

PNEUMATIC FRICTION WELDING BALER

B19, B25 Series Pneumatic Tool



OPERATIONS, COMPONENTS AND SECURITY GUIDE

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In order to ensure safety, please read the Manual carefully before operation
and keep it properly for future reference.

[2. Safety Instructions]

2. Safety instructions

Please read the Manual carefully before using the packaging machine.

General safety rules

1. Read in detail "safety features" principle, and operate the pneumatic tool properly.
2. Read the Manual carefully before operation.
3. Don't disassemble safety parts of the tool.
4. Don't wear or damage label in front of the product.
5. Don't put hand or other part of your body between packaging belt and packaging roll.

Application

This tool is specially designed for filling articles with PET packaging belt.
Applicable width of packaging belt: 1.5, 16, 18, 24mm.
Don't use the packaging belt too often.

Correct dressing

Wear safety glasses, earplugs, protective gloves, helmet, protective footwear and long sleeves shirt, fasten all buttons, take care, clear machine, long hair and cloth chain can be moved for the packaging machine.

Gas source

- Ensure the air supply pressure meet pressure and is constant air.
- Check the special requirements for all types, the air pressure shall not exceed 1.0MPa.
- Use only clean compressed air, rather than gas source in domestic source.

Ventilation

When air is likely to be polluted by lubricating oil, fumes, the ventilation should be proper.

Vibration

It's harmful for operators if performing excessive vibration for working time. The operation specification should comply to be allowed requirements of GB2894.

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[2. Safety Instructions]

Notes

Operators must wear earmuffs if the noise is higher than 85dB (A). If the noise is lower than 85dB (A), it is also recommended to wear earmuffs.

Safety glasses

If the working packaging belt breaks suddenly, it may hurt eyes and hand or foot, so operators shall wear safety glasses.

Note

While rolling the packaging belt, hold its upper part, and stand at its side. The upper belt will be cut down; be careful, there should be no people in the working field.
During maintenance and cleaning, the dust brought by air cleaner gun is harmful to eyes.

Working part

During operation, the moving part (tightening belt) may also pinch or shoot part of your body, so when the belt is up, pulling or hanging, don't touch it.

Maintenance

- Conduct daily maintenance in the machine.
- Check regularly, and remove dust with an air cleaner gun.
- Tighten the screws of tools.
- Turn off gas source when repairing parts.

Stand while rolling

This sheet leads to the blade roller may hurt hand and finger, so please wear safety gloves.

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[3. Principle of Friction fusion]

3. Principle of Friction fusion

This tool is a kind of friction fusion packaging machine. The heated thermoplastic packaging belt is fixed by the heat produced by friction motion. Hence, it is called "friction fusion".

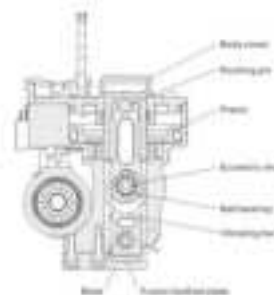
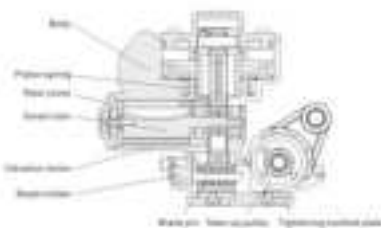
The compressed air will push the piston within air cylinder. The lower part of piston and rotating bar is connected with the rolling pin, so the rotating bar will press the heated part of packaging belt when moving down.

There is an elastic force on the upper of rotating bar. This force is connected with the recovery part of pneumatic device. The pneumatic device creates at a high speed (1000mm/s), so the rotating bar constantly regresses motion quickly. The lower parts driven by the gas back of cylinder by pneumatic motion.

Both upper and lower parts of the packaging belt are heated while rotating.

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[3. Principle of Friction fusion]



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[7. Specification Adjustment]

7. Specification Adjustment

Width of packaging belt

(1) Panel

The panel can be dimensioned from the packaging machine through removing the screen. Replace a new panel according to the dimension of the used packaging belt and the installation method of the previous panel.



