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## **Instruction Manual**

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# ZIL 2140 Ink-Lox proofer



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#### Enclosure:

Certificate of manufacturer

## **Exclusion of liability**

Illustrations, descriptions as well as the technical specifications accord with the instruction manual in hand for the time of printing. Subject to change resulting from technical improvement, modified construction or similar changes.

This instruction manual has been written with the utmost care. Nevertheless, errors can not entirely be eliminated. The manufacturer shall not be liable for errors contained herein or for incidental or consequential damages resulting from possible errors.

We would therefore welcome any suggestions and references to errors.

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#### 1. Safety precautions and warnings

#### 1.1 Dangers



#### Attention!

This note is included in this instruction manual wherever it is warned about dangers which will arise to life and limb of persons if the apparatus is handled improperly. Observe these notes and be particularly careful in these cases. Also inform other users on all safety notes. Besides the notes in these instruction manual the generally applicable safety instructions and regulations for prevention of accidents have to be taken into account.



## Caution

This note comprises instructions to be observed in order to comply with guidelines, instructions, notes and the proper procedure of the work, and to avoid damaging or destruction of the apparatus.

#### 1.2 Notes regarding safety at work

- The ZIL 2140 is exclusively designed for the application of defined layers of flexographic inks and other liquid coating materials on substrates. Any other application is not in accordance with the regulations. The manufacturer is not liable for damage resulting from inappropriate application. The user bears the full responsibility.
- Only spare parts and optional components provided by the manufacturer may be used in combination with the ZIL 2140. If components other than provided by ZEHNTNER are used with the ZIL 2140, there is no guarantee by ZEHNTNER for resulting damages, defects or malfunctions.
- Unauthorised modifications and changes of the ZIL 2140 are not allowed. These will invalidate the guarantee. The manufacturer is not liable for damages resulting from unauthorised modifications; the user bears the full responsibility.

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#### 2. Standard extent of delivery

#### 2.1 Transportation damages

During carriage the ZGM 1110 is to be handled with the usual care. To ensure carriage without damages the device is to be transported in the original packaging and under normal freight conditions. Pushes during carriage are to be avoided.

At the receipt of the goods, you have to check if there are any visible damages at the outer packaging. If the packing is alright, you can sign the receipt documents. If you even suspect by your visual impression that damage has occurred, make a note of the suspected damage on the delivery receipt or freight papers and get the carrier to sign it. Moreover, the forwarding agent/courier service must be held responsible for the damage in writing.

If a hidden damage is discovered while unpacking, you have to inform and must held the forwarding agent / courier service immediately in the following way: "When opening the parcel we had to notice that .... etc. etc." This superficial checking of the goods has to be done before the time limit of the forwarding agent / courier service expires which is normally within 7 days. However, the period could be less. Hence, it is recommended to check the exact time limit when receiving the goods.

If there are any damages inform also immediately your authorized ZEHNTNER trader or Zehntner GmbH Testing Instruments directly.

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#### 2.2 Extent of delivery

The following parts are included in the delivery:

- 1-3 engraved rollers (acc. to order)
- 1-2 rubber rollers (acc. to order)
- 2 weights
- 1 handle
- 12 o-ring seals
- 1 certificate of manufacturer
- 1 carrying case

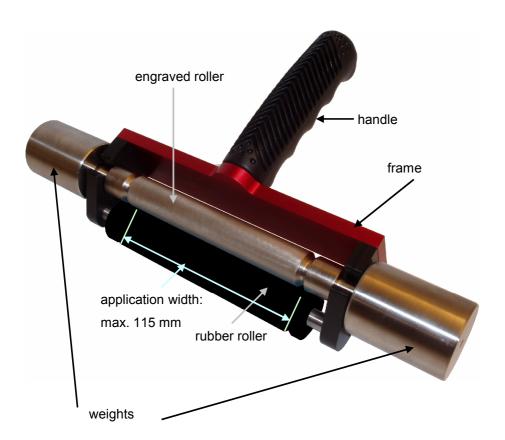
## 2.3 Options

- ACC 118 specimen holder incl. clamp fixture dimension: 260 mm x 410 mm
- ZTC 2200 Zehntner-Test charts





