



Components for minerals. Innovative wear protection concepts for maximum economy.

»» Years of experience for a long service life: Coperion components for the minerals industry. We are the leading manufacturers in the global market for bulk materials system components. Our in-depth, specialist knowledge in this field is not only based on a long tradition – we are learning more every single day.

**THERE ARE MANY REASONS WHY COPERION IS THE IDEAL PARTNER OF THE MINERALS INDUSTRY:**

- » We have experience with more than 14,000 bulk materials.
- » In our test centre we simulate wear conditions and define the optimum wear protection (DuroProtect level).
- » Coperion components are long-lasting, high-quality products for all applications.
- » Our DuroProtect levels for rotary valves guarantee maximum service life and availability.

**COPERION BULK MATERIALS COMPONENTS FOR ROTARY VALVES AND DIVERTER VALVES FOR:**

**Cement industry**

- » Raw mix
- » Cement
- » Clinker powder
- » Bypass dust
- » Solid fuels

**Ore processing**

- » Crude ore
- » Finished products

**Power plants**

- » Solid fuels
- » Ash

**Lime industry**

- » Calcium carbonate
- » Dolomite
- » Lime (hydrated/  
non-hydrated)
- » Solid fuels

**Construction industry**

- » Render
- » Sand
- » Dry mortar

**Aluminium industry**

- » Alumina

**Wood industry**

- » Sanding dust
- » Wood powder

**Ceramics industry**

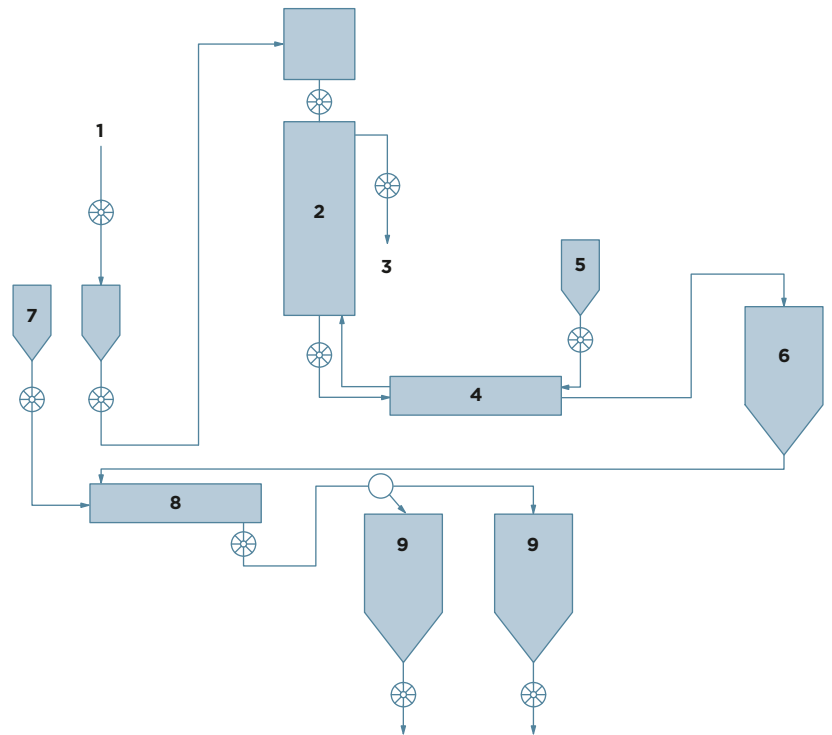
- » Clay/kaolin
- » Fireproof materials



➤ **EXAMPLE APPLICATIONS FOR OUR COMPONENTS**

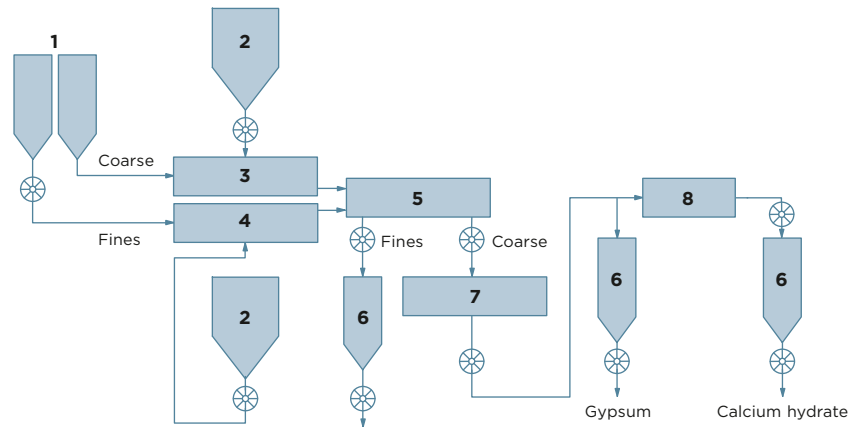
➤ **CEMENT WORKS**

- 1 Raw mix
- 2 Cyclone pre-heater with bypass dust extraction
- 3 Bypass dust
- 4 Rotary kiln
- 5 Fuel
- 6 Clinker storage
- 7 Additives
- 8 Clinker grinding
- 9 Dispatch