(2) Location hook

The location hook of heavy roller may be recessed into through the spring pin from the roller holder.

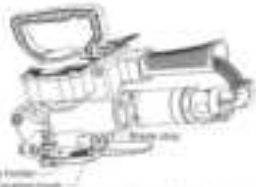
▲ Note

There is a small compression spring within the location hook. Don't lose it.

Reassembly

Choose a roller from the three sizes of roller holder according to the dimension of packaging belt. The external hole is used for 13mm packaging belt machine hole is for 14mm packaging belt, and external hole is for 15mm packaging belt.

[7. Specification Adjustment]



Distance (a) between take-up pulley and tightening toothed plate

The distance between take-up pulley and tightening toothed plate should be adjusted according to dimension of the used packaging belt. Check the distance (a) between take-up pulley and tightening toothed plate with a feeler (see shown in the figure below).



The distance (a) should be no less than the thickness of packaging belt. While delivery, this distance is set to 1.5mm more than the thickness of packaging belt.

(1) If the thickness of packaging belt is 0.5mm, place a 0.5mm thick gasket under the tightening toothed plate.

(2) If belt thickness is 0.5mm, place two 0.2mm thick gaskets under the tightening toothed plate.

(3) If belt thickness exceeds 1.5mm, insert two 0.2mm thick gaskets in the middle of both ends.

[7. Specification Adjustment]

Distance (b) between the bottom of vibrating bar and the fixed toothed plate

Measure the distance between the bottom of vibrating bar and the fixed toothed plate (with feel the above touch) with a feeler. While measuring, please follow the following steps.

(1) Press the fixed bottom plate for at least 10s, so that both plates and vibrating bar will be downward fully.

(2) Release the distance (b) with a feeler. If no gasket is used, the distance (b) has been set to 0.5mm. While thickness of packaging belt is less than 0.5mm, insert a 0.2mm gasket to the bottom of fixed toothed plate.

Note

Don't replace the distance (b) by inserting too many gaskets.

The packaging machine may be damaged if there is no clearance between the bottom of vibrating bar and the fixed toothed plate.

If the vibrating bar strikes the fixed toothed plate, both of the plate will be damaged inevitably.

[8. Disassembly]

8. Disassembly

The following is the disassembly method of parts in daily maintenance. This is the best method of replacement parts. It's hard to assemble the parts of roller body, so please send these parts to our service center for replacement.

(1) Base

(1) Pull out the base screw (A10000) on P.S. It has been plug from the rear end of the rear side of roller body.

Note: If the steel ring of joint isn't prepared fully, the base can't be pulled out.

(2) Remove 3 roller round head screws (T002) from the bottom of base (A10010), with a Allen hexagon wrench.

(3) Then, the base can be disassembled from the roller body (A10000) of the body (A10001).



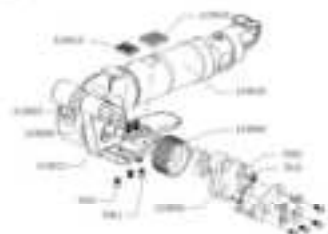
(2) Take-up pulley and tightening toothed plate

(1) Loosen the connection pin shaft (A10000) with the attached 15mm wrench, remove 50 nut (T001) and gasket (T002) with a 15mm wrench.

(2) Put the assembly of front end plate to the left so as to separate from the connection pin shaft, and disassemble the take-up pulley (A10000).

8. Disassembly

- 1) Remove 2 Motor round head screws (M10 × 70) with a Torx hexagonal wrench. Then the take-up pulley (A10010) and tightening buffer plate (A10012) can be replaced.



12. Connection pin shaft

- 1) Move body (A10004), take spring (A10002) and take (A10003) can be disassembled through pulling out the connection pin shaft (A10005).