## 3. Outline of the instrument

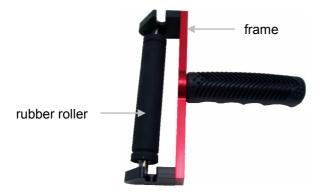


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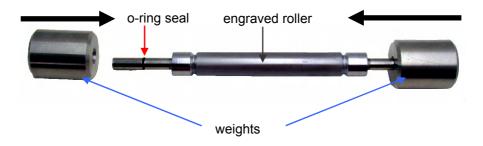


#### 4. Handling

- choose an adequate length of the substrate that enables uniform movement of the apparatus to be made
- place the substrate on a flat, plane laboratory table (ideally made of glass) and, if necessary, fix it with adhesive tape
- put the chosen rubber roller in the frame



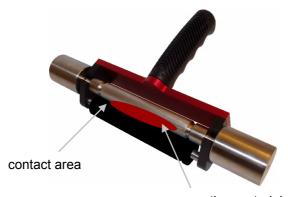
 slip the weights on the chosen engraved roller above the o-rings until the stop position is reached and put it afterwards in the frame above the rubber roller



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- place now some coating material on the contact area of both rollers (engraved and rubber roller)
  - this procedure should be done as fast as possible



coating material

- disperse the coating material by turning the engraved rollers at the weights, by doing so you will reach right at the beginning an uniform width of the print proof
  - this procedure should be done as fast as possible



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- put the apparatus on the substrate and draw it uniformly over it, without additional pressure by the guiding hand
  - this procedure should be done as fast as possible
  - the ZIL 2140 Ink-Lox proofer is constructed in a way that there will be no accidental ink spots at putting down the unit
- for the examination only use uniform parts of the print proof



 dismantle the apparatus after every print proof and clean it carefully with a suitable solvent

#### 5. Cleaning

The rubber rollers are covered with E.P.D.M. rubber which has an excellent resistance to cello solve, meths, methanol I.P.A. (alcohols) und MEK as well as acetone.

It is essential that both, the engraved and rubber rollers are cleaned carefully with an appropriate cleaning agent and a lint free cloth or tissue.

The choose of the approprieate depends on the used coating material.

#### appropriate cleaning agents:

water, cello solve, meths, methanol, I.P.A. (alcohols) und MEK as well as acetone.

#### The following solvents must not be used:

- toluene
- xylene
- benzenel
- naphtha (aromatics)
- · white spirit
- petrol
- paraffin
- hexane (aliphatics)
- C.T.C
- chloroform
- methyl chloride (chlorinated solvents)

### 6. Storage

Never leave the ZIL 2140 Ink-Lox proofer unnecessarily because this could cause deformations of the rubber rollers.

After application and subsequent cleaning to be stored dismantled in the carrying case.

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## 7. Technical specification

engraved 80 roller		80 cells per cm, cell volume:10.01 cm $^3$ /m $^2$ , cell depth: 45 $\mu$ m	
120		120 cells per cm, cell volume:8.40 cm³/m², cell depth: 40 µm	
	140	140 cells per cm, cell volume:6.10 cm³/m², cell depth: 31 µm	
	160	160 cells per cm, cell volume:4.10 cm³/m², cell depth: 24 µm	
	180	180 cells per cm, cell volume:3.8 cm³/m², cell depth: 20 µm	
rubber roller	h hard rubber roller, 70° Sh A		
	s	silicone rubber roller, 70° Sh A	
	W	soft rubber roller, 40° Sh A	

material: handle: plastics

frame: aluminium, anodized engraved rollers: stainless steel

rubber rollers: rubber

application width: max. 115 mm

dimensions (L x W x H): 277 cm x 17 cm x 4.5 cm

weight engraved roller: approx. 390 g

weight rubber roller: approx. 200 g

weight set: approx. 3.7 kg

warranty: 2 years

engraved rollers: 1 year

rubber rollers, o-ring seals: without warranty