

## DMH HYDRAULIC PISTON DIAPHRAGM DOSING PUMPS from 0.15 l/h up to 2 x 1500 l/h (200 to 4 bar)

### General

The Grundfos DMH range is a series of extremely strong, robust pumps for applications requiring a reliable dosing and high-pressure capability, such as process engineering. The range is highly versatile: it covers a wide flow range and offers a variety of dosing head sizes, materials and accessories.

### Accurate dosing - all the time

DMH pumps have a very high dosing accuracy and allow an exact reproducibility.

- For DMH25x, the dosing flow fluctuation is  $\leq \pm 1.5\%$  within the 10-100 % control range, and the linearity deviation is  $\pm 2\%$  of the full-scale value.
- For DMH28x, the dosing flow fluctuation is  $\leq \pm 1\%$  within the 10-100 % control range, and the linearity deviation is  $\pm 1\%$  of the full-scale value.

### Smooth and low-pulsation dosing

The DMH range combines sophisticated drive technology and gear kinematics to ensure smooth and low-pulsation dosing without pressure peaks. This means less stress to all system components and leads to longer service intervals for the entire system.

### Motors to match application needs

For applications with specific motor requirements, the versatile DMH range offers high-quality motors for 50 Hz, 60 Hz, 100 Hz (with Variable Frequency Drive VFD) as well as EX classified or ATEX-certified motors, if required.

### Perfect material selection - for housing and liquid-wetted parts

The DMH models have a robust cast-aluminium housing with epoxy coating to meet all application needs (grey cast-iron if API 675 is required).

A wide choice of materials for dosing head, valves and accessories allows selecting exactly the degree of chemical resistance required. All liquid-wetted parts need to be resistant to the chemicals used. The diaphragm is made of full-PTFE material.

### Safe and trouble-free operation

The serially integrated pressure relief valve and active diaphragm protection system (AMS) keep the pump and the entire system protected against overpressure, if the discharge line is blocked. In addition, the degassing valve at the pump guarantees high functional safety of the pump, the installation and the whole process. Due to their aluminium enclosure and the piston diaphragm technology, DMH pumps have a very long operating life and long service intervals.

### Approvals and certificates

For potentially explosive areas we offer EX classified or ATEX-certified motors and pumps. For applications in the petrochemistry we provide DMH dosing pumps with API 675 certificates.

### Flexibility - in pump configuration and applications

A number of different product configurations are available to match requirements:

- Flexible control concept for flow rate, manual or automatic stroke-length adjustment with electric servomotor.
- Pumps fitted with double diaphragm with failure indication, or special dosing heads with electrical heating.

Universal fields of application are possible for this pump series due to the full-PTFE dosing diaphragm. Wetted parts are available in material combinations that suit virtually all dosing tasks. Choose the best configuration for your specific dosing task.

