



AHSU with base

Definitions

Statements and symbols are used in this document to identify safety concerns. Read the definitions below before setting up and operating the AHSU.

Caution: Statements that identify conditions or practices that could result in damage to the equipment or other property.



CAUTION!

Indicates cautionary information.

Warning: Statements that identify conditions or practices that could result in personal injury or loss of life.



WARNING!

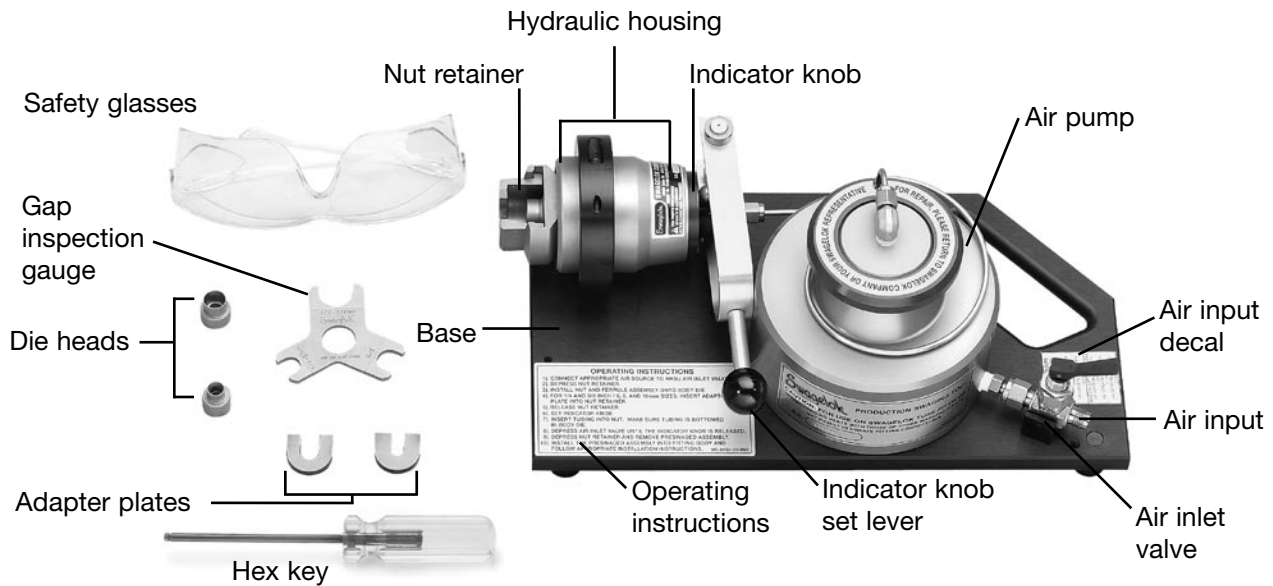
EYE PROTECTION

Eye protection must be worn while operating or working near the AHSU.

READ AND UNDERSTAND THESE INSTRUCTIONS BEFORE USING THE AHSU.



Components (Unit with Die Heads and Base)



Safety Precautions



Use safety glasses when setting up and operating the AHSU.



Do not tamper with or alter any components of the AHSU.



Return the AHSU to your independent Swagelok sales and service representative if any signs of hydraulic fluid leakage or malfunction occur.

Required Air Inlet Working Pressure, psig (bar)		
Size	Stainless Steel or Steel Tubing	Brass or Soft Copper Tubing
Fractional Series		
400	40 (2.8)	35 (2.4)
600	60 (4.2)	35 (2.4)
810	70 (4.9)	45 (3.1)
Metric Series		
6M0	40 (2.8)	35 (2.4)
8M0	50 (3.5)	35 (2.4)
10M0	60 (4.2)	40 (2.8)
12M0	70 (4.9)	45 (3.1)

Setup

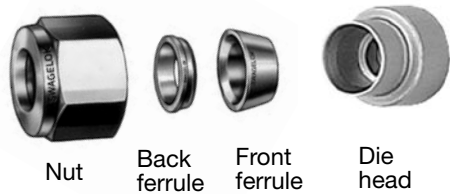
1. Connect the appropriate air source to the AHSU air inlet valve.
 2. Adjust the source pressure to the value shown in the table or on the air input decal for the tubing material and size.
- ⚠️ Air inlet pressure should be limited to less than 90 psig (6.2 bar). If the inlet pressure exceeds 90 psig, there is a pressure relief valve in the unit that will activate.

