

**Air
Gas
Liquid
Industrial
Oil-Less &
Diaphragm**

Pumps

Healthmart Supply Inc.
800 628-0707

OEM Industrial Pump Catalog

Jan 03

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Ordering Info

sales@health-mart.com

(email)

<http://www.health-mart.com> [Click Here](#)

(website)

1 800 628-0707

1 360 384-4341 (bus)

1 360 384-2472 (fax)

Price/Quantities

Prices are subject to change without notice. Quantities may be limited. Minimum order \$20.00. Call for best quote on quantity discounts.

Payment

By Credit Card,
or COD,
or NET30 to approved
accounts.



Returned checks charged a \$20.00 fee.

Shipping

All shipments are F.O.B. from our warehouse. Shipping charges are prepaid and will be added to your invoice. Shipping up to 20lbs. Via Federal Express 2 Day Economy.

Returning Parts

Do not return parts without obtaining prior authorization. Call to receive a RGA number (Returned Goods Authorization). Returned parts are subject to a \$15.00 or 15% restocking fee.

Damaged/Missing Goods

No allowances for shortage, overcharge or damage unless reported within 10 days from invoice date. If box arrives damaged, file claim with shipper.

Liability

Limited to cost of defective part.

Features

- Multiple frequency operation 50/60Hz no overheat
- International Voltages & Frequencies Available
 - Voltages from 6VDC to 400VAC (50 & 60Hz)
 - Power & Current consumption-the lowest
 - Parts available for repair & maintenance
 - Rated very conservatively for longer life
 - Liquids moved with negligible agitation
 - Smallest sizes down to 2.3"x1.6"x3.6"!
- Fewer moving parts/Longer Life
- Start-up times are very short
 - AC & DC Models available
 - Compact & Lightweight
 - Forced air cooling fans
 - Conservatively Rated
 - Priming not required
 - Corrosion Resistant
 - Electrically "Quiet"
 - Patented designs
 - Quiet operation
 - High cycle life
 - Oil-Less



Applications

Pressure Systems; Manufacturing, Cooling Systems

Chemical Industry; Analysis, Fluidics, Particle Counters

Leakage Detection; Gas sampling, Tank pressure checks

Vacuum Systems; Laboratories, Semiconductor manufacturing

Food Industry; Soft Drink Vending machines, Liquid level Controls

Domestic; Spas & bubble baths, Vaporizers, Inflator for Balloons/Rafts

Film Industry; Paper & Film transfer systems, Chemical Level Control

Industrial; Air Bearings, Vacuum wands & tweezers, air brushes, sprayers

Laboratory; Nebulizer, Sampling, Dilutions, Fluid Transfer, Chromatography

Scientific Instruments; Gas analysis, Sampling Systems, Process Controllers





















Medical; Hematology & Chemistry Analyzers, Atomizers, Aspirators, Blood Pressure Cuffs, Pipettes

Air quality monitoring Instruments; Radon, Air Pollution, Gas Chromatography, Emission Tests




RATINGS

Mini Family of Diaphragm Pumps

Air & Gas, Pressure/Vacuum Pumps

model	Vacuum inHg	Pressure PSI	Volume LPM
MICRO DC			
065	1.16  	.57	60.0 oz/min
MICRO AC			
075	1.16  	.57	68.0 oz/min
MINI			
045	4.7  	2.5	9.0
050	3.9p  	2.3p	5.0
055	7.0s  	5.0s	6.0
	11.7p  	6.2p	6.0
	16.0  	10.0s	
MID VOLUME			
100	17.5  	14.2	10.0
105	17.5p  	21.3p	50.0
	24.0s  	28.0s	

Liquid Pump

LIQUID	Suction head/meter	Discharge Pressure PSI	Flow Rate Oz/min
080	2.0 	7.1 	34 

