>E</b> 5s Confirm → manual operation
Stop=1	Stop position=1 End position not reached	<b>↓</b> Press until the motor stops. <b>C</b> Starting position
Stop=0	Stop position=0 Too much time for one cycle	<b>E</b> Exit and back to the operating menu. Insert in the magazine.
Trash=0	No stripping waste container	Insert the stripping waste container completely.
Flap=0	Flap open	Close the flap.
Service	Message after 200 000 crimps	The machine should be returned to the manufacturer for any necessary maintenance work.

### 12. Electric diagram



Datum	Name	Anschlussplan	Type:
16.01.08	Koch	Crimpfix 2.5M	Crimpfix 2.5M / ECM03
Gez.:			Z.Nr.: ?
Aender.:			F.Nr.: ?
CF_Anschluss_3.sch			Plat. Nr.: ?
			Bl.Nr.: 1
			Anz.Bl.: 1

**13. Spare parts**

<b>Designation</b>		<b>Nr.o.</b>
Stripping-blades (set)	CFX 2.5M	9205800000
Transport/Holder catch	CFX 2.5M	9205810000
Ferrule cutting blade	CFX 2.5M	9205820000

**14. Declaration of conformity**

The firm

Weidmüller Interface GmbH & Co.  
Klingenbergstraße 16  
D-32758 Detmold

attests, in sole-responsibility, that the product

**Stripping and crimping machine  
Crimpfix 2.5 M**

Fabrication number:

which this declaration refers to, agrees with the following standards and guidelines:

Machinery Directive	98/37/EC
EMC Directive	89/336/EEC
Low Voltage Directive	73/23/EEC
Mechanical safety	EN ISO 12100-1
Electrical safety	EN ISO 12100-2 EN 60 204-1
Emission	EN 61000-6-4:2007
Immunity	EN 61000-6-2:2005

Detmold, 2008-09-19

Dr. Christoph Fröhlich

This Declaration of Conformity is suitable to the European Standard EN45014.

„General criteria for supplier's declaration of conformity“

The basis for the criteria has been found in international documentation, particularly in: ISO/IEC Guide 22, 1982,

„Information on manufacturer's declaration of conformity with standards or other technical specifications“.