



sera

Our core competence ...

Dosing
Feeding
Compressing

...for more than
60 years

**strong
in dosing**

www.sera-web.de

Seybert & Rahier GmbH + Co. Betriebs-KG

More than 60 years expertise in dosing, feeding and compressing

sera as a third-generation **family-owned** and proprietor-managed business is now headed by Dipl.-Wirtsch.-Ing. Carsten Rahier. Backed by best tradition **sera** is developing innovative products which are exactly tailored to market requirements for a variety of industries. As leading manufacturer of dosing pumps, dosing systems and diaphragm compressors **sera** runs representative offices all over the world and a subsidiary in Great Britain.



▲ Chairman and Managing Director C. Rahier

Customer and quality focussed, innovative, flexible and reliable

... these are compliments **sera** gets from customers.

sera sets great store by **customer orientation**. We consider the customer with his special demands and requirements as the center of our activities.

Excellent **product quality** is the basis for lasting success in business. Therefore, **sera** trusts in motivated and qualified expert staff, latest production technologies, high quality standards and the use of high-quality materials. This is backed by a continuous company improvement programme combined with the quality management according to DIN EN ISO 9001:2000, which has already been applied since 1994.

Present and future demands as well as visions of our customers are incentive and the driving force to our product management and R&D to create **innovations** and to **refine our products continually**.

Flexibility, dependability and soundness – these are attributes our business partners appreciate. We won this esteem for application-oriented product solutions, flexible and sound customer relation management and not least by reliable products and services.

From the start, **sera** has trained apprentice for commercial and technical occupations, and also professional academy students for some years.

sera's well-aimed knowledge management ensures a continual further qualification of their 180 employees.

Our **world-wide sales and service network** comprising more than 30 foreign representatives in 80+ countries on all continents ensures an optimal local customer care.

▼ A part of our **sera** - family!



What we are known for as well

System provider with decades of experience and know-how

sera see themselves as a **world-wide system provider** for dosing and compressing equipment and look back on many years of experience in solving customer-specific requirements for dosing and feeding free-flowing mediums as well as in the impurity-free and oil-free compressing of gases of any kind.

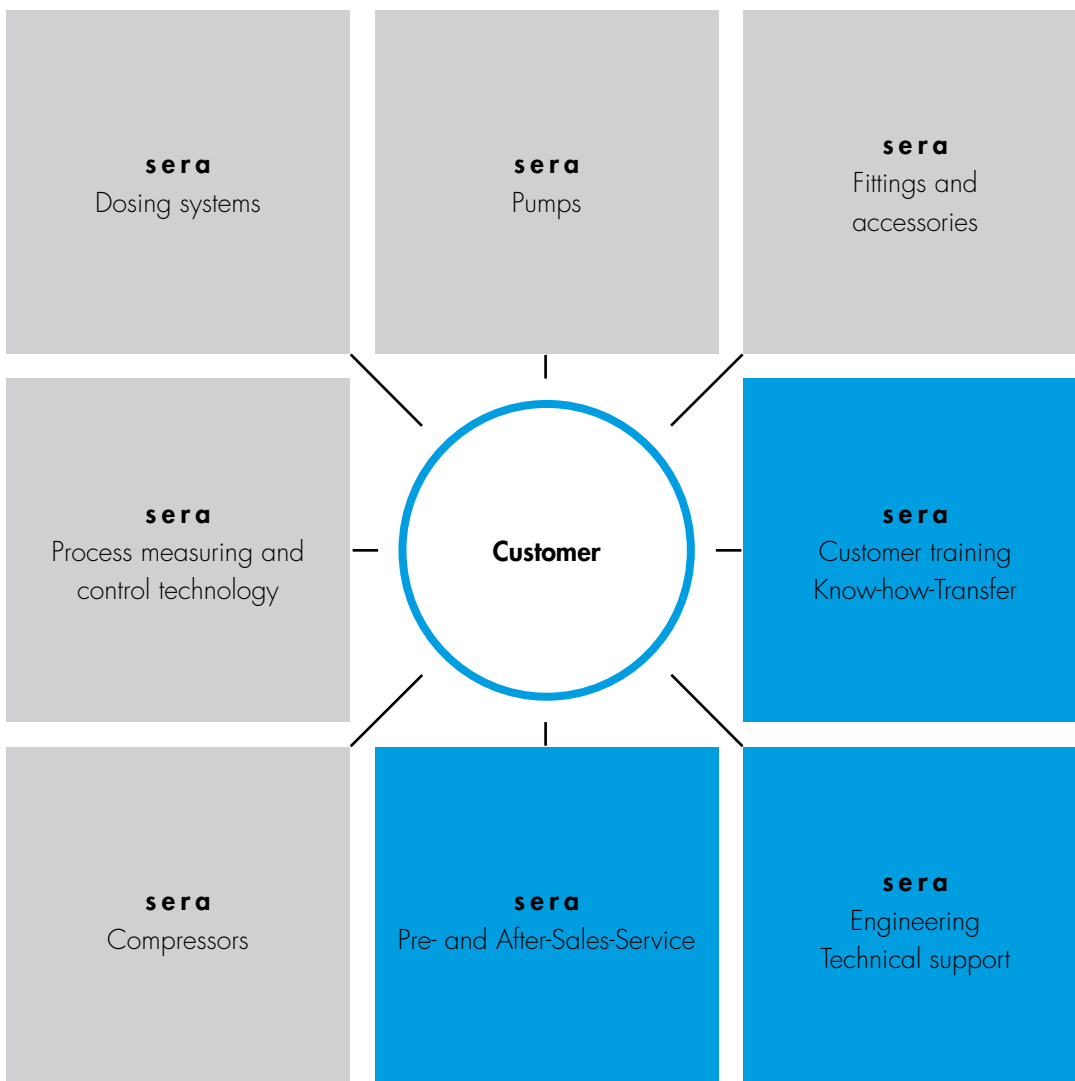
For decades, the name **sera** has stood for:

