

1.1 ProMinent® Beta b 4 & 5 Metering Pumps

1.1.1

ProMinent® Beta



- Capacity range 0.74 - 32 l/h, 2 - 25 bar
- Continuous stroke length adjustment from 0 - 100 % (recommended 30-100%)
- Supplied in PP, PVC, Acrylic/PVC, PVDF, PTFE, stainless steel
- Patented coarse/fine, manual bleeding on PP, PVC and PVT Acrylic/PVC versions
- Self-deaerating dosing head type in PP and Plexi/PVC
- HV liquid end for highly viscous media
- 10-setting stroke frequency adjustment from 10 - 100 %
- External control via volt-free contacts
- External contact input with pulse control as standard 1:64 to 64:1
- Connector for dual-setting level switch
- 3 LED display for operation, warning and fault indication
- Wide range power supply 100-230 volt 50/60 Hz
- Milliamp input option 4-20 mA

The Beta range represents a new generation of ProMinent® solenoid diaphragm Metering Pumps. These micro-processor controlled pumps set new standards of operating safety and versatility: power surge compensation, wide-ranging power-supply adaptability, triple LED operating-status display and flexible control options, including external contact, volt-free ON/OFF control, and external frequency adjustment via volt-free contacts make these pumps ideal for the water treatment industry.

The 10 settings used to adjust dosing-frequency, along with “external”, “stop” and “test” settings are selected using a multi-function knob. Dosing heads are specifically designed in materials which withstand the chemicals used in this field: acids, alkalis, disinfectants, flocculation additives. In “test” mode, the pump operates at maximum frequency. On release, the spring-loaded button returns to “stop”. Variable stroke length adjustment enables precise selection of dosing capacity.

These settings options result in accurate dosing, and precise reproducibility of the required frequency. High frequencies ensure thorough blending of chemicals. A longer stroke length and correct installation ensures reliable dosing of highly viscous liquids. Self-deaerating dosing heads are available for gaseous chemicals. To complete the safety package we offer an optional dual-setting level switch to monitor chemical levels in containers. The hard-wearing drive systems for these solenoid diaphragm pumps meet the usual ProMinent® high standards of quality. The housing is made from glass-fibre reinforced PPE and carries IP 65 protection.

Foot and injection valves and 7m tube pack are included as standard, (PP/PVC only).

This universal pump offers an excellent cost of ownership ratio.

