



HYDRA-CELL KALVOPUMPUT P200

Annostelupumppu

P200MSESSA10S
PUMP WITH GEARBOX AND BASEPLATE



- Virtaus 1 - 300 l/h
- Paine max. 70 bar
- Muovi- ja metallirakenne
- Tiivisteetön rakenne



TUOTEKUVAUS

Hydra-Cell Metering Solutions P200 -pumpuissa käytetään kolmea kalvoa yhdessä pumppupäässä. Tämän ainutlaatuisen rakenteen ansiosta Hydra-Cell tuottaa käytännössä "pulsittoman" virtauksen ilman että, on tarvetta käyttää kalliita pulsaationvaimentimia.

TEKNISET TIEDOT

Akselimitta	Ontto akseli 14 mm
Hydrauliöljyn määrä	0,95 l
Jousipidikkeen materiaali	Hastelloy C
Kalvon materiaali	EPDM
Liitännän sisääntulo	BSPT 1/2"
Liitännän ulostulo	BSPT 3/8"
Max. järjestelmän paine	17 bar
Max. käyttölämpötila	120 °C
Max. paine	70 bar
Max. virtaus	76 l/h
Max. viskositeetti	1000 cP
Paino	19 kg
Particle size	Max. 0,2mm
Pohjalevyn materiaali	Ruostumaton teräs
Pumpun materiaali	SS 316
Pyörimissuunta	Valinnainen

Venttiilien materiaali

Nitronic 50

Venttiilin istukan materiaali

SS 316

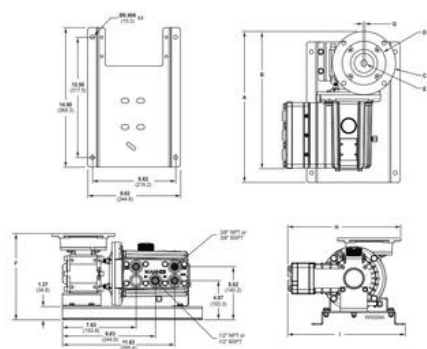
Venttiilin jousen materiaali

Elgiloy

Välityssuhde

10:1 - IEC 71-B5

P200 Models: Metallic and Non-Metallic

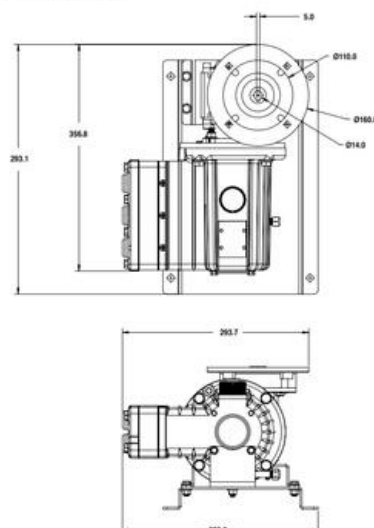


Dimensions in Inches (Millimeters)

Input Name	A	B	C	D	E	F	G (Pulse Period KHz)	H (Pulse Period KHz)	I (Pulse Period KHz)	J (Pulse Period KHz)
MEMA SIG	13.99	16.17	19.36	22.55	25.74	5.37	5.197	10.39	12.48	12.48
	13.99	16.17	19.36	22.55	25.74	5.37	5.197	10.39	12.48	12.48
REC 80 BD	13.99	16.17	19.36	22.55	25.74	5.37	5.197	10.39	12.48	12.48
	13.99	16.17	19.36	22.55	25.74	5.37	5.197	10.39	12.48	12.48
REC 71 BD	13.99	16.17	19.36	22.55	25.74	5.37	5.197	10.39	12.48	12.48
	13.99	16.17	19.36	22.55	25.74	5.37	5.197	10.39	12.48	12.48
REC 80 BD	13.99	16.17	19.36	22.55	25.74	5.37	5.197	10.39	12.48	12.48
	13.99	16.17	19.36	22.55	25.74	5.37	5.197	10.39	12.48	12.48

