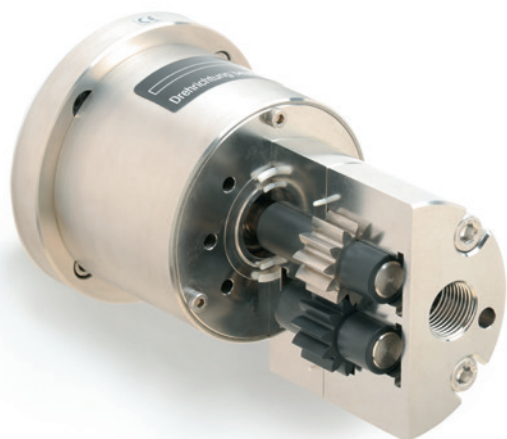


# Laboratory pump



# The GATHER products



## Magnetic drive pumps

The magnetic drive GATHER gear and turbine pumps are designed for both dosing and process pump service. They are complemented by the Wankel (rotary piston) pump ensuring excellent pressurizing performance. The unique characteristic of these hermetically sealed pumps is long service life and non-pulsation dosing, especially of non-lubricating liquid such as water, salt solutions and solvents but also of acid and caustic solutions.



## Quick-disconnect couplings

The safe, robust and quickly disconnected tube-hose joining method for almost all liquid and gaseous media. With double or single shutoff function or unrestricted medium passage in sizes ranging between DN 4 and DN 125. The original Hansen couplings and the flat-face, dry-break couplings of GATHER's own DBG series are especially versatile.



## Filters and valves

For dosing performance enhancement and gear pump protection GATHER offers tailored accessories: High-grade overflow valves and filters made of stainless steel and Hastelloy as well as straight-forward non-return valves.

# Laboratory pump

## General application data of the laboratory pumps

### Technical Data

Your application data	Laboratory
Temperature	0 to 85 °C
Ambient temperature	0 to 40 °C
Viscosity	1.0 to 500 mPa s

- Maximum possible differential pressure: 10 bar
- Maximum possible system pressure: 16 bar abs.
- The pressure on the suction side has to be 0.1 bar above the vapour pressure of the liquid
- The 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.

### Your laboratory pump (gear pump head), magnetic drive – Series 1

**Types** LAB-ZP-6, LAB-ZP-9, LAB-ZP-12

#### Materials

<b>Body</b>	Stainless steel 1.4571
<b>Shafts</b>	Stainless steel 1.4571
<b>Diving/driven gear</b>	PEEK (30% CFK)
<b>Bearings</b>	Slide bearings – PEEK (30% CFK)
<b>O-Ring (seals)</b>	PTFE
<b>Magnet type D-magnet</b>	Shrouded in stainless steel 1.4571

#### Ports

1/4" NPT female (lateral)  
*In combination with the drive unit (including connecting parts) LAB-Alpha*

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

## Drive unit with included converter, model: LAB-Alpha

Drive unit with connecting parts made of aluminium, driving D-magnet and with thermal ring, three phase motor, air cooled

<b>Operating voltage</b>	1 x 230 V, 50 Hz (to the motor: 3 x 230 V),
<b>Speed</b>	200 to 4,500 rpm
<b>Power</b>	0,12 kW
<b>Insulation class</b>	F/IP 55

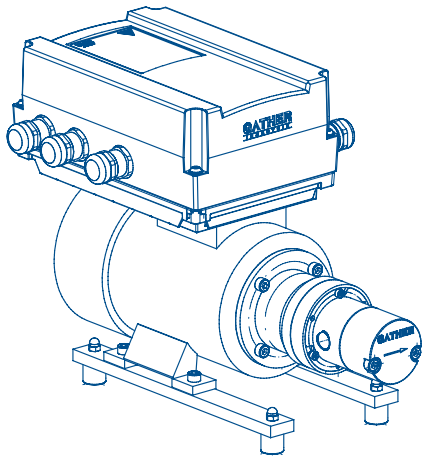
Controlled by a frequency converter mounted in connection box (with filter class B/C1, motor overloading electronically controlled), speed control externally: 0-10 V/0-20 mA/4-20 mA/Modbus RTU or manually at the operating unit (**please state in order**), operation with FI-circuit Type A (calibration fault current >30 mA) is possible, leakage current 10 mA, relative humidity <95%, dewing is not permitted, control cable to motor 2 m long, shock-proof plug included.

