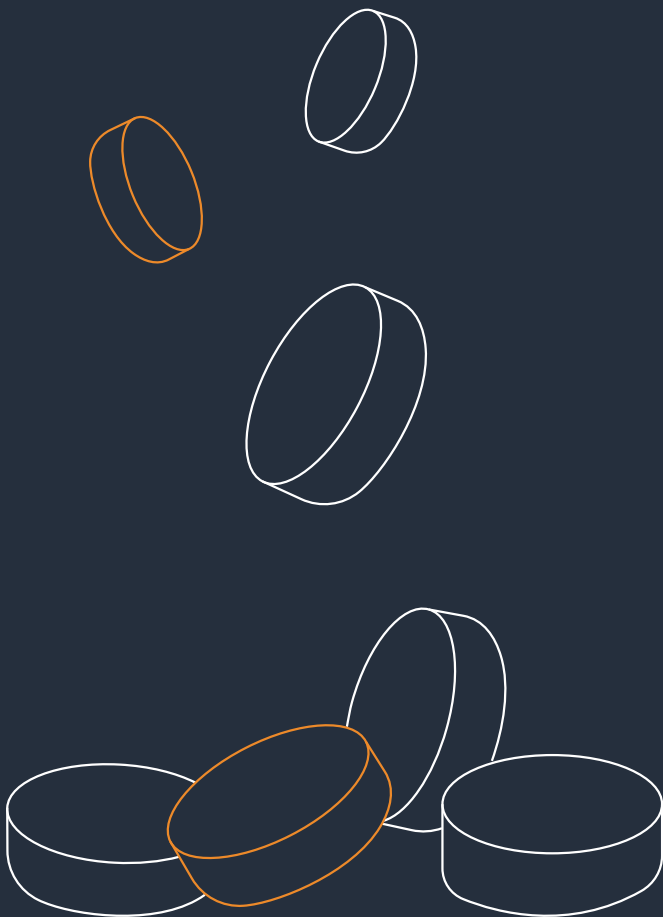


# Surface finishing technologies for the coin industry



## Mass Finishing



High-performance equipment and innovative technologies – productive and cost-effective

## Shot Blasting



Customer-oriented equipment technology and intelligent process solutions – long-lasting and energy-efficient

## AM Solutions



Comprehensive solutions for additive manufacturing, including 3D post processing equipment

› **80**

More than 80 years of **experience**



**15** locations  
Over **150** distributors  
Over **1,500** employees across the globe



Worldwide **Customer Experience Center**



More than **15,000** different types  
**of media and compounds**



Our technical service –  
**round-the-clock support**



**Transfer of professional knowledge**  
by certified trainers

## Contents

Finishing systems for the mints and the coin industry	3
Circulation coins	4 – 5
Collector coins	6 – 7
Coining dies	8
Dies with the final motive	9
Equipment technology	10
Media and Compounds	11

# Finishing systems for the mints and the coin industry

## Fields of application

Rösler offers numerous innovative finishing solutions for the coin industry along with state-of-the-art equipment specifically designed for this field.

	Blanks – for circulation coins	Blanks – for collector and commemorative coins and medals	Raw dies	Minting dies; final stage of the motive	
<b>Process</b>	Degreasing (after blanking and rimming)	Cleaning (pickling) + polishing + passivation + drying (after blanking, rimming, plating and heat treatment)	Cleaning (mild pickling) + polishing + passivation + drying (after blanking, knurling and heat treatment)	Removing of the machining lines	Surface smoothing and polishing after machining
<b>Mass finishing equipment</b>	Coin polishing system, Rotary vibrator, Long Radius vibrator, Multi Channel vibrator or drum washing machine	Mint polishing system MPA.../A2	Mint polishing system MPA.../A2	Drag finisher or, alternatively, rotary vibrator, type "R...DL/2"	Rotary vibrator, type "R...DL/2", drag finisher
<b>Media and compounds</b>	Ceramic media	Stainless steel spheres and satellites, ceramic media	Stainless steel spheres and satellites, porcelain polishing media	Plastic and ceramic media, dry polishing media	Plastic and ceramic media, dry polishing media
<b>Post treatment</b>	Hot air rotary vibratory dryer, rotary vibratory dryer with "Supervelat" drying medium	Hot air rotary vibratory dryer, rotary vibratory dryer with "Supervelat" drying medium	Hot air rotary vibratory dryer, rotary vibratory dryer with "Supervelat" drying medium	---	---
<b>Process water cleaning</b>	Centrifuge	Evaporator or chemical wastewater cleaning system	Evaporator or chemical wastewater cleaning system	Centrifuge	Centrifuge

## CIRCULATION COINS

Globally, the professional surface finishing of blanks for circulation coins is done in fully automatic Rösler centrifugal disk finishing systems, type MPA. The equipment design, perfected

down to the last detail, is available in different sizes and versions and can be adapted to a broad range of finishing tasks.



