

# ProMinent Fluid Controls Pty Ltd

**ProMinent®**



## ProMinent® ProMus Hydraulic Diaphragm Pumps

The ProMus is a motor driven metering pump with a hydraulically actuated diaphragm. The drive case and the hydraulic unit are filled with a liquid that functions as a hydraulic coupling. A plunger connects the drive case with the hydraulic unit. The dosing diaphragm separates the hydraulic part of the pump from the dosing unit. The movement of the diaphragm depends on the amount of liquid displaced by the plunger.

### ProMinent® ProMus Design Specifications

The ProMinent ProMus is a motor driven metering pump incorporating a hydraulically balanced Teflon diaphragm. The drive case is cast iron incorporating a worm gear set (5 Ratios available) driving a rotating eccentric. The locking stroke adjuster varies the flow from 100% to 0% in 1% increments. The pump is built in accordance to API 675 standards. The hydraulic system transfers the rotating eccentric motion to diaphragm movement by way of a reciprocating plunger (8 plunger diameters available). The plunger and diaphragm are hydraulically coupled (no mechanical connection). Coupling compliance is precisely controlled by a mechanically actuated replenishment valve, which senses diaphragm position to admit coupling fluid as required. The coupling fluid is automatically degassed to maintain accuracy and drive case is protected from overload by a simple acting relief valve. The hydraulic system is separated from the fluid end by a Teflon diaphragm completely isolating the pumped fluid from the surroundings. The fluid end is currently available in Stainless Steel.

## ProMinent® ProMus Benefits

- Flow rates up to 382 L/h and Pressures up to 241 bar
- Hydraulically actuated diaphragm ensuring a sealed pumping system for corrosive or toxic chemicals with superior leak protection.
- Built in accordance to API 675 standards suitable for heavy industrial applications and specifications.
- Robust cast iron drive construction ideal for applications such as boiler feeds, catalyst feed, dye injection and petrochemicals
- Flexible design for a wide range of applications including water treatment and high pressure chemical refining.
- Fast and Easy field maintenance with minimal downtime.

Promus\_230307

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# ProMinent® ProMus Piston Diaphragm Dosing Pumps

## PROMUS1

## SS Liquid End

Pump Version	Pump Size	Nominal Plunger	Max. Bar	l/hr	Gear Ratio	Strokes per min	Suction/ Discharge BSPF
17	A	10	241	2.45	40	36	1/4"
17	A	10	241	3.29	30	48	1/4"
17	A	10	241	6.56	15	96	1/4"
17	A	10	241	7.88	12.5	115	1/4"
17	B	11	241	3.36	40	36	1/4"
17	B	11	241	4.46	30	48	1/4"
17	B	11	241	8.94	15	96	1/4"
17	B	11	241	10.72	12.5	115	1/4"
30	A	16	143	7.26	40	36	1/4"
30	A	16	143	9.68	30	48	1/4"
30	A	16	143	19.37	15	96	1/4"
30	A	16	143	23.24	12.5	115	1/4"
30	B	21	85	12.27	40	36	3/8"
30	B	21	85	16.37	30	48	3/8"
30	B	21	85	32.73	15	96	3/8"
30	B	21	85	39.28	12.5	115	3/8"
30	C	29	44	25.61	40	36	3/8"
30	C	29	44	34.14	30	48	3/8"
30	C	29	44	68.29	15	96	3/8"
30	C	29	44	81.95	12.5	115	3/8"
40	A	45	18	61.97	40	36	3/4"
40	A	45	18	82.62	30	48	3/4"
40	A	45	18	165.24	15	96	3/4"
40	A	45	18	198.29	12.5	115	3/4"
40	B	51	14	80.94	40	36	3/4"
40	B	51	14	107.91	30	48	3/4"
40	B	51	14	215.83	15	96	3/4"
40	B	51	14	258.99	12.5	115	3/4"
40	C	57	11	102.43	40	36	3/4"
40	C	57	11	136.58	30	48	3/4"
40	C	57	11	273.16	15	96	3/4"
40	C	57	11	327.79	12.5	115	3/4"

Motor 0.37 kw 4 pole 415/3/50 IP55

## Liquid End Materials in Contact with Chemical

Material	Liquid End	Suction/ Discharge	Seals/ Ball Seat	Valve Balls
SS	Stainless Steel	Stainless Steel 1.4581	PTFE	Stainless Steel

