



Flaring Tool

Operation Manual

■ This product is a flaring tool intended to be used for the following 1st category and 2nd category of cooling media.

The 1st Category — R407C(E), R404A, R507A, HFC134a, and conventional cooling media

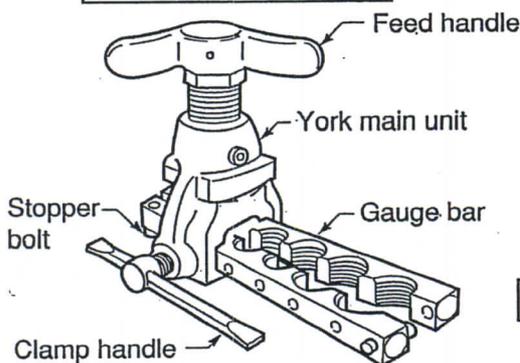
The 2nd Category — R410A

■ Adaptable Tube

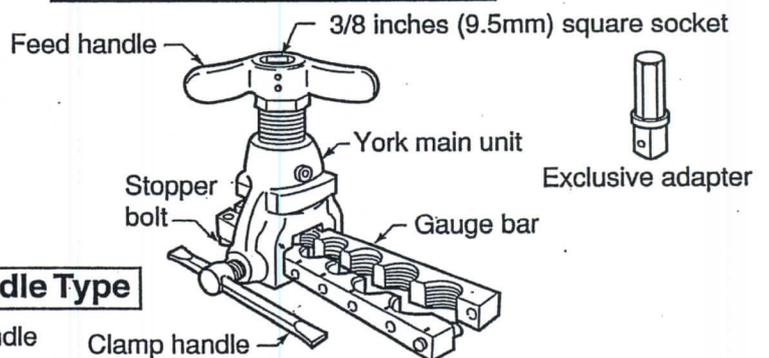
1. Category: Soft copper tube
2. Flaring angle: 45-degree flare
3. Sizes:
 - 5-hole spec. 1/4, 3/8, 5/8, 3/4 inches
 - 6-hole spec. 1/4, 5/16, 3/8, 1/2, 5/8, 3/4 inches
 - 7-hole spec. 3/16, 1/4, 5/16, 3/8, 1/2, 5/8, 3/4 inches

