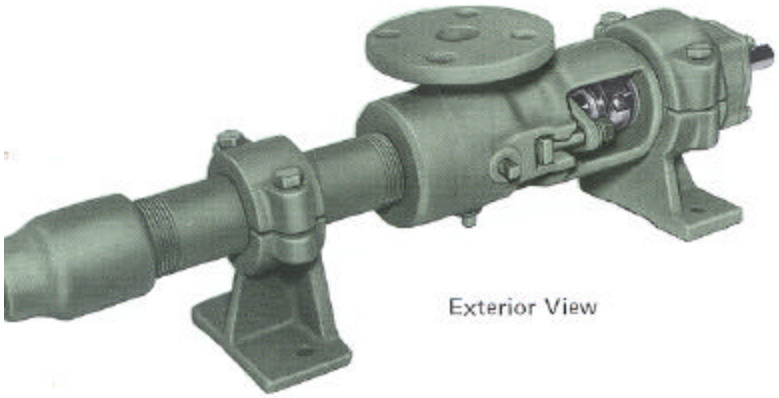
CONTINENTAL®

PROGRESSING CAVITY PUMPS

CONTINENTAL Models CL, CM, CG & CJ
PUMPS and PARTS
are interchangeable with
Robbins & Myers
MOYNO Models L, M, SWG & J.

CATALOG CL-8400

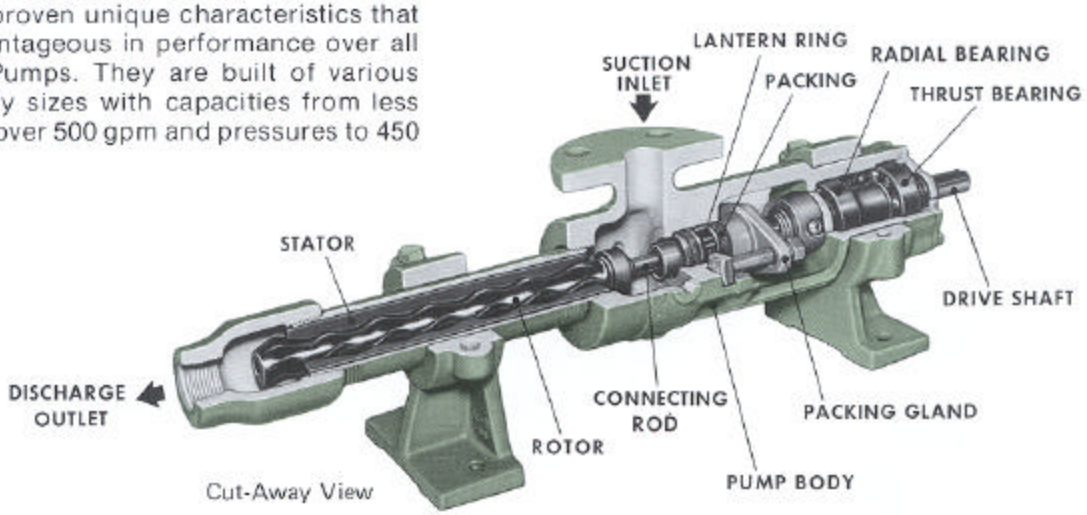
Continental Pump Co.
11811 WESTLINE INDUSTRIAL DRIVE
ST. LOUIS, MISSOURI 63146 U.S.A.



Exterior View

CONTINENTAL®
PROGRESSING CAVITY PUMPS

CONTINENTAL Progressing Cavity Pumps have time tested and proven unique characteristics that make them advantageous in performance over all other kinds of Pumps. They are built of various materials in many sizes with capacities from less than one gpm to over 500 gpm and pressures to 450 psi.



Cut-Away View

POSITIVE DISPLACEMENT

The turning ROTOR develops "positive pumping action" similar to a piston moving through a cylinder of infinite length. The pump pressure developed does not depend upon the speed of the rotating ROTOR. The capacity of the pump is approximately proportioned to speed. Slippage is relative to the viscosity, and pressure can be projected for particular operating conditions.

UNIFORM DISCHARGE FLOW

Fluids are uniformly discharged without pulsation in a constant steady flow. Displacement remains the same with each revolution of the ROTOR permitting accurate predictable metering relative to the fluid being pumped.

INTERNAL VELOCITY OF FLUIDS

All fluids are pumped with a minimum amount of turbulence, agitation, pulsation or separation disturbance.

SELF PRIMING

Pumping action starts at the time the ROTOR is turned and it is capable of 28 feet of suction lift in an appropriate installation. The liquid being pumped acts as a lubricant between the ROTOR and STATOR and forms a continuous seal to project the pumping phenomena.

SOLIDS IN SUSPENSION

Solid particles over a wide range of size and shape - as large as 1⅛ inches in diameter, are pumped with no difficulty.

REVERSIBLE

Pumps can be operated clockwise or counter-clockwise with effective performance in most installations.

INSTALLATION

Pumps can be mounted Horizontally or Vertically and the Suction Port can be turned to any position for appropriate entry of the liquid.

CONTINENTAL® PROGRESSING CAVITY PUMPS

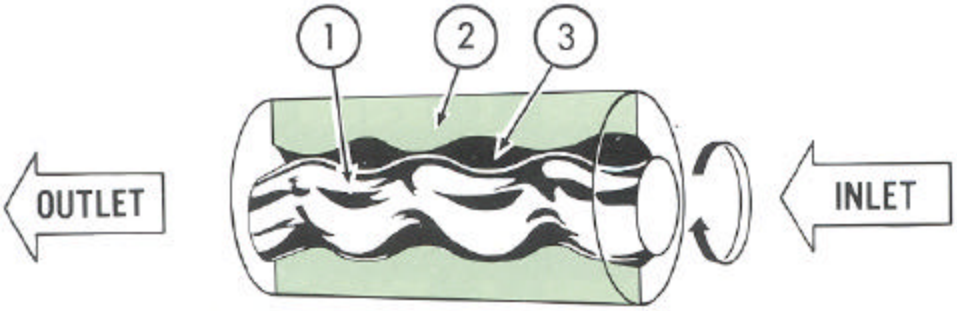
... will handle any Liquid or Slurry that can be moved through pipe of the appropriate size.

How CONTINENTAL® PROGRESSING CAVITY PUMPS Function...

Operation of the CONTINENTAL PUMP can be compared to that of a Screw Conveyor or Meat Grinder. As the ROTOR turns in the STATOR, the cavities between these components are filled with the liquid being handled and the liquid is progressively moved from the Suction Inlet to the Discharge Outlet of the Pump. The action continues as long as the ROTOR turns.

HOW THIS *UNIQUE* PUMP WORKS

Liquid enters the Suction Inlet either under pressure or by gravity and as the ROTOR (1) turns within the flexible rubber STATOR (2) forming tightly sealed cavities (3) which moves the Liquid toward the Discharge Outlet. Pumping action starts the instant the ROTOR turns. Liquid acts as the lubricant between the pumping elements.



ROTORS are made of Hardened Steel or Stainless Steel and are covered with a Chrome Plating to give resistance to corrosive and abrasive materials. Some liquids affect the Chrome Plating and in those applications a Non-Plated ROTOR should be used.

STATORS are metal tubes with internally molded cavities of Synthetic or Natural Rubber.

CONTINENTAL ...The Perfect Pump for...

TRANSFERRING • CIRCULATING • METERING • FILLING • IRRIGATING • WASHING • SPRAYING • SAMPLING • ABRASIVES • CEMENTING • CAULKING • MIXING • AERATING • SPRINKLING • WATER SYSTEMS • CLEANING • PASTES SLURRIES • INDUSTRIAL WASTE • SEWAGE • WASTE WATER • SLUDGE •

. . . to name the more common types of applications that are being successfully and economically performed by these ....Amazingly Versatile Pumps!

Liquids that can be Handled by.....

CONTINENTAL®
PROGRESSING CAVITY PUMPS

Materials used in the PUMPS are based on the fluid to be handled and are indicated by three letters following the Frame Size. The first letter covers the material used in the PUMP BODY which is a casting. The second letter indicates the ROTOR materials and the third letter the STATOR construction.