**Completely programmed, operating unit with cable included.**

# Laboratory pump models

Laboratory pump heads: LAB-ZP-6, LAB-ZP-9 and LAB-ZP-12

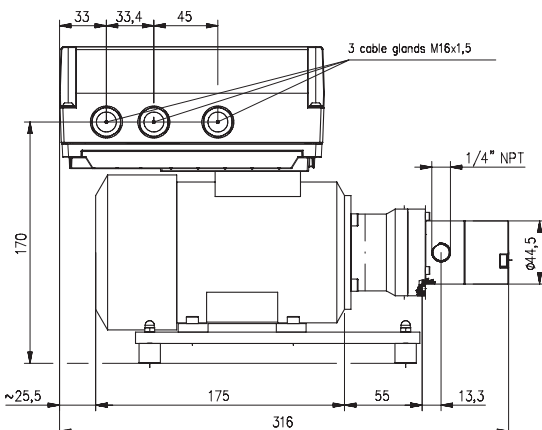
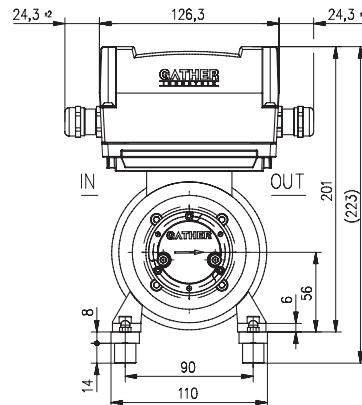
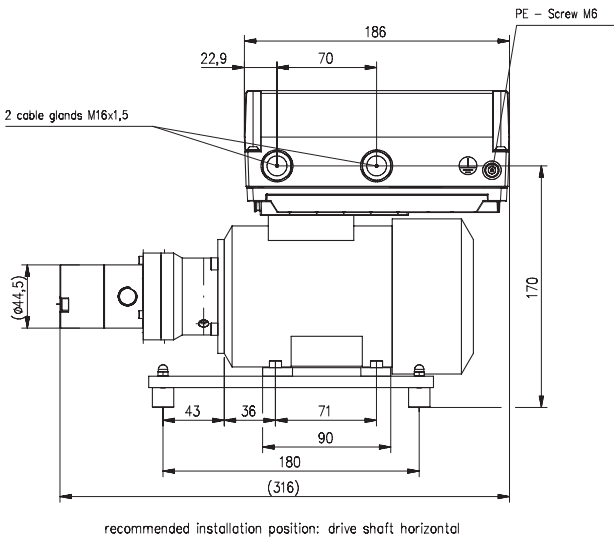
Complete laboratory pump unit (s. picture): LAB-6, LAB-9 and LAB-12



