

# P300

## Doseringspump

### P300MSGSSA10S PUMP WITH GEARBOX AND BASEPLATE



- Flöde 1 - 300 l/h
- Tryck max. 172 bar
- Metallutförande
- Tätningslös och klarar torrkörning
- Finns i ATEX utförande

## Produktinformation

Wanner HydraCell är en serie mycket robusta membranpumpar speciellt lämpade för dosering även vid höga tryck och svåra pumpmedier, som också kan vara slitande.

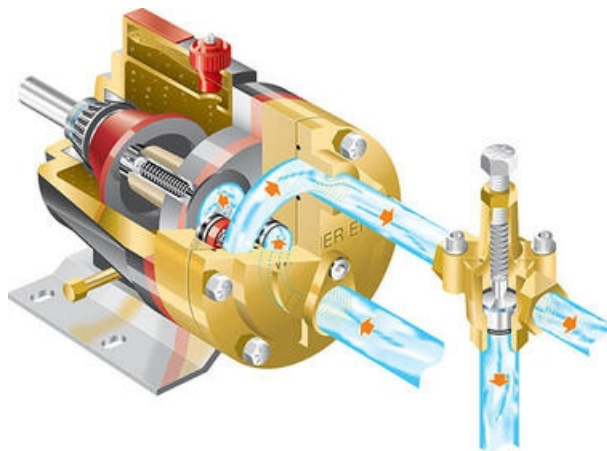
Pumparna har ingen genomgående axel med tätningar och mediet kommer aldrig i kontakt med mekanismen.

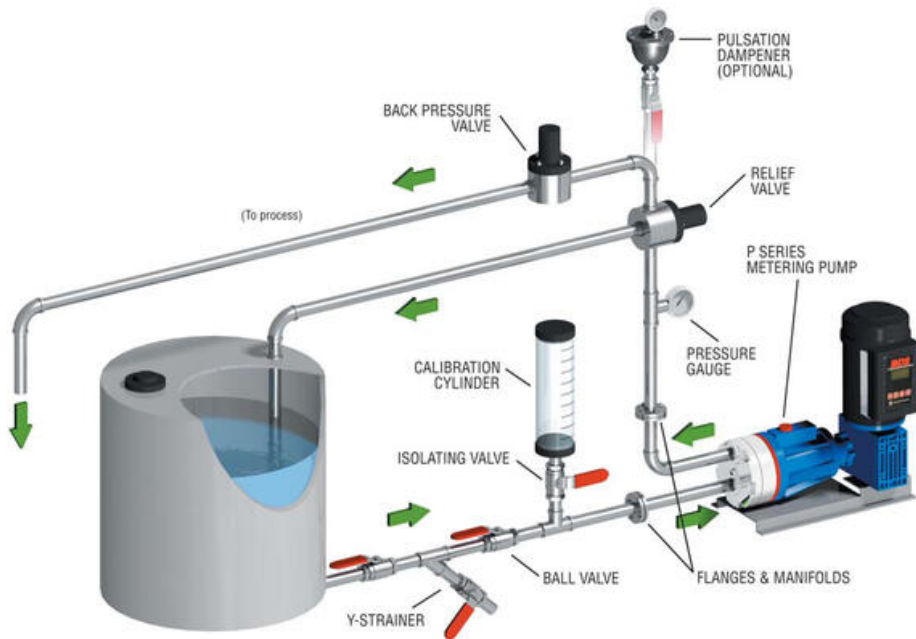
Membranen är avlastade med jämnt tryck över hela ytan, vilket ger dem mycket lång livslängd.

HydraCell-pumparna som arbetar enligt förträngningsprincipen, är självsugande, energisnåla och torrkörningssäkra.

Hydra-Cell pumparna möter de flesta och överträffar flara av kraven i standarden för doseringspumpar API 675.

De finns i många olika materialkombinationer och går även att få i ATEX-utförande för explosionsfarlig miljö.