For example a PUMP designated a 1CL2 CDQ is a One stage Size 2 having a Cast Iron Body with a Chrome Plated Alloy Steel Rotor with a Buna N Stator.

These Materials of Construction permit CONTINENTAL PUMPS to "handle almost any fluid that can be moved thru pipe". Set forth in the accompanying chart are a partial list of liquids that have been successfully handled along with an indication of the basic materials for the PUMP BODY, the ROTOR and the STATOR.

PART	LETTER	MATERIAL
PUMP BODY	C	Cast Iron
	S	316 Stainless Steel
ROTOR	D	Chrome Plated Alloy Steel
	S	Chrome Plated 316 Stainless Steel
STATOR	B	Butyl/EPDM Rubber
	F	Viton Rubber
	Q	Buna N Rubber
	R	Natural Rubber

See Footnote on Page 6

LIQUID	PUMP BODY		ROTOR		STATOR			
Acetic Acid (cold dilute)		S		S*	B		Q	R
Acetone	C	S	D	S	B			
Acid Mine Water	C			S			Q	R
Alcohol, Ethyl (grain)	C		D				Q	R
Alcohol, Methyl (wood)	C		D				Q	R
Alum (Paper mill)		S		S	B	F	Q	R
Aluminum Hydroxide	C		D				Q	R
Aluminum Sulphate		S		S	B	F	Q	R
Ammonium Bicarbonate	C	S	D	S	B			R
Ammonium Chloride		S		S*	B		Q	R
Ammonium Phosphate	C	S	D	S	B		Q	R
Ammonium Nitrate	C	S	D	S	B		Q	R
Ammonium Sulphate	C	S		S*	B		Q	R
Aromatic Hydrocarbons	C	S	D	S		F		
Asphalt	C	S	D	S		F		
Barium Chloride	C	S		S	B	F	Q	R
Barium Hydroxide	C	S	D	S	B	F	Q	R
Barium Nitrate	C	S	D	S			Q	R
Barium Sulphate	C	S	D	S			Q	R
Beer		S		S			Q	R
Beer Wort		S		S				R
Beet Sugar Liquor		S		S	B	F	Q	R
Benzene (coal tar product)	C		D	S		F		
Benzine (petroleum product)	C	S	D			F	Q	
Black Liquor	C	S	D	S		F	Q	
Boiler Feed Water	C		D				Q	
Bordeaux Mixture	C		D				Q	R
Boric Acid		S		S		F	Q	R
Brine, Calcium Chloride	C	S		S*	B	F	Q	R
Brine, Sodium Chloride	C	S		S*	B	F	Q	R
Calcium Chlorate	C	S	D	S		F		
Calcium Chloride	C	S	D	S	B	F	Q	R
Calcium Hypochlorite	C	S		S	B	F		
Calgon (sodium hexametaphosphate)		S		S			Q	R
Carbon Bisulfide	C	S	D	S		F		
Carbon Disulphide	C	S	D	S		F		

LIQUID	PUMP BODY		ROTOR		STATOR			
Carbonic Acid	C			S			Q	R
Castor Oil	C	S	D	S		F	Q	R
Caustic Potash (lye)	C	S	D	S			Q	R
Caustic Soda (lye)	C	S	D	S	B		Q	R
Caustic Zinc Chloride		S		S			Q	R
China Wood	C		D				Q	
Drying Oils	C		D				Q	
Vegetable Oils	C		D				Q	
Chlorinated Hydrocarbons								
Chloroform		S		S		F		
Dichloroethylene	C	S	D	S			Q	
Methyl Chloride	C	S	D	S		F		
Tri Chloroethyline		S		S		F		
Chromic Acid (diluted)		S		S		F		
Citric Acid		S		S	B	F	Q	R
Clay Slip	C		D			F	Q	R
Copper Nitrate		S		S			Q	R
Copper Sulphate		S		S*		F	Q	R
Copperas		S		S*			Q	R
Corn Oil	C	S	D	S		F	Q	
Cotton Seed Oil	C	S		S		F	Q	
Creosote	C	S	D	S		F	Q	
Cyanide	C		D				Q	R
Cyanide of Potassium	C		D		B	F	Q	R
Diethylene Glycol (alcohol)	C	S	D	S		F	Q	R
Distilled Water or Deionized	C	S		S			Q	R
Distillery Wort	C	S	D	S			Q	R
Edible Oils	C	S	D	S			Q	
Epsom Salts	C	S	D	S	B	F	Q	
Ethyl Alcohol	C	S	D	S	B	F		
Fatty Acids	C	S	D	S		F		
Ferric Hydroxide		S		S	B		Q	R
Ferrous Sulphate		S		S*			Q	R
Formaldehyde		S		S		F	Q	
Formic Acid		S		S		F		
Fruit Juices		S		S			Q	R
Fuel Oils	C	S	D	S		F	Q	
Furfural	C	S	D	S	B			
Fusel Oils	C		D				Q	
Gasoline	C		D				Q	
Glucose	C	S	D	S	B	F	Q	R
Glue	C	S	D	S	B	F	Q	R
Glycerine	C	S	D	S	B	F	Q	R
Glycerol	C	S	D	S	B	F	Q	R
Grain Alcohol	C		D				Q	R
Grape Juice		S		S			Q	R
Hops	C	S	D	S			Q	R
Hydrocyanic Acid		S		S	B	F		
Hydrogen Peroxide		S		S		F		
Hydrogen Sulfide		S		S	B	F		
Kerosene	C		D				Q	
Lard	C	S	D	S		F	Q	
Lime Water	C		D				Q	R
Linseed Oil	C	S	D	S	B	F	Q	
Lubricating Oils	C		D				Q	
Lye (sodium hydroxide)	C	S	D	S	B	F	Q	R
Magnesium Chloride	C	S	D	S	B	F	Q	R
Magnesium Sulphate	C	S	D	S*	B	F	Q	
Mercury	C	S	D	S			Q	R
Methanol	C	S	D	S	B		Q	R

LIQUID	PUMP BODY		ROTOR		STATOR			
Methyl Chloride	C		D				Q	R
Milk of Lime	C			S			Q	R
Mine Water	C			S			Q	R
Molasses	C		D	S	B	F	Q	R
Naphtha	C		D				Q	
Nickel Chloride		S		S	B	F	Q	R
Nickel Sulphate		S		S*	B	F	Q	
Oil - Paraffin Base	C		D				Q	
Oil - Vegetable	C		D				Q	
Paints - Water Base	C		D				Q	R
Palmitic Acid	C		D			F	Q	
Phosphoric Acid		S		S		F		
Potassium Carbonate	C		D				Q	R
Potassium Chloride	C		D		B	F	Q	R
Potassium Nitrate	C		D		B	F	Q	R
Potassium Phosphate	C		D				Q	R
Potassium Sulphate	C		D		B	F	Q	
Salammoniac		S		S	B		Q	R
Salt Brine (to 30%)	C	S		S			Q	R
Sea Water	C			S			Q	R
Sewage	C		D				Q	R
Shellac	C		D				Q	
Soap Liquor (thin)	C	S	D	S	B	F	Q	
Soda	C		D		B	F	Q	R
Sodium Aluminate	C		D		B		Q	R
Sodium Bicarbonate	C			S	B	F	Q	R
Sodium Bisulfite		S		S	B		Q	R
Sodium Carbonate	C			S	B	F	Q	R
Sodium Chloride	C	S		S*	B	F	Q	R
Sodium Hydroxide	C	S	D	S	B		Q	R
Sodium Nitrate	C		D		B			
Sodium Silicate	C		D		B	F	Q	R
Sodium Sulfate		S		S	B	F	Q	
Soy Bean Oil	C		D			F	Q	
Starch	C	S	D	S	B		Q	R
Steric Acid		S	D				Q	
Sugar	C		D				Q	R
Tar	C		D				Q	
Tar & Ammonia in Water	C		D				Q	
Titanium Chloride		S		S		F		
Toluene (toluol)	C		D			F		
Trub Sludge	C		D				Q	R
Turpentine	C		D			F	Q	
Varnish	C		D			F		
Vegetable Oil	C		D				Q	
Vinegar		S		S*	B	F	Q	
Vitriol - Blue		S		S	B	F	Q	
Vitriol - Green		S		S			Q	R
Waste Water	C		D				Q	R
Whiskey	C	S	D	S			Q	R
Wine		S		S	B		Q	R
Wood Pulp	C		D				Q	R
Yeast		S		S	B		Q	R
Zinc Chloride		S		S*	B	F	Q	R
Zinc Nitrate		S		S			Q	R
Zinc Sulfate		S		S*	B		Q	R

Note: * Non-plated ROTOR.
When D ROTORS are used the Drive Shaft and Connecting Rod will be of Carbon Steel.
When S ROTORS are used the Drive Shaft and Connecting Rod will be of Stainless Steel.
Maximum allowable Temperatures for STATORS: B - 240° F, F - 300° F, Q - 210° F, R - 185° F.

