

Operation Manual

ITEM NO.: **STH-12A, STH-12B, STH-12C**

PNEUMATIC TAPPING HAND TOOL

Description

The STH-12 Pneumatic Hand Tapping Tool has a die cast aluminum body with textured finish and taps holes from 2mm to 12mm diameter. Exhaust is directed away from the operator. The STH-12 Pneumatic Hand Tool is an excellent tool for tapping beams, blocks and other large castings.

Unpacking

Please check for completeness. Refer to the below figure of STH-12A, STH-12B, STH-12C

Air Tapping Hand Tool (Tap Capacity M2~M12)



Specification:

Model No.	Tap Capacity	Speed (r.p.m.)	Spindle Type	Air Consumption		Air Hose Size (mm)	Weight (kg)	Accessories
				cfm	L/min			
STH-12A	M2~M12	250	HTP/B12	14	396	9.5	2.5	Side Holder, Wrench
STH-12B	M2~M12	250	CAP10/B12	14	396	9.5	2.5	Side Holder, Wrench
STH-12C	M2~M12	250	TH1/B12	14	396	9.5	4	6pcs Torsional collets, Side Holder, Wrench

Safety Rules

- Some dust created by power sanding, grinding, drilling and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm.
- Always follow proper operating procedures as defined in this manual-even if you are familiar with use of this or similar tools. Remember that being careless for even a fraction of a second can result in severe personal injury.
- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.



Be prepared for job

- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of machine.
- Wear protective hair covering to contain long hair.
- Wear safety glasses (not everyday glasses) and shoes with non-slip soles.
- Wear dust mask and dustless clothes if operation is dusty.
- Wear ear protection if the work area may include exposure to excessive noise levels.
- Keep work area ventilation and clean. It should be properly lighted. Cluttered work areas invite accidents.
- Do not use the tools in dangerous environments or wet locations. Do not expose it to rain.
- Always disconnect tool from air supply when servicing or adjusting tool and when tool is not in use.

Preparation before operation

1. the pneumatic tapping tool operates on compressed air at pressure from 7 to 9 kgf/cm²
2. Never exceed maximum pressure.
3. Air operated tools require clean, dry, lubricated, compressed air to ensure top performance, low maintenance and long life.
4. Moisture will reduce tool performance and life if not removed from compressed air.
5. Lubricate tool with quality pneumatic tapping tool oil is required.

Note: recommend to use light and heat-resistant oil.

- If a filter-regulator-lubricator system is used, please keep 3-5 drops/minute while operating.
- If no air line lubricator is used, place five to six drops of oil into the tool body before operating. (add quality pneumatic oil from parts no. 22 and 23)

Assembly

STH-12A, STH-12B

1. Assemble the wrench (refer part no.1 and 2) from the front of tap to the tool body.
2. Position wrench at 90° to the left of body (see figure 1) and tighten wrench in position by turning handle clockwise. (Position wrench to the right if you are left handed.)
3. Insert tap (not included) into tap chuck tightening by screws to ensure the tap is tight in chuck.
 - STH-12A: by using hex wrench to adjust the screw.
 - STH-12B: by using the wrench (included) to adjust the gear.

STH-12C

1. Slide wrench (refer part no. 1 and 2) from the front of tap to the tool body.
2. Position wrench at 90° to the left of body (see figure 1) and tighten wrench in position by turning handle clockwise. (Position wrench to the right if you are left handed.)
3. Slide tap (not included) into tap holder until tap locks in place, tap can be removed by simultaneously depressing flange and pulling out tap.
4. Insert collet with tap into chuck. Pull back chuck sleeve, insert collet with tabs aligned to slots in chuck sleeve, and then release sleeve (see figure 3)

