



LAB1ST

Peristaltic Pump



Labfirst Scientific Instruments (Shanghai) Co., Ltd.

BT100S/BT300S/BT600S Speed-Variable Intelligent Peristaltic Pump



This series of peristaltic pumps adopts imported core processor, high quality stepper servo motor drive, speed control accuracy is $\pm 0.2\%$. Through the Lab1st APP software, the pump can be remotely controlled and the running status can be monitored in real time. RS485 communication, Modbus protocol, can be connected to the upper computer such as computer, single chip microcomputer, PLC, frequency converter, man-machine interface through a variety of signal modes, to achieve systematic centralized control.

Features

- LF-LCD-OS software system, high definition lattice LCD display, switching between Chinese-English interface, simple parameter setting, intuitive state display.
- High-quality and high-torque stepper servo motor drive, speed accuracy, wide range, operation stability, high-precision flow transmission.
- Industrial mask key operation, simple and convenient, high durability.
- LF-EasyChange universal design, large torque output, strong expansibility, can match various high-performance pump head.
- Start/Stop, adjust speed, reversible direction, full speed and state memory (power-down memory).
- The parameters of running time, interval time and cycle times can be set to meet the requirements of timing, quantitative, liquid dispensing and flow testing.
- Slow speed stop and suction function, which can effectively prevent the dropping of liquid when the machine stops.
- Keyboard lock function to prevent misoperation.
- The remote start-stop, adjust speed and timing operation can be realized by using Lab1st APP software. It also has monitoring functions such as stop alarm, change of pump
- Stainless steel (304) material housing, effective prevention of erosion of various organic solvents, easy to clean.
- The internal structure adopts double-layer isolation design, and the circuit system provides special protection, which effectively improves the anti-dust, moisture-proof, anti-corrosion and oxidation resistance.
- Super anti-interference characteristic, wide voltage design, suitable for complex power supply environment.
- RS485 communication interface, Modbus protocol, easy to connect with various control devices.
- Acceptable multiple external industrial control signals to control start-stop, reversible direction and speed adjustment, optically coupled isolator.
- Support start-stop, reversible direction, current speed etc. working state signal output.
- External thermal printer (optional), real-time printing operation parameters.
- It can be equipped with foot switch, pulse damper, leak detector and other accessories

BT100S/BT300S/BT600S Applicable Pump Head



DG-2(6, 10 rollers)



DG-4(6, 10 rollers)



DT15-44



DT10-48



YT15(YT25)

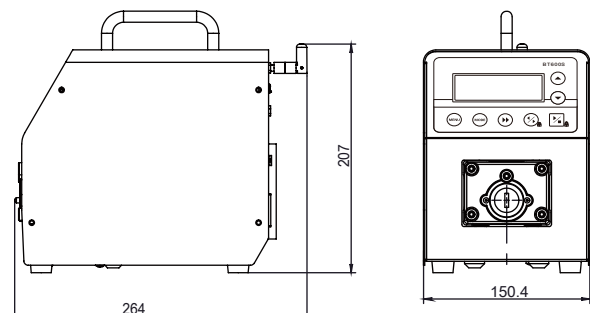


YZ15(YZ25)



2xYZ15(YZ25)

Dimension (mm)



Technical Parameters

Parameters	model	BT100S	BT300S	BT600S
Flow range		0.0001~720 ml/min	0.006~1690 ml/min	0.006~2900 ml/min
Speed range		0.1~150 rpm	0.1~350 rpm	0.1~600 rpm
Speed resolution		0.1rpm (speed≤100rpm), 1rpm (speed>100rpm) , speed accuracy<±0.2%		
Display mode		Window 77mmx32mm, Monochromatic 132x32 lattice liquid crystal		
Language interface		Switching between Chinese and English		
Operation mode		Industrial mask key		
Key locking		Long press direction key to lock, long press start and stop key to unlock		
Timing function		Timing running time 0.1~999 S/Min/H/D, interval time 0.1~999 S/Min/H/D		
Cycle times		0~999 (0 Infinite cycle)		
Back Suction angle		0~720°		
External control signal input		(1)Start /Stop: passive contact, external control input level (5~24V) (2) Reversible direction: passive contact, external control input level (5~24V) (3)Adjust speed: analog quantity 0~5V, 0~10V, 4~20mA can set		
External control signal output		(1)Start /Stop: level signal (following input voltage) (2) Reversible direction: level signal (following input voltage) (3)Speed state: analog quantity0~5V		
Communication interface		RS485, Modbus protocol is available, DB15 external control interface		
Power supply		AC100~240V, 50Hz/60Hz		
Power consumption		<40W	<50W	<60W
Working environment		Temperature 0~40℃, relative humidity<80%		
IP grade		IP31		
Dimension (LxWxH)		264x150x207mm		
Drive weight		4.9kg	5.2kg	5.5kg