Exempel på installation

|                      |                                                                                                                                                             |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pumphus              | Mässing, 316L, Hastelloy C                                                                                                                                  |
| Membran O-ringar     | EPDM, FKM, PTFE, Buna-N                                                                                                                                     |
| Ventilsäten          | Nitronic 50, Hastelloy C, Tungstenkarbid                                                                                                                    |
| Ventiler             | Nitronic 50, Hastelloy C, Tungstenkarbid                                                                                                                    |
| Fjäder               | Elgiloy, Hastelloy C                                                                                                                                        |
| Fjäderhållare        | Hastelloy C                                                                                                                                                 |
| Flöde                | 1 - 300 l/h                                                                                                                                                 |
| Tryck                | Max. 172 bar                                                                                                                                                |
| Inloppstryck         | Max. 34 bar                                                                                                                                                 |
| Temperatur*          | Max. +120 °C (Beroende på materialval m.m.)*                                                                                                                |
| Partikelstorlek      | Max. 0,2 mm                                                                                                                                                 |
| Viskositet**         | Max. 1000 cP (Beroende på installation och varvtal)**                                                                                                       |
| ATEX***              | EEx II 2G k ia IIB T4 (max. mediatemp. 90 °C, omgivningstemp - 10 till 40 °C)<br>EEx II 3G k IIC T4 (max. mediatemp. 90 °C, omgivningstemp - 10 till 40 °C) |
| Kel-Cell             | Nej                                                                                                                                                         |
| Anslutningar (In/Ut) | 1/2" BSPT / 3/8" BSPT (NPT eller flänsar på förfrågan)                                                                                                      |
| Rotationsriktning    | Valfri                                                                                                                                                      |
| Oljevolym hydrauldel | ca. 1 l (Oljenivån skall vara ca. 1 cm under helt fylld hydrauldel)                                                                                         |
| Vikt                 | 23,3 kg                                                                                                                                                     |

\* För applikationer där temperaturen går under +10 eller över +80°C kontakta oss.

\*\* Vid viskositeter över 500 cP kontakta oss.

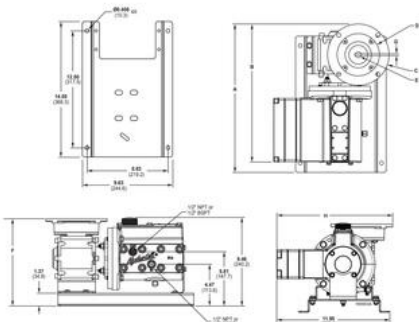
\*\*\* För applikationer i explosionsfarlig miljö kontakta oss.

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## Teknisk data

|                         |                       |
|-------------------------|-----------------------|
| Flöde max               | 76 l/h                |
| Tryck max               | 172 bar               |
| Systemtryck max         | 34 bar                |
| Anslutning inlopp       | 1/2" BSPT             |
| Anslutning utlopp       | 1/2" BSPT             |
| Material Bottenplatta   | Rostfritt stål        |
| Material Fjäderhållare  | Hastelloy C           |
| Material Membran        | FKM                   |
| Material Pumphus        | SS 316L               |
| Material Ventiler       | Nitronic 50           |
| Material Ventilfjädrar  | Elgiloy               |
| Material Ventilsäten    | SS 316L               |
| Axeldimension           | Hålaxel 14 mm         |
| Rotation                | Valfri                |
| Utväxling               | 10:1 - IEC 71-B5      |
| Temperaturområde till   | 120 °C                |
| Viskositet max          | 1000 cP               |
| Olja                    | Livsmedelsolja H1 (K) |
| Oljevolym Hydrauldel    | 1,05 l                |
| 1098_Particle size (mm) | Max. 0,2              |
| Vikt                    | 24,7 kg               |

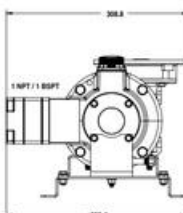
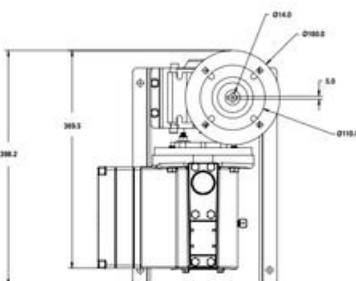
### P300 Models with Metallic Pumping Head



