

## 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 "pulsittoman" 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

Venttiin jousen materiaali

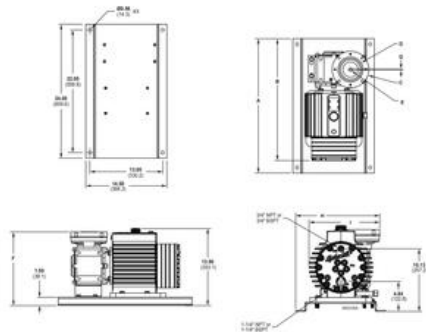
Elgiloy

Välityssuhde

15:1 - IEC 80-B5

### P500 Dimensions

P500 Models with Metallic Pumping Head

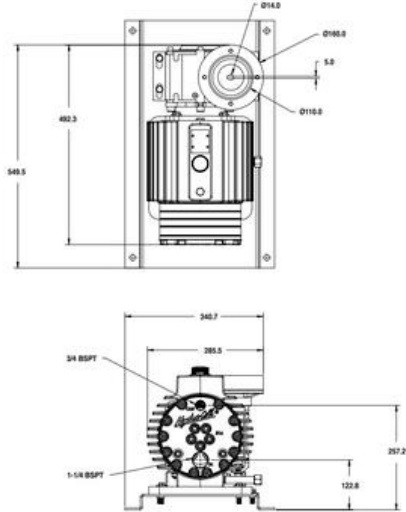


Dimensions in Inches (Millimeters)

Input Frame Size	A	B	C	D	E	F	G (Shaft Height)	H	I
NE50A (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50B (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50C (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50D (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50E (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50F (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50G (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50H (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50I (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50J (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)

### 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

7 Bar	L/hr Metallic Pump Heads Only			Pump RPM	Gear Ratio	Motor RPM
	3/4 Bar	1/2 Bar	1/3 Bar			
55.1	55.5	49.3	45.4	25	60:1	
66.2	66.6	60.3	56.4	30	50:1	
83.2	81.2	74.9	71.0	37.5	40:1	
111.8	108.7	102.3	97.3	50	30:1	
153.2	150.2	143.8	138.7	60	25:1	
195.4	192.3	185.9	180.8	75	20:1	
273.5	270.4	264.0	258.9	100	15:1	
375.5	372.4	366.0	360.9	150	10:1	
467.5	464.4	458.0	452.9	200	7.5:1	
671.4	668.3	N/A	N/A	300	5:1	
895.4	892.3	N/A	N/A	400	3.75:1	
1245.5	1242.4	N/A	N/A	600	2.5:1	

Required Motor kW  
 0.18 0.37 0.75 1.1  
 1.5 2.2

For 10:1 Turndown, Self-cooled Motors  
L/hr Maximum Flow at Designated Pressure

7 Bar	L/hr Metallic Pump Heads Only			Pump RPM	Gear Ratio	Motor RPM
	3/4 Bar	1/2 Bar	1/3 Bar			
55.1	55.5	49.3	45.4	25	60:1	
66.2	66.6	60.3	56.4	30	50:1	
83.2	81.2	74.9	71.0	37.5	40:1	
111.8	108.7	102.3	97.3	50	30:1	
153.2	150.2	143.8	138.7	60	25:1	
195.4	192.3	185.9	180.8	75	20:1	
273.5	270.4	264.0	258.9	100	15:1	
375.5	372.4	366.0	360.9	150	10:1	
467.5	464.4	N/A	N/A	200	7.5:1	
671.4	668.3	N/A	N/A	300	5:1	
895.4	892.3	N/A	N/A	400	3.75:1	
1245.5	1242.4	N/A	N/A	600	2.5:1	

Required Motor kW  
 0.37 0.75 1.1 1.5 2.2

### P500 Specifications (Cont'd)

Performance Maximum Flow at Designated Pressure - Imperial\*

100 psi	Metallic Pump Heads (gpm)			Pump RPM	Gear Ratio	Motor RPM
	7 Bar	5 Bar	3 Bar			
17.49 (250)	18.36 (262)	16.74 (238)	14.47 (205)	25	60:1	
20.97 (299)	21.43 (301)	19.81 (277)	17.53 (246)	30	50:1	
26.39 (368)	25.73 (359)	24.20 (335)	22.47 (312)	37.5	40:1	
32.77 (454)	31.47 (431)	30.00 (414)	28.66 (394)	50	30:1	
42.37 (578)	41.47 (562)	39.27 (534)	37.21 (509)	60	25:1	
55.05 (750)	53.37 (728)	49.40 (675)	47.47 (653)	75	20:1	
70.76 (970)	68.80 (931)	65.10 (882)	63.20 (858)	100	15:1	
90.73 (1240)	88.44 (1191)	84.70 (1142)	82.80 (1118)	150	10:1	
114.1 (1560)	110.4 (1501)	106.6 (1452)	102.8 (1403)	200	7.5:1	
141.4 (1930)	138.4 (1891)	134.6 (1842)	130.8 (1793)	300	5:1	
181.8 (2480)	178.4 (2461)	174.6 (2402)	170.8 (2353)	400	3.75:1	
235.8 (3210)	230.4 (3141)	226.6 (3092)	222.8 (3043)	600	2.5:1	