BT100S/BT300S/BT600S Applicable Pump Head And Tube, Flow Parameters

Drive Type	Pump Head	Channel	Tube	Single Channel Flow Rate (ml/min)
BT100S	DG (6 rollers)	1, 2, 4	wall thickness 0.8~1mm, ID≤3.17mm	0.0002~49
	DG (10 rollers)	1, 2, 4	wall thickness 0.8~1mm, ID≤3.17mm	0.0001~41
	DT10	1, 2, 4	13#14#, wall thickness 0.8~1mm, ID≤3.17mm	0.0002~82
	YZ15	1, 2	13#14#19#16#25#17#	0.006~420
	YZ25	1, 2	15#24#	0.16~420
	YT15	1, 2	13#14#19#16#25#17#18#	0.006~570
	YT25	1, 2	15#24#35#36#	0.17~720
	DT15-14/24	1, 2	19#16#25#17#	0.07~560
DT15-44	4	19#16#25#	0.07~330	
BT300S	YZ15	1, 2	13#14#19#16#25#17#	0.006~990
	YZ25	1, 2	15#24#	0.17~990
	YT15	1, 2	13#14#19#16#25#17#18#	0.006~1300
	YT25	1, 2	15#24#35#36#	0.17~1690
	DT15-14/24	1, 2	19#16#25#17#	0.07~1300
BT600S	YZ15	1, 2	13#14#19#16#25#17#	0.006~1700
	YZ25	1, 2	15#24#	0.17~1700
	YT15	1, 2	13#14#19#16#25#17#18#	0.006~2300
	YT25	1	15#24#35#36#	0.17~2900
	DT15-14/24	1, 2	19#16#25#17#	0.07~2240

Above flow parameters are obtained by using silicone tube to transfer pure water under normal temperature and pressure, in actually using it is effected by specific factors such as pressure, medium etc. Above for reference only.

YZ15/YZ25 Pump Head

PES Shell



- YZ15 pump head flow range is 0.006~1700ml/min, suitable for tube size of 13#, 14#, 19#, 16#, 25#, 17#, wide flow range.
- YZ25 pump head flow range is 0.17~1700ml/min, suitable for tube size of 15#, 24#. It is an ideal choice for conveying more viscous liquids and meeting the requirements of larger suction range, head or outlet pressure.
- With self-adapting clamping device, it is easy to clamp tubes of different thicknesses without manual adjustment.
- Classic pump tube locking mechanism, replacing tube only takes several seconds, easy to deal with frequent tube change conditions.
- Special pressure tube structure, reduce wear and tear of pump tube and accidental rupture caused by misoperation.
- PPS\PES special functional plastic shell and SS roller ensure that the pump head can meet the high-strength use requirements such as high speed, long time, etc.
- Multiple pump heads can be superposition, maximum expansion to 10 channels.
- When two pump heads are series connection, the rollers are staggered at 60 degrees, which can obviously reduce the fluid pulsation and increase the transmission speed.
- YZ15, YZ25 pump head can match motor such as stepper motor, servo motor, AC motor, DC motor and other types of motor.
- We have low pulsation and waterproof pump heads for selection. Please confirm with Lab1st sales engineer or agent in advance.

PPS Shell



YZ15 Pump Head Flow Parameters

Tube material Silicone, Pharmed, Viton, Tygon 3603, Chemical, A-60-F\G Wall thickness 1.6mm						
ID(mm)	0.8	1.6	2.4	3.1	4.8	6.4
	13#	14#	19#	16#	25#	17#
mL/rpm	0.06	0.22	0.48	0.8	1.67	2.83
Max flow rate(600rpm, ml/min)	36	130	286	480	1000	1700

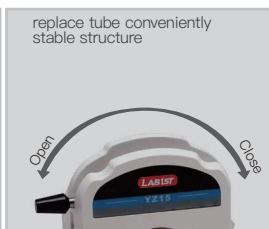
YZ25 Pump Head Flow Parameters

Tube material Silicone, Pharmed, Viton, Tygon 3603, Chemical, A-60-F\G wall thickness 2.4mm		
ID(mm)	4.8	6.4
	15#	24#
mL/rpm	1.67	2.83
Max flow rate(600rpm, ml/min)	1000	1700

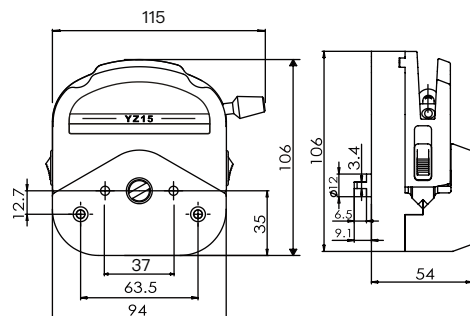
Above flow parameters are obtained by using silicone tube to transfer pure water under normal temperature and pressure, in actual use it is affected by specific factors such as pressure, medium, environment etc.

