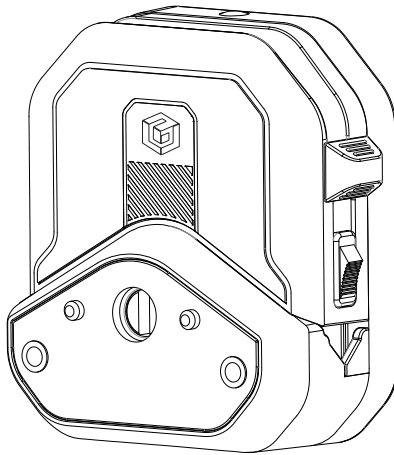




YZ15T/YZ25T Pump Head

User's Guide



1 Safety Precautions



Warning

- Please read this user's guide carefully before operating the pump head.
- Tubing breakage may result in fluid being sprayed from the pump. Please check and replace the tubing regularly.
- Please power the pump off before installing external control devices.
- This product is not designed for, nor intended for use in patient-connected applications; including, but not limited to, medical and dental use.



Danger

- Remove the power from the pump before mounting or unmounting the pump head to the drive.
- Remove the power from the pump before attempting any maintenance or cleaning operation.
- Turn the drive off before removing or installing the tubing. Fingers or loose clothing could get caught in the drive mechanism.

Note:

- Only use matched tubing with the pump head to ensure optimum performance. Use of other tubing may void applicable warranties.
- Release the tubing loading lever if the drive is not in operation for a longer period to prevent the rollers from squeezing the tubing all the time.
- Change the squeeze section of the tubing in time to extend its lifetime.
- When tubing breakage occurs, please use a mild detergent solution to clean the pump head. Do not immerse nor use excessive fluid. Please check if the rollers can still rotate smoothly. If not, please stop the drive to prevent it from damaging the pump head.
- Fine adjustments can be made to the gap between the roller and the housing for the tubing. If the pump head cannot deliver fluid successfully or the output pressure is too weak, please try to reduce the gap by tightening the occlusion adjustment knob until the pump head delivers fluid as expected.

2 Introduction

YZ15T pump heads are designed to provide a simple, easy-to-use fluid transfer experience and can be used with different tubing sizes to meet a wide range of flow rate requirements. The pump head features a pipe clamp linkage mechanism, enabling simultaneous opening of the pressure block and tubing clamp, thereby enhancing the ease of tubing installation. Additionally, the pump housing, constructed from PPS material, exhibits resistance to organic solvents and other corrosive liquids, ensuring durability and robustness. The YZ15T/YZ25T pump heads are compatible with most GOLANDER BT or WT series drives with a standard tang interface.

3 Pump Head Components and Functions

- YZ15T applicable tubing: 13#, 14#, 19#, 16#, 25#, 17#, 18#
- YZ25T applicable tubing: 15#, 24#

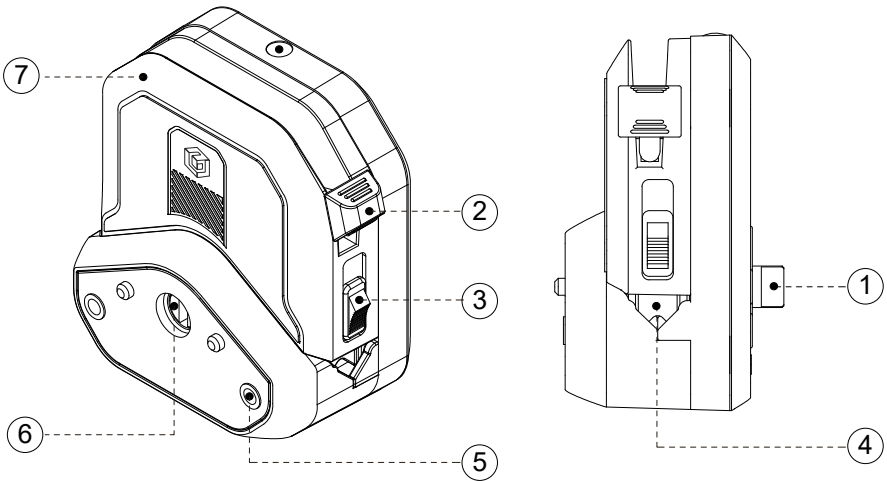


Figure 1. Pump Head

① **Shaft tang:** Used to connect with the drive coupler and to cascade multiple pump heads.

