OEM Finland Oy | Puh: 0207 499 499 | info@oem.fi | www.oem.fi
PL 9, 20101 TURKU

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

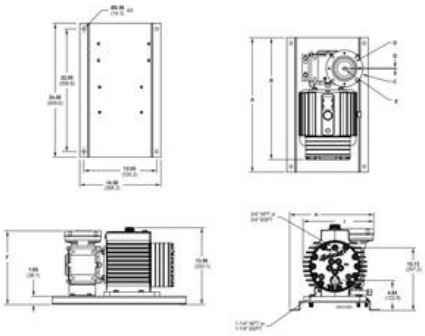
TEKNISET TIEDOT

1098_Particle size (mm)	Max. 0,5mm
Akselimitta	Ontto akseli 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
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	15:1 - IEC 80-B5

P500 Dimensions

P500 Models with Metallic Pumping Head

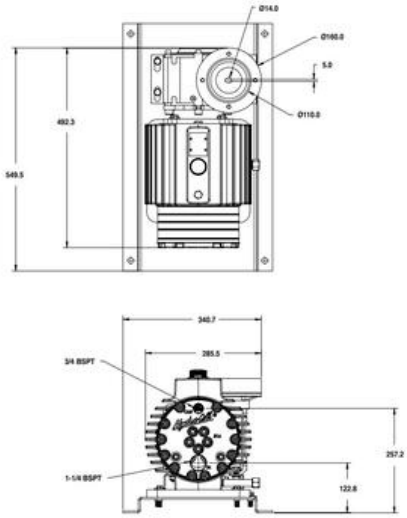


Dimensions in Inches (Millimeters)

Input Frame Size	A	B	C	D	E	F	G (Square Key)	H	I
NEMA 56C	21.76 (552.7)	19.05 (483.7)	Ø 6.64 (Ø 168)	Ø 4.50 Ø 7.18	Ø 0.62 (Ø 15.7)	15.22 (386.5)	0.187 (4.75)	10.63 (270.1)	11.38 (289.0)
NEMA 143/145 TC	21.76 (552.6)	19.05 (483.7)	Ø 6.64 (Ø 168)	Ø 4.50 Ø 7.18	Ø 0.87 (Ø 22.2)	15.22 (386.8)	0.187 (4.75)	10.63 (270.1)	11.38 (289.0)
NEMA 182/184 TC	26.07 (662)	22.36 (567.7)	Ø 9.17 (Ø 233)	Ø 5.50 Ø 7.18	Ø 1.12 (Ø 28.6)	17.77 (451.5)	0.25 (6.35)	14.84 (376.9)	12.88 (327)
IEC 71 B5	21.64 (549.7)	19.53 (496.0)	Ø 6.64 (Ø 168)	Ø 4.33 Ø 7.09	Ø 0.63 Ø 1.10	15.43 (392.7)	0.196 (5)	10.41 (264.4)	11.34 (288.4)
IEC 80 B5	22.32 (566.8)	19.71 (500.6)	Ø 7.87 (Ø 200)	Ø 5.12 Ø 7.09	Ø 0.75 Ø 1.10	15.43 (392.7)	0.236 (6)	10.20 (259.0)	12.02 (305.3)
IEC 90 B5	22.32 (566.8)	19.71 (500.6)	Ø 7.87 (Ø 200)	Ø 5.12 Ø 7.09	Ø 0.94 Ø 1.34	15.43 (392.7)	0.314 (8)	10.20 (259.0)	12.02 (305.3)
IEC 100/112 B14	21.64 (549.7)	19.53 (496.0)	Ø 9.30 (Ø 165)	Ø 4.33 Ø 7.09	Ø 1.10 (Ø 28)	15.43 (392.7)	0.314 (8)	10.41 (264.4)	11.34 (288.4)

Representative Drawings (mm)