p=parallel, s=series

CONVERSION CHART

P.S.I.	inH2O	inHg	mmH2O	mmHg	kgcm2	mbar	bar	Pa	kPa	P.S.I.	inH2O	inHg	mmH2O	mmHg	kgcm2	mbar	bar	Pa	kPa
0.001	0.0277	0.002	7.031	0.0517	0.0001	0.069	0.0001	6.895	0.0069	3.6	99.756	7.3296	2531.16	186.3	0.2531	248.22	0.248	24822	24.822
0.011	0.3048	0.0224	7.7341	0.5693	0.0008	0.7585	0.0008	75.845	0.0758	3.8	105.298	7.7368	2671.78	196.65	0.2671	262.01	0.2621	26201	26.201
0.021	0.5819	0.0428	14.7651	1.0868	0.0015	1.448	0.0014	144.795	0.1448	4	110.84	8.144	2812.4	207	0.2812	275.8	0.2756	27580	27.58
0.031	0.859	0.0631	21.7961	1.6043	0.0022	2.1375	0.0021	213.745	0.2137	4.2	116.382	8.5512	2953.02	217.35	0.2953	289.59	0.2894	28959	28.959
0.041	1.1361	0.0835	28.8271	2.1218	0.0029	2.827	0.0028	282.695	0.2827	4.4	121.924	8.9584	3093.64	227.7	0.3093	303.38	0.3032	30338	30.338
0.051	1.4132	0.1038	35.8581	2.6393	0.0036	3.5165	0.0035	351.645	0.3516	4.6	127.466	9.3656	3234.26	238.05	0.3234	317.17	0.3169	31717	31.717
0.061	1.6903	0.1242	42.8891	3.1568	0.0043	4.2059	0.0042	420.595	0.4206	4.8	133.008	9.7728	3374.88	248.4	0.3374	330.96	0.3307	33096	33.096
0.071	1.9674	0.1446	49.9201	3.6743	0.005	4.8955	0.0049	489.545	0.4895	5	138.55	10.18	3515.5	258.75	0.3515	344.75	0.3445	34475	34.475
0.081	2.2445	0.1649	56.9511	4.1918	0.0057	5.585	0.0056	558.495	0.5585	5.2	144.092	10.5872	3656.12	269.1	0.3656	358.54	0.3583	35854	35.854
0.091	2.5216	0.1853	63.9821	4.7092	0.0064	6.2744	0.0063	627.445	0.6274	5.4	149.634	10.9944	3796.74	279.45	0.3796	372.33	0.3721	37233	37.233
0.101	2.7987	0.2056	71.0131	5.2268	0.0071	6.964	0.007	696.395	0.6964	5.6	155.176	11.4016	3937.36	289.8	0.3937	386.12	0.3858	38612	38.612
0.111	3.0758	0.226	78.0441	5.7443	0.0078	7.6534	0.0077	765.345	0.7653	5.8	160.718	11.8088	4077.98	300.15	0.4077	399.91	0.3996	39991	39.991
0.121	3.3529	0.2464	85.0751	6.2618	0.0085	8.3429	0.0083	834.295	0.8343	6	166.26	12.216	4218.6	310.5	0.4218	413.7	0.4134	41370	41.37
0.131	3.63	0.2667	92.1061	6.7793	0.0092	9.0325	0.009	903.245	0.9032	6.2	171.802	12.6232	4359.22	320.85	0.4359	427.49	0.4272	42749	42.749
0.141	3.9071	0.2871	99.1371	7.2968	0.0099	9.7219	0.0097	972.195	0.9722	6.4	177.344	13.0304	4499.84	331.2	0.4499	441.28	0.441	44128	44.128
0.151	4.1842	0.3074	106.1681	7.8143	0.0106	10.4115	0.0104	1041.145	1.0411	6.6	182.886	13.4376	4640.46	341.55	0.464	455.07	0.4547	45507	45.507
0.161	4.4613	0.3278	113.1991	8.3318	0.0113	11.101	0.011	1110.095	1.1101	6.8	188.428	13.8448	4781.08	351.9	0.478	468.86	0.4685	46886	46.886
0.171	4.7384	0.3482	120.2301	8.8493	0.012	11.7904	0.0118	1179.045	1.179	7	193.97	14.252	4921.7	362.25	0.4921	482.65	0.4823	48265	48.265
0.181	5.0155	0.3685	127.2611	9.3667	0.0127	12.48	0.0125	1247.995	1.248	7.2	199.512	14.6592	5062.32	372.6	0.5062	496.44	0.4961	49644	49.644
0.191	5.2926	0.3889	134.2921	9.8843	0.0134	13.1695	0.0132	1316.945	1.3169	7.4	205.054	15.0664	5202.94	382.95	0.5202	510.23	0.5099	51023	51.023
0.201	5.5697	0.4092	141.3231	10.4017	0.0141	13.8589	0.0138	1385.995	1.3859	7.6	210.596	15.4736	5343.56	393.3	0.5343	524.02	0.5236	52402	52.402
0.211	5.8468	0.4296	148.3541	10.9193	0.0148	14.5484	0.0145	1454.845	1.4548	7.8	216.138	15.8808	5484.18	403.65	0.5483	537.81	0.5374	53781	53.781
0.221	6.1239	0.45	155.3851	11.4368	0.0155	15.238	0.0152	1523.795	1.5238	8	221.68	16.288	5624.8	414	0.5624	551.6	0.5512	55160	55.16
0.231	6.401	0.4703	162.4161	11.9543	0.0162	15.9274	0.0159	1592.745	1.5927	8.2	227.222	16.6952	5765.42	424.35	0.5765	565.39	0.565	56539	56.539
0.241	6.6781	0.4907	169.4471	12.4718	0.0169	16.617	0.0166	1661.695	1.6617	8.4	232.764	17.1024	5906.04	434.7	0.5905	579.18	0.5788	57918	57.918
0.251	6.9552	0.511	176.4781	12.9893	0.0176	17.3064	0.0173	1730.645	1.7306	8.6	238.306	17.5096	6046.66	445.05	0.6046	592.97	0.5925	59297	59.297
0.261	7.2323	0.5314	183.5091	13.5068	0.0183	17.996	0.018	1799.595	1.7996	8.8	243.848	17.9168	6187.28	455.4	0.6186	606.76	0.6063	60676	60.676
0.271	7.5094	0.5518	190.5401	14.0243	0.0191	18.6855	0.0187	1868.545	1.8685	9	249.39	18.324	6327.9	465.75	0.6327	620.55	0.6201	62055	62.055
0.281	7.7865	0.5721	197.5711	14.5418	0.0198	19.3749	0.0194	1937.495	1.9375	9.2	254.932	18.7312	6468.52	476.1	0.6468	634.34	0.6339	63434	63.434
0.291	8.0636	0.5925	204.6021	15.0593	0.0205	20.0645	0.02	2006.445	2.0064	9.4	260.474	19.1384	6609.14	486.45	0.6608	648.13	0.6477	64813	64.813
0.301	8.3407	0.6128	211.6331	15.5768	0.0212	20.7539	0.0207	2075.395	2.0754	9.6	266.016	19.5456	6749.76	496.8	0.6749	661.92	0.6614	66192	66.192
0.311	8.6178	0.6332	218.6641	16.0943	0.0219	21.4434	0.0214	2144.345	2.1443	9.8	271.558	19.9528	6890.38	507.15	0.6899	675.71	0.6752	67571	67.571
0.321	8.8949	0.6536	225.6951	16.6117	0.0226	22.1329	0.0221	2213.295	2.2133	10	277.1	20.36	7031	517.5	0.703	689.5	0.689	68950	68.95
0.331	9.172	0.6739	232.7261	17.1293	0.0233	22.8224	0.0228	2282.245	2.2822	10.2	282.642	20.7672	7171.62	527.85	0.7171	703.29	0.7028	70329	70.329
0.341	9.4491	0.6943	239.7571	17.6468	0.024	23.5119	0.0235	2351.195	2.3512	10.4	288.184	21.1744	7312.24	538.2	0.7312	717.08	0.7166	71708	71.708
0.351	9.7262	0.7146	246.7881	18.1643	0.0247	24.2014	0.0242	2420.145	2.4201	10.6	293.726	21.5816	7452.86	548.55	0.7452	730.87	0.7303	73087	73.087
0.361	10.0033	0.735	253.8191	18.6818	0.0254	24.8909	0.0249	2489.095	2.4891	10.8	299.268	21.9888	7593.48	558.9	0.7592	744.66	0.7441	74466	74.466
0.371	10.2804	0.7554	260.8501	19.1993	0.0261	25.5804	0.0256	2558.045	2.558	11	304.81	22.396	7734.1	569.25	0.7733	758.45	0.7579	75845	75.845
0.381	10.5575	0.7757	267.8811	19.7168	0.0268	26.27	0.0263	2626.995	2.627	11.2	310.352	22.8032	7874.72	579.6	0.7874	772.24	0.7717	77224	77.224
0.391	10.8346	0.7961	274.9121	20.2343	0.0275	26.9595	0.0269	2695.945	2.6959	11.4	315.894	23.2104	8015.34	589.95	0.8014	786.03	0.7855	78603	78.603
0.401	11.1117	0.8164	281.9431	20.7518	0.0282	27.649	0.0276	2764.995	2.7649	11.6	321.436	23.6176	8155.96	600.3	0.8155	799.82	0.7992	79982	79.982
0.411	11.3888	0.8368	288.9741	21.2693	0.0289	28.3384	0.0283	2833.845	2.8338	11.8	326.978	24.0248	8296.58	610.65	0.8295	813.61	0.813	81361	81.361
0.421	11.6659	0.8572	296.0051	21.7868	0.0296	29.028	0.029	2902.795	2.9028	12	332.52	24.432	8437.2	621	0.8436	827.4	0.8268	82740	82.74
0.431	11.943	0.8775	303.0361	22.3043	0.0303	29.7175	0.0297	2971.745	2.9717	12.2	338.062	24.8392	8577.82	631.35	0.8577	841.19	0.8406	84119	84.119
0.441	12.2201	0.8979	310.0671	22.8218	0.031	30.4069	0.0304	3040.695	3.0407	12.4	343.604	25.2464	8718.44	641.7	0.8717	854.98	0.8544	85498	85.498
0.451	12.4972	0.9182	317.0981	23.3393	0.0317	31.0965	0.0311	3109.645	3.1096	12.6	349.146	25.6536	8859.06	652.05	0.8858	868.77	0.8681	86877	86.877
0.461	12.7743	0.9386	324.1291	23.8568	0.0324	31.786	0.0318	3178.595	3.1786	12.8	354.688	26.0608	8999.68	662.4	0.8998	882.56	0.8819	88256	88.256
0.471	13.0514	0.959	331.1601	24.3743	0.0331	32.4754	0.0325	3247.545	3.2475	13	360.23	26.468	9140.3	672.75	0.9139	896.35	0.8957	89635	89.635
0.481	13.3285	0.9793	338.1911	24.8918	0.0338	33.165	0.0331	3316.495	3.3165	13.2	365.772	26.8752	9280.92	683.1	0.928	910.14	0.9095	91014	91.014
0.491	13.6056	0.9997	345.2221	25.4093	0.0345	33.8544	0.0338	3385.445	3.3854	13.4	371.314	27.2824	9421.54	693.45	0.942	923.93	0.9233	92393	92.393
0.501	13.8827	1.02	352.2531	25.9268	0.0352	34.544	0.0345	3454.395	3.4544	13.6	376.856	27.6896	9562.16	703.8	0.9561	937.72	0.937	93772	93.772
0.511	14.1598	1.0404	359.2841	26.4443	0.0359	35.2334	0.0352	3523.345	3.5233	13.8	382.398	28.0968	9702.78	714.15	0.9701	951.51	0.9508	95151	95.151
0.521	14.4369	1.0608	366.3151	26.9618	0.0366	35.923	0.0359	3592.295	3.5923	14	387.94	28.504	9843.4	724.5	0.9842	965.3	0.9646	96530	96.53
0.531	14.714	1.0811	373.3461	27.4793	0.0373	36.6124	0.0366	3661.245	3.6612	14.2	393.482	28.9112	9984.02	734.85	0.9983	979.09			