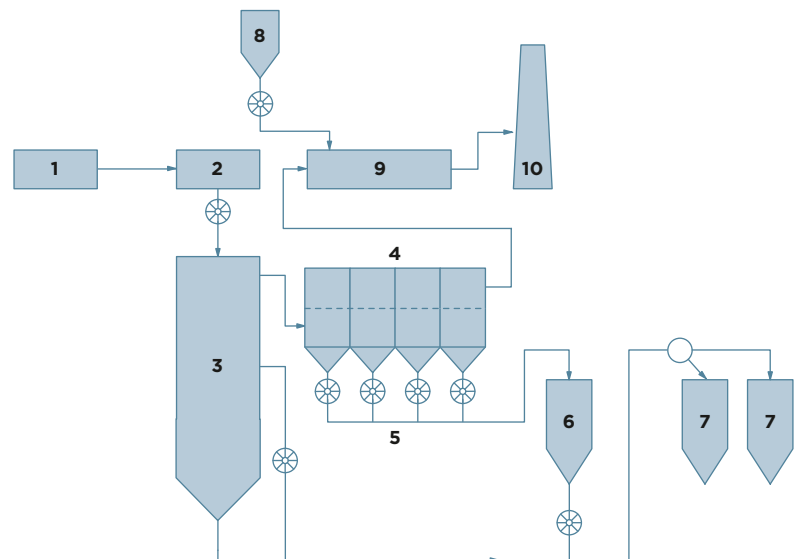
➤ **LIME WORKS**

- 1 Raw matte bunker
- 2 Solid fuel
- 3 Rotary kiln
- 4 Shaft kiln
- 5 Sieve plant
- 6 Dispatch
- 7 Grinding
- 8 Hydrating plant



➤ **POWER PLANTS FOR SOLID FUELS**

- 1 Solid fuel
- 2 Grinding
- 3 Burner
- 4 Fly ash filter
- 5 Deashing
- 6 Intermediate hopper
- 7 Ash silo
- 8 Lime
- 9 Exhaust gas cleaning
- 10 Flue

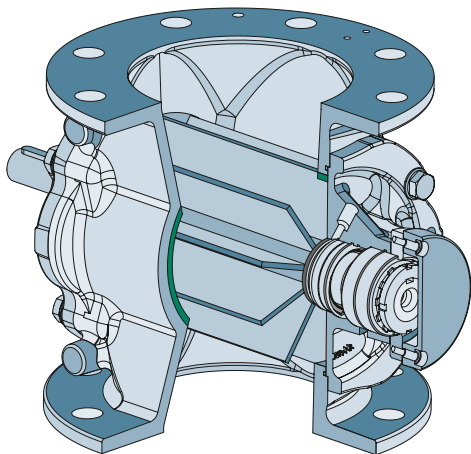


## EFFICIENT CONVEYING AND DISCHARGE – COPERION ROTARY VALVES

We supply a wide range of rotary valves of different designs and various materials with individual wear protection packages.

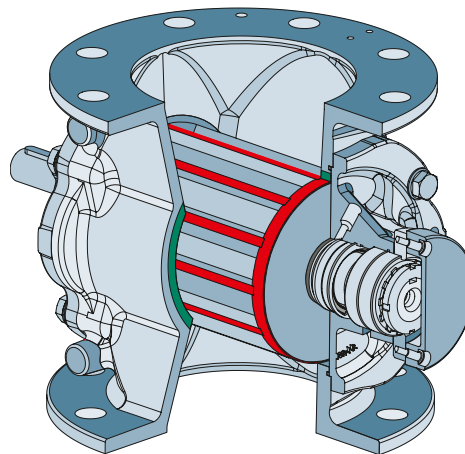
### › DUROPROTECT 1-2, ROTARY VALVE TYPE ZRD FOR SLIGHTLY ABRASIVE BULK MATERIALS

- › Very low leakage air rate
- › Wear protected by the use of hard chrome



### › DUROPROTECT 3-5, ROTARY VALVE ZRC FOR HIGHLY ABRASIVE BULK MATERIALS

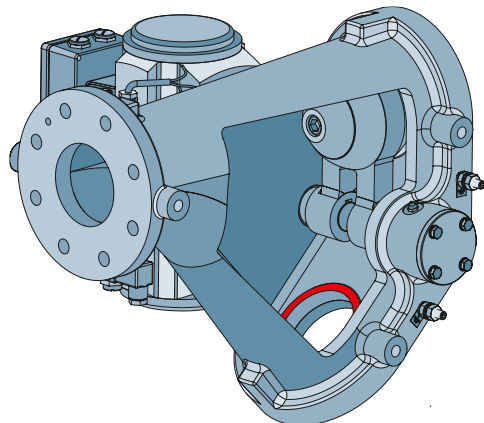
- › Design incorporates erosive wear protection (closed rotor)
- › Wear protection with hard chrome, tungsten carbide and ceramic reinforcement