| Input<br>Frame<br>Size | A              | B             | C            | D            | E            | F            | G<br>(Square<br>Key) | H              |
|------------------------|----------------|---------------|--------------|--------------|--------------|--------------|----------------------|----------------|
| NEMA 30                | 10.75<br>(273) | 19.0<br>(483) | 6.5<br>(165) | 6.5<br>(165) | 6.5<br>(165) | 6.5<br>(165) | 3.125<br>(79.3)      | 11.0<br>(279)  |
| NEMA<br>14.5/16.5      | 10.75<br>(273) | 19.0<br>(483) | 6.5<br>(165) | 6.5<br>(165) | 6.5<br>(165) | 6.5<br>(165) | 3.125<br>(79.3)      | 12.25<br>(311) |
| IEC 60-60              | 10.25<br>(260) | 18.5<br>(469) | 6.0<br>(152) | 6.5<br>(165) | 6.5<br>(165) | 6.5<br>(165) | 3.125<br>(79.3)      | 11.0<br>(279)  |
| IEC 71.85              | 10.67<br>(271) | 18.5<br>(469) | 6.0<br>(152) | 6.5<br>(165) | 6.5<br>(165) | 6.5<br>(165) | 3.125<br>(79.3)      | 12.12<br>(308) |
| IEC 80                 | 10.67<br>(271) | 19.0<br>(483) | 6.0<br>(152) | 6.5<br>(165) | 6.5<br>(165) | 6.5<br>(165) | 3.125<br>(79.3)      | 12.12<br>(308) |

### Representative Drawings (mm)

### Metallic Pump Heads



### Performance - Flow Capacities and Pressure Ratings

For Synchronous Speed, Self-cooled Motors

For 10:1 Turndown, Self-cooled Motors

[illegible]

1. The motor **EW** are based on ambient temperature conditions up to 40°C. For ambient temperatures above 40°C, please contact Wapac International.
2. Contact factory for performance specifications.
3. Based on using 6x motor.
4. Maximum continuous motor speed is 1800 rpm at full power.
5. For accessories or reduced pressure duties, please contact Wapac International.

- 1. The motor **W** are based on ambient temperature conditions up to 45 °C. For ambient temperatures above 45 °C, force-cooled motor may be required. Please contact Warner International.
  - 2. Contact Warner for performance specifications.
  - 3. Rated by using 1/2 motor.
  - 4. Maximum continuous motor speed is 1800 rpm at full pressure.
  - 5. For intermediate or reduced pressure duties, please contact Warner International.
- See Page 6 for Electronic Flow Rate Calculator

### Mechanical Adjustment Controller for ATEX/Explosive Areas

All Min/Max flow rates in litres/hour

| 103 Hz   |          | 172 Hz   |          | Pump type | Gearbox Ratio | Model Number                                                                                            | Required Motor Size & Frame |
|----------|----------|----------|----------|-----------|---------------|---------------------------------------------------------------------------------------------------------|-----------------------------|
| Min Flow | Max Flow | Min Flow | Max Flow |           |               |                                                                                                         |                             |
| 1.3      | 8.6      | 8.1      | 5.24     | 25.1      | 003 - 00014   | 0.25kW / EC 11 / 4 pole                                                                                 |                             |
|          | 11.4     | 10.4     | 5.30     | 25.1      |               |                                                                                                         |                             |
|          | 15.4     | 14.3     | 5.40     | 15.1      |               |                                                                                                         |                             |
|          | 23.4     | 21.8     | 5.40     | 10.1      |               |                                                                                                         |                             |
|          | 31.8     | 29.8     | 5.30     | 7.5.1     | 003 - 00014   | 0.37kW / EC 11 / 4 pole<br>0.55kW / EC 80 / 4 pole<br>0.75kW / EC 80 / 4 pole<br>1.1kW / EC 80 / 2 pole |                             |
|          | 47.5     | 44.8     | 5.120    | 5.1       |               |                                                                                                         |                             |
|          | 62.5     | 60.1     | 5.140    | 7.5.1     |               |                                                                                                         |                             |
|          | 80.4     | 78.4     | 5.140    | 7.5.1     |               |                                                                                                         |                             |

P300 Specifications (Cont'd)

