



Applicable for electric impact driver

FLARING TOOL

Eccentric Cone Type

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—R22, R134a, R404A, R407C, R507A (Max. use pressure of 3.45MPa Cooling media)

The 2nd Category—R410A (Max. use pressure of 4.3MPa Cooling media)

■ Adaptable Tube

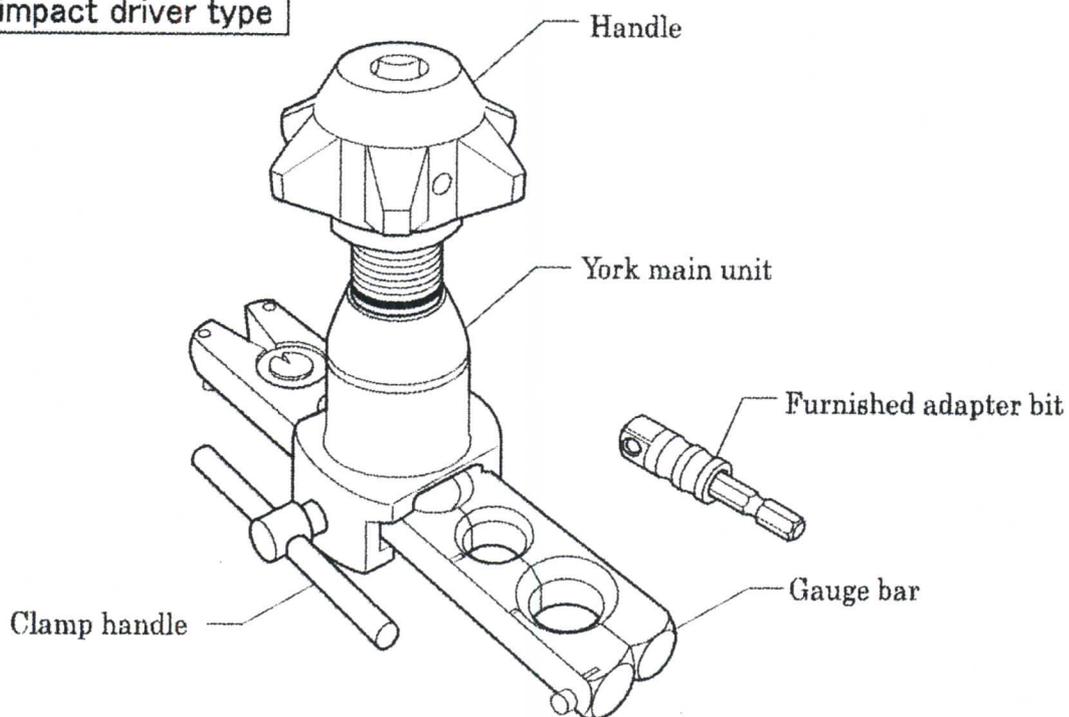
1. Category: Copper tube for conventional cooling media (JIS B8607)