■ Types of Products

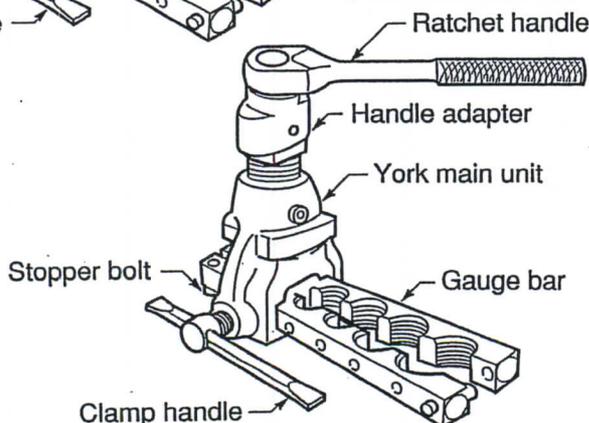
Feed-Handle Type



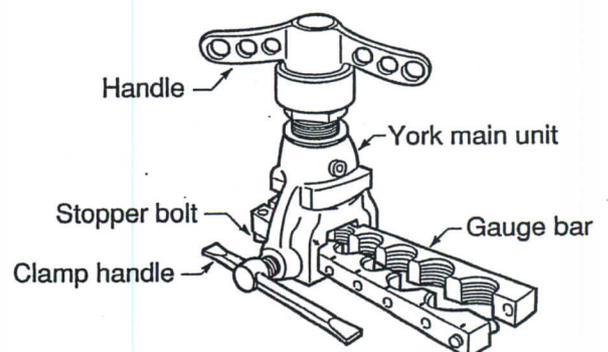
Manual/Electric Dual-Type



Ratchet-Handle Type

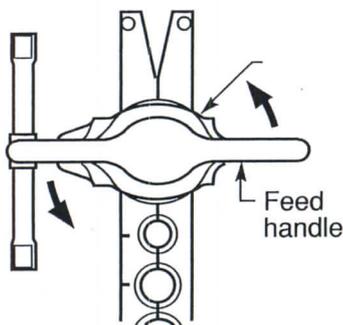


Quick-Handle Type



Flaring Procedures

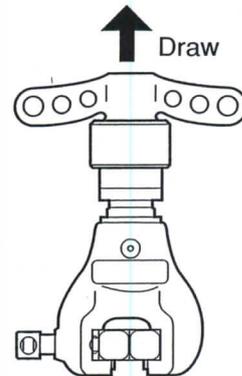
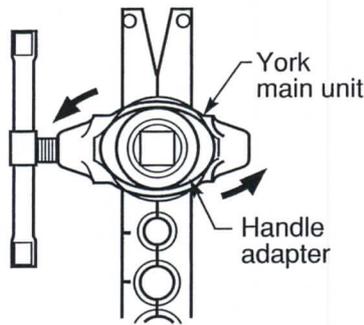
1 Feed-Handle Type/ Manual & Electric Dual-Type



(Fig.1)

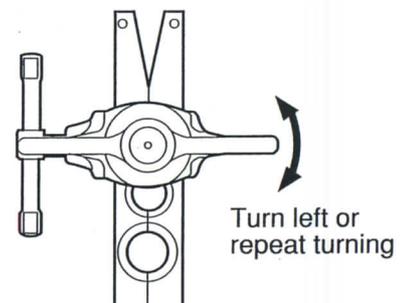
Turn left the feed handle or the handle adapter to a complete stop. (Fig. 1)

Ratchet-Handle-Type



(Fig.2)

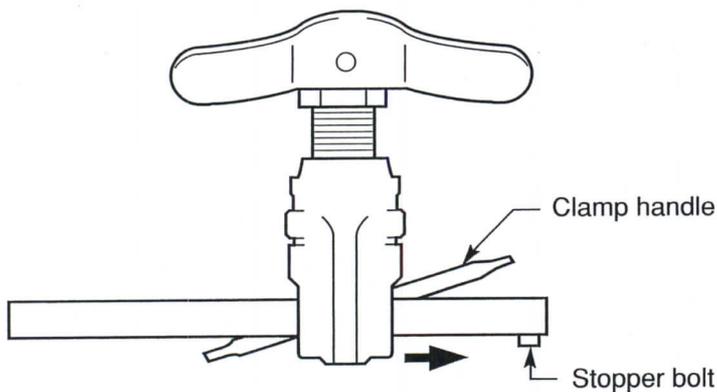
Quick-Handle Type



(Fig.3)

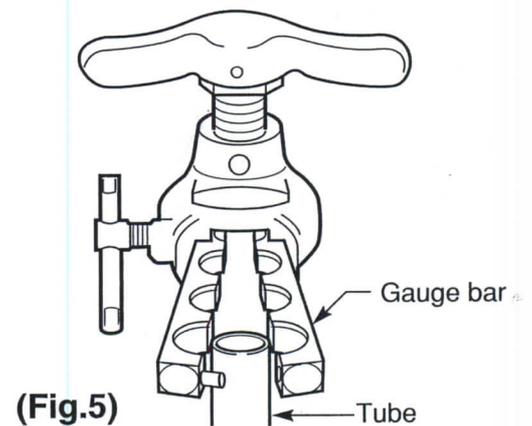
After drawing the handle to the end (Fig. 2), turn it left to a complete stop. (Fig. 3) **Here you can continue turning it left without changing your handle gripping positions.**

2 Loosen the clamp handle and move the york main unit to the stopper as far as the former contacts the latter. (Fig. 4)



(Fig.4)

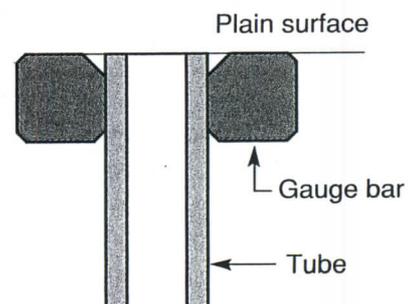
3 After parting the gauge bar right and left, insert a tube through a prescribed hole and fasten lightly the gauge bar with your hand. (Fig. 5)



