



HYDRA-CELL KALVOPUMPUT P400

Annostelupumppu

P400ASGSSB10S
Kalvopumppu P400

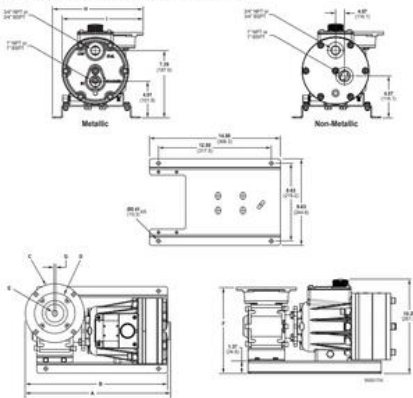


- Virtaus 3 - 900 l/h
- Paine max. 103 bar
- Muovi- ja metallirakenne
- Tiivisteetön rakenne

TUOTEKUVAUS

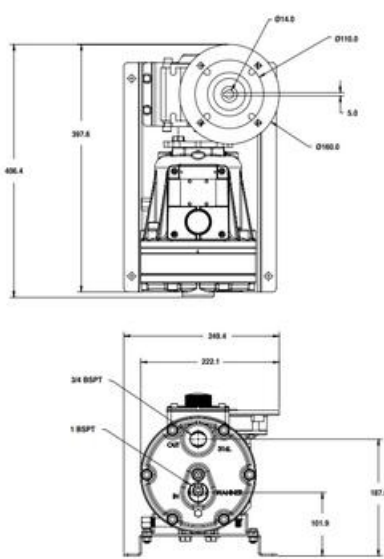
Hydra-Cell Metering Solutions P500 -pumpeissa käytetään kolmea kalvoa yhdessä pumppupäässä. Tämän ainutlaatuisen rakenteen ansiosta Hydra-Cell tuottaa käytännössä "pulsittoman" virtauksen ilman että, on tarvetta käyttää kalliita pulsaationvaimentimia.

P400 Models: Metallic and Non-Metallic



Representative Drawings (mm)