2. Flaring angle: 45-degree flare

3. Sizes: 5-hole spec. 1/4, 3/8, 1/2, 5/8, 3/4 inches

■ Parts Name

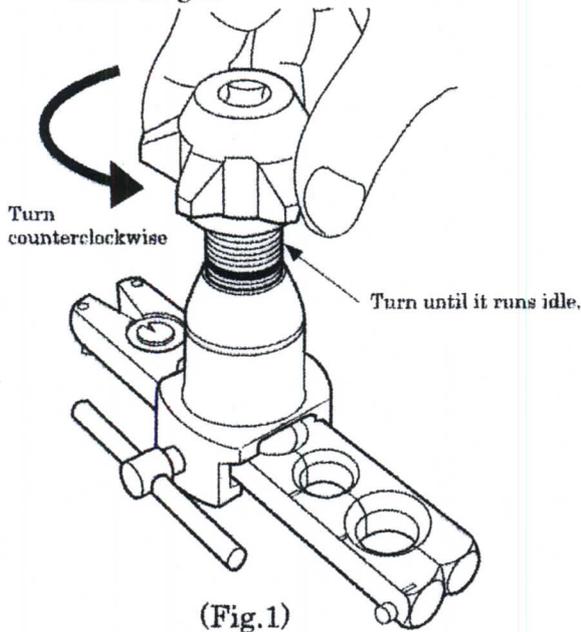
Electric impact driver type



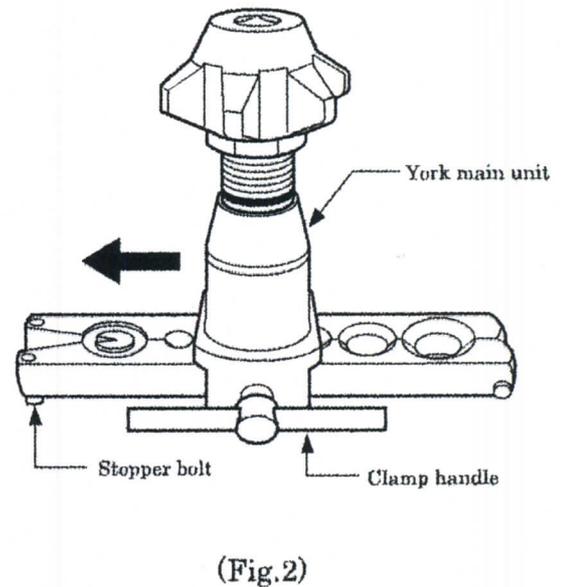
SUPER TOOL

Flaring Procedures

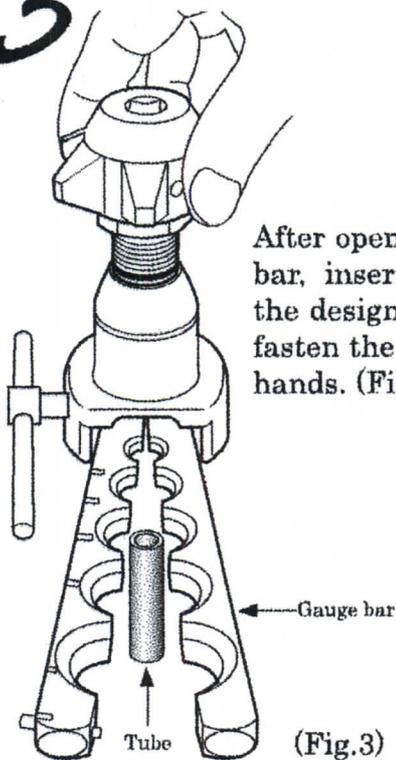
- 1** Always, before EVERY drilling work, turn handle counterclockwise until the male threads turn past the female threads and runs idle. (Fig.1)



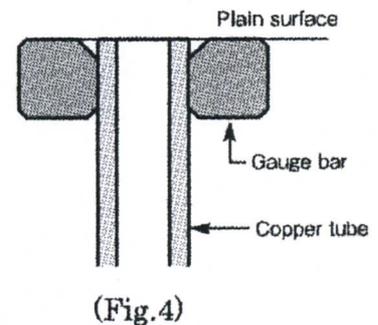
- 2** Loosen the clamp handle and move the yolk till it comes in contact with the stopper. (Fig.2)



- 3** After opening the gauge bar, insert a tube into the designated hole and fasten the bar lightly by hands. (Fig.3)