Performance Maximum Flow at Designated Pressure - Imperial

| Metallic Pump Heads (gph) |           |           |           | Pump<br>rpm | Gear<br>Ratio | Motor<br>rpm |
|---------------------------|-----------|-----------|-----------|-------------|---------------|--------------|
| 100 psi                   | 500 psi   | 1500 psi  | 2500 psi  |             |               |              |
| 3.221 (5)                 | 3.183 (5) | 3.014 (5) | 2.741 (5) | 30          | 60:1          | 1800         |
| 3.895 (5)                 | 3.849 (5) | 3.655 (5) | 3.350 (5) | 36          | 50:1          |              |
| 4.509 (5)                 | 4.462 (5) | 4.272 (5) | 4.007 (5) | 45          | 40:1          |              |
| 6.630 (5)                 | 6.548 (5) | 6.194 (5) | 5.766 (5) | 60          | 30:1          |              |
| 7.999 (5)                 | 7.881 (5) | 7.463 (5) | 6.998 (5) | 72          | 25:1          |              |
| 10.04 (5)                 | 9.880 (5) | 9.368 (5) | 8.815 (5) | 90          | 20:1          |              |
| 13.44 (5)                 | 13.21 (5) | 12.54 (5) | 11.84 (5) | 120         | 15:1          |              |
| 20.24 (5)                 | 19.88 (5) | 18.89 (5) | 17.90 (5) | 180         | 10:1          |              |
| 27.03 (5)                 | 26.54 (5) | 25.24 (5) | 23.96 (5) | 240         | 7.5:1         |              |
| 40.63 (5)                 | 39.87 (5) | 37.93 (1) | 36.08 (5) | 360         | 5:1           |              |
| 54.23 (5)                 | 53.20 (5) | 50.63 (5) | 48.19 (5) | 480         | 7.5:1         | 3600         |
| 81.42 (5)                 | 79.85 (1) | 76.02 (2) | 72.43 (3) | 720         | 5:1           |              |

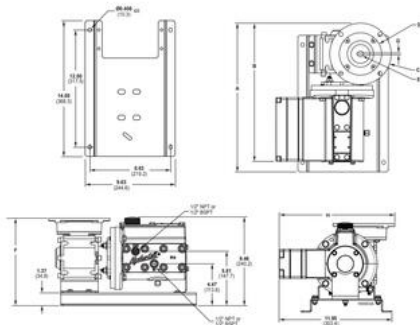
1 Required Motor hp

Performance Maximum Flow at Designated Pressure - Metric

| Metallic Pump Heads (lph) |              |              |              | Pump<br>rpm | Gear<br>Ratio | Motor<br>rpm |
|---------------------------|--------------|--------------|--------------|-------------|---------------|--------------|
| 7 bar                     | 34 bar       | 103 bar      | 172 bar      |             |               |              |
| 10.16 (0.18)              | 10.04 (0.18) | 9.51 (0.25)  | 8.648 (0.55) | 25          | 60:1          | 1800         |
| 12.29 (0.18)              | 12.14 (0.18) | 11.53 (0.25) | 10.57 (0.55) | 30          | 50:1          |              |
| 15.58 (0.18)              | 15.40 (0.18) | 14.53 (0.37) | 13.47 (0.55) | 37.5        | 40:1          |              |
| 20.94 (0.18)              | 20.66 (0.18) | 19.54 (0.37) | 18.25 (0.55) | 50          | 30:1          |              |
| 25.23 (0.18)              | 24.86 (0.18) | 23.54 (0.37) | 22.07 (0.75) | 60          | 25:1          |              |
| 31.66 (0.18)              | 31.17 (0.18) | 29.55 (0.37) | 27.81 (0.75) | 75          | 20:1          |              |
| 42.39 (0.18)              | 41.68 (0.25) | 39.56 (0.55) | 37.36 (0.75) | 100         | 15:1          |              |
| 63.83 (0.18)              | 62.70 (0.25) | 59.59 (0.55) | 56.47 (0.75) | 150         | 10:1          |              |
| 85.28 (0.18)              | 83.72 (0.25) | 79.61 (0.55) | 75.58 (1.1)  | 200         | 7.5:1         |              |
| 128.2 (0.18)              | 125.8 (0.37) | 119.7 (0.75) | 113.8 (1.5)  | 300         | 5:1           | 3000         |
| 171.1 (0.55)              | 167.8 (0.75) | 159.7 (1.1)  | 152.0 (1.5)  | 400         | 7.5:1         |              |
| 256.8 (0.55)              | 251.9 (0.75) | 239.8 (1.5)  | 228.5 (1.5)  | 600         | 5:1           |              |