- Product quality
- Robust and long-lived products
- Optimal customer-oriented engineering
- Flexibility
- Short delivery periods
- Faithfulness to deadlines
- Very good value for money
- World-wide sales and service network

Our expertise

One-stop offering – optimally coordinated.

The customer is in the focus of our activities. Therefore, we provide an extensive range of products and services, from individual components up to large complex automated systems.
One-stop offering – optimally coordinated.



Dosing equipment and systems

Dosing systems and customer-specific equipment solutions for a variety of applications

Only to mention a few:

- Waste water neutralisation
- Car washing installations
- Chemical industry
- Printing industry
- Paint manufacture
- Electroplating
- Beverage and brewing industry
- Laboratory equipment
- Agriculture
- Food industry
- Mechanical engineering
- Dairy equipment
- Paper industry
- Pharmaceutical industry
- Swimming pool equipment
- Textile industry
- Environmental technology
- Process technology
- Water treatment
- Sugar industry



▲ Hydrazine dosing system type series HY-DA

Preparation stations

for water treatment or waste water neutralisation

For polymer solutions

as

- 1-Chamber preparation and dosing system
- 2-Chamber preparation and dosing system
- 3-Chamber preparation and dosing system

For suspensions

such as

- Lime-milk
- Gypsum
- Activated carbon



▲ Polymer preparation and dosing system type series PLA-2V

For boiler feed water chemicals

for example

- In power stations for ammonia or trisodium phosphate solutions



High-pressure dosing system

Dosing and storage stations for fluid chemicals

In vertical panel design (for wall mounting)

in the

- Beverage and food industry, for example, for acid and lye or in
- Agriculture for phytase



▲ Vertical dosing system for heavily dust-laden atmospheres

In horizontal panel design (for floor mounting)

in the

- Chemical industry, for example
- or for
- Electroplating and surface refinement



◀ Horizontal dosing system with stainless steel piping



▲ Dosing system for wall mounting type series DAV - 900.1



▲ Outdoor dosing system

Dosing systems

„plug and dose“



Chlorine dioxide generating and dosing plant type series CDG ▲

- For disinfection
(chlorine dioxide generating and dosing plants;
production of the ClO_2 solution from diluted
and concentrated hydrochloric acid and sodium
chlorite solutions)

- For quantity-proportional adding
of disinfection agents and other
substances



▲ Proportional dosing system type series PDS



- For dyeing and mixing in the textile industry
(automatic KKV dosing system)

◀ KKV-dosing system type series KKV-20,8.1

Small dosing systems for fluid chemicals

Compact dosing system with
electric agitator for liquid chemi-
cals



Small dosing system type series KDO ▲

Extensive range of accessories for dosing systems

- Controllers
- Measuring devices
- Fittings
- Tanks
- Agitators
- Absorbers
- and much more



▲ Control for high-pressure dosing system

Custom-made measurement, process and control technology Tailored to specific customer applications



- Complete one-stop engineering
- PLC programming
- Individual circuit diagram design using CAE
- Expert installation of electronic and instrumentation components as well as switch cabinet assembly

◀ sera switch cabinet assembly

Dosing pumps

Oscillating displacement pumps for dosing and feeding liquids in a variety of industries

Application range

Almost all free-flowing mediums with aggressive, abrasive, offensive smelling, radio-active, inflammable, viscous or poisonous characteristics.



