



METER · MIX · DISPENSE

Production of household appliances

**BONDING, POTTING, GASKETING,
GREASING**



HILGER&KERNGROUP

DOPAG is all around

Solutions for all production steps

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The production of modern household appliances for the global market requires stable, automated production processes. This is essential for long-term success in the competitive international market. Metering and mixing technology is a key part of almost all production steps in the household appliance industry. The various components are bonded, sealed, greased or potted during the production process. Single and dual-component materials based on polyurethane, epoxy or silicone, as well as lubricants, are also used.

DOPAG offers the customised metering and mixing systems required for every type of application: bonding, sealing, greasing, oiling, potting and gasketing. We adapt and customise all metering and mixing systems to your specific requirements. Our engineers and technicians support you throughout the design and execution of your production processes.



All applications from a single source

Technology developed in-house for bonding, sealing, greasing, potting and gasketing

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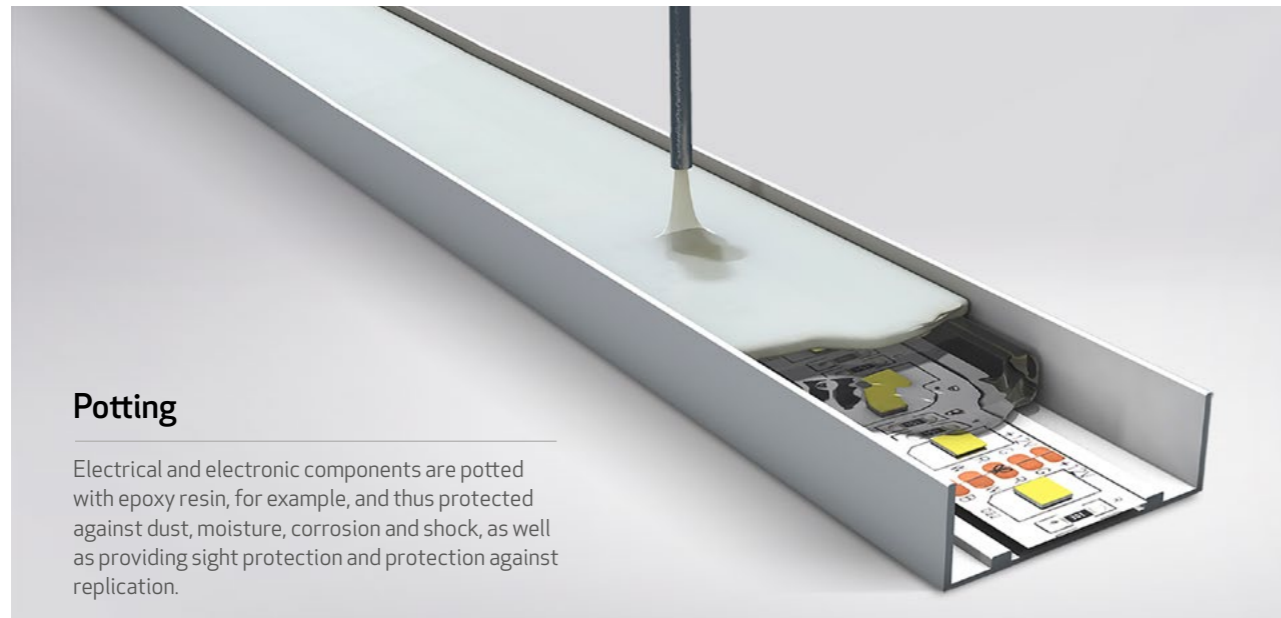
For protection against dust and moisture or for a secure hold, various components are potted, bonded, greased and sealed during the production of household appliances. High-precision metering and mixing technology ensures safety and high quality for consumers and producers.

For sealing, we offer metering systems for the dynamic mixing and application of sealing foams, as well as metering and mixing systems for the application of adhesives. Silicone is primarily used here, as it can withstand the often high ambient temperatures without any difficulty. Various systems fitted with piston or gear pumps are available for the metering, mixing and application of adhesives and potting compounds. All systems are individually configured according to the requirements of the application in question. Of course, we can also take care of automation, including all pre- and post-treatment steps.

