

Highest precision for
extreme conditions –
for your chemical
processes



You can rely on maximum precision, complete process reliability
and constant performance – even when working with the most
aggressive media and with toughest conditions.

Mahr Metering Systems



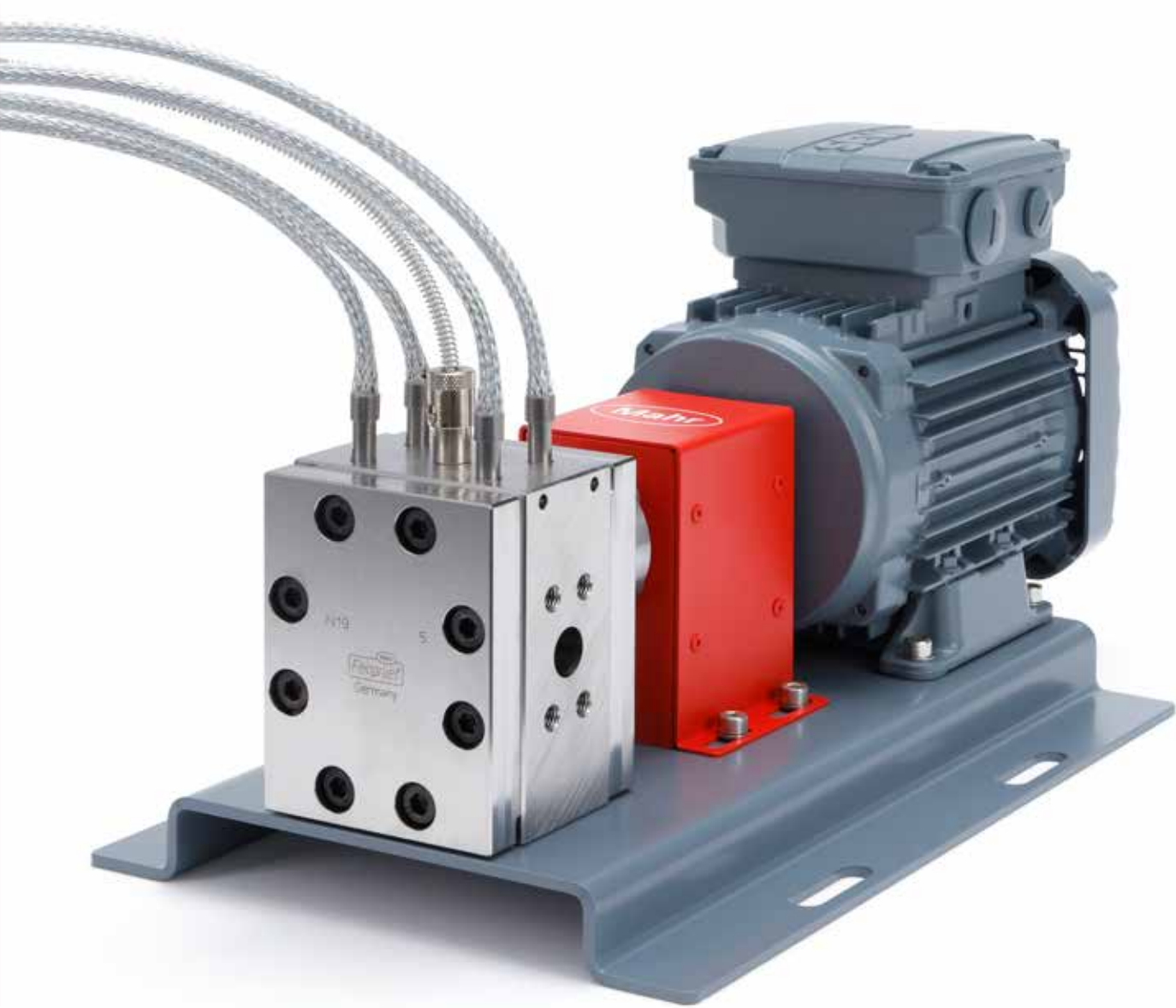
MarChem Gear Pumps
for the chemical and
process industry