(Fig.5)

4 Set the tube in the gauge bar as in the figure. (Fig. 6)

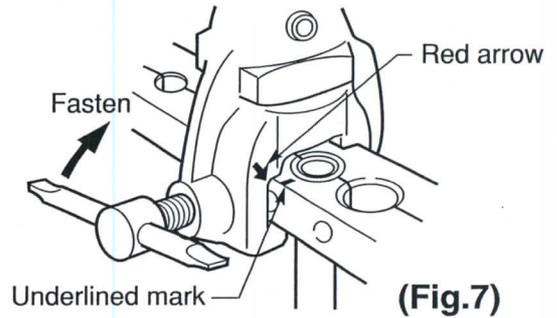
Note: Figure 6 is the figure only to meet the requirement of the standard, and in actuality there are cases where flared tubes cannot comply with the standard due to the statuses of the cutting planes of the original tubes. After flaring tubes, never fail to check the measurements of the tubes to see their compliance with the standard and then proceed with your work with them.



(Fig.6)

5

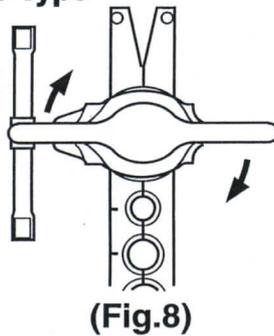
Move the yolk main unit to the position of the tube, align the red arrow of the unit and the underlined mark of the gauge bar, and then fasten the clamp handle tightly. (Fig. 7)



6

Feed-Handle Type/Manual & Electric Dual-Type

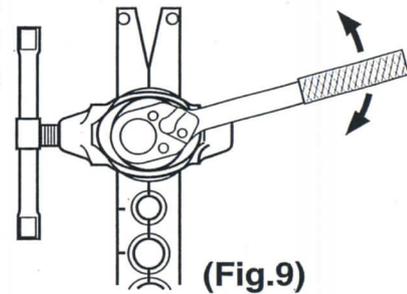
Turn the feed handle left till the clutch is disengaged. (Fig. 8)
When the clutch has been disengaged, the feed handle suddenly becomes easy to turn.



※ When you use Manual & Electric Dual-Type and select the alternative use of electric work, refer to next page for the procedures of the electric work.

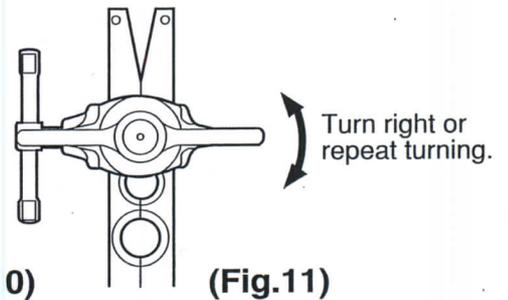
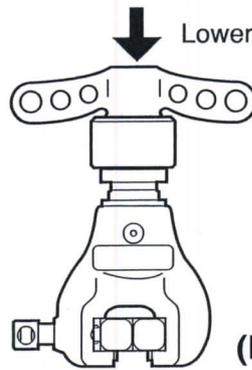
Ratchet-Handle-Type

Insert the ratchet handle into the handle adapter, and turn it right till the clutch is disengaged. (Fig.9) When the clutch has been disengaged, the ratchet handle suddenly becomes easy to turn.



Quick-Handle Type

After lowering the handle to the end (Fig. 10), turn it right till the clutch is disengaged. (Fig. 11) When the clutch has been disengaged, the handle suddenly becomes easy to turn. **Here you can continue turning it right without changing your handle gripping positions.**



7

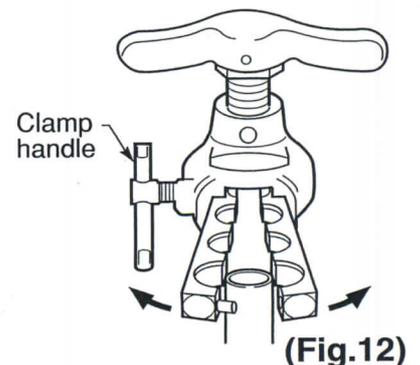
After the clutch has been disengaged, turn the feed handle or handle adapter around once or twice to make the flared plane flat.