## PERFECT CONTROL OF PRODUCT FLOWS – COPERION DIVERTER VALVES

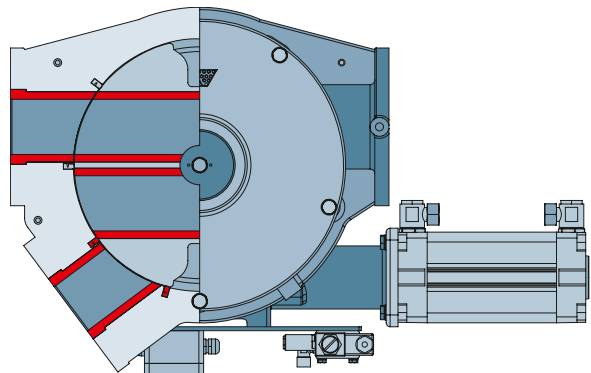
### › TWO-WAY DIVERTER VALVE TYPE WRK MADE OF GREY CAST IRON FOR RELIABLE DIVERSION

- › Wear protected by a cushion of bulk material
- › Minimum number of seals and moving parts
- › Available as a diverging and converging diverter
- › Can be installed in all positions
- › 45° outlet for the connection of conventional pipe bends



### › TWO-WAY DIVERTER VALVE TYPE WZK, WEAR-RESISTANT VERSION

- › Residue-free
- › Wear protection with customised pipe inserts
- › Available as a diverging and converging diverter
- › Can be installed in all positions



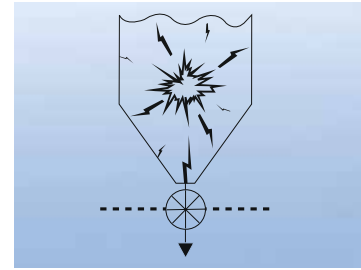
## SPECIAL TECHNOLOGY FOR THE MINERALS INDUSTRY

### ATEX certified versions against propagation of explosion fronts

- › With ATEX protection system, flameproof, for dust types St 1 and St 2
- › Pressure surge-proof up to +10 bar

### High-temperature versions

- › For reliable transport of bulk materials at temperatures of up to 500 °C



## WEAR PROTECTION PACKAGES FOR ROTARY VALVES

MINERALS						PROTECTION PACKAGE	HOUSING	ROTOR
Non-abrasive	Lime*	Powdered coal*	Ash*	Cement*	Alumina*	Standard	Grey cast iron/steel	Steel
Low abrasion						DuroProtect 1	DuroChrom	Steel
Slightly abrasive						DuroProtect 2	DuroChrom	Steel
Medium abrasion						DuroProtect 3	DuroChrom	DuroDox
Very abrasive						DuroProtect 4	DuroChrom	DuroKarb
Highly abrasive					DuroProtect 5	DuroKera	DuroKarb	

\* Depending on the bulk material properties and the operating conditions.

## HOUSING WITH CERAMIC LINING

- › Seamless lining with fitted solid ceramics for the technically highest possible wear protection. Precise finishing ensures a reliably low leakage gas volume.



## ROTARY VALVE WITH TUNGSTEN CARBIDE WELDING (NON-MACHINED)

- › The tungsten carbide matrix is optimised to suit the particle size of the bulk material. This ensures a long service life of the rotor.



## TWO-WAY DIVERTER VALVE TYPE WZK WITH CERAMIC PIPE INSERTS

- › Monolithic pipe inserts guarantee the longest possible service life.



**Coperion GmbH**

Competence Center  
Compounding & Extrusion  
Theodorstraße 10  
70469 Stuttgart, Germany  
Tel.: +49 (0) 711 897-2206  
Fax: +49 (0) 711 897-3920  
info.cc-ce@coperion.com

**Coperion GmbH**

Competence Center  
Materials Handling  
Niederbieger Straße 9  
88250 Weingarten, Germany  
Tel.: +49 (0) 751 408-0  
Fax: +49 (0) 751 408-200  
info.cc-mh@coperion.com

**Coperion GmbH**

Competence Center  
Service  
Theodorstraße 10  
70469 Stuttgart, Germany  
Tel.: +49 (0) 711 897-2206  
Fax: +49 (0) 711 897-3920  
info.cc-se@coperion.com

info@coperion.com  
www.coperion.com

> Europe

Germany

**Coperion GmbH  
Offenbach Office**  
Heinrich-Krumm-Straße 6  
63073 Offenbach, Germany  
Tel.: +49 (0) 69 829775-0  
Fax: +49 (0) 69 829775-50