Representative Drawings (mm)

Metallic Pump Heads



P200 Specifications (Cont'd)

Performance Maximum Flow at Designated Pressure - Imperial

All Pumps (lpm)		Metric Pump Heads Only (lpm)		Pump rpm	Gear Ratio	Motor rpm
100 psi	250 psi	100 psi	1000 psi			
3.576 (30)	3.521 (30)	5.246 (30)	3.126 (30)	30	60:1	
4.059 (30)	3.912 (30)	5.911 (30)	3.561 (30)	36	50:1	
5.072 (30)	4.655 (30)	4.908 (30)	4.748 (45)	45	40:1	
6.756 (30)	6.666 (30)	6.550 (30)	6.353 (30)	60	30:1	
8.107 (30)	8.022 (30)	7.767 (30)	7.637 (30)	72	25:1	
10.130 (30)	10.027 (30)	8.864 (30)	8.963 (30)	90	20:1	
15.500 (30)	15.400 (30)	13.348 (30)	13.369 (30)	120	15:1	
20.248 (30)	20.252 (30)	19.73 (30)	19.19 (30)	180	10:1	
25.397 (30)	25.395 (30)	25.32 (30)	25.62 (30)	240	7.5:1	
40.483 (30)	40.471 (30)	39.46 (30)	38.46 (30)	360	5:1	
53.97 (30)	53.91 (30)	52.66 (30)	51.30 (30)	480	7.5:1	
67.56 (30)	67.56 (30)	66.66 (30)	65.50 (30)	600	5:1	3600

() Required Motor hp

Performance Maximum Flow at Designated Pressure - Metric

All Pumps (lps)	Metallic Pump Needs Only (lps)				Pump (rpm)	Gear Ratio	Motor (rpm)
	7 bar	12 bar	34 bar	69 bar			
10.65 (0.28)	10.20 (0.27)	10.25 (0.27)	10.25 (0.27)	10.25 (0.27)	25	50:1	
12.81 (0.33)	12.70 (0.33)	12.34 (0.33)	11.91 (0.32)	11.91 (0.32)	30	50:1	
16.00 (0.42)	15.89 (0.41)	15.48 (0.41)	14.96 (0.39)	14.96 (0.39)	37.5	40:1	
21.32 (0.55)	21.02 (0.54)	20.68 (0.54)	20.04 (0.53)	20.04 (0.53)	50	30:1	
25.97 (0.67)	25.61 (0.66)	24.83 (0.65)	24.09 (0.63)	24.09 (0.63)	60	25:1	1500
31.96 (0.82)	31.33 (0.81)	30.31 (0.80)	29.07 (0.77)	29.07 (0.77)	75	20:1	
42.99 (1.11)	42.17 (1.09)	40.84 (1.08)	39.34 (1.05)	39.34 (1.05)	100	15:1	
63.67 (1.65)	63.25 (1.64)	62.23 (0.25)	60.55 (0.56)	60.55 (0.56)	150	10:1	
86.15 (0.22)	84.35 (0.21)	83.01 (0.20)	80.55 (0.20)	80.55 (0.20)	200	7.5:1	
117.03 (0.18)	126.5 (0.18)	124.6 (0.18)	121.3 (0.17)	121.3 (0.17)	300	5:1	
170.5 (0.13)	166.7 (0.13)	166.1 (0.05)	163.7 (0.12)	163.7 (0.12)	400	7.5:1	3000
223.0 (0.10)	218.5 (0.10)	217.5 (0.10)	215.0 (0.10)	215.0 (0.10)	500	5:1	

() Required Motor kW

Performance - Flow Capacities and Pressure Ratings

For Synchronous Speed, Self-cooled Motors
L/hr Maximum Flow at Designated Pressure

