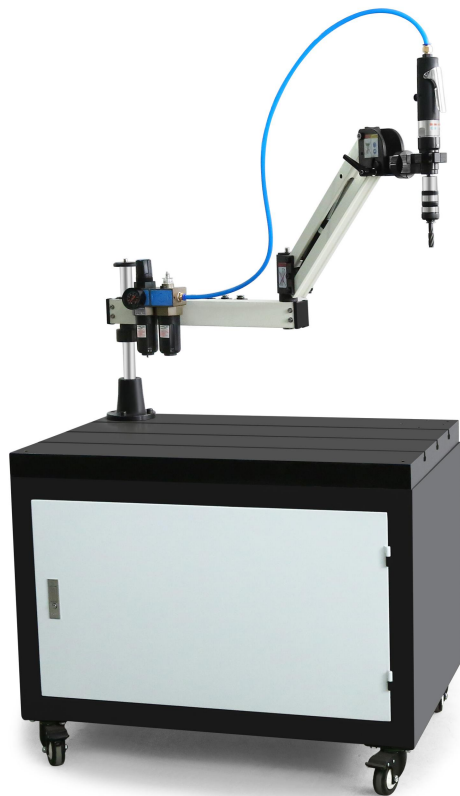


Pneumatic Tapping Machine

Instruction Manual



(Please read carefully this operation instruction before use)

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Foreword

First of all, thank you for choosing the products made by our company, which are your intelligent choice and our super honor. Our company has powerful technique resources, owns top-ranking professional manpower, professional technology, professional design, professional equipment and special materials. Our pneumatic tapping machine is developed on the base of absorbing the advanced technology of the same field in the world, it has competitive price and good quality. The machine is easy operation, high work efficiency and long life. The quality can compare with that produced by advanced countries.

Dear customers, please read this operation instruction carefully before using, ensure your complete understanding and correct operation.

Since the technology of our company will be improving continuously, specifications subject to changes without prior notice.

1. Summary

SF-900-12 is a swing arm type pneumatic tapping machine of our company. It is used in tapping below M12 internal thread on ferrous metal and non ferrous metal, widely used in mold manufacturing, facility manufacturing, machine work etc, not only single production but also lot production.

2. Technical Parameter

Model	Tap Range	No-load Speed (RPM)	Quantity of Swing Arm	Universal-Joint Yoke	Working Area (mm)
SF-900-12	M3,M4,M5,M6-8,M10,M12	400	2	Optional	R1000

Note:

- 1) Above technical parameter is base on machining No.45 steel;
- 2) The working air pressure is between 6-8 bar.

3. Working principle

This machine is powered by high pressure air. The high pressure air passes through the air supply processor into control valve, when pressing down the Trigger, the high pressure air goes into the Tapping Motor, driving the Rotor Blade of Tapping Motor, producing axial rotation force, after speed changed by gear pair, producing the powerful torque to drive the tap to do the tapping work.

Two parallel arms and one inclined arm keep the tapping motor working in vertical direction with working table in any position

4. Warning

4.1 Please read this manual carefully before operation. Completely Know the Pneumatic Tapping Machine structure and performance to prevent the potential danger happening.

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- 4.2 Shutting off air supply immediately when malfunction happened, then inspecting and repairing.
- 4.3 Do not repair the machine by user. Please contact the distributor or our company immediately. If it is necessary for users to repair by themselves, users shall have permission from manufacturer, and replacement parts shall be made from the manufacturer.
- 4.4 Do not have the machine worked on overload, especially more than Max. tapping capability.
- 4.5 Checking quick-wear parts before using the machine, and replacing and repairing them in time.
- 4.6 Locking all of the handle and fixing the workpiece firmly.
- 4.7 Pay more attention to the lubricating oil mass supply of air supply processor in use, details see Figure 2.
- 4.8 Do not touch the rotating part when pneumatic tapping machine is working.
- 4.9 Do not have the child approach the machine to avoid damage occurring.
- 4.10 Keep the irrelevant person away from the working area when the machine is working.
- 4.11 Dress properly
 - Do not wear loose clothing or jewellery. They can be caught in rotating parts.
 - Non-skid footwear is recommended when operating the machine.
 - Wear protective hair covering to contain long hair.
- 4.12 Do not operate the machine after drinking wine and during body tired.
- 4.13 Keep the machine vertical-up. Not to be tripped.
- 4.14 Maintaining the machine constantly. Keep the tap sharpening and adding the cutting oil when tapping.
- 4.15 No stacking materials in working area of the machine.
- 4.16 Keep clean in working area. Do not have the pneumatic tapping machine work in the combustible, explosive, dank, weak light and messy place.