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

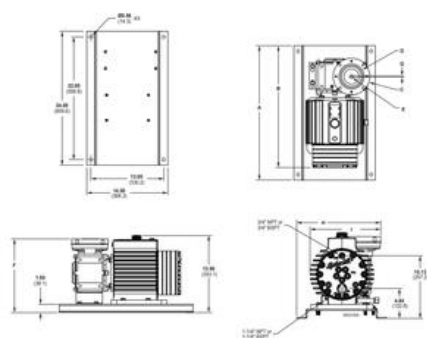
Performance Maximum Flow at Designated Pressure - Metric\*

7 Bar	Metallic Pump Heads (gpm)			Pump RPM	Gear Ratio	Motor RPM
	3/4 Bar	1/2 Bar	1/3 Bar			
55.14 (823)	53.40 (770)	49.30 (715)	45.40 (658)	25	60:1	
66.16 (970)	64.44 (931)	60.30 (875)	56.40 (818)	30	50:1	
83.20 (1215)	81.18 (1176)	74.90 (1090)	71.00 (1023)	37.5	40:1	
111.80 (1615)	108.70 (1596)	102.30 (1495)	97.30 (1418)	50	30:1	
153.20 (2205)	150.20 (2186)	143.80 (2095)	138.70 (1998)	60	25:1	
195.40 (2815)	192.30 (2796)	185.90 (2695)	180.80 (2618)	75	20:1	
273.50 (3915)	270.40 (3896)	264.00 (3795)	258.90 (3718)	100	15:1	
375.50 (5315)	372.40 (5306)	366.00 (5205)	360.90 (5138)	150	10:1	
467.50 (6815)	464.40 (6806)	458.00 (6705)	452.90 (6638)	200	7.5:1	
671.40 (9715)	668.30 (9706)	662.00 (9605)	656.90 (9538)	300	5:1	
895.40 (12915)	892.30 (12906)	886.00 (12805)	880.90 (12738)	400	3.75:1	
1245.50 (17415)	1242.40 (17406)	1236.00 (17305)	1230.90 (17238)	600	2.5:1	

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

### P500 Dimensions

P500 Models with Metallic Pumping Head

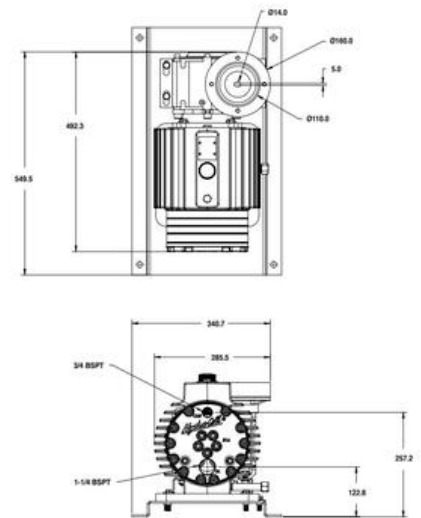


Dimensions in Inches (Millimeters)

Input Frame Size	A	B	C	D	E	F	G (Shaft Height)	H	I
NE50A (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50B (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50C (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50D (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50E (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50F (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50G (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50H (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50I (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)
NE50J (IEC 50)	21.74 (552.6)	18.00 (457.0)	24.84 (628.0)	24.84 (628.0)	21.00 (533.4)	11.25 (285.8)	5.707 (145.0)	10.50 (266.7)	11.25 (285.8)

### 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 Maximum Flow at Designated Pressure				Pump RPM	Gear Ratio	Motor RPM
3 Bar	3.8 Bar	4.5 Bar	5.5 Bar			
55.1	55.5	48.7	45.8	25	60:1	1500
66.2	64.4	56.5	53.9	30	50:1	
83.2	81.4	74.1	71.5	35	40:1	
111.9	108.7	96.2	93.4	50	30:1	
139.7	135.8	118.1	115.7	60	25:1	
192.8	185.9	165.1	162.5	75	20:1	
235.8	229.1	205.5	202.8	100	15:1	
319.5	310.1	279.7	276.4	150	10:1	
447.8	433.4	412.0	407.1	200	7.5:1	
613.4	600.1	578.0	N/A	300	5:1	
816.4	803.9	N/A	N/A	400	3.5:1	3000
1045.5	1032.0	N/A	N/A	600	5:1	

