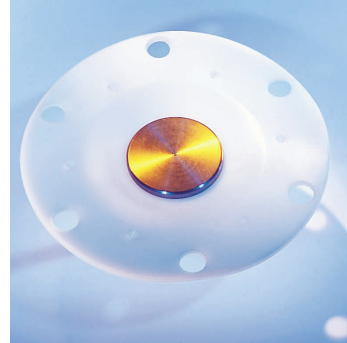
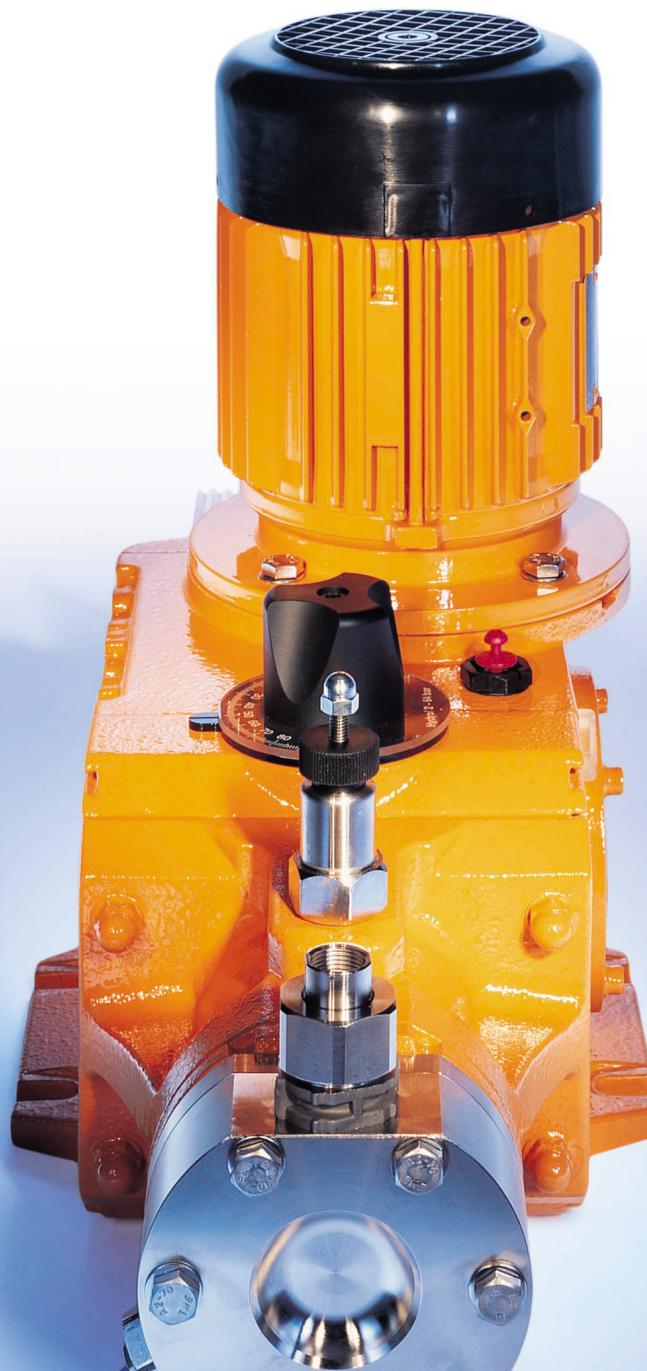


HYDRO/ 2 AND HYDRO/ 3 MOTOR-DRIVEN METERING PUMPS  
FROM ProMinent.

HYDRAULIC SOLUTIONS FOR HIGH PRESSURE APPLICATIONS.



