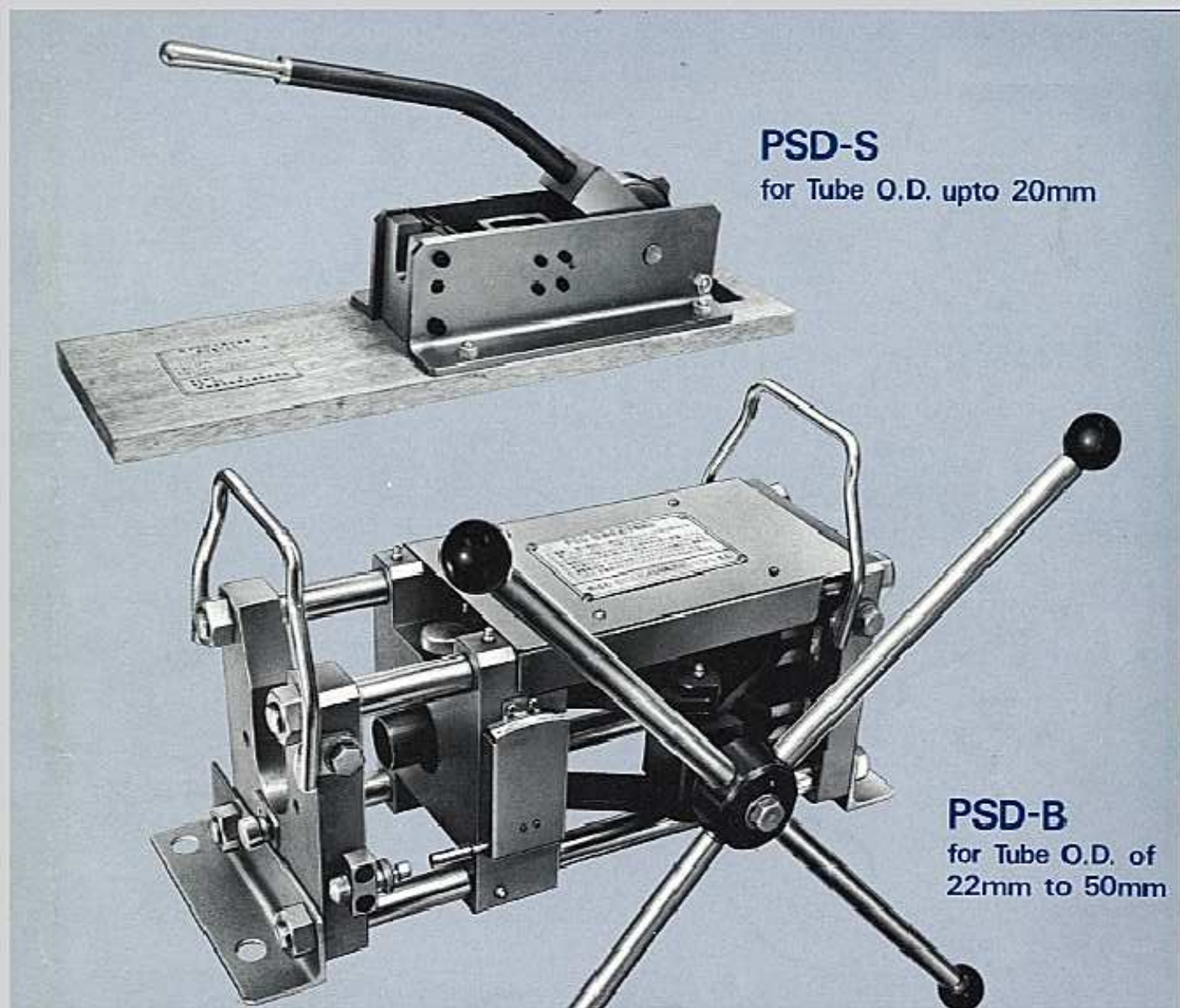




PRE-SETTING DEVICE



PSD-S
for Tube O.D. upto 20mm

PSD-B
for Tube O.D. of
22mm to 50mm

PSD-B

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PRE-SETTING DEVICE Model : PSD-B

(1) Structure and Function of Pre-Setting Device PSD-B

This device performs pre-setting of bite type fittings within the tube range of 22 to 50mm outside diameter or 1/2B to 1-1/2B by toggle mechanism application as illustrated in the figure below. Upon request, the device for 6mm to 20mm diameter will be available.