Beta b ProMinent® Metering Pumps

Technical Data

Beta® pump type	Max. Pump Capacity at Maximum Back Pressure			Max. Pump Capacity at Medium Back Pressure			Stroke Freq.	Connector Sizes Outer R x Inner R	Suction Lift**	Delivery Weight	
	bar	l/h	ml/ stroke	bar	l/h	ml/ stroke				PP, NP, PC, TT	SS
							strokes/ min.	mm	mWC	approx. kg	
BT4b 1000	10	0.74	0.069	5.0	0.82	0.076	180	6 x 4	6.0**	2.9	3.6
BT4b 0700 ***	7	0.8	0.074	3.5	0.8	0.074	180	6 x 4	6.0**	2.9	3.6
BT4b 0400 ***	4	0.84	0.078	2.0	0.84	0.078	180	6 x 4	6.0**	2.9	3.6
BT4b 2001	20	0.96	0.089	10.0	1.5	0.13	180	6 x 3	6.0**	3.1	3.9
BT4b 1601	16	1.1	0.10	8.0	1.4	0.13	180	6 x 4	6.0**	3.1	3.9
BT4b 1001 ***	10	1.3	0.12	5.0	1.5	0.14	180	6 x 4	6.0**	3.1	3.9
BT4b 0701 ***	7	1.4	0.13	3.5	1.5	0.14	180	6 x 4	6.0**	3.3	4.4
BT4b 0401 ***	4	1.5	0.14	2.0	2.0	0.18	180	6 x 4	6.0**	2.9	3.6
BT4b 2002	20	1.7	0.16	2.8	0.26	0.13	180	6 x 3	6.0**	2.9	3.6
BT4b 1602	16	2.2	0.20	8.0	2.5	0.24	180	6 x 4	6.0**	2.9	3.6
BT4b 1002 ***	10	2.4	0.22	5.0	2.8	0.26	180	6 x 4	6.0**	3.1	3.9
BT4b 0702 ***	7	2.6	0.24	3.5	3.1	0.29	180	6 x 4	6.0**	3.1	3.9
BT4b 0402 ***	4	2.8	0.26	2.0	3.9	0.36	180	6 x 4	3.0**	3.1	3.9
BT4b 1604	16	3.6	0.33	8.0	4.3	0.40	180	6 x 4	2.0**	3.3	4.4
BT4b 1004 ***	10	3.9	0.36	5.0	4.7	0.44	180	6 x 4	5.0**	2.9	3.6
BT4b 0704 ***	7	4.2	0.39	3.5	5.1	0.47	180	6 x 4	5.0**	2.9	3.6
BT4b 0404 ***	4	4.5	0.42	2.0	5.6	0.52	180	6 x 4	5.0**	2.9	3.6
BT4b 0708	7	7.1	0.66	3.5	8.4	0.78	180	8 x 5	6.0**	3.1	3.9
BT4b 0408 ***	4	8.3	0.77	2.0	10.0	0.93	180	8 x 5	4.0**	3.1	3.9
BT4b 0413	4	12.3	1.14	2.0	14.2	1.31	180	8 x 5	3.0**	2.9	3.6
BT4b 0220	2	19.0	1.76	1.0	20.9	1.94	180	12 x 9	2.0**	2.9	3.6
BT5b 2504	25	2.9	0.27	12.5	3.7	0.34	180	8 x 4	4.0**	3.1	3.9
BT5b 1008	10	6.8	0.63	5.0	8.3	0.76	180	8 x 5	3.0**	3.3	4.4
BT5b 0713	7	11.0	1.02	3.5	13.1	1.21	180	8 x 5	3.0**	4.5	5.3
BT5b 0420	4	17.1	1.58	2.0	19.1	1.77	180	12 x 9	3.0**	4.7	5.8
BT5b 0232	2	32.0	2.96	1.0	36.2	3.35	180	12 x 9	2.0**	5.1	6.6
Beta b® Metering Pumps with self-bleeding dosing head *											
BT4b 1601	16	0.59	0.55	8.0	0.80	0.072	180	6 x 4	1.8**	2.9	—
BT4b 1001	10	0.72	0.067	5.0	0.60	0.08	180	6 x 4	2.1**	2.9	—
BT4b 0701	7	0.84	0.078	3.5	1.12	0.10	180	6 x 4	2.7**	3.1	—
BT4b 0401	4	0.90	0.083	2.0	1.2	0.11	180	6 x 4	2.0**	3.1	—
BT4b 2002	20	0.78	0.07	10.0	1.8	0.17	180	6 x 3	2.0**	3.1	—
BT4b 1602	16	1.4	0.13	8.0	1.74	0.174	180	6 x 4	2.0**	3.3	—
BT4b 1002	10	1.7	0.16	5.0	2.0	0.072	180	6 x 4	1.8**	2.9	—
BT4b 0702	7	1.8	0.17	3.5	2.2	0.20	180	6 x 4	2.1**	2.9	—
BT4b 0402	4	2.1	0.19	2.0	2.5	0.23	180	6 x 4	2.7**	3.1	—
BT4b 1604	16	2.7	0.25	8.0	3.6	0.33	180	6 x 4	2.0**	3.1	—
BT4b 1004	10	3.3	0.30	5.0	3.9	0.36	180	6 x 4	2.0**	3.1	—
BT4b 0704	7	3.6	0.33	3.5	4.0	0.37	180	6 x 4	2.0**	3.3	—
BT4b 0404	4	3.9	0.36	2.0	4.2	0.39	180	6 x 4	1.8**	2.9	—
BT4b 0708	7	6.6	0.61	3.5	7.5	0.69	180	8 x 5	2.1**	2.9	—
BT4b 0408	4	7.5	0.64	2.0	8.1	0.77	180	8 x 5	2.7**	3.1	—
BT4b 0413	4	10.8	1.0	2.0	12.6	1.17	180	8 x 5	2.0**	3.1	—
BT4b 0220	2	16.2	1.50	1.0	18.0	1.67	180	12 x 9	2.0**	3.3	—
BT5b 1008	10	6.3	0.58	5.0	7.5	0.69	180	8 x 5	3.0**	4.5	—
BT5b 0713	7	10.5	0.97	3.5	12.3	1.14	180	8 x 5	2.5**	4.5	—
BT5b 0420	4	15.6	1.44	2.0	17.4	1.61	180	12 x 9	2.5**	4.7	—

Beta® pumps with liquid ends for highly viscous media have 10-20 % less metering capacity and are not self-priming. G 3/4-DN connector with d16-DN10 nozzle union.