Technical Parameters

Channel	1 channel (Max expand to 10 channels)
Roller	3\6
Tubing Method	Whole tube
Net Weight	454g (3 rollers) \ 480g (6 rollers)
Shell Material	PPS\PES
Roller Material	SS304
Pressure tube clearance	Fixed (Non-adjustable)
Bear Liquid Temperature	Less than 200°C
Corrosion Resistance	PPS is resistant to most acid, alkali, salt liquids and organic solvents. PES is resistant to most liquids except chlorinated hydrocarbons, ketones and strong acids.



Dimension (mm)



YT15/YT25 Easy Load Adjustable Pump Head

- YT15 pump head flow range is 0.006~2300ml/min, suitable for tube size of 13#, 14#, 19#, 16#, 25#, 17#, 18#, wide flow range.
- YT25 pump head flow range is 0.17~2900ml/min, suitable for tube size of 15#, 24#, 35#, 36#. It is an ideal choice for conveying more viscous liquids and meeting the requirements of larger suction range, head and outlet pressure.
- With self-adapting clamping device, it is easy to clamp tubes of different thicknesses without manual adjustment.
- Classic pump tube locking mechanism, replacing tube only takes several seconds, easy to deal with frequent tube change conditions.
- Special pressure tube structure, reduce wear and tear of pump tube and accidental rupture caused by misoperation.
- The pressure tube clearance can be fine-tuned manually, when reducing tube clearance it can convey the larger pressure, and increasing tube clearance it can prolong the life of pump tube. At the same time, it can adapt to the deviation caused by different processing accuracy of pump tube.
- PPS special functional plastic shell and 4 SS rollers ensure that the pump head, can meet the high-strength use requirements such as high speed, long time, etc.,simultaneously reduce transmission pulsation.
- Multiple pump heads can be superposition, maximum expansion to 4 channels.
- When two pump heads are series connection, the rollers are staggered at 45 degrees, which can obviously reduce the fluid pulsation and increase the transmission speed.
- YT15, YT25 pump head can match motor such as stepper motor, servo motor, AC motor, DC motor and other types of motor.



YT15 Pump Head Flow Parameters

Tube material Silicone, Pharmed, Viton, Tygon 3603, Chemical, A-60-F\G wall thickness 1.6mm

ID(mm)	0.8	1.6	2.4	3.1	4.8	6.4	7.9
	13#	14#	19#	16#	25#	17#	18#
mL/rpm	0.06	0.22	0.48	0.8	1.67	2.83	3.8
Max flow rate(600rpm, ml/min)	36	130	286	480	1000	1700	2300

YT25 Pump Head Flow Parameters

Tube material Silicone, Pharmed, Viton, Tygon 3603, Chemical, A-60-F\G wall thickness 2.4mm

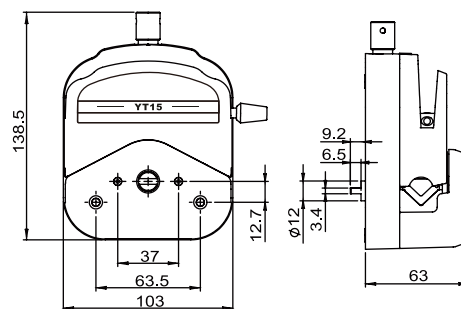
ID(mm)	4.8	6.4	7.9	9.6
	15#	24#	35#	36#
mL/rpm	1.67	2.83	3.83	4.84
Max flow rate(600rpm, ml/min)	1000	1700	2300	2900

Above flow parameters are obtained by using silicone tube to transfer pure water under normal temperature and pressure, in actual use it is effected by specific factors such as pressure, medium, environment etc. Above for reference only.

Technical Parameters

Channel	1 channel (Single pump head)
Roller	4
Tubing Method	Whole tube
Net Weight	620g
Shell Material	PPS
Roller Material	SS304
Pressure Tube Clearance	Adjustable
Bear Liquid Temperature	Less than 200°C
Corrosion Resistance	PPS is resistant to most acid, alkali, salt liquids and organic solvents.

Dimension (mm)



replace tube conveniently
stable structure



Self-adaptive
clamping device

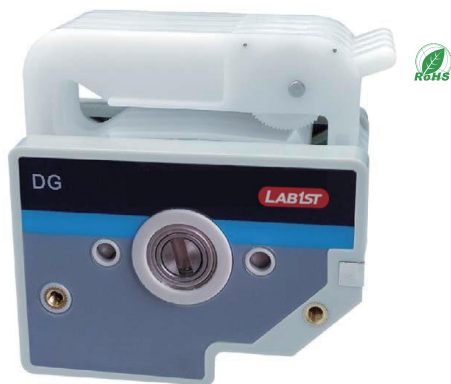


pressure tube clearance
can be fine-tuned manually



Max series connection expand to 4 channels

DG Series Multi-channel Pump Head



Note When transport corrosive liquid, users need to change the special material tubes, for details, please consult the Lab1st.

