

P400

Doseringspump

P400MSESSC10S
 PUMP WITH GEARBOX AND BASEPLATE



HYDRA-CELL®
 SEAL-LESS PUMP TECHNOLOGIES

- Flöde 3 - 900 l/h
- Tryck max. 103 bar
- Plast eller metallutförande
- Tätningslös och klarar torrkörning
- Finns i ATEX utförande



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.

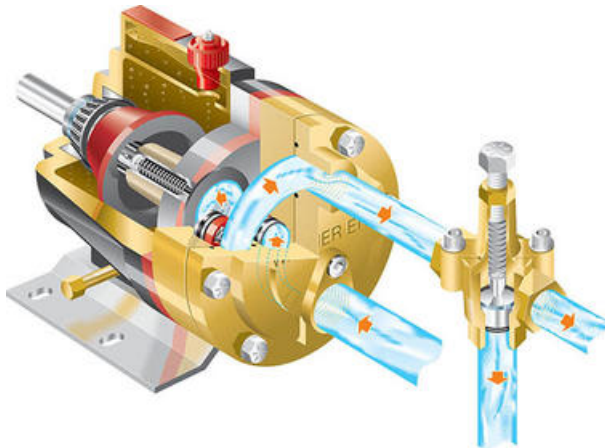
Pumparna har ingen genomgående axel med tätningar och mediet kommer aldrig i kontakt med mekanismen.

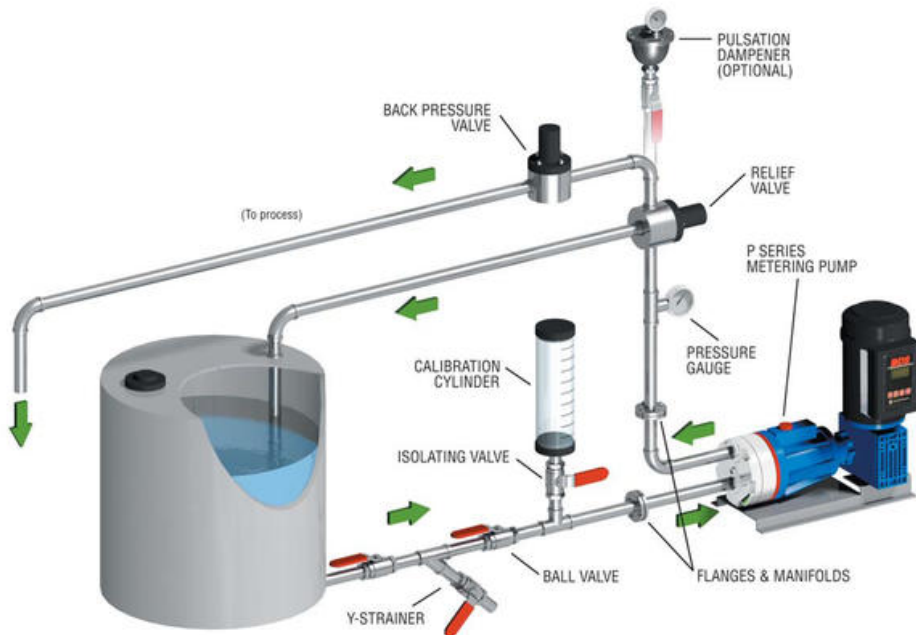
Membranen är avlastade med jämnt tryck över hela ytan, vilket ger dem mycket lång livslängd.