* The values given in the capacity data tables are guaranteed minimum values, using medium hardness water at room temperature. Bypass bleed size 6x4 all sizes.

** Suction lift readings when liquid end and suction tubing are full, or for self-degassing liquid end when the suction tubing contains air.

*** Reduced pressure 4, 7 and 10 bar pump types are available for specialised applications, e.g. for use in swimming pool systems.

**** 6 mm inner diameter in stainless steel version.

Beta b ProMinent® Metering Pumps

1.1.3 Beta 4 and Beta 5 ProMinent® Metering Pump

BT4b Beta version b

BT4b 1000, 1601, 1602, 1604
also **2001* 1001, 0701, 0401**
2002* 1002, 0702, 0402
1004, 0704, 0404

PP
PV
NP
TT
SS
PP
PV
NP
TT
SS

BT4b 0708, 0413, 0220
also **0408**

BT5b 1008, 0713, 0420
also **2504***

PP
PV
NP
TT
SS
PP
PV
NP
TT
SS

Note: 2504*, 2002*, 2001* only NP & SS

BT5b 0232

PPE PPB NPE NPB PVT TTT SST	Liquid End Materials / Seals *** Note: not all stocked *** 1004 ONLY available in NPT ***
	Polypropylene/EPDM
	Polypropylene/Viton (FPM-B) <i>not stocked</i> FPM-B = Fluorine Rubber
	Plexiglass/EPDM <i>not stocked</i>
	Plexiglass/Viton
	PVDF/PTFE, for L/E type 2 not 0232 & type 4 only 1004/1604, 0708/1008, 0413/0713, 0220/420 PTFE/PTFE Stainless Steel 1.4571/PTFE

Liquid End Version

- 0** Non bleed, no valve springs, **ONLY for TT, SS and type 0232**
1 Non bleed, with valve springs, **ONLY for TT, SS and type 0232**
2 Bleed function, no valve springs for PP, NP, & PVT only - **not type 0232**
3 Bleed function, with valve springs for PP, NP, & PVT only - **not type 0232**
4 Version for highly viscous media, **Beta 4 only PVT type 1604, 0708, 0413, 0220**
4 Version for highly viscous media, **Beta 5 only PVT type 1008, 0713, 0420**
9 Self bleed, (SEK) **for PP, NP only all sizes EXCEPT type 1000 and 0232** PP = NP =

Hydraulic Connections

0 Standard according to technical data

Design

0

Logo

0 With ProMinent Logo

Power Supply

U 100 - 230 V, ±10%, 50/60 Hz
M 12-24 V DC (only BT4b) with 2 m open-ended cable **ONLY**
N 24 V DC with 2 m open-ended cable **ONLY**

Cable & Plug

C 2m Australian
1 2m Open ended Cable for 12-24V pumps **ONLY**

Relay

- 0** No Relay
1 Fault indicating relay (N/C) (changeover relay) **Preferred**
3 Fault indicating relay (N/O) (changeover relay)
4 As for 1 + pacing relay (1 input each)
5 As for 3 + pacing relay (1 input each)

Accessories

- 0** No accessories I
1 Tube FV & IV - **NOT for PTFE, SS or HV**

Electronic Locking

- 0** No lock
1 With electronic lock

Control Variant

0 Standard

Pause

0 Standard

Control Variant

0 Standard
A Milliamp 4-20 mA

Prepack Option

P* See options

Prepacks = P*

P0 - includes 5m of delivery and 2m suction tube **\$ 0**
P2 - includes 5m of delivery and 2m suction tube
a 2m Control Cable if required. **\$ 69**
P5 - as P2 but with 5m control Cable **\$ 80**
PX - as P2 but with 10m control Cable **\$ 89**

Note: 2504, 2001, 2002, 1601, 1602, 1605 pumps
are supplied with 5.0m PTFE tube (in appropriate size)
and fittings to suit, other tube is available on request.