Metallic Pump Heads



Head Frame Size	A	B	C	D	E	F	G (Diaphragm Head)	H	I
100/150	10.12 (256.5)	17.25 (438.0)	10.12 (256.5)	10.12 (256.5)	10.12 (256.5)	4.38 (110.8)	5.12 (129.9)	8.86 (225.5)	8.86 (225.5)
150/200	15.12 (382.5)	22.25 (563.5)	15.12 (382.5)	15.12 (382.5)	15.12 (382.5)	6.38 (162.6)	7.12 (180.8)	11.86 (300.8)	11.86 (300.8)
200/250	20.12 (511.5)	27.25 (693.5)	20.12 (511.5)	20.12 (511.5)	20.12 (511.5)	8.38 (212.6)	9.12 (231.8)	13.86 (352.8)	13.86 (352.8)
250/300	25.12 (638.0)	32.25 (823.5)	25.12 (638.0)	25.12 (638.0)	25.12 (638.0)	10.38 (264.6)	11.12 (282.8)	15.86 (402.8)	15.86 (402.8)
300/350	30.12 (765.0)	37.25 (943.5)	30.12 (765.0)	30.12 (765.0)	30.12 (765.0)	12.38 (314.6)	13.12 (333.8)	17.86 (452.8)	17.86 (452.8)
350/400	35.12 (892.0)	42.25 (1063.5)	35.12 (892.0)	35.12 (892.0)	35.12 (892.0)	14.38 (364.6)	15.12 (383.8)	19.86 (502.8)	19.86 (502.8)
400/450	40.12 (1019.0)	47.25 (1183.5)	40.12 (1019.0)	40.12 (1019.0)	40.12 (1019.0)	16.38 (414.6)	17.12 (433.8)	21.86 (552.8)	21.86 (552.8)
450/500	45.12 (1146.0)	52.25 (1303.5)	45.12 (1146.0)	45.12 (1146.0)	45.12 (1146.0)	18.38 (464.6)	19.12 (483.8)	23.86 (602.8)	23.86 (602.8)
500/550	50.12 (1273.0)	57.25 (1423.5)	50.12 (1273.0)	50.12 (1273.0)	50.12 (1273.0)	20.38 (514.6)	21.12 (533.8)	25.86 (652.8)	25.86 (652.8)
550/600	55.12 (1400.0)	62.25 (1543.5)	55.12 (1400.0)	55.12 (1400.0)	55.12 (1400.0)	22.38 (564.6)	23.12 (583.8)	27.86 (702.8)	27.86 (702.8)
600/650	60.12 (1527.0)	67.25 (1663.5)	60.12 (1527.0)	60.12 (1527.0)	60.12 (1527.0)	24.38 (614.6)	25.12 (633.8)	29.86 (752.8)	29.86 (752.8)
650/700	65.12 (1654.0)	72.25 (1783.5)	65.12 (1654.0)	65.12 (1654.0)	65.12 (1654.0)	26.38 (664.6)	27.12 (683.8)	31.86 (802.8)	31.86 (802.8)
700/750	70.12 (1781.0)	77.25 (1903.5)	70.12 (1781.0)	70.12 (1781.0)	70.12 (1781.0)	28.38 (714.6)	29.12 (733.8)	33.86 (852.8)	33.86 (852.8)
750/800	75.12 (1908.0)	82.25 (2023.5)	75.12 (1908.0)	75.12 (1908.0)	75.12 (1908.0)	30.38 (764.6)	31.12 (783.8)	35.86 (902.8)	35.86 (902.8)
800/850	80.12 (2035.0)	87.25 (2143.5)	80.12 (2035.0)	80.12 (2035.0)	80.12 (2035.0)	32.38 (814.6)	33.12 (833.8)	37.86 (952.8)	37.86 (952.8)
850/900	85.12 (2162.0)	92.25 (2263.5)	85.12 (2162.0)	85.12 (2162.0)	85.12 (2162.0)	34.38 (864.6)	35.12 (883.8)	39.86 (1002.8)	39.86 (1002.8)
900/950	90.12 (2289.0)	97.25 (2383.5)	90.12 (2289.0)	90.12 (2289.0)	90.12 (2289.0)	36.38 (914.6)	37.12 (933.8)	41.86 (1052.8)	41.86 (1052.8)
950/1000	95.12 (2416.0)	102.25 (2503.5)	95.12 (2416.0)	95.12 (2416.0)	95.12 (2416.0)	38.38 (964.6)	39.12 (983.8)	43.86 (1102.8)	43.86 (1102.8)

Performance - Flow Capacities and Pressure Ratings

For Synchronous Speed, Self-cooled Motors
Lhr Maximum Flow at Designated Pressure

Lhr Max Pumping 2.5 Bar - 1.5 Bar	Lhr Max Pumping 1.5 Bar - 0.5 Bar	Pump RPM	Gear Ratio	Motor RPM	Lhr Metallic Pump Heads Only				
					2.5 Bar	1.5 Bar	1.0 Bar	0.5 Bar	0.25 Bar
10.0	20.0	1450	1:1	1450	10.0	20.0	30.0	40.0	50.0
15.0	30.0	1050	1:1	1050	15.0	30.0	45.0	60.0	75.0
20.0	40.0	750	1:1	750	20.0	40.0	60.0	80.0	100.0
25.0	50.0	600	1:1	600	25.0	50.0	75.0	100.0	125.0
30.0	60.0	525	1:1	525	30.0	60.0	90.0	120.0	150.0
35.0	70.0	475	1:1	475	35.0	70.0	105.0	140.0	175.0
40.0	80.0	435	1:1	435	40.0	80.0	120.0	160.0	200.0
45.0	90.0	400	1:1	400	45.0	90.0	135.0	180.0	225.0
50.0	100.0	375	1:1	375	50.0	100.0	150.0	200.0	250.0
55.0	110.0	355	1:1	355	55.0	110.0	165.0	220.0	275.0
60.0	120.0	335	1:1	335	60.0	120.0	180.0	240.0	300.0
65.0	130.0	315	1:1	315	65.0	130.0	195.0	260.0	325.0
70.0	140.0	295	1:1	295	70.0	140.0	210.0	280.0	350.0
75.0	150.0	275	1:1	275	75.0	150.0	225.0	300.0	375.0
80.0	160.0	255	1:1	255	80.0	160.0	240.0	320.0	400.0
85.0	170.0	235	1:1	235	85.0	170.0	255.0	340.0	425.0
90.0	180.0	215	1:1	215	90.0	180.0	270.0	360.0	450.0
95.0	190.0	195	1:1	195	95.0	190.0	285.0	380.0	475.0
100.0	200.0	175	1:1	175	100.0	200.0	300.0	400.0	500.0

