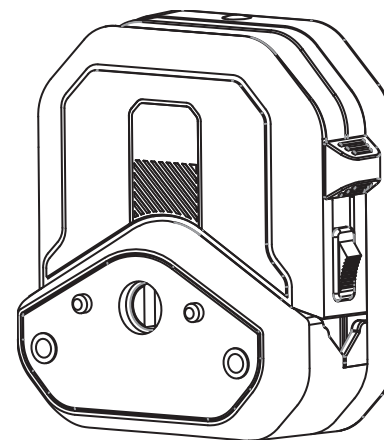


# YZ15T/YZ25T Pump Head Operation Manual



Version number:V1.0







While the product is improving, the manual information may be changed without notice.

## Safety Precautions







### Important information:








**Be sure to read the manual carefully before operation!**

	This icon warns: Keep fingers away from moving parts.
	This icon warns: Be careful.
	This icon warns: Be careful, the surface is hot.
	This icon warns: Be careful, electric shock hazard.
	This icon warns: To recycle this product.
	This icon warns: Personal protective equipment (PPE) must be worn.

### Danger:

	Please use the same power supply as that on the nameplate of the machine, otherwise the equipment will be damaged!
	Do not disassemble the casing or modify the interior of the equipment by yourself, otherwise it may cause malfunctions or even electric shock accidents!
	When installing and disassembling the pump tube, please turn off the power first and do not approach the rotating roller to prevent fingers and clothing from getting entangled in the mechanical mechanism!
	If used for transporting hazardous liquids, a dedicated operating procedure must be established for this liquid, and personnel injury must also be prevented during using.

### Warning:

	Before using, please confirm that the transmitted liquid will not react chemically with the tube or pump head, otherwise it will damage the tube or pump head. If unsure, please consult our engineers.
	Tubes are vulnerable parts, please pay attention to regular inspections. Our company is not responsible for the losses caused by tube damage, especially the leakage of toxic, harmful, and precious liquids!
	Please use tubes that are suitable for the pump head model and refer to the "Suitable Tube and Flow Rate of Pump Head" in the manual
	If the peristaltic pump is stopped for too long, please lift the pressure block on the pump head to prevent the inner wall of the tube from sticking due to prolonged compression.
	Due to actual working environment conditions (including temperature, humidity, power supply voltage, etc.) exceeding our technical specifications and causing machine damage, our company is responsible for paid warranty, but we do not bear any responsibility for any other damage caused by this!
	The main protection provided for operators to prevent them from being injured by the moving parts of the pump is provided by the safety device of the pump head. Please note that the safety devices for different products vary depending on the model of the pump head. Please refer to the pump head section in the manual.
	If the pump is running before the power outage, it will automatically start after the power is reconnected.

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Description

YZ15T/YZ25T series peristaltic pump heads are suitable for various specifications of tubes. Replacing the tube is simple and fast with a compact and reasonable structure which can achieve the use of multiple pump heads in series. The pump head has added a tube clamp linkage mechanism, enabling synchronized opening of the pressure block and pipe clamp, improving the convenience of tube installation. The PPS material pump casing is resistant to organic solvents and other corrosive liquids, making it sturdy and durable.

Pump Head Structure

Suitable tubes for each model:

- YZ15T tube specifications: 13#,14#,19#,16#,25#,17#,18#
- YZ25T tube specifications: 15#,24#