Lubricants ensure low friction, smooth, quiet operation and long durability for components and knobs. For greasing and oiling, a modular range of metering components, valves and pumps enables individual systems to be set up, which can be integrated into automated production lines.

Potting

Electrical and electronic components are potted with epoxy resin, for example, and thus protected against dust, moisture, corrosion and shock, as well as providing sight protection and protection against replication.



Bonding and sealing

Components are bonded and sealed against dust and moisture.



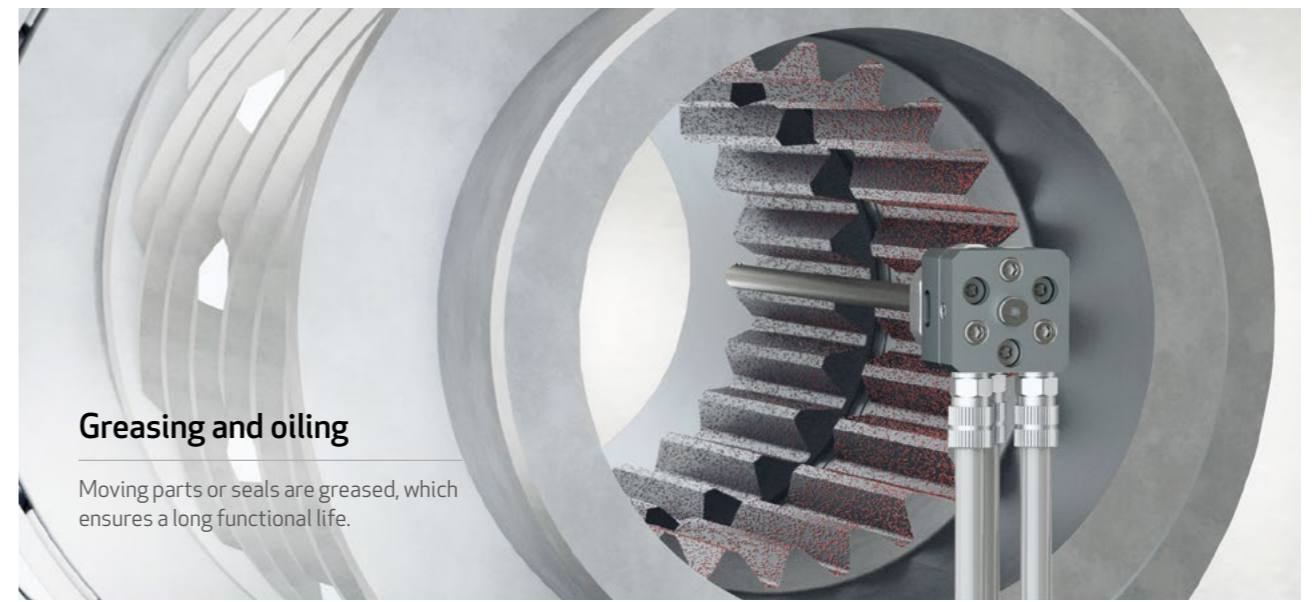
Gasketing

Seals housings, for example, externally and protects electronics from dust and moisture.



Greasing and oiling

Moving parts or seals are greased, which ensures a long functional life.



