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# HYDRA-CELL KALVOPUMPUT P500

Annostelupumppu

P500MSGSSD10H
Kalvopumppu P500



- Virtaus 7 - 1600 l/h
- Paine max. 172 bar
- Metallirakenne
- Tiivisteetön rakenne

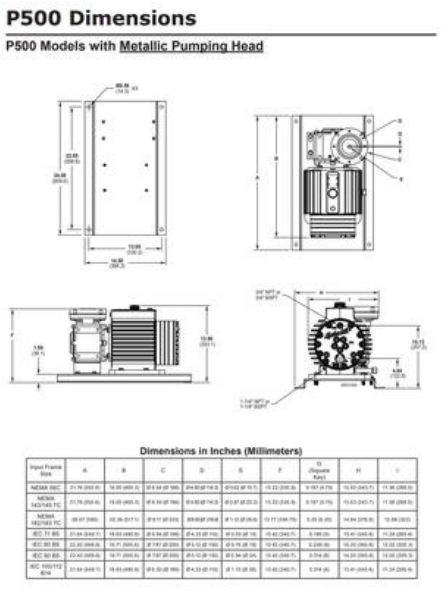
### TUOTEKUVAUS

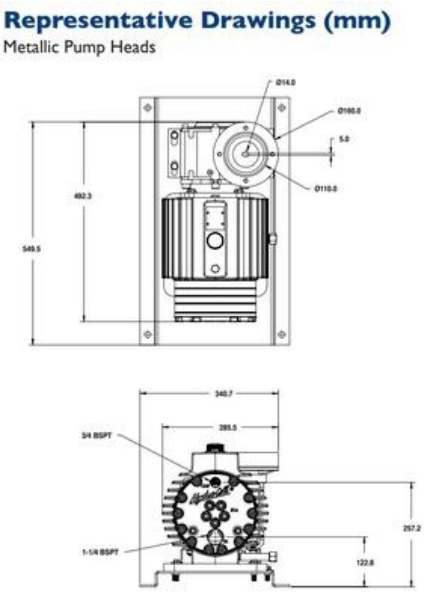
Hydra-Cell Metering Solutions P500 -pumpuissa käytetään viittä kalvoa yhdessä pumppupäässä. Tämän ainutlaatuisen rakenteen ansiosta Hydra-Cell tuottaa käytännössä "pulssittoman" virtauksen ilman että, on tarvetta käyttää kalliita pulsaationvaimentimia.

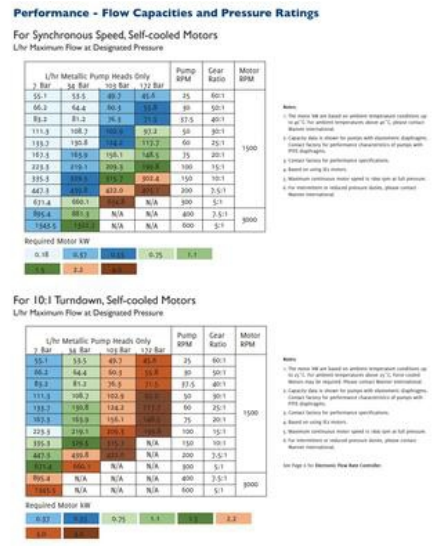
## TEKNISET TIEDOT

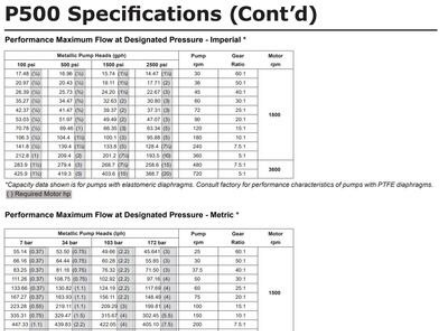
| | |
|---|---|
| **1098_Particle size (mm)** | Max. 0,5mm |
| **Akselimitta** | Ontto akseli 28 mm |
| **Hydrauliöljyn määrä** | 2,1 l |
| **Jousipidikkeen materiaali** | Hastelloy C |
| **Kalvon materiaali** | FKM |
| **Liitännän sisääntulo** | BSPT 1 1/4" |
| **Liitännän ulostulo** | BSPT 3/4" |
| **Max. järjestelmän paine** | 34 bar |
| **Max. käyttölämpötila** | 120 °C |
| **Max. paine** | 172 bar |
| **Max. virtaus** | 402 l/h |
| **Max. viskositeetti** | 1500 cP |
| **Paino** | 88,5 kg |
| **Pohjalevyn materiaali** | Epoksi-lakattua terästä |
| **Pumpun materiaali** | SS 316L |
| **Pyörimissuunta** | Valinnainen |
| **Venttiilien materiaali** | Nitronic 50 |
| **Venttiilin istukan materiaali** | SS 316L |