Model CL

CONTINENTAL
PROGRESSING CAVITY PUMPS®

Model CL Pumps are suitable for a wide variety of applications and are the most frequently used. When properly applied they give excellent long life performance at the most economical cost.

PERFORMANCE DATA

FRAME SIZE	Gal./100 Rev.	PUMP SPEED	300 RPM		450 RPM		600 RPM		750 RPM		900 RPM		1200 RPM	
		Diff. Press. PSI	GPM	Min. HP	GPM	Min. HP	GPM	Min. HP	GPM	Min. HP	GPM	Min. HP	GPM	Min. HP
1CL2	.260	0	.54	1/8	1.1	1/8	1.5	1/8	2.0	1/4	2.2	1/4	3.0	1/3
		30	.51	1/8	.95	1/8	1.3	1/8	1.8	1/4	2.1	1/4	2.8	1/3
		60	.40	1/8	.80	1/8	.9	1/8	1.4	1/4	1.7	1/4	2.3	1/3
2CL2	.260	0	.54	1/4	1.1	1/4	1.5	1/4	2.0	1/3	2.2	1/3	3.0	1/2
		80	.51	1/4	.95	1/4	1.3	1/4	1.8	1/3	2.1	1/3	2.8	1/2
		120	.80	1/4	.80	1/4	.9	1/4	1.4	1/3	1.7	1/3	2.3	1/2
3CL2	.260	0	.54	1/4	1.1	1/4	1.5	1/3	2.0	1/3	2.2	1/3	3.0	3/4
		90	.51	1/4	.95	1/4	1.3	1/3	1.8	1/3	2.1	1/3	2.8	3/4
		180	.50	1/4	.50	1/4	.9	1/3	1.4	1/3	1.7	1/3	2.3	3/4
1CL3	.860	0	2.5	1/3	3.8	1/3	5.1	1/3	6.4	1/3	7.5	1/2	10	3/4
		40	1.6	1/3	3.0	1/3	4.3	1/3	5.5	1/2	6.8	1/2	9.3	3/4
		75	–	–	1.5	1/3	2.7	1/3	4.2	1/2	5.0	3/4	7.7	3/4
2CL3	.860	0	2.5	1/3	3.8	1/3	5.1	1/2	6.4	1/2	7.5	3/4	10	1
		80	1.6	1/3	3.0	1/3	4.3	1/2	5.5	3/4	6.8	3/4	9.3	1
		150	–	–	1.4	1/3	2.7	1/2	4.2	3/4	5.0	1	7.7	1-1/2
3CL3	.860	0	2.5	1/3	3.8	1/2	5.1	3/4	6.4	3/4	7.5	3/4	10	1
		120	1.6	1/3	3.0	1/2	4.3	3/4	5.5	1	6.8	1	9.3	1-1/2
		225	–	–	1.6	3/4	2.7	1	4.2	1-1/2	5.0	1-1/2	7.7	2
1CL4	2.02	0	5.8	1/2	9.0	1/2	2.0	1/2	15	1/2	18	3/4	24	1
		40	4.0	1/2	6.7	1/2	9.5	1/2	12.5	3/4	16	1	22	1
		75	–	–	2.7	3/4	5.5	3/4	8.5	1	12	1-1/2	18	1-1/2
2CL4	2.02	0	5.8	3/4	9.0	1/2	12.0	3/4	15	3/4	18	1	24	1-1/2
		80	4.0	3/4	6.7	3/4	9.5	1	12.5	1-1/2	16	1-1/2	22	2
		150	–	–	2.7	1	5.5	1-1/2	8.5	2	12	2	18	3
3CL4	2.02	0	5.0	3/4	9.0	3/4	12.0	1	15	1	18	1-1/2	24	2
		120	4.0	3/4	6.7	1	9.5	1-1/2	12.5	1-1/2	16	2	22	3
		225	2.0	1	3.7	1-1/2	5.5	2	8.5	3	12	3	18	5
1CL6	5.20	0	15	1	23	1	31	1-1/2	39	1-1/2	47	2		
		40	11	1	19	1	27	1-1/2	35	2	43	2		
		75	6.5	1	13	1-1/2	21	2	28	3	36	3		
2CL6	5.20	0	15	1	23	1-1/2	31	2	39	2	47	3		
		80	11	1	19	1-1/2	27	2	35	3	43	3		
		150	5	2	13	3	21	5	28	5	36	5		
3CL6	5.20	0	15	1-1/2	23	2	31	3	39	3	47	5		
		120	11	1-1/2	19	3	27	3	35	5	43	5		
		225	5	3	13	5	21	5	28	7-1/2	36	7-1/2		
1CL8	11.7	0	33	2	51	2	68	3	87	3	100	5		
		40	27	2	45	2	62	3	76	5	94	5		
		75	17	2	35	3	52	5	66	7-1/2	84	7-1/2		
2CL8	11.7	0	33	3	51	3	68	5	87	5	100	7-1/2		
		80	27	3	45	5	62	5	76	7-1/2	94	7-1/2		
		150	18	5	35	7-1/2	52	7-1/2	66	10	84	10		
3CL8	11.7	0	33	5	51	5	68	7-1/2	87	7-1/2	100	10		
		120	27	5	45	5	62	7-1/2	76	10	94	10		
		225	18	7-1/2	35	10	52	10	66	15	84	15		
1CL10	18.8	0	56	2	84	3	115	5	140	5				
		40	46	2	74	3	105	5	130	7-1/2				
		75	26	5	53	5	84	7-1/2	106	10				
2CL10	18.8	0	56	3	84	5	115	7-1/2	140	7-1/2				
		80	46	5	74	7-1/2	105	7-1/2	130	10				
		150	24	7-1/2	53	10	84	15	106	20				
3CL10	18.8	0	56	5	84	7-1/2	115	10	140	10				
		120	46	5	74	10	105	10	130	15				
		225	22	10	53	15	84	20	106	25				
1CL10H	27.7	0	83	3	127	5	168	7-1/2	210	7-1/2				
		40	73	3	117	5	158	7-1/2	202	10				
		75	55	5	100	7-1/2	143	10	187	15				
2CL10H	27.7	0	83	5	127	7-1/2	168	10	210	10				
		80	73	5	117	7-1/2	158	10	202	15				
		150	64	10	100	15	143	20	187	25				
1CL12	43.5	0	130	5	196	7-1/2	255	10						
		40	118	7-1/2	184	10	240	15						
		75	85	10	149	15	210	20						
2CL12	43.5	0	130	10	196	15	255	20						
		80	118	10	184	15	240	20						
		150	85	15	149	25	208	30						
3CL12	43.5	0	130	15	196	20	255	25						
		120	118	15	184	20	240	25						
		225	85	25	149	30	210	40						
1CL12H	65.2	0	196	7-1/2	293	10	380	15						
		40	173	7-1/2	272	15	363	20						
		75	123	15	220	20	310	25						
2CL12H	65.2	0	195	15	293	20	380	25						
		80	173	15	272	20	363	30						
		150	123	25	220	30	300	50						