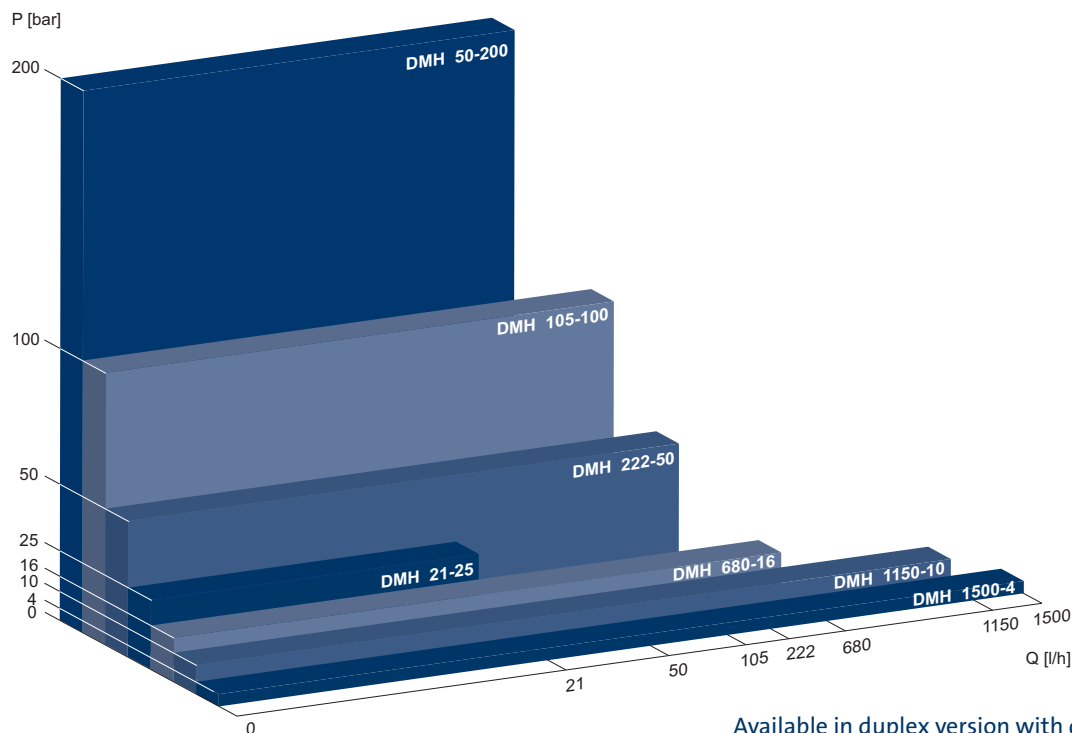
## Variants

<b>Dosing head</b>	<ul style="list-style-type: none"> <li>• PP</li> <li>• PVDF</li> <li>• Stainless steel 1.4571 (EN 10027-2) 316 Ti (AISI)</li> <li>• PVC</li> </ul> <p>All dosing head materials are also available with diaphragm leakage detection.</p> <p>On request</p> <ul style="list-style-type: none"> <li>• Stainless steel with electrical heating flange</li> <li>• Stainless steel PTFE-coated</li> <li>• Alloy C-4 (2.4610), EN 10027-2</li> </ul>
<b>Gasket</b>	<ul style="list-style-type: none"> <li>• EPDM</li> <li>• FKM</li> <li>• PTFE</li> </ul>
<b>Valve ball</b>	<ul style="list-style-type: none"> <li>• Glass</li> <li>• PTFE</li> <li>• Stainless steel, 1.4401 (EN 10027-2) 316 (AISI)</li> <li>• Ceramic</li> </ul> <p>On request</p> <ul style="list-style-type: none"> <li>• Alloy C-4 (2.4610), EN 10027-2</li> </ul>
<b>Valve type</b>	<ul style="list-style-type: none"> <li>• Not spring-loaded</li> <li>• Spring-loaded</li> <li>• Spring-loaded, discharge side only</li> </ul>

## Application areas

<b>Power plants</b>	<ul style="list-style-type: none"> <li>• Dosing of ammonia, hydrazine, phosphates in high-pressure areas (boiler feed water)</li> <li>• Dosing of various chemicals for treatment of cooling water and process water</li> </ul>
<b>Petrochemical industry, refinery</b>	<ul style="list-style-type: none"> <li>• Dosing of wax, inhibitors and anticorrosion chemicals to protect oil pipelines</li> <li>• Dosing of inhibitors, additives and catalysts</li> <li>• Dosing of chemicals for treatment of cleaning water and process water</li> </ul>
<b>Treatment of process water and drinking water</b>	<ul style="list-style-type: none"> <li>• Rough environments (hot climate, desert, outdoor installations)</li> <li>• At higher pressures and flow rates</li> </ul>
<b>Ex zones</b>	<ul style="list-style-type: none"> <li>• ATEX Directive 94/9/EC</li> <li>• Group II, category 2 (zone 1/21)</li> <li>• Group II, category 3 (zone 2/22)</li> </ul>
<b>Dosing of flammable liquids</b>	<ul style="list-style-type: none"> <li>• Dosing of alcohol or methanol in wastewater treatment</li> <li>• Cleaning of kerosene and petrol in mechanical engineering and airport areas</li> <li>• Dosing of ethanol and methanol</li> <li>• Dosing of food-grade alcohol for disinfection in meat and bread packaging</li> </ul>

## Performance range DMH (50 Hz)



Available in duplex version with double flow capacity.  
For performance ranges 60 Hz and 100 Hz, please see data booklet DMH.