Lhr Max Pumping 2.5 Bar - 1.5 Bar	Lhr Max Pumping 1.5 Bar - 0.5 Bar	Pump RPM	Gear Ratio	Motor RPM	Lhr Metallic Pump Heads Only				
					2.5 Bar	1.5 Bar	1.0 Bar	0.5 Bar	0.25 Bar
10.0	20.0	1450	1:1	1450	10.0	20.0	30.0	40.0	50.0
15.0	30.0	1050	1:1	1050	15.0	30.0	45.0	60.0	75.0
20.0	40.0	750	1:1	750	20.0	40.0	60.0	80.0	100.0
25.0	50.0	600	1:1	600	25.0	50.0	75.0	100.0	125.0
30.0	60.0	525	1:1	525	30.0	60.0	90.0	120.0	150.0
35.0	70.0	475	1:1	475	35.0	70.0	105.0	140.0	175.0
40.0	80.0	435	1:1	435	40.0	80.0	120.0	160.0	200.0
45.0	90.0	400	1:1	400	45.0	90.0	135.0	180.0	225.0
50.0	100.0	375	1:1	375	50.0	100.0	150.0	200.0	250.0
55.0	110.0	355	1:1	355	55.0	110.0	165.0	220.0	275.0
60.0	120.0	335	1:1	335	60.0	120.0	180.0	240.0	300.0
65.0	130.0	315	1:1	315	65.0	130.0	195.0	260.0	325.0
70.0	140.0	295	1:1	295	70.0	140.0	210.0	280.0	350.0
75.0	150.0	275	1:1	275	75.0	150.0	225.0	300.0	375.0
80.0	160.0	255	1:1	255	80.0	160.0	240.0	320.0	400.0
85.0	170.0	235	1:1	235	85.0	170.0	255.0	340.0	425.0
90.0	180.0	215	1:1	215	90.0	180.0	270.0	360.0	450.0
95.0	190.0	195	1:1	195	95.0	190.0	285.0	380.0	475.0
100.0	200.0	175	1:1	175	100.0	200.0	300.0	400.0	500.0

Notes:
 1. The motor RPM are based on ambient temperature conditions up to 40°C. For ambient temperatures above 40°C, please contact Wanner International.
 2. Capacity data is shown for pumps with stainless diaphragms. Contact factory for performance characteristics of pumps with PTFE diaphragms.
 3. Contact factory for performance specifications.
 4. Based on using 4:1 motor.
 5. Maximum continuous motor speed is also per 1:1 gear set.
 6. For information on reduced pressure ratings, please contact Wanner International.
 See Page 5 for Maximum Flow Rate Controller.