Metering and mixing technology for all household appliances

Refrigerators and freezers

Greasing, bonding, sealing and gasketing

Small appliances

Greasing, bonding, sealing and gasketing

Sink

Gasketing

Extractor hood

Greasing, bonding, sealing and gasketing

Hob

Gasketing

Ovens

Greasing, bonding, sealing and gasketing

Dishwashers

Greasing, bonding, sealing and gasketing

Washing machines

Greasing, bonding, sealing and gasketing

Intelligent solutions for individual requirements

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Washing machines

- **Greasing:** dampers, drum bearings, door seals and hinges, electrical switches
- **Gasketing:** filling the frame, control housing, water pump, water filter
- **Bonding and sealing:** door seal, display, top panel, worktop
- **Potting:** heat condensers for tumble dryers



Dishwashers

- **Greasing:** pumps and seals, plastic sliding elements, door hinges and seals:
- **Gasketing:** tab box, frame, rear panel
- **Bonding and sealing:** display, panels, sound and vibration damping, rear panel
- **Potting:** control electronics



Refrigerators and freezers

- **Greasing:** sintered bearing soaking of electric motor, door hinges, compressors, pistons
- **Gasketing:** frame seal, noise insulation elements
- **Bonding and sealing:** housing, display, glass front, insulating glass doors, noise insulation
- **Potting:** control electronics



Ceramic hobs

- **Greasing:** air circulation fan, sintered bearing impregnation, gas valves, electrical switches, door opening mechanisms
- **Gasketing:** ceramic hobs, hot plates, oven door
- **Bonding and sealing:** display, panels, glazing
- **Potting:** control electronics



Household appliances

- Greasing, gasketing, bonding, sealing and potting for:**
- Coffee machines, toasters
 - Kneading machines, mixers
 - Microwaves
 - Vacuum cleaners
 - Air-conditioning systems
 - Steam irons



Sinks

- **Gasketing:** foamed seal on installation side

Primary benefit for you

Individual configuration

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For solutions that meet your specific needs

From our comprehensive range of high-quality components and systems, we configure an appropriate and economical solution for you.



Comprehensive product range



Metering components + pumps

- Drum and barrel pumps
- Gear pumps
- Progressive cavity pumps
- Material pressure regulators
- Dispensing and metering valves
- Components for monitoring and control
- Accessories