New diaphragm pump series ▲



Dosing pumps for laboratories and industry

Intelligent, multifunctional with
integrated electronic control

Performance range

max. 900 l/h up to max. 140 bar

Specific product features

- Intelligent, direct control
- Integrates in automatic processes via Profibus ***
- Flexibly programmable inputs and outputs
- High dosing accuracy
- Long diaphragm service life*
- High-quality materials
- Robust
- Long-lived
- Low-maintenance
- Low operating expenses
- Leakage-free**
- Unlimited safe to run dry**
- Linear control characteristic
- Low weight
- Excellent value for money



Controllable, self ventilating solenoid diaphragm pump ▲
type series CS 204.1



Controllable diaphragm pump type series C 409.2 ▲

Easy-to-use + maintenance-free

Performance range

max. 25 l/h up to max. 10 bar

Specific product features

- Compact underfloor design
- Low weight
- Leakage-free
- High dosing accuracy
- Safe to run dry
- High-quality materials
- Rugged corrosion-resisting stroke mechanism housing



▲ Diaphragm pump type series R 302

* Compared to common conventional diaphragms ** Except for piston pump range *** available from March 2008

Dosing pumps

for industrial use and heavy duty applications (potentially explosive atmospheres)

Sturdy and proved

Performance range

max. 4000 l/h up to max. 500 bar

Specific product features

- High dosing accuracy
- Long diaphragm service life*
- High-quality materials
- Robust
- Long-lived
- Low-maintenance
- Low operating expenses
- Leakage-free**
- Unlimited safe to run dry**
- Linear control characteristic
- Excellent value for money
- Design according to ATEX
- Extensive range of accessories

* Compared to common conventional diaphragms

** Except for piston pump range



▲ Diaphragm pump type series R 410.2



▲ Piston diaphragm pump type series R 411.1 KM with actuator in ATEX design

Feeding pumps

air driven



Compact + reliable in starting

Performance range

max. 850 l/min up to max. 7 bar

Specific product features

- Cost-effective
- Compact
- Leakage-free
- Safe to run dry
- Low weight
- Design according to ATEX
- Free from silicone
- Dry priming
- Safe against overpressure

◀ Air driven diaphragm pumps APB 45 and APB 200

Dosing pumps

for specific applications in industry and research

With high pressure

Performance range

max. 150 l/h up to max. 500 bar

Specific product features

- High dosing accuracy even at high pressures
- All medium-contacted parts from stainless steel
- Long diaphragm service life
- Integrates in automatic processes
- Leakage-free
- Linear control characteristic
- Design according to ATEX
- Extensive range of accessories
- Special-purpose designs (e.g. LPG)
- Unlimited safe to run dry



▲ Metal diaphragm pump type series RK 411.1-MM

The mix makes the difference

Specific product features

- Large number of combinable pump heads and sizes
- Lift volumes can be set independent of each other
- Variable mixing of different liquids



▲ Combination diaphragm pump type series RK 410.2/R 410.2/RK 410.2

Fittings and accessories

Optimally tailored to **sera** - pumps



Components

for a reliable and economic operation of oscillating displacement pumps.

Can be used for almost all free-flowing mediums, even with corrosive, abrasive, offensive smelling, flammable, viscous or toxic properties.