HydraCell-pumparna som arbetar enligt förträngningsprincipen, är självsugande, 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, Gjutjärn, 316L, Hastelloy C, Polypropylen, Kynar
Membran O-ringar	Aflas, EPDM, FKM, PTFE, Neoprene, Buna-N
Ventilsäten	316L, Keramik, Hastelloy C, Tungsten Carbide
Ventiler	Nitronic 50, Hastelloy C, Keramik, Tungstenkarbid
Fjäder	Elgiloy, Hastelloy C
Fjäderhållare	PVDF, Hastelloy C
Flöde	3 - 900 l/h
Tryck metallutförande	Max. 70 bar
Tryck plastutförande	Polypropylen Max. 17 bar, Kynar Max. 24 bar
Inloppstryck	Max. 17 bar
Temperatur*	Max. +120 °C (Beroende på materialval m.m.)*
Partikelstorlek	Max. 0,5 mm
Viskositet**	Max. 3000 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	Ja
Anslutningar (In/Ut)	1/2" BSPT / 3/8" BSPT (NPT eller flänsar på förfrågan)
Rotationsriktning	Valfri
Oljevolym hydrauldel	ca. 1,3 l (Oljenivån skall vara ca. 1 - 2 cm under helt fylld hydrauldel)
Vikt metallutförande	22 kg
Vikt plastutförande	16 kg

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

** Vid viskositeter över 500 cP kontakta oss.

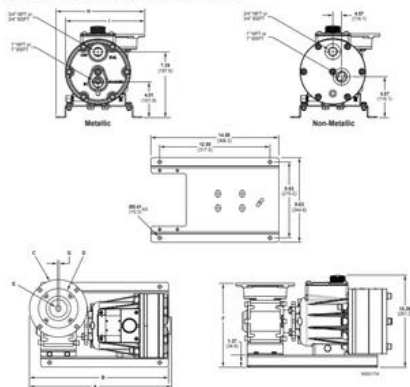
*** För applikationer i explosionsfarlig miljö kontakta oss.

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Teknisk data

Flöde max	228 l/h
Tryck max	69 bar
Systemtryck max	17 bar
Anslutning inlopp	1" BSPT
Anslutning utlopp	3/4" BSPT
Material Bottenplatta	SS 316L
Material Fjäderhållare	Hastelloy C
Material Membran	EPDM
Material Pumphus	SS 316L
Material Ventiler	Nitronic 50
Material Ventilfjädrar	Elgiloy
Material Ventilsiäten	SS 316L
Axeldimension	Hållaxel 24 mm
Rotation	Valfri
Utväxling	10:1 - IEC 90-B5
Temperaturområde till	120 °C
Viskositet max	3000 cP
Olja	Livsmedelsolja H1 (K)
Oljevolym Hydrauldel	1,05 l
Partikelstorlek	Max. 0,5mm mm
Vikt	30 kg

P400 Models: Metallic and Non-Metallic

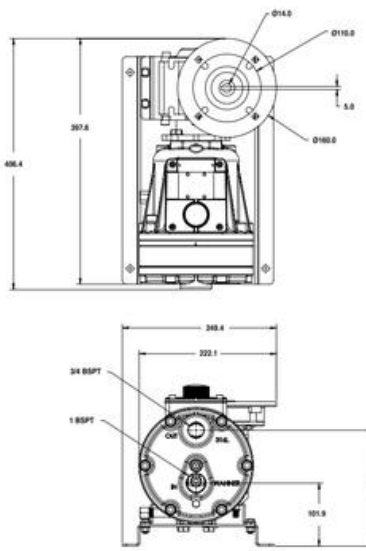


Dimensions in inches (Millimeters)

