

HYDRA-CELL KALVOPUMPUT P500

Annostelupumppu

P500MSGSSB15H
Kalvopumppu P500



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



TUOTEKUVAUS

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

TEKNISEET TIEDOT

Akselimitta	Ontto akseli 19 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	267 l/h
Max. viskositeetti	1500 cP
Paino	88,5 kg
Particle size	Max. 0,5mm
Pohjalevyn materiaali	Epoksi-lakattua terästä
Pumpun materiaali	SS 316L
Pyörimissuunta	Valinnainen
Venttiilien materiaali	Nitronic 50

SS 316L

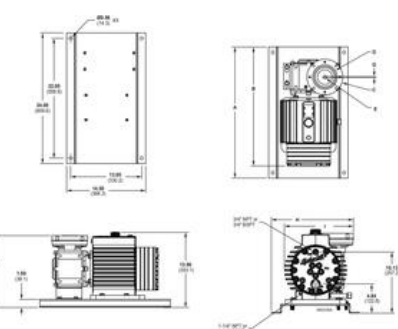
Elgilov

15:1 - IEC 80-B5

P500 Models with Metallic Pumping Head



Metallic Pump Heads



For Synchronous Speed, Self-cooled Motors

Required Motor kW

- 1. The motor will be tested in ambient temperature conditions of 25°C. The ambient temperature should be 7°C above ambient (Waters International).
- 2. Capacity data is shown for pumps with diaphragm type pumps. Contact factory for performance characteristics of pumps with other diaphragms.
- 3. Contact factory for performance specifications.
- 4. Based on using 50% solvent.
- 5. Maximum continuous motor speed is 1500 rpm at full pressure.
- 6. For information on induced pressure limits, please contact Waters International.

For 10.1 Tonnage, Self-Cooled
Ltr Maximum Flow at Designated Pressure

Required Motor kW

Notes

1. The series 300 are based on ambient temperature conditions of 50 °C. For ambient temperatures above 25 °C, flow-cooled designs may be required. Please contact Nissei International.
2. Capacity data is shown for pumps with aluminum diaphragms. Contact Nissei for performance characteristics of pumps with PTFE diaphragms.
3. Contact Nissei for performance specifications.
4. Based on using 3/4" meters.
5. Maximum continuous motor speed is 1000 rpm at full pressure.
6. For intermittent or reduced pressure service, please contact Nissei International.

Performance Maximum Flow at Designated Pressure - Imperial *

Material Pump Heads (gpi)				Pump	Gear Ratio	Motor gpi
100 psi	150 psi	1800 psi	2000 psi			
17.48 (32)	18.96 (32)	15.78 (12)	16.47 (12)	30	60:1	
20.97 (32)	20.43 (32)	18.19 (12)	17.71 (12)	36	50:1	
28.39 (32)	25.73 (32)	24.20 (12)	22.67 (12)	45	40:1	
36.27 (32)	34.47 (32)	32.63 (32)	30.80 (32)	60	30:1	
42.97 (32)	41.47 (32)	37.71 (32)	37.71 (32)	72	25:1	
52.53 (32)	51.97 (32)	49.49 (32)	47.67 (32)	90	20:1	
70.76 (32)	69.48 (32)	66.38 (32)	63.34 (32)	120	15:1	
106.3 (32)	104.4 (32)	100.1 (32)	96.89 (32)	180	10:1	
141.1 (32)	139.6 (32)	133.9 (32)	129.4 (32)	240	7.5:1	
212.8 (11)	209.4 (32)	207.2 (32)	193.5 (32)	360	5:1	
270.4 (11)	264.7 (32)	261.7 (32)	249.3 (32)	480	3.75:1	
355.9 (11)	349.3 (32)	345.9 (32)	329.7 (32)	720	2.5:1	

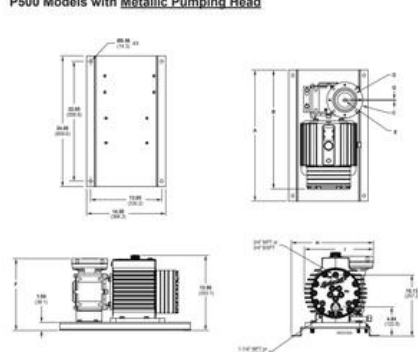
*Capacity data shown is for pumps with elastomeric diaphragms. Consult factory for performance characteristics of pumps with PTFE diaphragms.