Pump installation with accessories ▲



Fittings and accessories

appropriate for all applications

- **Relief and pressure keeping valves**
For the safety of dosing systems and to prevent excessive supply
- **Pulsation dampers**
To smooth the supply flow and to remove accelerating pressure peaks
- **Suction lances**
For safe and troublefree taking out of chemicals from tanks and drums
- **Nonreturn fittings/Injection fittings**
To prevent undesired return flows and for efficient adding of chemicals at the dosing location
- **Shut-off valves**
For reliable blocking of piping systems during maintenance work
- **Fittings for pump inlet side**
For optimised adjustment of pumps to the plant periphery on the suction side



▲ Diaphragm relief valve
type series 620.10



▲ Pulsation dampers with and
without separating diaphragm

Our core competence Compressor equipment

sera - metallic diaphragm compressors for pressures up to 500 bar
for oil-free and impurity-free pumping and compression of gases



Please inform about our extensive
Know-how on the compressor tech-
nology

Please ask for our image brochure
„Image 04“



Service

Engineering, installation, startup, inspection, maintenance and repair

At **sera**, service is understood as comprehensive customer advice and care from the first product idea through the whole long service life of our products up to replacement or new product design. Service exactly tailored to the specific demand of our customers – always on the latest state of the art.

sera - service is convincing by

- Dependability
- Quick response
- Flexibility
- Quality by expertise
- Decades of experience
- Environmental awareness



Our objectives

- Always provide high-quality services
- Meet the specific requirements through flexibility
- Solve dosing and feeding tasks of our customers in a problem-oriented and cost-effective manner
- Custom engineering
- Implement optimal system solutions

Our services

- On-site installation
- Repair service
- Quick spare part service
- Startup
- Pump and system inspection with condition report
- Maintenance of individual pumps up to complete systems
- Service hotline
- Technical support
- Customer training

“We will only be satisfied if you do so too.”

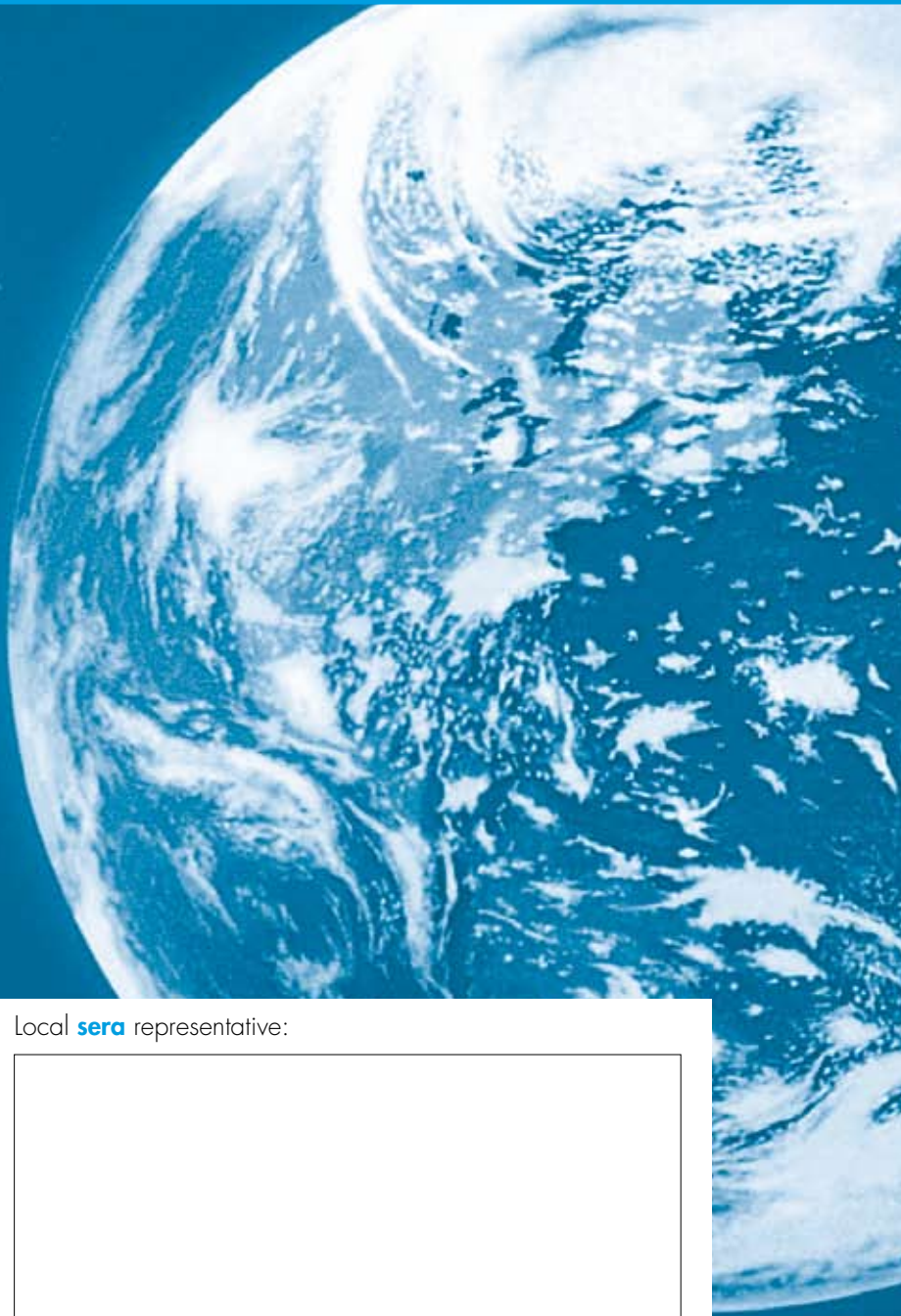
sera – a powerful partner,
strong in dosing – that’s it.

