

# ProMinent® Evolution 4

Capacity range of single pump: 19 – 1836 gph @ 5800 – 145 psig



The **ProMinent® Evolution 4** 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 EF4a single pump 60 Hz

| EF4a      |                    |   |      |      |      |      |                            |                     |
|-----------|--------------------|---|------|------|------|------|----------------------------|---------------------|
| Plunger Ø | Stroke Volume      | Pump capacity in gph at strokes/min<br>(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                  |
| 22        | 15.21              | 19  | 25   | 30   | 37   | 42   | 5800                       | 7.5                 |
| 28        | 24.63              | 33  | 44   | 53   | 66   | 75   | 3985                       | 7.5                 |
| 34        | 36.32              | 49  | 65   | 78   | 97   | 111  | 2505                       | 7.5                 |
| 38        | 45.36              | 60  | 80   | 96   | 120  | 137  | 2000                       | 7.5                 |
| 46        | 66.48              | 89  | 118  | 141  | 176  | 200  | 1360                       | 7.5                 |
| 50        | 78.54              | 105   | 139  | 166  | 208  | 237  | 1160                       | 7.5                 |
| 60        | 113.10             | 151   | 200  | 240  | 299  | 341  | 810                        | 7.5                 |
| 70        | 153.94             | 203   | 270  | 323  | 403  | 459  | 590                        | 7.5                 |
| 86        | 232.35             | 307   | 407  | 487  | 609  | 693  | 390                        | 7.5                 |
| 95        | 283.53             | 374   | 497  | 594  | 743  | 845  | 315                        | 7.5                 |
| 110       | 380.13             | 501   | 666  | 797  | 996  | 1133 | 245                        | 7.5                 |
| 140       | 615.75             | 812   | 1079 | 1291 | 1613 | 1836 | 145                        | 7.5                 |

**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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