Fully automatic MPA.../A2 coin blank finishing system

**Capacity:**

Average batch size from 100 up to 450 kg (220 up to 1,000 lbs.), depending on the machine size.

### 1 Loading unit

Loading unit for the raw coin blanks consisting of a part bin discharge unit and a vibratory hopper on weighing cells.



2

## Processing bowl

Designed for optimum material flow and is completely acid resistant



3

## ("vario") hopper/ screening machine

Intermediate vibratory hopper includes electronic controls for the inclination angle and vibratory speed. Vibratory screening machine equipped with large separation screens, tumbling steps, undersize media discharge system and work piece spray rinsing unit with water recycling.



4

## Intermediate treatment

Vibratory transport unit with spray rinsing system for de-mineralized water; contains a section for pre-drying the finished blanks with an ambient air blowing system.



5

## Hot air rotary vibratory dryer and work piece transfer

Continuous flow hot air drying system for stain- and dust-free drying of the finished coin blanks. Transport unit for transferring the finished blanks into special transport bins.



6

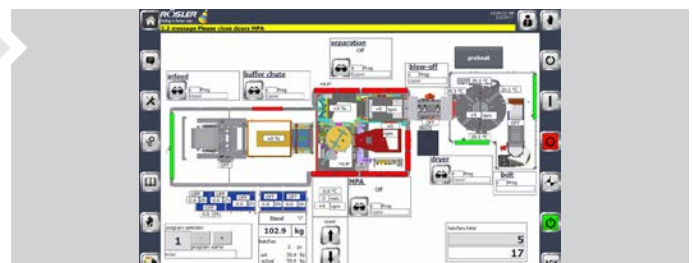
## Dosing station for the pickling, polishing and passivation compounds

Sicherheitsdosiersystem mit elektronischer Dosiermen-genregelung und Überwachung



## Controls

The intuitively designed visualization of the finishing system and the various process stages facilitates its utilization in line with the industry 4.0 standards.