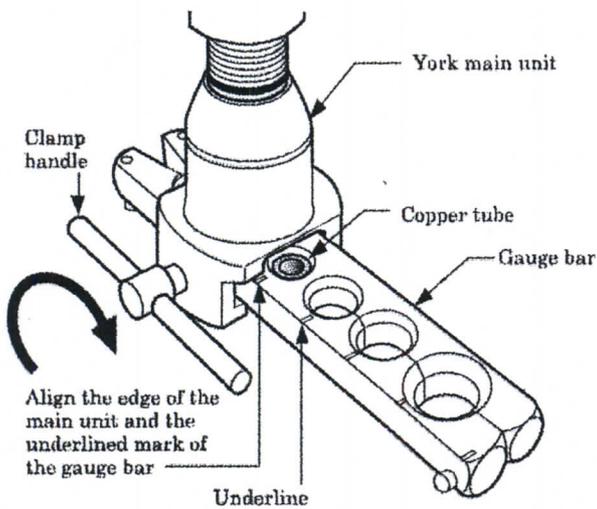


- 4** Set the copper tube in the gauge bar as in the fig.4



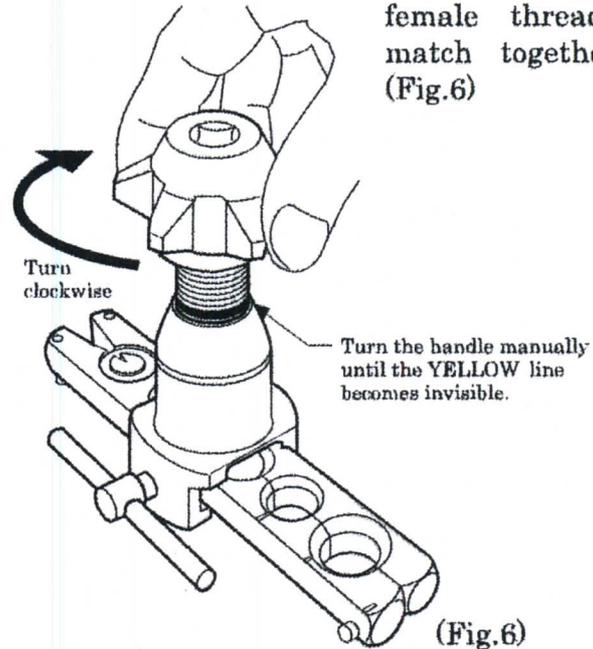
Note: Figure 4 is only a rough guide and in actuality there are cases where flared tubes cannot comply with the standard due to the conditions of the cutting planes edge of the original tubes. After flaring the tubes, never fail to check the measurements of the tubes to see their compliance with the standard and then proceed with your work with them.

- 5** Move the yolk to the right above the copper tube and align the edge of the main unit and underlined mark of the gauge bar. Then, fasten the clamp handle tightly. (Fig.5)

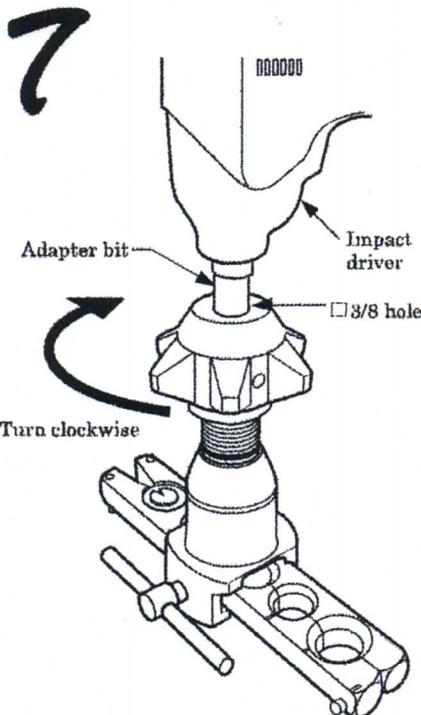


(Fig.5)

- 6** Before the use of an electric driver, make perfectly sure to follow this instruction. Turn the handle clockwise manually till the YELLOW line disappears / becomes invisible from your sight to make the male and female threads match together (Fig.6)



(Fig.6)



After installing the furnished adapter bit to the impact driver, insert the adapter into □3/8 hole on the top of the handle. Then, turn the impact driver clockwise and start the flaring work.

When the clutch of the flaring tool is disengaged and the machine tool starts running idle, the flaring work is finished. (Fig.7)

Impact power strength setting of medium or low is generally recommended for standard models.

Finer flaring can be made by lower power strength of the impact driver.

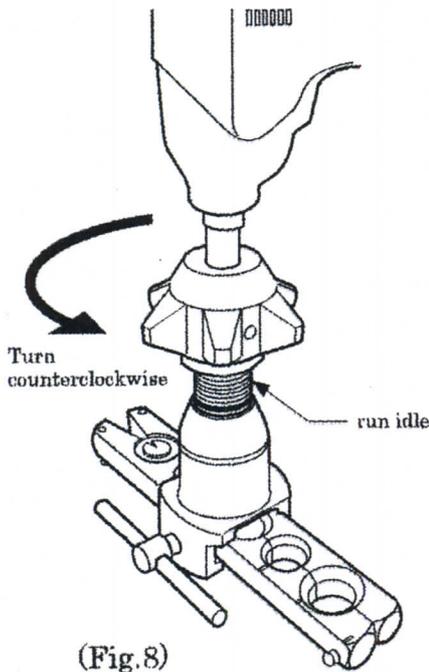
Caution:

※Never use an electric impact driver under the condition where the YELLOW line is visible. This is to avoid possible jamming/stuck caused by mismatching of male and female threads.

