

# GATHER Laboratory Pump

Compact, robust und versatile



## GATHER Laboratory Pump

About GATHER Industrie  
Page 3

GATHER Laboratory Pump – Features  
Page 4

Operating data  
Page 5

Flow rate characteristics  
Page 6

Drive technology  
Page 7

Industries & Applications  
Page 8-9

GATHER Contact details  
Backpage

[www.gather-industrie.com](http://www.gather-industrie.com)

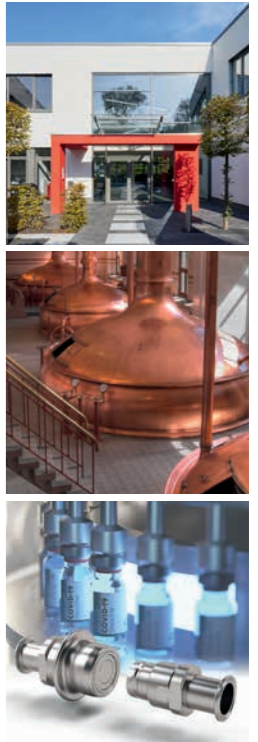
More than 50 years of experience

# In-depth knowledge, broadly diversified solutions

GATHER Industrie GmbH is a medium-sized family business based in Wülfrath, North Rhine-Westphalia – with more than 50 years of experience and a focus on quality and innovation.

As a premium manufacturer of magnetically coupled gear pumps, gear flow meters, metering systems and quick connect couplings for pipes and hoses, the company serves numerous industries and customers, e.g. the chemical, pharmaceutical, medical and food industries. With their expert knowledge in handling non-lubricating liquids, GATHER offers solutions which enable the customer to work with process reliability and durability.

From the “idea to series production”, GATHER Industrie develops not only standard products but also completely new technical solutions according to customer requirements. At the same time we succeed in managing the balancing act from single pieces to the production of small and large series for OEM customers.



**1965**  
Foundation

**50+**  
Employees

**30+**  
Countries

## The GATHER products



Metering and  
process pumps



Gear flow meter



Metering systems



Couplings

## GATHER Multi-Purpose laboratory pump

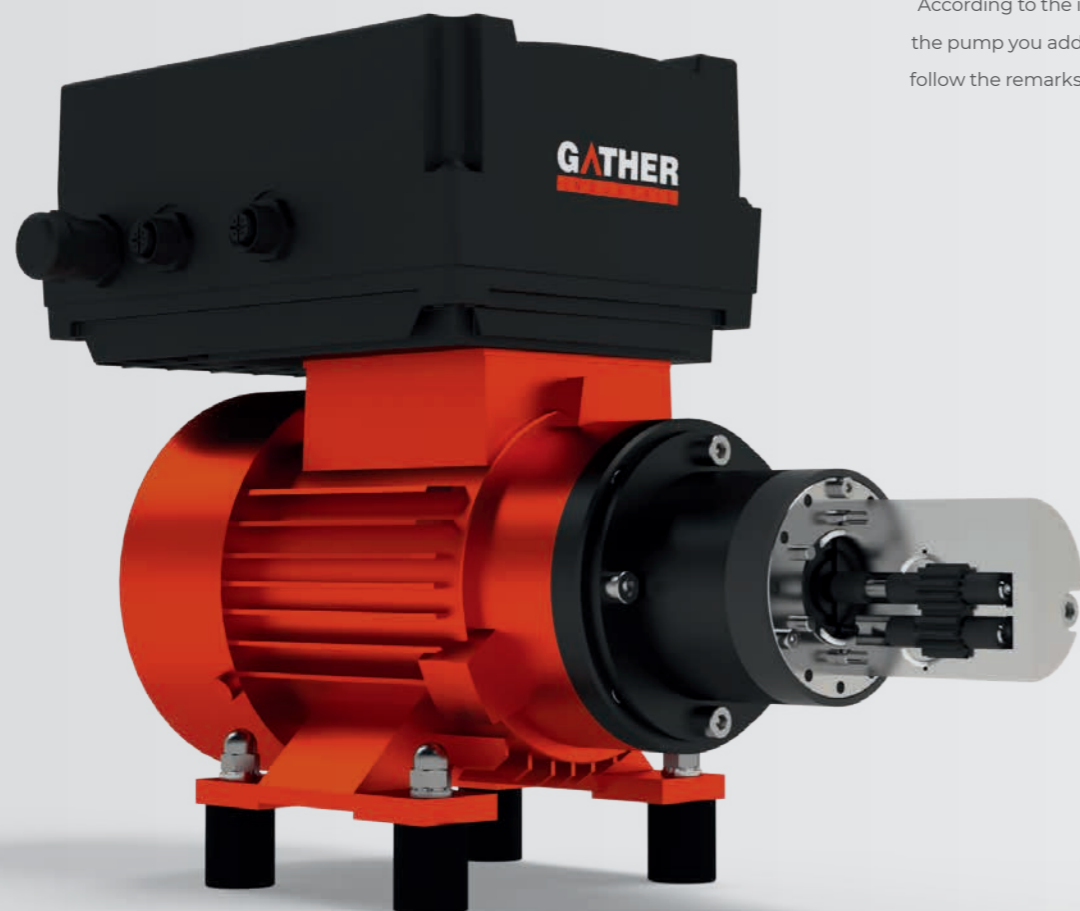
# Magnetically coupled Gear pump as a "Plug and Play" solution