BT4b1601PPE 2 0 0 0 U C 0 1 0 0 0 0 P0

Beta ProMinent® Metering Pumps

CAN Bus ONLY

Technical Data

	Max. Pump Capacity at Maximum Back Pressure			Max. Pump Capacity at Medium Back Pressure			Stroke Freq.	Connector Sizes Outer R x Inner R	Suction Lift**	Delivery Weight PP, NP, PC, TT SS	
Beta® pump type	bar	l/h	ml/stroke	bar	l/h	ml/stroke	strokes/min.	mm	mWC	approx. kg	
BT4a 1000***	10	0.74	0.07	5	0.82	0.08	180	6 x 4	6.0**	2.9	3.6
BT4a 1601***	16	1.1	0.10	8	1.4	0.13	180	6 x 4	6.0**	2.9	3.6
BT4a 1602***	16	2.1	0.19	8	2.5	0.24	180	6 x 4	6.0**	2.9	3.6
BT4a 1005***	10	4.4	0.41	5	5.0	0.46	180	8 x 5****	6.0**	3.1	3.9
BT4a 0708***	7	7.1	0.66	3.5	8.4	0.78	180	8 x 5	6.0**	3.1	3.9
BT4a 0413	4	12.3	1.14	2	14.2	1.31	180	8 x 5	3.0**	3.1	3.9
BT4a 0220	2	19.0	1.76	1	20.9	1.94	180	12 x 9	2.0**	3.3	4.4
BT5a 1605	16	4.1	0.38	8	4.9	0.45	180	8 x 5****	6.0**	4.5	5.3
BT5a 1008	10	6.8	0.63	5	8.3	0.76	180	8 x 5	6.0**	4.5	5.3
BT5a 0713	7	11.0	1.02	3.5	13.1	1.21	180	8 x 5	4.0**	4.5	5.3
BT5a 0420	4	17.1	1.58	2	19.1	1.77	180	12 x 9	3.0**	4.7	5.8
BT5a 0232	2	32.0	2.96	1	36.2	3.35	180	12 x 9	2.0**	5.1	6.6

Beta a® Metering Pumps with self-bleeding dosing head *

BT4a 1601	16	0.59	0.06	8	0.78	0.07	180	6 x 4	1.8**	2.9	–
BT4a 1602	16	1.4	0.13	8	1.7	0.16	180	6 x 4	2.1**	2.9	–
BT4a 1005	10	3.6	0.33	5	4.0	0.37	180	8 x 5	2.7**	3.1	–
BT4a 0708	7	6.6	0.61	3.5	7.5	0.69	180	8 x 5	2.0**	3.1	–
BT4a 0413	4	10.8	1.00	2	12.6	1.17	180	8 x 5	2.0**	3.1	–
BT4a 0220	2	16.2	1.50	1	18.0	1.67	180	12 x 9	2.0**	3.3	–
BT5a 1605	16	3.3	0.31	8	3.8	0.35	180	8 x 5	3.0**	4.5	–
BT5a 1008	10	6.3	0.58	5	7.5	0.69	180	8 x 5	3.0**	4.5	–
BT5a 0713	7	10.5	0.97	3.5	12.3	1.14	180	8 x 5	2.5**	4.5	–
BT5a 0420	4	15.6	1.44	2	17.4	1.61	180	12 x 9	2.5**	4.7	–

Beta® pumps with liquid ends for highly viscous media have 10-20 % less metering capacity and are not self-priming. G 3/4-DN connector with d16-DN10 nozzle union.

* The values given in the capacity data tables are guaranteed minimum values, using medium hardness water at room temperature. Bypass bleed size 6x4 all sizes.

** Suction lift readings when liquid end and suction tubing are full, or for self-degassing liquid end when the suction tubing contains air.

*** Reduced pressure 4, 7 and 10 bar pump types are available for specialised applications, e.g. for use in swimming pool systems. Further information on request.

**** 6 mm inner diameter in stainless steel version.

Materials on each Model in Contact with Chemicals

	dosing head	suction/pressure connector	seals	balls
PPE	Polypropylene	Polypropylene	EPDM	ceramic
PPB	Polypropylene	Polypropylene	FPM (Viton®)	ceramic
PCE	PVC	PVC	EPDM	ceramic
PCB	PVC	PVC	FPM (Viton®)	ceramic
NPE	Acrylic	PVC	EPDM	ceramic
NPB	Acrylic	PVC	FPM (Viton®)	ceramic
PVT	PVDF	PVDF	PTFE	ceramic
TTT	PTFE with carbon	PTFE with carbon	PTFE	ceramic
SST	stainless steel no. 1.4404	stainless steel no. 1.4404	PTFE	ceramic

Self-degassing version available in PP and NP only. Supplied with Hastelloy valve springs, PVDF valve core.