Metallic Pump Heads



Performance - Flow Capacities and Pressure Ratings

For Synchronous Speed, Self-cooled Motors

L/hr Maximum Flow at Designed Pressure

L/hr Metallic Pump Heads Only 7 Bar	34 Bar	103 Bar	172 Bar	Pump RPM	Gear Ratio	Motor RPM
55.1	53.5	49.7	45.8	25	60:1	1500
86.2	84.4	80.3	75.8	80	50:1	
83.2	81.2	76.3	71.5	37.5	40:1	
111.3	108.2	102.9	97.2	50	30:1	
133.7	130.8	124.2	117.2	60	25:1	
182.3	178.9	170.1	160.5	75	20:1	
223.3	219.1	208.3	196.8	100	15:1	
335.3	329.1	312.7	295.4	150	10:1	
447.3	439.0	417.0	393.9	200	7.5:1	
671.4	660.1	627.0	N/A	300	5:1	
895.4	881.3	N/A	N/A	400	7.5:1	3000
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		

For 10:1 Turndown, Self-cooled Motors

L/hr Maximum Flow at Designed Pressure

L/hr Metallic Pump Heads Only 7 Bar	34 Bar	103 Bar	172 Bar	Pump RPM	Gear Ratio	Motor RPM
55.1	53.5	49.7	45.8	25	60:1	1500
86.2	84.4	80.3	75.8	80	50:1	
83.2	81.2	76.3	71.5	37.5	40:1	
111.3	108.2	102.9	97.2	50	30:1	
133.7	130.8	124.2	117.2	60	25:1	
182.3	178.9	170.1	160.5	75	20:1	
223.3	219.1	208.3	196.8	100	15:1	
335.3	329.1	312.7	N/A	150	10:1	
447.3	439.0	417.0	N/A	200	7.5:1	
671.4	660.1	N/A	N/A	300	5:1	
895.4	N/A	N/A	N/A	400	7.5:1	3000
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				

P500 Specifications (Cont'd)

Performance Maximum Flow at Designed Pressure - Imperial *

Metallic Pump Heads (gph) 100 psi	500 psi	1500 psi	2500 psi	Pump rpm	Gear Ratio	Motor rpm
17.49 (1oz)	16.96 (1oz)	15.74 (1oz)	14.47 (1oz)	30	60:1	1800
20.97 (1oz)	20.43 (1oz)	19.11 (1oz)	17.71 (2)	36	50:1	
26.39 (1oz)	25.73 (1oz)	24.20 (1oz)	22.67 (3)	45	40:1	
35.27 (1oz)	34.47 (1oz)	32.63 (2)	30.80 (3)	60	30:1	
42.37 (1oz)	41.47 (1oz)	39.37 (2)	37.31 (3)	72	25:1	
53.03 (1oz)	51.97 (1oz)	49.49 (2)	47.07 (3)	90	20:1	
70.78 (1oz)	69.46 (1)	66.35 (3)	63.34 (5)	120	15:1	
106.3 (1oz)	104.4 (1oz)	100.1 (3)	95.88 (5)	180	10:1	
141.8 (1oz)	139.4 (1oz)	133.9 (5)	128.4 (7oz)	240	7.5:1	
212.8 (1)	209.4 (2)	201.2 (7oz)	192.5 (9)	360	5:1	
283.9 (1oz)	279.4 (3)	268.7 (7oz)	258.6 (10)	480	7.5:1	3600
425.9 (1oz)	419.3 (3)	403.4 (10)	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 Designed Pressure - Metric *

