

ROTOCALCO GRINDING STONES

For many years, Rotocalco grinding stones have been a reliable tool used to perform challenging jobs when machining metal surfaces and, in particular, preparing forme cylinders in gravure printing. As the needs of our customers differ widely and are very specific, depending on every individual use, we do not provide detailed application consulting here but rather give hints to help in handling and storage.

PREPARATION

Please check your grinding stones for any shipping damage and be sure to use your grinding or polishing machine properly as indicated in the manufacturer's specifications.

STONE INSTALLATION

To secure Rotocalco stones on a base plate, we recommend to apply hot-melt adhesive at a temperature as low as possible. The side of the stone to be glued is indicated by a "STICK ON HERE" stamp mark (side to be adhered). The temperature should be reduced immediately after pressing the stone into the adhesive (e.g., in a water bath). An excessively high temperature may compromise the stone's useful life. To guarantee effective bonding, be sure to observe the temperature recommended by the adhesive manufacturer. Make certain to spread the adhesive evenly over the entire area between base plate and the side to be adhered. Prevent the formation of any voids between grinding stone and base plate.

Double-sided adhesive tapes may also be used for securing as an alternative to the hot-melt procedure. When using this variant, double check that the stone's adhesive surface is dry and free from dust. An older procedure for securing stones by clamping cannot be recommended by us any longer as it may lead to high torsion.

STORAGE

Unused stones should be stored in their original shrink film packaging until their use. This helps to avoid fluctuations of humidity inside the stone and prevents larger dust particles from depositing on the surface. For storage, we recommend clean and ventilated rooms and stable pressroom conditions (22 degrees centigrade, 55 % rel. air humidity). Do not expose the stones to any direct sunlight in no event.

Stones bonded to their base plate using hot-melt adhesive must be stored in clean water. This ensures a perfect contact face between stone and cylinder surface while the abrasive surface remains clean and any impurity may be washed out if necessary.

The period between the delivery and use of the stone should not exceed a maximum of 12 months. We recommend to identify packed stones/packages with the dates of receipt and use them following the first in, first out principle.

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CYLINDER PREPARATION

To help avoiding problems during the grinding process, we recommend to degrease the cylinder sufficiently with regreasing substances and grind in the stone by applying a low grinding pressure against the cylinder curvature. It may also be necessary to use abrasive paper manually. When a copper base is used, we recommend to perform grinding in on the turning grooves. A grinding stone is not completely ready for use unless it has been ground in on its entire abrasive surface. For your own safety, we recommend to wear protective clothing and goggles.

THE GRINDING PROCESS

For suitable rotational speeds, please refer to the technical documentation of your grinding machine. For soft copper surfaces, a lower rotational speed should be selected in general. A higher rotational speed may worsen the surface quality of your cylinder. We also recommend to use filtered grinding water as it should be free from any impurity like, e.g., sand or rust particles. During the grinding process, make certain to always feed an abundant quantity of water to the grinding surface. This ensures that grinding sludge will be flushed away immediately. Rotocalco stones can withstand a higher contact pressure than the products made by some competitors. They also stand out due to their low wear and longer useful lives. But a grinding pressure of 60 kg should not be exceeded for older machines.

COPPER GRINDING STONES

Outside diameter: approx. 188 mm
Inside diameter: 50 mm or 100 mm
Stone height: 50 mm or 70 mm

CHROMIUM

Chromium coating can be necessary in particular to extend the useful life. For subsequent surface finishing, we recommend our chromstar grinding stones.

Outside diameter: approx. 188 mm
Inside diameter: 50 mm
Stone height: 50 mm

STEEL

For the pre-treatment of steel cylinders, we recommend our steel stones. The optimum abrasive grain distribution in the tough and firmly foamed grinding stone provides for the smooth and swift performance of grinding processes.

Outside diameter: approx. 188 mm
Inside diameter: 50 mm
Stone height: 50 mm

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