Dosing diaphragm with PTFE-coating.

Viton® is a registered trademark of DuPont Dow Elastomers.

Reproducible dosing accuracy ± 2 % under correct conditions (see operating instructions).

Ambient temperature -10 °C to +45 °C.

Mean power consumption Type 1000-0220: 17 W Type 1605-0232: 22 W

Type of enclosure: IP 65, insulation class F

Metering Pumps supplied with mains power cable (2 m) and plug, hose/pipe connector set as tables.

Beta ProMinent® Metering Pumps

CAN Bus ONLY

ProMinent®

1.1.3 Beta 4 and Beta 5 ProMinent® Metering Pump

BT4a Beta version a

BT4a 1000, 1601, 1602,
also 0700, 0400
1001, 0701, 0401
1002, 0702, 0402

PPE
PVT
NPB
TTT
SST
PPE
PVT
NPB
TTT
SST

BT5a 1605, 1008, 0713, 0420

PPE
PVT
NPB
TTT
SST
PPE
PVT
NPB
TTT
SST

BT4a 1005, 0708, 0413, 0220
also 0405, 0705
0408,

BT5a 0232

PPE
PPB
NPE
NPB
PVT
TTT
SST

Liquid End Materials / Seals *** Note: not all stocked ***

Polypropylene/EPDM
Polypropylene/Viton (FPM-B) *not stocked* FPM-B = Fluorine Rubber
Plexiglass/EPDM *not stocked*
Plexiglass/Viton
PVDF/PTFE, for L/E type 2 **not 0232** & type 4 **only 1005/1605, 0708/1008, 0413/0713, 0220/420**
PTFE/PTFE
Stainless Steel 1.4404/PTFE

Liquid End Version

0 Non bleed, no valve springs, **ONLY available for TT, SS and type 0232 ONLY** \$ nil
1 Non bleed, with valve springs, **ONLY available for TT, SS and type 0232 ONLY**
2 Bleed function, no valve springs for PP & PVT - **NOT type 0232**
3 Bleed function, with valve springs for PP, NP, & PVT - **NOT type 0232**
4 Version for highly viscous media, *only PVT type 1005, 1605, 0708, 1008, 0413, 0713, 0220, 0420*
9 Self bleed, (SEK) **for PP, NP only - NOT available for types 1000 and 0232** PP = NP =

Hydraulic Connections

0 Standard according to technical data

Design

0 With ProMinent Logo

Power Supply

A 200 - 230 V, ±10%, 50/60 Hz ***** CAN Bus ONLY *****
U 100 - 230 V, ±10%, 50/60 Hz ***** CAN Bus ONLY *****

Cable & Plug

C 2m Australian
1 2m Open ended Cable for 12-24V pumps **ONLY**

Relay

0 No Relay
1 Fault indicating relay (N/C) (changeover relay) **Preferred**
3 Fault indicating relay (N/O) (changeover relay)
4 As for 1 + pacing relay (1 input each)
5 As for 3 + pacing relay (1 input each)

Accessories

0 No accessories
1 Tube FV & IV - **NOT for PTFE, SS or HV**

Electronic Locking

0 No lock
1 With lock: manual operation locked when external cable is plugged in.

Options on request

D CANopen for Dulcomarin® II

0 0 no options

P* Prepack Option
See -

Prepacks = P*

P0 - includes 5m of delivery and 2m suction tube
a CANbus cable, if specified. **\$ 0**

Note: 1601, 1602, 1605 pumps are supplied with
5.0m PTFE tube, other tube is available on request.

