

# Sigma/ 3 Series

## New Technology, Durable Design

The **ProMinent®** Sigma/ 3 is a mechanically-actuated diaphragm metering pump capable of flow rates from **46 to 264 gph (174 - 1000 l/h)** and pressures up to **174 PSI (12 bar)**.

**ProMinent®** Sigma/ 3 microprocessor controlled metering pumps are programmable and display comprehensive data for monitoring, recording, and tracking. Functions include digital setting of stroke frequency, manual stroke length adjustment, integral variable speed and access codes.

**Also available in basic, non-microprocessor based version.**

## Applications

- Time-controlled chemical addition in cooling water circuits
- Proportional chemical addition in water treatment (e.g. Sodium Hypochlorite for drinking water disinfection)
- Measurement-dependent chemical addition (e.g. acid & caustic metering for pH neutralization in wastewater treatment)
- Pulse-controlled metering from variable flow meters
- Chemical process, Mining, Petrochemical, Heavy industrial, Pharmaceutical, Water and Wastewater Treatment

## Features & Benefits

- Certified to **NSF/ANSI 61** (models 120145, 120190, 120270 with PVDF liquid ends)
- Universally compatible PVDF liquid ends
- Microprocessor control: optimum combination of variable AC frequency combined with digital stroking frequency, ensures exact metering even in the lower minimum range due to individual stroke control.
- The individual pump functions are adjustable by using the five programming keys.
- A large backlit LCD indicates the current operating status.
- 3-LED-function as operation indicators, alarm indicator and fault indicator
- Control via contact or analog signals (e.g. 0/4-20 mA)
- Optional, integration of 2-week-process timer.
- Integrated multi-layer safety diaphragm (standard) with visual rupture indicators



Multi-layer safety diaphragm



# ProMinent®

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## Capacity data: Sigma/ 3 Control and Basic Versions

Pump version:			Capacity at Max. Back Pressure		Max. Stroke Rate	Output per Stroke	Max. Suction Lift		Max. Suction Pressure		Suction/ Discharge Connector		Shipping Weight w/Motor
	psig	(bar)	U.S. GPH	(L/h)	Stroke/min.	mL/stroke	(water) ft. (m)		psig (bar)		DN	in.	(approx.) lbs. (kg)
S3Ba/S3Ca													
120145 PVT	145	(10)	46	(174)	86/90	31.5	16 (5)		29 (2)		25	1 MNPT	49 (22)
120145 SST	174	(12)	46	(174)	86/90	31.5	16 (5)		29 (2)		25	1 MNPT	57 (26)
120190 PVT	145	(10)	60.2	(228)	124/120	31.5	16 (5)		29 (2)		25	1 MNPT	49 (22)
120190 SST	174	(12)	60.2	(228)	124/120	31.5	16 (5)		29 (2)		25	1 MNPT	57 (26)
120270 PVT	145	(10)	85.6	(324)	173/180	31.5	16 (5)		29 (2)		25	1 MNPT	49 (22)
120270 SST	174	(12)	85.6	(324)	173/180	31.5	16 (5)		29 (2)		25	1 MNPT	57 (26)
070410 PVT	100	(7)	130	(492)	86/90	95.1	13 (4)		14.5 (1)		32	1-1/2 MNPT	53 (24)
070410 SST	100	(7)	130	(492)	86/90	95.1	13 (4)		14.5 (1)		32	1-1/2 MNPT	64 (29)
070580 PVT	100	(7)	184	(696)	124/120	95.1	13 (4)		14.5 (1)		32	1-1/2 MNPT	53 (24)
070580 SST	100	(7)	184	(696)	124/120	95.1	13 (4)		14.5 (1)		32	1-1/2 MNPT	64 (29)
040830 PVT	58	(4)	264	(1000)	173/180	95.1	10 (3)		14.5 (1)		32	1-1/2 MNPT	53 (24)
040830 SST	58	(4)	264	(1000)	173/180	95.1	10 (3)		14.5 (1)		32	1-1/2 MNPT	64 (29)

## Sigma/ 3 Types

### Basic type:

The pump may be operated manually by adjusting the stroke length knob (displacement per stroke).

Automatic control of displacement per stroke via a 4-20 mA analog or 3P signal is possible with optional servomotor. Control of stroke frequency via analog signal is possible with variable speed drives (DC/SCR or AC inverter).

### Control type:

Pump settings are programmable and viewed on an illuminated LCD. Functions include stroke frequency, batch delivery and external control by pulse or analog signal.

The Sigma/ 3 control version features information displays for flow rate (in gph or l/h) and totalized flow (gallons); accumulative stroke count with clear/reset capabilities; and stroke length adjustment displayed in increments of 1%. Three LED lights indicate operating status. Options include a programmable access code, flow monitoring, fault and pacing relays, calibration, timer and 4-20 mA output.