CLIPLINE

UM EN CF 1000 (2888042)

EN User Manual

CF 1000-1,5
CF 1000-10

PHOENIX CONTACT
INSPIRING INNOVATIONS

CLIPLINE

User Manual
Automatic stripping and crimping machine CF 1000

2011-08-24

Designation: UM EN CF 1000

Revision: 02

Order No.: 2888042

This user manual is valid for:

Designation	From serial number	Order No.
CF 1000-1,5	SN 160417	1208199
CF 1000-10	SN 160417	1212456

Please observe the following notes

User group of this manual

The use of products described in this user manual is oriented exclusively to qualified electricians or persons instructed by them, who are familiar with applicable standards and other regulations regarding electrical engineering and, in particular, the relevant safety concepts.

Explanation of symbols used and signal words

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety measures that follow this symbol to avoid possible injury or death.

There are three different categories of personal injury that are indicated with a signal word.

DANGER This indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING This indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION This indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

This symbol together with the signal word **NOTE** and the accompanying text alert the reader to a situation which may cause damage or malfunction to the device, hardware/software, or surrounding property.

This symbol and the accompanying text provide the reader with additional information or refer to detailed sources of information.

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Table of contents

1 Basic information

For greater clarity, only the order designation CF 1000 is used throughout this document.

For safe handling and trouble-free operation of the CF 1000, you must be familiar with and observe the safety notes.

1.1 Intended use

WARNING: The CF 1000 is intended solely for stripping and crimping.

In doing so, the conductor and ferrules with cross section or sleeve length according to "Suitable ferrules and retrofit kits" on page 2-2 are to be used.

Only the PVC-insulated conductors may be inserted into the insertion funnel on the CF 1000 for processing. Under no circumstances should solid metal parts or other similar objects be inserted. This damages the stripping blade.

Unauthorized conversions that exceed the scope of modification, and changes to the CF 1000 are not permitted for safety reasons.

NOTE: Correct usage includes observing all notes and complying with the predefined operating conditions.

WARNING: The CF 1000 may only be used
- as intended and
- when in safe and fault-free condition.

WARNING: All persons responsible for commissioning, operating and maintenance of the CF 1000 must
- be appropriately qualified and
- adhere strictly to this user manual.

With the CF 1000, you can either:
- Strip conductors automatically or
- Strip conductors automatically and crimp with ferrules.

Flexible conductors of class 2, 5, and 6 standard according to DIN VDE 0295 and ferrules as loose products according to DIN 46228-4 are processed.

NOTE: Use only ferrules and spare parts from Phoenix Contact (see "Spare parts" on page B-2).

Permitted operators

Only authorized and instructed operators may work with the CF 1000.

The operator is responsible for all other persons within the workspace.

The owner must
- make the user manual available to the operator and
- ensure that the operator has read and understood it.

1.2 Work sites

NOTE: For operation and storage, avoid the following:
– humid or dusty places and
– locations exposed to high levels of heat, direct sunlight or low temperatures (operating range: 15°C to 35°C)

NOTE:
If the machine is moved from a cold location to a warm location, condensation can form.
- Before using the CF 1000, open the front door and allow condensation to evaporate.

NOTE:
- Do not spill liquids on the CF 1000.
- Do not expose the CF 1000 to strong vibrations or shocks.

NOTE:
- Protect the compressed air hoses from heat, oil and sharp edges.

1.3 For your safety

WARNING: The front door is installed for the safety of the operator. Under no circumstances must it be modified, removed or bypassed using attachments.

WARNING:
- Only use filtered compressed air with a maximum pressure of 6 bar.

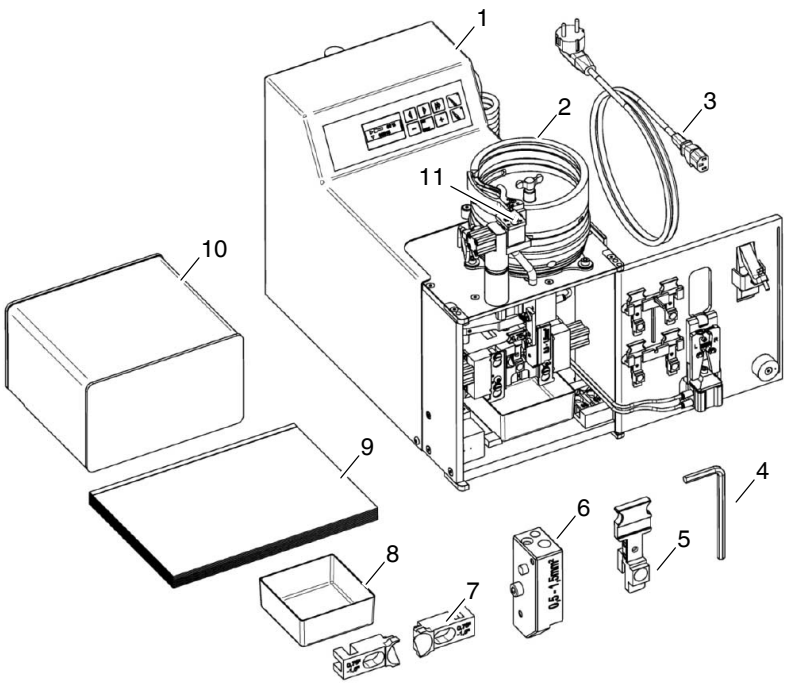
WARNING:
- Only operate the CF 1000 when the front door is closed.
- Disconnect the mains plug and the compressed air plug prior to all work that requires opening the front door (e.g., retrofitting, remedial action).
- Switch off the CF 1000 and disconnect the device from the compressed air during a break or when the device is not in use.
- Do **not** pull on the compressed air hose to disconnect the compressed air.
- Make sure that there are no foreign objects inside the housing.

For safety reasons, the CF 1000 automatically switches itself off if the compressed air is disconnected.

WARNING:
- Before opening the housing, disconnect the mains plug and disconnect the device from the compressed air.

2 Description of the CF 1000

2.1 Scope of supply



1 Basic device
2 Feeder bowl
3 Mains cable
4 Hexagonal wrench
5 Sleeve receiver
6 Reversing base sleeve
7 Cord-centering funnel
8 Waste box
9 User manual
10 Covering hood
11 Separation plate

The components have the same color-code as the ferrules (according to DIN color range)

Table 2-1 Scope of supply

Device	Scope of supply	
CF 1000-1,5 and CF 1000-10	Basic device	
	Mains cable	
	Waste box	
	Covering hood	
	Hexagonal wrench	4 5/32"
Only CF 1000-1,5	Feeder bowl	0.5 ... 1.5 mm^2
	Separation plate	0.5 ... 1.5 mm^2
	Cord-centering funnel	0.5 ... 0.75 mm^2 und 0.75 ... 1.5 mm^2
	Reversing base sleeve	0.5 ... 1.5 mm^2
	Sleeve receiver	0.5/0.75/1.0/1.5 mm^2, 4 items
	Crimping jaws	0.5 ... 2.5 mm^2 (8 mm crimping jaws)
	Stripping knife with knife holder	

2.2 Suitable ferrules and retrofit kits

With the CF 1000, you can either:

– strip conductors automatically or

– strip conductors automatically and crimp with ferrules.

Flexible conductors of class 2, 5, and 6 standard according to DIN VDE 0295 and ferrules as loose products according to DIN 46228-4 are processed.

The following loose ferrules can be processed with the CF 1000:

Table 2-2 Suitable ferrules

Basic device	Cross-section mm²	Sleeve length mm	DIN color range	Comment	Order No.
CF 1000-1,5	0.25/0.34 0.25/0.34	6 8	yellow/ turquoise	CF 1000-TOOLKIT 0.34/ 6 CF 1000-TOOLKIT 0.34/ 8	1208212 1208225
	0.50 0.50 0.50 0.50	6[1] 8 10[1] 12[1]	white	For stripping/sleeve lengths of 6, 10 or 12 mm, the start bolts, crimping jaws and stop plates have to be retrofitted.	included in CF 1000-1,5
	0.75 0.75 0.75 0.75	6[1] 8 10[1] 12[1]	gray		
	1.00 1.00 1.00 1.00	6[1] 8 10[1] 12[1]	red		
	1.50 1.50 1.50 1.50	6[1] 8 10[1] 12[1]	black		
	2.50	8	blue	CF 1000-TOOLKIT 2.5/ 8	1208241
	4.00	10	gray	CF 1000-TOOLKIT 4.0/10	1208270
CF 1000-10	4.00	10 12	gray	CF 1000-10-TOOLKIT 4/10-12	1212458
	6.00	12	yellow	CF 1000-10-TOOLKIT 6-12	1212459
	10.00	12	red	CF 1000-10-TOOLKIT 10-12	1212460

[1] In the basic device CF 1000-1,5, start bolts, crimping jaws and stop plates for a crimping length of 8 mm are installed.

