

2.6 ProMinent® Hydro Hydraulic Diaphragm Metering Pumps

2.6.2 Technical Data Hydro/ 2 & Hydro/ 3

Type HP2aH	With motor 1500 rpm at 50 Hz				With motor 1800 rpm at 60 Hz				Suction height	Perm. admiss. pressure suction side	Connection on suction/ pressure side	Shipping weight
	Delivery rate at max. back pressure	Max. stroke rate			Delivery rate at max. back pressure	Max. stroke rate						
	bar	l/h	ml/stroke	strokes/min	psi	l/h / gph	min	mWC	bar	G-DN	kg	
100003*	100	3	0.8	60	1,450	3.6/1.0	72	3.0	5	Rp 1/4	31	
100006*	100	6	0.8	125	1,450	7.0/1.8	150	3.0	5	Rp 1/4	31	
100007*	100	7	0.8	150	1,450	8.0/2.1	180	3.0	5	Rp 1/4	31	
100009*	100	9	0.8	187	1,450	11.0/2.9	224	3.0	5	Rp 1/4	31	
100010*	100	10	0.8	212	–	–	–	3.0	5	Rp 1/4	31	
064007	64	7	2.0	60	928	8.4/2.2	72	3.0	5	G 3/4-10	31	
064015	64	15	2.0	125	928	18.0/4.8	150	3.0	5	G 3/4-10	31	
064018	64	18	2.0	150	928	21.0/5.5	180	3.0	5	G 3/4-10	31	
064022	64	22	2.0	187	928	26.0/6.9	224	3.0	5	G 3/4-10	31	
064025	64	25	2.0	212	–	–	–	3.0	5	G 3/4-10	31	
025019	25	19	5.3	60	362	23.0/6.	172	3.0	5	G 3/4-10**	31	
025040	25	40	5.3	125	362	48.0/12.7	150	3.0	5	G 3/4-10**	31	
025048	25	48	5.3	150	362	58.0/15.3	180	3.0	5	G 3/4-10**	31	
025060	25	60	5.3	187	362	72.0/19.0	224	3.0	5	G 3/4-10**	31	
025068	25	68	5.3	212	–	–	–	3.0	5	G 3/4-10**	31	

Material version PVDF max. 25 bar.

* Material version SST/HCT with double ball valve, valve connection on suction/pressure side with internal thread Rp 1/4 and external, thread G 3/4-DN 10

** HV version for G1-DN 15 designed as standard

Material in contact with media

Material	Liquid End	Suction/Discharge connector	Seals/ball seat	Valve Balls
SST	stainless steel no. 1.4571/1.4404	stainless steel no. 1.4581	PTFE/ZrO2	stainless steel
PVT	PVDF (Polyvinylidenfluoride)	PVDF (Polyvinylidenfluoride)	PTFE/PTFE	ceramic
HCT	Hast. C	Hast. C	PTFE/Hast. C	ceramic

Type HP3aH	With motor 1500 rpm at 50 Hz				With motor 1800 rpm at 60 Hz				Suction height	Perm. admiss. pressure suction side	Connection on suction/ pressure side	Shipping weight
	Delivery rate at max. back pressure	Max. stroke rate			Delivery rate at max. back pressure	Max. stroke rate						
	bar	l/h	stroke	min	psi	l/h / gph	min	mWC	bar	G-DN	kg	
100010*	100	10	2.8	60	1,450	12.0/3.2	72	3.0	5	Rp 3/8-10	41	
100021*	100	21	2.8	125	1,450	25.0/6.6	150	3.0	5	Rp 3/8-10	41	
100025*	100	25	2.8	150	1,450	30.0/7.9	180	3.0	5	Rp 3/8-10	41	
100041*	100	41	2.8	187	1,450	37.0/9.8	224	3.0	5	Rp 3/8-10	41	
100035*	100	35	2.8	212	–	–	–	3.0	5	Rp 3/8-10	41	
064019	64	19	5.3	60	928	23.0/6.1	72	3.0	5	G 3/4-10**	41	
064040	64	40	5.3	125	928	48.0/12.7	150	3.0	5	G 3/4-10**	41	
064048	64	48	5.3	150	928	58.0/15.3	180	3.0	5	G 3/4-10**	41	
064060	64	60	5.3	187	928	72.0/19.0	224	3.0	5	G 3/4-10**	41	
064068	64	68	5.3	212	–	–	–	3.0	5	G 3/4-10**	41	
025048	25	48	13.4	60	362	58.0/15.3	172	3.0	5	G 1-15***	41	
025100	25	100	13.4	125	362	120.0/31.7	150	3.0	5	G 1-15***	41	
025120	25	120	13.4	150	362	144.0/38.0	180	3.0	5	G 1-15***	41	
025150	25	150	13.4	187	362	180.0/47.6	224	3.0	5	G 1-15***	41	
025170	25	170	13.4	212	–	–	–	3.0	5	G 1-15***	41	

Material version PVDF max. 25 bar.