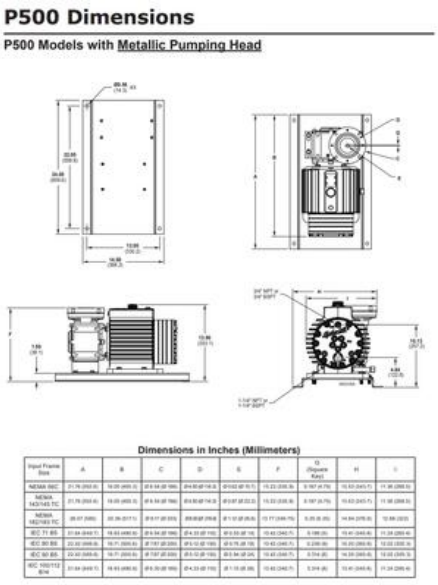
| | |
|---|---|
| **Venttiilin jousen materiaali** | Elgiloy |
| **Välityssuhde** | 10:1 - IEC 112-B14 |

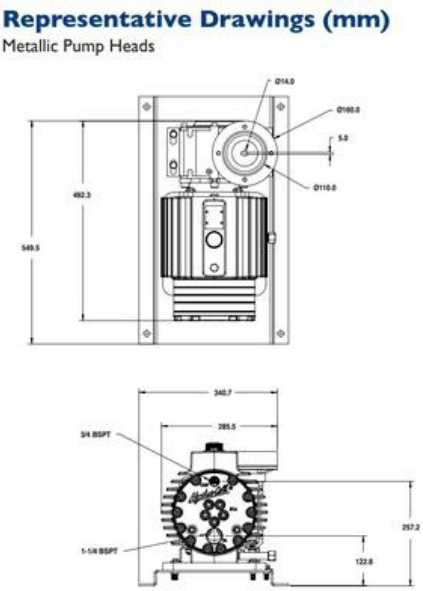


## Performance - Flow Capacities and Pressure Ratings

### For Synchronous Speed, Self-cooled Motors

L/hr Maximum Flow at Designated Pressure

| L/hr Metallic Pump Heads Only | | | | Pump RPM | Gear Ratio | Motor RPM |
|---|---|---|---|---|---|---|
| 7 Bar | 34 Bar | 103 Bar | 172 Bar | | | |
| 55.1 | 53.5 | 49.7 | 45.8 | 25 | 60:1 | 1500 |
| 66.2 | 64.4 | 60.5 | 55.9 | 30 | 50:1 | |
| 83.2 | 81.2 | 76.1 | 71.2 | 37.5 | 40:1 | |
| 111.3 | 108.7 | 102.9 | 97.2 | 50 | 30:1 | |
| 133.7 | 130.8 | 124.2 | 117.7 | 60 | 25:1 | |
| 167.3 | 165.9 | 158.1 | 148.5 | 75 | 20:1 | |
| 223.3 | 219.1 | 209.3 | 199.8 | 100 | 15:1 | |
| 335.5 | 329.5 | 315.2 | 302.4 | 150 | 10:1 | |
| 447.3 | 439.8 | 422.0 | 405.1 | 200 | 7.5:1 | |
| 671.4 | 666.1 | 634.8 | N/A | 300 | 5:1 | 3000 |
| 895.4 | 881.3 | N/A | N/A | 400 | 7.5:1 | |
| 1343.5 | 1322.7 | N/A | N/A | 600 | 5:1 | |

Required Motor kW

| | | | | |
|---|---|---|---|---|
| 0.18 | 0.37 | 0.55 | 0.75 | 1.1 |
| 1.5 | 2.2 | 3.0 | | |

Notes:

1. The motor kW are based on ambient temperature conditions up to 40 °C. For ambient temperatures above 40 °C, please contact Warren International.
2. Capacity data is shown for pumps with elastomeric diaphragms. Contact factory for performance characteristics of pumps with PTFE diaphragms.
3. Contact factory for performance specifications.
4. Based on using IEC motors.
5. Maximum continuous motor speed is 1800 rpm at full pressure.
6. For intermittent or reduced pressure duties, please contact Warren International.

### For 10:1 Turndown, Self-cooled Motors

L/hr Maximum Flow at Designated Pressure

| L/hr Metallic Pump Heads Only | | | | Pump RPM | Gear Ratio | Motor RPM |
|---|---|---|---|---|---|---|
| 7 Bar | 34 Bar | 103 Bar | 172 Bar | | | |
| 55.1 | 53.5 | 49.7 | 45.8 | 25 | 60:1 | 1500 |
| 66.2 | 64.4 | 60.5 | 55.9 | 30 | 50:1 | |
| 83.2 | 81.2 | 76.1 | 71.2 | 37.5 | 40:1 | |
| 111.3 | 108.7 | 102.9 | 97.2 | 50 | 30:1 | |
| 133.7 | 130.8 | 124.2 | 117.7 | 60 | 25:1 | |
| 167.3 | 165.9 | 158.1 | 148.5 | 75 | 20:1 | |
| 223.3 | 219.1 | 209.3 | 199.8 | 100 | 15:1 | |
| 335.5 | 329.5 | 315.2 | N/A | 150 | 10:1 | |
| 447.3 | 439.8 | 422.0 | N/A | 200 | 7.5:1 | |
| 671.4 | 666.1 | N/A | N/A | 300 | 5:1 | 3000 |
| 895.4 | N/A | N/A | N/A | 400 | 7.5:1 | |
| 1343.5 | N/A | N/A | N/A | 600 | 5:1 | |