3. Select the proper size die head (reference the size marked on each die head).
4. Remove the screw located in the bore of the die head previously installed in the hydraulic housing by turning counter clockwise with the hex key.
5. Depress the nut retainer to remove the die head.
6. Depress the nut retainer and install the selected die head. Tighten the shaft screw sufficiently to keep the die tight, being careful not to break the screw by overtightening it.
7. For 1/4 and 3/8 in. and 6, 8, and 10 mm sizes, insert the appropriate adapter plate into the nut retainer. Refer to the mark on the plate for size information.

Operation

1. Install Swagelok nut and ferrules onto the die head in order and orientation shown.

Note: The front edge of the nut should line up with the groove on the outside of the die head.



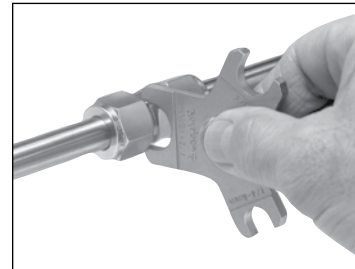
2. Set the indicator knob by pivoting the indicator knob set lever until the knob snaps into position and is flush with the hydraulic housing.
3. Insert the tubing into the nut, make sure that the tubing rests firmly on the shoulder of the die head.
4. Hold the tubing firmly in the die head and depress the air inlet valve handle for 3 seconds after the indicator knob is released. The ferrules have now been preswaged onto the tubing.
5. Release the air inlet valve handle.
6. Depress the nut retainer to remove the preswaged assembly.
7. Install the preswaged assembly into the fitting body. Turn the nut onto the fitting body until it is finger-tight. Hold the fitting body stable and tighten the nut 1/2 turn with a wrench.

Gauging Instructions

Use of the Swagelok AHSU gap inspection gauge assures the installer or inspector that the fitting has been sufficiently tightened.

Position the Swagelok gap inspection gauge adjacent to the gap between the nut and body hex:

- If the gauge **will not** enter the gap, **the fitting is sufficiently tightened.**
- If the gauge **will** enter the gap, **additional tightening is required.**



Troubleshooting

Symptom	Causes	Corrections
Tubing is difficult to remove from the AHSU after preswaging.	Tubing wall may be below recommended minimum wall thickness.	Gently rock the tubing back and forth to remove it. Use tubing that is thicker than the minimum recommended wall thickness. ⚠ Do not rotate tubing.
The indicator knob does not release.	Improper inlet pressure being used for tubing material and size.	Adjust inlet pressure to the correct value for the tubing size and material.
Oil is leaking from unit.		Return the unit to your independent Swagelok sales and service representative.
The front edge of the Swagelok nut does not line up with the groove on the outside of die head.	Improper die head being used. The ferrules are not oriented properly.	Use the proper die head. Place the ferrules in proper orientation.
The unit fails to swage sufficiently as indicated by the gap inspection gauge after assembly.	The working pressure is too low.	Verify the working air pressure is set to the appropriate pressure recommended on the air input decal. ⚠ Do not swage a tube more than once.

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Swagelok hereby warrants to the purchaser of this Product that the nonelectrical components of the Product shall be free from defects in material and workmanship for the life of the Product. All electrical components installed in or on the Product are warranted to be free from defects in material and workmanship for twelve months from the date of purchase. Manufacturer shall be liable only if the Product is used as specified in the current catalogs and written instructions.

The purchaser's remedies shall be limited to replacement and installation of any parts that fail through a defect in material or workmanship.

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