Mahr Metering Systems GmbH
Carl-Mahr-Straße 1
37073 Göttingen
Germany

Tel.: +49 551 7073 100
metering@mahr.com
www.metering.mahr.com

MarChem | Gear Pumps



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Änderungen an unseren Erzeugnissen, besonders aufgrund technischer Verbesserungen und Weiterentwicklungen,
müssen wir uns vorbehalten. Alle Abbildungen und Zahlenangaben usw. sind daher ohne Gewähr.
We reserve the right to modify our products, especially due to technical improvements and further developments.
Illustrations and numerical data are therefore not binding.
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Dosing at the highest precision – versatile and worldwide proven

For over 70 years, Mahr Metering Systems has stood for maximum precision. Our gear pumps can handle the most demanding conditions, whether they’re operating under high pressure, at extreme temperatures, or with highly viscous media.

What originally began with applications in the production of synthetic fibers has, over the decades, developed into a wide range of purposes. Today, our pumps are successfully used in various industries.

Through continuous development and a deep understanding of complex processes, we bring our proven technology to the process and chemical industries – for precise, reliable, and efficient solutions.

MarChem Gear Pumps – Highest precision for extreme conditions

In the chemical and process industries, aggressive media, demanding process requirements, and legal regulations create complex challenges for companies:

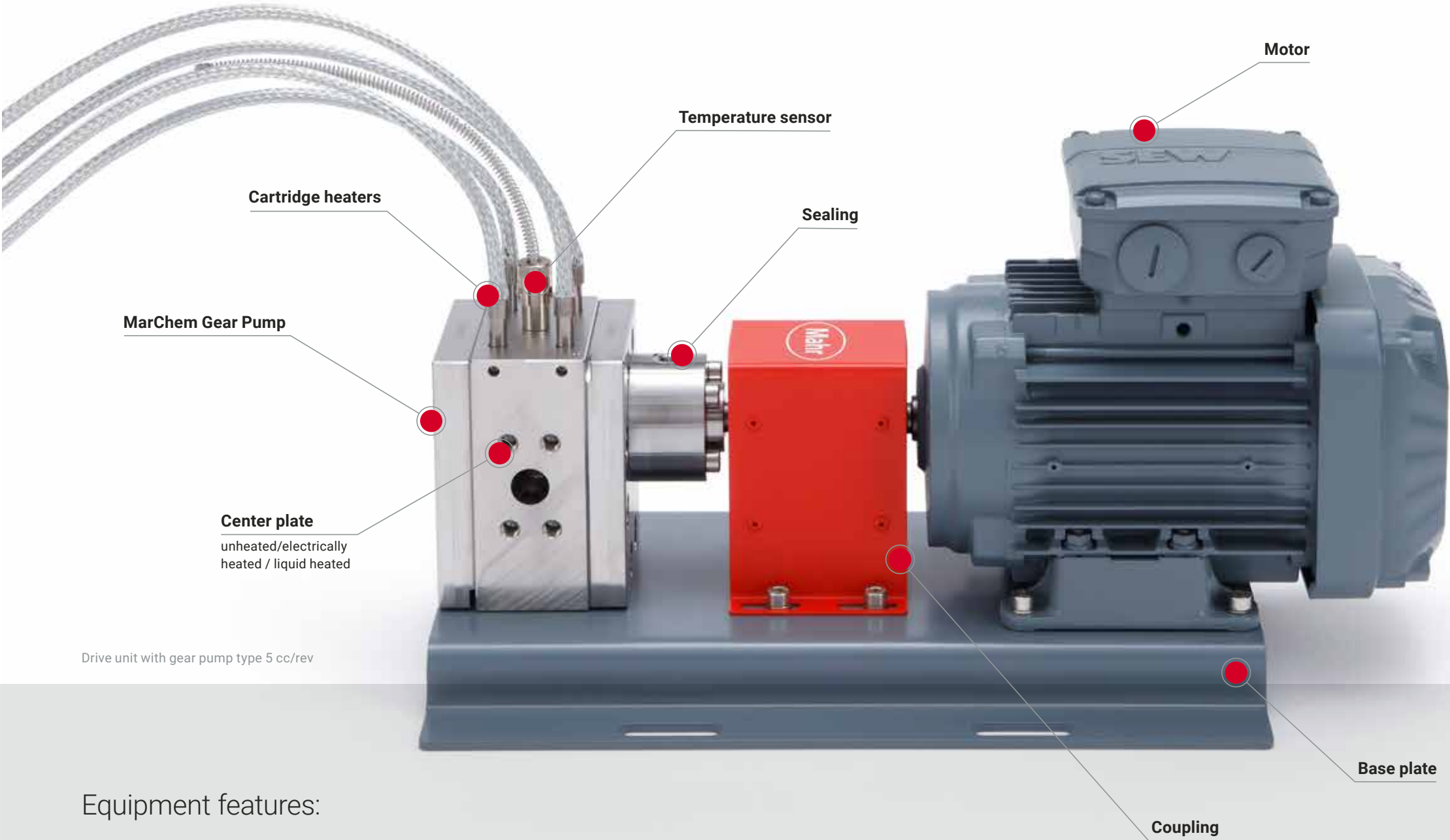
Precise dosing is also crucial for the quality, safety, and efficiency of your production. Mahr gear pumps offer exact, reproducible flow rates — even under the most demanding conditions. Even a slight deviation in dosing can have serious consequences like quality reductions, increased production costs or higher discharge quantities.

