

# **EXPERIMENTS WITH A GEAR PUMP**

Model Number: GOTT-EGP-01





### **DESCRIPTION**

• Gear pumps belong to the group of positive displacement pumps with a continuous flow. Two counter-rotating gears transport the medium. The transported medium is between the housing and the tooth spaces. The pulsation-free flow increases linearly with speed. These pumps are particularly suitable for the generation of medium-high pressure at low flow rates.

#### **FEATURES**

- . GOTT-EGP-01 provides the basic experiments to get to know the operating behaviour and the important characteristic variables of gear pumps
- . GOTT-EGP-01 features a closed oil circuit contains a gear pump with variable speed via frequency converter and a transparent tank
- Flow rate and head are adjusted via a needle valve and overflow valve
- is fitted with sensors for Sensors for temperature and pressure at inlet and outlet of the pump
- All the advantages of software-supported experiments and evaluation are offered by the GOTT software and the microprocessor. The connection to a PC is made by USB.

#### **TECHNICAL SPECIFICATIONS**

- Functioning and operating behavior of an a gear pump
- Closed oil circuit contains a gear pump with variable speed via frequency converter and a transparent tank
- · Transparent housing for observing the pump gear
- · Needle valve for adjusting the flow rate
- · Overflow valve for adjusting the head
- · Sensors for temperature and pressure at inlet and outlet of the pump
- · Oval wheel meter as flow sensor
- · GOTT software with control functions and data acquisition via USB under Windows 7, 8.1, 10

#### Gear pump

- Power consumption: 370W
- nominal speed: 100...750min-1
- · max. flow rate: 32cm3 per revolution
- max. head: approx. 80m

#### Measuring ranges

• pressure (inlet): ±1bar

• Pressure (outlet): 0...5bar

• flow rate: 0...25L/min

• temperature: 0...100°C

230V, 50Hz, 1 phase

PC with Windows

#### **EXPERIMENT TOPICS**

- Principle of operation of a gear pump
- Recording of pump characteristics
- · Relationship between head and speed
- · Effect of pressure limitation
- · Determination of efficiencies
- \*##-00\k@0
- GOTT software CD + USB cable

# Manuals:

- (1) All manuals are written in English.
- (2) Model Answer
- (3) Teaching Manuals

# **General Terms:**

- (1) Accessories will be provided where applicable.
- (2) Manual & Training will be provided where applicable.
- (3) Design & specifications are subject to change without notice.
- (4) We reserve the right to discontinue the manufacturing of any product.

#### **ORDERING INFORMATION:**

ITEM	MODEL NUMBER	CODE
EXPERIMENTS WITH A GEAR PUMP	GOTT-EGP-01	133-103

\*Proposed design only, subject to changes without any notice.

Warranty:

2 Years