The CF 1000 retrofit kit...-TOOLKIT.... is a case that contains

– Feeder bowl
– Reversing base sleeve
– Cord-centering funnel
– Sleeve receiver
– Separation plate
– Stripping blade (only for CF 1000-10-TOOLKIT)
– Crimping jaws (only for CF 1000-10-TOOLKIT)

2.3 Overview of the operating components

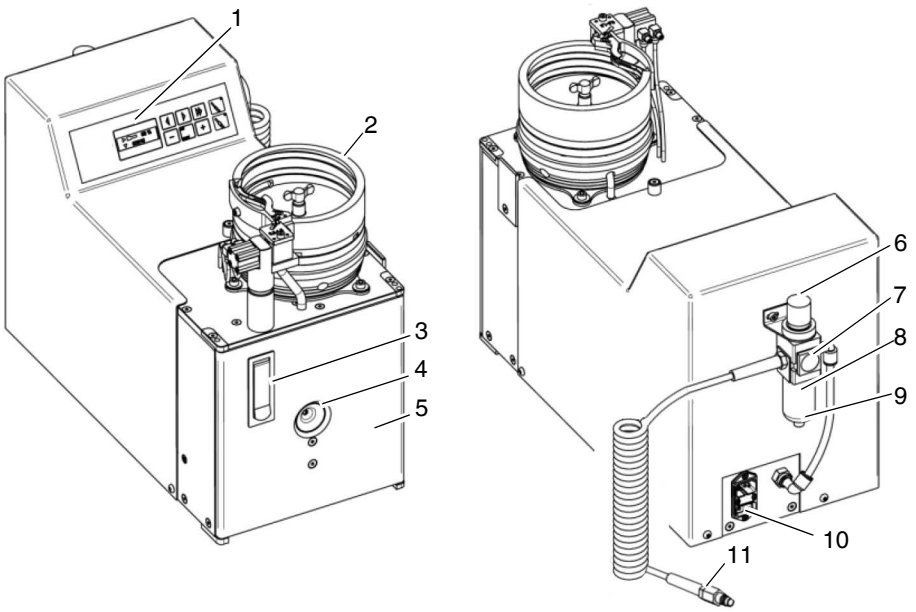
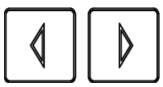
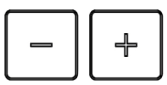
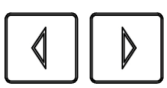


Figure 2-1 Operating components

1	Control panel	See page 2-4 for description
2	Feeder bowl	Storage holder for ferrules
3	Door lock	Locks the front door. The front door is opened by pressing the lower segment and is closed by pressing on the upper segment.
4	Insertion funnel	The conductor is inserted through the insertion funnel in the CF 1000.
5	Front door	Protects the operator from moving parts in the CF 1000. The CF 1000 only works when the front door is closed.
6	Air pressure regulator	Setting the air pressure Set the air pressure by pulling the regulator upwards and turning to the right (+) or left (-).
7	Manometer	Display of the air pressure set using the air pressure regulator
8	Water separator	Container for condensation
9	Drain valve	For draining the water separator
10	Mains connection	Device connection for the power cable with integrated micro-fuse and switch, wide range power supply unit 120 ... 240 V
11	Compressed air connection	Device connection to the compressed air supply

2.4 Control panel

Table 2-3 Button functions

Button	Display	Button function
 	 	**Select operating mode** Strip only For testing the incision depth of the knife. The LED on the button lights up. Strip and crimp The LED on the button lights up.
 	 100 %  52%	**Changing the speed of the feeder bowl** Increases the speed of filling the feeder bowl if new ferrules have been filled. Display shows 100%. The speed of the feeder bowl can be changed using the arrow buttons. The speed is shown in percent in the display.
 2 s	▲00000	**Setting the counter to zero** Pressing the set/reset button for two seconds resets the counter to zero.
 5 s	▲ ▼ 	**Changing the counting direction** Pressing the set/rest button for five seconds changes the counting direction. The counting direction is shown in the display. ▲ Forwards (1, 2, 3, ...) ▼ Backwards (..., 3, 2, 1) When counting backwards, a checkered flag appears at 0 items. The device can no longer be started. Turn the CF 1000 off and on again. The CF 1000 changes to forwards mode.
  	▼00647	**Changing the counter reading with backwards counting** Press the set/reset button briefly to change the counter reading. The selected number flashes. The selected number can be changed using the plus or minus button. Another position within the five digit number can be selected using the arrow buttons. To save, press the set/reset button again.

3 Starting up and operating

3.1 Selecting the installation site

NOTE: The device must be set up on a level and horizontal surface.

NOTE: For operation and storage, avoid the following:

– humid or dusty places and

– locations exposed to high levels of heat, direct sunlight or low temperatures (operating range: 15°C ... 35°C).

NOTE: If the machine is moved from a cold location to a warm location, condensation can form.

- Before using the CF 1000, open the front door and allow condensation to evaporate.

NOTE:

- Do not spill liquids on the CF 1000.
- Do not expose the CF 1000 to strong vibrations or shocks.

NOTE:

- Protect the compressed air hoses from heat, oil and sharp edges.

3.2 Determine the cross section

Check that the CF 1000 is equipped for the desired cross section. If necessary, upgrade the CF 1000 (see "Retrofitting" on page 5-1).

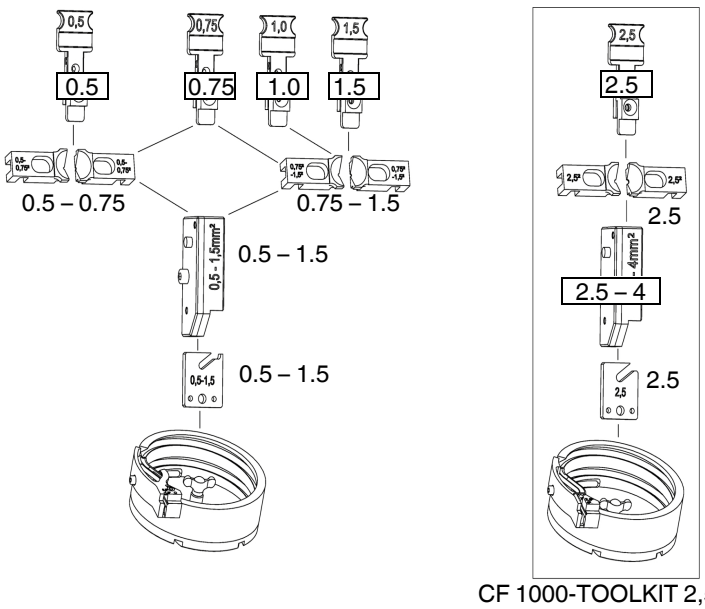
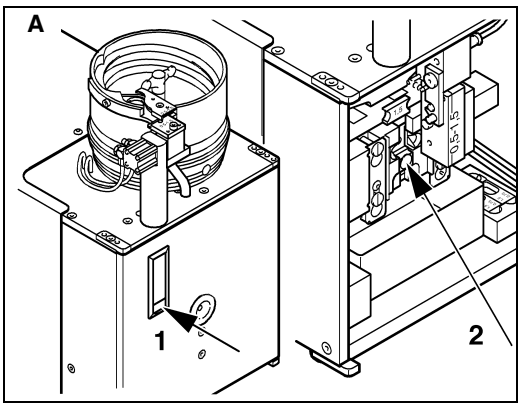


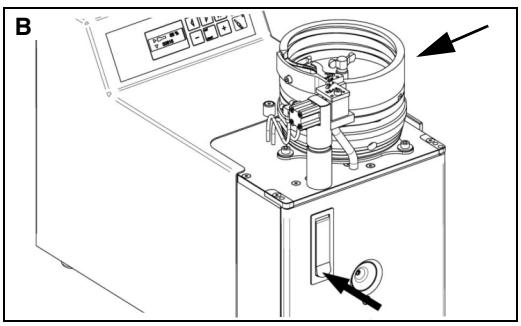
Figure 3-1 Example of CF 1000-1,5 (value in mm²)

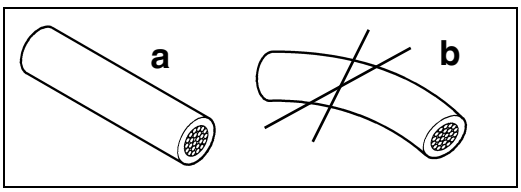
3.3 Stripping and crimping

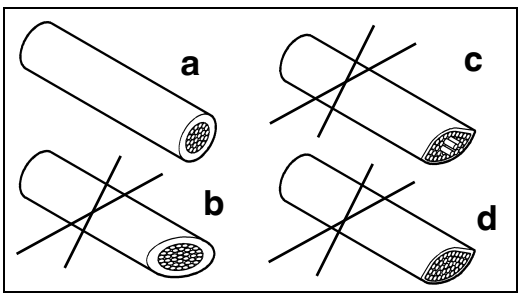
With the CF 1000, you can either:

– Strip conductors automatically or
– Strip conductors automatically and crimp with ferrules.









