



## ADJUSTMENT INSTRUCTIONS



### **WARNING**

The compressed air which supplies motive energy for operating the eductor conveying system exits the eductor's jet nozzle at very high velocity.

- ALWAYS USE CAUTION when working near or with compressed air.
- NEVER ALLOW compressed air pressure or a jet of compressed air to contact any part of your body. Serious injury or death may result.
- ALWAYS TURN OFF, LOCK AND TAG the motive compressed air supply before adjusting or working on the eductor.
- ALWAYS WAIT until the motive compressed air has stopped flowing before loosening the jet nozzle set screws.
- ALWAYS TIGHTEN the jet nozzle set screws after servicing the eductor and before motive compressed air flow is started.
- NEVER SUPPLY compressed air to the jet nozzle unless the nozzle is securely locked in place in the eductor by its set screws. Dangerous hose whip may occur if the jet nozzle is not locked in place.

### Adjustment Instructions for Young Industries' TransVair Eductor

The TransVair eductor may be adjusted by either of two methods. The method used depends upon time and instrumentation available for adjustment and upon the required eductor conveying system capacity. Adjustment Method 1 requires no instrumentation and will provide rapid results sufficient for low to medium conveying capacities. Method 2 should be used when maximum conveying efficiency is required, and is the preferred method when the eductor must operate choke fed under a head of product.

#### **Method 1**

Tools required:

- Allen hex wrench suitable for eductor jet nozzle set screws.
- Any other tool required to allow a clear view into the eductor's product inlet.

Preparation:

- The jet nozzle must be visible through the product inlet opening of the eductor.
- Turn off, bleed to zero pressure, lock out and tag the motive compressed air source.

(cont'd)



# YOUNG INDUSTRIES TRANSVAIR® EDUCATOR

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### Adjustment Instructions for Young Industries' TransVair Educator

#### **Method 1 (cont'd)**

##### Adjustment:

- a. With the motive compressed air supply turned off and locked out, loosen the three socket head set screws which retain the jet nozzle.
- b. Adjust the axial position of the jet nozzle to place the nozzle tip 75% of the distance across the product inlet in the direction of the educator's outlet. (see Fig. 1)
- c. Tighten the three set screws which hold the jet nozzle.
- d. Replace any system components which may have been removed or opened in order to observe the net nozzle tip position.
- e. The educator is now ready for operation.

#### **Method 2**

##### Tools required:

- Allen hex wrench suitable for educator jet nozzle set screws.
- Vacuum gauge or mercury manometer with 30" Hg full scale capacity.
- Pipe bushing, reducer or adapter plate to seal product inlet of educator and to receive the vacuum gauge connector.

##### Preparation:

- Turn off, bleed to zero pressure, lock out and tag the motive compressed air source.
- Install the bushing, reducer or adapter and vacuum gauge on the product inlet of the educator. The connection should be air-tight.

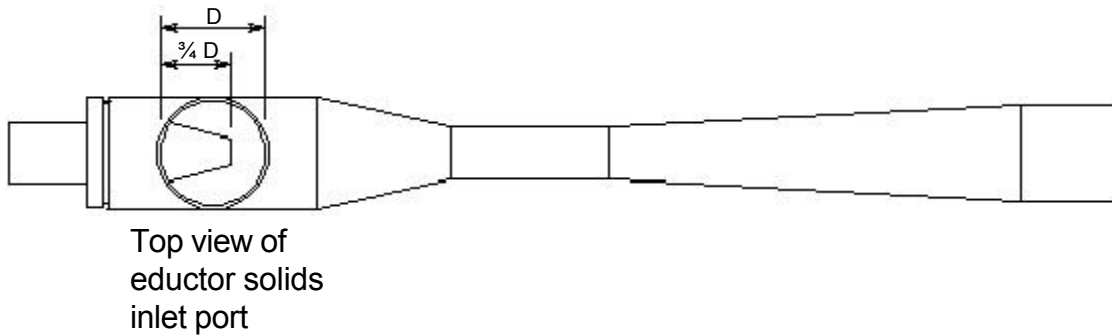
##### Adjustment:

- a. With the motive compressed air supply turned off and locked out, loosen the three socket head set screws which retain the jet nozzle.
- b. Adjust the axial position of the jet nozzle to place the nozzle tip roughly 50% of the distance across the product inlet.
- c. Re-tighten the jet nozzle retaining set screws.
- d. Start compressed air flow from the motive air supply.
- e. Note the vacuum indicated by the vacuum gauge and the position of the nozzle relative to the educator body.
- f. Repeat steps a through e, except adjust the jet nozzle inward 1/8 to 1/4 inch. This process should result in the identification of a nozzle position where the vacuum measured by the vacuum gauge at the product inlet reaches a maximum value.

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- g. With the motive air turned off and locked out, adjust the jet nozzle to the position where maximum product inlet vacuum was developed and tighten the three set screws to lock the jet nozzle in place. This completes the adjustment process.
- h. Replace any system components which may have been removed or opened.
- i. The eductor is now ready for operation

**Figure 1 - Setup Method 1**



**Figure 2 - Setup Method 2 (preferred)**