The **GATHER Laboratory Pump** is a hermetically sealed pump. This pump was designed **multifunctionally** in its materials in order to be able to pump many different liquids used in the laboratory. In addition, a drive with **integrated speed control** is used which is a „plug and play“ solution ready for connection and **available from stock**.

## TECHNICAL DATA

Viscosity	1.0 bis 500 mPa s (cP)
Temperature range	0 to +85 °C
Differential pressure	up to 10 bar
System pressure	up to 16 bar

According to the intended use of the pump you additionally have to follow the remarks of the manuals.



## Operating data

CHARACTERISTICS	PROPERTY
Application data	Laboratory
Types	LAB-ZP-6, LAB-ZP-9, LAB-ZP-12
Temperature	T = 0 to +85 °C
Ambient temperature	T = 0 to +40 °C
Viscosity	1.0 to 500 mPa s (cP)
Material Body & Shafts	Stainless steel 1.4571
Material Gear	PEEK (30% CFK)
Material Slide bearing	PEEK (30% CFK)
Material O-Ring (seals)	PTFE
Material D-magnet	Encapsulation stainless steel 1.4571
Ports	1/4" NPT female (lateral)

### Examples of liquids\*, that can be transferred at 20°C:

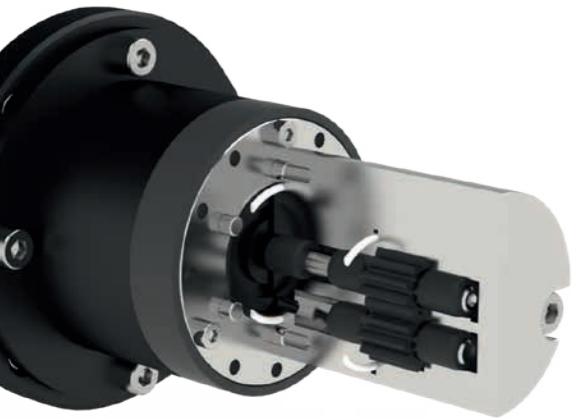
- + Adblue (urea), Ammonia water, Ascorbic acid, Acetic acid
- + Bio diesel oil, Butyl alcohol
- + Calcium chloride solution, Cyclohexane, Citric acid
- + Diesel oil
- + Ethyl alcohol
- + Formaldehyde
- + Glycols, Gasoline (petrol, fuel higher than 1.0 mPa s)
- + Kerosene
- + Nitric acid (up to 30%), Natriumhydroxid
- + Oils (vegetable and synthetic)
- + Phosphoric acid, Propyl alcohol, Potassium chloride solution
- + Sulfuric acid (up to 7,5%), Soapsuds, Sugar solution
- + Water (VE, distilled etc.), Whey
- + Zinc sulfate, Zinc chloride

\*Please check additionally the chemical resistance of the materials!