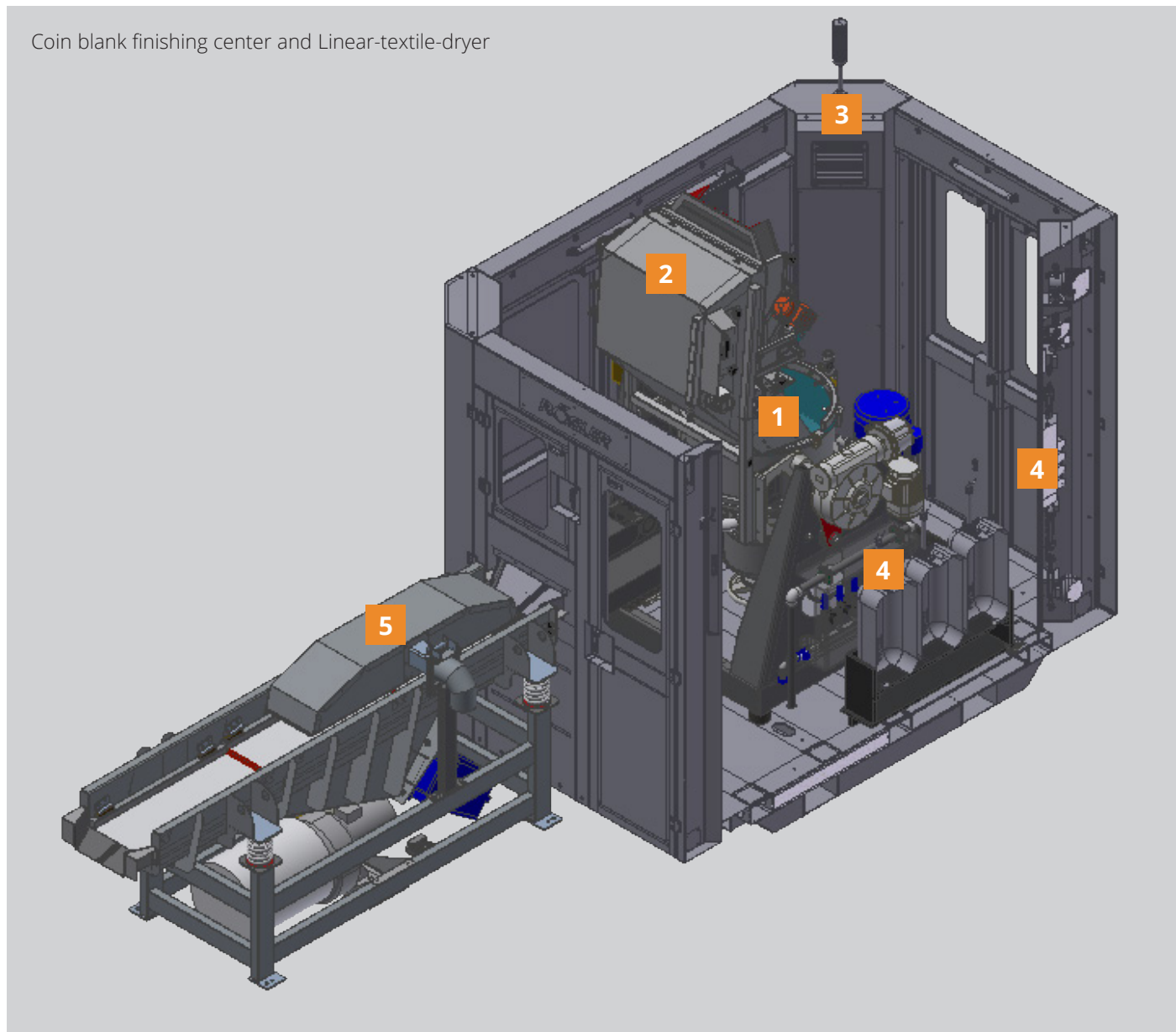


## COLLECTOR COINS

The blanks for collector and commemory coins as well as medals require an extra careful finishing step prior to coining. Fully automatic processing with multiple treatment programs and extremely

gentle work piece transfer without any tumbling steps allows the perfect, impingement-free processing of the most delicate blanks.

Coin blank finishing center and Linear-textile-dryer



### 1 Processing bowl

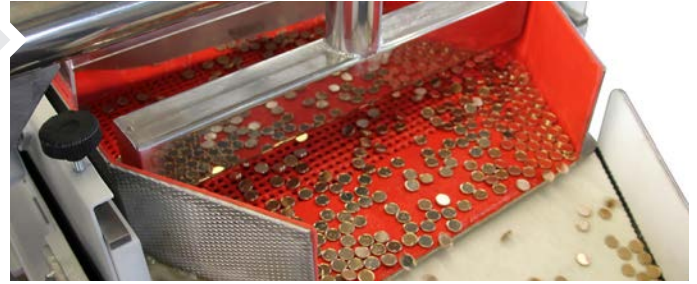
The special shape and profile of the rotating spinner and stationary work bowl ensures not only the intensive but also gentle movement of the blanks with all kinds of processing media.



2

## Separation unit

The special shape and profile of the rotating spinner and stationary work bowl ensures not only the intensive but also gentle movement of the blanks with all kinds of processing media.



3

## Controls

Modern electronic components paired with specially developed software make the operation of the coin blank finishing systems easy and foolproof.



4

## Compound dosing unit with numerous safety features

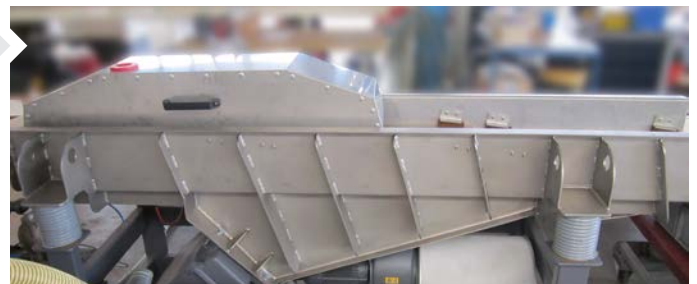
Precise dosing of the compounds for the various process stages is controlled and monitored by PLC programs precisely adapted to a range of different coin blank types.