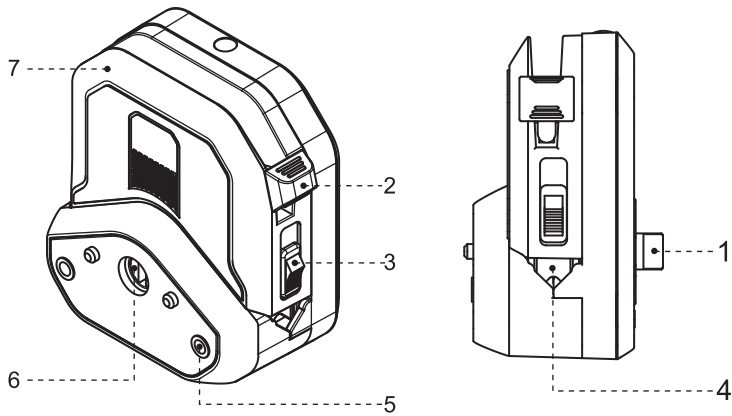


Figure 1 Pump Head Structure

◆Component Name and Function

- 1. Flat Shaft End:** Used to connect the drive coupling and cascade the pump heads.
- 2. Lever:** When install tubing need to use it.
- 3. Sliding Block:** After press it, squeeze the tubing together with the roller device.
- 4. Tube Clamp:** After the sliding block down, the tubing gets stuck, make the tubing can't move.

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**5. Mounting Hole:** With the screw, the pump head is fixed on the drive.

**6. Coupling:** Using to cascade pump heads.

**7. Upper Pressure Block:** Pull the lever to drive the slider to move up and down, making it convenient and fast to replace the tube

### Usage Method

#### ◆Install YZ15T/YZ25T Pump Head

- Put one side of the pump head flat shaft towards to drive, push on the groove of coupling in front of drive. Make the pump head in suitable position through the two positions column of pump head support, put the pump head cling to the drive.
- Insert the 2 pieces of pump head screws to mounting holes, tighten pump head screws.

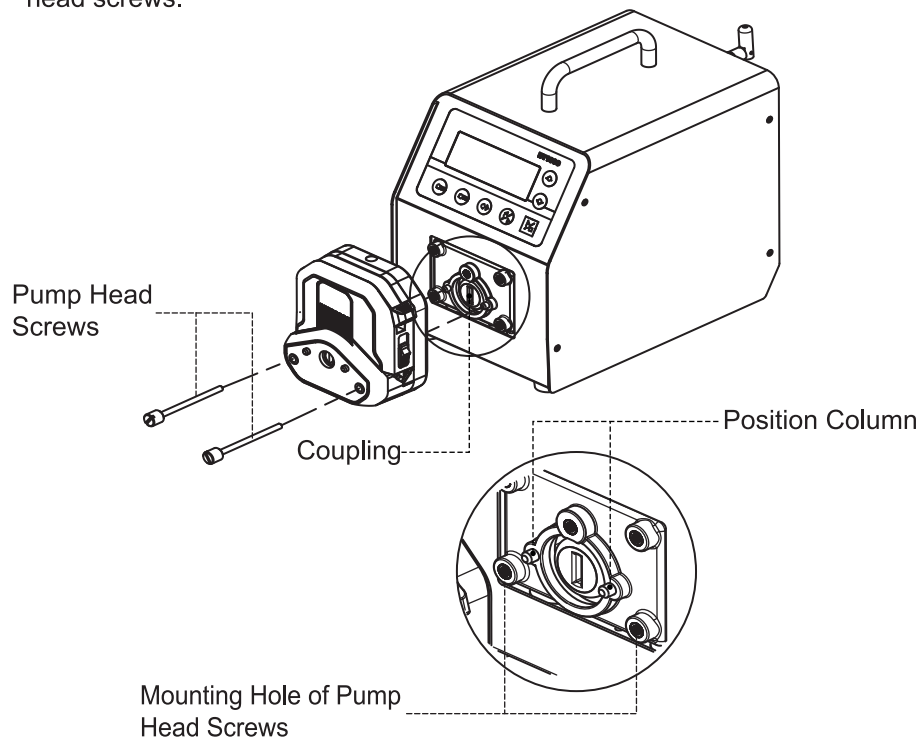


Figure 2 Assembly Drawing of YZ15T/YZ25T Pump Head



Note: When tightening the pump head screws, it is important to ensure that the tightening torque of the two screws is the same and not too tight!

#### ◆Tube Selection

- The tubes suitable for YZ15T/YZ25T series pump heads are divided into domestic tubes and imported tubes. The size accuracy of the wall thickness and inner diameter of the tube can affect the flow accuracy.