Flow rate characteristics

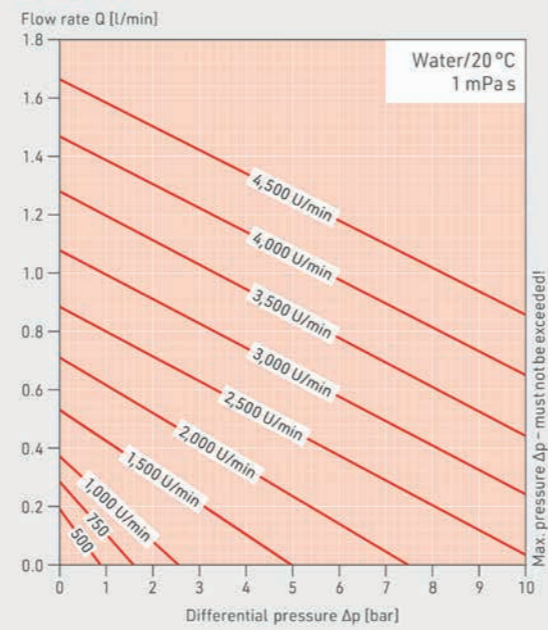
# LAB-ZP



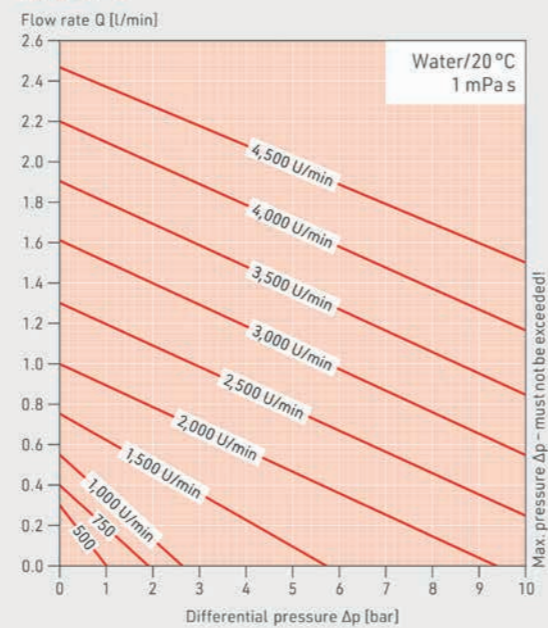
**Operating conditions:**

- + The pressure on the suction side has to be 0.1 bar above the vapour pressure of the liquid.
- + The pump needs inflow, means the maximum flow has to flow freely into the pump so that the pump has not to suck.
- + Differential pressure, capacity and speed (rpm) according to the performance curve (for 1.0 mPa s)
- + Because of the manufacturing tolerances the performance curve of the pump head itself may differ. Therefore we recommend calibrating each pump head individually.