- Lab1st DG series pump head designed for small flow and multi-channel fluid transmission, it can realize simultaneous transmission of more than 1-48 pipelines with compact structure and convenient use.
- Exquisite structure design, even compared with traditional multi-roller pump head, can still provide very low transmission pulsation.
- Reasonable mechanical structure and high precision processing technology ensure the consistency of flow between channels.
- The card-type structure can be loaded and unloaded independently, which is easy to replace and fix the pump tube.
- There are two kinds of card pressure tube device ratchet adjusting device and adaptive spring device, adjustment card with shift display, pressure tube clearance can be based on manual adjustment according to the size of tube, to adapt to different wall thickness of tube and transmission pressure. Self-adaptive design of spring card, pressure tube clearance will be adjusted automatically according to the thickness of tube.
- High strength stainless steel is used as the material of pump head roller, and POM and PVDF high function plastics are selected as the card material to meet the requirements of different working conditions.
- Can suitable for tube of wall thickness 0.8-1mm, ID 0.13-3.17mm Silicone, Pharmed, PVC, Viton and other materials and specifications, single channel flow range is 0.0001-49ml/min.
- Number of pump head roller 6 or 10 optional, 6 rollers pump head with wide flow range, long tube lifetime, 10 rollers pump head with less transmission pulsation and tube wear higher.
- Can match speed below 100rpm stepper motor, servo motor, AC gear motor, DC gear motor and other motors.

Model	DG-1	DG-2	DG-3	DG-4	DG-6	DG-8	DG-10	DG-12
L (mm)	38.5	47.5	55.5	63.5	80.5	95.5	112.5	128

DG Series Pump Head

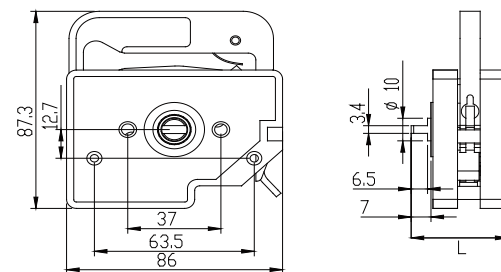


Flow Parameters

Tube material: Silicone, Pharmed, PVC, Viton	wall thickness 0.86-1mm						
ID(mm)	0.13	0.25	1	1.52	2	2.4	3.17
(DG 6 Rollers)							
mL/rpm	0.0016	0.005	0.058	0.17	0.21	0.26	0.49
mL/min (continuous working max 100rpm)	0.16	0.5	5.8	17	21	26	49
(DG10 Rollers)							
mL/rpm	0.0011	0.0045	0.0484	0.1342	0.16	0.2	0.41
mL/min (continuous working max 100rpm)	0.11	0.45	4.84	13.42	16	20	41

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Dimension (mm)



Lab1st DG Series Pump Head Can Use Two Types of Cartridges

Adjustment Cartridge pressure tube clearance can be adjusted by ratchet structure, there are 7 adjusting gears with color marks corresponding to tube of different specifications and materials, can work under the optimum pressure tube clearance without user debugging, obviously prolonged the tube lifetime, if need larger outlet pressure, the pressure tube clearance can be reduced by adjusting the gear, and the operation is simple.

Adjustment Cartridge Automatic adjustment of pressure tube clearance through high performance alloy spring, in order to adapt to the wall thickness change of tube due to long-term use, the uniform stability of flow can be effectively guaranteed.



DT Series Multi-channel Pump Head



DT10-88

- DT series pump head is designed for small and medium flow ,multichannel fluid transmission, according to different tubing size, there are two series DT10 series and DT15 series.
- DT10 pump head single channel flow range 0.00023~64ml/min, suitable for tubing 13#, 14# and ID 0.13~3.2mm, wall thickness 0.8~1mm.
- DT15 pump head single channel flow range 0.067~2240ml/min, suitable for tubing 19#, 16#, 25#, 17#.
- The plug card structure that can be installed and removed independently, it is convenient and quick to replace and fix the pump tubing.
- Multi-roller design reduces pulsation effectively.
- The roller is made of high-strength stainless steel, and the shell and card are made of PPS, which is resistant to high temperature and excellent chemical resistance.
- The roller is a bearing design, gap adjustment and the flow consistency is better.
- Can instead of 2 or 4 YZ15 pump heads, smaller size.
- Can match stepper motor, servo motor ,AC gear motor, DC gear motor etc.



