

# P500

## Doseringspump

### P500MSGSSD10H PUMP WITH GEARBOX AND BASEPLATE



- Flöde 7 - 1600 l/h
- Tryck max. 172 bar
- Metallutförande
- Tätningslös och klarar torrkörning

### Produktinformation

Wanner HydraCell är en serie mycket robusta membranpumpar speciellt lämpade för dosering även vid höga tryck och svåra pumpmedier, som också kan vara slitande.

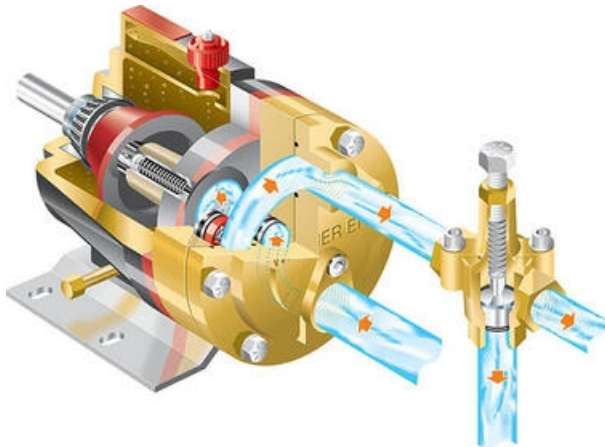
Pumparna har ingen genomgående axel med tätningar och mediet kommer aldrig i kontakt med mekanismen.

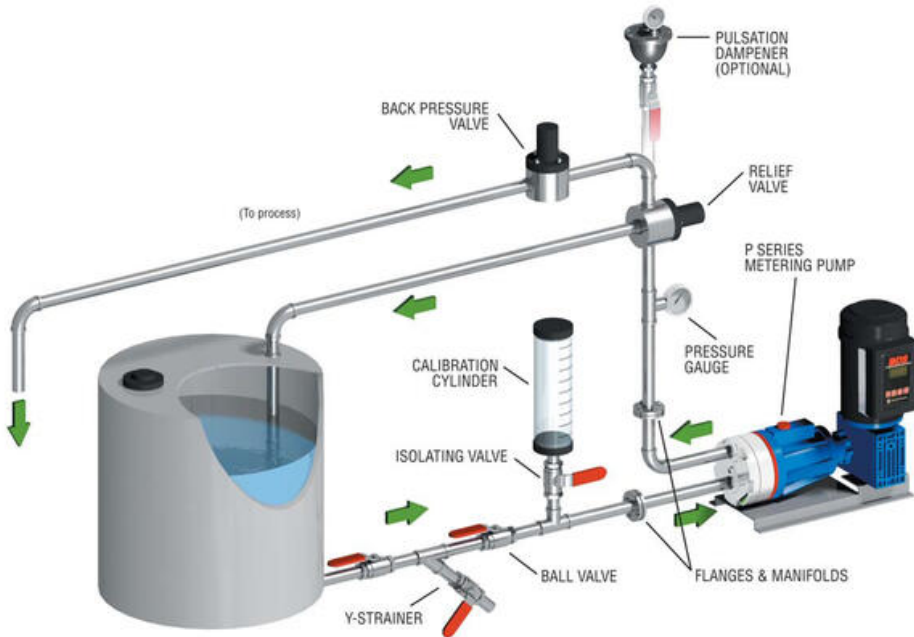
Membranen är avlastade med jämnt tryck över hela ytan, vilket ger dem mycket lång livslängd.

HydraCell-pumparna som arbetar enligt förträngningsprincipen, energisnåla och torrkörningssäkra.

Hydra-Cell pumparna möter de flesta och överträffar flara av kraven i standarden för doseringspumpar API 675.

De finns i många olika materialkombinationer och går även att få i ATEX-utförande för explosionsfarlig miljö.