Required Motor kW

0.18	0.53	0.82	1.25	1.4
0.18	0.53	0.82	1.25	1.4

For 10:1 Turndown, Self-cooled Motors

Ltr Maximum Flow at Designated Pressure				Pump RPM	Gear Ratio	Motor RPM
3 Bar	3.8 Bar	4.5 Bar	5.5 Bar			
55.1	55.5	48.7	45.8	25	60:1	1500
66.2	64.4	56.5	53.9	30	50:1	
83.2	81.4	74.1	71.5	35	40:1	
111.9	108.7	96.2	93.4	50	30:1	
139.7	135.8	118.1	115.7	60	25:1	
192.8	185.9	165.1	162.5	75	20:1	
235.8	229.1	205.5	202.8	100	15:1	
319.5	310.1	279.7	276.4	150	10:1	
447.8	433.4	412.0	407.1	200	7.5:1	
613.4	600.1	578.0	N/A	300	5:1	
816.4	803.9	N/A	N/A	400	3.5:1	3000
1045.5	1032.0	N/A	N/A	600	5:1	

Required Motor kW

0.18	0.53	0.82	1.25	1.4
0.18	0.53	0.82	1.25	1.4

## P500 Specifications (Cont'd)

Performance Maximum Flow at Designated Pressure - Imperial \*

Metric Pump Heads (gpm)				Pump RPM	Gear Ratio	Motor RPM
100 psi	150 psi	200 psi	250 psi			
17.48 (252)	16.36 (232)	13.74 (192)	14.47 (202)	30	60:1	1500
20.87 (292)	20.41 (282)	18.15 (252)	17.71 (242)	35	50:1	
24.38 (332)	23.73 (322)	24.20 (332)	22.47 (302)	40	40:1	
32.27 (442)	34.47 (462)	32.03 (432)	30.26 (402)	50	30:1	
42.37 (572)	41.47 (562)	38.27 (502)	37.01 (492)	60	25:1	
52.69 (712)	51.47 (692)	46.44 (632)	47.47 (632)	75	20:1	
70.76 (962)	68.65 (932)	60.30 (852)	60.26 (852)	100	15:1	
103.2 (1362)	104.4 (1322)	100.1 (932)	95.40 (1282)	150	10:1	
141.4 (1912)	139.4 (1852)	133.9 (182)	128.4 (1752)	200	7.5:1	
212.4 (2812)	209.4 (2752)	201.2 (272)	193.3 (2682)	300	5:1	
309.4 (4212)	319.4 (4152)	299.2 (4052)	294.4 (4022)	400	3.5:1	3000
429.4 (5712)	419.4 (5652)	403.4 (5552)	386.7 (5502)	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

Performance Maximum Flow at Designated Pressure - Metric \*

Metric Pump Heads (gpm)				Pump RPM	Gear Ratio	Motor RPM
7 bar	8 bar	9 bar	11.2 bar			
55.14 (8237)	55.48 (8276)	48.66 (722)	45.84 (672)	25	60:1	1500
66.16 (9276)	64.44 (9276)	60.29 (872)	56.50 (822)	30	50:1	
83.25 (9276)	81.44 (9276)	74.32 (922)	71.50 (872)	35	40:1	
111.90 (9276)	108.71 (9276)	102.20 (922)	97.46 (872)	50	30:1	
139.66 (9276)	135.82 (911)	124.16 (922)	117.66 (862)	60	25:1	
192.77 (9276)	185.93 (911)	166.11 (922)	162.46 (862)	75	20:1	
235.76 (9276)	229.10 (911)	206.01 (922)	199.41 (862)	100	15:1	
319.31 (9276)	310.07 (911)	276.44 (922)	268.40 (862)	150	10:1	
447.75 (911)	433.35 (922)	412.00 (911)	407.07 (862)	200	7.5:1	
613.34 (911)	600.00 (911)	603.34 (911)	610.00 (862)	300	5:1	
816.34 (911)	803.90 (911)	803.90 (911)	810.00 (862)	400	3.5:1	3000
1045.40 (911)	1032.00 (911)	1032.00 (911)	1030.00 (862)	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

See Page 1 for Maximum Flow Rate Curves