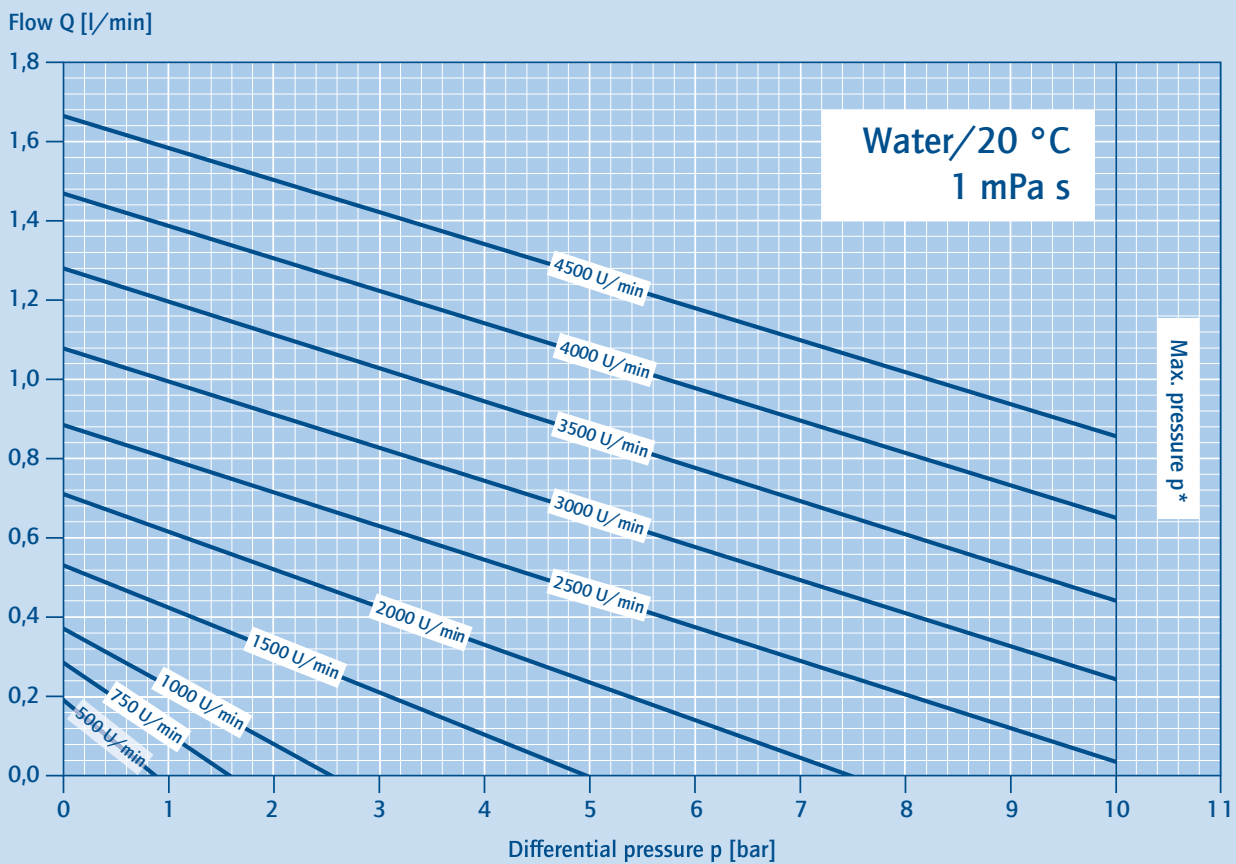
Some examples of liquids\* that can be transferred at 20 °C:  
 Adblue (urea), ammonia water, ascorbic acid, gasoline (petrol, fuel higher than 1.0 mPa s), bio diesel oil, butyl alcohol, calcium chloride solution, cyclohexane, diesel oil, acetic acid, ethyl alcohol, formaldehyde, glycols, potassium chloride solution, potassium hydroxide, kerosene, sodium carbonate solution, sodium chloride solution, sodium hydroxide, oils (vegetable and synthetic), phosphoric acid, Propyl alcohol, nitric acid (up to 30%), sulfuric acid (up to 7,5%), soapsuds, water (VE, distilled etc.), citric acid, sugar solution.

