BELUNO

PRODUCT OVERVIEW

Beluno (Singapore) PTE., Ltd.

Spring Return Motor Driven Diaphragm Metering Pump

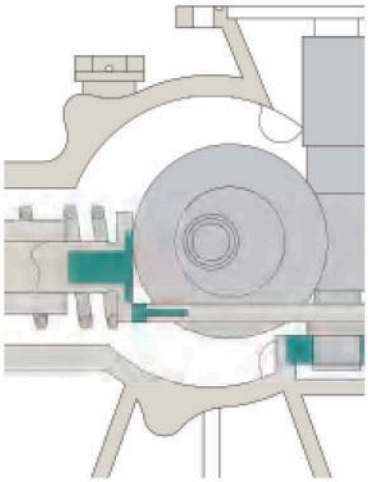
Ultra-strong Anticorrosive Multifunctional Check Valve

Check Valve Function: Overcome the leak defect caused by the small pressure difference between gravity check valve system and pump head cavity.
Delivery High Viscosity Liquid: Check valves adopt spring return technology, so the dosing pump can maintain its displacement and linearity better when delivering high viscosity liquid.
Back Pressure Ability: The coefficient of elasticity of elastic part can be properly adjusted according to customer's requirements so that the dosing pump outlet has different back pressure values.
Safety Valve function: The coefficient of elasticity of elastic element can be properly adjusted according to pipeline system pressure to realize the safety valve function needed by the pipeline system.
Anticorrosive ElasticPart: Check valves adopt PTFE elastic components, so as to realize the optimal anticorrosive function.

Up to 3MPa(435psi) 100% PTFE Diaphragm

Excellent Diaphragm Assembly
The diaphragm, which is made of high quality modified PTFE material, and, work together with the matched protection assembly,greatly increase the lift of motor driven diaphragm dosing pump.
The maximum lift is up to 3.0Mpa. Thus some hydraulic diaphragm pumps would be replaced by this pump, thereby saving cost.

Spring Return Quiet and Steady



With damping stroke sliding bar, all motor pumps not only reserve the advantages of traditional spring return dosing pumps including simple structure, low failure rate and easy to maintain, but also overcome their fatal shortcomings including large pipe shock, large mechanical vibration, part damage, poor flow linearity and high noise brought by ineffective eccentric travel.

Lightweight Design

Advanced lightweight structure: For energy saving and emission reduction, the pumps adopt many high specific strength materials and smart structural design, so the pumps have very high power-displacement ratio.

Intelligent Stroke Adjuster

End the Age of Variable Frequency

Remote Control Electric Stroke Adjuster: It can receive analog signal (4–20mA) to change the stroke length of dosing pump in real time, further, accurately modify the displacement of dosing pump. The adjuster overcomes all major defects of modifying the capacity of dosing pump by variable frequency speed control.

Manual Control Electric Stroke Adjuster: The stroke length of dosing pump can be accurately set and displayed via the operation panel of the adjuster. With error compensation function, the adjuster overcomes the error between actual displacement and its set value directly caused by the random change of stroke length of dosing pump, because traditional knob adjuster doesn't have the self–lock function.

Model Code

Code	Example
Model	**BLJS**
	BLJL
	BLWS
	BLWL
	BL1000
	BL2000
	HND
Capacity	**L/H**
Pressure	**MPa**

Dosing Head Material		Pump Head	Diaphragm	Valve Seat	Valve Ball	Seal Ring
	PVT----	PVC	PTFE	PTFE	Ceramic	FKM
	PVDF---	PVDF	PTFE	PTFE	Ceramic	FKM
	SST----	SS316	PTFE	SS316	SS316	FKM
	PTF----	PTFE	PTFE	PTFE	Ceramic	---

Electric power Supply	**A-------**	3ph 380V 50Hz/60Hz
	VF----	Variable Frequecncy Motor
	EX----	Explosion-proof Motor Exd II BT4
	B-------	1ph 220v 50Hz/60Hz
	C-------	Special requirements, otherwise noted
Control Version	**H------**	Manual
	I-------	Electric stroke adjuster