Exempel på installation

Pumphus	Mässing, 316L, Hastelloy C
Membran O-ringar	Aflas, FKM, Buna-N
Ventilsäten	Nitronic 50, Hastelloy C, Tungstenkarbid
Ventiler	Nitronic 50, Hastelloy C, Tungstenkarbid
Fjäder	Elgiloy, Hastelloy C
Fjäderhållare	Hastelloy C
Flöde	3 - 1600 l/h
Tryck	Max. 173 bar
Inloppstryck	Max. 17 bar
Temperatur*	Max. +120 °C (Beroende på materialval m.m.)*
Partikelstorlek	Max. 0,4 mm
Viskositet**	Max. 1500 cP (Beroende på installation och varvtal)**
ATEX***	EEx II 2G k ia IIB T4 (max. mediatemp. 90 °C, omgivningstemp - 10 till 40 °C) EEx II 3G k IIC T4 (max. mediatemp. 90 °C, omgivningstemp - 10 till 40 °C)
Kel-Cell	Nej
Anslutningar (In/Ut)	1/2" BSPT / 3/8" BSPT (NPT eller flänsar på förfrågan)
Rotationsriktning	Valfri
Oljevolym hydrauldel	ca. 2,1 l (Oljenivån skall vara ca. 1 - 2 cm under helt fylld hydrauldel)
Vikt	73 kg

\* För applikationer där temperaturen går under +10 eller över +80°C kontakta oss.

\*\* Vid viskositeter över 500 cP kontakta oss.

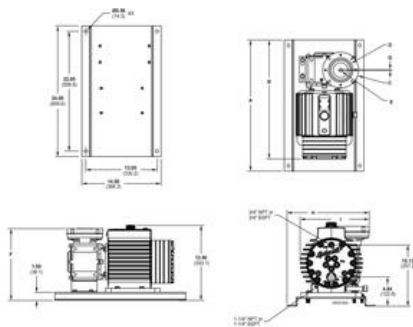
\*\*\* För applikationer i explosionsfarlig miljö kontakta oss.

## Teknisk data

Flöde max	402 l/h
Tryck max	172 bar
Systemtryck max	34 bar
Anslutning inlopp	1 1/4" BSPT
Anslutning utlopp	3/4" BSPT
Material Bottenplatta	Epoxylackerat stål
Material Fjäderhållare	Hastelloy C
Material Membran	FKM
Material Pumphus	SS 316L
Material Ventiler	Nitronic 50
Material Ventilfjädrar	Elgiloy
Material Ventilsiäten	SS 316L
Axeldimension	Hållaxel 28 mm
Rotation	Valfri
Utväxling	10:1 - IEC 112-B14
Temperaturområde till	120 °C
Viskositet max	1500 cP
Olja	Livsmedelsolja H1 (K)
Oljevolym Hydrauldel	2,1 l
1098_Particle size (mm)	Max. 0,5mm
Vikt	88,5 kg

### P500 Dimensions

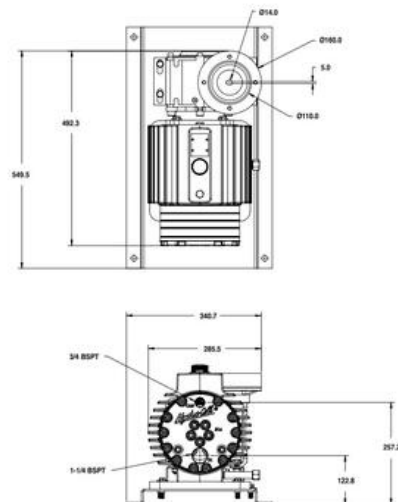
P500 Models with Metallic Pumping Head



Model	A	B	C	D	E	F	G	H	I
MDM 500	21.74 (552.5)	16.50 (419.1)	8.50 (215.9)	4.50 (114.3)	2.00 (50.8)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)
MDM 500 S	21.74 (552.5)	16.50 (419.1)	8.50 (215.9)	4.50 (114.3)	2.00 (50.8)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)
MDM 500 S (1)	21.74 (552.5)	16.50 (419.1)	8.50 (215.9)	4.50 (114.3)	2.00 (50.8)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)
MDM 500 S (2)	21.74 (552.5)	16.50 (419.1)	8.50 (215.9)	4.50 (114.3)	2.00 (50.8)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)
MDM 500 S (3)	21.74 (552.5)	16.50 (419.1)	8.50 (215.9)	4.50 (114.3)	2.00 (50.8)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)
MDM 500 S (4)	21.74 (552.5)	16.50 (419.1)	8.50 (215.9)	4.50 (114.3)	2.00 (50.8)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)
MDM 500 S (5)	21.74 (552.5)	16.50 (419.1)	8.50 (215.9)	4.50 (114.3)	2.00 (50.8)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)
MDM 500 S (6)	21.74 (552.5)	16.50 (419.1)	8.50 (215.9)	4.50 (114.3)	2.00 (50.8)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)
MDM 500 S (7)	21.74 (552.5)	16.50 (419.1)	8.50 (215.9)	4.50 (114.3)	2.00 (50.8)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)
MDM 500 S (8)	21.74 (552.5)	16.50 (419.1)	8.50 (215.9)	4.50 (114.3)	2.00 (50.8)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)
MDM 500 S (9)	21.74 (552.5)	16.50 (419.1)	8.50 (215.9)	4.50 (114.3)	2.00 (50.8)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)
MDM 500 S (10)	21.74 (552.5)	16.50 (419.1)	8.50 (215.9)	4.50 (114.3)	2.00 (50.8)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)	1.50 (38.1)