Mechanical Adjustment Controller for ATEX/Explosive Areas

All Max/Max flow rates in litres/hour

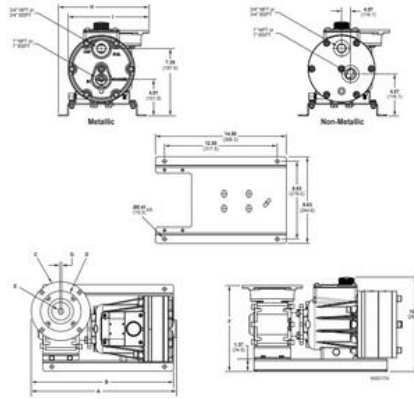
Flow Rate	2.5 bar		1.5 bar		1.0 bar		0.5 bar		Pump rpm	Gear Ratio	Motor rpm	Required Motor Size & Frame
	Min	Max	Min	Max	Min	Max	Min	Max				
10	30.5	35.5	21.5	24.5	15.5	17.5	10.5	11.5	1450	1:1	1450	0.57kW / EC 71 / 4 Pds
15	45.5	50.5	31.5	35.5	21.5	24.5	15.5	17.5	1050	1:1	1050	0.57kW / EC 71 / 4 Pds
20	60.5	65.5	41.5	45.5	31.5	35.5	21.5	24.5	750	1:1	750	0.57kW / EC 71 / 4 Pds
25	75.5	80.5	51.5	55.5	41.5	45.5	31.5	35.5	600	1:1	600	0.57kW / EC 71 / 4 Pds
30	90.5	95.5	61.5	65.5	51.5	55.5	41.5	45.5	525	1:1	525	0.57kW / EC 71 / 4 Pds
35	105.5	110.5	71.5	75.5	61.5	65.5	51.5	55.5	475	1:1	475	0.57kW / EC 71 / 4 Pds
40	120.5	125.5	81.5	85.5	71.5	75.5	61.5	65.5	435	1:1	435	0.57kW / EC 71 / 4 Pds
45	135.5	140.5	91.5	95.5	81.5	85.5	71.5	75.5	400	1:1	400	0.57kW / EC 71 / 4 Pds
50	150.5	155.5	101.5	105.5	91.5	95.5	81.5	85.5	375	1:1	375	0.57kW / EC 71 / 4 Pds
55	165.5	170.5	111.5	115.5	101.5	105.5	91.5	95.5	355	1:1	355	0.57kW / EC 71 / 4 Pds
60	180.5	185.5	121.5	125.5	111.5	115.5	101.5	105.5	335	1:1	335	0.57kW / EC 71 / 4 Pds
65	195.5	200.5	131.5	135.5	121.5	125.5	111.5	115.5	315	1:1	315	0.57kW / EC 71 / 4 Pds
70	210.5	215.5	141.5	145.5	131.5	135.5	121.5	125.5	295	1:1	295	0.57kW / EC 71 / 4 Pds
75	225.5	230.5	151.5	155.5	141.5	145.5	131.5	135.5	275	1:1	275	0.57kW / EC 71 / 4 Pds
80	240.5	245.5	161.5	165.5	151.5	155.5	141.5	145.5	255	1:1	255	0.57kW / EC 71 / 4 Pds
85	255.5	260.5	171.5	175.5	161.5	165.5	151.5	155.5	235	1:1	235	0.57kW / EC 71 / 4 Pds
90	270.5	275.5	181.5	185.5	171.5	175.5	161.5	165.5	215	1:1	215	0.57kW / EC 71 / 4 Pds
95	285.5	290.5	191.5	195.5	181.5	185.5	171.5	175.5	195	1:1	195	0.57kW / EC 71 / 4 Pds
100	300.5	305.5	201.5	205.5	191.5	195.5	181.5	185.5	175	1:1	175	0.57kW / EC 71 / 4 Pds

P400 Specifications (Cont'd)

Performance Maximum Flow at Designated Pressure - Imperial *

Flow Rate	All Pumps (gph)		Metallic Pump Heads Only (gph)		Pump rpm	Gear Ratio	Motor rpm
	Min	Max	Min	Max			
10	30.5	35.5	21.5	24			