Definitions

Agitation-Free-For pumping liquids; very important when turbulence & foaming must be avoided

Conservatively Rated-Values given are for "real-world" operation after the pumps have been broken-in.

As opposed to outlandish specifications achievable only with Brand new pumps in their first week of operation. This type or style of rating (conservative) is not normally used in the pump industry.

CPLD Patent-Coupled Parallel Linear Drive System; vibro-reciprocation of twin diaphragms coupled together for minimal agitation, turbulence & pulsation while delivering maximum output.

Current Consumption-Linear in CPLD Models under full load/no load conditions. Varies up to maximum rating on Hi & Super Hi Volume Pumps.

Dielectric Strength-Ability of the insulating chemicals to resist breaking down in the armatures and windings.

EPT-Ethylenepropylene Rubber-Material used for CPLD diaphragms, very good resistance to acids.

High Cycle Life- The life of the pump (millions of cycles) when operated within specs with clean media.

Insulation Resistance- Ohms/resistance the dielectric offers while insulating armatures and windings.

Maximum Discharge Pressure- Conservative rating of pressure delivered at closed output port.

Maximum Flow Rate-Conservative rating of the amount of air/gas/liquid moved in one minute.

Maximum Vacuum-Conservative rating of pump inlet when closed.

Polypropylene-High resistance to corrosion, acids & solvents and has good temperature resistance.

Power Consumption-AC or DC power consumption, Linear in CPLD Models, Varies up to maximum rating on Hi & Super Hi Volume Pumps.

Self-Priming-Important feature of liquid pumps; pulls up liquids without extra plumbing & valves.

Short Start-Up-All models feature quick start-ups, especially important for liquid pumps.

Supply Voltage Frequency-All models (except 060) run at 50 & 60Hz without overheating.

TFE-TriFluoroEthane-Teflon-Outstanding chemical & temperature resistance & low coefficient of friction.

■ CORROSION-RESISTING CHARACTERISTICS OF VITAL PUMP PARTS

Chemical to be fed / Pump materials	Polypropylene	Viton	E. P. T.
Sulfuric acid (30% solution)	⊙	⊙	⊙
Nitric acid (30% solution)	⊙	⊙	⊙
Hydrochloric acid (20% solution)	⊙	⊙	⊙
Sodium hydrogen oxide (30% solution)	⊙	△	⊙
Ammonia (20% solution)	⊙	⊙	⊙
Water	⊙	⊙	⊙
Hydrogen peroxide (5% solution)	⊙	⊙	⊙
Chromic acid (2% solution)	⊙	⊙	⊙
Acetic acid (10% solution)	⊙	○	
Acetic anhydride	⊙	x	x
Benzene	⊙	△	x
Toluene	x	△	x
Ethyl alcohol	⊙	⊙	⊙
Methyl alcohol		○	⊙
Glycerin	⊙	⊙	
Caster oil	⊙	⊙	x
ASTM oil	○	⊙	x
Mineral oil	○	⊙	x
Acetone	△	x	△
Carbon tetrachloride	△	⊙	x
Chloroform	x	x	x
Sea water	⊙	⊙	

⊙ : Safe ○ : Usable in most cases △ : Not recommended x : Avoid, danger of violent reaction
The corrosion-resistance of materials varies according to the conditions under which the chemicals are fed.