# HIGH PRESSURE



ProMinent®

## HYDRO/ 2 AND HYDRO/ 3: METERING WITH ASSURANCE.

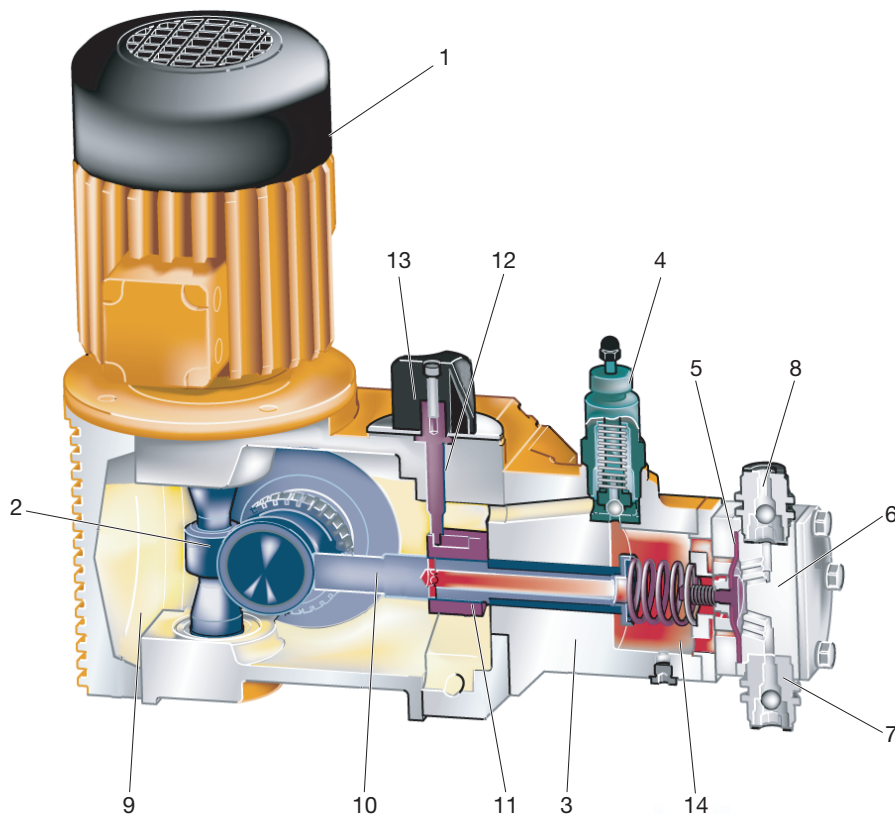
**Pro** High degree of functionality and long operating life:  
low maintenance and precision hydraulic controller.  
Durable diaphragm and long term metering accuracy.

**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.



## HYDRAULIC CONTROL: "OILING THE WHEELS" FOR A FRICTION-FREE PROCESS.



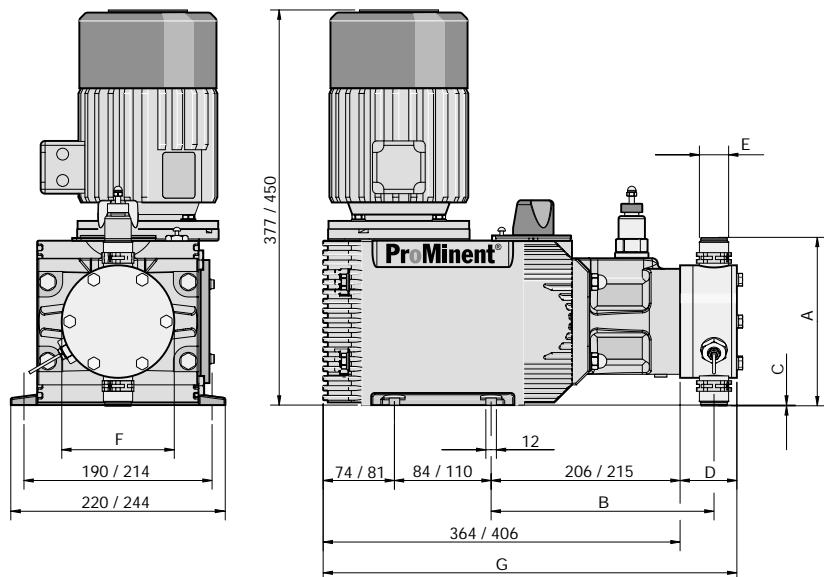
Unlike mechanically coupled diaphragm metering pumps, the Hydro's power end, moving pistons and metering diaphragms are not mechanically linked. The motor power is transmitted via a camshaft to a hollow piston and the metering diaphragm and the pistons are hydraulically coupled.

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.

- 1 Motor
- 2 Power end
- 3 Hydraulic end
- 4 By-pass valve
- 5 Metering diaphragm
- 6 Liquid end
- 7 Priming valve
- 8 Discharge valve
- 9 Oil
- 10 Piston
- 11 Controller recorder
- 12 Adjuster
- 13 Adjusting knob
- 14 Piston spring





Type Hydro/ 2	A	B	C	D	E	F	G
SS 064007, 064015, 064018, 064022	152	239	7	50	DN10 G% <sup>1</sup> /A	108	414
SS 025019, 025040, 025048, 025060	165	240	0.5	51	DN10 G% <sup>1</sup> /A	108	415
Type Hydro/ 3	A	B	C	D	E	F	G
SS 064019, 064040, 064048, 064060	165	240	12.5	51	DN10 G% <sup>1</sup> /A	108	457
SS 025048, 025100, 025120, 025150	191	247	-0.5	65	DN15 G1A	128	471

Detailed measurement data sheets on request.



