

ProMinent® Evolution 1

Capacity range of single pump: 0.90 – 80 gph @ 5800 – 185 psig



The **ProMinent® Evolution 1** meets the most exacting safety requirements as an extremely robust hydraulic diaphragm metering pump. It stands out thanks to its PTFE multi-layer diaphragm with integral diaphragm rupture warning system and unique diaphragm position control. Its modular construction offers excellent flexibility for countless applications.

The **ProMinent® Evolution** hydraulic diaphragm family of metering pumps form an integrated product range with **stroke lengths of 0 to 40 mm**. This covers the capacity range of **0.79 to 1,955 gph** at pressures ranging from **5800 to 145 psig**. The **ProMinent® Evolution** product range is designed to comply with API 675. A wide range of drive versions are available, including some with ATEX certification for use in Zone 1 or Zone 2 areas at risk from explosion.

Features & Benefits

Maximum process reliability

- PTFE multi-layer diaphragm with integral diaphragm rupture warning system is standard on all pumps
- Integral hydraulic relief valve
- The exclusive Diaphragm Position Control protects the pump against operating faults (e.g no damage in the event of a blockage on either the suction or discharge side)
- Metering reproducibility is better than $\pm 1\%$ within the 10 – 100 % stroke length range under defined conditions and with correct installation
- Continuous bleeding of the hydraulic oil chamber ensures reliable operation

Excellent flexibility

- The Evolution's modular compact construction allows for a wide range of applications. The Evolution can be multiplexed with up to five (5) metering units of identical or varying pump capacities for the greatest application adaptability

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Technical data for EF1a single pump 60 Hz

EF1a								
Plunger Ø	Stroke Volume	Pump capacity in gph at strokes/min (60 Hz & 1800 rpm)					Maximum Discharge Pressure	Maximum Motor Power
		Strokes per minute	88	116	139	174	198	
mm	ml/stroke	gph	gph	gph	gph	gph	psig	HP
8	0.75	0.9	1.2	1.5	1.8	2.1	5800	0.5
10	1.18	1.6	2.1	2.5	3.2	3.6	4245	0.5
11	1.43	1.9	2.6	3.1	3.8	4.3	3505	0.5
12	1.70	2.3	3.0	3.6	4.5	5.1	2940	0.5
14	2.31	3.1	4.1	4.9	6.1	7.0	2160	0.5
17	3.40	4.5	6.0	7.2	9.0	10.3	1460	0.5
21	5.20	6.9	9.2	11.0	13.8	15.7	955	0.5
24	6.79	9.0	11.9	14.2	17.8	20.2	735	0.5
28	9.24	12.2	16.2	19.4	24.2	27.5	535	0.5
31	11.32	14.9	19.8	23.7	29.7	33.8	435	0.5
36	15.27	20.1	26.8	32.0	40.0	45.5	330	0.5
39	17.92	23.6	31.4	37.6	47.0	53.4	275	0.5
44	22.81	30.1	40.0	47.8	59.8	68.0	215	0.5
48	27.14	35.8	47.6	56.9	71.1	80.9	185	0.5

Important Note: The above is an abridged version of the available product range. Contact ProMinent if specific capacities are needed for your application

Materials in contact with the medium

Dosing head complete

Dosing Head	Check Valve Body/ Seat/Seal	Diaphragm
316L SS	316L SS	PTFE multi-layer diaphragm
Alloy 20	Alloy 20	PTFE multi-layer diaphragm
Hastelloy C	Hastelloy C	PTFE multi-layer diaphragm



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