Decimal Equivalents

Fraction	Decimal Inches	Decimal Millimeters
	1/64=	.015625 .397
	1/32=	.03125 .794
	3/64=	.046875 1.191
1/16=	4/64=	.0625 1.587
	5/64=	.078125 1.984
	3/32=	.09375 2.381
	7/64=	.109375 2.778
1/8=	8/64=	.125 3.175
	9/64=	.140625 3.572
	5/32=	.15625 3.969
	11/64=	.171875 4.366
3/16=	12/64=	.1875 4.762
	13/64=	.203125 5.159
	7/32=	.21875 5.556
	15/64=	.234375 5.953
1/4=	16/64=	.250
6.350		
	17/64=	.265625 6.747
	9/32=	.28125 7.144
	19/64=	.296875 7.541
5/16=	20/64=	.3125 7.937
	21/64=	.328125 8.334
	11/32=	.34375 8.731
	23/64=	.359375 9.128
3/8=	24/64=	.375
9.525		
	25/64=	.390625 9.922
	13/32=	.40625 10.319
	27/64=	.421875 10.716
7/16=	28/64=	.4375 11.112
	29/64=	.453125 11.509
	15/32=	.46875 11.906
	31/64=	.484375 12.303
1/2=	32/64=	.500
12.700		
	33/64=	.515625 13.097
	17/32=	.53125 13.494
	35/64=	.546875 13.891
9/16=	36/64=	.5626 14.287
	37/64=	.578125 14.684
	19/32=	.59375 15.081
	39/64=	.609375 15.478
5/8=	40/64=	.625
15.875		
	41/64=	.640625 16.272
	21/32=	.65625 16.669
	43/64=	.671875 17.066
11/16=	44/64=	.6875 17.462
	45/64=	.703125 17.859
	23/32=	.71875 18.256
	47/64=	.734375 18.653
3/4=	48/64=	.750
19.050		
	49/64=	.765625 19.447
	25/32=	.78125 19.844
	51/64=	.796875 20.241
13/16=	52/64=	.8125 20.637
	53/64=	.828125 21.034
	27/32=	.84375 21.431
	55/64=	.859375 21.828
7/8=	56/64=	.875
22.225		
	57/64=	.890625 22.622
	29/32=	.90625 23.019
	59/64=	.921875 23.416
15/16=	60/64=	.9375 23.812
	61/64=	.953125 24.209
	31/32=	.96875 24.606
	63/64=	.984375 25.003

Pressure

PSI x 27.71 = in/H ₂ O	
PSI x 2.036 = in/Hg	in/Hg x 0.491= psi
PSI x 703.1 = mm/H ₂ O	
PSI x 51.75 = mm/Hg	
PSI x .0703 = kg/cm ²	kg/cm ² x 14.22= psi
PSI x .0689 = bar	bar x 14.5= psi
PSI x 68.95 = mbar	
PSI x 6895 = Pa	
PSI x 6.895 = kPa	kPa x 145= psi

Temperature

F°=(1.8 x C°) + 32	C°=.555 (F° - 32)
	C°= K°-273.2

Length, Inches to metric

inches x 2.54= centimeters
feet x 30.48=centimeters
yards x 0.9=meters

Length, Metric to inches

mm x 0.03937= in
cm x 0.4= in
m x 3.3=ft
m x 1.1= yd

Area, Inches to metric

in ² x 6.5=cm ²
ft ² x .09=m ²
yd ² x 0.8=m ²

Area, Metric to inches

cm ² x 0.16= in ²
m ² x 1.2= yd ²
km ² x mi ²

Mass, ounces to grams

oz. x 28= g
lb x 0.45= kg

Mass, grams to ounces

g x 0.035= oz
kg x 2.2= lb

Volume, US to metric

tsp x 5=ml
Tbsp x 15=ml
fl oz x 30=ml
c x 0.24= l
pt x 0.47= l
qt x 0.95= l
gal x 3.8= l
ft ³ x 0.03= m ³

Volume, Metric to US

ml x 0.03= fl oz
l x 2.1= pt
l x 1.06= qt
l x 0.26= gal
cm ³ x 0.0338= fl oz
m ³ x 35= ft ³

Flow, US to metric

gpm x 3.785= l/min
gpm x 0.227= cu meters/hr

Flow, Metric to US

l/min x 0.264= gpm
cu meters/hr x 4.4= gpm

Converting Fractions to Decimal

3/8" = .375 (or the reciprocal , 3 divided by 8 equals .375)

Powers of Ten

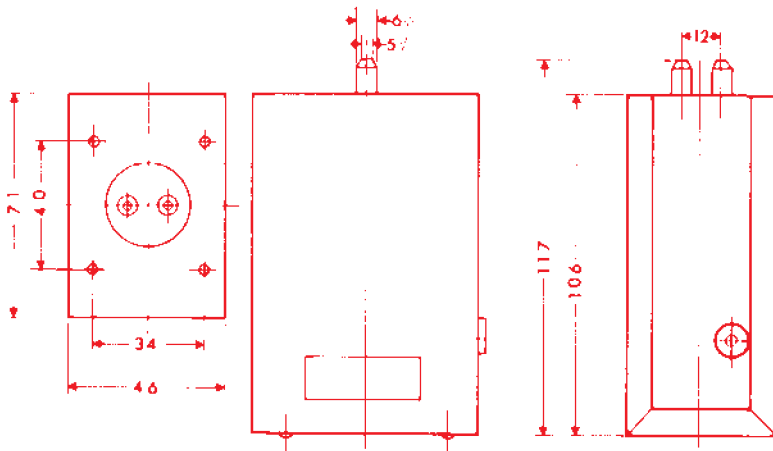
E	Decimal	Prefix	Symbol
Notation	Equivalent		
E+12	1,000,000,000,000	tera	T
E+09	1,000,000,000	giga	G
E+06	1,000,000	mega	M
E+03	1,000	kilo	k
E+02	100	hecto	h
E+01	10	deka	da
E-01	0.1	deci	d
E-02	0.01	centi	c
E-03	0.001	milli	m
E-06	0.000,001	micro	u
E-09	0.000,000,001	nano	n
E-12	0.000,000,000,001	pico	p
E-15	0.000,000,000,000,001	femto	f
E-18	0.000,000,000,000,000,001	atto	a

045 Twin

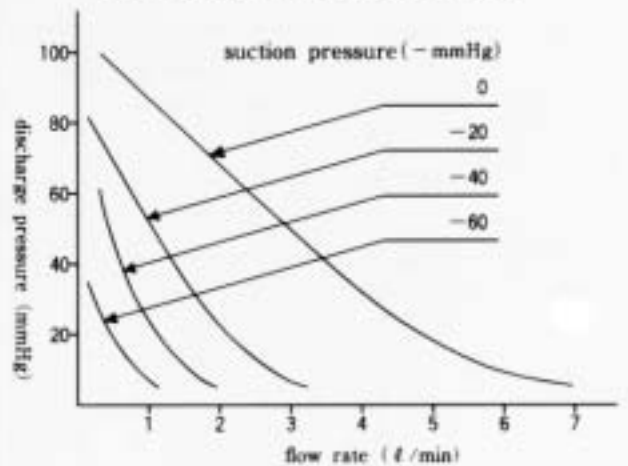


- Q**uality and performance. Conservatively rated. Highest vacuum/pressure sources currently available in the smallest footprint. CPLD (Patented design)
- Very corrosion resistant. Gas contacts only Phenol-Resin and Chloroprene. Very low power consumption.
 - Ready to use. 1/4" fittings for easy hook-up.
 - Easily changed over from vacuum to pressure and back.
 - **Replacement diaphragms available**
 - Available in 50 or 60Hz versions. Different (International) AC voltages available.