P400 Models: Metallic and Non-Metallic

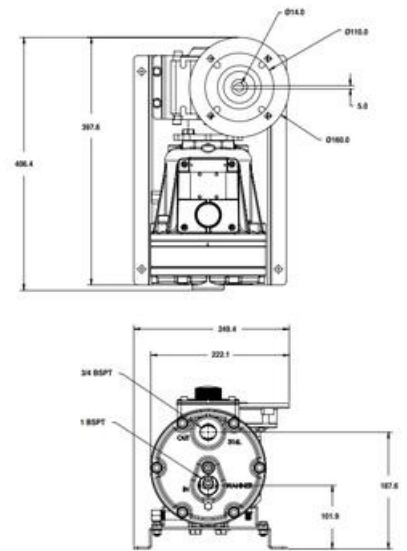


Dimensions in Inches (Millimeters)

Design Frame Size	A	B	C	D	E	F	G (Shaft Dia)	H	I	
METALlic	16.12 (408.0)	17.29 (439.5)	16.17 (409.5)	43.34 (1099)	43.48 (1099.5)	43.42 (1098.5)	0.875 (22.2375)	8.86 (225.4)	8.86 (225.4)	8.86 (225.4)
NON-METALlic	16.12 (408.0)	17.29 (439.5)	16.17 (409.5)	43.34 (1099)	43.48 (1099.5)	43.42 (1098.5)	0.875 (22.2375)	8.86 (225.4)	8.86 (225.4)	8.86 (225.4)

Representative Drawings (mm)

Metallic Pump Heads



Performance - Flow Capacities and Pressure Ratings

For Synchronous Speed, Self-cooled Motors
Lhr Maximum Flow at Designated Pressure