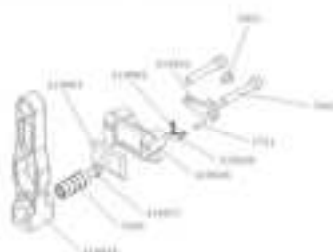


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8. Disassembly

10. Taking blade

- 1) Remove 2 Motor round head screws (M10 × 30) (T002) with a Torx hexagonal wrench. Then the blade holder (A10048) can be disassembled.
- 2) Disassemble blade and knife pin (A10071).
- 3) Check the blade, and replace a new one if it is bent.
- 4) Remove blade pin and 2 bearings (T005) simultaneously.



11. Vibration motor

- 1) Remove a M10 × 12 ball round head pin (T001) from the rear cover with a Torx hexagonal wrench, and remove the pin and of small roller (A10044).
- 2) Bearing inner (A10070), ball bearing (T003) and gasket (A10072) are disassembled from the bottom of body along with the pin roller.

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8. Disassembly



13. Body cover and pin

- 1) Remove the M10 × 12 ball round head pin (T001) from the top of body cover with a Torx hexagonal wrench.

Note: don't lose the small spring or other parts disassembled from the body.

- 2) Take out roller pin (A10052) with a Torx hexagonal wrench.
- 3) Blow the hole (diameter: 4.3mm) under the body with an air blower gun. Then pin (A10050) and piston spring (A10051) can be taken out.



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8. Disassembly

17. Vibrating bar

- 1) Take out the vibrating bar (A10013) from the bottom of body (A10001).



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9. Reassembly

9. Reassembly

(1) Vibrating bar

- Insert vibrating bar (A19015) into the bottom of body (B19001). Pay attention to the front and rear direction. Start from upper side.
- Assemble 3 ball bearings (19001) to guide pin (A19011).
- Assemble the guide pin assembly on the vibrating bar through the horizontal hole.



(2) Piston

- Insert piston spring (A19001) into the hole (promoted) formed after separating the piston in the interior of the body.
- Assemble O-ring (19002) on the piston (A19001), and add lubricating oil, and then insert this part into the hole.

Note: The front face of rocking pin must face forward.

- Insert rocking pin into the front part (A19042) of piston and vibrating bar.
- Assemble O-ring (19002) and O-ring (19001) on the body cover (A19001).
- Assemble body cover onto the above complete piston, and tighten it by 4 nut head, and then reassemble the assembly with the body.

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9. Reassembly



(3) Vibrating motor

- Assemble piston (A19001), 2 ball bearings (19001) and bearing housing on piston (A19001). Insert the piston into the body from the opening, and assemble ball bearing (19001) from the opening of the vibrating bar.
- Fix a M5x12 ball bearing housing (19001) to rear cover (A19001).

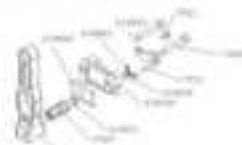


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9. Reassembly

(4) Cutting device

- Assemble blade at the front of starter pin (A19001) and confirm the right direction of blade.
- Assemble blade holder (A19001) on the blade (A19001) and tighten it by 2 nut (19001) whose head face must face outward (19001).



(5) Connection pin shaft

- Assemble head bearing spring (19001) at the front of base (A19001) and assemble motor body (A19001). Insert connection pin shaft (A19001).
- Assemble take-up pin (A19001) on the shaft of turbine (A19001).
- Insert front side plate (A19001) assembly into connection pin shaft, and insert the working of turbine into the bearing of front side plate assembly.
- Fix the head of connection pin shaft with 1 lock washer, and tighten the gear set (A19001) with nut (A19001) with 1 lock washer.



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9. Reassembly

(6) Base

- After setting base (A19001) in assembled, fix motor body (A19001) on the base through connection pin shaft (A19001).
- Assemble 3 (19001) 19001) whose head face must face outward (19001) at the bottom of base to fix it with the body.



(7) Air supply hose

- Insert 1.2 piece of air hose with stroke protection spring (A19001) into pipe joint (19001) at the end of motor body.

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1. Several factors can increase morbidity and mortality from dengue, especially in vulnerable populations and regions. The following three are key factors affecting dengue:

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