Life All Pumps 2 Year	1 Year	Life Metallic Pump Heads Only 36 Mo	18 Mo	Pump RPM	Gear Ratio	Motor RPM
10.6	17.7	10.2	3.2	25	80:1	
12.8	12.6	12.3	11.0	30	50:1	
16.0	15.8	15.5	15.0	37.5	40:1	
21.3	21.1	20.7	20.0	50	30:1	
25.5	25.3	24.8	24.1	60	25:1	1500
32.0	31.6	31.1	30.2	75	20:1	
43.6	43.2	42.5	40.9	100	15:1	
59.8	61.2	61.2	60.5	150	10:1	
85.1	84.5	83.0	80.0	200	7.5:1	
127.2	126.5	124.6	121.5	300	5:1	
201.5	199.7	195.1	190.0	450	3.5:1	900

251.4	255.0	246.3
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Required Motor KW

Gender

- 1. The heater will not be used on ambient temperature conditions up to 60°C. For ambient temperatures above 60°C, please contact Weaver International.
- 2. Contact factory for performance specifications.
- 3. Based on using 12 inches.
- 4. Maximum continuous heater speed is 1500 rpm at full pressure.
- 5. For information on reduced pressure duties, please contact Weaver International.

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

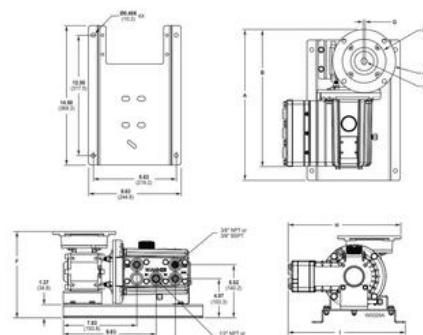
L/hr All Pumps 7.8g	L/hr Metallic Pump Inside Only 34.8g	Pump RPM	Gear Ratio	Motor RPM
10.0	35.2	9.9	25	500
12.8	32.6	12.3	21.9	50
16.0	16.8	15.5	32.0	37.5
21.5	21.1	20.7	20.0	50
35.4	35.1	34.8	34.1	50
53.0	51.6	51.1	50.2	75
63.6	62.2	61.5	60.9	100
85.9	85.5	82.2	81.1	132
101.1	84.8	83.0	81.0	200
127.7	126.5	124.6	123.5	300
130.5	124.7	120.0	118.0	400

Required Motor kW

Study on

1. The major SW are based on ambient temperature conditions up to 25°C . For ambient temperatures above 25°C , P-into-cooled blowers may be required. (Refer contact information.)
 2. Contact factory for performance specifications.
 3. Based on using 50A motors.
 4. Maximum continuous motor speed is 1800 rpm at full pressure.
 5. For information on reduced pressure duration, please contact Blower manufacturer.
- See Page 4 for Electronic Flow Rate Controller.

P200 Models: Metallic and Non-Metallic

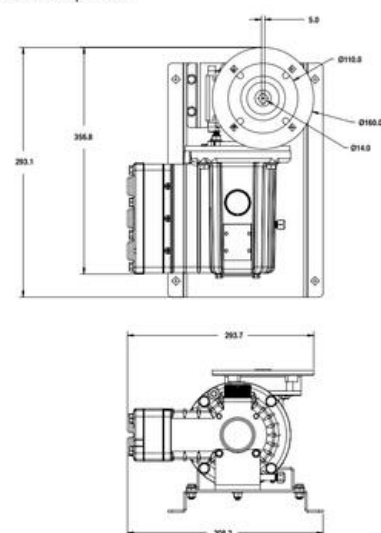


Dimensions in Inches (Millimeters)

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Representative Drawings (mm)

Metallic Pump Heads



P200 Specifications (Cont'd)