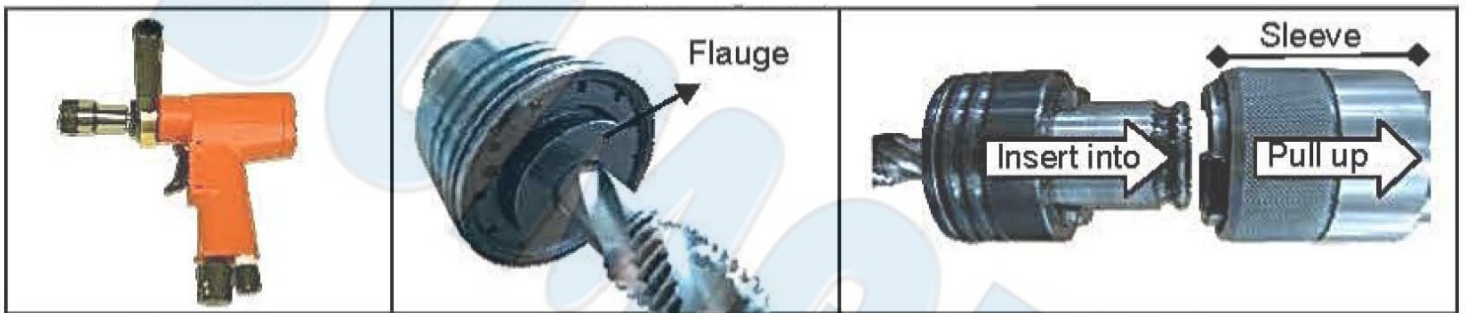


Figure 1

Figure 2

Figure 3

Operation

1. Take the spindle with tap to the hole to be tapped and place the tip of the tap in the hole.
2. Press the [L] operation lever (refer part no. 57). The tap will self-center and begin tapping.
3. After tapping to the required depth, press the [R] reverse button (refer part no. 57). The tap will reverse out from the hole.

Note:

- The signs of [L] and [R] show on the tool body
- Use only enough air pressure to perform the operation. Air pressure in excess of that which is required will make the operation inefficient and may cause premature wear or damage to the tool.

Maintenance

1. Always unplug tool prior to inspection.
2. Do not adjust, remove or maintain tool in operation.
3. Consult manual for specific maintaining and adjusting procedures.
4. Keep tool lubricated and clean for safest operation.
5. Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before switching machine on.
6. Check for damaged parts. It may affect a tool's operation.
7. Damaged parts should be properly repaired or replaced. Do not perform makeshift repairs.
8. Never brush away chips while the machine is in operation. All clean up should be done when the machine is stopped.
9. Never modify machine without consulting manufacturer.

Maintenance

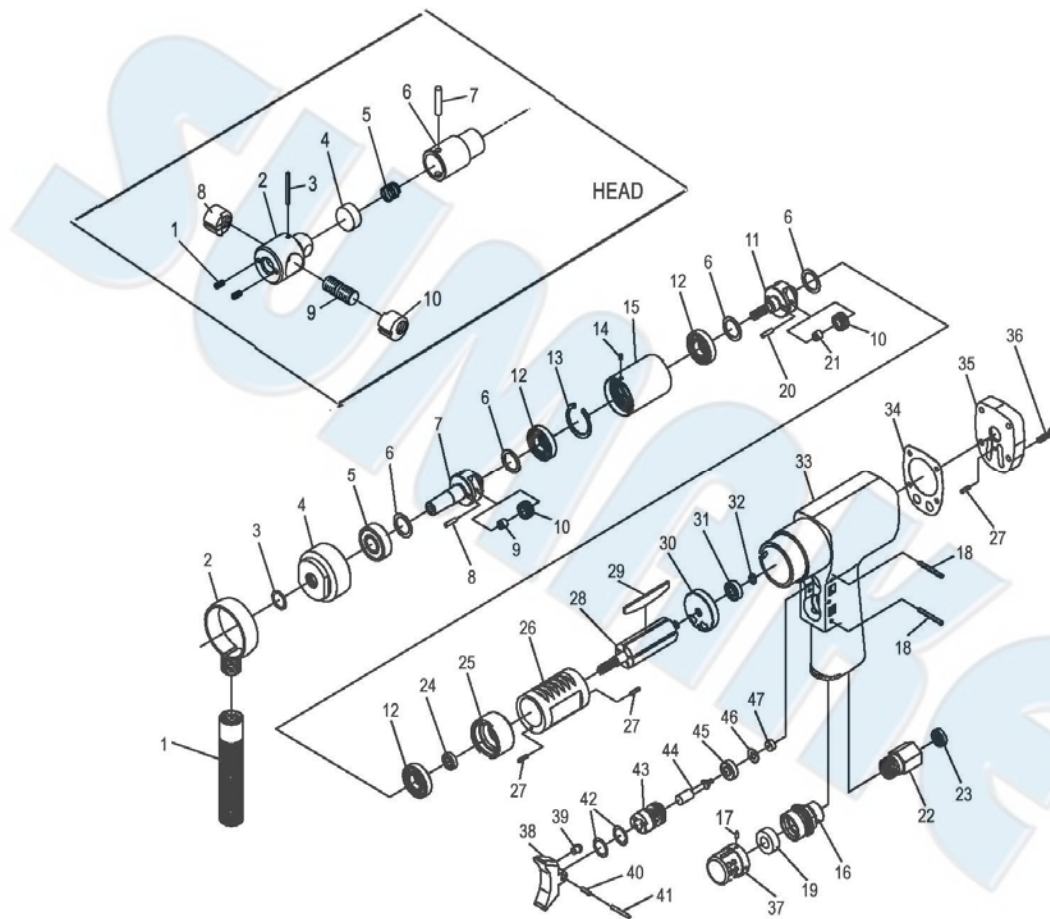
1. Keep visitors at a safe distance from work area.
2. Keep children out of workplace.
3. All workpieces must be clamped to work table then using tapping tool. It is unsafe to use your hands to hold any workpiece.
4. Do not force tool. It will work most efficiently at the rate for which it was designed.
5. Keep hands away from moving parts. Protect hands from possible injury.
6. Never leave a tool running unattended
7. Do not use tool for a long time. Please take a rest for 5-10 minutes after using one hour.