Model CL

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PROGRESSING CAVITY PUMPS

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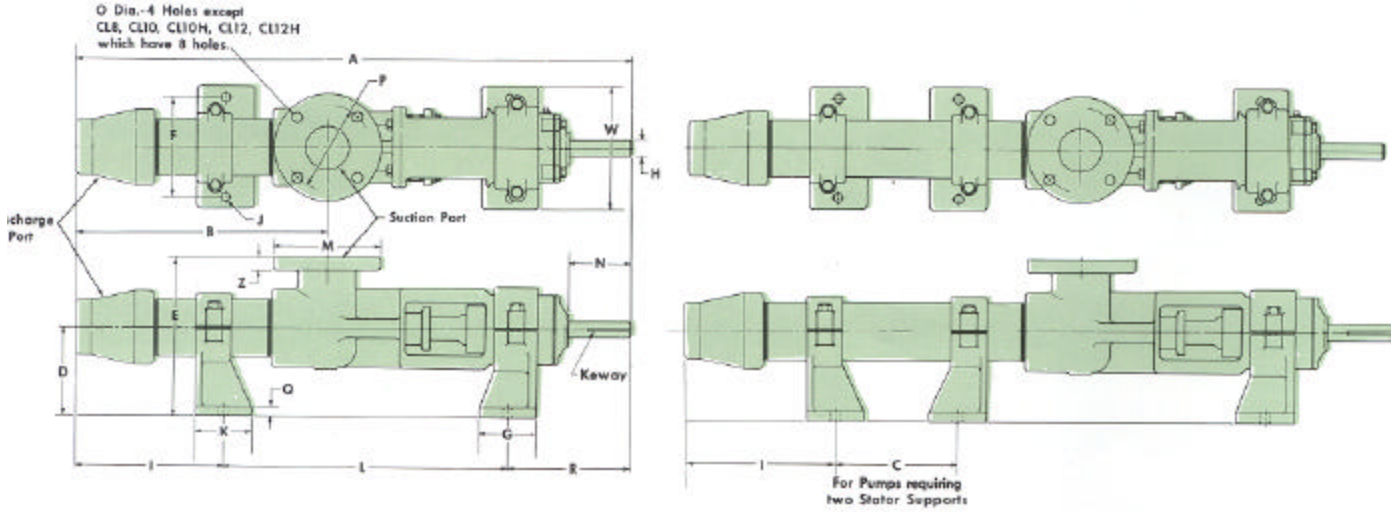
DIMENSIONS AND WEIGHTS



PUMP SIZE	DIMENSIONS (INCHES)																					WEIGHT (LBS.)	PORT SIZES	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	W	Z	KEYWAY		SUCTION	DISCHARGE
1CL2	17	7-5/16	–	3-1/4	5-7/8	3-1/8	2	5/8	4-1/4	3/8	2	8-1/2	4-1/4	1-1/2	9/16	3-1/8	3/8	4-1/4	4	7/16	3/16x3/32	22	1"	3/4"
2CL2	20-1/2	10-7/8	–	3-1/4	5-7/8	3-1/8	2	5/8	5-3/4	3/8	2	10-1/2	4-1/4	1-1/2	9/16	3-1/8	3/8	4-1/4	4	7/16	3/16x3/32	25	1"	3/4"
3CL2	24-1/16	14-7/16	–	3-1/4	5-7/8	3-1/8	2	5/8	7-13/16	3/8	2	12	4-1/4	1-1/2	9/16	3-1/8	3/8	4-1/4	4	7/16	3/16x3/32	31	1"	3/4"
1CL3	22-3/4	10-1/8	–	4-1/8	7-5/16	4-1/4	3	3/4	5-9/16	7/16	3	11-1/2	5	2-1/8	9/16	3-7/8	1/2	5-11/16	5-3/8	9/16	3/16x3/32	47	1-1/2"	1-1/4"
2CL3	28-1/16	15-7/16	–	4-1/8	7-5/16	4-1/4	3	3/4	9-3/8	7/16	3	13	5	2-1/8	9/16	3-7/8	1/2	5-11/16	5-3/8	9/16	3/16x3/32	51	1-1/2"	1-1/8"
3CL3	33-3/8	20-3/4	–	4-1/8	7-5/16	4-1/4	3	3/4	11-3/16	7/16	3	16-1/2	5	2-1/8	9/16	3-7/8	1/2	5-11/16	5-3/8	9/16	3/16x3/32	55	1-1/2"	1-1/8"
1CL4	30	13-1/8	–	5-1/2	9-7/8	5-1/2	3-1/2	15/16	7-1/4	9/16	3½	15-3/4	7	3-1/8	3/4	5-1/2	5/8	7	7	11/16	1/4x1/8	85	2-1/2"	2"
2CL4	37-1/8	20-1/4	–	5-1/2	9-7/8	5-1/2	3-1/2	15/16	9-1/8	9/16	3½	22	7	3-1/8	3/4	5-1/2	5/8	7	7	11/16	1/4x1/8	91	2-1/2"	2"
3CL4	44-1/4	27-5/8	–	5-1/2	9-7/8	5-1/2	3-1/2	15/16	14-1/2	9/16	3½	22-3/4	7	3-1/8	3/4	5-1/2	5/8	7	7	11/16	1/4x1/8	97	2-1/2"	2"
1CL6	39-1/8	17-13/16	–	6-1/4	11-1/4	7	4	1-1/8	10-9/16	11/16	4	20	7-1/2	4-3/8	3/4	6	11/16	8-9/16	8-5/8	7/8	1/4x1/8	141	3"	2-1/2"
2CL6	48-3/4	28-7/16	–	6-1/4	11-1/4	7	4	1-1/8	15-3/16	11/16	4	26	7-1/2	4-3/8	3/4	6	11/16	8-9/16	8-5/8	7/8	1/4x1/8	159	3"	2-1/2"
3CL6	60-3/8	39-1/16	18	6-1/4	11-1/4	7	4	1-1/8	13-13/16	11/16	4	20	7-1/2	4-3/8	3/4	6	11/16	8-9/16	8-5/8	7/8	1/4x1/8	192	3"	2-1/2"
1CL8	46	20-3/16	–	8	14	9	5	1-3/8	9-3/4	7/8	5	27	9	4-9/16	3/4	7-1/2	1-1/8	9-1/4	11-1/2	15/16	3/8x3/16	303	4"	4"
2CL8	58-3/8	32-5/8	–	8	14	9	5	1-3/8	17-1/8	7/8	5	32	9	4-9/16	3/4	7-1/2	1-1/8	9-1/4	11-1/2	15/16	3/8x3/16	332	4"	4"
3CL8	70-13/16	45	24	8	14	9	5	1-3/8	12-9/16	7/8	5	25	9	4-9/16	3/4	7-1/2	1-1/8	9-1/4	11-1/2	15/16	3/8x3/16	372	4"	4"
1CL10	53-1/8	21-7/8	–	9-3/4	16-11/16	9	5	1-7/8	9-5/8	7/8	5	30	11	5-3/8	7/8	9-1/2	1-1/8	13-1/2	11-1/2	1	1/2x1/4	412	6"	5"
2CL10	63-1/2	32-1/4	–	9-3/8	16-11/16	9	5	1-7/8	14-1/2	7/8	5	35-1/2	11	5-3/8	7/8	9-1/2	1-1/8	13-1/2	11-1/2	1	1/2x1/4	580	6"	5"
3CL10	73-7/8	42-5/8	18	9-3/4	16-11/16	9	5	1-7/8	12-3/8	7/8	5	30	11	5-3/8	7/8	9-1/2	1-1/8	13-1/2	11-1/2	1	1/2x1/4	545	6"	5"
1CL10H	58-1/2	27-1/4	–	9-3/8	16-11/16	9	5	1-7/8	15	7/8	5	30	11	5-3/8	7/8	9-1/2	1-1/8	13-1/2	11-1/2	1	1/2x1/4	424	6"	5"
2CL10H	73-7/8	42-5/8	18	9-3/4	16-11/16	9	5	1-7/8	12-3/8	7/8	5	30	11	5-3/8	7/8	9-1/2	1-1/8	13-1/2	11-1/2	1	1/2x1/4	545	6"	5"
1CL12	70	31	–	12-1/2	21	12-5/8	6	2-1/4	14-1/2	1	6	32-1/2	13-1/2	6	7/8	11-3/4	1-1/8	18	14-1/2	1-1/8	1/2x1/4	880	8"	6"
2CL12	85-1/2	46-1/2	28-1/2	12-1/2	21	12-5/8	6	2-1/4	12	1	6	35	13-1/2	6	7/8	11-3/4	1-1/8	18	14-1/2	1-1/8	1/2x1/4	1075	8"	6"
3CL12	101-1/8	62-1/8	27	12-1/2	21	12-5/8	6	2-1/4	14-1/8	1	6	42	13-1/2	6	7/8	11-3/4	1-1/8	18	14-1/2	1-1/8	1/2x1/4	1280	8"	6"
1CL12H	77-3/4	38-3/4	–	12-1/2	21	12-5/8	6	2-1/4	17-3/4	1	6	42	13-1/2	6	7/8	11-3/4	1-1/8	18	14-1/2	1-1/8	1/2x1/4	945	8"	6"
2CL12H	101-1/8	62-1/8	27	12-1/2	21	12-5/8	6	2-1/4	14-1/8	1	6	42	13-1/2	6	7/8	11-3/4	1-1/8	18	14-1/2	1-1/8	1/2x1/4	1285	8"	6"