Performance Maximum Flow at Designated Pressure - Imperial

All Pumps (gph)				Metallic Pump Heads Only (gph)		Pump rpm	Gear Ratio	Motor rpm
100 psi	250 psi	500 psi	1000 psi					
3.378 (15)	3.321 (15)	3.249 (15)	3.120 (15)	30	60:1	1800	1800	1800
4.099 (15)	3.994 (15)	3.911 (15)	3.770 (15)	36	50:1			
5.072 (15)	5.015 (15)	4.908 (15)	4.748 (15)	45	40:1			
6.756 (15)	6.660 (15)	6.555 (15)	6.350 (15)	60	30:1			
8.107 (15)	8.022 (15)	7.873 (15)	7.637 (15)	72	25:1			
10.130 (15)	10.077 (15)	9.849 (15)	9.563 (15)	90	20:1			
13.603 (14)	13.360 (15)	13.14 (15)	12.77 (15)	120	15:1			
20.248 (15)	20.052 (15)	19.73 (15)	19.19 (15)	180	10:1			
26.993 (15)	26.735 (15)	26.32 (15)	25.62 (15)	240	7.5:1			
40.483 (15)	40.101 (15)	39.49 (15)	38.46 (15)	360	5:1			
53.97 (15)	53.47 (15)	52.66 (15)	51.30 (15)	480	7.5:1	3600	3600	3600
80.95 (15)	80.20 (15)	79.01 (15)	76.98 (15)	720	5:1			

(1) Required Motor hp

Performance Maximum Flow at Designated Pressure - Metric

All Pumps (lph)				Metallic Pump Heads Only (lph)		Pump rpm	Gear Ratio	Motor rpm
7 bar	17 bar	34 bar	69 bar					
10.65 (0.18)	10.48 (0.18)	10.25 (0.18)	9.868 (0.25)	25	60:1	1500	1500	1500
12.81 (0.18)	12.60 (0.18)	12.34 (0.18)	11.91 (0.37)	30	50:1			
16.00 (0.18)	15.82 (0.18)	15.48 (0.18)	14.98 (0.37)	37.5	40:1			
21.32 (0.18)	21.09 (0.18)	20.68 (0.18)	20.04 (0.37)	50	30:1			
25.07 (0.18)	25.31 (0.18)	24.83 (0.18)	24.09 (0.37)	60	25:1			
31.98 (0.18)	31.63 (0.18)	31.07 (0.18)	30.17 (0.37)	75	20:1			
42.59 (0.18)	42.17 (0.18)	41.46 (0.18)	40.29 (0.37)	100	15:1			
63.87 (0.18)	63.25 (0.18)	62.23 (0.25)	60.55 (0.55)	150	10:1			
85.15 (0.18)	84.34 (0.18)	83.01 (0.25)	80.80 (0.55)	200	7.5:1			
127.7 (0.18)	126.5 (0.18)	124.6 (0.37)	121.3 (0.75)	300	5:1	3000	3000	3000
170.3 (0.18)	168.7 (0.37)	166.1 (0.55)	161.8 (0.75)	400	7.5:1			
255.4 (0.18)	253.0 (0.55)	249.2 (0.55)	242.8 (0.75)	600	5:1			

(1) Required Motor kW

Performance - Flow Capacities and Pressure Ratings

For Synchronous Speed, Self-cooled Motors

Lhr Maximum Flow at Designated Pressure

L/hr All Pumps 1.8 Bar - 25.8 Bar		L/hr Metallic Pump Heads Only 34 Bar - 103.4 Bar		Pump RPM	Gear Ratio	Motor RPM
100 psi	250 psi	500 psi	1000 psi			
16.8	16.5	16.0	15.2	25	60:1	1800
19.8	19.5	19.0	18.0	30	50:1	
24.8	24.5	24.0	23.0	37.5	40:1	
31.8	31.5	31.0	30.0	45	30:1	
39.8	39.5	39.0	38.0	54	25:1	
49.8	49.5	49.0	48.0	66	20:1	
61.8	61.5	61.0	60.0	81	15:1	
75.8	75.5	75.0	74.0	100	10:1	
91.8	91.5	91.0	90.0	120	7.5:1	
110.8	110.5	110.0	109.0	150	5:1	
150.8	150.5	150.0	149.0	200	3.75:1	3600
200.8	200.5	200.0	199.0	300	2.5:1	

