

ANILOX-SLEEVES

INSTRUCTIONS FOR CLEANING AND CARE





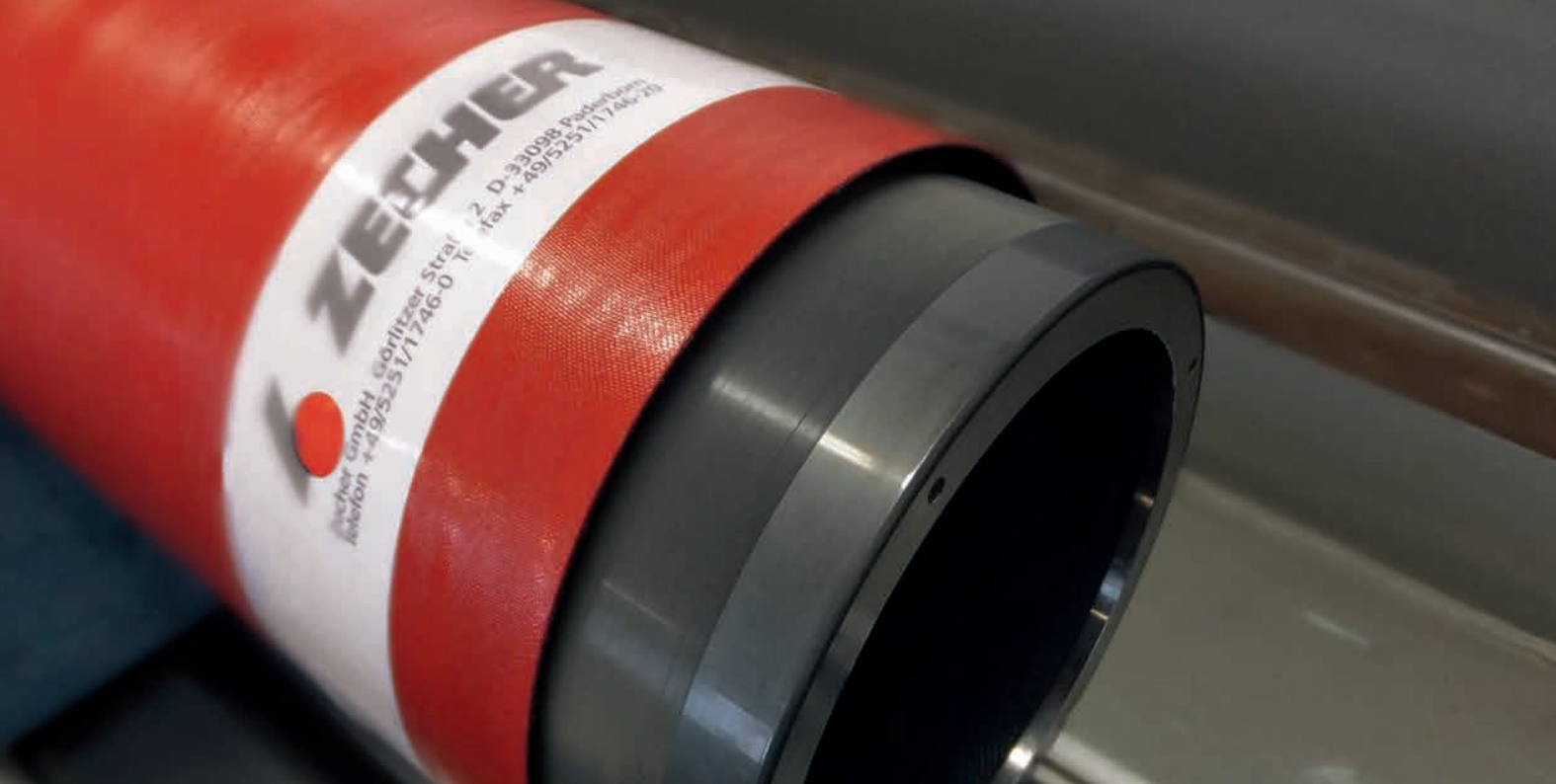
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General wear-prevention instructions

- The anilox sleeve is designed to be used for specific media transfer in a printing or coating machine. The product is not intended for any other purpose.
- Please check in advance (by contacting the manufacturer if necessary) for compatibility with acid or alkaline printing and coating media.
- The anilox sleeve must be securely placed in a robust wooden crate for transport in order to prevent physical damage.
- The surface of the anilox sleeve should be covered with special protectors and/or mats supplied by ZECHER.
- Special care should be taken with the in-house transport of unpacked anilox sleeves on their journeys between the storage area and the printing machine.
- Lifting aids must only be fitted and removed by suitably trained personnel.
- The surface of the anilox sleeve must be kept free of oil and grease whenever work is taking place. Wear clean gloves and check the packing materials for cleanliness.