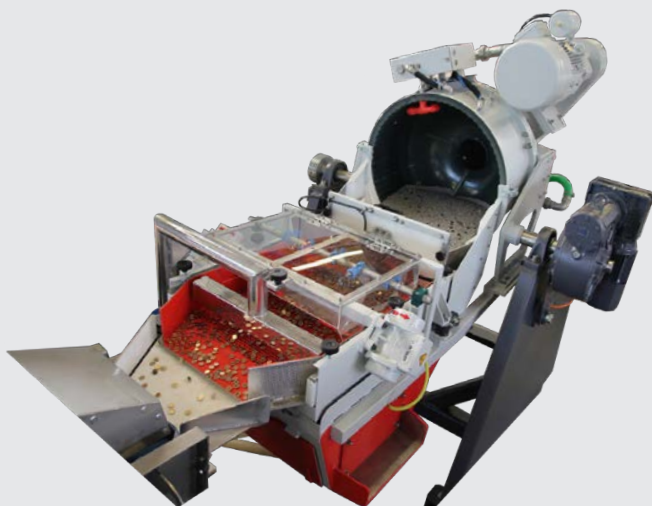
5

## Linear-textile-dryer

The finished coin blanks, embedded between two exchangeable sheets of moisture absorbing cloth, are gently transported through the linear vibratory drying tunnel. Even the most delicate coin blanks can be dried stain-free and dust-free without any nicking whatsoever.



Processing unit, type MPA...E/SA



Compact and versatile...

Sturdy, easy to operate systems for small coin batches and special finishing tasks, for example, for blanks and bullions made from gold, etc.



## COINING DIES

Perfect surface finishing of the coining dies is essential for achieving the desired coin qualities. Rösler has developed special surface smoothing and polishing methods for the hubs as well as for the dies with the final motive.



Hubs with a homogeneous high gloss finish are ideal for creating the final coining dies.



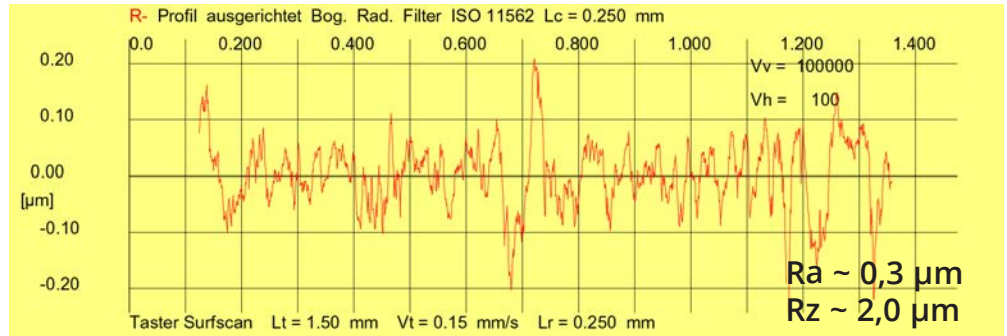


# DIES WITH THE FINAL MOTIVE

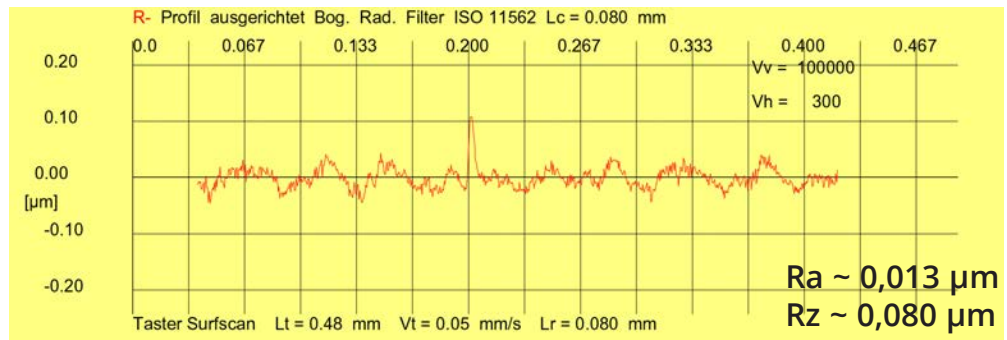
Defects, like too rough or irregular surfaces, are eliminated by a multi stage mass finishing process in special rotary vibrators. The result is a mirror polish without any defects whatsoever.