Model CM

CONTINENTAL®
PROGRESSING CAVITY PUMPS

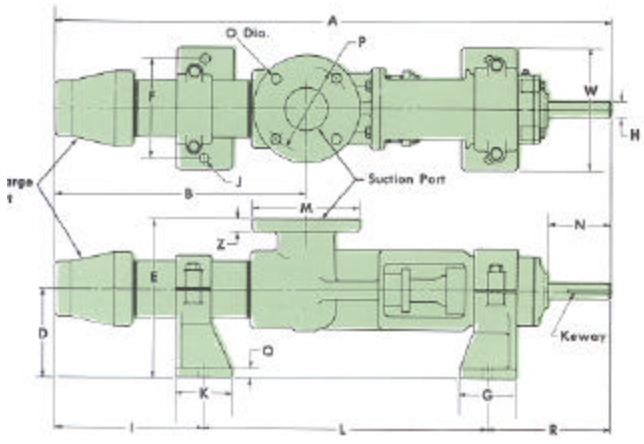
Model CM Pumps are similar to the Model CL Pumps, except they have a larger drive head to handle the increased horsepower that is needed to produce the higher pressures that can be developed by these pumps.

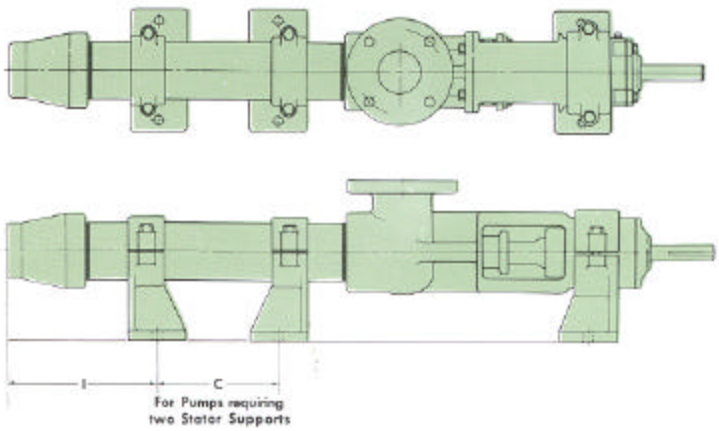
PERFORMANCE DATA

Performance Data based on Water @ 70° F.

FRAME SIZE	Gal./100 Rev.	PUMP SPEED Diff. Press. PSI	300 RPM GPM	300 RPM Min. HP	450 RPM GPM	450 RPM Min. HP	600 RPM GPM	600 RPM Min. HP	750 RPM GPM	750 RPM Min. HP	900 RPM GPM	900 RPM Min. HP	1200 RPM GPM	1200 RPM Min. HP
2CM1	.056	0	.14	1/8	.22	1/8	.29	1/4	.37	1/4	.43	1/4	.58	1/4
		60	.12	1/8	.20	1/8	.26	1/4	.33	1/4	.41	1/4	.55	1/4
		120	.10	1/8	.15	1/8	.22	1/4	.30	1/4	.37	1/4	.51	1/4
6CM1	.056	0	.14	1/8	.22	1/6	.29	1/4	.37	1/4	.43	1/3	.58	1/3
		180	.12	1/8	.20	1/6	.26	1/4	.33	1/4	.41	1/3	.55	1/3
		360	.10	1/8	.15	1/6	.22	1/4	.30	1/4	.37	1/3	.51	1/3
6CM2	.260	0	.54	1/4	1.1	1/2	1.5	3/4	2.0	1/3	2.2	1/2	3.0	3/4
		180	.51	1/4	.9	1/2	1.3	3/4	1.8	1/3	2.1	1/2	2.8	3/4
		360	.50	1/4	.45	1/2	.9	3/4	1.4	1/2	1.7	1	2.3	3/4
6CM3	.860	0	2.50	1/2	3.8	3/4	5.1	1	6.4	1-1/2	7.5	1-1/2	10.0	2
		240	1.80	1/2	2.9	3/4	4.3	1	5.5	1-1/2	6.8	1-1/2	9.3	2
		450	–	–	1.7	1-1/2	2.7	1-1/2	4.2	2	5.0	2	7.7	3
6CM4	2.02	0	6.00	1-1/2	9.0	2	12	3	16	5	18	5	24	5
		240	5.00	2	7.4	2	10	3	12.5	5	16	5	22	5
		450	1.80	2	4.5	3	7	5	8.5	7-1/2	13	7-1/2	19	7-1/2

DIMENSIONS AND WEIGHTS





For Pumps requiring two Stator Supports

PUMP SIZE	DIMENSIONS (INCHES) A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	W	Z	KEYWAY	WEIGHT (LBS.)	PORT SIZES SUCTION	DISCHARGE
2CM1	11-1/2	7-3/16	–	3-1/4	5-7/8	3-1/8	2	5/8	4-1/2	3/8	2	8-3/4	4-1/4	1-1/2	9/16	3-1/8	3/8	4-1/4	4	7/16	3/16x3/32	22	1"	3/4"
6CM1	24-7/8	15-1/4	–	3-1/4	5-7/8	3-1/8	2	5/8	4-7/8	3/8	2	15-3/4	4-1/4	1-1/2	9/16	3-1/8	3/8	4-1/4	4	7/16	3/16x3/32	30	1"	3/4"
6CM2	38-1/8	26-3/8	14	4-1/8	7-5/16	4-1/4	3	3/4	7-15/16	7/16	3	11-1/2	5	2-1/8	9/16	3-7/8	1/2	5-11/16	5-3/8	9/16	3/16x3/32	55	1-1/2"	3/4"
6CM3	54-3/8	37-1/2	22	5-1/2	9-7/8	5-1/2	3-1/2	15/16	9-7/8	9/16	3	15-1/2	7	3-1/8	3/4	5-1/2	5/8	7	7	11/16	1/4x1/8	105	2-1/2"	1-1/4"
6CM4	71	49-3/4	25	6-1/8	11-1/4	7	4	1-1/8	12-7/16	11/16	4	20	7-1/2	4-3/8	3/4	6	11/16	8-9/16	8-5/8	7/8	1/4x1/8	171	3"	2-1/2"

Model CG

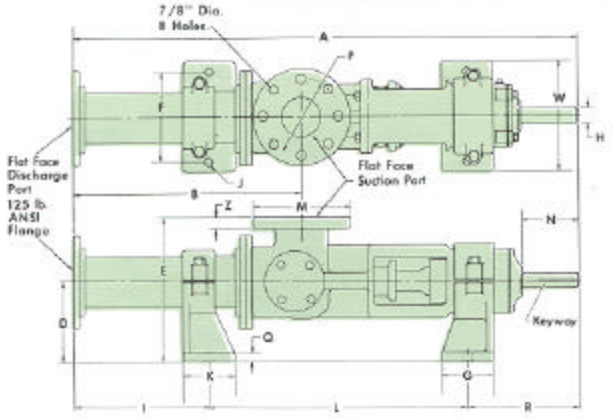
CONTINENTAL PROGRESSING CAVITY PUMPS®

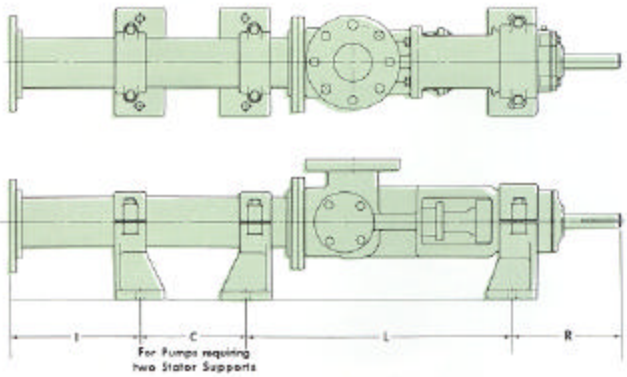
Model CG Pumps are designed to handle the heavier applications of Sewage, Industrial Waste, Polluted Liquids, and Slurries. Incorporated into this more rugged Pump is a unique drive train using Gear Joint connections to the Rotor and Drive Shaft.