*Example

1. Maximum lift is 6kg,Capacity is 370L/h,380V 50Hz, PVC pump head, 3PH 380V 50Hz, adjustment mode: electric stroke adjustment.
   Selected model:
   BLWL-410/0.6-PVT-A-I
2. Maximum lift is 6kg,Capacity is 370L/h,380V 50Hz, PVDF pump head, 3PH 380V 50Hz variable frequency motor adjustment mode: manual.
   Selected model:
   BLWL-410/0.6-PVDF -AVF-H

BLWL

1.Eccentric shaft is supported by bearings in front and rear and the cantilever shaft structure of the most of manufacturers on the market is abandoned; the speed reducing motor does not bear axial force and only transmits torque, and this extends the service life of speed reducing motor and makes the process more stable.
2.Installation and maintenance are simple and convenient; grease is used for lubrication in the box body and grease is added conveniently, making maintenance easy.
3.Stroke length can be adjusted at will during running.
4.PVC, PVDF, PTFE and SS316 materials pump head are applicable to dosing of different kinds of chemical liquid.
5.The pure PTFE diaphragm that has a super-long service life guarantees the stability and safety of dosing.
6.Can be equipped with electric stroke adjuster (4-20mA).
7.Variable frequency motor and explosion-proof motor are optional.

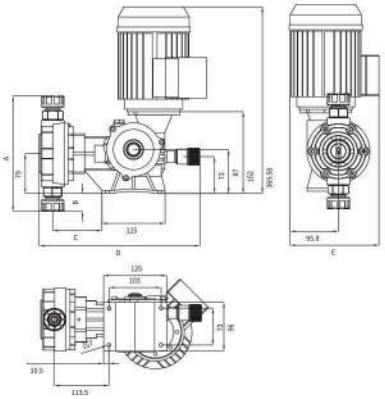
Technical Specifications

Model		Capacity L/h		Max.Pressure Bar		Stroke Length (mm)	Diaphragm Diameter (mm)	Pump Speed (SPM)		Single-stroke Flow (ml/stroke)	Motor Power (W)
		50hz	60hz	50hz	60hz			50hz	60hz		
BLWL	90/1.2	90	108	12	9.6	8	90	177	212	12.8	370
BLWL	120/1.2	120	144	12	9.6	8	105	118	142	17.1	370
BLWL	180/1.0	180	216	10	8	8	105	118	142	25.5	370
BLWL	200/0.8	200	240	8	6	7	105	177	212	28.3	370
BLWL	275/0.7	275	330	7	5.6	8	120	118	142	38.7	370
BLWL	355/0.7	355	426	7	5.6	10	120	118	142	50	370
BLWL	410/0.6	410	492	6	4.8	8	120	177	212	38.7	370
BLWL	530/0.45	530	636	4.5	3.6	10	120	177	212	50	370