* Material version SST/HCT with double ball valve, valve connection on suction/pressure side, with internal thread Rp 3/8 and external, thread G 3/4-DN 10

** HV version for G1-DN 15 designed as standard

*** HV version for G1 1/4"-DN 20 connection

Material	Liquid End	Suction/Discharge connector	Seals/ball seat	Valve Balls
SST	stainless steel no. 1.4571/1.4404	stainless steel no. 1.4581	PTFE/ZrO2	stainless steel
PVT	PVDF (Polyvinylidenfluoride)	PVDF (Polyvinylidenfluoride)	PTFE/PTFE	ceramic
HCT	Hast. C	Hast. C	PTFE/Hast. C	ceramic



2.6 ProMinent® Hydro Hydraulic Diaphragm Metering Pumps

2.6.5 Identity Code Ordering System For Hydro/ 3 - SINGLE HEAD

HP3a Hydro/ 3

H Main power end

Pump type:		Pump type:		Pump type:	
100010	100 bar, 10 litre	064019	64 bar, 19 litre	025048	25 bar, 48 litre
100021	100 bar, 21 litre	064040	64 bar, 40 litre	025100	25 bar, 100 litre
100025	100 bar, 25 litre	064048	64 bar, 48 litre	025120	25 bar, 120 litre
100031	100 bar, 31 litre	064060	64 bar, 60 litre	025150	25 bar, 150 litre
100035	100 bar, 35 litre	064068	64 bar, 68 litre	025170	25 bar, 170 litre

PVT Liquid End Maximum 25 Bar

Liquid end material:

- PV PVDF
- SS Stainless steel
- HC Hastalloy C

Seal material:

- T PTFE seal

Positive displacement element:

- 0 Standard multi-layer diaphragm with rupture protection signal

Liquid end version:

- 0 No valve springs
- 1 With valve springs
- D Double ball valve (only for SST & HCT 100010-100035, 064019-064060)
- H HV-Version (only for SST version)

Hydraulic connector:

- 0 Standard threaded connector *SEE NOTE IN BOX BELOW*
- E With DIN ISO flange
- F With ANSI flange

Version:

- 0 With ProMinent® logo
- 1 Without ProMinent® logo

Power supply:

- S 3 ph. 230V/400V 50/60 Hz, 0.75kW
- L 3 ph. 230V/400V 50 Hz (EExe, EExde) } See Enclosure Rating
- P 3 ph. 230V/400V 60 Hz (EExe, EExde) } See Enclosure Rating
- R 3ph, variable speed motor 4 pol. 230/400V
- V (0) var. speed motor with integral speed control 230/1/50
- V (2) var. speed motor with integral speed control Exd

Enclosure rating:

- 0 IP 55
- 1 Exe motor version (ATEX-T3)
- 2 Exde motor version (ATEX-T4)

Stroke sensor:

- 0 No stroke sensor (standard)
- 1 Stroke sensor for explosion-proof applications

Stroke length adjustment:

- 0 Manual (standard)
- 1 With stroke positioning motor, 230V/50/60Hz
- 2 With stroke positioning motor, 115V/60Hz
- B With stroke control motor, 4...20 mA 230V/50/60Hz
- D With stroke control motor, 4...20 mA 115V/50/60Hz

Hydraulic oil:

- 0 Standard
- 1 Food products grade
- 2 Temp. < 10 °C

Note: For pumps 100010 to 100035 the connection size is 3/8" BSPF

Connection Sizes for PVDF

P0 - 064019 - 064040 - 064048 - 064060 - 064068
 1/2" Male BSPT PVDF adaptor
 025048 - 025100 - 025120 - 025150 - 025170
 3/4" Male BSPT PVDF adaptor

for SS

064019 - 064040 - 064048 - 064060 - 064068
 3/8" Female BSP insert and union nut
 025048 - 025100 - 025120 - 025150 - 025170
 1/2" Female BSP insert and union nut