5. Assembly instructions

Figure 1 shows the components of pneumatic tapping machine.

Pneumatic tapping machine mainly consists of lower support+ upper support + tapping head and air supply processor.

The pneumatic tapping machine is packaged after it is separated with subassemblies. Please check the quantity of the part carefully according to packing list when unpacking the packing, then assembly them as per the below step.

- 5.1 Take carefully the component out of the packing, shall not collide with each other.
- 5.2 Read and understand the assembly schematic diagram (Figure 1) before installation.
- 5.3 Choose a proper mounting table, which shall be flat, steady and has enough expansion space.
- 5.4 Make the mounting hole of fixed seat on the proper position of mounting table, and install the fixed seat assembly parts on the table.
- 5.5 Install the air supply processor and connect the adapter and air supply.
- 5.6 Install the tapping head on the fixed seat, connect the adapter and air pipe. Then turn on the air supply, the machine is ready for working.

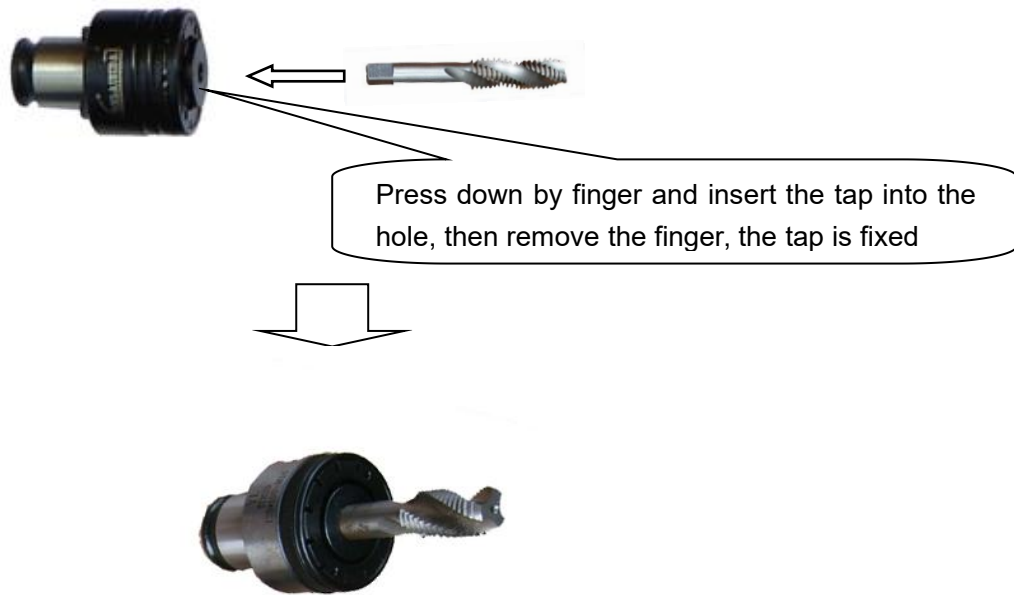
6. Assembling Instructions for Tap Holder