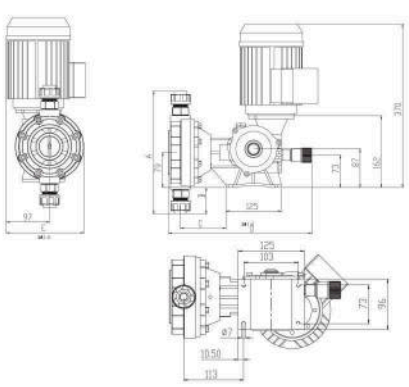
Pump Head Material and Size

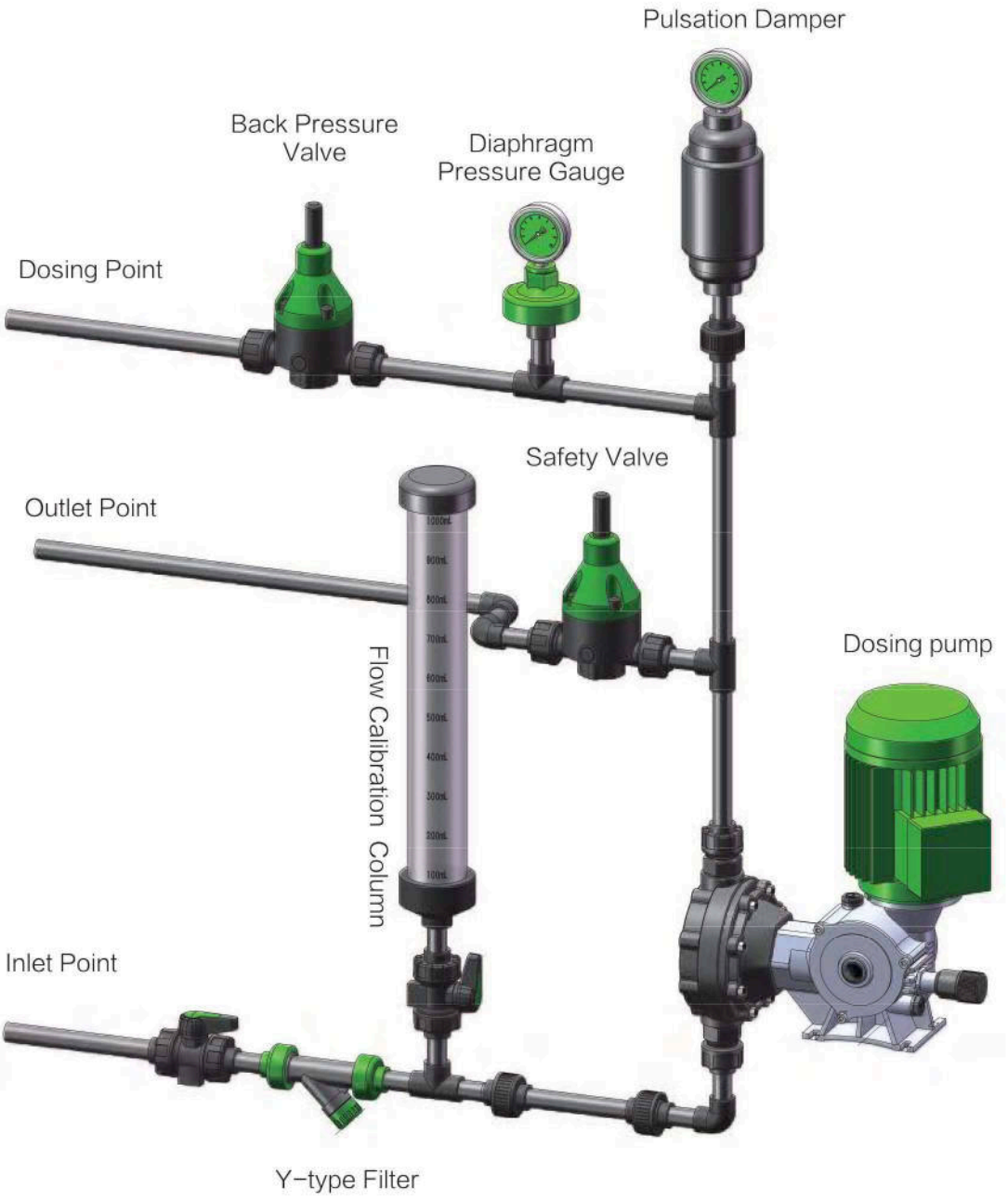
Model	Material	A	B	C	D	E	Connection	
							Thread Size	Socket Pipe Size
BLWL-90/1.2	PVC	224	35	97	340	175	G 1"	G1/2" -DN15
	PVDF	224	35	97	340	175	G 1"	G1/2" -DN15
	PTFE	178	11	97	345	175	G 1"	/
	SS316	178	11	97	345	175	G 1"	/
BLWL-120/1.2~180/1.0	PVC	248	45	97	345	175	G 1"	G1/2" -DN15
	PVDF	248	45	97	345	175	G 1"	G1/2" -DN15
	PTFE	193	25	97	350	175	G 1"	/
	SS316	193	25	97	350	175	G 1"	/
BLWL-275/0.7~530/0.45	PVC	259	51	102.5	340	175	G 1"	G1/2" -DN15
	PVDF	259	51	102.5	340	175	G 1"	G1/2" -DN15
	PTFE	213	28	102.5	340	175	G 1"	/
	SS316	213	28	110	340	175	G 1"	/

Dimensional Drawing



NDWL-90/1.2~200/0.8



NDWL-275/0·7~530/0·45

Typical Installation Diagram