DT15-44



DT10 Flow Parameters

Tube material : Silicone, Pharmed, Viton, Chemical, Tygon 3603	wall thickness:0.8~1mm							
	13#14# wall thickness:1.6mm							
ID (mm)	0.13	0.25	1	2	2.4	3.2	0.8	1.6
mL/rpm	0.0023	0.0069	0.07	0.3	0.39	0.64	0.05	0.18
mL/min(Continuous working max100pm)	0.23	0.69	7.4	30	39	64	5	18

DT15 Flow Parameters

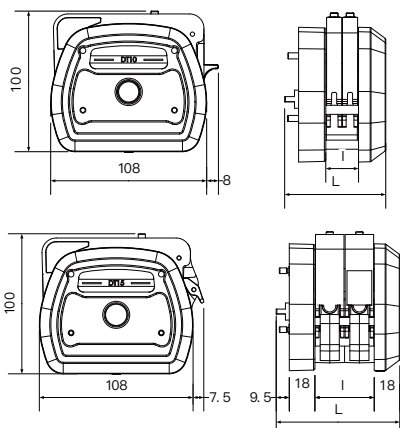
Tube material : Silicone, Pharmed, Viton, Chemical, Tygon 3603	wall thickness:1.6mm			
ID (mm)	2.4	3.1	4.8	6.4
	19#	16#	25#	17#
mL/rpm	0.67	1.0	2.2	3.7
mL/min(Continuous working max 600pm)	400	600	1320	2240



Model	Channel	Roller	Roller material	Card material	Max speed (rpm)	Tube	Max flow (ml/min)	Weight (kg)
DT15-14	1	4	304SS	PPS	600	19#,16#, 25#,17#	2240	0.62
DT15-24	2							1
DT15-44	4							1.44
DT10-18	1	8	304SS	PPS	100	ID<3.17mm wall thickness 0.8-1mm 13#,14#	82	0.72
DT10-28	2							0.78
DT10-48	4							1.08
DT10-88	8							1.68

Above parameters are obtained by using silicone tube to transfer pure water under normal temperature and pressure, in actually using it is effected by specific factors such as pressure ,medium. Above for reference only.

Dimension (mm)



DT10	Pump Head	Length L (mm)
	DT10-18	57.5
	DT10-28	67
	DT10-48	87.5
	DT10-88	102

DT15	Pump Head	Length L (mm)
	DT15-14	67
	DT15-24	87.5
	DT15-44	102

YZ35 Pump Head

- Lab1st YZ35 pump head flow range 0.01~13L/min, suitable for 73#, 82# tube, can be cascade multiple pump heads.
- New loading structure of tube, easy and fast to replace tube and the tube will not deviation in the process of operation.
- Pressure tube clearance can fine adjustment according to the tube size. Can adapt to small deviations of pump tube size.
- PPS shell material, 304SS roller material, resistant to organic solvents and other corrosive liquids and other corrosive liquids.
- Compact structure, durable, can meet the demand of high speed and long time running.
- Cascade two pump heads, install 60° dislocation between the rollers, can obviously reduce the pulse, and improve the transmission speed.

Technical Parameters

Flow range	0.01~13l /min
Speed range	0.1~600rpm
Tube	73#, 82#
Shell material	PPS
Roller material	304SS
Roller	3
Tube clearance	Can be fine-tuned
Color	Black
Withstand liquid temperature	Within 200°C
Temperature	0°C~40°C
Corrosion resistance	Resistance to acid, alkali and organic solvents

Note

New loading structure of tubing, tube does not deviation in the process of operation.



Flow Parameters

Tube material : Silicone, Pharmed, Norprene Chemical, Viton, A-60-G/F, Tygon, 3603 wall thickness 3.3mm

ID (mm)	9.6	12.7
	73#	82#
mL/rpm	13	21
mL/min ((Continuous working max 600rpm)	8000	13000

Above parameters are obtained by using silicone tube to transfer pure water under normal temperature and pressure, in actually using it is effected by specific factors such as pressure ,medium. Above for reference only.

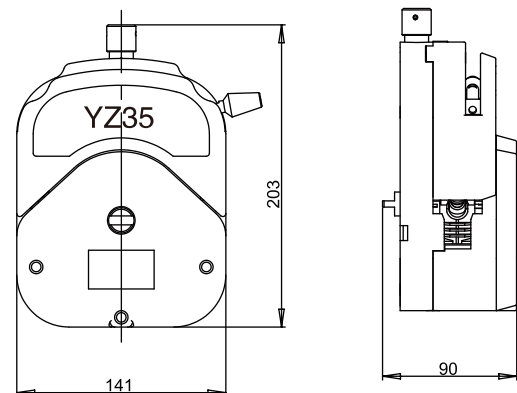


Adaptive gripper tube settings



Installation tube method

Dimension (mm)



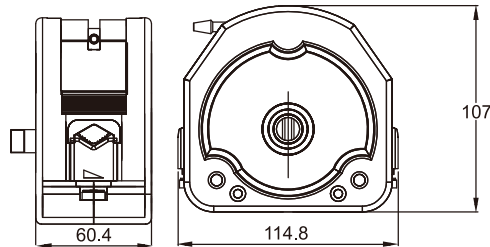
KZ25 Pump Head

- Lab1st KZ25 pump head flow range 0.3~6000mL/min, suitable for 15#, 24#, 35#, 36# tube, can be cascade multiple pump heads.
- Easy, fast load and replace tubes.
- The rollers adopts 304SS, excellent mechanical properties, can work continuously at high speed for a long time.
- The shell adopts kinds of material, suitable for various working environment.