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

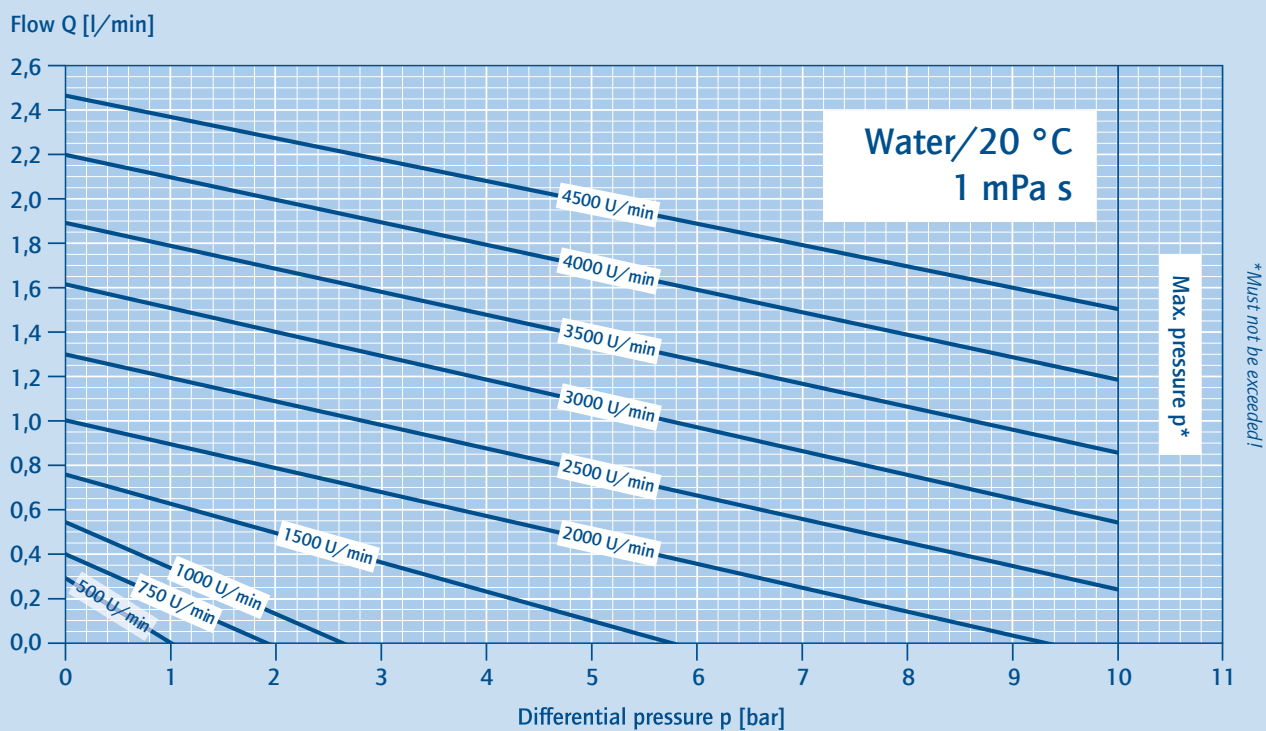
## Dimensions



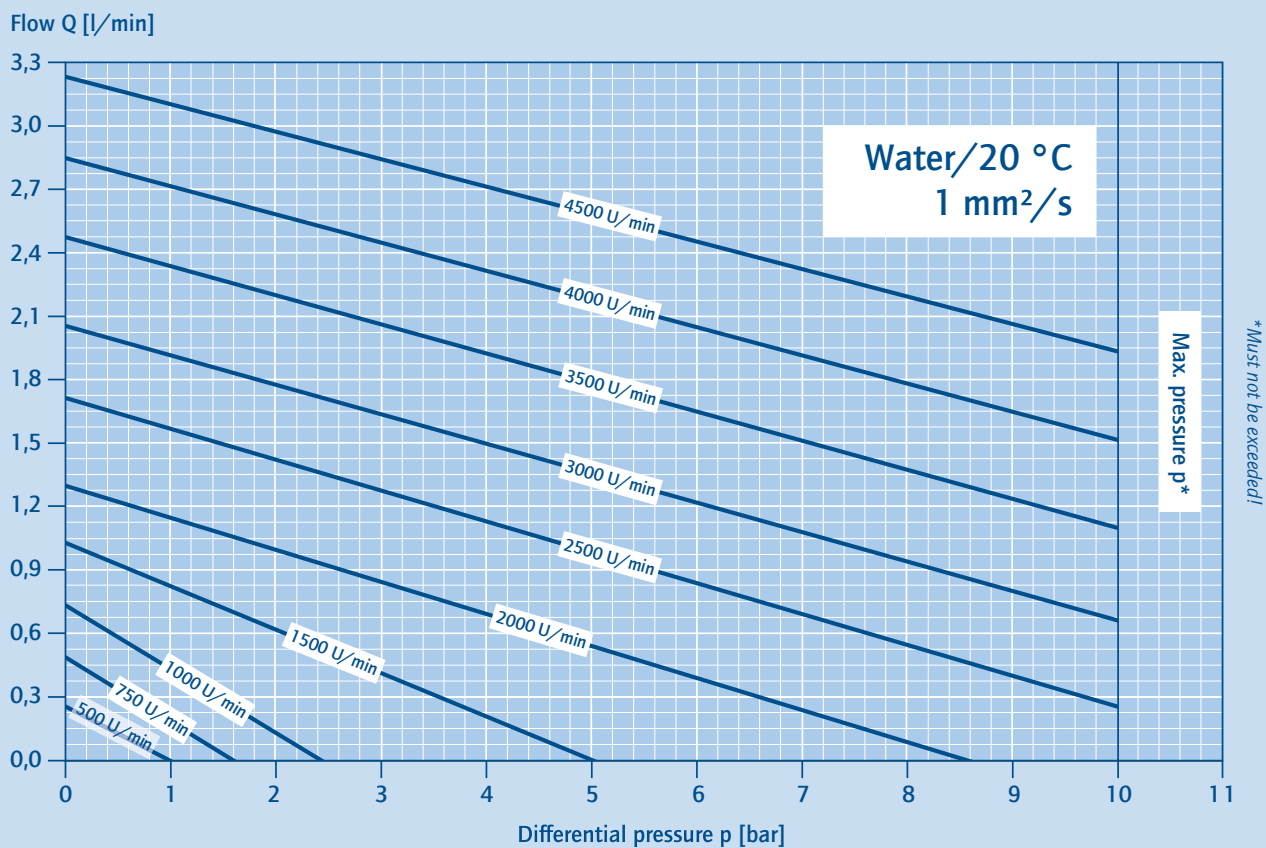
## LAB-ZP-6



## LAP-ZP-9



## LAP-ZP-12





## Quality – Made in Germany

Professional expertise:  
Personal engineering consultation  
inhouse and in the field

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