6.1 The machine is equipped with holder which has torque limit function

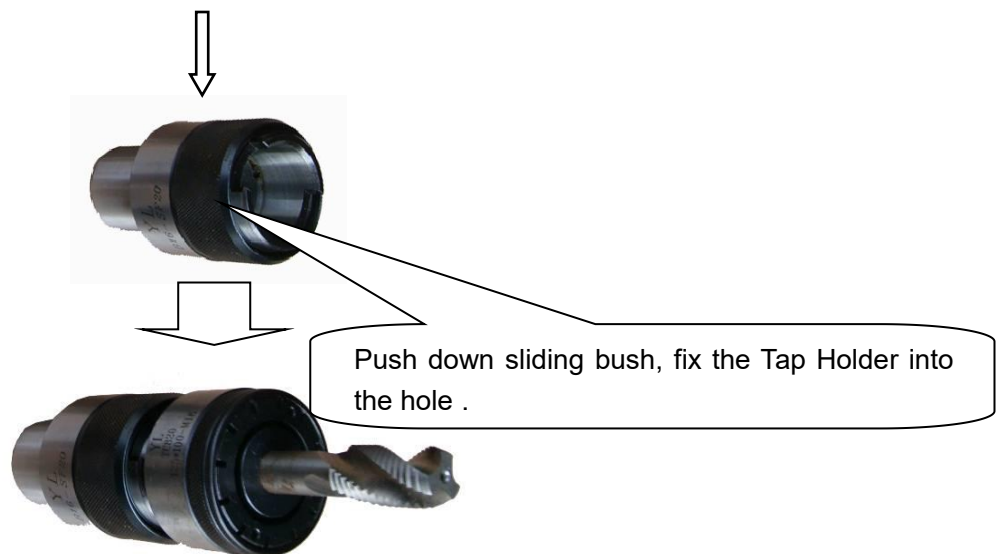
6.2 Assembly Instruction

Step1: Fix the tap

Pneumatic Tapping Machine



Step 2: Connecting the quick-change chuck



6.3 Torque Adjustment

- 1) The rated limit torque is adjusted before leaving factory. Users do not adjust again.
- 2) The rated limit torque for tap holder is as per below table, the tolerance is within $\pm 10\%$.

Spec	M3	M4	M5	M6	M8	M10	M12
Limit Torque	0.54	1.10	2.30	4.2	8.5	15	25
	N.m	N.m	N.m	N.m	N.m	N.m	N.m

- 3) If tapping on hard material, it is necessary for adjustment. Adjustment steps is as follows(see Figure 3):

Step 1: Remove the Check Ring to make adjusting nut dispart from Shell.

Step 2: Using the special spanner, turn around the adjusting nut to adjust the limit torque.

Turning in CW is increasing limit torque, and turning in CCW is reducing limit torque.

Step 3: Adjusting limit torque to required value, have Check Ring lock the adjusting nut.

Warning: Do not adjust the limit torque too higher, otherwise tap damaged.

7. Machine Operation

- 7.1 Before using the machine, please read this manual carefully and completely understand the construction of the machine.
- 7.2 Before operating the machine, please adjust the lubricating oil mass supply of air supply processor, too much lubricating oil mass supply is wasteful and too little lubricating oil mass supply will cause short life of the machine. Details see Figure 2.
- 7.3 Do not approach the rotating tap, otherwise damage occurring.
- 7.4 Tap holder operating instruction see clause 6.
- 7.5 When the tap cutting edge is worn, please resharpener or replacing, otherwise the machine is damaged by over-load.
- 7.6 Make sure the air pump can supply at least 6 Bar compressed air, and make sure the air transmission pipe is enough diameter. The air pressure meter on the air supply processor shows the air pressure value when machine working. Users shall adjust the air pressure up to around 6 Bar when the machine working.
- 7.7 Torque limit of tap holder will lower after working for some time, and overload protection will be happened in lower torque, cause pneumatic tapping machine can't work under normal condition, users can adjust the adjusting nut of tap hold to increase torque limit.

8. Regular Failure and Obviate Method

No.	Failure Phenomenon	Causing Reason	Obviate Method
1	Lubricating oil is spurt from the top of tapping head.	Air supply processor supply too much lubricating oil	Adjusting lubricating oil supply (1-3 drops per 10s)
2	Tapping head is rotating, but can not tapping	1) Air pressure is too lower	1) Adjusting air pressure up to 6 Bar.
		2)Material is too hard	2) Checking the material if it is suitable for tapping.
		3)No supply cutting oil when tapping	3)Supply cutting oil
		4)Tap cutting edge is worn	4) Replacing from a new tap
		5) Hole diameter for tapping is smaller	5) Checking the hole diameter, drill the hole up to standard size.
		6) Tap is not vertical to the surface of workpiece	6) Tapping head shall be vertical to workpiece
3	Tap holder slipping frequently	Tap holder clutch is worn	Adjusting the adjusting nut to increase torque output.

9. After-sales Service

The complete machine is one year warranty, but not include man-made failure or damage by irresistible factor.

10. Packing List

No.	Part Name	Quantity	Remark
1	Tapping head	1 pcs	
2	Tapping arm	1 set	
3	Air supply processor	1 set	
4	Tap holder	1 set	
5	Air inlet pipe	1 pcs	
6	M10*30 Socket Cap Screw	4 pcs	
7	Lubricating oil	1 bottle	Can not supply when delivery with express
8	Stop-leak tape	1 pcs	
9	Manual	1 pcs	
10			
11			
12			