PERFORMANCE DATA

FRAME SIZE	Gal./100 Rev.	PUMP SPEED Diff. Press. PSI	100 RPM GPM	100 RPM Min. HP	150 RPM GPM	150 RPM Min. HP	200 RPM GPM	200 RPM Min. HP	250 RPM GPM	250 RPM Min. HP	300 RPM GPM	300 RPM Min. HP	350 RPM GPM	350 RPM Min. HP	400 RPM GPM	400 RPM Min. HP
1CG8	11.7	0	12	3/4	17	1	26	1-1/2	29	1-1/2	34	2	40	2	45	3
		25	8	3/4	13	1-1/2	18	1-1/2	24	1-1/2	31	2	37	2	41	3
		50	3	1	7	1-1/2	14	1-1/2	18	2	25	2	32	3	36	3
2CG8	11.7	0	12	1	17	1-1/2	22	2	27	2	33	3	40	3	45	3
		50	8	1	13	1-1/2	18	2	24	3	29	3	35	5	42	5
		100	2	1	8	2	14	3	21	3	25	3	32	5	35	5
3CG8	11.7	50	9	2	14	2	20	3	25	3	34	5	36	5	43	5
		100	6	2	11	3	15	3	22	5	28	5	33	5	39	5
		150	2	2	7	3	11	5	19	5	24	5	29	7-1/2	34	7-1/2
1CG10	18.8	0	19	1	28	1	36	1-1/2	48	1-1/2	56	2	64	2	74	3
		25	12	1	22	1	32	1-1/2	42	2	52	3	60	3	70	5
		50	2	1	14	1-1/2	22	2	35	2	42	3	50	5	59	5
2CG10	18.8	0	18	2	26	3	36	3	46	3	54	3	66	5	72	5
		50	12	2	20	3	30	3	40	5	50	5	58	5	68	7-1/2
		100	3	3	12	3	22	5	32	5	41	5	50	7-1/2	59	7-1/2
3CG10	18.8	50	14	3	22	3	32	3	41	5	52	5	60	7-1/2	72	7-1/2
		100	10	3	18	3	28	5	36	5	48	7-1/2	56	7-1/2	67	10
		150	2	3	10	5	22	5	30	5	41	7-1/2	50	10	60	10
1CG10H	27.7	0	26	1	40	2	54	1	70	3	82	3	96	5	108	5
		25	20	1	36	2	48	2	64	3	76	3	90	5	104	5
		50	12	2	26	2	40	3	54	3	68	5	82	5	96	5
2CG10H	27.7	0	30	2	44	3	58	5	70	5	84	5	98	7-1/2	112	7-1/2
		50	24	2	38	5	52	5	66	5	78	5	92	7-1/2	106	10
		100	16	3	30	5	46	5	58	7-1/2	72	7-1/2	86	10	100	10
1CG12	43.5	0	42	3	62	5	84	5	108	5	127	5	147	7-1/2	169	7-1/2
		25	35	3	56	5	78	5	100	5	123	7-1/2	142	7-1/2	165	10
		50	22	5	42	5	66	5	87	7-1/2	108	7-1/2	128	7-1/2	153	10
2CG12	43.5	0	42	5	66	5	80	7-1/2	106	10	125	10	145	15	167	15
		50	36	5	58	5	80	7-1/2	100	10	120	10	140	15	163	15
		100	21	5	48	7-1/2	67	7-1/2	90	10	108	15	133	15	150	15
3CG12	43.5	50	40	7-1/2	60	7-1/2	82	10	103	15	125	15	146	15	168	15
		100	35	7-1/2	53	7-1/2	78	10	97	15	119	15	140	15	161	20
		150	25	7-1/2	45	10	67	15	90	15	110	20	130	20	152	25
1CG12H	65.2	0	60	5	95	5	125	5	180	5	190	7-1/2	220	7-1/2	252	10
		25	55	5	85	5	120	5	175	7-1/2	185	7-1/2	215	10	249	10
		50	33	5	85	5	98	7-1/2	130	10	160	10	190	15	225	15
2CG12H	65.2	0	60	5	95	7-1/2	125	10	155	15	190	15	220	20	253	20
		50	55	7-1/2	85	7-1/2	120	10	150	15	182	15	215	15	247	20
		100	35	7-1/2	75	10	95	15	130	15	160	15	195	20	225	25

DIMENSIONS AND WEIGHTS





PUMP SIZE	DIMENSIONS (INCHES) A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	W	Z	KEYWAY	WEIGHT (LBS.)	PORT SIZES SUCTION	DISCHARGE
1CG8	52-3/4	19-1/2	–	9-3/4	16-11/16	9	5	1-7/8	6-1/8	7/8	5	31	11	5	7/8	8-1/2	1-1/8	15-5/8	11-1/2	1	1/2x2-3/4	450	6"	5"
2CG8	65-3/16	31-15/16	–	9-3/4	16-11/16	9	5	1-7/8	15-9/16	7/8	5	34	11	5	7/8	8-1/2	1-1/8	15-5/8	11-1/2	1	1/2x2-3/4	545	6"	5"
3CG8	77-5/8	44-3/8	27	9-3/4	16-11/16	9	5	1-7/8	6	7/8	5	29	11	5	7/8	9-1/2	1-1/8	15-5/8	11-1/2	1	1/2x2-3/4	596	6"	5"
1CG10	50-11/16	17-7/16	–	9-3/4	16-11/16	9	5	1-7/8	5-1/16	7/8	5	30	11	5	7/8	9-1/2	1-1/8	15-5/8	11-1/2	1	1/2x2-3/4	432	6"	6"
2CG10	61-1/8	27-7/8	–	9-3/4	16-11/16	9	5	1-7/8	10-1/2	7/8	5	35	11	5	7/8	9-1/2	1-1/8	15-5/8	11-1/2	1	1/2x2-3/4	580	6"	6"
3CG10	71-7/16	38-3/16	18	9-3/4	16-11/16	9	5	1-7/8	7-13/16	7/8	5	30	11	5	7/8	9-1/2	1-1/8	15-5/8	11-1/2	1	1/2x2-3/4	615	6"	6"
1CG10H	56	22-3/4	–	9-3/4	16-11/16	9	5	1-7/8	10-3/8	7/8	5	30	11	5	7/8	9-1/2	1-1/8	15-5/8	11-1/2	1	1/2x2-3/4	494	6"	6"
2CG10H	71-7/16	38-3/16	18	9-3/4	16-11/16	9	5	1-7/8	7-13/16	7/8	5	30	11	5	7/8	9-1/2	1-1/8	15-5/8	11-1/2	1	1/2x2-3/4	615	6"	6"
1CG12	63-3/4	24-3/4	–	12-1/2	21	12-5/8	6	2-1/4	8-1/4	1	6	37-1/2	13-1/2	5-3/8	7/8	11-3/4	1-1/8	18	14-1/2	1-1/8	1/2x4	960	8"	8"
2CG12	79-7/16	40-7/16	18	12-1/2	21	12-5/8	6	2-1/4	5-15/16	1	6	37-1/2	13-1/2	5-3/8	7/8	11-3/4	1-1/8	18	14-1/2	1-1/8	1/2x4	1155	8"	8"
3CG12	95-1/16	56	27	12-1/2	21	12-5/8	6	2-1/4	8-1/16	1	6	42	13-1/2	5-3/8	7/8	11-3/4	1-1/8	18	14-1/2	1-1/8	1/2x4	1285	8"	8"
1CG12H	71-9/16	32-9/16	–	12-1/2	21	12-5/8	6	2-1/4	11-9/16	1	6	42	13-1/2	5-3/8	7/8	11-3/4	1-1/8	18	14-1/2	1-1/8	1/2x4	1025	8"	8"
2CG12H	95	56	27	12-1/2	21	12-5/8	6	2-1/4	8	1	6	42	13-1/2	5-3/8	7/8	11-3/4	1-1/8	18	14-1/2	1-1/8	1/2x4	1285	8"	8"

Guide to Selection of ...