**Coperion GmbH**

**Germany West Office**  
Industriestraße 71a  
50389 Wesseling, Germany  
Tel.: +49 (0) 2232 20700-10  
Fax: +49 (0) 2232 20700-11

Belgium, Luxembourg, Netherlands

**Coperion N.V.**  
Industrieweg 2, 2845 Niel, Belgium  
Tel.: +32 3 870-5100  
Fax: +32 3 877-0710

Sweden, Denmark,  
Finland, Norway

**Coperion AB**  
Sjödalsvägen 42  
14124 Huddinge, Sweden  
Tel.: +46 8 608-1818  
Fax: +46 8 608-0868

France

**Coperion Sarl**  
20 chemin Louis Chirpaz  
Bâtiment C  
69130 Ecully, France  
Tel.: +33 469 848190  
Fax: +33 469 848199

United Kingdom

**Coperion Ltd.**  
Victoria House, 19-21 Ack Lane East  
Bramhall, Cheshire, SK7 2BE  
United Kingdom  
Tel.: +44 161 925-6910  
Fax: +44 161 925-6911

Italy

**Coperion S.r.l.**  
Via Calvino 32  
44100 Ferrara, Italy  
Tel.: +39 0532 7799-11  
Fax: +39 0532 7799-80

**Coperion S.r.l.**

**Milan Office**  
Via Milanese 20  
20099 Sesto San Giovanni (MI)  
Italy  
Tel.: +39 02 241049-01  
Fax: +39 02 241049-22

Spain, Portugal

**Coperion, S.L.**  
Balmes, 73, pral.  
08007 Barcelona, Spain  
Tel.: +34 93 45173-37  
Fax: +34 93 45175-32

Russian Federation, CIS

**Coperion OOO**  
ul. Krasnoproletarskaya, 16  
127473 Moscow  
Russian Federation  
Tel.: +7 495 79508-14  
Fax: +7 495 79508-14

> Asia

China

**Coperion (Nanjing)  
Machinery Co. Ltd.**  
No. 59, West Tianyuan Road  
Jiangning District  
Nanjing, 211100, PR China  
Tel.: +86 25 5278-6288  
Fax: +86 25 5261-1188

**Coperion International  
Trading (Shanghai) Co. Ltd.  
Coperion Machinery &  
Systems (Shanghai) Co. Ltd.**

Bldg. No. A2, 155 Dong She Road  
Song Jiang Industrial Zone  
(Dong Jing Branch)  
Dong Jing Town, Songjiang District  
Shanghai 201619, PR China  
Tel.: +86 21 6767-9505  
Fax: +86 21 6767-9198

Singapore

**Coperion Pte. Ltd.**  
150 Beach Road  
#08-01/04 Gateway West  
Singapore 189720  
Tel.: +65 641 88-200  
Fax: +65 641 88-204

Taiwan

**Coperion Pte. Ltd.  
Taiwan Branch Office**  
9F-2 No. 30 Chung San  
North Road, Sec. 3  
Taipei, Taiwan  
Tel.: +886 225 9150-51  
Fax: +886 225 9153-04

Japan

**Coperion K.K.**  
Kotobuki-Bldg.-9F  
3-18, Kanda-Nishikicho, Chiyoda-Ku  
Tokyo 101-0054, Japan  
Tel.: +81 3 5217-1050  
Fax: +81 3 5217-1055

India

**Coperion Ideal Pvt. Ltd.**  
Ideal House, A-35, Sector 64  
201307 Noida (U.P.), India  
Tel.: +91 120 24016-86  
Fax: +91 120 24016-91

> America

USA, Canada, Mexico, NAFTA

**Coperion Corporation**  
663 East Crescent Avenue  
Ramsey, NJ 07446, USA  
Tel.: +1 201 327-6300  
Fax: +1 201 825-6494

**Coperion Corporation  
Wytheville Office**

285 Stafford Umberger Drive  
P.O. Drawer 775  
Wytheville, VA 24382, USA  
Tel.: +1 276 228-7717  
Fax: +1 276 228-7682

**Coperion Corporation  
Houston Office**

3955 World Houston Parkway  
Suite 190  
Houston, TX 77032, USA  
Tel.: +1 281 449-9944  
Fax: +1 281 449-4599

South America

**Coperion Ltda.**  
R. Dona Germaine Buchard 418  
05002-062 São Paulo-SP  
Brazil  
Tel.: +55 11 3874-2740  
Fax: +55 11 3874-2757

For more information about  
the worldwide Coperion network,  
visit [www.coperion.com](http://www.coperion.com)