### 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	34 Bar	102 Bar	132 Bar	Pump RPM	Cap Ratio	Motor RPM
L/hr Metallic Pump Heads Only						
55.1	55.5	69.7	81.4	25	25	601
66.2	64.4	80.5	119.0	30	30	501
78.3	81.2	74.8	174.0	35	35	401
111.9	108.2	102.0	217.0	40	40	301
133.2	130.8	124.2	272.0	50	50	251
161.8	155.9	145.1	348.0	75	75	201
223.2	219.1	209.5	438.0	100	100	151
335.3	328.7	315.5	552.0	150	150	101
447.8	438.9	417.0	690.0	200	200	75.1
671.4	650.1	626.0	N/A	300	5:1	
895.4	861.4	N/A	N/A	400	2.5:1	
1145.1	1101.0	N/A	N/A	600	5:1	

Required Motor kW

1.0	1.0	1.0	1.0	1.0	1.0	1.0
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For 10:1 Turndown, Self-cooled Motors

L/hr Maximum Flow at Designated Pressure

7 Bar	34 Bar	102 Bar	132 Bar	Pump RPM	Cap Ratio	Motor RPM
L/hr Metallic Pump Heads Only						
55.1	55.5	69.7	81.4	25	25	601
66.2	64.4	80.5	119.0	30	30	501
78.3	81.2	74.8	174.0	35	35	401
111.9	108.2	102.0	217.0	40	40	301
133.2	130.8	124.2	272.0	50	50	251
161.8	155.9	145.1	348.0	75	75	201
223.2	219.1	209.5	438.0	100	100	151
335.3	328.7	315.5	N/A	150	10:1	
447.8	438.9	417.0	N/A	200	2.5:1	
671.4	650.1	N/A	N/A	300	5:1	
895.4	N/A	N/A	N/A	400	2.5:1	
1145.1	N/A	N/A	N/A	600	5:1	

Required Motor kW

1.0	1.0	1.0	1.0	1.0	1.0	1.0
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Notes:

1. The motor kW are based on ambient temperature conditions as per IEC.

2. For ambient temperatures above 40°C, motor output will be reduced.

3. Cap Ratio data is shown for pumps with standard diaphragms. Contact factory for performance characteristics of pumps with PTFE diaphragms.

4. Contact factory for performance specifications.

5. Based on using 50 Hz motor.

6. Maximum continuous motor speed is the rpm at full pressure.

7. The information is subject to product design, please contact factory for details.

8. See page 1 for Recommended Flow Rate Controller.

## P500 Specifications (Cont'd)

### Performance Maximum Flow at Designated Pressure - Imperial\*

Metallic Pump Heads (gpm)		Pump Type	Gear Ratio	Motor rpm
100 psi	200 psi			
17.48 (202)	11.16 (132)	14.47 (170)	30	60-1
20.97 (202)	14.11 (170)	17.71 (202)	36	60-1
24.38 (202)	16.33 (195)	20.27 (202)	45	60-1
28.27 (202)	19.47 (202)	23.06 (195)	60	30-1
42.37 (202)	29.27 (202)	37.31 (202)	75	20-1
58.03 (202)	40.00 (202)	47.47 (202)	90	20-1
74.79 (202)	52.00 (202)	63.34 (202)	120	15-1
100.00 (202)	70.00 (202)	85.00 (202)	150	10-1
141.00 (202)	100.00 (202)	120.00 (202)	240	7.5-1
174.00 (202)	140.00 (202)	160.00 (202)	360	5-1
224.00 (202)	190.00 (202)	210.00 (202)	480	3.5-1
300.00 (202)	260.00 (202)	280.00 (202)	600	2.5-1
400.00 (202)	350.00 (202)	380.00 (202)	800	2-1