Checking the sleeve receiver

WARNING: Risk of injury!
Disconnect the mains plug and the compressed air before you open the front door.

- Switch off the CF 1000 with the mains switch.
- Disconnect the mains plug.
- Disconnect the compressed air connection.
- Open the front door (1).

A Stripping

- Check that the sleeve receiver and litz wire centering funnel are compliant for the conductor cross section.
  Modify if necessary (see page 5-1).
- Check whether sleeve receiver (2) is free from ferrules.

B Stripping and crimping

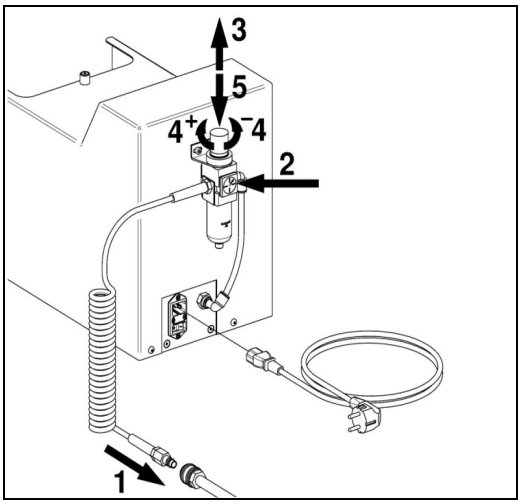
- Check for the correct cross section setting.
  Modify if necessary (see page 5-1).
- Fill ferrules into the feeder bowl
  (max. 500 pieces (CF 1000-1,5)/max. 200 pieces (CF 1000-10)).
- Close front door.

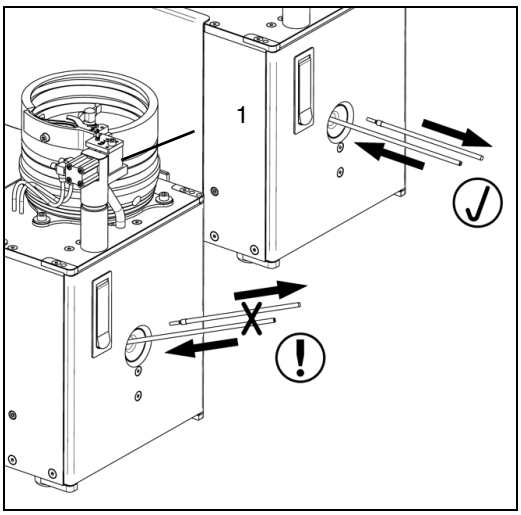
Aligning the conductor

- The conductor has to be aligned as straight as possible before processing.
  a) Bend is OK, maximum 2 – 3 mm at 6 mm length
  b) Bend too large

Cutting the conductor

- Cut the conductor off in a clean and straight motion, for example, with the CUTFOX 35 cable cutter (Order No. 1206638) from Phoenix Contact.
  a) Proper cut
  b) Cut surface angled
  c) Cut surface squeezed, single conductors pulled out
  d) Cut surface squeezed





Connecting CF 1000

CF 1000-1,5: 4.5 bar ... 6 bar of filtered air
CF 1000-10: 5 bar ... 6 bar of filtered air

- Connect compressed air connection (1) to the compressed air supply.
- Check air pressure at manometer (2):
  operating pressure 5 bar, at least 4.5 bar (CF 1000-1,5)
  operating pressure 5.5 bar, at least 5 bar (CF 1000-10)
- Set air pressure, if necessary. Pull the air pressure regulator (3) upwards, set the air pressure by turning (4) to the right (+) or left (-) and then press the regulator (5) downwards.
- Connect the mains plug to the CF 1000 mains connection and the shock-proof plug to the mains socket.

Stripping conductors

A Stripping

Press the "Strip" button.

B Stripping and crimping

Press the "Strip and crimp" button.

Set the speed of the feeder bowl.

Wait until the ferrule is visible at the separation plate (1).

A and B

- Insert the conductor straight into the insertion funnel until it stops. As soon as the CF 1000 starts, hold the conductor with slight tension.

  The conductor is automatically stripped.
- When the CF 1000 has stopped, pull the conductor out.

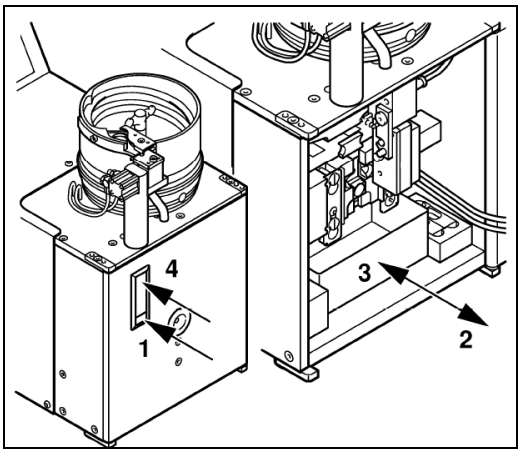
In the event of a malfunction or improper stripping, see page 6-1.

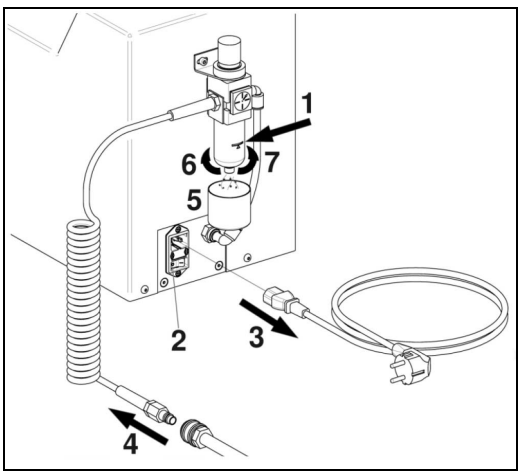
Shutting down

- If necessary, read the counter and reset to zero.
- Switch off the CF 1000 with the mains switch.

4 Maintenance

4.1 Daily care





Cleaning CF 1000

WARNING: Risk of injury!
Disconnect the mains plug and the compressed air before you open the front door.

- Switch off the CF 1000 with the mains switch.
- Disconnect the mains plug.
- Disconnect the compressed air connection.
- Open the front door (1).
- Empty the drawer (2).
- Clean the inside.
- Replace the drawer (3).
- Close the front door (4).

Checking the level of condensation

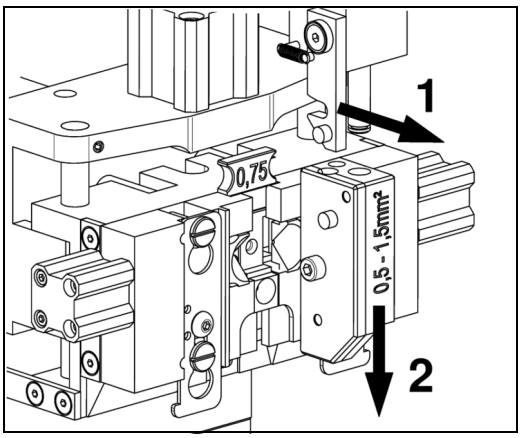
WARNING: Risk of injury!
Disconnect the mains plug and the compressed air before opening the drain valve.

- Check the water level in the water separator (1).

If water is in the water separator:

- Switch off the CF 1000 at the mains switch (2).
- Disconnect the mains plug (3).
- Disconnect the compressed air connection (4).
- Store the container (5).
- Open the drain valve (6).
- Drain the water.
- Close the drain valve (7).
- Plug in the mains plug.
- Connect the compressed air connection.