Technical Parameters

Flow range	0.3~6000ml/min
Speed range	0.1~600rpm
Shell material	PC, PPS, AL
Upper holder block	PPS, AL
Roller material	304SS
Number of roller	3
Tubing fixing	Manual
Clearance adjustment	Fixed
Tube	15#, 24#, 35#, 36#

Dimension (mm)



Flow Parameters

Tube material: Silicone, Pharmed, Viton, Chemical, A-60-G/F					wall thickness 2.4mm
ID(mm)	4.8	6.4	7.9	9.6	
	15#	24#	35#	36#	
mL/rpm	3	5	7	10	
mL/min (continuous working max 600rpm)	1800	3000	4200	6000	

Above parameters are obtained by using silicone tube to transfer pure water under normal temperature and pressure, in actually using it is effected by specific factors such as pressure ,medium. Above for reference only.



KZ25-PC

The shell adopts transparent PC material with moderate strength, which is convenient for observing the internal working condition of the pump head. Upper holder block adopts PPS, high strength, good chemical stability and high temperature resistance.



KZ25-PPS

The shell and upper holder block adpots pps material, super corrosion resistance, more adaptable.



KZ25-L

All finished aluminum alloy material with high precision, suitable for tube with high hardness, strong weather fastness.

Installation
Tube
Method
(AL)

Installation
Tube
Method
(PC\PPS)

BZ Pump Head

- Lab1st BZ series pump head max flow rate 2100 mL/min, can be cascade multiple pump heads.
- The ingenious pressure tube structure ensures very low transmission pulsation without increasing the roller, highest transmission accuracy and repeatability.
- Each type of pump head corresponds to a special one size tube. It has better performance and longer service life than general pump head.
- The shell material can be PC or PPS, the PC is transparent and easy to observe the internal operation of the pump head, PPS is better chemical resistance.
- The roller adopts 304SS, can work long time with high speed.
- Support two kinds of tube fixed way the whole tube and built-in tube connector, strong applicability.
- Classic design, stable structure, high cost performance, It can be widely used in various small and medium-sized instruments and equipment.

- BZ15 Pump Head:** BZ15-13# (suitable for 13# tube)
 BZ15-14# (suitable for 14# tube)
 BZ15-19# (suitable for 19# tube)
 BZ15-16# (suitable for 16# tube)
 BZ15-25# (suitable for 25# tube)
 BZ15-17# (suitable for 17# tube)
 BZ15-18# (suitable for 18# tube)

- BZ25 Pump Head:** BZ25-15# (suitable for 15# tube)
 BZ25-24# (suitable for 24# tube)



Technical Parameters

Flow range	0.0033~2100ml/min
Speed range	0.1~600rpm
Shell material	PPS\PC
Roller material	SS304
Number of roller	3
Tubing method	Tube connector built-in\The whole tube
Clearance adjustment	Fixed clearance
Motor	Stepper motor\DC gear motor\AC gear motor

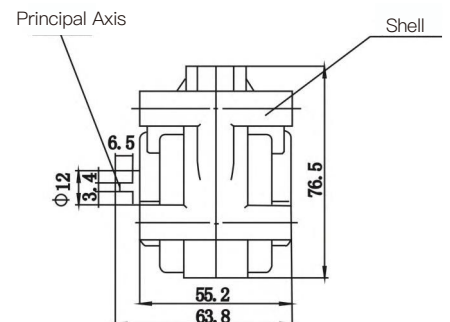
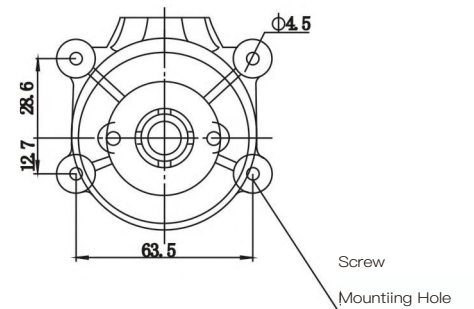
BZ15 Flow Parameters

Tube material:	Silicone, Pharmed, Norprene, Viton							wall thickness	1.6mm
ID(mm)	0.8	1.6	2.4	3.1	4.8	6.4	7.9		
	13#	14#	19#	16#	25#	17#	18#		
mL/rpm	0.033	0.18	0.43	0.67	1.7	3.0	3.5		
mL/min (continuous working max 600rpm)	20	110	260	400	1020	1800	2100		

BZ25 Flow Parameters

Tube material:	Silicone, Pharmed, Norprene, Viton		wall thickness	2.4mm
ID (mm)	4.8	6.4		
	15#	24#		
mL/rpm	1.8	2.6		
mL/min (continuous working max 600rpm)	1056	1560		