By turning the handle in the right direction, the clamping jig attached to the moving flange slides toward the fixed flange A by the toggle mechanism and forces the sleeve to bite into the tube.

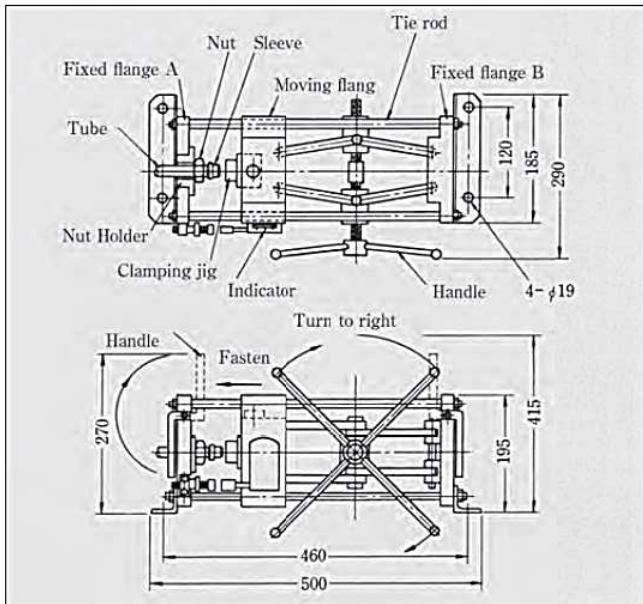


Figure 1. Diagram of pre-setting device. Weight :33kgs.

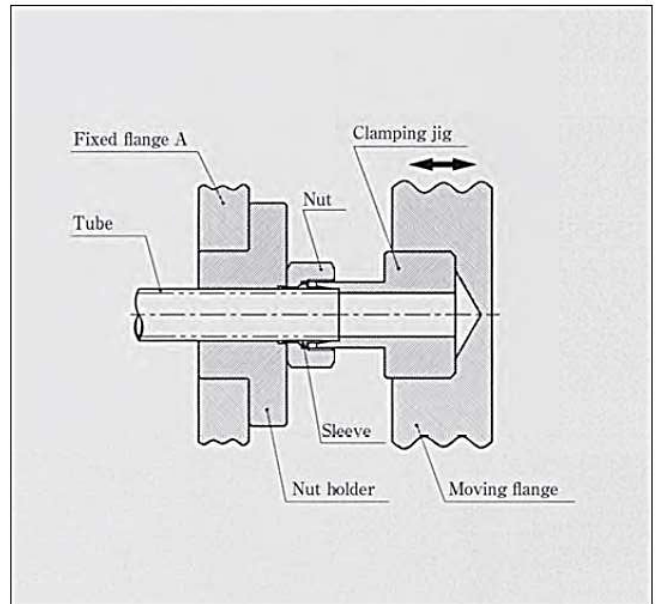


Figure 2. Details of clamping mechanism

(2) Standard Components (sold separately)

For pre-setting with this device(PSD-B), it will be necessary to select clamping jig and sleeve holder that are applicable to the outside diameter of the tube to be used from the Table below.

The clamping jig and nut holder are not included in the pre-setting device and must be separately purchased.

Outside of Tube	Clamping Jig	Sleeve Holder	Outside of Tube	Clamping Jig	Sleeve Holder
22	PJB22-000E (PSD-BJ-22E)	PJU22-00BE (PSD-BU-22E)	42	PJB42-000N (PSD-BJ-42N)	PJU42-00BN (PSD-BU-42)
25	PJB25-000E (PSD-BJ-25E)	PJU25-00BE (PSD-BU-25E)	50	PJB50-000N (PSD-BJ-50N)	Useless
28	PJB28-000E (PSD-BJ-28E)	PJU28-00BE (PSD-BU-28E)	1/2B	PJB22-000E (PSD-BJ-21N)	PJU22-00BE (PSD-BU-22)
30	PJB30-000E (PSD-BJ-30E)	PJU30-00BE (PSD-BU-30E)	3/4B	PJB27-000N (PSD-BJ-27N)	PJU28-00BE (PSD-BU-28)
35	PJB35-000E (PSD-BJ-35E)	PJU35-00BE (PSD-BU-35E)	1B	PJB34-000N (PSD-BJ-34N)	PJU35-00BE (PSD-BU-35)
38	PJB38-000N (PSD-BJ-38N)	PJU38-00BE (PSD-BU-38)	1 1/4B	PJB43-000N (PSD-BJ-43N)	PJU42-00BN (PSD-BU-42)
40	PJB40-000N (PSD-BJ-40N)	PJU40-00BN (PSD-BU-40)	1 1/2	PJB48-000N (PSD-BJ-48N)	Useless

(3) CAUTION

1) Cut the tube at a right angle to the center line, and remove all burrs from the outside and inside of the cut tube end.