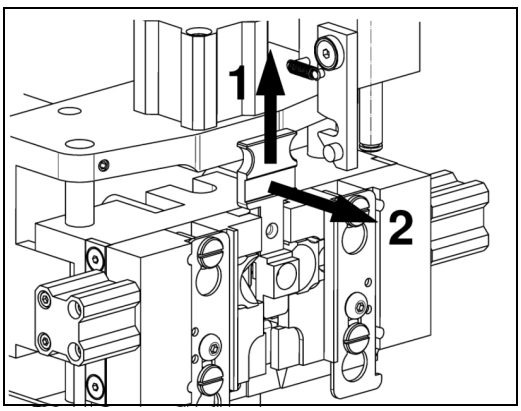
4.2 Adjusting and changing the stripping blade



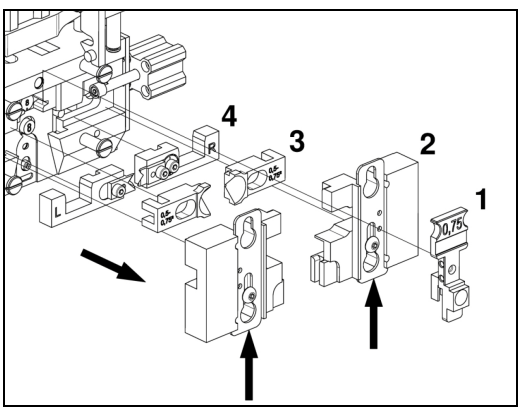
Removing the stripping blade

WARNING: Risk of injury!
Disconnect the mains plug and the compressed air before you open the front door.

- Pull the release lever (1) forwards.
- Remove the reversing base sleeve (2) downwards.



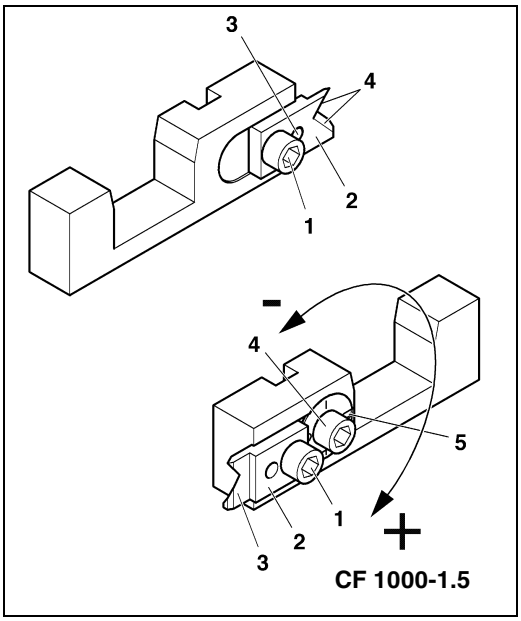
- Pull the sleeve receiver (1) upwards, remove from the holder (2).



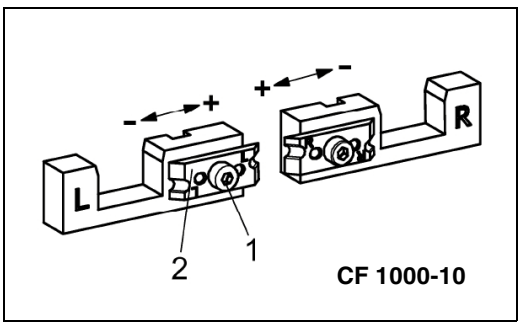
- Slide the slide upwards and pull the holder (2) forwards.
- Remove the second holder in the same way.
- Remove the cord-centering funnels (3) to the left and right.

WARNING: Risk of injury!
The stripping blades are sharp. Be careful not to injure yourself.

- Take out both the left and right stripping blades (4).
- Worn-out or damaged blades must be replaced.
- If the blades are still in working order, the malfunction can be rectified by correcting the incision depth on the right-side blade.



CF 1000-1.5



CF 1000-10

CF 1000-1.5: Changing the stripping blade

WARNING: Risk of injury!
The stripping blades are sharp. Be careful not to injure yourself.

Left knife

- Unscrew the Allen screw (1) and take out the old knife (2).
- Insert the new knife on pins (3) so that the angled surfaces (4) face upwards.
- Tighten the Allen screw (1).

Right knife

- Unscrew the Allen screw (1) and take out the old knife (2).
- Insert the new knife so that the flat surface (3) faces upwards.
- Gently tighten the Allen screw (1).
- Loosen the Allen screw (4).
- Attach tappet over the groove (5) at the correct incision depth (0 = initial position).
- Press the knife against the tappet and tighten both Allen screws (1) and (4).

CF 1000-10: Changing the stripping blade

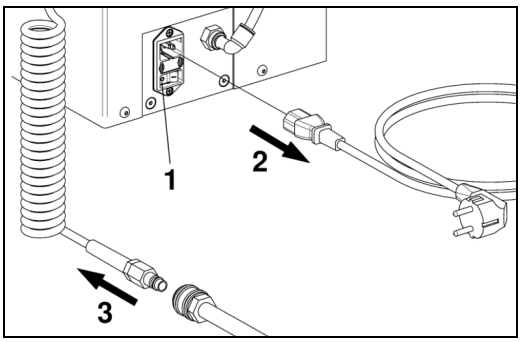
WARNING: Risk of injury!
The stripping blades are sharp. Be careful not to injure yourself.

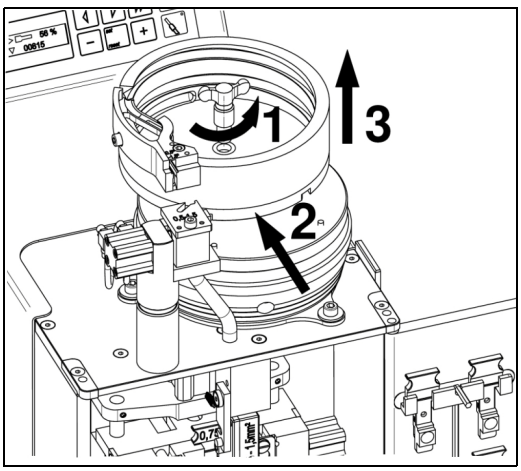
- Unscrew the Allen screw (1) and take out the old knife (2).
- Attach the new knife to the guiding pin (3).
- Adjust the incision depth of the stripping blade to the conductor to be processed.

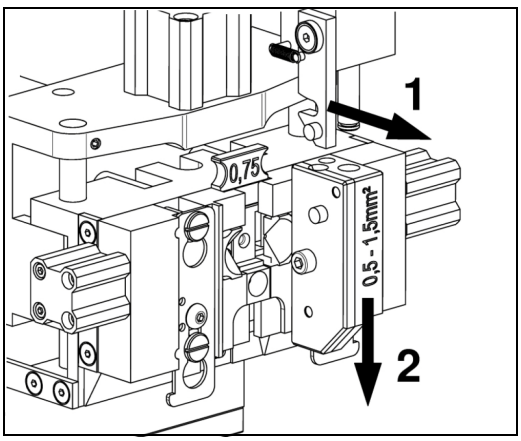
  Adjusting the knife changes the incision depth by ±0.25 mm.
- Tighten Allen screw (1).
- Check incision depth by stripping a conductor. The copper strands must not be cut by the stripping blade.

5 Retrofitting

5.1 Changing the cross section







Preparing the modification

WARNING: Risk of injury!
Disconnect the mains plug and the compressed air before you open the front door!

- Switch off the CF 1000 with the mains switch (1).
- Disconnect the mains plug (2).
- Disconnect the compressed air connection (3).
- Open the front door.

Retrofit kits, see page 2-2.

Changing the feeder bowl

CF 1000-1.5: Change the feeder bowl during a cross section change from 0.5/0.75/1.0/1.5 ↔ 2.5

CF 1000-10: Change the feeder bowl every time the cross section is changed.

- Unscrew the winged screw (1)
- Move the feeder bowl to the side (2), pull upwards (3) and empty.

NOTE: Ensure that all ferrules are removed, especially from the slot under the baffle.

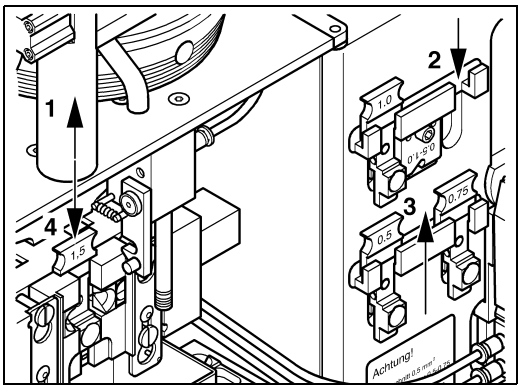
- Attach the feeder bowl in such a way that it slides into the centering pins and tighten the winged screw.