# ProMinent® ProMus

## Piston Diaphragm Dosing Pumps

### PROMUS1

### PVT Liquid End

Pump Version	Pump Size	Nominal Plunger	Max. Bar	l/hr	Gear Ratio	Strokes per min	Suction/ Discharge Tube/BSPM
17	A	10	16	2.45	40	36	20x1.5
17	A	10	16	3.29	30	48	20x1.5
17	A	10	16	6.56	15	96	20x1.5
17	A	10	16	7.88	12.5	115	20x1.5
17	B	11	16	3.36	40	36	20x1.5
17	B	11	16	4.46	30	48	20x1.5
17	B	11	16	8.94	15	96	20x1.5
17	B	11	16	10.72	12.5	115	20x1.5
30	A	16	16	7.26	40	36	20x1.5
30	A	16	16	9.68	30	48	20x1.5
30	A	16	16	19.37	15	96	20x1.5
30	A	16	16	23.24	12.5	115	20x1.5
30	B	21	16	12.27	40	36	1/2"
30	B	21	16	16.37	30	48	1/2"
30	B	21	16	32.73	15	96	1/2"
30	B	21	16	39.28	12.5	115	1/2"
30	C	29	16	25.61	40	36	1/2"
30	C	29	16	34.14	30	48	1/2"
30	C	29	16	68.29	15	96	1/2"
30	C	29	16	81.95	12.5	115	1/2"
40	A	45	16	61.97	40	36	1"
40	A	45	16	82.62	30	48	1"
40	A	45	16	165.24	15	96	1"
40	A	45	16	198.29	12.5	115	1"
40	B	51	14	80.94	40	36	1"
40	B	51	14	107.91	30	48	1"
40	B	51	14	215.83	15	96	1"
40	B	51	14	258.99	12.5	115	1"
40	C	57	11	102.43	40	36	1"
40	C	57	11	136.58	30	48	1"
40	C	57	11	273.16	15	96	1"
40	C	57	11	327.79	12.5	115	1"

Motor 0.37 kw 4 pole 415/3/50 IP55

### Liquid End Materials in Contact with Chemical

Material	Liquid End	Suction/ Discharge	Seals/ Ball Seat	Valve Balls
PVT	PVT	PVDF/PTFE	PTFE	Ceramic

# ProMinent® ProMus Piston Diaphragm Dosing Pumps

Series:

PROMUS1

<b>17 A/B</b>	SS1 006X11A	<b>30 A/B/C</b>	SS1 006X11 F	<b>40 A/B/C</b>	SS1 006X11I
	SS2 006X11A		SS2 006X11 F		PVT 006X11I
	SS3 006X11A		SS3 006X11 F		HC1 006X11I
	PVT 006X11A		PVT 006X11 F		
	HC1 006X11A		HC1 006X11 F		
	HC2 006X11A		HC2 006X11 F		
	HC3 006X11A		HC3 006X11 F		

**Note: PVT MAX 16 Bar**

	<b>Pump version:</b>
17A	Size 17 liquid end with 3/8" (9.53 mm dia.) Plunger
17B	Size 17 liquid end with 7/16" (11.11 mm dia.) Plunger
30A	Size 30 liquid end with 5/8" (15.88 mm dia.) Plunger
30B	Size 30 liquid end with 13/16" (20.64 mm dia.) Plunger
30C	Size 30 liquid end with 1-1/8" (28.58 mm dia.) Plunger
40A	Size 40 liquid end with 1-3/4" (44.45 mm dia.) Plunger
40B	Size 40 liquid end with 2" (50.8 mm dia.) Plunger
40C	Size 40 liquid end with 2-1/4" (57.15 mm dia.) Plunger

	<b>Liquid end material:</b>
SS1	316 Stainless steel Single ball check
SS2	316 Stainless steel Double ball check ( <i>Needed for applications above 35 bar</i> )
SS3	316 St. steel Single inlet, double outlet ( <i>Recommended for Flooded suction w/ discharge pressure above 35 bar</i> )
PVT	PVDF/PTFE size 17 double inlet & outlet, sizes 30/40 single inlet & outlet
HC1	Hastelloy C Single ball check
HC2	Hastelloy C Double ball check
HC3	Hastelloy C Single inlet, double outlet ( <i>Recommended for Flooded suction with discharge pressure above 35 bar</i> )

	<b>Connectors:</b>
0	Standard (In accordance with technical data)
1	BSPF - SS/HC
2	BSPM - PVT

	<b>Gear ratio:</b>
06	12.5:1 IEC (IEC 71 with B5 flange)
07	15:1 IEC (IEC 71 with B5 flange)
08	30:1 IEC (IEC 71 with B5 flange)
09	40:1 IEC (IEC 71 with B5 flange)
10	50:1 IEC (IEC 71 with B5 flange)

	<b>Motor:</b>
X	No motor included
D	0.37 kw TEFC Standard Motor IP55

	<b>Base:</b>
0	Standard

	<b>Stroke adjustment:</b>
1	Manual stroke adjustment
7	Explosion proof stroke position motor (Nema 7)

	<b>Internal relief valve:</b>
A	238 bar size 17
B	141 bar size 17
C	84 bar size 17
D	44 bar size 17
E	20 bar size 17
F	141 bar size 30
G	84 bar size 30
H	44 bar size 30
I	18 bar sizes 30 & 40
J	14 bar sizes 30 & 40
K	11 bar size 30B,C & 40

	<b>Hydraulic oil:</b>
0	Standard

PROMUS1 30A PVT 2 08 D 0 1 K 0

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