Dimensions



045 Performance Curves



Specifications

3009045

Model Number	045
Max Flow Rate (gals/m)&(Liters/m)	2.4 (9.0 lpm)
Max. Discharge Pressure (psi)&(mmHg)	2.5 (130)
Max. Vacuum (inHg)&(mmHg)	4.7 (-120)
Inlet/outlets	1/4" (6mm) barbed fittings
Voltage	AC115V, 60Hz(Other AC Voltages Available)
Current (amps)	0.13
Dimensions (inches)&(mm)	1.8"x2.8"x4.6" (46x71x117)
Weight (ounces)&(grams)	21 (600g)

Part#

Description

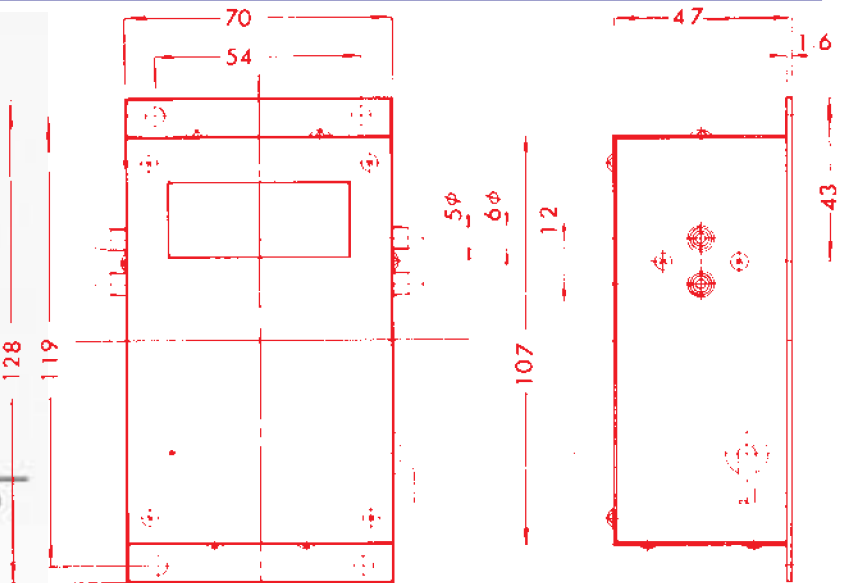
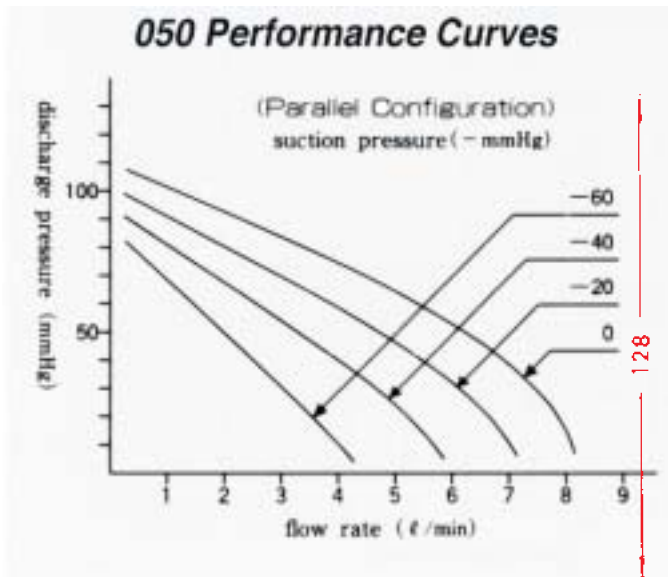
3009045	Pump, Mini, <i>Model 045</i> , 115VAC
3009045-220	Pump, Mini, <i>Model 045</i> , 220VAC
3009047	Replacement Diaphragm 1/pkg, 1 Req. (045 Pump)

Twin diaphragms ensure more balanced operation with less pulsation, allowing for more accurate vacuum/pressure regulation.

- **Very low power consumption.**
- **Quality and performance.**
- **Conservatively rated.**
- **Highest vacuum/pressure sources** currently available in the smallest footprint.
CPLD(Patented design)
- **Very corrosion resistant.** Gas contacts only Phenol-Resin and Chloroprene.
- **Ready to use.** 1/4" fittings for easy hook-up.
- **Easy change-over** from vacuum to pressure and back.
- **Replacement diaphragms available**
- Available in 50 or 60Hz versions. Different (International) AC voltages available.



Dimensions



Specifications

3009050

Model Number	050
Max Flow Rate (gals/m)&(Liters/m)	1.3 (5.0 lpm)
Max. Discharge Pressure (psi)&(mmHg)	2.3 (120)parallel, 4.5series
Max. Vacuum (inHg)&(mmHg)	3.9 (-100)parallel, 8.0series
Inlet/outlets	1/4" (6mm) barbed fittings
Voltage	AC115V, 60Hz(Other AC Voltages Available)
Current (amps)	0.25
Dimensions (inches)&(mm)	1.9" x 2.8" x 5.6" (47x70x128)
Weight (ounces)&(grams)	28 (800g)

Part#

Description

3009050	Pump, Mini, <i>Model 050</i> , 115VAC
3009050-220	Pump, Mini, <i>Model 050</i> , 220VAC
3009052	Replacement Diaphragm, 1/pkg, 2 Req. (050 Pump)

