HYDRO/2 AND HYDRO/3 MOTOR-DRIVEN METERING PUMPS FROM PROMINENT.
HYDRAULIC SOLUTIONS FOR HIGH PRESSURE APPLICATIONS.
HYDRO/ 2 and HYDRO/ 3: Metering with assurance.

Pro High degree of functionality and long operating life: low maintenance and precision hydraulic controller. Durable diaphragm and long term metering accuracy.

Pro High degree of reliability: bypass valve in the hydraulic end protects against overload. Multi-layer diaphragm with diaphragm rupture signalling fitted as standard – prevents metering chemicals mixing with hydraulic oil.

Pro Higher pressure range: Hydro/ 2 and Hydro/ 3 now offer ProMinent® pump reliability in the pressure range up to 64 bar. Precision metering for every process.
Unlike mechanically coupled diaphragm metering pumps, the Hydro’s power end, moving pistons and metering diaphragms are not mechanically linked. The motor power is transmitted via a camshaft to a hollow piston and the metering diaphragm and the pistons are hydraulically coupled.

Control borings in the pistons close according to the control disc setting. Settings for the volume of hydraulic fluid displaced by the pistons — and thereby the metering stroke — are linear and continuous from 0 to 100%.

A spring drives the piston back to its original position after the discharge stroke, and triggers the priming stroke. An integrated bypass valve protects the pump from any damage that could be caused by excess pressure in the hydraulic end.

HYDRAULIC CONTROL: ”OILING THE WHEELS“ FOR A FRICTION-FREE PROCESS.
Choose between two capacity classes.

**Hydro/2:**
- 60 l/h at 25 bar or 22 l/h at 64 bar.

**Hydro/3:**
- 150 l/h at 25 bar or 60 l/h at 64 bar.

Their broad capacity ranges and safety features make Hydro the first choice for chemical and petrochemical industry processes, and for many other industrial production systems where safety is the deciding factor. The Hydro is a far safer pump than mechanical alternatives. Hydro metering pumps can be fitted with PVDF liquid ends for metering highly corrosive chemicals in the pressure range up to 16 bar.

### UNDER PRESSURE

<table>
<thead>
<tr>
<th>Pump type</th>
<th>Operating at 50 Hz Feed rate at maximum back pressure</th>
<th>Max. stroke rate strokes/ min.</th>
<th>Suction lift mwg</th>
<th>Admissible priming pressure suction side bar</th>
<th>Connection suction/ discharge side inches - DN</th>
<th>Shipping weight kg</th>
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<tr>
<td>Hydro/2</td>
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<tr>
<td>PVDF version, maximum pressure 16 bar.</td>
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Serial success: ProMinent®
Motor-driven diaphragm metering pumps

- **ProMinent® alpha**
  Capacity range:
  - up to 10 bar
  - up to 21 l/h

- **ProMinent® Vario**
  Capacity range:
  - up to 12 bar
  - up to 144 l/h

- **ProMinent® Sigma HM**
  Capacity range:
  - up to 12 bar
  - up to 420 l/h

- **ProMinent® Sigma/3**
  Capacity range:
  - up to 12 bar
  - up to 1030 l/h

- **ProMinent® Makro TZ HM/HMH**
  Capacity range:
  - up to 16 bar
  - up to 2500 l/h

- **ProMinent® Hydro**
  Capacity range:
  - up to 64 bar
  - up to 150 l/h

ProMinent® motor-driven diaphragm piston pumps

- **ProMinent® Sigma HK**
  Capacity range:
  - up to 320 bar
  - up to 76 l/h

- **ProMinent® Meta HK**
  Capacity range:
  - up to 240 bar
  - up to 60 l/h

- **ProMinent® Makro TZ HK**
  Capacity range:
  - up to 320 bar
  - up to 1141 l/h

- **ProMinent® Makro/5**
  Capacity range:
  - up to 320 bar
  - up to 6000 l/h
### Liquid end version

<table>
<thead>
<tr>
<th>Materials in contact with chemicals</th>
<th>PVT</th>
<th>SST</th>
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<tr>
<td>Liquid end</td>
<td>PVDF*</td>
<td>Stainless steel 1.4571</td>
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<tr>
<td>Suction/discharge connector</td>
<td>PVDF*</td>
<td>Stainless steel 1.4581</td>
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<td>Seals</td>
<td>PTFE</td>
<td>PTFE</td>
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<tr>
<td>Valve balls</td>
<td>Ceramic</td>
<td>Stainless steel 1.4401</td>
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<td>Valve seat</td>
<td>PTFE</td>
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*Polyvinylidenefluoride*
The legendary ProMinent® reliability is now available for metering against high back pressures. The ProMinent® Hydro/2 and Hydro/3 are newly developed and, naturally, field-tested motor-driven metering pumps with hydraulic power transmission. The advanced development and functionality of these pumps provides total assurance in the pressure range of up to 64 bar and at a feed rate of up to 150 l/h. Each incorporates a full range of uncompromising safety features, a feed rate that is barely effected by pressure levels and outstanding reproducibility of ±1%. And all these features are guaranteed for the operating life of every pump.

Safety is the top priority - both in the function principle and in the individual component assemblies. For instance, a blockage on the liquid side cannot damage the pump because the hydraulic piston is not attached to the cam. The bypass valve in the hydraulic end prevents damage in the event of pressure overload. And last but not least, the triple-layer safety diaphragm signals the rupture of even one of the layers – effectively preventing hydraulic fluid from entering the metering chemical.
ProMinent Experience – Hydro’s World-Wide Companion.

You can rely on the Hydro pump series naturally on expert advice and care before and during installation, and design assistance when tackling new fluid control applications. In addition, ProMinent is highly accessible. We are represented in all the important industrial centres world-wide. Our consultants and technicians can be on site rapidly to provide technical service, regular maintenance, modification and retrofitting. Their accessibility and your satisfaction are the prime concerns of our specialists.

So you have made two sound choices: firstly in the Hydro/2 and Hydro/3, and secondly in the service team that will help you produce your process system both safely and economically.

Pressure Tight

a day-to-day basis – ProMinent’s high quality standards give you the vital security you require when carrying out commercial processes. Over and above that security, however, we offer more: comprehensive accessories make Hydro universally applicable.

Subject to technical alterations.
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