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

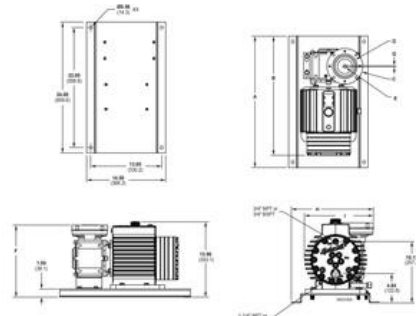
### Performance Maximum Flow at Designated Pressure - Metric\*

Metallic Pump Heads (gpm)		Pump Type	Gear Ratio	Motor rpm
7 bar	14 bar			
58.14 (202)	41.10 (202)	45.44 (202)	25	60-1
68.14 (202)	48.44 (202)	53.91 (202)	30	60-1
81.28 (202)	58.14 (202)	64.00 (202)	37.5	60-1
101.28 (202)	70.00 (202)	77.00 (202)	50	30-1
151.28 (202)	105.00 (202)	112.50 (202)	75	20-1
201.28 (202)	140.00 (202)	150.00 (202)	100	15-1
267.28 (202)	190.00 (202)	210.00 (202)	150	10-1
354.28 (202)	260.00 (202)	280.00 (202)	200	7.5-1
471.28 (202)	350.00 (202)	380.00 (202)	280	5-1
628.28 (202)	470.00 (202)	500.00 (202)	360	3.5-1
837.28 (202)	630.00 (202)	680.00 (202)	480	2.5-1
1116.28 (202)	840.00 (202)	900.00 (202)	600	2-1

\*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

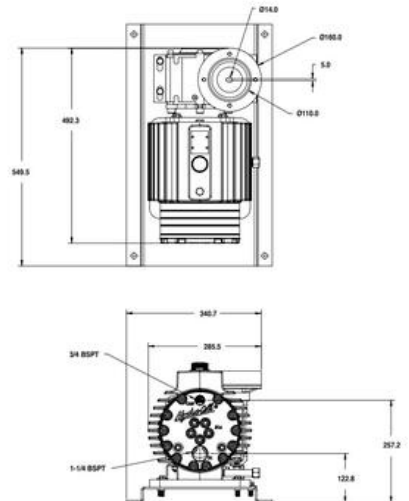


### Dimensions in Inches (Millimeters)

Model	A	B	C	D	E	F	G	H	I
1000	21.75 (553)	16.00 (406)	12.50 (318)	10.00 (254)	10.00 (254)	10.00 (254)	10.00 (254)	10.00 (254)	10.00 (254)
1500	21.75 (553)	16.00 (406)	12.50 (318)	10.00 (254)	10.00 (254)	10.00 (254)	10.00 (254)	10.00 (254)	10.00 (254)
2000	21.75 (553)	16.00 (406)	12.50 (318)	10.00 (254)	10.00 (254)	10.00 (254)	10.00 (254)	10.00 (254)	10.00 (254)
3000	21.75 (553)	16.00 (406)	12.50 (318)	10.00 (254)	10.00 (254)	10.00 (254)	10.00 (254)	10.00 (254)	10.00 (254)

## Representative Drawings (mm)

### Metallic Pump Heads



## Performance - Flow Capacities and Pressure Ratings

### For Synchronous Speed, Self-cooled Motors

#### Liter Maximum Flow at Designated Pressure

L/ft <sup>3</sup> Metallic Pump Heads Only	Pump Type	Gear Ratio	Motor rpm	
				2 Bar
55.1	35.5	40.0	25	60-1
66.2	44.4	50.0	30	60-1
81.2	54.3	61.0	37.5	60-1
111.3	74.2	82.0	50	30-1
161.3	114.1	123.0	75	20-1
211.3	154.0	163.0	100	15-1
281.3	203.9	213.0	150	10-1
371.3	273.8	283.0	200	7.5-1
491.3	363.7	373.0	280	5-1
651.3	493.6	503.0	360	3.5-1
871.3	663.5	673.0	480	2.5-1
1151.3	893.4	903.0	600	2-1