Storage instructions

- The anilox sleeve must be kept in a dry, dust-protected place when not in use.
- Avoid wide fluctuations of temperature (+/- 15°C/60°F).
- When storing on suitable support mandrels, be sure to protect the inner sleeve made of GRP.
- If the anilox sleeve is stored horizontally, its surface must be covered with special protectors and/or mats supplied by ZECHER.

- If it is stored in a vertical position, we recommend adding a support to prevent it from tipping over.
- You should preferably use special ZECHER anilox sleeve protectors and mats, and a wooden crate with movement prevention, to avoid physical damage to the surface of the anilox sleeve.





Handling

Onsite transport

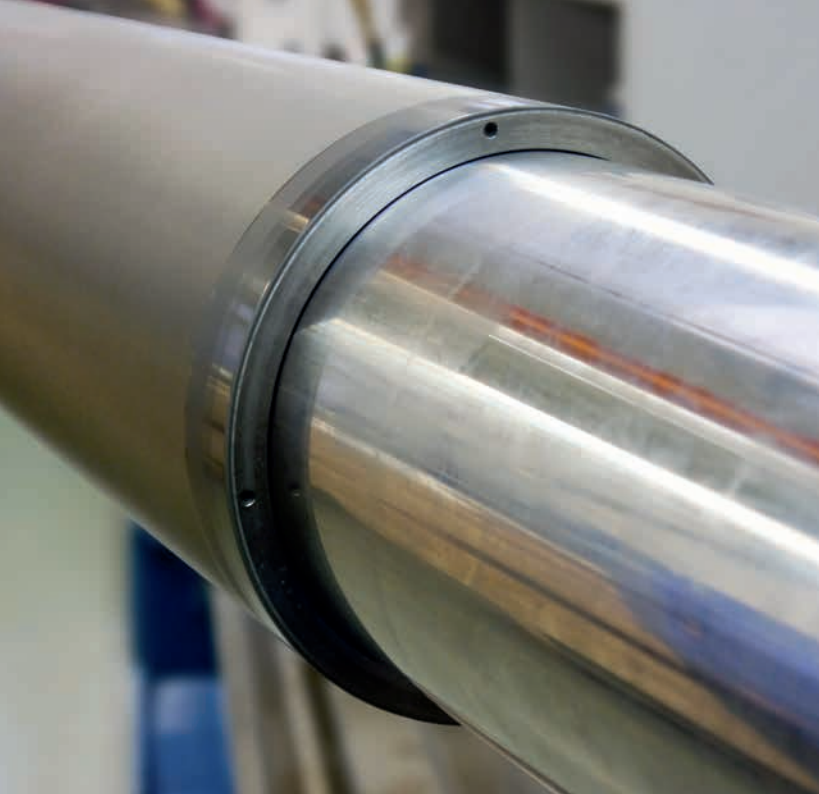
- Before raising the anilox sleeve, ensure that the lifting gear is of sufficient load-bearing capacity. The health-and-safety aspects of load-lifting and transport should also be taken into account.
- When handling the anilox sleeve, keep it as horizontally levelled as possible to prevent it from slipping out of its lifting slings.
- We recommend the use of special anilox sleeve protectors or mats. Take steps to prevent the anilox sleeve from slipping out of the protector/mat.

Installation and removal of the anilox sleeve

- All installation/removal work must be carried out by suitably trained specialists, who should follow the operating instructions (including the safety information) when doing so.
- We can accept no liability for defective installation/removal of the anilox sleeve, or for incorrect assembly/dismantling.
- Here you will find a video on sleevehandling: www.zecher.com/en/videos-en/video-sleevehandling/

- The surface of the anilox sleeve is absolutely vital to the printing/coating process, so it must not be damaged during installation or removal.
- Please note that certain processes may leave residues (liquids, etc.) on the anilox sleeve. Take careful note of the safety data sheets and hazardous-substance instructions supplied with your operating materials.