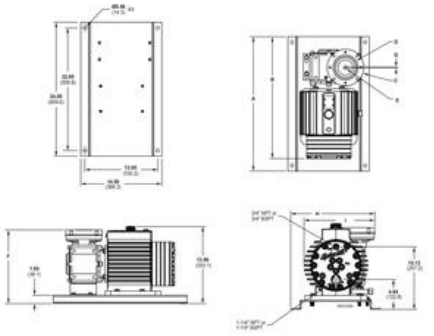
Metallic Pump Heads (lph) 7 bar	34 bar	103 bar	172 bar	Pump rpm	Gear Ratio	Motor rpm
55.14 (0.37)	53.50 (0.75)	49.66 (2.2)	45.841 (3)	25	60:1	1500
86.16 (0.37)	84.44 (0.75)	80.28 (2.2)	55.80 (3)	30	50:1	
83.25 (0.37)	81.16 (0.75)	76.32 (2.2)	71.50 (3)	37.5	40:1	
111.26 (0.37)	108.75 (0.75)	102.92 (2.2)	97.16 (4)	50	30:1	
133.66 (0.37)	130.82 (1.1)	124.19 (2.2)	117.66 (4)	60	25:1	
167.27 (0.37)	163.93 (1.1)	156.11 (2.2)	148.48 (4)	75	20:1	
223.28 (0.55)	219.11 (1.1)	209.26 (3)	199.61 (4)	100	15:1	
335.31 (0.75)	329.47 (1.5)	315.67 (4)	302.45 (5.5)	150	10:1	
447.33 (1.1)	439.83 (2.2)	422.00 (4)	405.10 (7.5)	200	7.5:1	
671.4 (1.5)	660.6 (3)	634.5 (7.5)	610.4 (11)	300	5:1	
895.4 (3)	881.3 (5.5)	847.6 (7.5)	815.7 (11)	400	7.5:1	3000
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

P500 Dimensions

P500 Models with Metallic Pumping Head

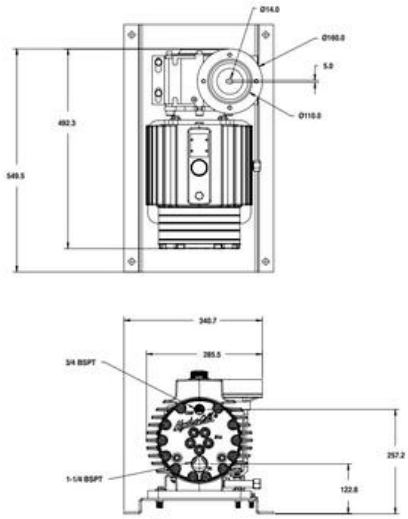


Dimensions in Inches (Millimeters)

Input Frame Size	A	B	C	D	E	F	G (Square Key)	H	I
NEMA 56C	21.76 (552.7)	19.05 (483.7)	Ø 6.64 (Ø 168)	Ø 4.50 Ø 7.18	Ø 0.62 (Ø 15.7)	15.22 (386.5)	0.187 (4.75)	10.63 (270.1)	11.38 (289.0)
NEMA 143/145 TC	21.76 (552.6)	19.05 (483.7)	Ø 6.64 (Ø 168)	Ø 4.50 Ø 7.18	Ø 0.87 (Ø 22.2)	15.22 (386.8)	0.187 (4.75)	10.63 (270.1)	11.38 (289.0)
NEMA 182/184 TC	26.07 (662)	22.36 (567.7)	Ø 9.17 (Ø 233)	Ø 5.50 Ø 7.18	Ø 1.12 (Ø 28.6)	17.77 (451.5)	0.25 (6.35)	14.84 (376.9)	12.88 (327)
IEC 71 B5	21.64 (549.7)	19.53 (496.0)	Ø 6.64 (Ø 168)	Ø 4.33 Ø 7.09	Ø 0.63 Ø 1.10	15.43 (392.7)	0.196 (5)	10.41 (264.4)	11.34 (288.4)
IEC 80 B5	22.32 (566.8)	19.71 (500.6)	Ø 7.87 (Ø 200)	Ø 5.12 Ø 7.09	Ø 0.75 Ø 1.10	15.43 (392.7)	0.236 (6)	10.20 (259.0)	12.02 (305.3)
IEC 90 B5	22.32 (566.8)	19.71 (500.6)	Ø 7.87 (Ø 200)	Ø 5.12 Ø 7.09	Ø 0.94 Ø 1.34	15.43 (392.7)	0.314 (8)	10.20 (259.0)	12.02 (305.3)
IEC 100/112 B14	21.64 (549.7)	19.53 (496.0)	Ø 9.30 (Ø 165)	Ø 4.33 Ø 7.09	Ø 1.10 (Ø 28)	15.43 (392.7)	0.314 (8)	10.41 (264.4)	11.34 (288.4)

Representative Drawings (mm)

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	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