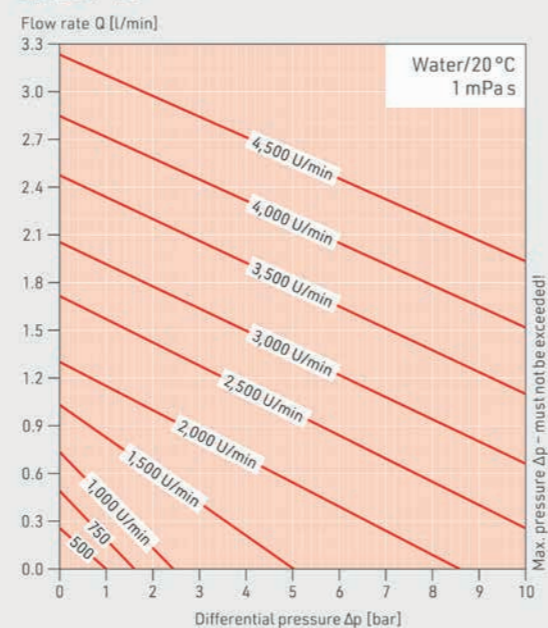
LAB-ZP-6



LAB-ZP-9



LAB-ZP-12



GATHER drive unit with converter

# LAB-Alpha - Drive unit with included converter

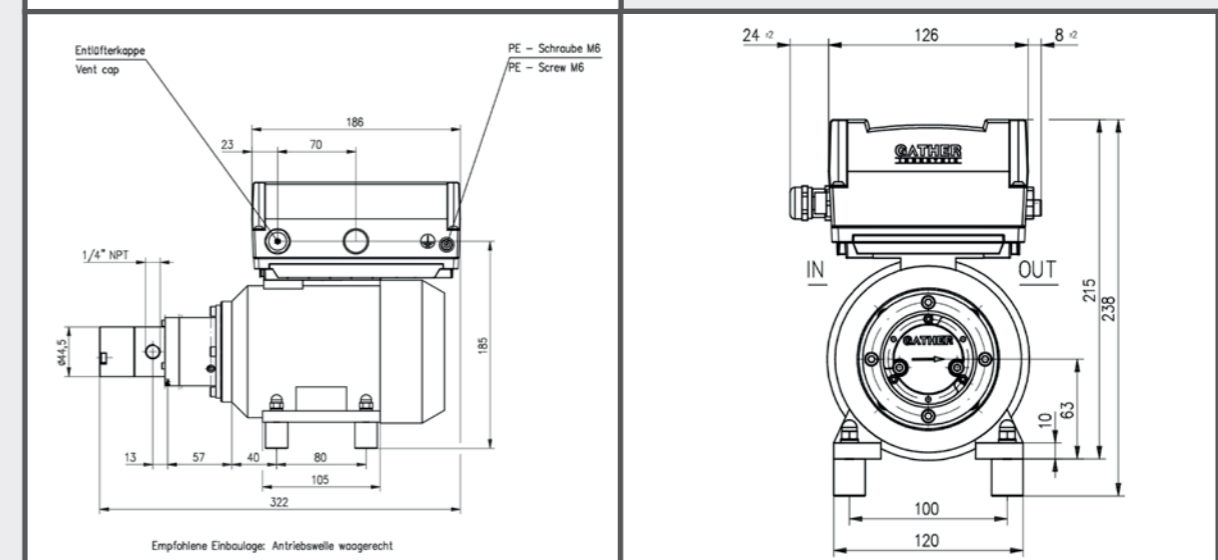
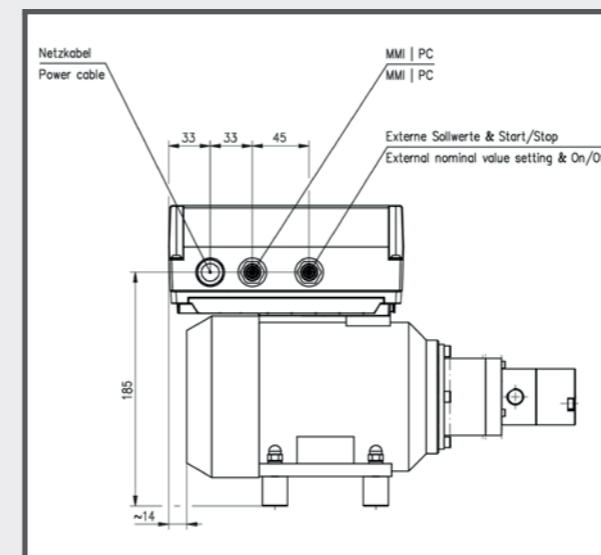
The drive unit of the laboratory pump is controlled by a frequency converter mounted in connection box (with filter class B/C1, motor overloading electronically controlled). The drive unit with converter is completely programmed and includes an operating unit.

**TECHNICAL DATA**

Operating voltage	1 x 230 V, 50 Hz
Speed	200 to 4,500 rpm
Power	0.25 kW
Insulation class	F/IP 55

**Drive unit with converter:**

- + Connecting parts made of aluminium
- + Driving D-magnet und thermal ring
- + three phase motor, air cooled
- + Speed control externally: 0-10 V / 0-20 mA / 4-20 mA / Modbus RTU manually at the operating unit (please state in order)
- + Operation with FI-circuit Type A (calibration fault current > 30 mA) possible
- + Leakage current 10 mA
- + Relative humidity < 95 %
- + Dewing is not permitted
- + 2 m long control cable to motor and shock-proof plug included



Industries & Applications

# Use in all sectors of industry – GATHER has the solution!

GATHER products are used in almost all sectors of industry. Wherever precise delivering, measuring, dosing or coupling of fluids matters. Whether lubricating or non-lubricating, whether low-viscosity or viscous, whether pump, flow meter, complete system or coupling.

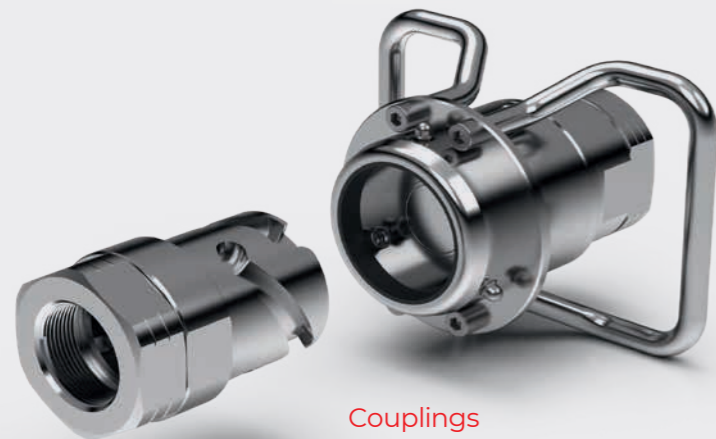
Our engineering is your solution!