Troubleshooting Chart

Symptom	Possible cause(s)	Corrective Action
Tool runs slowly or will not operate	1. Grit in Tool	1. Flush the tool with air tool oil
	2. No oil in tool	2. Lubricate the tool according to the Lubrication instructions in the manual (see no. 5 of preparation before operation)
	3. Low air pressure	3. Check the air pressure, it needs to be between 7 to 9 kgf/cm ²
	4. Air hose leaks	4. Tighten and seal hose fittings
	5. Pressure drops	5. Shorten length of hose Note: long runs may reduce the air pressure. It requires 7 to 9 kgf/cm ²
	6. Excessive pressure drop	6. Air compressor not large enough. Please make sure the compressor can support the tool from 7 to 9 kgf/cm ²
	7. Worn vanes in motor	7. Replace any worn parts.
Moisture blowing out of tool exhaust	Water in air compressor tank	Drain tank Exhaust
Tool operates rapidly but will not tap	Damage to parts	Inspect and replace any damaged gears

STH-12A

PNEUMATIC TAPPING HAND TOOL, TAPPING CAPACITY:M2~M12



PARTS LIST

No.	Parts No.	Description	Q'ty
1	STH12-01	Fastemer Handle	1
2	STH12-02	Fastener	1
3	STH12-03	Oil Seal	1
4	STH12-04	Front Cap	1
5	STH12-05	Bearing	1
6	STH12-06	Washer	4
7	STH12-07	Planetary Gear Seat	1
8	STH12-08	Pin	2
9	STH12-09	Needle Bearing	2
10	STH12-10	Planetary Gear	4
11	STH12-11	Planetary Gear Seat	1
12	STH12-12	Bearing	3
13	STH12-13	C-Ring	1
14	STH12-14	Screw	1
15	STH12-15	Inner Gear	1
16	STH12-16	Muffler Cover	1
17	STH12-17	Screw	1
18	STH12-18	Cavity Pin	2
19	STH12-19	Muffler	1
20	STH12-20	Pin	2
21	STH12-21	Needle Bearing	1
22	STH12-22	Connector	1
23	STH12-23	Filter	1
24	STH12-24	Bearing	1
25	STH12-25	Cylinder Cap	1
26	STH12-26	Cylinder	1
27	STH12-27	Cavity Pin	3
28	STH12-28	Cylinder Arbor	1
29	STH12-29	Rotor Blade	5

No.	Parts No.	Description	Q'ty
30	STH12-30	Air Inhalant Cover	1
31	STH12-31	Bearing	1
32	STH12-32	S-Ring	1
33	STH12-33	Tool Body	1
34	STH12-34	Cylinder Back Cover Spacer	1
35	STH12-35	Cylinder Back Cover	1
36	STH12-36	Screw	4
37	STH12-37	Muffler Cover	1
38	STH12-38	Reverse Button	1
39	STH12-39	Pin	2
40	STH12-40	Cavity Pin	1
41	STH12-41	Pin	1
42	STH12-42	Oil Seal	4
43	STH12-43	Reverse Valve	2
44	STH12-44	Reverse Shaft	2
45	STH12-45	Oil Seal	2
46	STH12-46	Oil Seal	2
47	STH12-47	Oil Seal	2
Head For STH-12A			
1	STH12A-01	Stop Screw	2
2	STH12A-02	Coupling	1
3	STH12A-03	Hollow Pin	1
4	STH12A-04	Top	1
5	STH12A-05	Spring	1
6	STH12A-06	Body	1
7	STH12A-07	Pin	1
8	STH12A-08	Anchor Block	1
9	STH12A-09	Screw Bolt	1
10	STH12A-10	Anchor Block	1