Dimension (mm)



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DMD25-T Pump Head

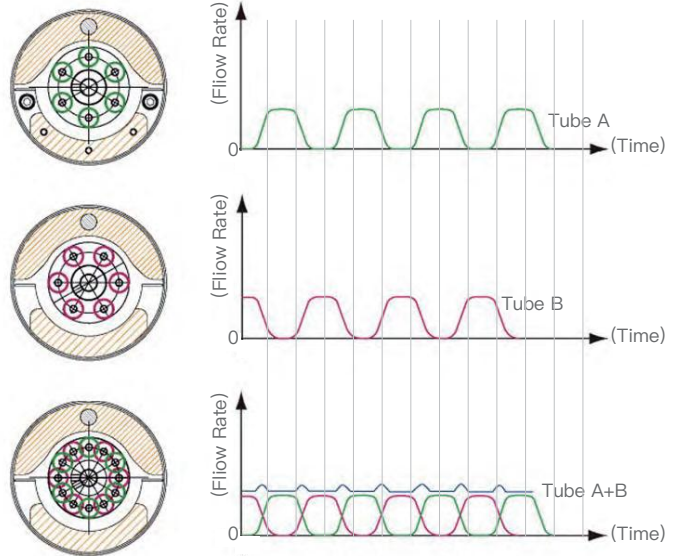
- Lab1st DMD25-Tperistaltic pump head flow range 0.4-4000mL/min, It mainly meets higher requirements such as high precision filling and large flow and low pulsation.
- The transmission smoothness is greatly improved by the double line pulsation complementary method.
- Elastic upper block structure reduces flow attenuation rate and greatly prolongs the service life of pump tube.
- Three pump heads can cascade to form three channels,increase productivity.
- The overall uses of aluminum alloy and SS304 material, excellent mechanical properties.



Technical Parameters

Flow range	0.4~4000ml/min
Speed range	0.1~350rpm
Tube	15#, 24#, 35#, 36#
Number of channel	1
Number of roller	6
Pressure tube Structure	Elastic self-adaptation
Transmission Pressure	≤0.12MPa
Dimension	168.2x105x125mm
Net Weight	2.8kg

Pulsation Complementary Schematic Diagram

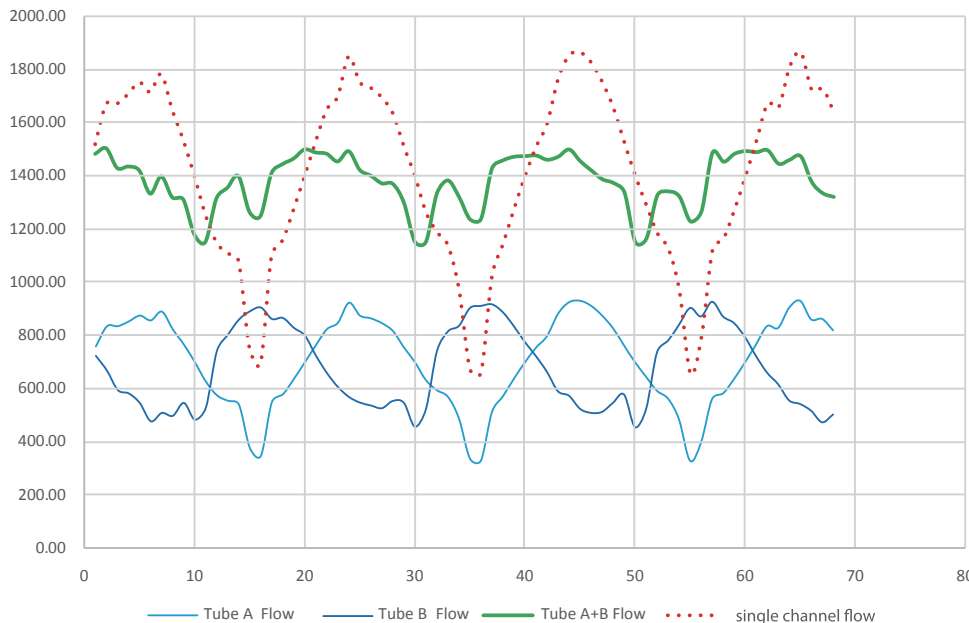


Flow Parameters

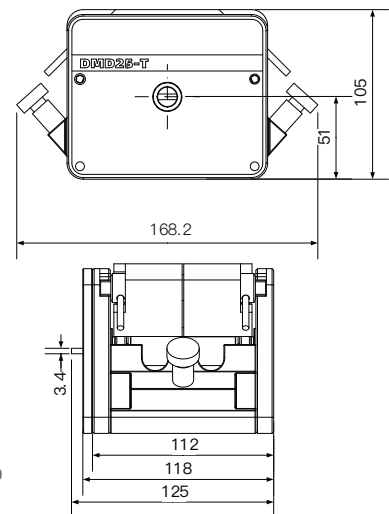
Tube material: Silicone, Pharmed, Viton, Norprene A-60-G/F	wall thickness2.4mm			
ID (mm)	4.8	6.4	7.9	9.6
	15#	24#	35#	36#
mL/rpm	4.09	6.86	8.29	11.43
mL/min(continuous working max350rpm)	1430	2400	2900	4000

