

**PCM DELASCO**

# Hose Pumps Z Series

**Reduce your maintenance costs**



*improving your process*

## PCM Z Series Peristaltic Principle



### Technical advantages

#### Self priming

Self priming is automatic on start up and does not require any special equipment. A flooded suction is only required for viscous products.

#### Dry running

Occasional dry running is possible without damage occurring. The pumped liquid acts in fact as a lubricant and coolant for the tube. However, continual dry running will accelerate tube wear.

#### Reversibility

The symmetric design of the pump makes it perfectly reversible by acting simply on the direction of rotation. The characteristics and maximum performance are identical for both directions.

#### Corrosive products

Only the pump hose is in contact with the fluid. This eliminates all the corrosion problems associated with acidic (hydrochloric sulphuric, nitric...) or basic (detergents sodium hydroxide or hypochlorite) products.

#### Abrasive products

The elastomer hose resists better to abrasion than a metallic surface. The low running speed further reduces the abrasion caused by slurries.

#### Delicate products

Transfer is carried out inside the pump tube without agitating or frothing the product. This characteristic coupled with the possibility of running at low speeds is essential for pumping delicate products or emulsions (latex...).

### Reduced LCC

Life cycle costs are reduced from all points of view.

#### Reduced maintenance cost and time

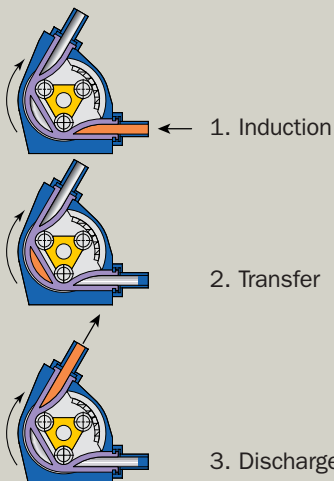
The flexible tube is the only wearing part. Maintenance is limited to regular lubrication. When necessary, the tube can be changed without dismantling the pump.

#### Reduced consumption of electricity

Less energy is required for compression of a flexible tube than a reinforced equivalent. The consumption of electricity is therefore reduced.

### The Peristaltic Principle

The peristaltic pumping principle is based on the capacity of a soft elastomer hose to accept a deformation and subsequently recover its initial shape.



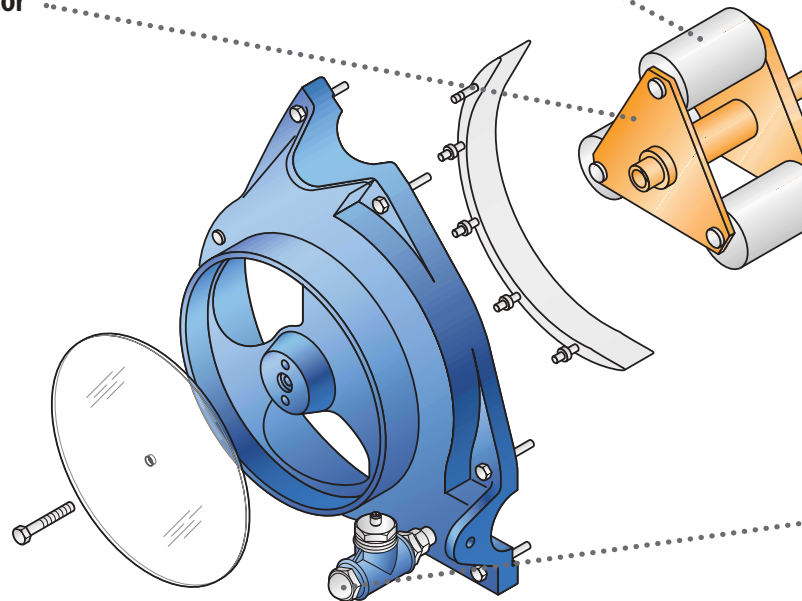
### Hose

A large selection of materials for a wide range of applications. Depending on the sizes of the pumps.

- Polychloroprene (CR)
- Chlorosulfonated polyethylene (CSM)
- Ethylene-Propylene-Diene-Monomer (EPDM)
- Natural rubber (NR)
- Silicone (SIL)
- Thermoplastic (TPA)