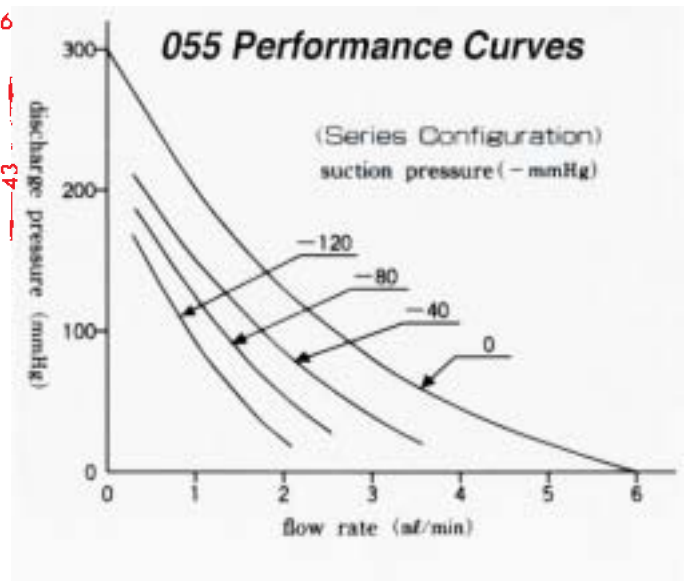
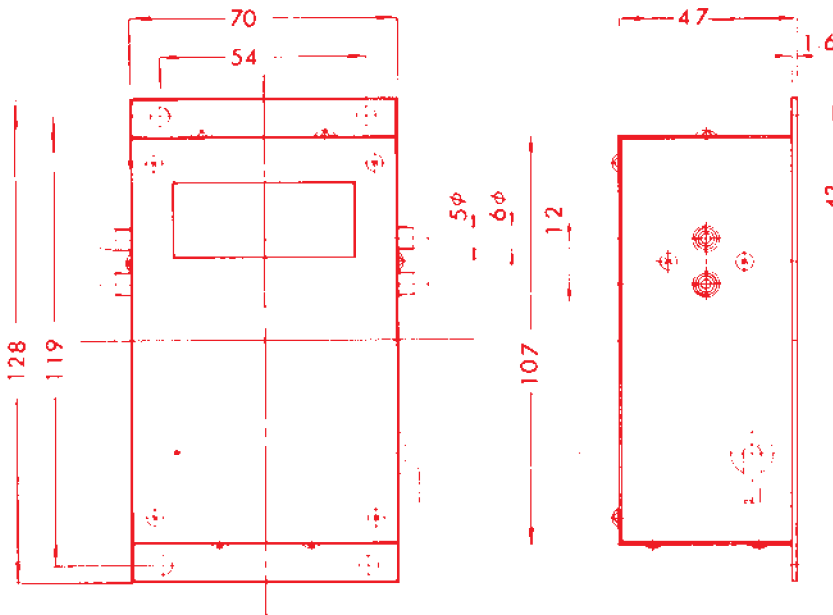
055 Twin



Top of the line in mini vacuum/pressure pumps CPLD (Patented design) **Rivals most larger pumps costing twice as much!**

- A single pump can be used in Series Or Parallel Configurations for faster flow or higher top end
- Very corrosion resistant. Gas contacts only Phenol-Resin and Chloroprene.
- Twin diaphragms ensure more balanced operation with less pulsation, allowing for more accurate vacuum/pressure regulation.
- Very low power consumption.
- Ready to use. 1/4" barbed fittings for easy hook-up.
- Easily changed over from vacuum to pressure and back.
- **Replacement diaphragms available**
- Available in 50 or 60Hz versions. Different (International) AC voltages available.

Dimensions



Specifications 3009055

Max Flow Rate (gals/m)&(Liters/m)	1.6 (6.0 lpm)
Max. Discharge Pressure (psi)&(mmHg)	6.2 (320)parallel, 10.0 (517)series
Max. Vacuum (inHg)&(mmHg)	11.7 (300)parallel, 16.0 (409)series
Inlet/outlets	1/4" (6mm) barbed fittings
Voltage	AC115V, 60Hz(Other AC Voltages Available)
Current (amps)	0.25
Dimensions (inches)&(mm)	1.9" x 2.8" x 5.6" (47x70x128)
Weight (ounces)&(grams)	28 (800g)

Part# Description

3009055	Pump, Mini, <i>Model 055</i> , 115VAC
3009055-220	Pump, Mini, <i>Model 055</i> , 220VAC
3009057	Replacement Diaphragm, 1/pkg, 2 Req.(055 Pump)

DC Powered!

The driving system for the DC voltage pump is composed of a specially designed electronic

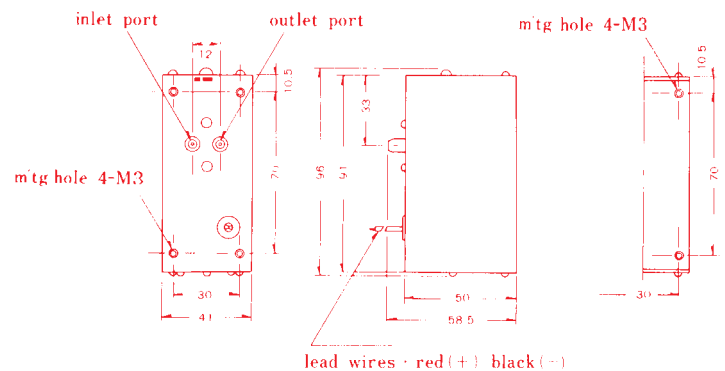
circuit and solenoid with the electronic circuit encapsulated to prevent vibration and keep out dust. This simple mechanism enables long periods of trouble-free operation. Flow rate can be controlled from the outside by means of a variable resistor or by an off/on switch.

- Available in a AC version
- Conservatively rated.
- The most compact, lightweight design in our series of pumps.
- Very low power consumption.
- Ready to use. 1/4" barbed fittings for easy hook-up.
- Easily changed over from vacuum to pressure and back.
- Replacement diaphragm available!
- Short start-up times
- Highly corrosion resistant. Gas contacts only Ethylenepropylene, Phenol-Resin and Chloroprene.



The smallest!
2.3" x 1.6" x 3.6"!