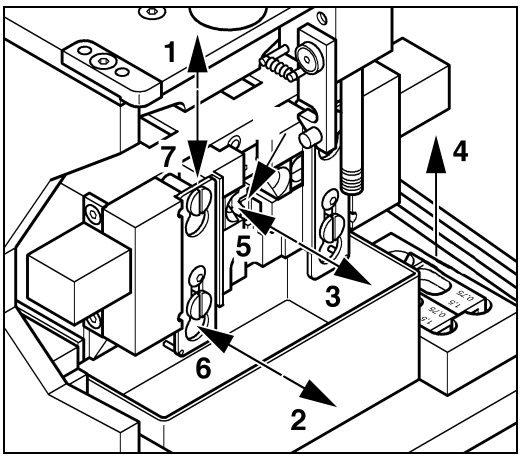
Changing the reversing base sleeve

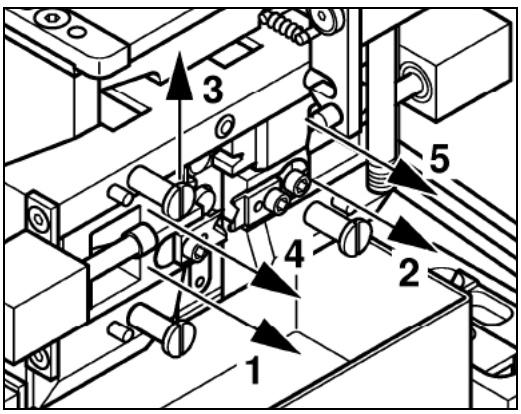
CF 1000-1.5: Change the reversing base sleeve during a cross section change from 0.5/0.75/1.0/1.5 ↔ 2.5.

CF 1000-10: Change the reversing base sleeve every time the cross section is changed.

- Pull the release lever (1) forwards.
- Remove the reversing base sleeve (2) downwards.
- Hold the release lever in the forward position and attach the reversing base sleeve with the desired cross section.
- Lock the release lever into place.







Changing the sleeve receiver

The sleeve receiver must be changed every time the cross section is changed.

- Remove the reversing base sleeve (see page 5-1).
- Pull the sleeve receiver (1) upwards, remove from the holder and insert into the transport holder (2).
- Insert the sleeve receiver into the holder using the desired cross section (3) and push downwards (4).

NOTE: Check for correct lock-in position.

- Install reversing base sleeve.

Changing the cord-centering funnel

CF 1000-1.5: The cord-centering funnels must be changed during a 0.5 ↔ 0.75/1.0/1.5 ↔ 2.5 cross section change.

CF 1000-10: The cord-centering funnels must be changed every time the cross section is changed.

- Remove the reversing base sleeve and sleeve receiver (see above).
- Slide the slide (1) upwards and pull the holder (2) forwards.
- Remove the second holder in the same way.
- Remove both cord-centering funnels (3).
- Attach the cord-centering funnels onto the driving pins (5) with the desired cross section (4).
- Attach the holders (6) and press the slide (7) downwards.
- Install the sleeve receiver and reversing base sleeve.

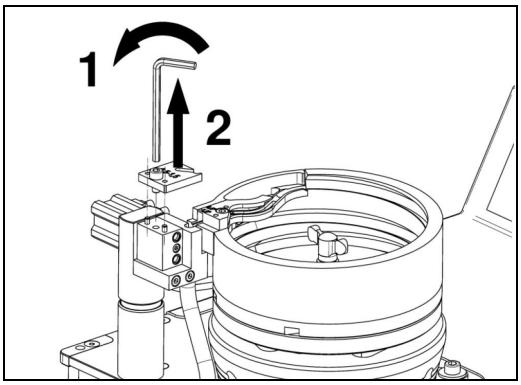
Changing the stripping knife and crimping jaws

CF 1000-1.5: No change.

CF 1000-10: The crimping jaws and stripping blade must be altered during a cross section change.

- The steps for removing the cord-centering funnels are mentioned above.
- Take out both of the stripping blades (1 + 2).
- Slide the cassette (3) upwards.
- Take out both of the crimping jaws (4 + 5).
- Attach in the reverse order.

NOTE: Check for correct lock-in position.



Changing the separation plates

CF 1000-1.5: The separation plates must be changed during a 0.5/0.75/1.0/1.5 ↔ 2.5 cross section change.

CF 1000-10: The separation plate must be changed during a 4 ↔ 6 ↔ 10 cross section change.

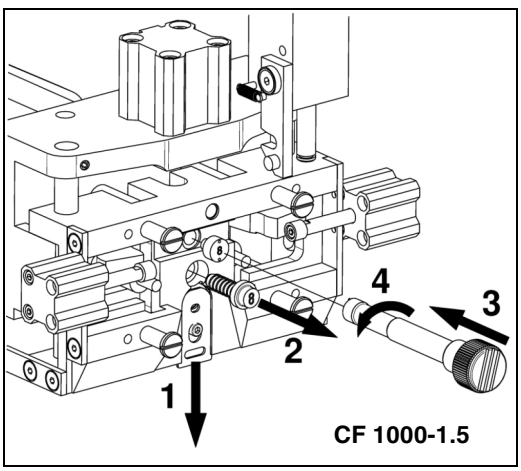
- Unscrew the separation plate (1) using the hexagonal wrench and remove (2)
- Remove the separation plate from the retrofit kit with the desired cross section and attach in place of the previous separation plate.

5.2 Changing the crimping length

Changing the crimping length

CF 1000-1.5: When changing the crimping length from 6 ↔ 8 ↔ 10 mm, the start bolts, crimping jaws and stop plates must also be changed.

CF 1000-10: The crimping length (10 or 12 mm at 4 mm^2) is changed using a rotary dial.



CF 1000-1.5

CF 1000-1.5: Changing the start bolts

- Follow the steps mentioned above to remove the stripping knife and crimping jaws (see page 5-2).
- The start bolt is attached with a slide. Slide this downwards (1).
- Unscrew the start bolt (2) and replace.

CF 1000-1.5: Changing the stop plate

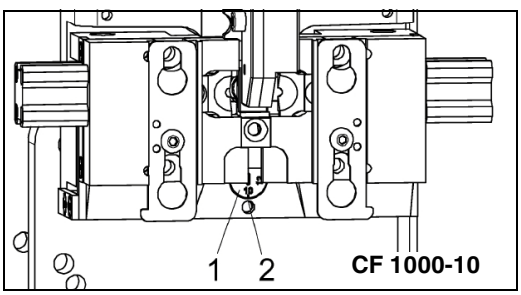
The stop plate is located above the start bolt.

A special screwdriver (3) is necessary for changing the stop plate. It is included in the retrofit kit.

- Unscrew the stop plate and exchange.

CF 1000-1.5: Changing the pressing jaws

- Insert new crimping jaws.
- Re-attach individual parts.



CF 1000-10

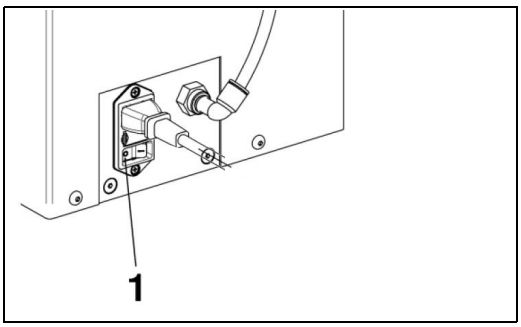
CF 1000-10: Changing the rotary dial

- Follow the steps mentioned above to remove the stripping knife and crimping jaws (see page 5-2).
- Insert the rotary dial (1) at the desired crimping length using a screwdriver.

  The selected value is shown via the red marker (2).
- Re-attach individual parts.

6 Troubleshooting

6.1 CF 1000 does not run after being switched on



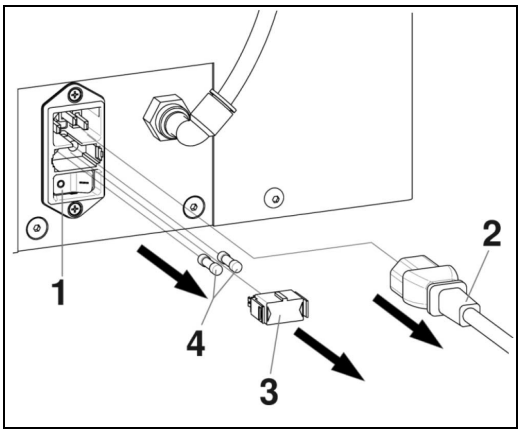
Check the mains indicator

Mains indicator (1) is not lit:

- Check air pressure.

Mains indicator (1) is not lit:

- Check whether the mains plug is connected to the CF 1000 mains connection and the shock-proof plug is connected to the mains socket.
- Check whether the power supply at the mains socket is O.K.
- If O.K., check the mains fuse.