Model / Drive Size	A	B	C	D	E	F	G (Shaft) / H (Pump)	I
MEKAR 1000	16.12 (409.4)	10.25 (260.3)	10.17 (258.6)	4.63 (117.6)	2.00 (50.8)	2.00 (50.8)	0.87 (22.1)	0.94 (23.9)
MEKAR 1500	18.12 (459.8)	12.25 (311.3)	12.17 (309.6)	6.63 (168.3)	3.00 (76.2)	3.00 (76.2)	1.17 (29.7)	1.24 (31.5)
MEKAR 2000	20.12 (511.7)	14.25 (361.8)	14.17 (359.1)	8.63 (218.3)	4.00 (101.6)	4.00 (101.6)	1.50 (38.1)	1.57 (39.9)
MEKAR 3000	24.12 (612.2)	18.25 (463.3)	18.17 (460.6)	12.63 (320.8)	5.00 (127.0)	5.00 (127.0)	2.00 (50.8)	2.07 (52.6)
MEKAR 4000	28.12 (712.7)	22.25 (563.8)	22.17 (561.1)	16.63 (422.3)	6.00 (152.4)	6.00 (152.4)	2.50 (63.5)	2.57 (65.2)
MEKAR 5000	32.12 (813.2)	26.25 (664.3)	26.17 (661.6)	20.63 (522.8)	7.00 (177.8)	7.00 (177.8)	3.00 (76.2)	3.07 (77.9)
MEKAR 6000	36.12 (913.7)	30.25 (764.8)	30.17 (762.1)	24.63 (623.3)	8.00 (203.2)	8.00 (203.2)	3.50 (88.9)	3.57 (90.7)
MEKAR 8000	44.12 (1118.2)	38.25 (969.3)	38.17 (966.6)	32.63 (828.8)	10.00 (254.0)	10.00 (254.0)	4.50 (114.3)	4.57 (116.1)
MEKAR 10000	52.12 (1322.7)	46.25 (1173.8)	46.17 (1171.1)	40.63 (1033.3)	12.00 (304.8)	12.00 (304.8)	5.50 (139.7)	5.57 (141.5)

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 All Pumps 2.30L \pm 0.2 Bar	L/hr Metallic Pump Results Only 24 Bar \pm 0.5 Bar	Pump BPM	Clear Ratio	Motor BPM
30.4	38.9	38.9	38.9	75
40.5	49.1	49.1	49.1	100
51.7	61.1	61.1	61.1	130
64.0	75.9	75.9	75.9	170
77.4	93.7	93.7	93.7	220
92.0	113.5	113.5	113.5	280
107.8	135.4	135.4	135.4	350
124.7	159.4	159.4	159.4	430
142.7	185.6	185.6	185.6	520
161.8	214.1	214.1	214.1	620
182.0	244.9	244.9	244.9	730
203.4	278.1	278.1	278.1	850
226.0	313.7	313.7	313.7	980
249.8	351.8	351.8	351.8	1120
274.8	392.4	392.4	392.4	1270
301.0	435.5	435.5	435.5	1430
328.4	481.2	481.2	481.2	1600

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

L/hr All Pumps 2.30L \pm 0.2 Bar	L/hr Metallic Pump Results Only 18 Bar \pm 0.5 Bar	Pump BPM	Clear Ratio	Motor BPM
30.4	29.8	29.8	29.8	75
40.5	39.8	39.8	39.8	100
51.7	50.0	50.0	50.0	130
64.0	61.0	61.0	61.0	170
77.4	73.0	73.0	73.0	220
92.0	86.0	86.0	86.0	280
107.8	100.0	100.0	100.0	350
124.7	115.0	115.0	115.0	430
142.7	131.0	131.0	131.0	520
161.8	148.0	148.0	148.0	620
182.0	166.0	166.0	166.0	730
203.4	185.0	185.0	185.0	850
226.0	205.0	205.0	205.0	980
249.8	226.0	226.0	226.0	1120
274.8	248.0	248.0	248.0	1270
301.0	271.0	271.0	271.0	1430
328.4	295.0	295.0	295.0	1600

Required Motor Size

n-18	0.86L	1.26L	1.76L
n-30	1.12L	1.62L	2.22L

Notes:

- The motor RPM are based on ambient temperature conditions up to 40°C. For ambient temperature above 40°C, please contact Western International.
- Capacity data is shown for pumps with elastomeric diaphragms. Contact factory for performance characteristics of pumps with PTFE diaphragms.
- Contact factory for performance characteristics.
- Based on using the motor.
- Maximum continuous motor speed is nine (9) rpm in full pressure.
- For intermittent or reduced pressure applications, please contact Western International.