Sleeve mandrel: Selection and use

- Before installing the anilox sleeve, check its inner surface for signs of dirt, and clean it if necessary to avoid difficulties when slipping it on (with particular reference to the danger of it becoming stuck).
- If it does stick, be careful to avoid excess mechanical strain (especially levering), so as not to deform the anilox sleeve.
- Please refer to the manufacturer's instructions supplied with your expanding mandrel, or those of the system manufacturer, regarding air-pressure settings and use of the sleeve insertion/removal function.

- The location and number of the air-outlet holes depends on the length and diameter of the anilox sleeve. If in doubt, please consult your expanding-mandrel and/or sleeve supplier.
- Maintain the recommended air pressure of 6 to 8 bar and the air flow rate of 12-16 l/s (dynamic metering: use one measuring point between the air-supply connection and the cylinder, and another in the open flow). The air pressure should not be allowed to fall below the minimum of 6 bar.
- Before sleeving on, the sleeve holder on the air mandrel and the air vents (with the air

supply closed) should be carefully checked for dirt, residues or mechanical damages and thoroughly cleaned if necessary. A dirty holder or clogged holes can impede air circulation and make it difficult to sleeve on and off correctly or cause damage to the anilox sleeve.

- Please ensure a quick and uninterrupted mounting/ dismounting process of the sleeve. A faulty position on the air mandrel could potentially result in damages to the inner layer (compressible layer) of the sleeve due to the constant high pressure air stream.



6-8 Bar





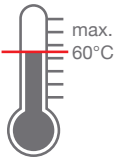
Cleaning and care

- Anilox sleeves must be cleaned immediately whenever a production run is interrupted, and at the end of each print job.
- Dried-on flexographic inks can only be removed with intensive deep-action (and normally corrosive) chemicals.
- Avoid all mechanical cleaning methods (such as particle blasting and brushing) wherever possible, so as not to damage the delicate micro-structure of the anilox sleeve's surface.
- Cleaning products must be matched to the inking system used.

The following points apply:

- Do not use strong, alkaline-based (>pH 11) cleaning products on anilox sleeves, as they are likely to cause corrosion damage to the underlying structure.
- Always be sure to follow the recommendations of the manufacturer/ supplier (see data sheet).
- The maximum cleaning temperature is 60°C / 140°F.

- Use cleaning sponges supplied by ZECHER, which are specifically designed for routine day-to-day cleaning with lineatures of > 280 l/cm.
- After each cleaning operation, rinse the surface thoroughly with fresh water free of detergent residues.
- In order to prevent dripping water interfering with the following process, dry the anilox sleeve with a soft, clean, absorbent cloth.





- Ensure, before starting each cleaning session that an anilox sleeve cleaning adapter supplied by ZECHER is inserted to protect the inner surface of the anilox sleeve from damage.

Use of the cleaning adapter:

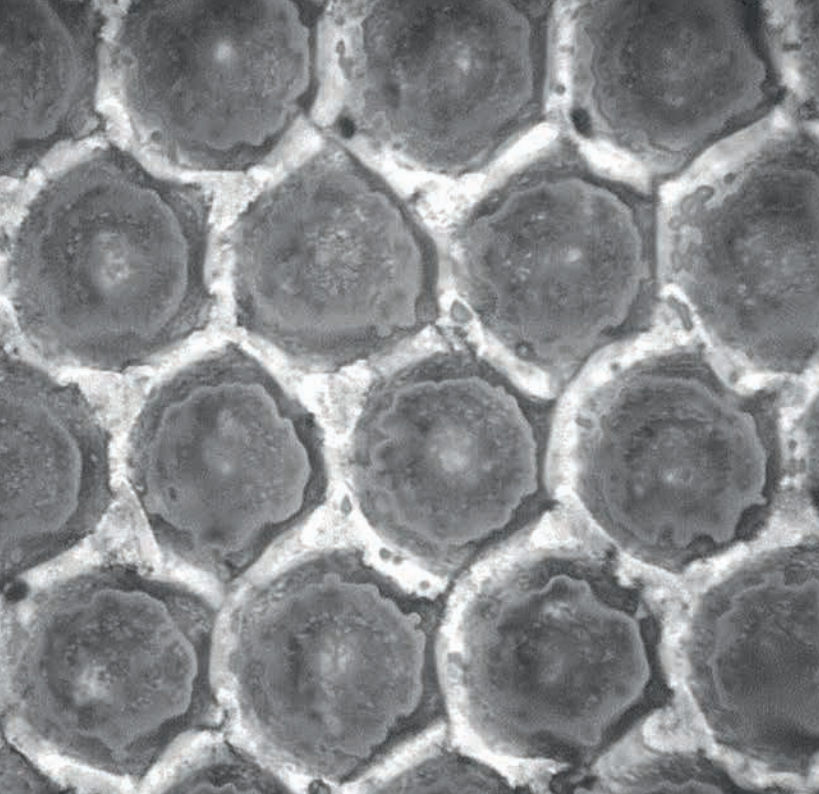
- Place the anilox sleeve on a workbench or firm sleeve-support.
- Clean the mating surfaces to remove all traces of dried-on printing ink. This will help prevent corrosive cleaning solutions from penetrating the seals.