Flow meter



Metering systems



Couplings



Metering and process pumps

# Liquids for every industry and application



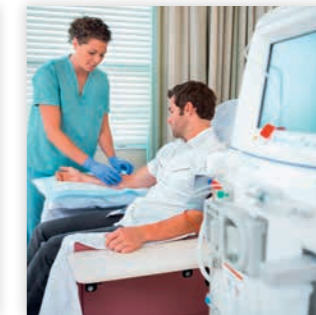
## Chemical and Process Engineering

- + Water
- + Saline Solutions
- + Caustic Soda
- + Sulfuric Acid
- + Hydrochloric Acid
- + Formic Acid
- + Nitric Acid
- + Phosphoric Acid
- + Alcohols (Methanol, Ethanol, Toluene, Xylene, etc.)
- + Tetrahydrofuran (THF)
- + Resins
- + Hydrocarbons
- + Barrier fluids for Double-Action Mech. Seals GLRD



## Pharmaceutical and Cosmetics Industry

- + Nutrient solutions
- + Dyes
- + Perfumes
- + Hydrogen peroxide/H<sub>2</sub>O<sub>2</sub>
- + Vinegar essence
- + Enzymes
- + Various alkalis and acids
- + Cell fluids
- + Silicone oil



## Medical Technology

- + Water
- + Active ingredients
- + Vaccines
- + Adhesives



## Food Industry

- + Vegetable oils
- + Cooking fats
- + Yeast solutions
- + Fish oils
- + Nitric acid
- + Citric acid
- + Caustic sodas
- + Sulfuric acid
- + Tetrahop
- + Isohop
- + Caramel
- + Essences



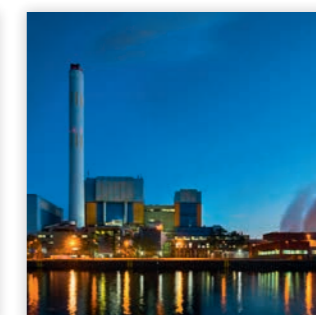
## Water Management

- + Caustic Soda
- + Sodium hypochlorite
- + Hydrochloric acid
- + Iron (II) Chloride
- + Iron (III) Chloride



## Automotive Industry

- + Paints and varnishes
- + Petrol
- + Diesel
- + Kerosene
- + Additives for fuels
- + Cooling liquids



## Steel Industry and Power Plants

- + Ammonia water
- + Urea (Adblue)
- + Cooling liquids
- + Water



## Oil Industry

- + Crude oil
- + Petrols
- + Kerosene
- + Diesel
- + Solvent Yellow 124
- + Thermal oil
- + Various additives

## **GATHER Industrie GmbH**

Lise-Meitner-Straße 4  
42489 Wülfrath  
GERMANY  
Phone +49 2058 89381-0

### **Pump Technology**

#### **Filters and Valves**

Phone +49 2058 89381-23  
Fax +49 2058 89381-50  
pump@gather-industrie.com

### **Coupling Technology**

Phone +49 2058 89381-23  
Fax +49 2058 89381-50  
coupling@gather-industrie.com

### **Measurement and Control Technology**

Phone +49 2058 89381-23  
Fax +49 2058 89381-50  
measurementtechnology@  
gather-industrie.com



[www.gather-industrie.com](http://www.gather-industrie.com)

## **Why GATHER pumps?**

With the right design of the pump as well as the selection of materials and seals according to the liquid and application, we offer our customers process-reliable and durable solutions. The pump bodies of the centrifugal and gear pumps and the shafts are made of stainless steel, Hastelloy® or titanium, the sleeve bearings of carbon or plastics such as PEEK or PTFE.

In the case of gear pumps, the gears are made of a nickel-based alloy, PEEK or PTFE (Teflon®) and can be freely combined with each other. The materials used for the gear wheel, slide bearing and shaft all have excellent tribological properties. The use of the magnet coupling, the internal cooling system together with the high precision of all components result in a very robust design with an extremely long service life. Depending on the application (liquid), the pumps operate maintenance-free.

GATHER is not only a component manufacturer, but also a solution provider for design as a complete system according to customer specifications with the corresponding control loop and accessories. Special solutions are our speciality as well. This also includes the use in potentially explosive atmospheres in compliance with the ATEX directives. Our sales engineers and partners have extensive expertise and application knowledge and are your contacts. Either on-site at your premises or at our head office in Wülfrath.