# UNDER PRESSURE

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.

Pump type Hydro/ 2	Operating at 50 Hz Feed rate at maximum back pressure			Max. stroke rate	Suction lift	Admissible priming pressure suction side	Connection suction/ discharge side	Shipping weight
	bar	l/h	ml/ stroke					
064007	64	7	2	60	3	1	3/4 - 10	31
064015	64	15	2	125	3	1	3/4 - 10	31
064018	64	18	2	150	3	1	3/4 - 10	31
064022	64	22	2	187	3	1	3/4 - 10	31
025019	25	19	5.3	60	3	1	3/4 - 10	31
025040	25	40	5.3	125	3	1	3/4 - 10	31
025048	25	48	5.3	150	3	1	3/4 - 10	31
025060	25	60	5.3	187	3	1	3/4 - 10	31
<b>Hydro/ 3</b>								
064019	64	19	5.3	60	3	1	3/4 - 10	41
064040	64	40	5.3	125	3	1	3/4 - 10	41
064048	64	48	5.3	150	3	1	3/4 - 10	41
064060	64	60	5.3	187	3	1	3/4 - 10	41
025048	25	48	13.4	60	3	1	1 - 15	41
025100	25	100	13.4	125	3	1	1 - 15	41
025120	25	120	13.4	150	3	1	1 - 15	41
025150	25	150	13.4	187	3	1	1 - 15	41

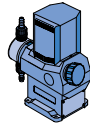
PVDF version, maximum pressure 16 bar.



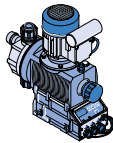
## SERIAL SUCCESS: PROMINENT® MOTOR-DRIVEN DIAPHRAGM METERING PUMPS



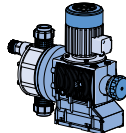
**ProMinent®  
alpha**  
Capacity range:  
up to 10 bar  
up to 21 l/h



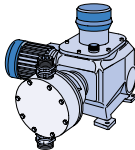
**ProMinent®  
Vario**  
Capacity range:  
up to 12 bar  
up to 144 l/h



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

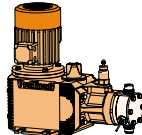


**ProMinent®  
Sigma/ 3**  
Capacity range:  
up to 12 bar  
up to 1030 l/h

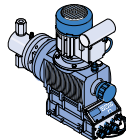


**ProMinent®  
Makro TZ HM/HMH**  
Capacity range:  
up to 16 bar  
up to 2500 l/h

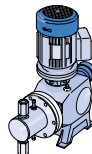
**ProMinent®  
Hydro**  
Capacity range:  
up to 64 bar  
up to 150 l/h



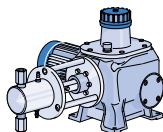
## PROMINENT® MOTOR-DRIVEN DIAPHRAGM PISTON PUMPS



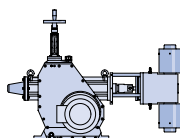
**ProMinent®  
Sigma HK**  
Capacity range:  
up to 320 bar  
up to 76 l/h



**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



# SURE

Materials in contact with chemicals	Liquid end version	
	PVT	SST
Liquid end	PVDF*	Stainless steel 1.4571
Suction/ discharge connector	PVDF*	Stainless steel 1.4581
Seals	PTFE	PTFE
Valve balls	Ceramic	Stainless steel 1.4401
Valve seat	PTFE	PTFE

\*Polyvinylidene fluoride



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

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  $\pm 1\%$ . And all these

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

# PRESSURE POINT

Double dosing:  
One pump housing;  
two liquid ends



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

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.

layers – effectively preventing hydraulic fluid from entering the metering chemical.



## PROMINENT EXPERIENCE – HYDRO'S WORLD-WIDE COMPANION.



ProMinent service –  
sound advice  
in all situations



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 applica-  
tions.

In addition, ProMinent is  
highly accessible. We are

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:

represented in all the  
important industrial  
centres world-wide.  
Our consultants and  
technicians can be on  
site rapidly to provide  
technical service, regular  
maintenance, modifica-  
tion and retrofitting. Their  
accessibility and your  
satisfaction are the prime  
concerns of our specia-  
lists.



Comprehensive  
accessories make  
Hydro universally  
applicable



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ProMinent®