- Carefully examine the state of repair and positioning of the rubber seals when fitting the ZECHER anilox sleeve cleaning adapter to prevent the ingress of cleaning agents and liquids.

- Their spring tension is designed to compensate for possible expansion of the anilox sleeves in temperature-controlled cleaning baths.

- ! Note however that this spring tension should only be just enough to ensure that the gasket provides a good seal, without leading to breaking stresses in the anilox sleeve.





Cleaning and care

- If the edge of an aluminum sleeve still protrudes, apply thermoplastic tape to protect it from corrosion.
- Position the previously prepared anilox sleeve in the mechanical washer in such a way that the pivots of the cleaning adapter rest on the machine's conveyor rollers.
- Operate the cleaning system in accordance with its manufacturer's instructions.

- Cleaning products must be matched to the inking system used.
- Always be sure to follow the recommendations of the manufacturer/ supplier (see data sheet).
- Dry the anilox sleeve with a clean cloth once it has been finally rinsed.
- Use a pocket microscope or a powerful magnifying glass to verify the results of washing wherever possible.

- Remove the anilox sleeve cleaning adapter, and check the state of the inner sleeve. If any cleaning products have managed to penetrate, rinse them off with clean water.
- Store the anilox sleeve in a clean, dry place and on suitable support mandrels.





Interim cleaning with a sponge

- Use a ZECHER micro-pore sponge for fast and efficient interim cleaning between print jobs.
- Note that wiping down with a sponge does not replace automatic machine cleaning or the use of a suitable external cleaning device.

Daily cleaning in the printing machine

- A dry run with the use of a blade chamber can lead to scoring and other mechanical damage.

Intensive cleaning outside the machine

- If wiping with a sponge or routine cleaning

inside the printing machine proves insufficient, the following cleaning procedures should be applied: Ultrasonic (observe and adhere to suitable ultrasonic frequency), washing with liquid detergents and laser cleaning. You can find detailed information on cleaning agents and laser cleaning on our website:
www.zecher.com/anilox-rollers/roller-cleaner/

- Please note the manufacturer's instructions, which should be considered.
- Use only recommended cleaning products. (Follow the manufacturer's recommendations.)

- Remove add-on components/bearings before cleaning.
- When cleaning in a mechanical washer, position the sleeve in the cleaning machine so that its pivots rest on the machine's conveyor rollers.
- Carefully follow the instructions contained in this manual when subsequently transporting the sleeve in-house.

Did you know that ZECHER offers its customers a professional deep-cleaning service that includes an appraisal of the roller's current condition? For further information, please contact our sales team!





Transport

Receipt of shipments from ZECHER

- ZECHER anilox sleeves and accessories are carefully inspected to ensure that they are free of damage before being handed over to the carrier for onward transport.
- Check the shipment immediately after delivery for signs of damage in transit.
- If you do detect any damage, record the details in the delivery note.
- The defective item must be left in its packing material, exactly as it was delivered by the carrier, until it can be inspected.

- Concealed damage must be reported to the carrier within ten days of delivery.
- Copies of all accompanying documents (packing slips, transport documents/waybills (CMR), invoices, explanatory photos, etc.) must be sent in along with the damage report.
- Packaging must be protected from moisture during transport.

Dispatch to ZECHER

- The anilox sleeve must not slide around during transport. It must be securely packed in a suitable container or wooden crate. The inner surface of the sleeve must be protected to prevent damage.
- Ensure that its surfaces are covered with special protective sleeves and/or mats supplied by ZECHER.
- Select screws and/or nails of a length not likely to penetrate the interior of the crate.





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