- ② **Lever:** Turn it to move the upper-pressure block up and down.
- ③ **Slider:** Pushing the slider upward to move the tubing clamp upward to load tubing.
- ④ **Tubing clamp:** Once the slider presses down, it secures the tubing in place, preventing movement.
- ⑤ **Mounting hole:** Passing through the pump head screw, it secures the pump head to the driver.
- ⑥ **Groove in front of the roller:** Use to cascade pump heads.
- ⑦ **Upper-pressure block:** Moving the lever activates the slider, enabling convenient tubing replacement.

4 Installation and Operation

4.1 Pump Head Installation

- 1) Insert the shaft tang ① of the pump head into the slot of the coupler.
- 2) Insert the two mounting screws into the mounting holes ⑤ of the pump head.
- 3) Tighten the mounting screws to the mounting holes of the pump drive.
- 4) For multi-channel mounting, longer mounting screws are required.

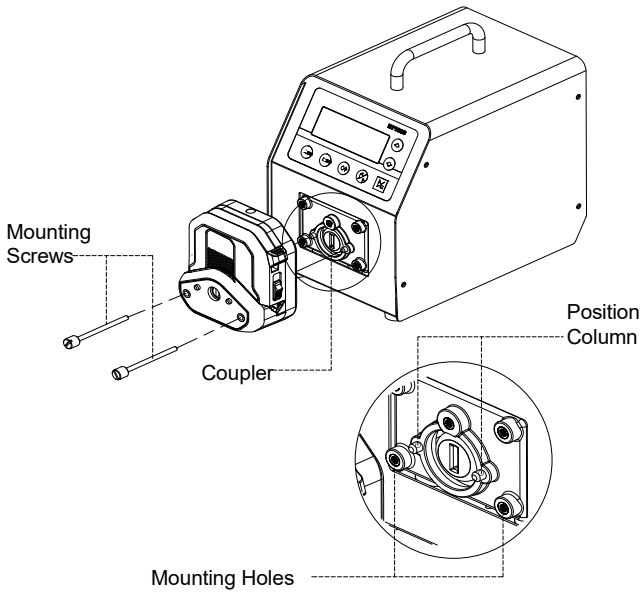


Figure 2. Pump Head Installation

Note: When tightening the pump head screws, it is important to ensure that the torque applied to both screws is equal and not too tight!

4.2 Tube Loading

- 1) Ensure that the pump drive is powered off.
- 2) Pull the lever ② to the left until it rests horizontally, where it will be locked in position by steel balls. Simultaneously, the clamp linkage mechanism retracts the tubing clamps towards the inner side of the clamp groove, creating space for tubing installation.
- 3) Load tubing that complies with the specified pump head requirements. Firmly hold both ends of the tube with both hands to ensure it extends naturally without distortion or deviation.
- 4) Pull the lever ② to the right until it's horizontally positioned, then secure it by locking sliders ③ in place.

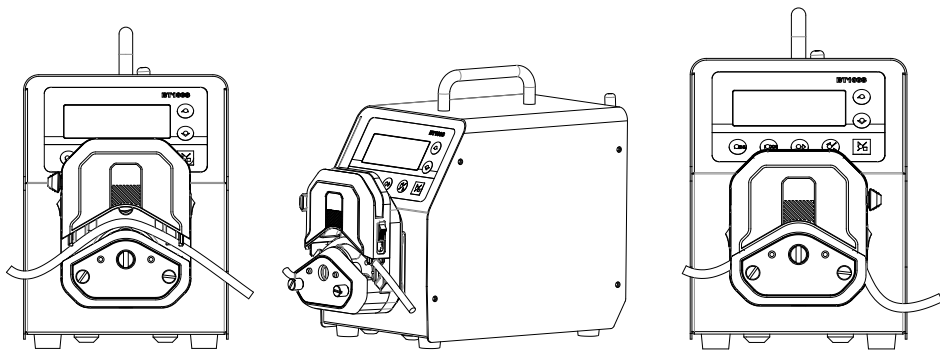


Figure 3. Tube Loading

4.3 Multiple Pump Heads Mounting

Depending on the torque capability of the pump drive, the pump heads can be mounted in tandem. Longer screws are required for multiple pump heads setup. The tubing inside can be changed without removing the outer pump head(s) from the drive.

4.4 Notes

- The flow rate of the tubing may fluctuate with prolonged use. Please adjust the peristaltic pump speed accordingly as needed (for the L and F series of peristaltic pumps, consider recalibrating the flow rate).
- There would be a 5-10% flow rate variation among channels for multiple pump heads setup. For higher precision applications, we recommend using only one channel pump head for each pump.