1 Required Motor kW

P300 Models with Metallic Pumping Head

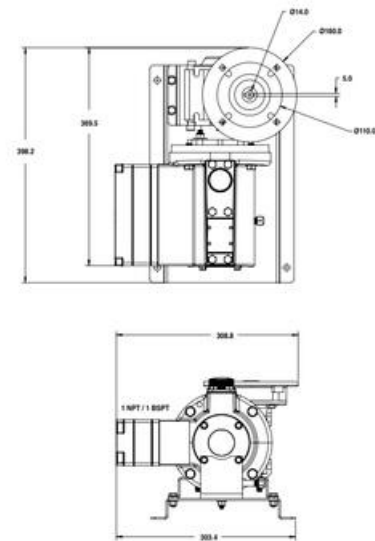


Dimensions in Inches (Millimeters)

| Port<br>Pressure | A                | B                | C                | D                | E                | F                | G                | H                |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| HEAVY DUTY       | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) |
| STANDARD         | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) |
| REC-63-80        | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) |
| REC-63-80        | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) | 16.75<br>(425.5) |

Representative Drawings (mm)

Metallic Pump Heads



Performance - Flow Capacities and Pressure Ratings

For Synchronous Speed, Self-cooled Motors

Ltr Maximum Flow at Designated Pressure

| Ltr Metallic Pump Heads Only |              |              |              | Pump<br>rpm | Gear<br>Ratio | Motor<br>rpm |
|------------------------------|--------------|--------------|--------------|-------------|---------------|--------------|
| 7 bar                        | 34 bar       | 103 bar      | 172 bar      |             |               |              |
| 10.16 (0.18)                 | 10.04 (0.18) | 9.51 (0.25)  | 8.648 (0.55) | 25          | 60:1          | 1800         |
| 12.29 (0.18)                 | 12.14 (0.18) | 11.53 (0.25) | 10.57 (0.55) | 30          | 50:1          |              |
| 15.58 (0.18)                 | 15.40 (0.18) | 14.53 (0.37) | 13.47 (0.55) | 37.5        | 40:1          |              |
| 20.94 (0.18)                 | 20.66 (0.18) | 19.54 (0.37) | 18.25 (0.55) | 50          | 30:1          |              |
| 25.23 (0.18)                 | 24.86 (0.18) | 23.54 (0.37) | 22.07 (0.75) | 60          | 25:1          |              |
| 31.66 (0.18)                 | 31.17 (0.18) | 29.55 (0.37) | 27.81 (0.75) | 75          | 20:1          |              |
| 42.39 (0.18)                 | 41.68 (0.25) | 39.56 (0.55) | 37.36 (0.75) | 100         | 15:1          |              |
| 63.83 (0.18)                 | 62.70 (0.25) | 59.59 (0.55) | 56.47 (0.75) | 150         | 10:1          |              |
| 85.28 (0.18)                 | 83.72 (0.25) | 79.61 (0.55) | 75.58 (1.1)  | 200         | 7.5:1         |              |
| 128.2 (0.18)                 | 125.8 (0.37) | 119.7 (0.75) | 113.8 (1.5)  | 300         | 5:1           |              |
| 171.1 (0.55)                 | 167.8 (0.75) | 159.7 (1.1)  | 152.0 (1.5)  | 400         | 7.5:1         | 3000         |
| 256.8 (0.55)                 | 251.9 (0.75) | 239.8 (1.5)  | 228.5 (1.5)  | 600         | 5:1           |              |

Notes:

- 1. The motor life is based on ambient temperature conditions up to 40°C. For ambient temperatures above 40°C, please contact Warner International.
- 2. Contact Warner for performance specifications.
- 3. Based on using 60 Hz motor.
- 4. Maximum continuous motor speed is 1500 rpm at full pressure.
- 5. For installation in enclosed pressure domain, please contact Warner International.