Required Motor kW

| | | | | | |
|---|---|---|---|---|---|
| 0.37 | 0.55 | 0.75 | 1.1 | 1.5 | 2.2 |
| 3.0 | 4.0 | | | | |

Notes:

1. The motor kW are based on ambient temperature conditions up to 25 °C. For ambient temperatures above 25 °C, Force-cooled Motors may be required. Please contact Warren International.
2. Capacity data is shown for pumps with elastomeric diaphragms. Contact factory for performance characteristics of pumps with PTFE diaphragms.
3. Contact factory for performance specifications.
4. Based on using IEC motors.
5. Maximum continuous motor speed is 1800 rpm at full pressure.
6. For intermittent or reduced pressure duties, please contact Warren International.

See Page 4 for **Electronic Flow Rate Controller**

# P500 Specifications (Cont'd)

**Performance Maximum Flow at Designated Pressure - Imperial ***

| Metallic Pump Heads (gph) | | | | Pump rpm | Gear Ratio | Motor rpm |
|---|---|---|---|---|---|---|
| 100 psi | 500 psi | 1500 psi | 2500 psi | | | |
| 17.48 (1/4) | 16.99 (1/4) | 15.74 (1/4) | 14.47 (1/4) | 30 | 60:1 | 1800 |
| 20.97 (1/4) | 20.43 (1/4) | 18.11 (1/4) | 17.71 (2) | 36 | 50:1 | |
| 26.39 (1/4) | 25.73 (1/4) | 24.20 (1/4) | 22.67 (3) | 45 | 40:1 | |
| 35.27 (1/4) | 34.47 (1/4) | 32.63 (2) | 30.80 (3) | 60 | 30:1 | |
| 42.37 (1/4) | 41.47 (1/4) | 39.37 (2) | 37.31 (3) | 72 | 25:1 | |
| 53.03 (1/4) | 51.87 (1/4) | 49.40 (2) | 47.07 (3) | 90 | 20:1 | |
| 70.78 (1/4) | 69.48 (1) | 66.30 (3) | 63.34 (5) | 120 | 15:1 | |
| 106.3 (1/4) | 104.4 (1/2) | 100.1 (3) | 95.88 (5) | 180 | 10:1 | |
| 141.8 (1/4) | 139.4 (1/2) | 133.8 (5) | 128.4 (7½) | 240 | 7.5:1 | |
| 212.8 (1) | 209.4 (2) | 201.2 (7½) | 193.5 (10) | 360 | 5:1 | |
| 283.9 (1½) | 279.4 (3) | 268.7 (7½) | 258.9 (15) | 480 | 7.5:1 | 3600 |
| 425.9 (1½) | 419.3 (3) | 403.6 (15) | 388.7 (20) | 720 | 5:1 | |

*Capacity data shown is for pumps with elastomeric diaphragms. Consult factory for performance characteristics of pumps with PTFE diaphragms.*

( ) Required Motor hp

**Performance Maximum Flow at Designated Pressure - Metric ***

| Metallic Pump Heads (lph) | | | | Pump rpm | Gear Ratio | Motor rpm |
|---|---|---|---|---|---|---|
| 7 bar | 34 bar | 103 bar | 172 bar | | | |
| 55.14 (0.37) | 53.50 (0.75) | 49.66 (2.2) | 45.841 (3) | 25 | 60:1 | 1500 |
| 66.16 (0.37) | 64.44 (0.75) | 60.28 (2.2) | 55.85 (3) | 30 | 50:1 | |
| 83.25 (0.37) | 81.15 (0.75) | 76.32 (2.2) | 71.50 (3) | 37.5 | 40:1 | |
| 111.26 (0.37) | 108.75 (0.75) | 102.92 (2.2) | 97.16 (4) | 50 | 30:1 | |
| 133.66 (0.37) | 130.82 (1.1) | 124.19 (2.2) | 117.68 (4) | 60 | 25:1 | |
| 167.27 (0.37) | 163.93 (1.1) | 156.11 (2.2) | 148.49 (4) | 75 | 20:1 | |
| 223.26 (0.55) | 219.11 (1.1) | 209.26 (3) | 199.815 (4) | 100 | 15:1 | |
| 335.31 (0.75) | 329.47 (1.5) | 315.47 (4) | 302.45 (5.5) | 150 | 10:1 | |
| 447.33 (1.1) | 439.63 (2.2) | 422.05 (4) | 405.10 (7.5) | 200 | 7.5:1 | |
| 671.4 (1.5) | 660.6 (3) | 634.8 (7.5) | 610.4 (11) | 300 | 5:1 | 3000 |
| 895.4 (3) | 881.3 (5.5) | 847.6 (7.5) | 815.7 (11) | 400 | 7.5:1 | |
| 1343.5 (4) | 1322.7 (7.5) | 1273.1 (11) | 1226.3 (11) | 600 | 5:1 | |

*Capacity data shown is for pumps with elastomeric diaphragms. Consult factory for performance characteristics of pumps with PTFE diaphragms.*

( ) Required Motor kW