(Fig.7)

8 After flaring is finished, counterclockwise the driver and turn the handle backward. When the handle is returned to the top, the handle runs idle. (Fig. 8)

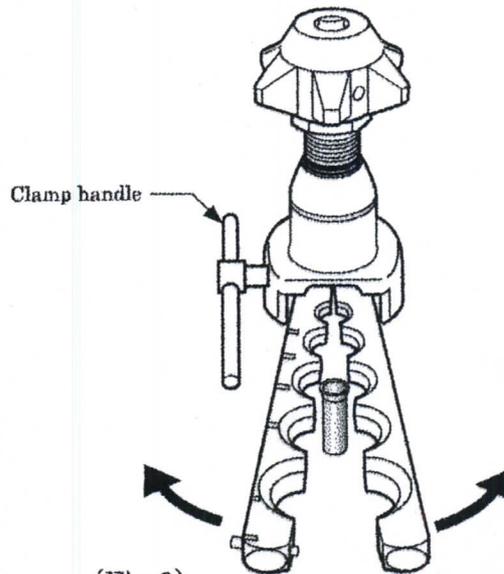
Furnished adapter bit should be taken off first before the handle is taken off.



(Fig.8)

9 Loosen the clamp handle and place the yolk till it comes in contact with the stopper bolt. Then, open the gauge bar and remove the copper tube.

When the gauge bar is too tight to open, move the yolk to the stopper bolt and turn the clamp handle. Then the gauge bar open with ease.

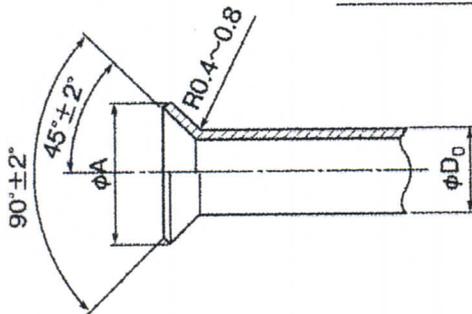


(Fig.9)

Reference

The shape and dimension of the flared tube

(Quote from JIS B8607)



(Unit: mm)

Size	φD ₀	A _{-0.4} ⁰	
		φA 1st	φA 2nd
1/4	6.35	9.0	9.1
3/8	9.52	13.0	13.2
1/2	12.70	16.2	16.6
5/8	15.88	19.4	19.7
3/4	19.05	23.3	24.0

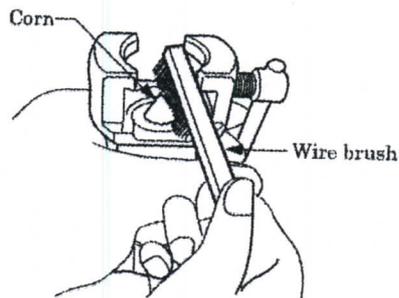
Remarks

1. Copper tube must be Material 0 or Material 0L.
2. The swing of the edge of the flaring part must be less than 0.4mm
3. The edge of first category tube is used only with the connection of the first category of flaring nut.
And the edge of second category tube is used only with the connection with the second type of flaring nut.

Maintenance

7 Clean the flaring tool and apply oil on the screw parts and other moving parts.

2 Remove tube chips from the corn with a wire brush, etc. (Fig.10)
Take care not to give scratches to the corn.
Detachment of the gauge bar from the yolk body can be done by loosening and removing the stopper bolts (2pcs.) with the hexagonal spanner (nominal designation: 4mm).



(Fig.10)



Cautions for handling

- ◆ Tools are to be used only for their proper purposes.
- ◆ Secure safe positions before operation. Keep your body balanced, always steady on your feet.
- ◆ Never use when cracks, chippings, wear and deformations are observed.
- ◆ Never drop or throw this tool since this tool makes highly precise flaring processing
- ◆ If the flaring processing is done when there are scratches on the chamfering surface(flare molding surface),it may become the cause of the gas leakage. Therefore, never use the one having scratches.
- ◆ Clamp tightly by matching the edge of the yolk body and underline mark on the gauge when positioning.
If clamped by non-matching position, it might damage the gauge bar.



Cautions to correctly execute flaring process

- ◆ Never deform the tube when cut.
- ◆ Never use the deformed tubes.
- ◆ When cutting tubes, make the tube straight and use sharp cutter.
- ◆ The burrs from the cutting must be completely eliminated by tube reamer, etc.
If this is not done perfectly, the correct flaring surface cannot be made, which might lead to the gas leakage.
- ◆ Remove tube chips or foreign substance attached to the corn and gauge bar before making flare processing.
- ◆ Avoid using the tube which has become significantly hardened.
- ◆ Confirm whether or not there are foreign substance or oil inside the tube or on the flare surface when connecting to flair union.
- ◆ Flaring shape and measurement might change according to the cut condition of the tube and also to the setting position of the gauge bar. Confirm if the flaring processing is done appropriately after the flaring-processing and the setting of the flaring tube must be carried out from the operator's responsibility.