# Tork Series

HYDRAULIC DOUBLE DIAPHRAGM METERING PUMPS







## Tork Series

Hydraulic double diaphragm

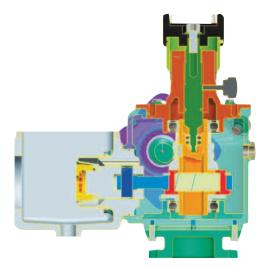
metering pumps

A line hydraulic double diaphragm metering pumps designed according to the API 675 Standards.

Their possibility of construction with various materials allows these metering pumps to satisfy every liquid dosing and mixing application.

Furthermore, their complete compliance with the ATEX Standards even allows for these pumps to be installed in hazardous areas.





#### Mechanisms -

#### **Mechanical return** type available in various sizes.

#### **Main characteristics:**

- Internal worm gearbox, oil bath lubricated with low noise emissions
- Rotating parts on bearings to minimise power consumption
- Each mechanism comes complete with an internal gearbox; pumps with different speeds (strokes/min) can therefore be joined, allowing for greater flexibility in selecting the pumps themselves
- High precision stroke adjustment, both manual and by means of an electric or pneumatic actuator or frequency converter.
- Accuracy within ± 1%

## TY, TT, TH: Hydraulic double diaphragm heads

The ideal solution for applications requiring high levels of operational safety and reliability

- Zero leakage; watertight construction for dosing toxic, corrosive and other hazardous liquids, for which the absence of leaks is fundamental
- Protection against external pollutants which could contaminate the liquid being pumped if using plunger pumps
- Double diaphragm, double protection; if one of the two diaphragms is damaged, the protection system immediately signals the anomaly; the pump is nevertheless permitted to continue to operate, thereby preventing immediate downtime
- Flexibility of use; the PTFE diaphragms are compatible with a vast assortment of liquids
- Flow rate modularity; the rated flow rate can be changed by simply replacing the plunger and the relevant seal cartridge
- Solid suspensions; the diaphragm's proper positioning is ensured by a mechanical system which does not require the use of perforated shields on the process side, thereby allowing for liquids containing solid suspensions to be pumped.
- Construction materials; the parts in the standard configuration that make contact with the liquid are made from AISI 316L stainless steel, PP and PVDF. Other materials available upon request.

#### Mechanical refilling system

Maintains a constant level of the hydraulic fluid, thereby guaranteeing maximum precision and repeatability. Keeping also under control the deformation of diaphragm thereby increasing its duration.

#### Double diaphragm with rupture detector

In the event of a rupture of one of the two diaphragms, the detector activates either a local visual alarm or a pressure switch. The second diaphragms ensure the continued operation of the

pump. This allows for scheduled maintenance.







## Venting system

Aside from guaranteeing automatic venting during operation, the venting system also facilitates the pump priming by favouring the air purge by means of a manual action.

### Pressure relief valve

It protects the pump against unexpected overpressure.

## Cartridge valves

In order to ensure maximum dosing precision, even for small flow rates, double and triple ball configurations are available with high precision seats. The metal gaskets for the AISI 316L stainless steel heads, and the FPM gaskets for those in plastic, guarantee maximum compatibility.



## Flow Rate adjustment

- Easy to handle knob with high visibility nonius for the best flow adjustment.
- Optionally automatic variation by electrical actuators **AKTUA**.

The electrical actuators **AKTUA** were designed to replace the pump manual adjusting device of the flow, with an automatic system remotely controllable, which acts on the length of the pump stroke directly in the field.

- Internal display 4-digit, 7-segment display.
- Calibration can also be executed with system running.
- Available in standard version for installation in areas not classified, or ATEX compliant for installation in dangerous areas.



## **Applications**

## Water treatment and Industrial sectors

- Municipalities
- Wastewater
- Chemical
- Food & Beverages
- Detergents
- Power Generation
- Environment
- Petrochemical
- Pharmaceutical
- Paper
- Textile

# Technical Features

#### Pressure

up to 200 barg

#### Flow Rate

up to 2610 l/h

#### **Temperature**

- Ambient: from -5 °C to 40 °C
- Fluid: from -5 °C to 50 °C

#### Contact materials

AISI 316L; PP; PVDF

### Accessories

- Flow rate calibration pots
- Pulsation dampers
- Safety valves
- Back pressure valves

## **Options**

- Flanged connections
- Heated or cooled heads
- Transmission of the diaphragm rupture signal

### A Worldwide Group at your service

**seko** is an International Group, developing, manufacturing and delivering its products in more than 50 countries, through its subsidiaries and an extended network of distributors, agents and authorized dealers.

**seko** is a leading manufacturer of dosing pumps and dosing systems with more than 40 years experience. This long activity allowed **seko** to acquire a vast experience in diversified applications and to confirm its international success in many industrial fields through the supply of reliable solutions for the dosing, injection and transfer of liquids.



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