Required Motor kW

1.8 2.5 3.75 5.0 7.5 10.0 15.0 20.0 30.0 40.0 50.0 75.0 100.0 150.0 200.0 300.0

Note:
1. The motor kW are based on ambient temperature conditions up to 40°C. For ambient temperatures above 40°C, please contact Boretti International.
2. Contact Boretti for performance specifications.
3. Based on using K1 motors.
4. Maximum continuous motor speed is also given as full pressure.
5. For intermediate or reduced pressure duties, please contact Boretti International.

For 10:1 Turndown, Self-cooled Motors

Lhr Maximum Flow at Designated Pressure

L/hr All Pumps 1.8 Bar - 25.8 Bar		L/hr Metallic Pump Heads Only 34 Bar - 103.4 Bar		Pump RPM	Gear Ratio	Motor RPM
100 psi	250 psi	500 psi	1000 psi			
16.8	16.5	16.0	15.2	25	60:1	1800
19.8	19.5	19.0	18.0	30	50:1	
24.8	24.5	24.0	23.0	37.5	40:1	
31.8	31.5	31.0	30.0	45	30:1	
39.8	39.5	39.0	38.0	54	25:1	
49.8	49.5	49.0	48.0	66	20:1	
61.8	61.5	61.0	60.0	81	15:1	
75.8	75.5	75.0	74.0	100	10:1	
91.8	91.5	91.0	90.0	120	7.5:1	
110.8	110.5	110.0	109.0	150	5:1	
150.8	150.5	150.0	149.0	200	3.75:1	3600
200.8	200.5	200.0	199.0	300	2.5:1	

Required Motor kW

1.8 2.5 3.75 5.0 7.5 10.0 15.0 20.0 30.0 40.0 50.0 75.0 100.0 150.0 200.0 300.0

Note:
1. The motor kW are based on ambient temperature conditions up to 40°C. For ambient temperatures above 40°C, please contact Boretti International.
2. Contact Boretti for performance specifications.
3. Based on using K1 motors.
4. Maximum continuous motor speed is also given as full pressure.
5. For intermediate or reduced pressure duties, please contact Boretti International.
See Page 12 for Electronic Flow Rate Controller.

Mechanical Adjustment Controller for ATEX/Explosive Areas

All Min/Max flow rates in litres/hour

7 bar		17 bar		34 bar		69 bar		Pump rpm	Gear Ratio	Model Number	Required Motor Size & Power
Min	Max	Min	Max	Min	Max	Min	Max				
10.7	10.0	10.0	9.0	9.0	8.0	7.0	6.0	1800	1800	M13 - 7/18 H	0.75kW / 0.77 / 4.0kW
13.8	13.0	13.0	11.8	11.8	10.5	10.0	9.0				
17.0	16.0	16.0	14.5	14.5	13.0	12.0	10.5				
20.2	19.0	19.0	17.0	17.0	15.0	14.0	12.0				
23.4	22.0	22.0	20.0	20.0	18.0	16.0	14.0				
26.6	25.0	25.0	22.5	22.5	20.0	18.0	16.0				
29.8	28.0	28.0	25.0	25.0	22.0	20.0	18.0				
33.0	31.0	31.0	27.0	27.0	24.0	22.0	20.0				
36.2	34.0	34.0	30.0	30.0	26.0	24.0	22.0				
39.4	37.0	37.0	33.0	33.0	28.0	26.0	24.0				
42.6	40.0	40.0	36.0	36.0	30.0	28.0	26.0	3600	3600	M13 - 7/18 H	0.75kW / 0.77 / 4.0kW
45.8	43.0	43.0	39.0	39.0	32.0	30.0	28.0				
49.0	46.0	46.0	42.0	42.0	34.0	32.0	30.0				
52.2	49.0	49.0	45.0	45.0	36.0	34.0	32.0				