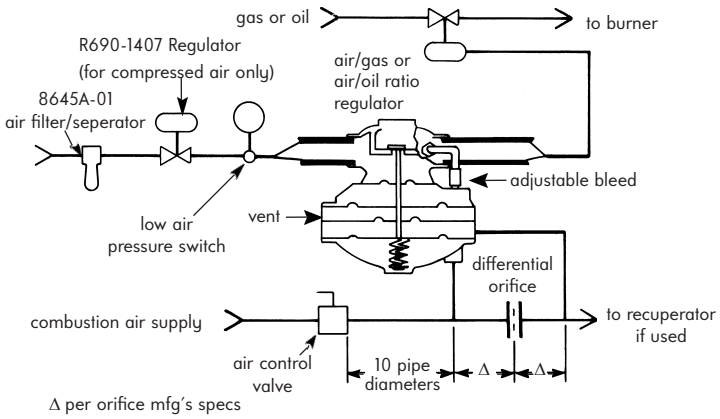
Adjusting | Impulse Multiplier

Figure 1. Typical Installation



ADJUSTING THE 7266

Initial

(compressed air and combustion air only -- gas off)

1. Set compressed air regulator (R690-1407) oultet pressure (for 7266 supply air pressure) between a maximum of 55"w.c. and a minimum of 7"w.c. above desired high fire impulse pressure.

2. Set combustion air control valve at high fire (for maximum static or differential combustion air pressure).

3. Set impulse pressure for required high fire value (up to 5 × combustion air static or differential) by adjusting Bleed Adjusting Screw: CW to decrease, CCW to increase.

4. Set combustion air control valve at low fire. A turndown rate of 5:1 is within the capability of the 7266.

5. Set impulse pressure for required low fire value by adjusting the spring on the bottom of the 7266: CW to increase, CCW to decrease. (See example below).

Example:

Q_1 = 30,000 scfh combustion air at high fire

Q_2 = 6000 scfh combustion air at low fire (5:1 turndown)

ΔP_1 = 6"wc combustion air differential pressure at high fire: Adjust **7266 bleed** for up to 30"w.c. to ratio regulator (5 × 6"w.c.).

ΔP_2= combustion air differential pressure at low fire

Using the square root law, determine ΔP_2 as follows:

$$\frac{Q_2}{Q_1} = \sqrt{\frac{\Delta P_2}{\Delta P_1}} \quad \text{or} \quad \left(\frac{Q_2}{Q_1}\right)^2 \times \Delta P_1 = \Delta P_2$$

$\left(\frac{6000}{30\,000}\right)^2$ × 6"w.c. ΔP = 0.24"w.c. low fire combustion air:

Adjust spring for 1.2"w.c. impulse (for 5 × multiplication).

FINAL

1. Light burners and adjust limiting orifice valves (1807 or1813) and ratio regulators (7218 or 7052) as in a conventional system.

2. Recheck all settings at low and high fire; readjust as necessary.

Figure 2. 7266 Impulse Multiplier (dimensions)