#### ◆Install the Tube for YZ15T/YZ25T Pump Head

- Pull the lever to the left to the horizontal position, and the lever is stuck by the steel ball at that position. At the same time, the tube clamp linkage mechanism drives the tube clamp to retract towards the inner side of the tube clamp groove, opening the installation space of the tube for easy installation of the tube.
- Select tubes that are suitable for the specified wall thickness of the pump head

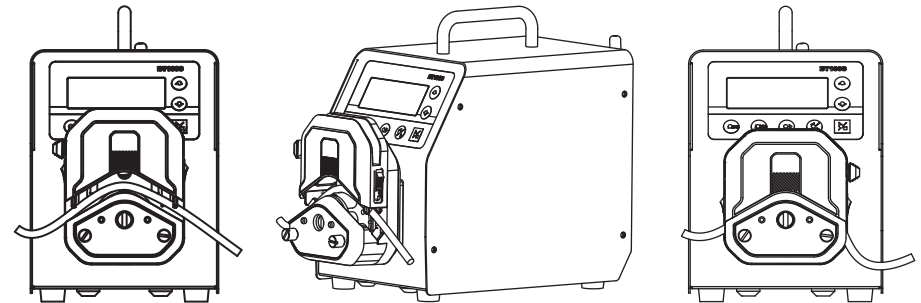


Figure 3 Installation of Tubes

- Straighten the internal tube of the pump head, tighten both ends of the tube with both hands to make it naturally extend without distortion or deviation.
- Pull the lever to the right to the horizontal position on the right, and press the left and right movable tube clamps in place simultaneously with the upper pressure block.

#### ◆Take Out the Tube

- Referring to the installation diagram of the tube, pull the lever to the left to the horizontal position, and the lever will automatically lock. The left and right

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movable tube clamps will be lifted with the upper pressure block at the same time, and the tube will be taken out.

### ◆Precautions for Using

- The tube flow will fluctuate with the extension of service time. Please pay attention to timely adjust the speed of peristaltic pump (for flow type peristaltic pump, please recalibrate the flow)
- This series of pump heads can be used cascaded. When multiple pump heads are used at the same time, there is a deviation in the flow between each channel. If the consistency of flow is required to be high, please contact the engineer of Enterprise.

## Malfunction and Maintenance

### ◆Warranty and After-sales

#### ●YZ15T/YZ25T pump head comes with a one-year free warranty

1. The warranty scope is only for YZ15T/YZ25T pump heads, and tubes and other consumables are not included in this warranty scope.
2. The warranty period starts from the purchase date displayed on the customer's valid purchase certificate.
3. If there are quality issues during the warranty period, Enterprise is responsible for free repair and replacement.
4. If there are problems caused by human factors such as leakage, falls, improper use, etc., Enterprise is exempt from manual repair fees and only charges material cost fees.

### Special Instructions

- Please check the model specifications before using tubes and other consumables. Please note that once opened for using, returns and exchanges are no longer accepted unless there are quality issues.

### ◆Daily Maintenance

- Regularly inspect the tubes for damage or loss of elasticity.
- Applying silicone oil on the wall of the pressure block can reduce tube wear and prolong the service life of the tube.
- The pump head cannot be washed with water. If the pump tube breaks

during operation, the liquid in the pump head shall be wiped or dried in time.

- Do not use chemical reagents to clean the pump head.

### ◆Malfunction Solutions

NO.	Malfunction	Solution	Remarks
1	Unable to inhale liquid	<ol style="list-style-type: none"><li>1. Whether the viscosity of the liquid too high. When the viscosity is too high, the flow rate will seriously decrease or even become unusable.</li><li>2. If the negative pressure at the inlet of the tube is too high or the inlet is blocked, check the inlet tube line.</li><li>3. If the tube is not installed in the correct position, reinstall it according to the instructions for use.</li><li>4. Whether the tube specification is appropriate, and select the appropriate specification of tube according to the instructions for use.</li></ol>	
2	The service life of the tube has significantly shortened	<ol style="list-style-type: none"><li>1. To detect whether the liquid contains solid particles, please choose an imported tube. Excessive particle impurities can seriously reduce the service life of the tube and even render it unusable.</li><li>2. If the tube is not installed in the correct position, reinstall it according to the instructions for use.</li><li>3. Check whether the roller rotates flexibly.</li></ol>	



Note: If the above methods still cannot be solved, please contact the after-sales service of Enterprise!