Our gear pumps are specially designed to meet the needs of the chemical and process industries. They are the perfect solution to your challenges. With their high resistance to aggressive media and innovative, reliable design, they ensure accurate and safe dosing, even under extreme conditions..

- Reliable conveying capacity under variable operating conditions
- Precise dosing even with highly viscous or reactive media
- Selection of pump materials for maximum chemical resistance
- Tightness for toxic or potentially explosive liquids
- Ease of maintenance to minimize downtime
- Modular design – flexible and adaptable
- ATEX-compliant designs for potentially explosive atmospheres

+ Advantages

- Precision**
Precise feeding with minimal pulsation
- Chemical Resistance**
Wide Range of Materials
- Tightness**
Sealless magnetic coupling or high-density mechanical seals for toxic substances
- Energy efficiency**
Speed control of energy-saving motors via frequency converters to adapt to process requirements
- Explosion protection (ATEX)**
Certified designs for use in potentially explosive atmospheres
- Ease of maintenance**
Modular design and low-maintenance construction for minimal downtime



Drive unit with gear pump type 5 cc/rev

Equipment features:

Optionally, we can supply the gear pump as a drive unit consisting of a pump, coupling, and motor mounted on a base plate.

- Heating options**
- unheated
 - electrically heated
 - liquid or steam heated

- Sealings**
- Stuffing box seal
 - Single/double mechanical seal
 - Rotary seal
 - Magnetic coupling

Bearing materials
Direct bearings, graphite bearings, ceramic bearings

Center plate sealings
O-Ring

Connectors
Connection layout for inlet and outlet according to SAE for pressure class 3000 PSI, others on request

Explosion-proof
Pump and drive unit design according to ATEX 2014/34/EU can be offered

Additional features
Depending on the application, the pumps can be equipped with additional equipment:

- speed control via inverter
- Pressure monitoring
- Temperature monitoring
- Flow measurement
- Interface connection to machines and systems

Whether for the precise dosing of additives, the metering of aggressive media, or the handling of environmentally hazardous liquids, Mahr pumps stand for reliability, efficiency, safety, and process control at the highest level.

A wide range of possible combinations ensures maximum flexibility in the design of customized product solutions.

Technical details	
Pump type per size*	5 and 10 ccm/rev 20 and 50 ccm/rev 120 and 200 ccm/rev 350 and 500 ccm/rev 750 and 1500 ccm/rev
Viscosity	1 – 1.000.000 mPas
Output pressure	120 bar standard (depending on viscosity, higher on request)
Operating temperature	up to 300 °C
Material	In correlation to the metered liquids, a variety of specialised steels, special materials and various coatings are available.
Medium to be pumped	Various liquids, including corrosive and abrasive media (on request)

*We have a wide selection of gear metering pumps with flow starting at 0.015 cc/rev.