Metering systems for single-component materials

GEAR METERING SYSTEMS

- eldodis
- coredis

PISTON METERING SYSTEM

- vectodis

PROGRESSIVE CAVITY PUMP SYSTEM

- rotordis



Metering systems for two-component materials

GEAR METERING SYSTEMS

- compomix
- eldomix
- evomix DF
- gelcomix
- gluemix

PISTON METERING SYSTEMS

- vectomix + vectomix TC
- variomix
- economix
- silcomix
- coatingmix

PROGRESSIVE CAVITY PUMP SYSTEM

- rotormix



Dynamic mixing system

- dynamicLine



Automation

- Multifunctional cells
- Standalone systems
- Customised systems

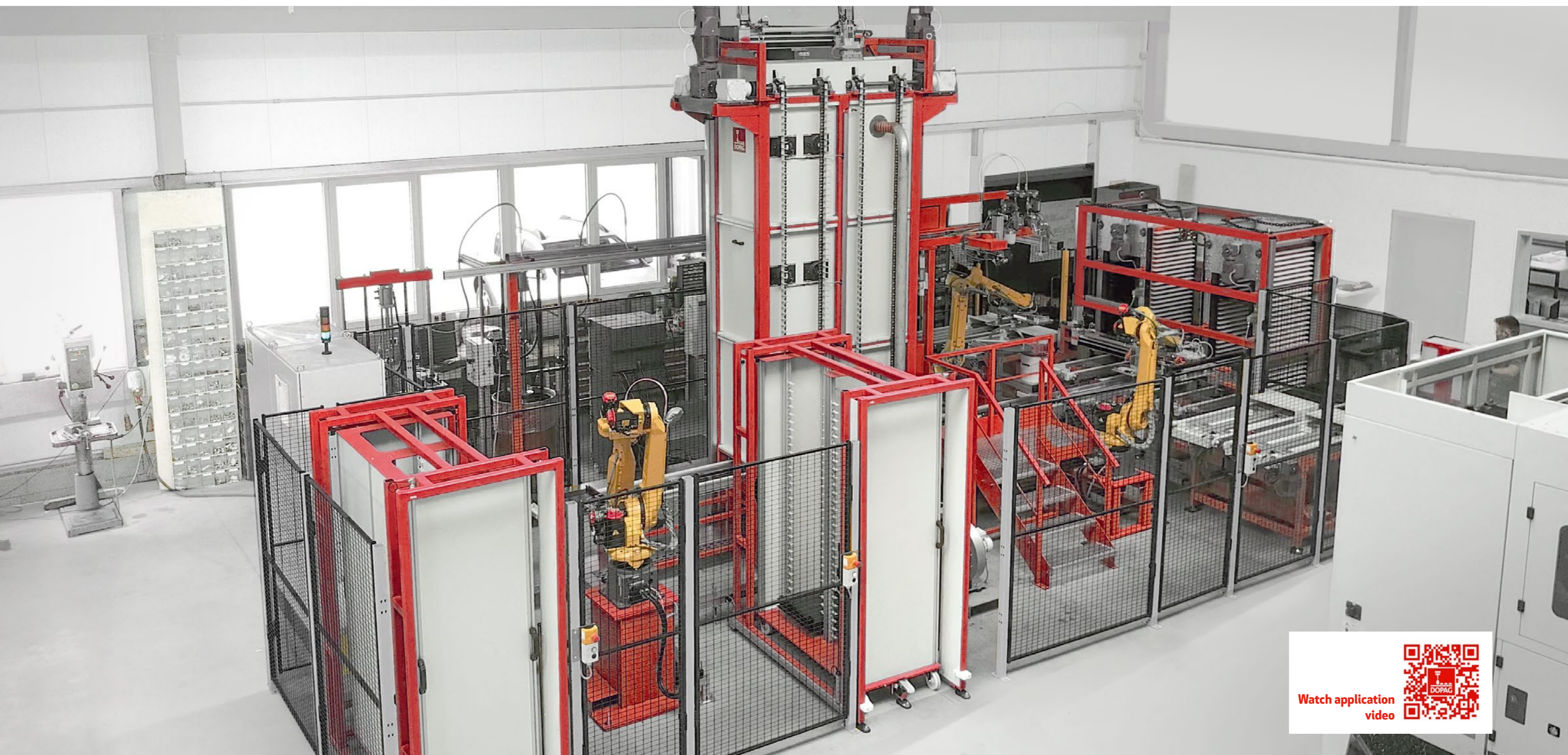
Customised and fully automated

Robot-aided component handling, application and integration of pre- and post-treatment

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Automated component handling, integrated pre- and post-treatment, as well as application without any user involvement ensures consistently high product quality and improves the cost-effectiveness of your production processes.

In connection technology, the household appliance industry relies primarily on partially and fully automated processes, in which various pre- and post-treatment processes, such as plasma pre-treatment or hardening of the components, are already integrated. There are various different options for every application. The material can be applied in a multifunctional cell, which can also be integrated in the line. Alternatively, DOPAG designs individual special systems that meet all requirements precisely.



Watch application
video



All-round service

For high machine availability

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Thanks to our range of services, you have more time for what really matters. We offer rapid, efficient, reliable access to our expert knowledge and to all original parts. Our service technicians are always close at hand. This enables you to increase and guarantee high productivity.