## Suitable Tube and Flow Rate of Pump Head

Experimental conditions:

1. Normal temperature and pressure.
2. Test Medium: Water.
3. Tubeline: The length of inlet and outlet is 500mm, and the inlet and outlet are at the same level.
4. When the liquid, viscosity, tubeline length, inlet and outlet pressure difference and other service conditions change, the flow value will change. Please consult the engineer of Enterprise.

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**Suitable Tube and Flow Rate of YZ15T-3 Pump Head (unit: mL/min)**

Speed \ Tube	13#	14#	19#	16#	25#	17#	18#
30rpm	2.1	7.9	16.2	28.2	60.4	94.1	141.1
60rpm	4.2	15.6	31.7	54.9	116.2	174.7	255.6
100 rpm	7.0	26.4	53.9	94.1	201.2	313.7	470.2
300 rpm	21.1	79.1	161.6	282.4	603.7	941.1	1410.6
600 rpm	41.0	158.5	331.1	572.5	1201.6	1728.5	2479.1

**Suitable Tube and Flow Rate of YZ25T-3 Pump Head (unit: mL/min)**

Speed \ Tube	15#	24#
30rpm	54.4	91.5
60rpm	105.7	174.9
100 rpm	177.3	296.8
300 rpm	543.8	914.9
600 rpm	1107.9	1913.7

## Dimensions

Unit: mm

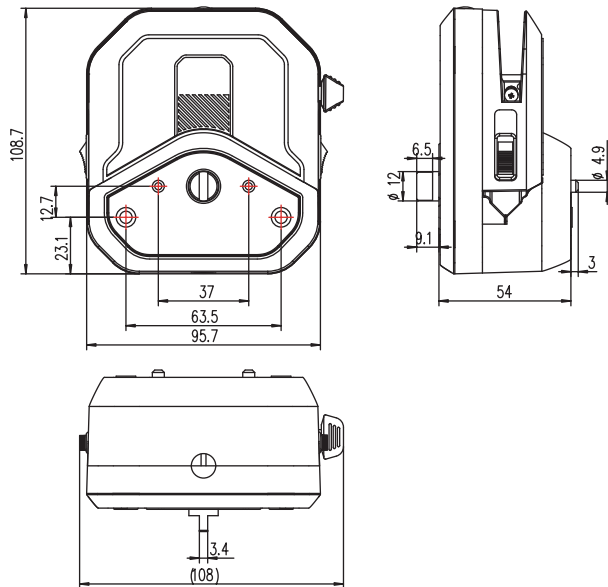


Figure 4 YZ15T/YZ25T

## Technical Parameters

**YZ15T 3 rollers pump head**

Suitable Drive	BT series, WT series
Suitable Tube Size	13#, 14#, 19#, 16#, 25#, 17#, 18# (Wall Thickness 1.6mm, ID 0.8-7.9mm)
Suitable Tube Type	Silicone, pharmed, A-60-G, A-60-F, F5500A, 2275, 2475, 3603, Viton
Speed Range	Maximum 600 rpm/min
Flow Range	Maximum 2479 mL/min
Rollers	3 rollers, 304 stainless steel
Case Material	PPS black
Work Environment	Temperature 0~40°C Relative humidity <80%
Dimension	109*96*64
Pump Head Weight	468g

**YZ25T 3 rollers pump head**

Suitable Drive	BT series, WT series
Suitable Tube Size	15#, 24# (Wall Thickness 2.4mm, ID 4.8, 6.4mm)
Suitable Tube Type	Silicone, pharmed, A-60-G, A-60-F, F5500A, 2275, 2475, 3603
Speed Range	Maximum 600 rpm
Flow Range	Maximum 1913 mL/min
Rollers	3 rollers, 304 stainless steel
Case Material	PPS black
Work Environment	Temperature 0~40°C Relative humidity <80%
Dimension	109*96*64
Pump Head Weight	468g