Lhr All Pumps 1.8M - 1.8M	Lhr Metallic Pump Metallic Only 2.8M - 2.8M	Pump SFM	Gear Ratio	Motor SFM
30.4	30.4	30.4	30.4	30.4
40.8	40.8	40.8	40.8	40.8
48.2	48.2	48.2	48.2	48.2
54.8	54.8	54.8	54.8	54.8
57.6	57.6	57.6	57.6	57.6
60.4	60.4	60.4	60.4	60.4
63.2	63.2	63.2	63.2	63.2
66.0	66.0	66.0	66.0	66.0
68.8	68.8	68.8	68.8	68.8
71.6	71.6	71.6	71.6	71.6
74.4	74.4	74.4	74.4	74.4
77.2	77.2	77.2	77.2	77.2
80.0	80.0	80.0	80.0	80.0
82.8	82.8	82.8	82.8	82.8
85.6	85.6	85.6	85.6	85.6
88.4	88.4	88.4	88.4	88.4
91.2	91.2	91.2	91.2	91.2
94.0	94.0	94.0	94.0	94.0
96.8	96.8	96.8	96.8	96.8
99.6	99.6	99.6	99.6	99.6
102.4	102.4	102.4	102.4	102.4
105.2	105.2	105.2	105.2	105.2
108.0	108.0	108.0	108.0	108.0
110.8	110.8	110.8	110.8	110.8
113.6	113.6	113.6	113.6	113.6
116.4	116.4	116.4	116.4	116.4
119.2	119.2	119.2	119.2	119.2
122.0	122.0	122.0	122.0	122.0
124.8	124.8	124.8	124.8	124.8
127.6	127.6	127.6	127.6	127.6
130.4	130.4	130.4	130.4	130.4
133.2	133.2	133.2	133.2	133.2
136.0	136.0	136.0	136.0	136.0
138.8	138.8	138.8	138.8	138.8
141.6	141.6	141.6	141.6	141.6
144.4	144.4	144.4	144.4	144.4
147.2	147.2	147.2	147.2	147.2
150.0	150.0	150.0	150.0	150.0
152.8	152.8	152.8	152.8	152.8
155.6	155.6	155.6	155.6	155.6
158.4	158.4	158.4	158.4	158.4
161.2	161.2	161.2	161.2	161.2
164.0	164.0	164.0	164.0	164.0
166.8	166.8	166.8	166.8	166.8
169.6	169.6	169.6	169.6	169.6
172.4	172.4	172.4	172.4	172.4
175.2	175.2	175.2	175.2	175.2
178.0	178.0	178.0	178.0	178.0
180.8	180.8	180.8	180.8	180.8
183.6	183.6	183.6	183.6	183.6
186.4	186.4	186.4	186.4	186.4
189.2	189.2	189.2	189.2	189.2
192.0	192.0	192.0	192.0	192.0
194.8	194.8	194.8	194.8	194.8
197.6	197.6	197.6	197.6	197.6
200.4	200.4	200.4	200.4	200.4
203.2	203.2	203.2	203.2	203.2
206.0	206.0	206.0	206.0	206.0
208.8	208.8	208.8	208.8	208.8
211.6	211.6	211.6	211.6	211.6
214.4	214.4	214.4	214.4	214.4
217.2	217.2	217.2	217.2	217.2
220.0	220.0	220.0	220.0	220.0
222.8	222.8	222.8	222.8	222.8
225.6	225.6	225.6	225.6	225.6
228.4	228.4	228.4	228.4	228.4
231.2	231.2	231.2	231.2	231.2
234.0	234.0	234.0	234.0	234.0
236.8	236.8	236.8	236.8	236.8
239.6	239.6	239.6	239.6	239.6
242.4	242.4	242.4	242.4	242.4
245.2	245.2	245.2	245.2	245.2
248.0	248.0	248.0	248.0	248.0
250.8	250.8	250.8	250.8	250.8
253.6	253.6	253.6	253.6	253.6
256.4	256.4	256.4	256.4	256.4
259.2	259.2	259.2	259.2	259.2
262.0	262.0	262.0	262.0	262.0
264.8	264.8	264.8	264.8	264.8
267.6	267.6	267.6	267.6	267.6
270.4	270.4	270.4	270.4	270.4
273.2	273.2	273.2	273.2	273.2
276.0	276.0	276.0	276.0	276.0
278.8	278.8	278.8	278.8	278.8
281.6	281.6	281.6	281.6	281.6
284.4	284.4	284.4	284.4	284.4
287.2	287.2	287.2	287.2	287.2
290.0	290.0	290.0	290.0	290.0
292.8	292.8	292.8	292.8	292.8
295.6	295.6	295.6	295.6	295.6
298.4	298.4	298.4	298.4	298.4
301.2	301.2	301.2	301.2	301.2
304.0	304.0	304.0	304.0	304.0
306.8	306.8	306.8	306.8	306.8
309.6	309.6	309.6	309.6	309.6
312.4	312.4	312.4	312.4	312.4
315.2	315.2	315.2	315.2	315.2
318.0	318.0	318.0	318.0	318.0
320.8	320.8	320.8	320.8	320.8
323.6	323.6	323.6	323.6	323.6
326.4	326.4	326.4	326.4	326.4
329.2	329.2	329.2	329.2	329.2
332.0	332.0	332.0	332.0	332.0
334.8	334.8	334.8	334.8	334.8
337.6	337.6	337.6	337.6	337.6
340.4	340.4	340.4	340.4	340.4
343.2	343.2	343.2	343.2	343.2
346.0	346.0	346.0	346.0	346.0
348.8	348.8	348.8	348.8	348.8
351.6	351.6	351.6	351.6	351.6
354.4	354.4	354.4	354.4	354.4
357.2	357.2	357.2	357.2	357.2
360.0	360.0	360.0	360.0	360.0

Required Motor kW

0.18	0.27	0.36	0.45
0.54	0.81	1.08	1.35

- Notes:
 - The motor kW are based on ambient temperature conditions up to 40°C. For ambient temperatures above 40°C, please contact Western International.
 - Capacity data is shown for pumps with aluminum diaphragms. Contact factory for performance characteristics of pumps with PTFE diaphragms.
 - Contact factory for performance specifications.
 - Based on using 4:1 ratios.
 - Maximum continuous motor speed is full pressure.
 - For information on reduced pressure ratings, please contact Western International.