Performance Maximum Flow at Designated Pressure - Metric '

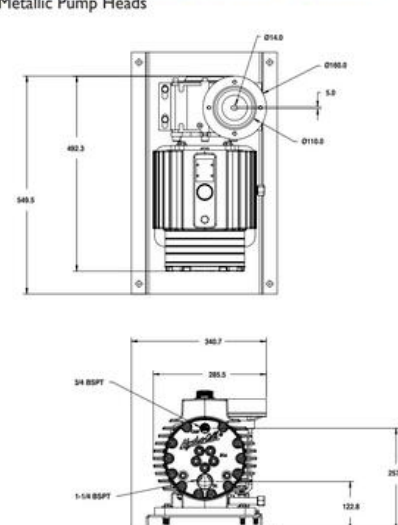
7 bar	Metallic Pump Heads (g/s)			Pump g/s	Gear Ratio	Motor g/s
	16 bar	100 bar	170 bar			
55.14 (30.3)	52.50 (28.7)	43.49 (25.3)	45.64 (25.9)	25	40.1	1500
66.10 (37.3)	64.44 (37.6)	50.32 (29.5)	55.05 (31.2)	30	50.1	
83.25 (39.3)	81.18 (39.7)	70.32 (32.2)	71.50 (33.1)	37.5	40.1	
111.26 (39.3)	108.75 (39.7)	102.30 (32.2)	97.16 (30.8)	50	30.1	
130.64 (39.3)	130.82 (31.2)	124.39 (32.2)	117.68 (30.8)	40	25.1	
167.27 (39.3)	163.93 (31.2)	156.11 (32.2)	146.49 (30.8)	75	20.1	3000
212.58 (39.3)	210.13 (31.2)	204.26 (32.2)	197.85 (30.8)	150	15.1	
309.18 (39.3)	307.47 (31.2)	312.05 (32.2)	305.84 (30.8)	150	10.1	
447.33 (31.2)	436.83 (32.2)	422.06 (31.6)	405.10 (30.7)	200	7.5.1	
674.1 (31.6)	660.0 (31.1)	634.9 (32.2)	614.0 (31.7)	300	5.1	
896.4 (31.1)	881.3 (35.5)	847.6 (37.5)	815.3 (37.5)	400	7.5.1	3000

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

P500 Models with Metallic Pumping Head



Metallic Pump Heads



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	132 Bar			
55.1	55.5	49.2	45.4	25	60:1	1500
66.3	64.4	56.5	52.4	35	50:1	
81.2	81.2	70.5	65.5	50:1	40:1	
111.8	108.7	102.9	97.2	50	30:1	
133.2	130.8	124.4	119.2	60	25:1	
157.8	155.9	148.4	143.2	75	20:1	
222.5	219.5	209.3	200.8	100	15:1	
335.5	329.5	315.2	302.4	150	10:1	
447.1	439.1	421.9	406.8	200	7.5:1	
671.4	660.1	638.8	N/A	300	5:1	
895.4	881.1	N/A	N/A	400	3.75:1	3000
1345.5	1319.1	N/A	N/A	600	2.5:1	

Required Motor kW



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	132 Bar			
55.1	55.5	49.2	45.4	25	60:1	1500
66.3	64.4	56.5	52.4	35	50:1	
81.2	81.2	70.5	65.5	50:1	40:1	
111.8	108.7	102.9	97.2	50	30:1	
133.2	130.8	124.4	119.2	60	25:1	
157.8	155.9	148.4	143.2	75	20:1	
222.5	219.5	209.3	200.8	100	15:1	
335.5	329.5	315.2	302.4	150	10:1	
447.1	439.1	421.9	406.8	200	7.5:1	
671.4	660.1	638.8	N/A	300	5:1	
895.4	881.1	N/A	N/A	400	3.75:1	3000
1345.5	1319.1	N/A	N/A	600	2.5:1	