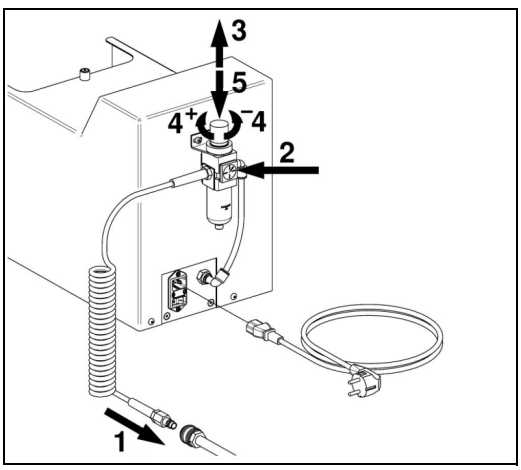


Check the mains fuse

WARNING: Risk of injury!
In order to check the mains fuse, the mains connection has to be open. Disconnect the mains plug first!

- Switch off the CF 1000 with the mains switch (1).
- Disconnect the mains plug (2).
- Pull out the fuse holder (3).
- Checking the mains fuse (4).
- Replace the defect mains fuse with the backup fuse. Retrofit the backup fuse.
- Insert the fuse holder.

NOTE: The fuse holder should snap into place.



Check the air pressure

- Disconnect the compressed air connection (1).
- Check the air pressure at the manometer (2):
  CF 1000-1.5: 5 bar
  CF 1000-10: 5.5 bar

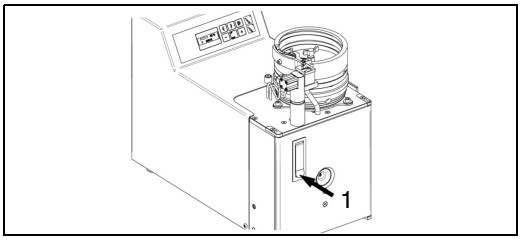
No pressure present:

- Check whether the compressed air connection is connected to the compressed air supply.
- Check whether the compressed air supply is O.K.

Pressure is not 5 bar/5.5 bar:

- Pull the air pressure regulator (3) upwards.
- Set the air pressure by turning (4) to the right (+) or left (-).
- Then press the regulator (5) downwards.

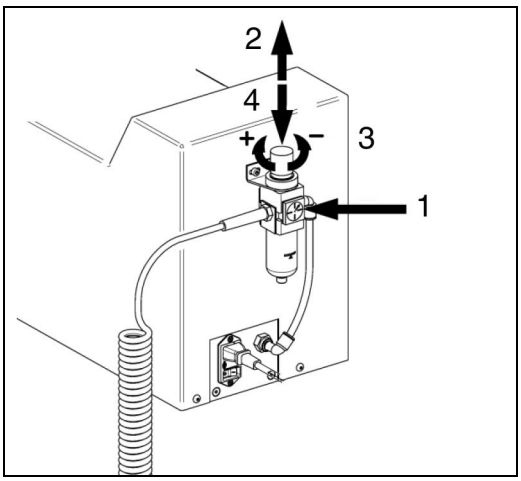
6.2 Start process is not being initiated



If the conductor is inserted, the CF 1000 will not start.

Check the front door

- Check that the front door (1) is completely closed and locked.



Check the air pressure

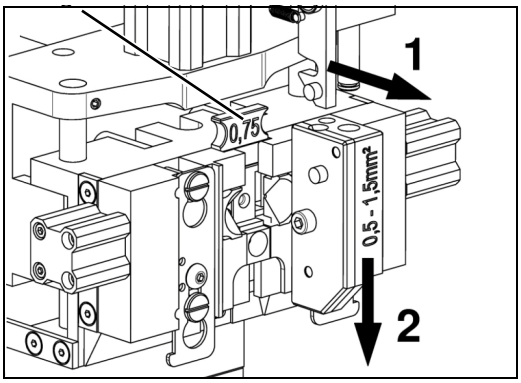
- Check air pressure at the manometer (1):
  CF 1000-1.5: 5 bar
  CF 1000-10: 5.5 bar

No pressure present:

- Check whether the compressed air connection is connected to the compressed air supply.
- Check whether the compressed air supply is O.K.

Pressure is not 5 bar/5.5 bar:

- Disconnect the compressed air connection.
- Pull the air pressure regulator (2) upwards.
- Set the air pressure by turning (3) to the right (+) or left (-).
- Then press the regulator (4) downwards.



Check sleeve receiver

WARNING: Risk of injury!
Disconnect the mains plug and the compressed air before you open the front door.

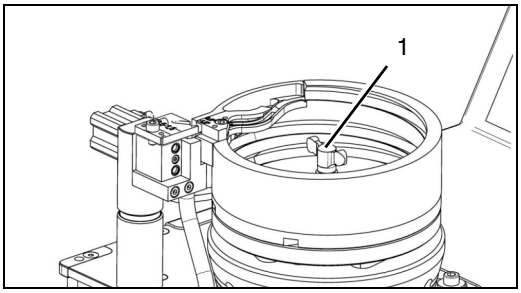
- Pull the release lever (1) forwards.
- Remove the reversing base sleeve (2) downwards.
- Check that the sleeve receiver (3) is positioned correctly and is snapped into place in the ball latch.
- Install sleeve receiver.
- Close front door.

6.3 Conductor insulation is not removed completely

Check cross section

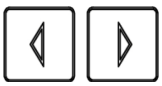
- If the conductor isn't properly stripped, first check that the CF 1000 is fitted with the correct retrofit kit.
- Adjust the retrofit kit to suit the selected conductor cross section (see page 5-1).
- Also check the conductor cross section.
- If the the malfunction continues despite having the correct retrofit kit, check the stripping blade (see page 4-2).

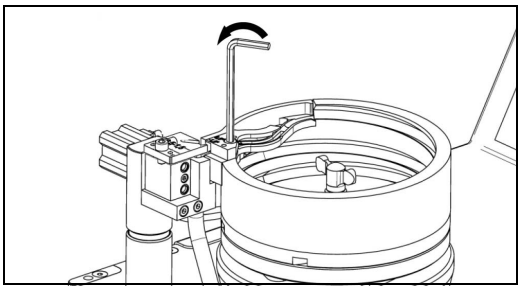
6.4 Ferrule in-feed is disrupted



Check the feeder bowl

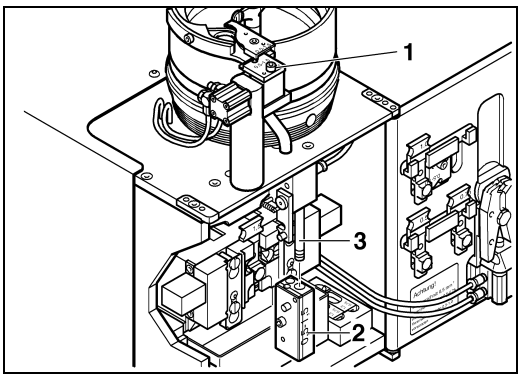
- Check if the winged screw (1) is loose, if necessary, re-tighten.
- Tuck the ferrules into the transport grooves.
- Change the speed of the feeder bowl.





Check the baffles

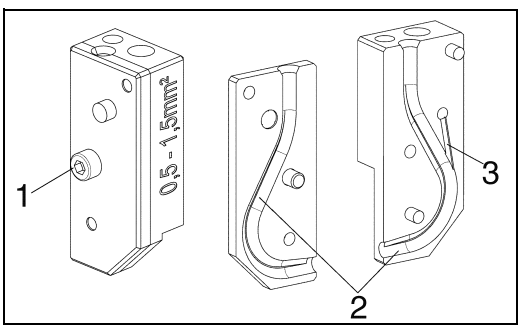
- Switch off the CF 1000 at the mains switch.
- Unscrew the baffle covering with the hexagonal wrench.
- Remove the defect ferrules.



Check the sleeve feeding

WARNING: Risk of injury!
Disconnect the mains plug and the compressed air before you open the front door.

- Unscrew the separation plate (1) using the hexagonal wrench.
- Remove the reversing base sleeve (2).
- Push the cable through the feeder (3) and, if necessary, remove the crimped ferrules.