CONTINENTAL®
PROGRESSING CAVITY PUMPS

To properly select the best performing CONTINENTAL PUMP consideration should be given to:

CAPACITY

The rate of flow in Gallons Per Minute - GPM.

PRESSURE

How much Pressure is required to move the Liquid being Pumped thru the Discharge Port of the Pump depends upon the piping system and the kind of Liquid being handled. The difference between the Pressure required at the Pump Discharge and the Pressure being introduced into the Pump Suction is the Differential Pressure and is expressed as Pounds Per Square Inch - PSI.

VISCOSITY

The resistance to the flow is expressed by various Scales of measurement, however, the most commonly used is CENTIPOISES. The Viscosity usually changes with Temperature and should always be considered. For conversion purposes the formulas set forth below can be of value:

Centipoises = Centistokes × Specific Gravity

$$\text{Centipoises} = \frac{\text{SSU}}{5} \times \text{Specific Gravity}$$

(SSU = Saybolt Seconds Universal)

TEMPERATURE

The Maximum and Minimum Temperatures at which the Fluid to be pumped are important factors in proper Pump Selection. High Temperatures can cause distortion and swelling of STATOR Materials and Low Temperatures can affect VISCOSITY that reflect in FLOW characteristics and Horsepower requirements.

OPERATING TIME

The Operating Cycle of the Pump should be considered - whether the Pump is to run continuously or intermittenly can be a factor in the selection of the Drive.

ABRASION

Classify the Abrasive characteristics of the fluid to be Pumped. Abrasives can look alike and appear to have similar properties, however, they can produce different wearing characteristics. Endeavor to classify the fluid broadly in order to select the proper Pump Construction and Operating Speed. The Classifications set forth below will serve as a guide and our experiences will be helpful:

No Abrasives
For example: Clear Water - Gasoline - Fuel Oil - Lubricating Oil.

Light Abrasives
For example: Dirty Water containing Silt and/or small amounts of Sand or Earth.

Medium Abrasives
For example: Clay Slurries - Potters Glazes - Porcelain Enamel - Frit - Sludge - Wood Dust in Water.

Heavy Abrasives
For example: Slurries containing large amounts of Sand - Emery Dust - Lapping Compounds - Mill Scale - Plaster - Grout - Roof Gypsum.

CORROSION

Whether the Fluid being Pumped is Neutral, Acid or Alkaline should be considered in selecting the proper materials of Pump Construction. The pH value of the Fluid should be known or determined - pH of 7 is Neutral, below 7 is Acid and above 7 is Alkaline.

CONTINENTAL Pumps are identified by Model, Frame and Type. The Pump Frame designation is an indication of Pump Size and consists of a number, two letters and another set of numbers. The first number indicates the stages or relative lengths of the ROTOR and STATOR elements, the two letters indicate the MODEL and the last numbers and letters refer to the size of the ROTOR and STATOR elements.

For example, a 1CL2 designation indicates a one stage length ROTOR and STATOR in a Model CL size 2 Pump. If the ROTOR and STATOR were twice the length of the one stage the designation would be 2CL2 and if the ROTOR and STATOR were three times the length of the one stage length the designation would be 3CL2. Whether the ROTOR and STATOR lengths are one, two or three lengths they are each a one piece component. Basically, the length of ROTOR and STATOR reflects in the ability to build pressure. A three stage length ROTOR and STATOR build 3 times the Pressure that a one stage length set of ROTOR and STATOR elements and a two stage length set of ROTOR and STATOR elements builds 2 times the Pressure that a one stage length builds. Referring to the Performance Tables will reflect this phenomena of the Pumps.

PUMP APPLICATION DATA SHEET

The PUMP APPLICATION DATA SHEET accompanies this Bulletin and can be conveniently used to transmit the required information to our APPLICATION ENGINEERS for their assistance in making a proper PUMP Selection.

The first step in selecting a CONTINENTAL Pump is to determine the Frame size required. The Table below relates capacity and pressure required to the three Frames available. Frame size is also determined by how other variables (Viscosity, Abrasiveness) affect Horsepower requirements. The "CL" frame is the standard bearing-drive designation. The "CM" frame utilizes the bearing drive unit from the next larger pump size. Select the Frame size which will most appropriately meet your needs.

PUMP FRAME	APPROXIMATE GPM RANGE	APPROXIMATE MAX. PRESSURE	SIZE PUMPING ELEMENTS AVAILABLE
CL	.9-500	225 psi	2, 3, 4, 6, 8 10, 10H, 12, 12H,
CM	.05-24	450 psi	1, 2, 3, 4
CG	5-350	150 psi	8, 10, 10H, 12, 12H,

FRAME SELECTION

If particles in suspension are to be pumped, determine the PUMP FRAME SIZE that will handle the maximum dimension of the particle. Refer to TABLE No. 1.

TABLE No. 1
Pump Frame Size - Particle Size

PUMP FRAME SIZE	2CMI 6CM1	1CL2 2CL2 3CL2 6CM2	1CL3 2CL3 3CL3 6CM3	1CL4 2CL4 3CL4 6CM4	1CL6 2CL6 3CL6	1CL8 2CL8 3CL8	1CL10 2CL10 3CL10 1CL10 2CL10	1CL12 2CL12 3CL12 1CL12 2CL12	
Max. Particle Size	.08"	.15"	.20"	.30"	.40"	.60"	.80"	1.0"	

The size of the ROTOR and STATOR Pumping Elements required to deliver the required capacity at the viscosity of the fluid are set forth in TABLE No. 2. Select Elements large enough to deliver more than the required capacity when operating at the maximum speed shown.

TABLE 2 is based on viscosities for one fluid and will not be correct for slurries or emulsions where each of which have different viscosities. The recommended pumping speed for a mixture of fluids having different viscosities should be an approximate average of the several fluids.

TABLE NO. 2

Pump Frame Size - Viscosity - Pumping Elements Size

Pump Frame Size	Size Pumping Element		Viscosity (Centipoises)						
			1 to 1000	1000 to 2500	2500 to 5000	5000 to 10,000	10,000 to 50,000	50,000 to 100,000	100,000 to 150,000
2CM1, 6CM1	1	MAX. RPM	1200	900	450	250	125	40	20
		MAX. GPM	0.58	0.50	0.25	0.14	0.07	0.02	0.01
1CL2, 2CL2, 3CL2 6CM2	2	MAX. RPM	1200	900	450	250	125	40	20
		MAX. GPM	3.0	2.4	1.2	0.7	0.35	0.1	0.05
1CL3, 2CL3, 3CL3 6CM3	3	MAX. RPM	1200	900	450	250	125	40	20
		MAX. GPM	10.0	7.8	3.9	2.2	1.1	0.35	0.17
1CL4, 2CL4, 3CL4 6CM4	4	MAX. RPM	1200	900	450	250	125	40	20
		MAX. GPM	24.0	18.0	9.0	5.0	2.5	0.8	0.4
1CL6, 2CL6, 3CL6	6	MAX. RPM	900	900	450	250	125	40	20
		MAX. GPM	47.0	47.0	23.5	13.0	6.5	2.0	1.0
1CL8, 2CL8, 3CL8	8	MAX. RPM	900	900	450	250	125	40	20
		MAX. GPM	100	100	53.0	29.0	14.5	4.7	2.3
1CL10, 3CL10, 3CL10	10	MAX. RPM	750	750	450	250	125	40	20
		MAX. GPM	140	140	85.0	47.0	24.0	7.5	3.8
1CL10H, 2CL10H	10H	MAX. RPM	750	750	450	250	125	40	20
		MAX. GPM	210	210	125	70.0	35.0	11.0	5.5
1CL12, 2CL12, 3CL12	12	MAX. RPM	600	600	450	250	125	40	20
		MAX. GPM	261	261	196	109	54.4	17.4	8.7
1CL12H, 2CL12H	12H	MAX. RPM	600	600	450	250	125	40	20
		MAX. GPM	391	391	293	163	81.5	26	13

If the fluid has ABRASIVE characteristics, refer to TABLE 3 for the proper operating speed of the Pump. When the speed selected from TABLE 3 results in a lower capacity than required then change the selection of the size Pump even though it will operate below the maximum recommended speed. Keep in mind that the speed requirements for VISCOSITY in TABLE 2 must also be considered and in general where there is a difference, select the lower of the speeds.