For 10:1 Turndown, Self-cooled Motors
Lhr Maximum Flow at Designated Pressure

Lhr All Pumps 1.8M - 1.8M	Lhr Metallic Pump Metallic Only 2.8M - 2.8M	Pump SFM	Gear Ratio	Motor SFM
30.4	30.4	30.4	30.4	30.4
40.8	40.8	40.8	40.8	40.8
48.2	48.2	48.2	48.2	48.2
54.8	54.8	54.8	54.8	54.8
57.6	57.6	57.6	57.6	57.6
60.4	60.4	60.4	60.4	60.4
63.2	63.2	63.2	63.2	63.2
66.0	66.0	66.0	66.0	66.0
68.8	68.8	68.8	68.8	68.8
71.6	71.6	71.6	71.6	71.6
74.4	74.4	74.4	74.4	74.4
77.2	77.2	77.2	77.2	77.2
80.0	80.0	80.0	80.0	80.0
82.8	82.8	82.8	82.8	82.8
85.6	85.6	85.6	85.6	85.6
88.4	88.4	88.4	88.4	88.4
91.2	91.2	91.2	91.2	91.2
94.0	94.0	94.0	94.0	94.0
96.8	96.8	96.8	96.8	96.8
99.6	99.6	99.6	99.6	99.6
102.4	102.4	102.4	102.4	102.4
105.2	105.2	105.2	105.2	105.2
108.0	108.0	108.0	108.0	108.0
110.8	110.8	110.8	110.8	110.8
113.6	113.6	113.6	113.6	113.6
116.4	116.4	116.4	116.4	116.4
119.2	119.2	119.2	119.2	119.2
122.0	122.0	122.0	122.0	122.0
124.8	124.8	124.8	124.8	124.8
127.6	127.6	127.6	127.6	127.6
130.4	130.4	130.4	130.4	130.4
133.2	133.2	133.2	133.2	133.2
136.0	136.0	136.0	136.0	136.0
138.8	138.8	138.8	138.8	138.8
141.6	141.6	141.6	141.6	141.6
144.4	144.4	144.4	144.4	144.4
147.2	147.2	147.2	147.2	147.2
150.0	150.0	150.0	150.0	150.0
152.8	152.8	152.8	152.8	152.8
155.6	155.6	155.6	155.6	155.6
158.4	158.4	158.4	158.4	158.4
161.2	161.2	161.2	161.2	161.2
164.0	164.0	164.0	164.0	164.0
166.8	166.8	166.8	166.8	166.8
169.6	169.6	169.6	169.6	169.6
172.4	172.4	172.4	172.4	172.4
175.2	175.2	175.2	175.2	175.2
178.0	178.0	178.0	178.0	178.0
180.8	180.8	180.8	180.8	180.8
183.6	183.6	183.6	183.6	183.6
186.4	186.4	186.4	186.4	186.4
189.2	189.2	189.2	189.2	189.2
192.0	192.0	192.0	192.0	192.0
194.8	194.8	194.8	194.8	194.8
197.6	197.6	197.6	197.6	197.6
200.4	200.4	200.4	200.4	200.4
203.2	203.2	203.2	203.2	203.2
206.0	206.0	206.0	206.0	206.0
208.8	208.8	208.8	208.8	208.8
211.6	211.6	211.6	211.6	211.6
214.4	214.4	214.4	214.4	214.4
217.2	217.2	217.2	217.2	217.2
220.0	220.0	220.0	220.0	220.0
222.8	222.8	222.8	222.8	222.8
225.6				