⚠ CAUTION: Aim at obtaining $90^{\circ} \pm 1^{\circ}$ at the cutting angle of the tube end. Handle with care to prevent scratching deeper than 0.1 mm on the tube surface.

2) In case of bent tube, the straight portion of the tube must be longer than 80mm from the tube end.

3) Lubricate the moving parts of the device with oil.

⚠ CAUTION: Do not perform modification on the device and jig. The device may not function properly when modified.

(4) OPERATION PROCEDURE OF PRE-SETTING DEVICE PSD-S

- 1) Turn the handle to the left(counter clockwise) and open space between the moving flange and stationary flange A. Attach a nut holder which is corresponding to the tube diameter to the stationary flange A and a clamping jig to the moving flange.

⚠ **WARNING:** Place the device on a stable work bench and firmly fix the device to the work bench so that the device will not turn over or fall during use.

⚠ **CAUTION:** Firmly fix the nut holder and clamping jig with securing bolts.

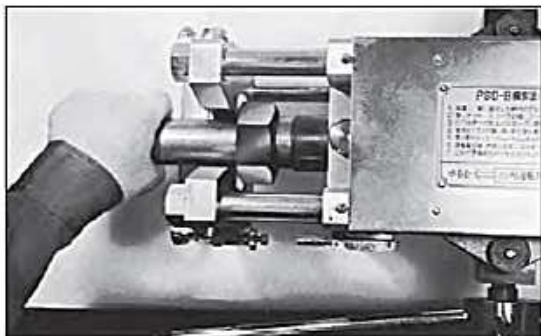


Photo 1



Photo 2

- 2) Insert the nut and the sleeve into the tube, with correct sequence and direction and set between the nut holder and the clamping jig as shown in Photo 1.

Lubricate the tapered part of the jig and the sleeve with lubricant.

⚠ **WARNING:** If the nut or the sleeve is inserted into the tube facing the wrong direction, it may cause the damage of fitting and slipping-off the tube.

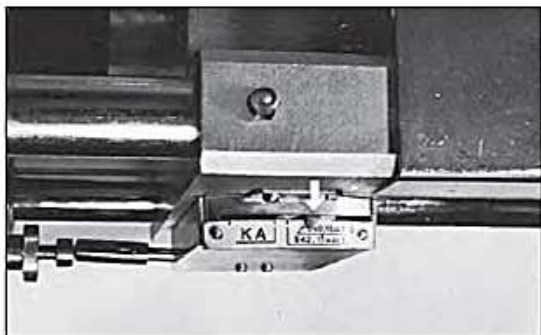


Photo 3

- 4) After adjusting the indicator, clamp by turning the handle until the pointer points to the required point on the scale. (In photo 3, the pointer is pointing to the center on the scale.)

⚠ **WARNING:** Inadequate clamping can result in leakage and tube slippage. However, excessive clamping can cause damage of fitting.

- 3) Insert the tube into the pre-setting device so that the tube end contacts the shoulder of the pre-setting device. Clamp with the handle while slightly moving the tube circumferentially (turning to the right).

When the tube no longer moves, temporarily stop clamping with the handle and set the pointer on the indicator to "0 (Zero)" scale.

Fix the adjustment screw.

⚠ **WARNING:** When clamping is performed with the tube end not contacting the shoulder in the pre-setting device, biting effect into the tube will be insufficient and cause the tube to slip.



Photo 4

- 5) Loosen by turning the handle (to the left) and remove the tube.

This completes the pre-setting procedure.

Note: An operation procedure plate is attached on the top cover of the device and can be used as reference.

(5) FINAL TIGHTENING

The tube that have been pre-set is now ready to be installed to the fitting body at the piping site. In the installing operation, the tightening torque while tightening the nut with a spanner will suddenly increase upon reaching a certain point(sharp torque rise point), and from this point an additional 1/4 turn will complete the final tightening.

- △ **WARNING:** Perform tightening of the nut on firm footing, and ascertain the safety of the surrounding.
- △ **CAUTION:** Insufficient tightening can result in leakage and tube slippage.
- △ **CAUTION:** Clean the sleeve after pre-setting and the taper bore of the fitting body with cloth and blow clean with compressed air before assembling. When foreign matter becomes caught, sealing function can be impaired.