Required Motor Size

n-18	0.86L	1.26L	1.76L
n-30	1.12L	1.62L	2.22L

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Mechanical Adjustment Controller for ATEX/Explosive Areas

All Min/Max flow rates in litres/hour

Flow Rate	7 bar		17 bar		24 bar		43 bar		Pump Gearbox Ratio	Motor Model	Required Motor Size & Frame
	Min	Max	Min	Max	Min	Max	Min	Max			
4.7	18.8	27.8	24.7	37.6	47.6	71.6	5.79	25.1	BEES-10214	0.57kW / EC 71 / 4 Nm	
	26.5	39.1	33.1	50.6	63.6	95.6	5.79	25.1			
	41.1	60.8	50.8	75.8	94.8	142.8	5.79	25.1			
	58.7	85.8	70.8	106.8	131.8	200.8	5.79	25.1			
	84.5	123.8	103.8	153.8	191.8	288.8	5.79	25.1			
	118.5	174.8	146.8	218.8	271.8	408.8	5.79	25.1			
	15	28.8	43.8	35.8	54.8	68.8	103.8	5.79	25.1	BEES-10214	0.57kW / EC 92 / 4 Nm
		43.8	66.8	54.8	83.8	103.8	155.8	5.79	25.1		
		66.8	100.8	83.8	124.8	154.8	230.8	5.79	25.1		
		96.8	144.8	121.8	180.8	222.8	332.8	5.79	25.1		
25	54.8	82.8	67.8	102.8	126.8	190.8	5.79	25.1	BEES-10214	0.75kW / EC 92 / 6 Nm	
	82.8	124.8	102.8	152.8	186.8	278.8	5.79	25.1			
	124.8	186.8	152.8	224.8	278.8	410.8	5.79	25.1			
35	80.8	121.8	99.8	149.8	184.8	274.8	5.79	25.1	BEES-10214	1.10kW / EC 92 / 7 Nm	
	121.8	181.8	149.8	223.8	274.8	404.8	5.79	25.1			
	181.8	273.8	223.8	333.8	404.8	594.8	5.79	25.1			

P400 Specifications (Cont'd)

Performance Maximum Flow at Designated Pressure - Imperial *

All Pumps (gpm)	Metallic Pump Heads Only (gpm)	Pump rpm	Clear Ratio	Motor rpm
100 gal	128 gal	128	128	250
132 gal	164 gal	164	164	333
164 gal	201 gal	201	201	417
201 gal	250 gal	250	250	500
250 gal	312 gal	312	312	625
312 gal	396 gal	396	396	792
396 gal	500 gal	500	500	1000
500 gal	636 gal	636	636	1275
636 gal	812 gal	812	812	1625
812 gal	1032 gal	1032	1032	2065
1032 gal	1300 gal	1300	1300	2600
1300 gal	1620 gal	1620	1620	3250
1620 gal	2000 gal	2000	2000	4000
2000 gal	2540 gal	2540	2540	5050
2540 gal	3250 gal	3250	3250	6500

*Capacity data shown is for pumps with elastomeric diaphragms. Contact factory for performance characteristics of pumps with PTFE diaphragms.
Required Motor Size

Performance Maximum Flow at Designated Pressure - Metric *

All Pumps (gpm)	Metallic Pump Heads Only (gpm)	Pump rpm	Clear Ratio	Motor rpm
7 bar	17 bar	24 bar	43 bar	
16.4	24.7	30.1	37.6	250
21.5	32.1	39.6	49.6	333
27.6	41.1	50.8	63.6	417
34.0	51.7	64.0	80.0	500
41.7	64.0	80.0	100.0	625
50.0	77.4	96.0	127.5	792
60.0	92.0	113.5	155.0	1000
70.8	107.8	131.0	182.5	1275
82.0	124.7	149.0	210.0	1625
94.0	142.7	167.0	237.5	2065
107.0	161.8	185.0	265.0	2600
121.0	182.0	203.0	292.5	3250
146.0	226.0	254.0	367.5	4000
182.0	284.8	328.0	467.5	5050
219.0	347.0	396.0	572.5	6500
258.0	413.0	469.0	692.5	8250

*Capacity data shown is for pumps with elastomeric diaphragms. Contact factory for performance characteristics of pumps with PTFE diaphragms.
Required Motor Size