8

Repeat Process 1.

9

Loosen the clamp handle, move the yolk main unit to the stopper bolt, and then part the gauge bar right and left and remove the tube. (Fig. 12)
When it is hard to part the gauge bar, move the yolk main unit to the stopper bolt and then fasten the clamp handle. The gauge simply parts itself right and left.

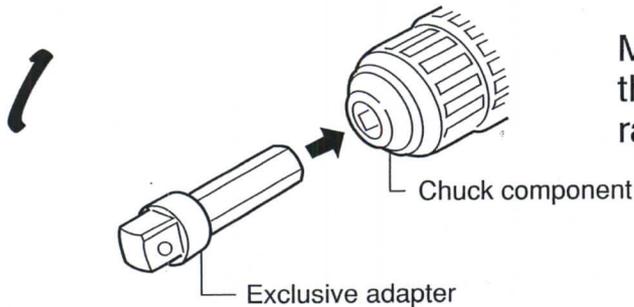


■ Electrical Work

1. Conditions for use of machine tool

- 1) It is a rechargeable driving drill.
 - 2) The optimal volt is 9.6v.
 - 3) The rotational velocity is shifted steplessly.
 - 4) The maximum torque is between 80 and 180kg-cm.
 - 5) The maximum rotational frequency is 400 r/min. or less.
 - 6) The hexagon head adapter with an opposite side distance of 8 mm can be held with the chuck.
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2. Operational procedures

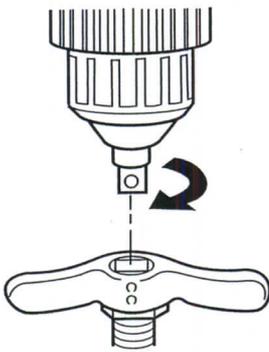


Mount the attached exclusive adapter on the machine tool, and set the drilling range at the maximum torque.

2

Follow the processes 1 to 5 of the flaring procedures at time of manual operation.

3



After confirming the rotative direction (right-hand rotation), insert the adapter into the rectangular hole of the handle, and start the flaring work, switching on the machine tool.

Note: Here, fasten the gauge bar and the machine tool tightly with your hands.

4

When the clutch of the flaring tool is disengaged and the machine tool starts running idle, switch it off and change the rotational direction to the left-hand rotation, and switch it on and slowly rotate it to reach the original status.

In this process, do not return it to the last mechanically, but stop just before it reaches the end and then return it to the original status with your hands.

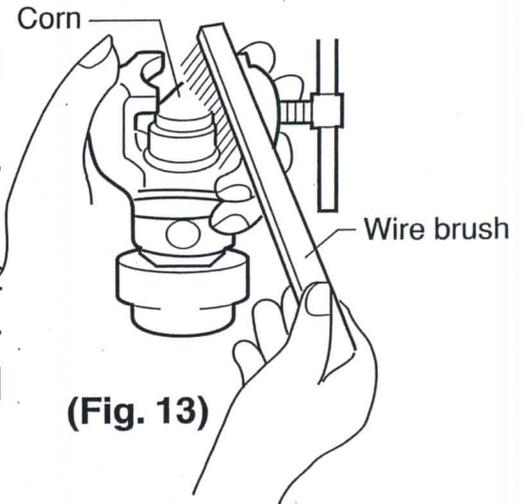
Note: If you mechanically return it to the last, the back action will be transmitted to your hand, which is very dangerous. And this might be the cause of the flaring tool.

■ Maintenance

1 Clean the flaring tool and attach lubrication oil on the screw parts and other operational components.

2 Remove tube chips from the corn component with a wire brush, etc. (Fig. 13) Take care not to give scratches to the corn.

You can dismount the gauge bar just by loosening and removing the stopper bolts (2pcs.) with the hexagonal spanner (nominal designation: 4mm).



Cautions

To correctly execute flaring process

- ◆ Confirm whether the tube is not deformed or not.
- ◆ The use of deformed tubes and tubes with burrs which are produced when tubes are cut will be the cause of leakage.
- ◆ Cut off the deformed part of the tube before use.
- ◆ When you cut tubes, deliberately cut them so that they may not be deformed.