Raw die



Final die

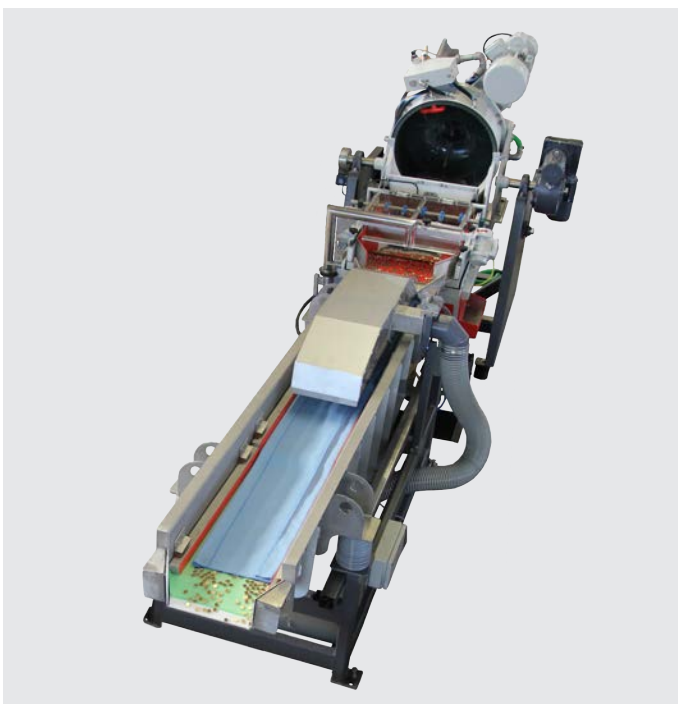
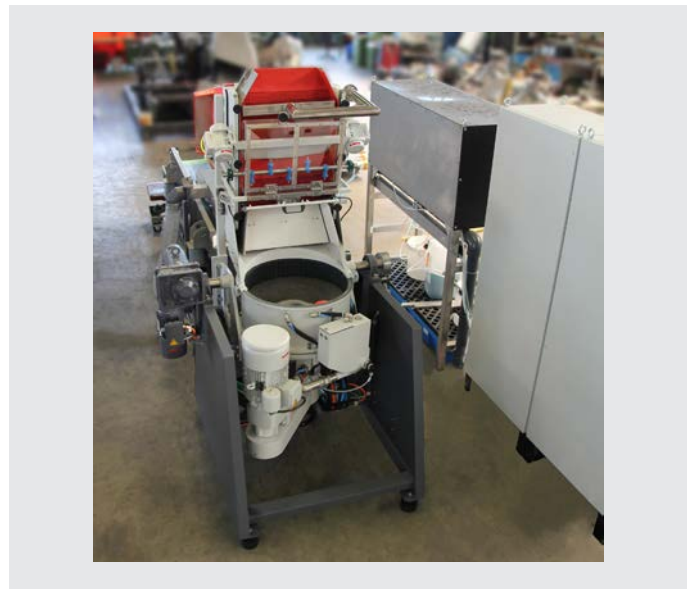


## Special rotary vibrator

Up to 20 dies can be processed in one single batch. These special rotary vibrators can be used for polishing of the hubs as well as placing the final mirror finish on the dies with the final motive.

# EQUIPMENT TECHNOLOGY

Rösler fully automatic systems for coin blanks and coining die finishing are in use all over the world. Our equipment is designed and built to meet the specific requirements of our customers.



# MEDIA AND COMPOUNDS

In addition to our machine program, we also offer the most comprehensive range of media and compounds in the world. All our consumable products have been developed and produced in-house with „Made in Germany“ quality. With over 80 years of

experience in the field of surface finishing we can provide our customers with tailormade processes for new applications and solutions for product improvement and cost reductions.

**Stable and repeatable finishing processes are our specialty.**



## The world's largest range of media and compounds

With around 15,000 products our portfolio of consumables is the largest in the world. It includes ceramic and plastic grinding and polishing media, compounds and process water cleaners. All our consumables can be individually adapted to the needs and requests of our customers.



Our ceramic media production

## Quality

Our production complies with the most stringent environmental standards and is subject to strict quality controls per DIN EN ISO 9001 and 50001.

## Excellent product availability

Our central warehouse in Germany stocks more than 8,000 tons of media and compounds. In addition, our global network of branches and many of our channel partners maintain warehouses with consumables close to our customers.