5 Warranty

The YZ15T/YZ25T pump head is covered by a one-year warranty.

- This warranty only applies to the YZ15T/YZ25T pump heads; tubing and other consumables are not covered.
- The warranty period begins from the purchase date indicated on

the customer's valid purchase order or confirmation.

- Golander is responsible for free repairs and replacements for quality issues occurring during the warranty period.
- Golander is not responsible for repair fees caused by human factors such as leakage, falls, or improper use. In such cases, only material costs will be charged.

Please verify the model specifications before using tubing and other consumables. Kindly note that once the package of tubing or consumables is opened, returns and exchanges are not accepted unless there are quality issues.

6 Regular Maintenance

- Regularly inspect the tubing for damage or loss of elasticity.
- Applying silicone oil to the inner wall of the pressure block can reduce tubing wear and extend tubing lifespan.
- Do not rinse the pump head with water. If the pump tubing ruptures during operation, promptly dry the liquid inside the pump head.
- Do not clean the pump head with chemical solvents.

7 Malfunction Solutions

No.	Malfunction	Solution
1	Unable to draw in liquid	<ol style="list-style-type: none"> 1. Check whether the viscosity of the liquid is too high. When the viscosity is too high, it can significantly reduce the flow rate or even render it unusable. 2. Check the inlet tube line if the negative pressure at the tube inlet is too high or if there is a blockage. 3. If the tube is not installed in the correct position, reinstall it according to the instructions. 4. Ensure that the tube specifications are appropriate and select the correct tubing according to the instructions.
2	The lifespan of tubing significantly shortened	<ol style="list-style-type: none"> 1. To determine whether the liquid contains solid particles, consider using another type of tubing. Excessive particle impurities can seriously shorten the lifespan of the tubing and may even render it unusable. 2. If the tubing is not correctly installed, reinstall it according to the instructions. 3. Check whether the roller rotates smoothly.

8 Applicable Tubing and Flow Rate Reference

YZ15T Pump Head (unit: mL/min)

Tube Speed	13#	14#	19#	16#	25#	17#	18#
30 rpm	2.1	7.9	16.2	28.2	60.4	94.1	141.1
60 rpm	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

YZ25T Pump Head (mL/min)

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

**The above flow rate data is obtained from tests with pure water at room temperature and pressure and is for reference only. Actual flow rates may vary due to pressure, media characteristics, and other relevant factors.*

9 Dimensions

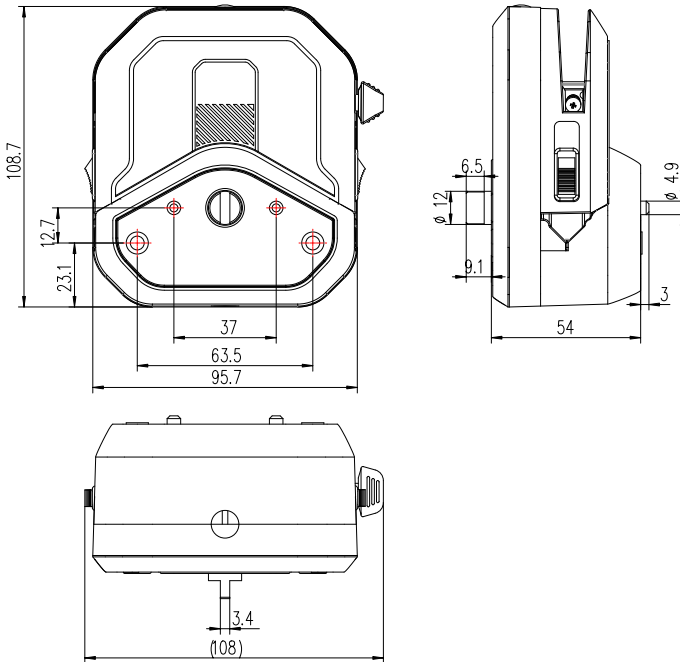


Figure 4 Dimensions (mm)

10 Technical Parameters

YZ15T 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
Flow Range	Maximum 2479 mL/min
No. of Rollers	3 rollers,304 stainless steel
Case Material	PPS black
Operating Condition	Temperature 0~40°C Relative humidity <80%
Dimension	109x96x64mm
Weight	402g

YZ25T 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
No. of Rollers	3 rollers, 304 stainless steel
Case Material	PPS black
Operating condition	Temperature 0~40°C Relative humidity <80%
Dimension	109x96x64mm
Weight	402g

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