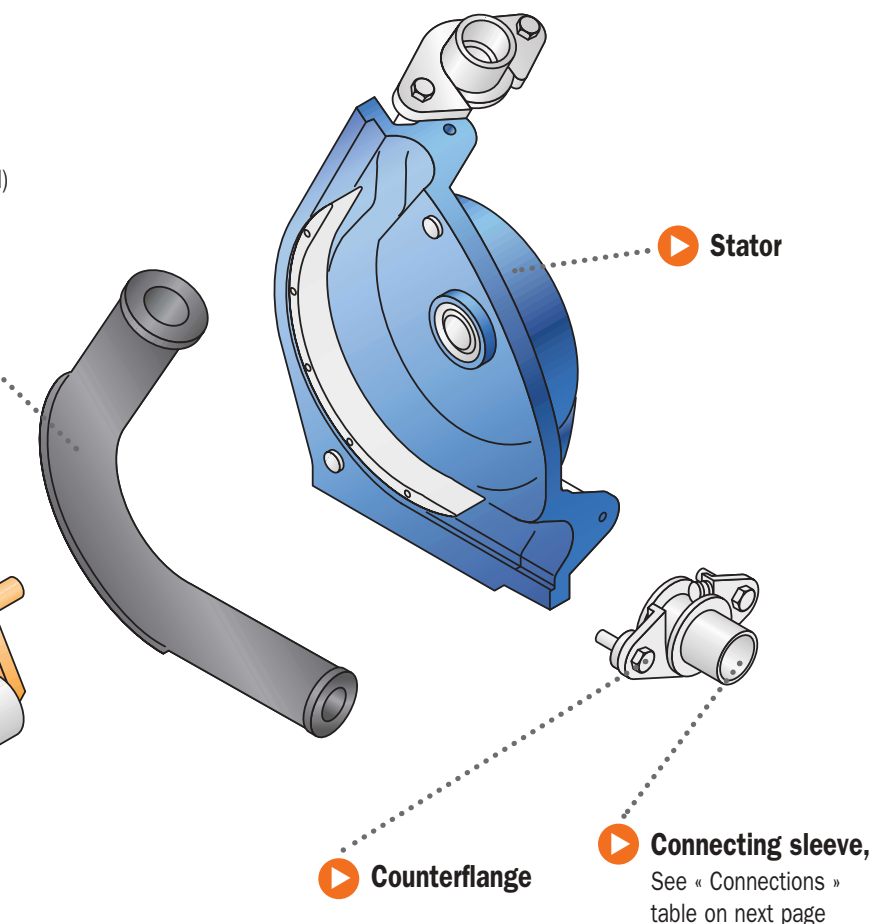
### Rollers

### Rotor



**OPTION :**  
**Integrated or external frequency inverter.**  
For pump on base or trolley

**Pump on base**



## NEW

### OPTION

**Leak detector:** senses possible dry running which makes it possible to stop the pump in case of a hose burst

**OPTION :**  
**Starter and connector.**  
For pump on base or trolley.



**Trolley mounted pump**

## Applicable directives and standards



The Z series pumps meet the machine directive requirements and its harmonised standards. They also meet the Atex directive.

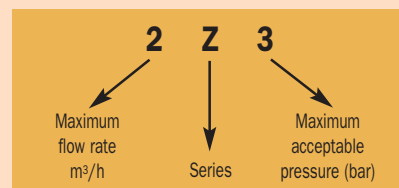
## THE RANGE

**Pumps : 8 models are available**

0.6 Z 3 - 1.3 Z 3 - 2 Z 3 - 3 Z 3

7 Z 3 - 9 Z 3 - 15 Z 3 - 20 Z 3

**Understanding model designation**



Each model corresponds to a range of flow rates determined by the hose bore diameter of the tube in mm.

**Maximum acceptable pressure is known using peak values.**

The pressure, speed, frequency of use, temperature and abrasivity of the pumped product are all parameters which affect the life span of the tube when they are at high levels. We recommend that you contact us before combining several of these parameters. We can help you make a choice that will optimise overall operating costs of your pump.

## CHARACTERISTICS

### Density:

The maximum specific gravity is 1.8. For heavier fluids please consult us.

### Solid Particles:

The maximum size allowed for solid particles is a 1/3 of the hose bore diameter. Soft particles (fruit, meat, fish...) can be the same size as that of the diameter of the hose. (See next page "Internal Ø of Tubes")

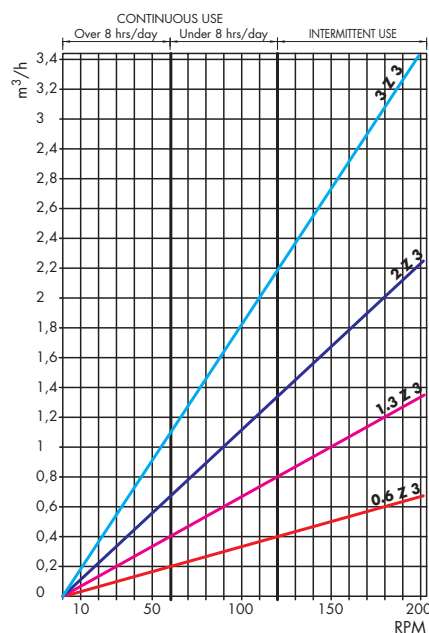
### Dry matter:

Dry matter concentration can be up to 25-60% depending on the fluid density. The pump speed should be carefully selected to avoid solid/liquid segregation and subsequent clogging.