For 10:1 Turndown, Self-cooled Motors

Ltr Maximum Flow at Designated Pressure

| Ltr Metallic Pump Heads Only |              |              |              | Pump<br>rpm | Gear<br>Ratio | Motor<br>rpm |
|------------------------------|--------------|--------------|--------------|-------------|---------------|--------------|
| 7 bar                        | 34 bar       | 103 bar      | 172 bar      |             |               |              |
| 10.16 (0.18)                 | 10.04 (0.18) | 9.51 (0.25)  | 8.648 (0.55) | 25          | 60:1          | 1800         |
| 12.29 (0.18)                 | 12.14 (0.18) | 11.53 (0.25) | 10.57 (0.55) | 30          | 50:1          |              |
| 15.58 (0.18)                 | 15.40 (0.18) | 14.53 (0.37) | 13.47 (0.55) | 37.5        | 40:1          |              |
| 20.94 (0.18)                 | 20.66 (0.18) | 19.54 (0.37) | 18.25 (0.55) | 50          | 30:1          |              |
| 25.23 (0.18)                 | 24.86 (0.18) | 23.54 (0.37) | 22.07 (0.75) | 60          | 25:1          |              |
| 31.66 (0.18)                 | 31.17 (0.18) | 29.55 (0.37) | 27.81 (0.75) | 75          | 20:1          |              |
| 42.39 (0.18)                 | 41.68 (0.25) | 39.56 (0.55) | 37.36 (0.75) | 100         | 15:1          |              |
| 63.83 (0.18)                 | 62.70 (0.25) | 59.59 (0.55) | 56.47 (0.75) | 150         | 10:1          |              |
| 85.28 (0.18)                 | 83.72 (0.25) | 79.61 (0.55) | 75.58 (1.1)  | 200         | 7.5:1         |              |
| 128.2 (0.18)                 | 125.8 (0.37) | 119.7 (0.75) | 113.8 (1.5)  | 300         | 5:1           |              |
| 171.1 (0.55)                 | 167.8 (0.75) | 159.7 (1.1)  | 152.0 (1.5)  | 400         | 7.5:1         | 3000         |
| 256.8 (0.55)                 | 251.9 (0.75) | 239.8 (1.5)  | 228.5 (1.5)  | 600         | 5:1           |              |

Notes:

- 1. The motor life is based on ambient temperature conditions up to 40°C. For ambient temperatures above 40°C, please contact Warner International.
- 2. Contact Warner for performance specifications.
- 3. Based on using 60 Hz motor.
- 4. Maximum continuous motor speed is 1500 rpm at full pressure.
- 5. For installation in enclosed pressure domain, please contact Warner International.

Mechanical Adjustment Controller for ATEX/Explosive Areas

All Max/Min flow rates in litres/minute

| 103 bar  |          | 172 bar  |          | Pump<br>rpm | Gear<br>Ratio | Model<br>Number | Required Motor<br>Size & Frame |
|----------|----------|----------|----------|-------------|---------------|-----------------|--------------------------------|
| Max Flow | Min Flow | Max Flow | Min Flow |             |               |                 |                                |
| 10.16    | 10.04    | 9.51     | 8.648    | 25          | 60:1          | REC-63-80       | 0.75kW / EC 71 / 4 Pda         |
| 12.29    | 12.14    | 11.53    | 10.57    | 30          | 50:1          |                 |                                |
| 15.58    | 15.40    | 14.53    | 13.47    | 37.5        | 40:1          |                 |                                |
| 20.94    | 20.66    | 19.54    | 18.25    | 50          | 30:1          |                 |                                |
| 25.23    | 24.86    | 23.54    | 22.07    | 60          | 25:1          |                 |                                |
| 31.66    | 31.17    | 29.55    | 27.81    | 75          | 20:1          |                 |                                |
| 42.39    | 41.68    | 39.56    | 37.36    | 100         | 15:1          |                 |                                |
| 63.83    | 62.70    | 59.59    | 56.47    | 150         | 10:1          |                 |                                |
| 85.28    | 83.72    | 79.61    | 75.58    | 200         | 7.5:1         |                 |                                |
| 128.2    | 125.8    | 119.7    | 113.8    | 300         | 5:1           |                 |                                |
| 171.1    | 167.8    | 159.7    | 152.0    | 400         | 7.5:1         |                 |                                |
| 256.8    | 251.9    | 239.8    | 228.5    | 600         | 5:1           |                 |                                |

P300 Specifications (Cont'd)