Check the reversing base sleeve

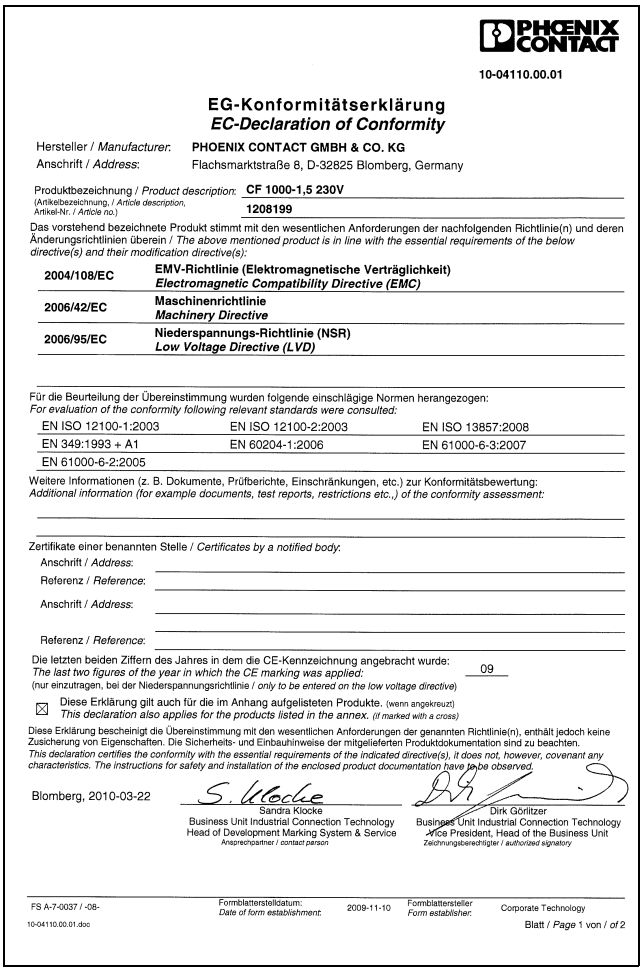
- Unscrew allen screw (1) on the reversing base sleeve using a hexagonal wrench and open the reversing base sleeve.
- Remove the crimped ferrules.
- Clean the feeder channel (2) and air pressure channel (3).

A Technical appendix

A 1 Technical data

Technical data	
Mains connection	120 V/60 Hz ... 230 V/50 Hz
Power consumption	50 VA
Compressed air connection	
CF 1000-1,5	At least 4.5 bar, maximum 6 bar 1/4" plug-in nipple inner thread (Euro standard)
CF 1000-10	At least 5 bar, maximum 6 bar
Compressed air consumption	1.2 l/cycle
Cycle time	
CF 1000-1,5	1.3 s
CF 1000-10	1.5 s
Workspace	
CF 1000-1,5	0.25 mm^2 ... 4 mm^2
CF 1000-10	4 mm^2 ... 10 mm^2
Ferrules	Loose according to DIN 46228-4
Crimping	Trapezoidal (square on request)
Conductor	Class 2, 5, and 6 according to DIN VDE 0295
Control	Electrical/pneumatic
Counter	5-digit, can be reset
Dimensions (W x H x D)	240 mm x 390 mm x 490 mm
Weight	28 kg

A 2 Declaration of conformity



PHOENIX CONTACT

10-04110.00.01

EG-Konformitätserklärung
EC-Declaration of Conformity

Hersteller / *Manufacturer*: **PHOENIX CONTACT GMBH & CO. KG**
Anschrift / *Address*: Flachsmarktstraße 8, D-32825 Blomberg, Germany

Produktbezeichnung / *Product description*: **CF 1000-1,5 230V**
(Artikelbezeichnung, / *Article description*, Artikel-Nr. / *Article no.*) **1208199**

Das vorstehend bezeichnete Produkt stimmt mit den wesentlichen Anforderungen der nachfolgenden Richtlinie(n) und deren Änderungsrichtlinien überein / *The above mentioned product is in line with the essential requirements of the below directive(s) and their modification directive(s):*

2004/108/EC	**EMV-Richtlinie (Elektromagnetische Verträglichkeit)** ***Electromagnetic Compatibility Directive (EMC)***
2006/42/EC	**Maschinenrichtlinie** ***Machinery Directive***
2006/95/EC	**Niederspannungs-Richtlinie (NSR)** ***Low Voltage Directive (LVD)***

Für die Beurteilung der Übereinstimmung wurden folgende einschlägige Normen herangezogen:
For evaluation of the conformity following relevant standards were consulted:

EN ISO 12100-1:2003	EN ISO 12100-2:2003	EN ISO 13857:2008
EN 349:1993 + A1	EN 60204-1:2006	EN 61000-6-3:2007
EN 61000-6-2:2005		

Weitere Informationen (z. B. Dokumente, Prüfberichte, Einschränkungen, etc.) zur Konformitätsbewertung:
Additional information (for example documents, test reports, restrictions etc.,) of the conformity assessment:

Zertifikate einer benannten Stelle / *Certificates by a notified body:*
Anschrift / *Address*:
Referenz / *Reference*:
Anschrift / *Address*:
Referenz / *Reference*:

Die letzten beiden Ziffern des Jahres in dem die CE-Kennzeichnung angebracht wurde: 09
The last two figures of the year in which the CE marking was applied:
(nur einzutragen, bei der Niederspannungsrichtlinie / *only to be entered on the low voltage directive*)

☒ Diese Erklärung gilt auch für die im Anhang aufgelisteten Produkte. (wenn angekreuzt)
This declaration also applies for the products listed in the annex. (if marked with a cross)

Diese Erklärung bescheinigt die Übereinstimmung mit den wesentlichen Anforderungen der genannten Richtlinie(n), enthält jedoch keine Zusicherung von Eigenschaften. Die Sicherheits- und Einbauhinweise der mitgelieferten Produktdokumentation sind zu beachten.
This declaration certifies the conformity with the essential requirements of the indicated directive(s), it does not, however, covenant any characteristics. The instructions for safety and installation of the enclosed product documentation have to be observed.

Blomberg, 2010-03-22

Sandra Klocke
Business Unit Industrial Connection Technology
Head of Development Marking System & Service
Ansprechpartner / *contact person*

Dirk Görlitzer
Business Unit Industrial Connection Technology
Vice President, Head of the Business Unit
Zeichnungsberechtigter / *authorized signatory*

FS A-7-0037 / -08-
10-04110.00.01.doc

Formblatterstelldatum: *Date of form establishment:* 2009-11-10
Formblattersteller *Form establisher:* Corporate Technology

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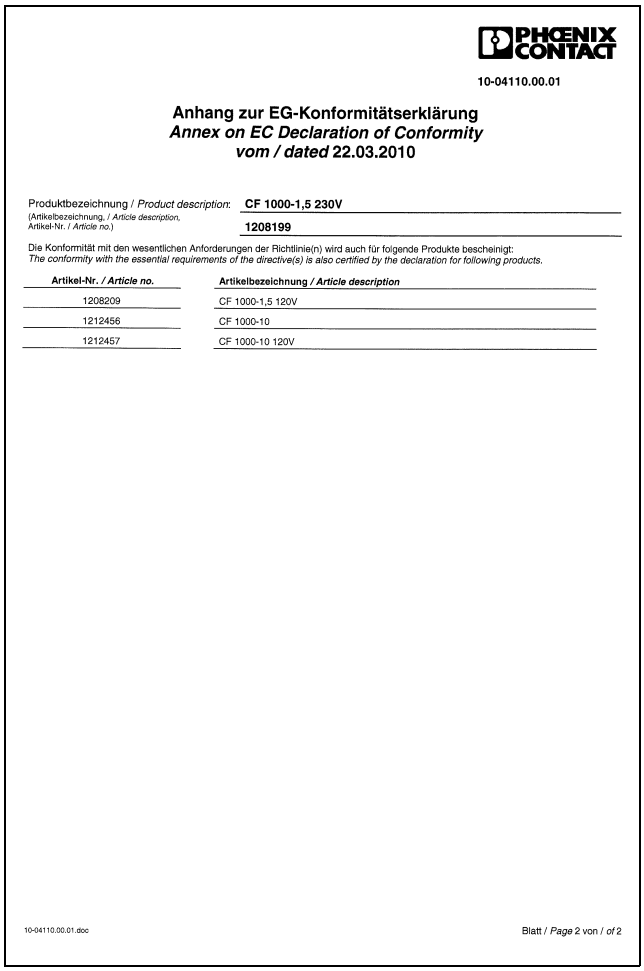

PHOENIX CONTACT

10-04110.00.01

Anhang zur EG-Konformitätserklärung
Annex on EC Declaration of Conformity
***vom / dated* 22.03.2010**

Produktbezeichnung / *Product description*: **CF 1000-1,5 230V**
(Artikelbezeichnung, / *Article description*, Artikel-Nr. / *Article no.*) **1208199**

Die Konformität mit den wesentlichen Anforderungen der Richtlinie(n) wird auch für folgende Produkte bescheinigt:
The conformity with the essential requirements of the directive(s) is also certified by the declaration for following products.