Dimensions



Specifications	065 6VDC
Max Flow Rate (gpm & (lpm)	.47 (1.8)
Max. Discharge Pressure (psi) & (mmAq)	.57 (400)
Max. Vacuum (inHg) & (mmAq)	1.16 (-400)
Inlet/outlets	1/4" (6mm) barbed fittings
Voltage	6V DC
Current (milli-amperes)	200mA
Dimensions (inches)&(mm)	1.6" x 2.3" x 3.8" (41x58.5x96)
Weight (ounces)&(grams)	12 (350)

Part#	Description
3009065	Pump, Micro, Model 065, 6VDC
3009062	Replacement Diaphragm 1/pkg, 1 Req. (065 Pump)

075 Mono

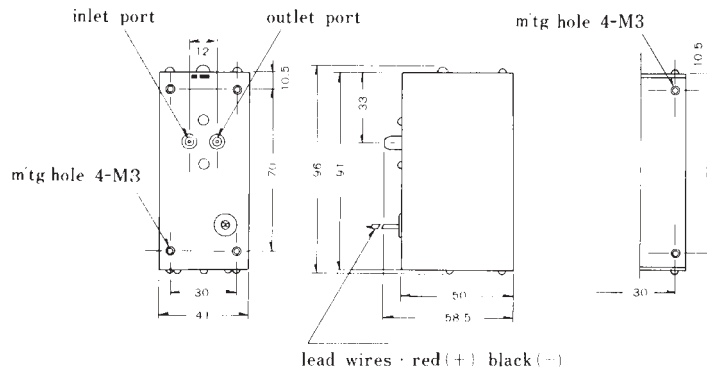


AC Powered Version of the Model 065
The most compact, lightweight design in our series of pumps.

- Available in a DC version
- Conservatively rated.
- Very low power consumption.
- Ready to use. 1/4" barbed fittings for easy hook-up.
- Easily changed over from vacuum to pressure and back.
- **Replacement diaphragm available!**
- Short start-up times
- **Highly corrosion resistant.** Gas contacts only Ethylenepropylene, Phenol-Resin and Chloroprene.

The smallest!
2.3" x 1.6" x 3.6"!

Dimensions



Specifications

075 115VAC

Max Flow Rate (gpm & (lpm)	.53 (2.0)
Max. Discharge Pressure (psi) & (mmAq)	.57 (400)
Max. Vacuum (inHg) & (mmAq)	1.16 (-400)
Inlet/outlets	1/4" (6mm) barbed fittings
Voltage	115VAC
Current (milli-amperes)	45mA
Dimensions (inches)&(mm)	1.6" x 2.3" x 3.8" (41x58.5x96)
Weight (ounces)&(grams)	12 (350)

Part#

Description

3009075	Pump, Micro, <i>Model 075</i> , 115VAC
3009076	Pump, Micro, <i>Model 075</i> , 220VAC
3009077	Replacement Diaphragm 1/pkg, 1 Req. (075 Pump)

080 Twin

Top of the line in the Liquid Family of pumps, moves fluid with negligible agitation. CPLD Design For your most demanding applications. Conservatively rated. A great advantage in a pumping system where turbulence must be avoided. 4 models available.

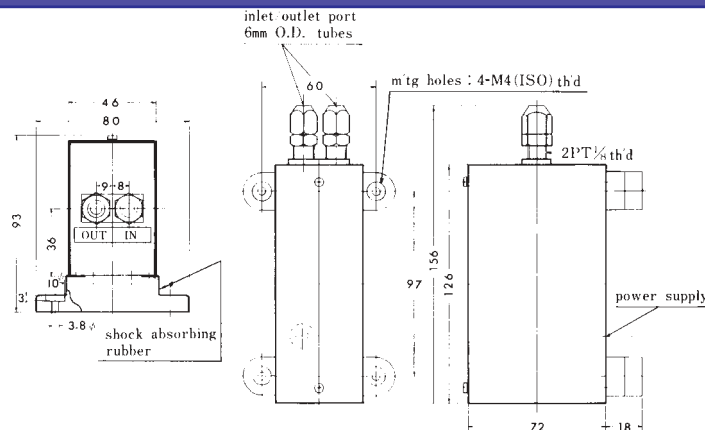
- **Very corrosion resistant.** Liquid contacts only EPDM and Polypropylene.
- **Does not require priming** and has a design that eliminates inactive space in the chamber.

The result is a pump with short start-ups.

- Comes equipped with 1/8FPT threads and 1/4" O.D. tube compression fitting for easy installation.
- Replacement diaphragm available.
- Mounts on shock absorbing rubber for minimizing noise.



Dimensions



Specifications

3009080

Model Number	080
Max Flow Rate (Ounces/Minute) & (cc/min)	30 (900)
Max. Discharge Pressure (psi)&(kg/cm2)	7.1 (0.5)
Max. Suction Head (meters)	2.0
Inlet/outlets	1/8FPT Thread & 1/4 (6mm) O.D. Tube
Voltage	AC115V, 50/60Hz (Other AC Voltages Avail.)
Current (amps) & Watts	150mA, 15W
Dimensions (inches)&(mm) LWH	5.0" x 3.15" x 3.65" (126 x 80 x 93)
Weight (ounces)&(grams)	33 (950g)

Insulation Class: E. Insulation Resistance: >50Mohm at 500VDC. Max coil temperature rise: 75°C at 2 hours. Fluid Temperature 10~40°C. Operating Temperature 5~40°C. Maximum Specs obtained at 20-25°C, humidity 45-85% without dewing, 100VAC 50Hz .

Part#

Description

- 3009080 Pump, Liquid, *Model 080*, HighVolume, 115VAC
- 3009082 Replacement Diaphragm 1/pkg, 1 Req.

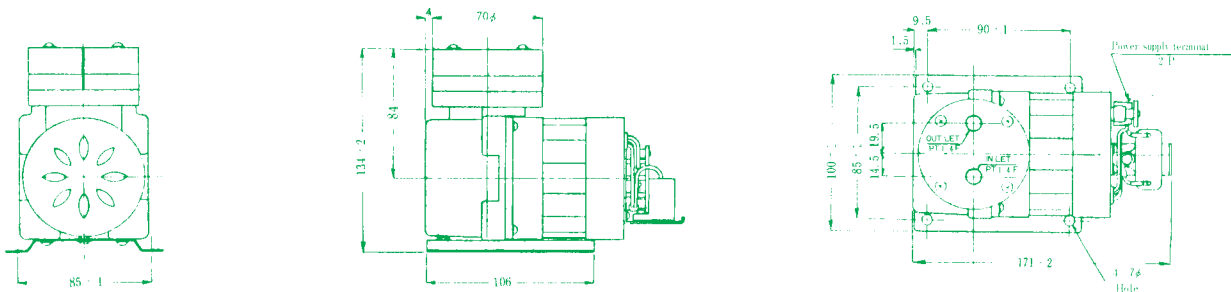
0100 Single



Single Head Design featuring minimal noise and vibration. **Uses a patented multi-valve sheet in the intake/exhaust.** To repair valve, just remove head, turn valve sheet 90 degrees, reinstall head and continue operation. So easy, can be done over the phone. (stops the need to carry a spare valve & stops unnecessary downtime.)