Required Motor kW



Notes:
1. The above table is based on ambient temperature conditions up to 40 °C. For ambient temperatures above 40 °C, please consult the factory.
2. Capacity data is shown for pumps with stainless steel diaphragms. Consult factory for performance characteristics of pumps with PTFE diaphragms.
3. Capacity data is shown for pumps with stainless steel diaphragms. Consult factory for performance characteristics of pumps with PTFE diaphragms.
4. Based on using 10:1 turndown.
5. Maximum continuous motor speed is 1500 rpm at full pressure.
6. For intermediate or reduced pressure design, please consult the factory.

See Page 1 for Electronic Flow Rate Controller

P500 Specifications (Cont'd)

Performance Maximum Flow at Designated Pressure - Imperial *

Metric Pump Heads (gpm)				Pump RPM	Gear Ratio	Motor RPM
100 psi	340 psi	1030 psi	2000 psi			
17.48 (392)	16.96 (376)	15.14 (332)	14.47 (319)	30	60:1	1500
20.47 (452)	20.45 (452)	18.11 (399)	17.17 (379)	35	50:1	
25.39 (562)	25.73 (572)	24.25 (535)	23.47 (515)	45	40:1	
34.47 (762)	34.47 (762)	34.45 (762)	34.45 (762)	60	30:1	
42.57 (937)	41.47 (912)	39.37 (862)	37.31 (822)	72	25:1	
51.65 (1137)	51.67 (1137)	49.49 (1087)	47.47 (1047)	90	20:1	
70.79 (1562)	69.46 (1527)	66.30 (1457)	63.34 (1392)	120	15:1	
106.18 (2337)	104.44 (2302)	100.71 (2212)	97.46 (2132)	160	10:1	
141.8 (3112)	139.4 (3052)	133.9 (2922)	129.4 (2822)	240	7.5:1	
212.8 (4712)	209.4 (4632)	201.2 (4432)	193.8 (4282)	360	5:1	3000
284.1 (6252)	279.1 (6132)	264.7 (5832)	258.4 (5682)	480	3.75:1	
425.8 (9372)	419.3 (9232)	401.8 (8822)	389.7 (8572)	720	2.5:1	

1 Required Motor kW

Performance Maximum Flow at Designated Pressure - Metric *

Metric Pump Heads (gpm)				Pump RPM	Gear Ratio	Motor RPM
7 bar	34 bar	103 bar	132 bar			
55.1 (30.5)	55.5 (30.7)	49.2 (27.2)	45.4 (25.2)	25	60:1	1500
66.3 (36.8)	64.4 (35.7)	56.5 (31.4)	52.4 (29.2)	35	50:1	
81.2 (45.2)	81.2 (45.2)	70.5 (39.2)	65.5 (36.2)	50:1	40:1	
111.8 (61.8)	108.7 (60.7)	102.9 (56.5)	97.2 (53.5)	50	30:1	
133.2 (73.2)	130.8 (72.2)	124.4 (68.2)	119.2 (65.2)	60	25:1	
157.8 (86.2)	155.9 (85.2)	148.4 (81.2)	143.2 (78.2)	75	20:1	
222.5 (123.2)	219.5 (121.2)	209.3 (116.2)	200.8 (110.2)	100	15:1	
335.5 (186.2)	329.5 (183.2)	315.2 (174.2)	302.4 (166.2)	150	10:1	
447.1 (248.2)	439.1 (244.2)	421.9 (234.2)	406.8 (226.2)	200	7.5:1	
671.4 (366.2)	660.1 (363.2)	638.8 (354.2)	N/A	300	5:1	3000
895.4 (498.2)	881.1 (491.2)	N/A	N/A	400	3.75:1	
1345.5 (748.2)	1319.1 (736.2)	N/A	N/A	600	2.5:1	

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

1 Required Motor kW