Artikel-Nr. / *Article no.*	**Artikelbezeichnung / *Article description***
1208209	CF 1000-1,5 120V
1212456	CF 1000-10
1212457	CF 1000-10 120V

10-04110.00.01.doc

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PHOENIX CONTACT GmbH & Co.KG, Flachsmarktstraße 8, D-32825 Blomberg, Germany

CF 1000-1,5

CF 1000-10

The products are in conformity with significant standards of the following directives and their amending directives.

2004/108/EC	EMC Directive (Electromagnetic Compatibility)
2006/42/EC	Machinery Directive
2006/95/EC	Low Voltage Directive (LVD)

The following pertinent standards were consulted for evaluating the conformity:

EN ISO 12100-1:2003	EN ISO 12100-2_2003	EN ISO 13857:2008
EN349:1993 + A1	EN 60204-1:2006	EN 61000-6-3:2007
EN 61000-6-2:2005		

B Ordering data

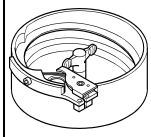
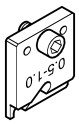
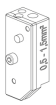
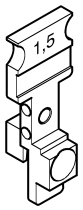
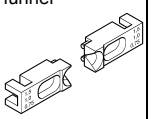
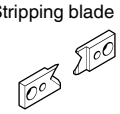
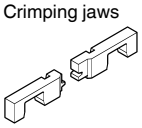
B 1 Automatic stripping and crimping machine

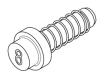
Description	Designation	Order No.
Automatic stripping and crimping machine for insulated ferrules according to DIN 46228-4, for cross-section range 0.5 mm^2 ... 4.0 mm^2, with retrofit kit for 0.5 / 0.75 / 1.0 / 1.5 mm^2, crimping length 8 mm	CF 1000-1,5	1208199
Automatic stripping and crimping machine for insulated ferrules according to DIN 46228-4, without retrofit kit (TOOLKIT), prepared for the cross-sections 4 mm^2, 6 mm^2 und 10 mm^2	CF 1000-10	1212456

B 2 Retrofit kits

Description	Designation	Order No.
CF 1000-1.5...		
Retrofit kits for insulated ferrules according to DIN 46228-4, for cross-sectional area:		
0.25 mm^2 ... 0.34 mm^2, crimping length 6 mm	CF 1000-TOOLKIT 0.34/6	1208212
0.25 mm^2 ... 0.34 mm^2, crimping length 8 mm	CF 1000-TOOLKIT 0.34/8	1208225
2.5 mm^2, crimping length 8 mm	CF 1000-TOOLKIT 2.5/8	1208241
4 mm^2, crimping length 10 mm	CF 1000-TOOLKIT 4.0/10	1208270
CF 1000-10...		
Retrofit kits for insulated ferrules according to DIN 46228-4, for cross-sectional area:		
4 mm^2, crimping length 10 and 12 mm	CF 1000-10-TOOLKIT 4/10-12	1212458
6 mm^2, crimping length 12 mm	CF 1000-10-TOOLKIT 6-12	1212459
10 mm^2, crimping length 12 mm	CF 1000-10-TOOLKIT 10-12	1212460

B 3 Spare parts

Part	Cross section/length	Designation	Order No.	A	B
Feeder bowl 	0.25 – 0.34 mm²	CF 1000 SORT0.34	1206890	x	
	0.5 – 1.5 mm²	CF-1000 SORT1.5	1204326	x	
	2.5 mm²	CF 1000 SORT2.5	1206874	x	
	4.0 mm²	CF 1000 SORT4.0	1206887	x	x
	6.0 mm²	CF 1000-10 SORT6.0	1212652		x
	10 mm²	CF 1000-10 SORT10	1212653		x
Separation plate 	0.25 – 0.34 mm²	CF 1000 VEP0.34	1206939	x	
	0.5 – 1.5 mm²	CF 1000 VEP1.5	1206900	x	
	2.5 mm²	CF 1000 VEP2.5	1206926	x	
	4.0 mm²	CF 1000 VEP4.0	1206942	x	x
	6.0 mm²	CF 1000-10 VEP6.0	1212654		x
	10 mm²	CF 1000-10 VEP10	1212655		x
Reversing base sleeve 	0.25 – 0.34 mm²	CF 1000 HWB0.34	1206971	x	
	0.5 – 1.5 mm²	CF 1000 HWB1.5	1206955	x	
	2.5 – 4.0 mm²	CF 1000 HWB4.0	1206968	x	x
	6.0 mm²	CF 1000-10 HWB6.0	1212656		x
	10 mm²	CF 1000-10 HWB10	1212658		x
Sleeve receiver 	0.25 – 0.34 mm²	CF 1000 HA0.34	1207035	x	
	0.5 mm²	CF 1000 HA0.5	1206984	x	
	0.75 mm²	CF 1000 HA0.75	1206997	x	
	1.0 mm²	CF 1000 HA1.0	1207006	x	
	1.5 mm²	CF 1000 HA1.5	1207019	x	
	2.5 mm²	CF 1000 HA2.5	1207022	x	
	4.0 mm²	CF 1000 HA4.0	1207048	x	x
	6.0 mm²	CF 1000-10 HA6.0	1212659		x
	10 mm²	CF 1000-10 HA10	1212660		x
Cord-centering funnel 	0.25 – 0.34 mm²	CF 1000 LZT0.34	1207080	x	
	0.5 – 0.75 mm²	CF 1000 LZT0.75	1207064	x	
	0.5 – 1.5 mm²	CF 1000 LZT1.5	1207051	x	
	2.5 mm²	CF 1000 LZT2.5	1207077	x	
	4.0 mm²	CF 1000 LZT4.0	1207093	x	x
	6.0 mm²	CF 1000-10 LZT6.0	1212661		x
	10 mm²	CF 1000-10 LZT10	1212662		x
Stripping blade 	0.25 – 2.5 mm²	CF 1000 EM	1205215	x	
	4.0 mm²	CF 1000 EM4.0	1212663	x	x
	6.0 mm²	CF 1000-10 EM6.0	1212664		x
	10 mm²	CF 1000-10 EM10.0	1212665		x
Crimping jaws 	0.25 – 0.34 mm²; 6 mm	CF 1000 PB 6-0.34	1212666	x	
	0.25 – 0.34 mm²; 8 mm	CF 1000 PB 8-0.34	1212667	x	
	0.5 – 2.5 mm²; 6 mm	CF 1000 PB 6-2.5	1207145	x	
	0.5 – 2.5 mm²; 8 mm	CF 1000 PB 8-2.5	1207158	x	
	0.5 – 2.5 mm²; 10 mm	CF 1000 PB 10-2.5	1207161	x	
	4.0 mm²; 10 mm	CF 1000 PB 4-10	1212668	x	
	4.0 mm²; 12 mm	CF 1000-10 PB 4-12	1212669	x	x
	6.0 mm²; 12 mm	CF 1000-10 PB 6-12	1212670		x
	10 mm²; 12 mm	CF 1000-10 PB 10-12	1212671		x

Part	Cross section/length	Designation	Order No.	A	B
Start bolts 	0.25 – 0.34 mm²; 6 mm	CF 1000 ST 6-0.34	1212672	x	
	0.25 – 0.34 mm²; 8 mm	CF 1000 ST 8-0.34	1212673	x	
	0.5 – 1.5 mm²; 6 mm	CF 1000 ST 6-1.5	1212674	x	
	0.5 – 2.5 mm²; 8 mm	CF 1000 ST 8-2.5	1212675	x	
	0.5 – 2.5 mm²; 10 mm	CF 1000 ST 10-2.5	1212676	x	
	4.0 mm²; 10 mm	CF 1000 ST 10-4	1212677	x	
Stop plate 	0.25 – 34 mm²; 6 mm	CF 1000 HAS 6-0.34	1212678	x	
	0.25 – 34 mm²; 8 mm	CF 1000 HAS 8-0.34	1212679	x	
	0.5 – 1.5 mm²; 6 mm	CF 1000 HAS 6-1.5	1212680	x	
	0.5 – 2.5 mm²; 8 mm	CF 1000 HAS 8-2.5	1212681	x	
	0.5 – 2.5 mm²; 10 mm	CF 1000 HAS 10-2.5	1212682	x	
	4.0 mm²; 10 mm	CF 1000 HAS 10-4	1212683	x	
Screw-driver 		CF 1000 ADW	1212684	x	
Mains fuse 	T2A/250V (20 x 5 mm)	FUSE SB 2.0A/250V	1212685	x	x

A = Spare parts for CF 1000

B = Spare parts for CF 1000-10