A. Monforts Textilmaschinen GmbH & Co. KG
Adam Opel GmbH
Albert Handtmann Armaturenfabrik GmbH & Co. KG
ALSTOM Power AG
Audi AG
BASF Aktiengesellschaft
Bayer AG
BMW AG
Brauerei C. & A. VELTINS GmbH & Co.
Chemische Fabrik Dr. Weigert GmbH & Co. KG
Christ Goema GmbH
Coca-Cola Erfrischungsgetränke AG
Continental Aktiengesellschaft
DaimlerChrysler AG
Dürr Aktiengesellschaft
E.ON Energie AG
EISENMANN AG
GEA Group Aktiengesellschaft
Gebr. Schmid GmbH + Co.
Georg Oest Mineralölwerk GmbH & Co. KG
GÜTLING Wassertechnologie GmbH
Hager & Elsässer GmbH
Heidelberger Druckmaschinen AG
KHS AG
Kieselmann Anlagenbau GmbH
Koenig & Bauer AG
Krones AG
LIKUSTA Umwelttechnik GmbH
Lurgi AG
Nestlé Deutschland AG
NETZSCH Mohnopumpen GmbH
Novartis Deutschland GmbH
Oschatz GmbH
Privatbrauerei Erdinger Weißbräu W. Brombach GmbH
Procter & Gamble
Robert Bosch GmbH
RWE AG
SeitzSchenk Filtersystems GmbH
Siemens Aktiengesellschaft
STH - Engineering GmbH
STRASSBURGER Filter GmbH & Co.KG
Temafa Maschinenfabrik GmbH
Tetra Pak GmbH & Co.
ThyssenKrupp AG
Uhde GmbH
Volkswagen AG
WARSTEINER Brauerei Haus Cramer KG
Wintershall AG
ZIEMANN Ludwigsburg GmbH



sera

Our representatives...



Local **sera** representative:

- | | |
|---------------|---------------------|
| Egypt | Laos |
| Argentina | Lithuania |
| Australia | Malaysia |
| Bahamas | Myanmar |
| Barbados | Nicaragua |
| Belgium | Netherlands |
| Bolivia | Dutch Antilles |
| Brasil | Norway |
| Brunei | Austria |
| Bulgaria | Pakistan |
| Chile | Panama |
| China | Paraguay |
| Denmark | Peru |
| Germany | Philippines |
| Dominica | Poland |
| Dominican | Romania |
| Republic | Russia |
| Ecuador | Saint Kitts |
| El Salvador | Saint Lucia |
| Finland | Saint Vincent |
| France | Saudi Arabia |
| French Guyana | Sweden |
| Grenada | Switzerland |
| Greece | Singapore |
| Great Britain | Slovakia |
| Guatemala | Slovenia |
| Guyana | Spain |
| Honduras | South Africa |
| Indonesia | Surinam |
| Iran | Taiwan |
| Ireland | Thailand |
| Italy | Tobago |
| Jamaica | Trinidad |
| Japan | Czechia |
| Jordan | Turkey |
| Cambodia | Ukraine |
| Kazakhstan | Hungary |
| Kenya | Uruguay |
| Columbia | Venezuela |
| Korea | Vietnam |
| Croatia | West Indian Islands |
| Cuba | |

**Seybert & Rahier
GmbH + Co. Betriebs-KG**

sera-Straße 1
34376 Immenhausen

Germany

Phone +49 (0) 56 73 / 99 90

Fax +49 (0) 56 73 / 99 91 55

info@sera-web.de

www.sera-web.de