BT4a1601PPE 2 0 0 A C 0 1 0 0 0 0 P0

1.1.4 ProMinent Beta4 b Metering Pumps - Spare Part Sets

1.1.4

Beta4 & 5 ProMinent® Metering Pumps - Spare Part Sets

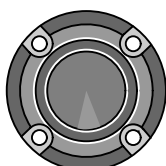
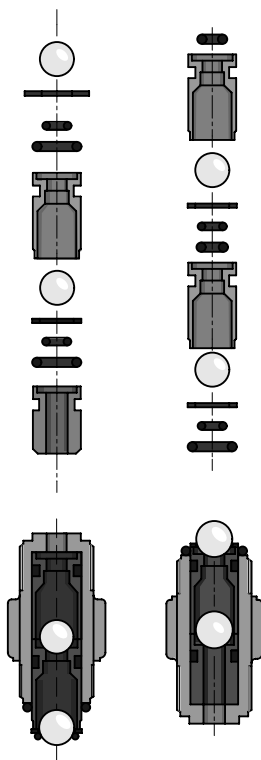
Replacement part sets for ProMinent® Beta, consisting of:

- 1 dosing diaphragm
- 1 suction valve
- 1 delivery valve
- 2 valve balls
- 1 set seals
- 1 connector set

Note: Does not include valves for SS

Spare parts kits Beta®

Type 1000	PPT, NPT, PVT	1023107
also: 0700, 0400	TTT	1001737
	SST	1001729
Type 1601	PPT, NPT, PVT	1023108
also: 2001, 1001, 0701, 0401	TTT	1001738
	SST	1001730
Type 1602	PPT, NPT, PVT	1023109
also: 2002, 1002, 0702, 0402	TTT	1001739
	SST	1001731
Type 1604	PPT, NPT, PVT	1035332
also: 2504, 1004, 0704, 0404	PVT HV	1035342
	TTT	1035330
	SST	1035331
Type 0708	PPT, NPT, PVT	1023111
also: 1008, 0408	PVT HV	1019067
	TTT	1001741
	SST	1001733
Type 0413	PPT, NPT, PVT	1023112
also: 0713	PVT HV	1019069
	TTT	1001742
	SST	1001734
Type 0220	PPT, NPT, PVT	1023113
also: 0420	PVT HV	1019070
	TTT	1001754
	SST	1001735
Type 0232	PPT, NPT, PVT	1023124
	TTT	1001755
	SST	1001736



1.1.5 Accessories

ProMinent Beta4a/b & 5a/b & Gamma L Spare Parts Set

1.1.5

Spare Parts Sets

Replacement part sets

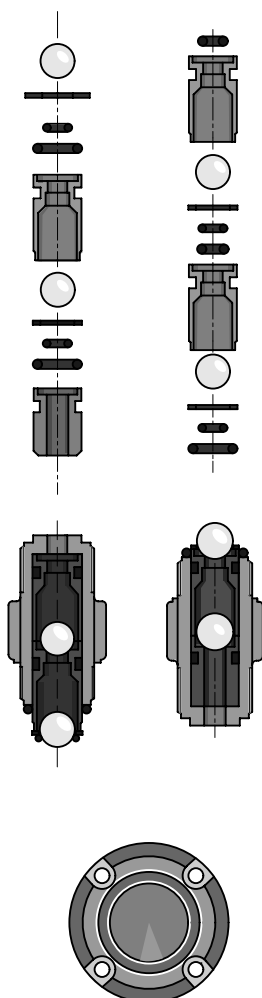
for ProMinent® Beta,

consisting of:

- 1 dosing diaphragm
- 1 suction valve
- 1 delivery valve
- 2 valve balls
- 1 set seals
- 1 connector set

Note: Does not include valves for SS

Note: Gamma L Spare Parts Sets are the same as the Beta listed here



pk_1_008

Beta replacement part set

BT4a/b 1000
also: 0700, 0400

PPE
PPB
PCE/NPE
PCB/NPB
PVT
TTT
SST

Part no.