Performance Maximum Flow at Designated Pressure - Imperial

| Metallic Pump Heads (gph) |           |           |           | Pump<br>rpm | Gear<br>Ratio | Motor<br>rpm |
|---------------------------|-----------|-----------|-----------|-------------|---------------|--------------|
| 100 psi                   | 500 psi   | 1500 psi  | 2500 psi  |             |               |              |
| 3.221 (5)                 | 3.183 (5) | 3.014 (5) | 2.741 (5) | 30          | 60:1          | 1800         |
| 3.895 (5)                 | 3.849 (5) | 3.655 (5) | 3.350 (5) | 36          | 50:1          |              |
| 4.509 (5)                 | 4.462 (5) | 4.272 (5) | 4.007 (5) | 45          | 40:1          |              |
| 6.630 (5)                 | 6.548 (5) | 6.194 (5) | 5.766 (5) | 60          | 30:1          |              |
| 7.999 (5)                 | 7.881 (5) | 7.463 (5) | 6.998 (5) | 72          | 25:1          |              |
| 10.04 (5)                 | 9.880 (5) | 9.368 (5) | 8.815 (5) | 90          | 20:1          |              |
| 13.44 (5)                 | 13.21 (5) | 12.54 (5) | 11.84 (5) | 120         | 15:1          |              |
| 20.24 (5)                 | 19.88 (5) | 18.89 (5) | 17.90 (5) | 180         | 10:1          |              |
| 27.03 (5)                 | 26.54 (5) | 25.24 (5) | 23.96 (5) | 240         | 7.5:1         |              |
| 40.63 (5)                 | 39.87 (5) | 37.93 (1) | 36.08 (5) | 360         | 5:1           |              |
| 54.23 (5)                 | 53.20 (5) | 50.63 (5) | 48.19 (5) | 480         | 7.5:1         | 3600         |
| 81.42 (5)                 | 79.85 (1) | 76.02 (2) | 72.43 (3) | 720         | 5:1           |              |

1 Required Motor hp

Performance Maximum Flow at Designated Pressure - Metric

| Metallic Pump Heads (lph) |              |              |              | Pump<br>rpm | Gear<br>Ratio | Motor<br>rpm |
|---------------------------|--------------|--------------|--------------|-------------|---------------|--------------|
| 7 bar                     | 34 bar       | 103 bar      | 172 bar      |             |               |              |
| 10.16 (0.18)              | 10.04 (0.18) | 9.51 (0.25)  | 8.648 (0.55) | 25          | 60:1          | 1800         |
| 12.29 (0.18)              | 12.14 (0.18) | 11.53 (0.25) | 10.57 (0.55) | 30          | 50:1          |              |
| 15.58 (0.18)              | 15.40 (0.18) | 14.53 (0.37) | 13.47 (0.55) | 37.5        | 40:1          |              |
| 20.94 (0.18)              | 20.66 (0.18) | 19.54 (0.37) | 18.25 (0.55) | 50          | 30:1          |              |
| 25.23 (0.18)              | 24.86 (0.18) | 23.54 (0.37) | 22.07 (0.75) | 60          | 25:1          |              |
| 31.66 (0.18)              | 31.17 (0.18) | 29.55 (0.37) | 27.81 (0.75) | 75          | 20:1          |              |
| 42.39 (0.18)              | 41.68 (0.25) | 39.56 (0.55) | 37.36 (0.75) | 100         | 15:1          |              |
| 63.83 (0.18)              | 62.70 (0.25) | 59.59 (0.55) | 56.47 (0.75) | 150         | 10:1          |              |
| 85.28 (0.18)              | 83.72 (0.25) | 79.61 (0.55) | 75.58 (1.1)  | 200         | 7.5:1         |              |
| 128.2 (0.18)              | 125.8 (0.37) | 119.7 (0.75) | 113.8 (1.5)  | 300         | 5:1           |              |
| 171.1 (0.55)              | 167.8 (0.75) | 159.7 (1.1)  | 152.0 (1.5)  | 400         | 7.5:1         | 3000         |
| 256.8 (0.55)              | 251.9 (0.75) | 239.8 (1.5)  | 228.5 (1.5)  | 600         | 5:1           |              |

1 Required Motor kW