- **High quality and performance, conservatively rated**
- **Employs forced air cooling fan for continuous operation.**
 - **Corrosion resistant.** Polypropylene head and viton diaphragm for high reliability.
 - **The lowest power and current draw!**
 - **Ultra Quiet operation** makes the pump suitable for any application where noise and vibration must be avoided. Well suited for use in environments where hydrous corrosive gases are present. And where reliability is a must.

Dimensions



Specifications		3009100
Model Number		100
Max Flow Rate (Gals/minute) & (Liters/minute)		2.6gpm or 10.0Lpm
Max. Discharge Pressure (psi)&(kg/cm2)		14.2psi or 1.0kg/cm2
Max. Vacuum (inHg) & (mmHg))		17.5inHg or -450mmHg
Inlet/outlets		1/4FPT
Voltage		115VAC, 50/60Hz or 100, 200, 220 & 400VAC motors available.
Current (amps)		0.4amps
Dimensions (inches)&(mm)		3.9" x 5.3" x 6.7" (85x134x171)
Weight (pounds)&(Kilograms)		4.9lbs or 2.2kgs

Part#	Description
3009100	Pump, Single head <i>Model 100</i> , 115VAC
3009100-220	Pump, Single head <i>Model 100</i> , 220VAC
3009102	Valve sheet, (1 set required for repair) (spare valve built-in) (0100 Pump)

0105_{Twin}

Top of the Line!

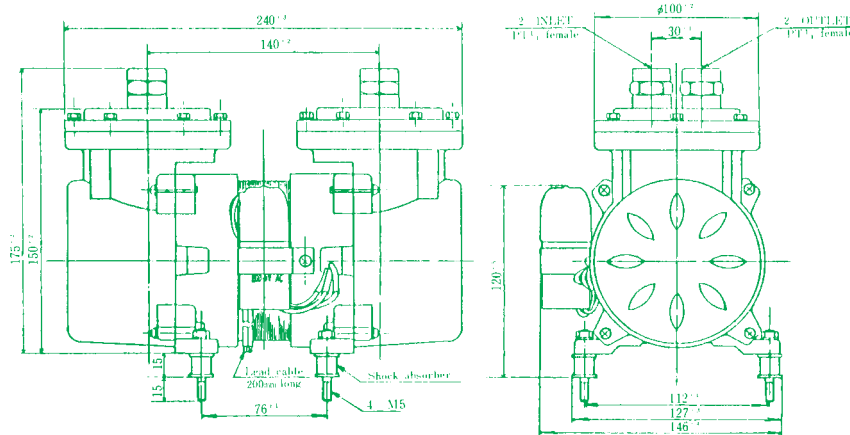
Dual head for more capacity.

Well suited for use in environments where hydrous corrosive gases are present. And where reliability is a must.

- **Corrosion resistant.** Stainless Steel head, ports, springs and top plate, teflon coated chloroprene diaphragm & teflon ball valves.
- **Quiet operation** makes the pump suitable for any application where noise and vibration must be avoided.
- **High quality and performance, conservatively rated**
- **Employs forced air cooling fan for continuous operation.**
- **The lowest power and current draw!**
- **The highest volume and pressure & vacuum in our line.**



Dimensions



Order with this Part Number	3009105
Model Number	105
Max Flow Rate (Gals/minute) & (Liters/minute)	13.2gpm or 50.0 Lpm
Max. Discharge Pressure (psi)&(kg/cm ²)	21.3psi or 1.5kg/cm ²
Max. Vacuum (inHg) & (mmHg))	17.5inHg or -450mmHg
Inlet/outlets	1/4FPT
Voltage	AC115VAC, 50/60Hz or 100, 200, 220 & 400VAC motors available.
Current (amps)	1.0amp
Dimensions (inches)&(mm)	6.9" x 5.75" x 9.45" (146x120x240)
Weight (pounds)&(Kilograms)	17.8lbs or 8.0kgs

Part#	Description
3009105	Pump, Twin head <i>Model 105</i> , 115VAC
3009105-220	Pump, Twin head <i>Model 105</i> , 220VAC
3009107	Replacement Diaphragm, 2/pkg (1 set required for repair)
3009109	Replacement Spring/Ball, 1/pkg (2 sets required for repair)

OEM Pricelist 03

<u>PUMPS, VAC/PRESS, MINI, DIAPHRAGM TYPE</u>		<u>1-25</u>	<u>26-50</u>	<u>51-100</u>	<u>100-Up</u>
3009045	Pump, Mini,045, 115VAC	94.50	-5%	-10%	Call
3009047	Pump, Diaphragm for 3009045	27.45	"	"	"
3009050	Pump, Mini, 050, 115VAC	92.75	"	"	"
3009052	Pump, Diaphragm for 3009050 (2 req.)	18.45ea.	"	"	"
3009055	Pump, Mini, 055, 115VAC	109.85	"	"	"
3009055-220	Pump, Mini, 055, 220VAC	109.85	"	"	"
3009057	Pump, Diaphragm for 3009055 (2 req.)	19.40ea.	"	"	"

<u>PUMPS, VAC/PRESS, MICRO, DIAPHRAGM TYPE</u>					
3009062	Pump, Diaphragm for 3009065	16.55	-5%	-10%	Call
3009065	Pump, Micro, 065, 6VDC	89.95	"	"	"
3009075	Pump, Micro, 075, 115VAC	61.99	"	"	"
3009076	Pump, Micro, 075, 220VAC	61.99	"	"	"
3009077	Pump, Diaphragm for 3009075	18.55	"	"	"

<u>PUMPS, LIQUID, DIAPHRAGM TYPE</u>					
3009080	Pump, Liquid, 080, 115VAC	170.95	-5%	-10%	Call
3009082	Pump, Diaphragm for 3009080 & 95	44.75	"	"	"

<u>PUMPS, VAC/PRESS, MID VOLUME, DIAPHRAGM</u>					
3009100	Pump, Single head, 100, 115VAC	490.00	-5%	-10%	Call
3009102	Pump, Valve sheet set for 3009100	51.95	"	"	"
3009105	Pump, Diaphragm, Twin head, 105	1265.00	"	"	"
3009107	Pump, Diaphragm for 3009105	47.95	"	"	"
3009109	Pump, Spring/Ball set for 3009105	29.95	"	"	"



Healthmart Supply Inc.

PO Box 1067
Ferndale, WA 98248-1067

Attn: Mailroom, if the above person is not with your organization, please forward to engineering