

Verdergear gear pumps, Series VG



The Verdergear VG gear pumps are extremely reliable gear - dosing pumps for applications in a.o. industry and research laboratories.

Working principle

A gear pump is a displacement pump and consists of 2 or more gears. The gears fold into each other and each turn into opposite directions. The pump house has both suction and discharge connections. One gear (floating) is driven directly by the motor while the first floating gear drives the other.

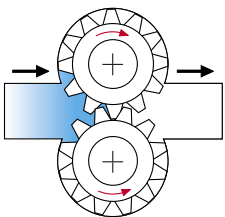


Fig 1:
The fluid is being primed and fills the empty space between the 2 gears.

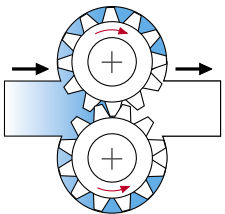


Fig 2:
The fluid is then caught between the gears and is transported to the discharge side.

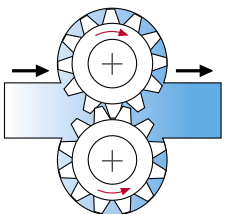


Fig 3:
The fluid exits from the discharge side.

Features and benefits

- Pulse free fluid transfert
- High dosing precision
- Magnetic driven or with AC/DC motors

Models

■ *Drives*

- VG1000 electronic drive

This is a specially designed electronic drive for the Verdergear laboratory and dosing pumps. Suitable for pump heads up to 200 l/h. Protection class IP 55 is standard for this drive series. These drives are available in two versions: The VG1000 Basic and the VG1000 Digit. The Basic is a controlled analogue and allows the pump to be controlled manually from 100 - 400 rpm. The Digit can be controlled manually or by remote control using 0-10 Volt or 4-20 mA signals.

- 1 of 3 stage motors

Depending on your application not only normal 1 or 3 stage motors can be mounted but explosion proof and electronically controlled motors can be used pumping



with Verdergear pump heads. Standard rotation speed is 2900 rpm. Other velocities or DC motors are available on request.

It is also possible to equip the pump with an Eex-e or an Eex-de motor.

Pump heads



The Verdergear pump heads have a maximum flow range of 480 l/h at a differential pressure of 7 -16 bar. All pumps are equipped with a magnetic coupled drive and are therefore no shaft seals used. With SS316 pump heads and PEEK for the gears almost all fluids can be transferred. The pumps are

equipped with a built-in by-pass, which ensures effective flow control.



Technical details

With VG 1000 drive

Flow range max.	288 l/h
Differential pressure max.	6 bar
Rotation speed max.	4000 min-1
Control range	1:40 (Basic), 1:100 (Digit)
Voltage	210-240VAC, 50/60Hz, 130 W
Protection class	IP 55
Weight	12 kg.

With DC motor

Flow range max.	480 l/h
Motor supply	0,18 - 0,37 kW
Voltage	230 of 230/400 Volt
Protection class	IP 44 of IP 55 (optional EEX e TS IP 54)
Stages	1 or 3

Application areas:

- Dosing of Polymers
- Cosmetics
- Sugar industry
- Oil refining
- Textile
- Galvanic
- Food

VERDER Group, VERDERGEAR products

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