1001644
1001652
1001713
1001721
1023107
1001737
1001729

BT4a/b 1601
also: 2001, 1001, 0701, 0401

PPE
PPB
PCE/NPE
PCB/NPB
PVT
TTT
SST

1001645
1001653
1001714
1001722
1023108
1001738
1001730

BT4a/b 1602
also: 2002, 1002, 0702, 0402

PPE
PPB
PCE/NPE
PCB/NPB
PVT
PVT/HV
TTT
SST

1001646
1001654
1001715
1001723
1023109
1035342
1001739
1001731

BT4a/b 1604
also: 1004, 0704, 0404

PPE
PPB
PCE/NPE
PCB/NPB
PVT
TTT
SST

1039989
1039987
1039988
1039986
1035332
1035330
1035331

BT4a 1005, & BT5a 1605

PPE
PPB
PCE/NPE
PCB/NPB
PVT
PVT/HV
TTT
SST

1001647
1001655
1001716
1001724
1023110
1019066
1001740
1001732

BT4a/b 0708 & BT5a/b 1008
also: 0408

PPE
PPB
PCE/NPE
PCB/NPB
PVT
PVT/HV
TTT
SST

1001648
1001656
1001717
1001725
1023111
1019067
1001741
1001733

BT4a/b 0413 & BT5a/b 0713

PPE
PPB
PCE/NPE
PCB/NPB
PVT
PVT/HV
TTT
SST

1001649
1001657
1001718
1001726
1023112
1019069
1001742
1001734

BT4a/b 0220 & BT5a/b 0420

PPE
PPB
PCE/NPE
PCB/NPB
PVT
PVT/HV
TTT
SST

1001650
1001658
1001719
1001727
1023113
1019070
1001754
1001735

BT5a/b 0232

PPE
PPB
PCE/NPE
PCB/NPB
PVT
TTT
SST

1001651
1001659
1001720
1001728
1023124
1001755
1001736

1.1.5 Accessories

ProMinent Beta4a/b & 5a/b & Gamma L Spare Parts Set

Notes

Replacement part sets for

ProMinent® Beta with

self-deaerating head,

consisting of:

- 1 dosing diaphragm
- 1 suction valve
- 1 delivery valve
- 1 pressure control valve complete
- 2 valve balls
- 1 set seals
- 1 connector set

Note: Does not include valves for SS

Replacement part set:

Beta with self-deaerating head

Part no.

BT4a/b 1601	PPE9	1001756
also: 2001, 1001, 0701, 0401	PPB9	1001762
	NPE9	1001660
	NPB9	1001666
BT4a/b 1602	PPE9	1001757
also: 2002, 1002, 0702, 0402	PPB9	1001763
	NPE9	1001661
	NPB9	1001667
BT4a 1604	PPE9	1035339
also: 1004, 0704, 0404	PPB9	1035336
	NPE9	1035333
	NPB9	1035334
BT4a 1005, & BT5a 1605	PPE9	1001758
	PPB9	1001764
	NPE9	1001662
	NPB9	1001668
BT4a/b 0708 & BT5a/b 1008	PPE9	1001759
also: 0408	PPB9	1001765
	NPE9	1001663
	NPB9	1001669
BT4a/b 0413 & BT5a/b 0713	PPE9	1001760
	PPB9	1001766
	NPE9	1001664
	NPB9	1001670
BT4a/b 0220 & BT5a/b 0420	PPE9	1001761
	PPB9	1001767
	NPE9	1001665
	NPB9	1001671

Beta/GALA

sizes of NP & PP Liquid Ends

These no's engraved on side of Dosing Head

70 x 10	= 1000
70 x 12.5	= 1601
70 x 16.5	= 1602
70 x 20	= 1604
90 x 23	= 1005/1605
90 x 29	= 0708/1008
90 x 37	= 0413/0713
90 x 44	= 0220/0420
110 x 59	= 0232

Replacement diaphragms for beta & Gamma L range

dia.	Model		
30.0	BT4a 1000	all materials	1000244
29.5	BT4a 1601	all materials	1000245
34.5	BT4a 1602	all materials	1000246
35.0	BT4b 1604 1004 & 2504	all materials	1034612
45.0	BT4a 1005 & BT5a 1605	all materials	1000247
45.5	BT4a 0708 & BT5a 1008	all materials	1000248
55.0	BT4a 0413 & BT5a 0713	all materials	1000249
76.0	BT4a 0220 & BT5a 0420	all materials	1000250
91.0	BT5a 0232	all materials	1000251

Replacement O-ring kits for beta & Gamma L range

PPE2 1000, 1601, 1602, 1005, 1605	EPDM	1001775
0708, 0413, 1008, 0713, 0220, 0420, 0232	EPDM	1001776
NPB2 & PPB2 1000, 1601, 1602, 1005, 1605	Viton	1001773
0708, 0413, 1008, 0713, 0220, 0420, 0232	Viton	1001774
PPE9 1601, 1602, 1005, 1605	EPDM	1001674
0708, 0413, 1008, 0713, 0220, 0420, 0232	EPDM	1001675
NPB9 1601, 1602, 1005, 1605	Viton	1001672
0708, 0413, 1008, 0713, 0220, 0420, 0232	Viton	1001673