HP3a H 100035 SS T 0 0 0 0 S 0 0 0 0



2.6 ProMinent® Hydro Hydraulic Diaphragm Metering Pumps

2.6.6 Identity Code Ordering System For Hydro/ 3 - DOUBLE HEAD

HP3a Hydro/ 3 **NOTE: Capacities shown are per Head**

D Main power end, duplexed	
Pump type:	Pump type:
100010 100 bar, 10 litre	064019 64 bar, 19 litre
100021 100 bar, 21 litre	064040 64 bar, 40 litre
100025 100 bar, 25 litre	064048 64 bar, 48 litre
100031 100 bar, 31 litre	064060 64 bar, 60 litre
100035 100 bar, 35 litre	064068 64 bar, 68 litre
PVT Liquid End Maximum 25 Bar	
	Pump type:
	025048 25 bar, 48 litre x 2
	025100 25 bar, 100 litre x 2
	025120 25 bar, 120 litre x 2
	025150 25 bar, 150 litre x 2
	025170 25 bar, 170 litre x 2
Liquid end material:	
PV	PVDF
SS	Stainless steel
HC	Hastalloy C
Seal material:	
T	PTFE seal
Positive displacement element:	
0	Standard multi-layer diaphragm with rupture protection signal
Liquid end version:	
0	No valve springs
1	With valve springs
D	Double ball valve (only for SST & HCT 100010-100035, 064019-064060)
H	HV-Version (only for SST version)
Hydraulic connector:	
0	Standard threaded connector SEE NOTE IN BOX BELOW
E	With DIN ISO flange
F	With ANSI flange
Version:	
0	With ProMinent® logo
1	Without ProMinent® logo
Power supply:	
S	3 ph. 230 V/400 V 50/60 Hz, 0.75kW
L	3 ph. 230 V/400 V 50 Hz (EExe, EExde) } See Enclosure Rating
P	3 ph. 230 V/400 V 60 Hz (EExe, EExde) } See Enclosure Rating
R	3ph, variable speed motor 4 pol. 230/400 V
V (0)	var. speed motor with integral speed control 230/1/50
V (2)	var. speed motor with integral speed control Exd
Enclosure rating:	
0	IP 55
1	Exe motor version (ATEX-T3)
2	Exde motor version (ATEX-T4)
Stroke sensor:	
0	No stroke sensor (standard)
1	Stroke sensor for explosion-proof applications
Stroke length adjustment:	
0	Manual (standard)
1	With stroke positioning motor, 230V/50/60Hz
2	With stroke positioning motor, 115V/60Hz
B	With stroke control motor, 4...20 mA 230 V/50/60Hz
D	With stroke control motor, 4...20 mA 115 V/50/60Hz
Hydraulic oil:	
0	Standard
1	Food products grade
2	Temp. < 10 °C

Note: For pumps 100010 to 100035 the connection size is 3/8" BSPF

Connection Sizes for PVDF

064019 - 064040 - 064048 - 064060 - 064068

1/2" Male BSPT PVDF adaptor

025048 - 025100 - 025120 - 025150 - 025170

3/4" Male BSPT PVDF adaptor

for SS

064019 - 064040 - 064048 - 064060 - 064068

3/8" Female BSP insert and union nut

025048 - 025100 - 025120 - 025150 - 025170

1/2" Female BSP insert and union nut

HP3a D 025120 SS T 0 0 0 0 S 0 0 0 0



2.6 ProMinent® Hydro Hydraulic Diaphragm Metering Pumps

2.6.10 Spare Parts Kits

The spare parts kits generally contain the consumable components for the liquid ends.

Supplied as standard for SST material version

- 1 x dosing diaphragm
- 2 x valve balls
- 1 x seal set

Supplied as standard for PVT material version

- 1 x dosing diaphragm
- 1 x suction connector set
- 1 x discharge connector set
- 1 x seal set

Spare parts kits Hydro/ 2

Applies to identity code:

Type 100010, 100009, 100007, 100006, 100003,
064025, 064022, 064018, 064015, 064007,

		Part No.
FMH 25 - DN 10	PVT	1005548
	SST	1005549
	SST (with 2 valve set)	1005550

Applies to identity code:

Type 025068, 025060, 025048, 025040, 025019

FMH 60 - DN 10	PVT	1005552
	SST	1005553
	SST (with 2 valve set)	1005554

Spare parts kits Hydro/ 3

Applies to identity code:

Type 100035, 100031, 100025, 100021, 100010, 064068,
064060, 064048, 064040, 064019

		Part No.
FMH 60 - DN 10	PVT	1005552
	SST	1005553
	SST (with 2 valve set)	1005554

Applies to identity code:

Type 025170, 025150, 025120, 025100, 025048

FMH 150 - DN 15	PVT	1005556
	SST	1005557
	SST (with 2 valve set)	1005558

Pump Diaphragms PTFE/SS - 1.4404

FMH 25 applies to identity code:

Type 100010, 100009, 100007, 100006, 100003,
064025, 064022, 064018, 064015, 064007,

	Part No.
	1005545

FMH 60 applies to identity code:

Type 025068, 025060, 025048, 025040, 025019, 100035, 100031, 100025, 064068,
100021, 100010, 064060, 064048, 064040, 064019

	1005546
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FMH 150 applies to identity code:

025150, 025120, 025100, 025048

	1005547
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Pump Diaphragms PTFE/Hastalloy C covered with PTFE

FMH 25 applies to identity code:

064025, 064022, 064018, 064015, 064007

	Part No.
	1006481

FMH 60 applies to identity code:

025068, 025060, 025048, 025040, 025019, 064068, 064060, 064048, 064040, 064019

	1006482
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FMH 150 applies to identity code:

025170, 025150, 025120, 025100, 025048

	1006483
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