

**folex**<sup>®</sup>

## ROTOCALCO<sup>®</sup> GRINDING STONES

For cylinder preparation in gravure printing



the fine art of coating

PRINTING  
INDUSTRY



# PRODUCTS

## FOLEX ROTOCALCO GRINDING STONES FOR CYLINDER PREPARATION

To ensure the efficient preparation of gravure printing cylinders, it is indispensable to use suitable abrasive material. Folex Rotocalco grinding and polishing stones have been developed to achieve uniform roughness on different metal surfaces with a moderate expenditure of time and little stone abrasion. Folex has been manufacturing grinding/polishing stones specially made for finishing copper, chromium and steel for more than 25 years.

### GRINDING STONES FOR STEEL SURFACES

Steel material needs to be removed evenly at the cylinder base in order to create a suitable substrate for later copper plating. Rotocalco steel grinding stones are designed to aggressively remove stock without generating undesirable grinding patterns. This product is available in a 280 grit for more aggressive grinding, and a 400 grit for more polished finishing.

Steel grinding stone 280	Height 50 mm	Centre hole Ø 50 mm	upon request
Steel grinding stone 400	Height 50 mm	Centre hole Ø 50 mm	upon request

### GRINDING AND POLISHING STONES FOR COPPER SURFACES

Grinding stones designed for ink-attracting copper surfaces have to perform an extremely responsible task. Conventional ceramically bound grinding stones or silicon carbide grinding stones are only fit for this purpose to a limited extent. They are rather suitable for coarse grinding work but do not meet up-to-date demands. By comparison, the proven embedding of our abrasive grains in tough foamed synthetic material makes for the durability of the Rotocalco grinding and polishing stones in addition to an outstanding cutting performance when achieving fine roughness values.

Our particular synthetic material has been developed especially for the stone mass in order to assist in the defined continuous removal of worn out abrasive particles. This self-cleaning effect allows the long-lasting use of a stone surface providing ideal grinding properties. Spring-mounted abrasive wheels guarantee an even grinding pattern without chatter marks, score marks or other irregularities. Uncontrolled material abrasion and undesired clogging on the abrading stone surface is avoided, and no post processing is necessary.

Folex Rotocalco grinding stones for copper are available in thirteen different grit sizes with a height of 50 mm (50 mm and 100 mm centre hole diameter) and with a height of 70 mm (only for a centre hole diameter of 50 mm). The wide range of grit sizes provides efficient tools for rough grinding, fine grinding and polishing operations.

Grit size	Height 50 mm Centre hole Ø 50 mm 14 pcs per package	Height 70 mm Centre hole Ø 50 mm 10 pcs per package	Height 50 mm Centre hole Ø 100 mm 14 pcs per package
120 ABR	12910.012.55001	12910.012.55002	12910.012.55003
150 ABR	12910.015.33001	12910.015.33002	12910.015.33003
180 ABR	12910.018.44001	12910.018.44002	12910.018.44003
280	12910.028.00001	12910.028.00002	12910.028.00003
400	12910.040.04001	12910.040.04002	12910.040.04003
600	12910.060.06001	12910.060.06002	12910.060.06003
800	12910.080.08001	12910.080.08002	12910.080.08003
1000	12910.100.01001	12910.100.01002	12910.100.01003
1500	12910.150.05001	12910.150.05002	12910.150.05003
2000	12910.200.02001	12910.200.02002	12910.200.02003
2500	12910.250.06201		12910.250.06203
3000	12910.300.03001	12910.300.03002	12910.300.03003
5000	12910.500.50001	12910.500.50002	12910.500.50003

## GRINDING STONES FOR CHROMIUM SURFACES

Especially when looking for a long service life, the obvious thing to do would be to harden the copper surface of engraved plate cylinders by applying a chromium surface. To remove the last surface irregularities after chrome plating, and ensure optimum chromium surface lubrication, we recommend post-treatment using our Rotocalco chromium grinding stones at a low grinding pressure. This additional step helps avoiding the risk of damage to the cylinder surfaces and to the doctor blade.

Chromium grinding stone 1000	Height 50 mm	Centre hole Ø 50 mm	upon request
Chromium grinding stone 1500	Height 50 mm	Centre hole Ø 50 mm	upon request
Chromstar grinding stone	Height 50 mm	Centre hole Ø 50 mm	12935.608.60801
Chromstar grinding stone	Height 50 mm	Centre hole Ø 100 mm	upon request

## GLOSSARY

### GRIT SIZE

Grit size indications are given to assist in determining the optimum sequence of stones needed to achieve the desired finish. The higher the grit size number, the finer the grinding result and the achievable roughness. A higher grit size number allows finer roughness values when identical machine parameters are used.

### ROUGHNESS

The roughness which may be achieved on the surface of a cylinder strongly depends on grit size but also on machine parameters. As a rule, a smoother surface will be obtained using stones with a higher grit size number when identical grinding programs or grinding conditions are applied.

### STONE HEIGHT

A stone height of 50 mm has become established as a standard, and provides for a balanced ratio between the effort required for installation on the backing pad and the wearing time. This height is supported by all machines manufactured for polishing

printing cylinders. A stone height of 70 mm allows a longer service between stone change-outs, but this stone height cannot be used on all machine types. In case of doubt, please contact the manufacturer of your grinding machine.

### INSIDE DIAMETER

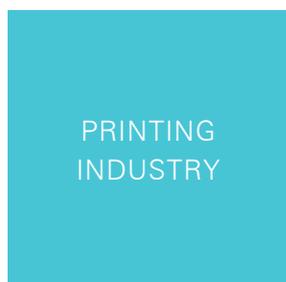
As shown in the photograph, our stones are manufactured in a ring shape. Their hole diameter is 50 mm or 100 mm depending on the grinding machine requirements. For details on availability, please refer to the product overview showing the item numbers.

### OUTSIDE DIAMETER

The outside diameter of all stones offered is approximately 195 mm.

### MANUAL GRINDING STONES

In addition to the round grinding stones for use on automatic grinding machines, we also manufacture rectangular grinding stones for manual regrinding in areas which are not used for printing.





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