Mass Finishing  
Shot Blasting  
AM Solutions  
[www.rosler.com](http://www.rosler.com)

#### Germany

**Rösler Oberflächentechnik GmbH**  
Werk Memmelsdorf  
Vorstadt 1  
D-96190 Untermmerzbach  
Tel.: +49 9533 / 924-0  
Fax: +49 9533 / 924-300  
[info@rosler.com](mailto:info@rosler.com)

**Rösler Oberflächentechnik GmbH**  
Werk Hausen  
Hausen 1  
D-96231 Bad Staffelstein  
Tel.: +49 9533 / 924-0  
Fax: +49 9533 / 924-300  
[info@rosler.com](mailto:info@rosler.com)

#### USA

**Rösler Metal Finishing USA, L.L.C.**  
1551 Denso Road  
USA-Battle Creek  
MI 49037  
Tel.: +1 269 / 4413000  
Fax: +1 269 / 4413001  
[rosler-us@rosler.com](mailto:rosler-us@rosler.com)

#### France

**Rösler France**  
Z.I. de la Fontaine d'Azon  
CS 50513 - St. Clément  
F-89105 Sens Cedex  
Tel.: +33 3 / 86647979  
Fax: +33 3 / 86655194  
[rosler-fr@rosler.com](mailto:rosler-fr@rosler.com)

#### Italy

**Rösler Italiana S.r.l.**  
Via Elio Vittorini 10/12  
I-20863 Concorezzo (MB)  
Tel.: +39 039 / 611521  
Fax: +39 039 / 6115232  
[rosler-it@rosler.com](mailto:rosler-it@rosler.com)

#### Switzerland

**Rösler Schweiz AG**  
Staffelbachstraße 189  
Postfach 81  
CH-5054 Kirchleerau  
Tel.: +41 62 / 7385500  
Fax: +41 62 / 7385580  
[rosler-ch@rosler.com](mailto:rosler-ch@rosler.com)

#### Spain

**Rösler International GmbH & Co. KG**  
Sucursal en España  
Polg. Ind. Cova Solera C/Roma, 7  
E-08191 Rubí (Barcelona)  
Tel.: +34 93 / 5885585  
Fax: +34 93 / 5883209  
[rosler-es@rosler.com](mailto:rosler-es@rosler.com)

#### Netherlands

**Rösler Benelux B.V.**  
Reggestraat 18  
NL-5347 JG Oss  
Postbus 829  
NL-5340 AV Oss  
Tel.: +31 412 / 646600  
Fax: +31 412 / 646046  
[rosler-nl@rosler.com](mailto:rosler-nl@rosler.com)

#### Belgium

**Rösler Benelux B.V.**  
Avenue de Ramelot 6  
Zoning Industriel  
B-1480 Tubize (Saintes)  
Tel.: +32 2 / 3610200  
Fax: +32 2 / 3612831  
[rosler-be@rosler.com](mailto:rosler-be@rosler.com)

#### Austria

**Rösler Oberflächentechnik GmbH**  
Hetmanekgasse 15  
A-1230 Wien  
Tel.: +43 1 / 6985180-0  
Fax: +43 1 / 6985182  
[rosler-at@rosler.com](mailto:rosler-at@rosler.com)

#### Romania

**Rösler Romania SRL**  
Str. Avram Iancu 39-43  
RO-075100 Otopeni/ILFOV  
Tel.: +40 21 / 352 4416  
Fax: +40 21 / 352 4935  
[rosler-ro@rosler.com](mailto:rosler-ro@rosler.com)

#### Russia

**Rösler Russland**  
Borovaya Str. 7, bldg. 4, office 107  
111020 Moscow  
Tel. / Fax: +7 495 / 247 55 80  
[rosler-ru@rosler.com](mailto:rosler-ru@rosler.com)

#### Great Britain

**Rösler UK Ltd.**  
Unity Grove, School Lane  
Knowsley Business Park  
GB-Prescot, Merseyside L34 9GT  
Tel.: +44 151 / 4820444  
Fax: +44 151 / 4824400  
[rosler-uk@rosler.com](mailto:rosler-uk@rosler.com)

#### Brazil

**Rösler Otec do Brasil LTDA**  
Av. Antonio Angelo Amadio, 1421  
Centro Empresarial Castelo Branco  
18550-000 Boituva  
São Paulo - Brasil  
Tel.: +55 15 / 3264-1117  
Tel.: +55 15 / 3264-1112  
[info@rosler-otec.com.br](mailto:info@rosler-otec.com.br)

#### China

**Rösler SURFACE-TECH (BEIJING) CO., LTD.**  
Beijing Office  
Fu Hua Mansion, Office A-11-K  
No. 8, Chao Yang Men North Avenue  
Beijing 100027, P.R. China  
Tel.: +86 10 / 6554 73 86  
Fax: +86 10 / 6554 73 87  
[rosler-cn@rosler.com](mailto:rosler-cn@rosler.com)

and over 150 additional distributors  
around the world



Find your contact