TABLE NO. 3

Pump Frame Size - Abrasives - Pump Elements Size

Pump Frame Size	Size Pumping Elements		Abrasive Characteristics			
			None	Light	Medium	Heavy
2CM1, 6CM1	1	MAX. RPM	1200	900	600	300
		MAX. GPM	0.58	0.50	0.34	0.17
1CL2, 2CL2, 3CL3, 6CM2	2	MAX. RPM	1200	900	600	300
		MAX. GPM	3.0	2.4	1.6	0.8
1CL3, 2CL3, 3CL3, 6CM3	3	MAX. RPM	1200	900	600	300
		MAX. GPM	10.0	7.8	5.2	2.6
1CL4, 2CL4, 3CL4, 6CM4	4	MAX. RPM	1200	900	600	300
		MAX. GPM	24.0	18.0	12.0	6.0
1CL6, 2CL6, 3CL6	6	MAX. RPM	900	675	450	225
		MAX. GPM	47.0	35.5	23.5	12.0
1CL8, 2CL8, 3CL8	8	MAX. RPM	900	675	450	225
		MAX. GPM	100	70.0	52.5	26.5
1CL10, 2CL10, 3CL10	10	MAX. RPM	750	565	375	190
		MAX. GPM	140	106	70.0	36.0
1CL10H, 2CL10H	10H	MAX. RPM	750	565	375	190
		MAX. GPM	210	156	105	52.5
1CL12, 2CL12, 3CL12	12	MAX. RPM	600	450	300	150
		MAX. GPM	261	196	130	65
1CL12H, 2CL12H	12H	MAX. RPM	600	450	300	150
		MAX. GPM	391	293	195	97.5

The length of the ROTOR and STATOR Elements are designated by Stages, even though both Elements are each integral components. The approximate Pressure Per Stage (PSI) where the fluid pumped has No Abrasives or is laden with Light, Medium or Heavy Abrasives is shown in TABLE No. 4.

TABLE NO. 4

Pump Frame Size - Pressure Per Stage of Rotor/Stator Elements

Pump Frame Size	Approximate Pressure Per Stage (PSI) Abrasive Characteristics			
	No	Light	Medium	Heavy
1 and 2	60	40	25	10
3 thru 12	75	60	35	15

Referring to TABLE No. 4, if the fluid has "No" Abrasives and the Pump Frame Size is 2, the Pressure Per Stage for a 1CL2 is 60 PSI - if it is a 2CL2 the total pressure would be 120 PSI. Further, if the Abrasive is "Light" the total pressure for a 2CL2 would be 80 PSI and if the Abrasive is "Heavy" the total pressure for the 2CL2 would be 20 PSI.

Having generally selected the PUMP FRAME SIZE and the number of Stages of the ROTOR/STATOR Elements, refer to the Performance Tables on Pages 6, 9 and 10 for the "Initial" Horsepower required to drive the PUMP handling fluid with relatively no Viscosity (1 to 2500 Centipoises). For fluids containing increasing amounts of Abrasives the Horsepower needed will be greater - refer to TABLE No. 5 for this additional amount. Multiply the "HP increase/100 RPM/Stage" by the PUMP speed in hundreds of RPM and then by the number of PUMP Stages. Add this amount to the "Initial" Horsepower to determine the "Final" Horsepower required.

TABLE NO. 5

Pump Frame Size - Horsepower Increase - Viscosity

Pump Frame Size	Size Pumping Elements	HP Additives/100 R.P.M./Stage Viscosity (Centipoises)						
		1 to 2500	2500 to 5000	5000 to 10,000	10,000 to 50,000	50,000 to 100,000	100,000 to 150,000	150,000 to 200,000
2CM2, 6CM1	1	0	0.002	0.0025	0.003	0.007	0.010	0.012
1CL2, 2CL2, 3CL2, 6CM2	2	0	0.01	0.015	0.016	0.032	0.046	0.056
1CL3, 2CL3, 3CL3, 6CM3	3	0	00.03	0.04	0.05	0.11	0.15	0.19
1CL4, 2CL4, 3CL4, 6CM4	4	0	0.06	0.09	0.12	0.25	0.35	0.44
1CLc, 2CL6, 3CL6	6	0	0.17	0.23	0.31	0.64	0.91	1.12
1CL8, 2CL8, 3CL8	8	0	0.37	0.52	0.71	1.43	2.05	2.52
1CL10, 2CL10, 3CL210	10	0	0.60	0.83	1.13	2.30	3.29	4.06
1CL10H, 2CL10H	10H	0	0.88	1.22	1.67	3.39	4.83	5.97
1CL12, 2CL12, 3CL12	12	0	1.4	2.0	2.7	5.3	7.7	9.0
1CL12H, 3CL12H	12H	0	2.1	2.9	4.0	8.0	11.3	13.2

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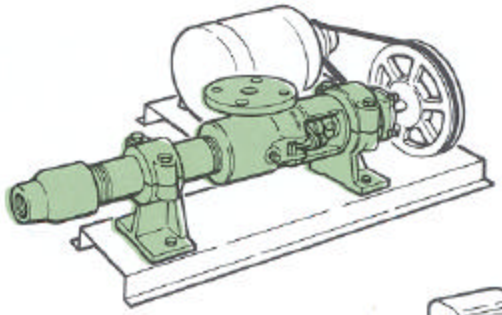

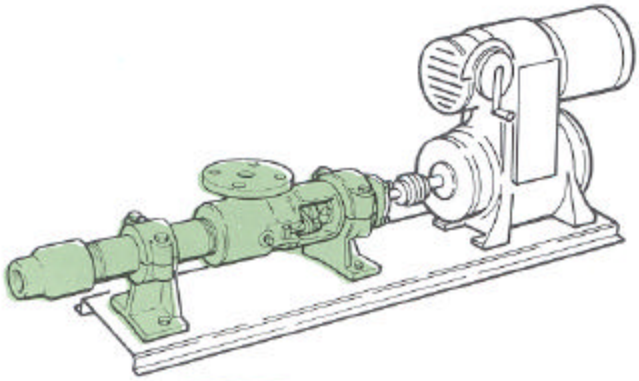

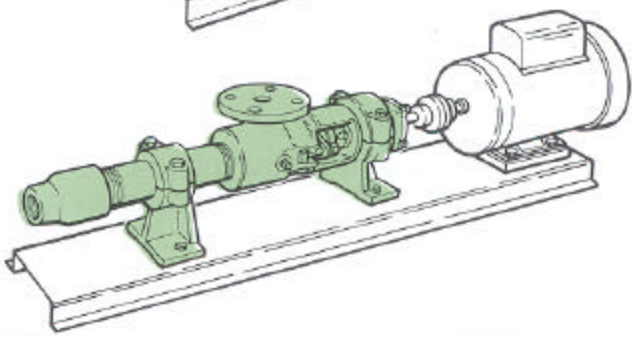

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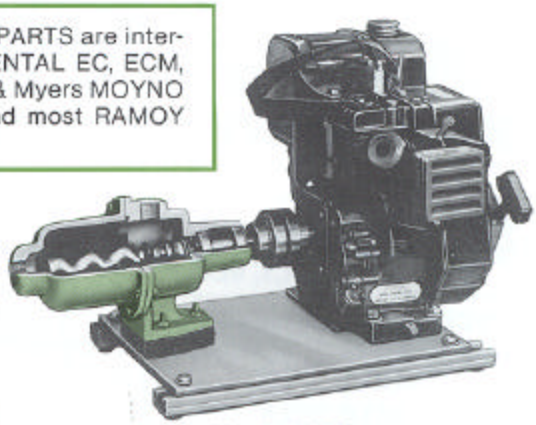

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