Above parameters are obtained by using silicone tube to transfer pure water under normal temperature and pressure, in actually using it is effected by specific factors such as pressure ,medium. Above for reference only

DMD25-T Pulsation Curve Simulation Diagram



Dimension (mm)



DMD25 is A+B double pipeline. Under the same environmental conditions, compare the mixed pipeline flow with the flow pulsation curve of a single pipeline with the same flow.

WMD15 Micro Pulsation Pump Head

- Lab1st WMD15 micro pulsation pump head flow range 0.006~1700mL/min, suitable for tube of 13# 14# 19# 16# 25# 17#.
- Unique micro pulsation patent technology, liquid transmission lower pulse, excellent transmission continuity, especially suitable for glue coating, film coating, chemical synthesis and other industries with high requirements for transmission stability.
- Entirety adopts the aluminum alloy and 304ss, sturdy and durable. suitable for continue working at high speed

Technical Parameters

Flow range	0.006~1700ml/min
Speed range	0.1~600rpm
Tube	13#, 14#, 19#, 16#, 25#, 17#
Shell material	aluminum alloy
Roller material	304SS
Number of roller	3
Temperature	0°C~40°C
Clearance adjustment	Fixed



Flow Parameters

Tube material	Silicone, Pharmed, Viton, Chemical, A-60-G/F						wall thickness	1.6mm								
ID (mm)	0.8	1.6	2.4	3.1	4.8	6.4										
	13#	14#	19#	16#	25#	17#										
mL/rpm	0.06	0.22	0.48	0.8	1.67	2.83										
mL/min (continuous working max600rpm)	36	130	286	480	1000	1700										

Micro pulsation patent design
 Patent No.: [ZL201420691450.5](#)

Above flow parameters are obtained by using silicone tube to transfer pure water under normal temperature and pressure, in actually using it is effected by specific factors such as pressure, medium etc. Above for reference only.

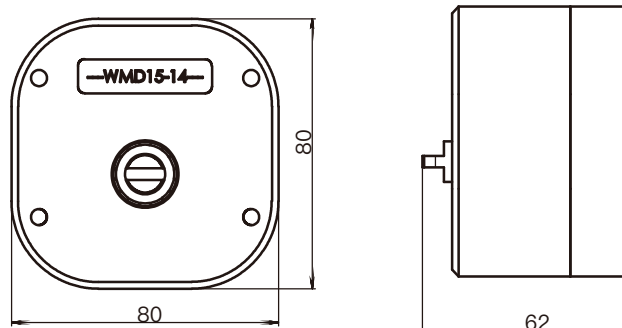
Comparison of transmission stability



- Test Conditions **A** Lab1st YZ15 pump head 14# silicone tube speed 20rpm
B Lab1st WMD15 pump head 14# silicone tube speed 20rpm

Note
 Pulse videos please contact with Lab1st

Dimension (mm)



GN10 High-Pressure Corrosion-Resistant Pump Head

- GN10 high pressure corrosion resistance pump head suitable for PTFE tube, excellent chemical resistance, suitable for strong acids, strong bases and various organic solvents ,especially suitable for small flow transmission of liquids that cannot be transmitted by ordinary peristaltic pumps.
- Using aluminum alloy and POM material, excellent mechanical properties.
- Adjustable pressure tube clearance, locking structure design, the max adaptive outlet pressure is 0.68Mpa.
- Easy and quick tube installation , lower running noise, compact and beautiful appearance.

Technical Parameters

Max flow rate	65ml/min
Speed range	<300rpm
Tube	2.48×0.76mm \ 4.48×0.76mm (PTFE)
Number of channel	1
Number of roller	6
Pressure tube structure	Adjustable pressure tube clearance
Transmission pressure	≤0.68MPa
Suction stroke	Not higher than 2 meters
Temperature	Temperature 0~40°C, humidity<80%
Dimension	83×65×140mm
Weight	0.92kg

Flow Parameters

	Tube material PTFE	wall thickness 0.76mm
ID (mm)	2.48	4.48
mL/rpm	0.04	0.21
mL/min(Continuous working max 100rpm)	4	21
mL/min(Continuous working max 300rpm)	12	65

Above parameters are obtained by using silicone tube to transfer pure water under normal temperature and pressure, in actually using it is effected by specific factors such as pressure, medium. Above for reference only.



Easy and quick tube installation



6 rollers



Locking structure
Adjustable pressure tube clearance

Dimension (mm)