Required Motor kW  
0.18 0.47 0.76 1.14 1.75 2.61 3.92 5.53 8.04 11.16 14.71 20.00

### For 10:1 Turndown, Self-cooled Motors

#### Liter Maximum Flow at Designated Pressure

L/ft <sup>3</sup> Metallic Pump Heads Only	Pump Type	Gear Ratio	Motor rpm	
				2 Bar
55.1	35.5	40.0	25	60-1
66.2	44.4	50.0	30	60-1
81.2	54.3	61.0	37.5	60-1
111.3	74.2	82.0	50	30-1
161.3	114.1	123.0	75	20-1
211.3	154.0	163.0	100	15-1
281.3	203.9	213.0	150	10-1
371.3	273.8	283.0	200	7.5-1
491.3	363.7	373.0	280	5-1
651.3	493.6	503.0	360	3.5-1
871.3	663.5	673.0	480	2.5-1
1151.3	893.4	903.0	600	2-1

Required Motor kW  
0.18 0.47 0.76 1.14 1.75 2.61 3.92 5.53 8.04 11.16 14.71 20.00

## P500 Specifications (Cont'd)

### Performance Maximum Flow at Designated Pressure - Imperial\*

Metallic Pump Heads (gpm)		Pump Type	Gear Ratio	Motor rpm
100 psi	200 psi			
17.48 (202)	11.16 (132)	14.47 (170)	30	60-1
20.97 (202)	14.11 (170)	17.71 (202)	36	60-1
24.38 (202)	16.33 (195)	20.27 (202)	45	60-1
28.27 (202)	19.47 (202)	23.06 (195)	60	30-1
42.37 (202)	29.27 (202)	37.31 (202)	75	20-1
58.03 (202)	40.00 (202)	47.47 (202)	90	20-1
74.79 (202)	52.00 (202)	63.34 (202)	120	15-1
100.00 (202)	70.00 (202)	85.00 (202)	150	10-1
141.00 (202)	100.00 (202)	120.00 (202)	240	7.5-1
174.00 (202)	140.00 (202)	160.00 (202)	360	5-1
224.00 (202)	190.00 (202)	210.00 (202)	480	3.5-1
300.00 (202)	260.00 (202)	280.00 (202)	600	2.5-1

\*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\*

Metallic Pump Heads (gpm)		Pump Type	Gear Ratio	Motor rpm
7 bar	14 bar			
58.14 (202)	41.10 (202)	45.44 (202)	25	60-1
68.14 (202)	48.44 (202)	53.91 (202)	30	60-1
81.28 (202)	58.14 (202)	64.00 (202)	37.5	60-1
101.28 (202)	70.00 (202)	77.00 (202)	50	30-1
151.28 (202)	105.00 (202)	112.50 (202)	75	20-1
201.28 (202)	140.00 (202)	150.00 (202)	100	15-1
267.28 (202)	190.00 (202)	210.00 (202)	150	10-1
354.28 (202)	260.00 (202)	280.00 (202)	200	7.5-1
471.28 (202)	350.00 (202)	380.00 (202)	280	5-1
628.28 (202)	470.00 (202)	500.00 (202)	360	3.5-1
837.28 (202)	630.00 (202)	680.00 (202)	480	2.5-1
1116.28 (202)	840.00 (202)	900.00 (202)	600	2-1

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

Note:  
1. The motor kW is based on ambient temperature conditions up to 40 °C. For ambient temperatures above 40 °C, please consult factory for performance characteristics of pumps with PTFE diaphragms.  
2. Capacity data is shown for pumps with elastomeric diaphragms. Consult factory for performance characteristics of pumps with PTFE diaphragms.  
3. Maximum continuous motor speed is 100% of full speed.  
4. For information on reduced pressure limits, please contact factory representative.

Note:  
1. The motor kW is based on ambient temperature conditions up to 40 °C. For ambient temperatures above 40 °C, please consult factory for performance characteristics of pumps with PTFE diaphragms.  
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