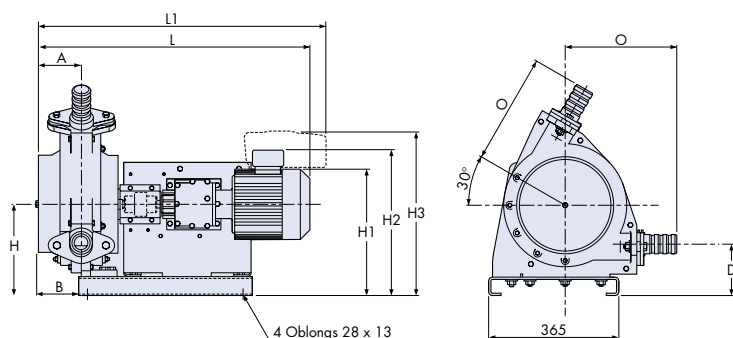
### Viscosity:

It can be anything up to 15000 centipoise depending on the hose size and rotational speed (if in doubt, we can examine a sample or carry out a pumping test).

## Performances



## Dimensional information



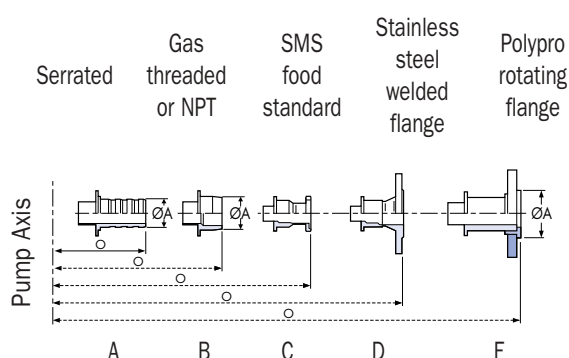
## Hose bore diameter

Model	Hose bore diameter
0.6Z3	15
1.3Z3	20
2Z3	23
3Z3	27
7Z3	35
9Z3	40
15Z3	50
20Z3	60

PUMP	MOTOR	A	B	D	H	H1	H2	H3	L	L1
0.6 Z 3	63	76	71	120	180	242	269	-	512	-
	71	76	71	120	180	250	279	375	580	612
1.3 Z 3	63	86	74	106	175	237	264	-	538	-
	71	86	74	106	175	245	274	371	606	638
2 Z 3	63	96	94	115	196	258	285	-	550	-
	71	96	94	115	196	268	295	391	618	650

PUMP	MOTOR	A	B	D	H	H1	H2	H3	L	L1
3 Z 3	63	96	71	132	220	282	309	-	566	-
	71	96	71	132	220	290	319	415	634	666
7 Z 3 9 Z 3	71	127	119	144	255	325	354	450	734	766
	80	127	119	144	255	340	378	460	768	782
	90	127	119	144	255	350	388	470	828	827
15 Z 3 20 Z 3	80	144	144	152	287	372	410	492	835	849
	90	144	144	152	287	382	420	502	895	894
	100	144	144	152	287	387	425	507	920	874

## Connections



A			B			C		D(PN16)			D(PN20)			E		
	ØA	O	ØA	O		DN	O	DN	Sched	O	DN	Sched	O	DN	ØA	O
				PP	316L											
0.6Z3	27	157	R1"	157	142	25	160	25	40	180	25	40	198	25	50	162
1.3Z3	34	190	R1 1/4"	190	160	38	183	32	40	200	32	40	217	32	61	195
2Z3	34	206	R1 1/4"	206	179	38	202	32	40	219	32	40	236	32	61	211
3Z3	40	231	R1 1/2"	231	204	38	227	40	40	246	40	40	266	40	73	236
7Z3	53	315	R2"	315	255	51	280	50	40	300	50	40	319	50	90	320
9Z3	53	315	R2"	315	255	51	280	50	40	300	50	40	319	50	90	320
15Z3	-	-	R3"	326	301	76	331	80	40	351	80	40	371	80	125	333
20Z3	-	-	R3"	326	301	76	331	80	40	351	80	40	371	80	125	333

## Applications



Z pump in transfer of poultry blood



Z pump in neutralization of effluents



Z pump in draining of wells

The technical advantages of the Delasco pump place it in many applications over a wide range of industries.

Activity	Applications
Chemical and petrochemical	Emptying of drums containing corrosive products Transfer of effluents slurries Recycling and dosing of acids and bases Transfer of fragile products (latex...)
Surface treatment	Emptying of used baths Regeneration of baths. Recycling. Transfer of base products Transfer of sludge and liquid waste
Effluent treatment	Sampling duties (pH control...) Dosing of lime, reactants (ferric chloride, ferric sulphate...), and flocculants Sump emptying Transfer of sludge and liquid waste Transfer of scum and fats
Ceramic industry	Pumping of ceramic slip Preparation and recirculation of liquid enamels
Wood and derivatives	Dosing of fire-proofing compounds and hardeners Preparation and transfer of glues
Paper and cardboard	Pumping of waste waters Feeding of printing and gluing lines Transfer of coating mixtures
Food industry	Dosing of preservatives, yeast and lactic ferments Feeding of filling machines for drinks, wine, beer, yeast, liquid sugar, flavourings, colourings, must, wort Recovery from mixers of meat and fish emulsion and mills Transfer of juice, blood, fats Transfer of sauces with inclusions, mustard, mayonnaise Transfer of syrups and jams Decanting for preparation of fruit pieces
Personal care	Extraction from reaction vessels Transfer of thick products (creams, shampoos, gels...) Feeding of evaporators



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