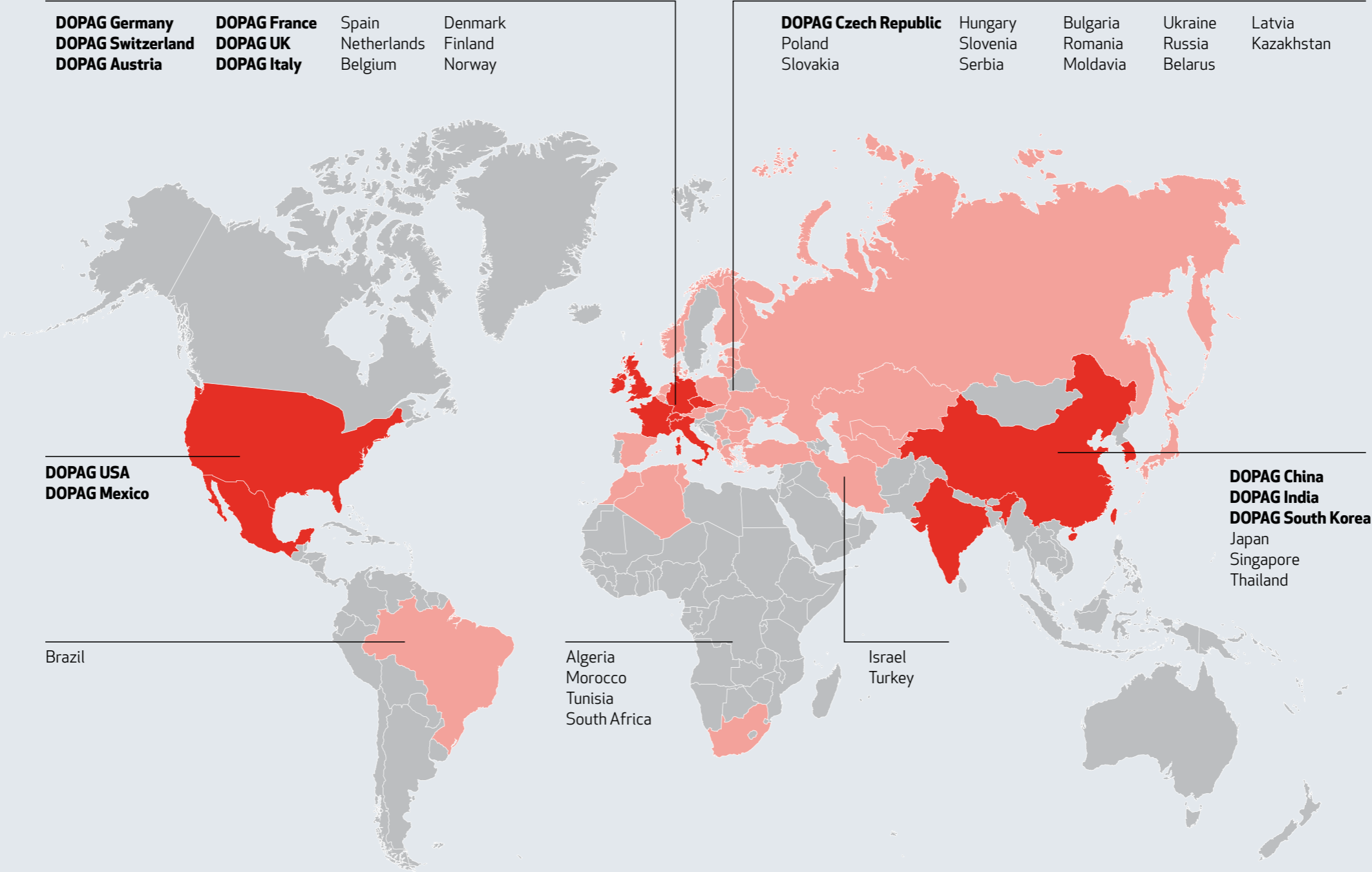
We support you

- Service contracts
- Original replacement parts
- Modifications (retrofits)
- User training
- Production support
- Fitness check
- E-services: tests and acceptances via live video
- Feasibility studies
- Samplings
- Material tests
- Cycle time analyses

Get in touch with us.
We'd be happy to support you and offer individual consultation at any time.



Benefit for you: global availability





We are one of the world's most experienced manufacturers of high-quality metering technology. Wherever adhesives, resins, silicones or lubricants are metered and applied in industrial production, we offer reliable, precise solutions. We provide systems and components for highly automated production processes, including for the automotive, wind, household appliances and electrical industries, as well as for aviation.

DOPAG is part of the HILGER & KERN GROUP, a reliable supplier and a development and service partner to industrial companies in a variety of market segments for more than 90 years. The group employs around 350 people and has subsidiaries and distributors in more than 40 countries.



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