

## Frequently Asked Questions (FAQ's)

### **Why use Fabric Duct for HVAC&R rather than sheet metal?**

Dramatically cost effective. No painting required. Lighter loading on building structural members. Semi-skilled installation labor. No special tools or equipment. Removable for cleaning.

**How do I size a fabric duct?** Fabric duct diameter is determined by the inlet CFM and Static Pressure based on an internal air flow velocity of 1,500 FPM @ 0.5 inches Static Pressure; e.g., 8 inch diameter @ 550 CFM; 60 inch diameter @ 29,500 CFM. Q-Sox products are designed in even diameter increments.

**What is the maximum air flow inlet velocity?** 1,650 FPM for round ducts. 1,150 for auditoriums, church sanctuaries, and sound stages. 1,000 FPM for Half-round and Quarter-round duct systems.

**Can I use fabric duct with Variable Air Volume (VAV) applications?** Each fabric duct run is factory designed for a specific inlet CFM and Static Pressure. The total venting area is calculated to retain a full, round inflation over the entire length of the fabric duct at that specific inlet CFM. There may be a small percentage of increase or decrease in the inlet CFM, but the duct will still retain the inflated appearance. In the case of a VAV application, the maximum CFM is the basis of venting selection and design. However, when the fan speed is substantially lowered, the fabric duct will begin to sag (like a parenthesis) and will distribute the lower CFM over only a portion of the duct length, depending on the terminal CFM. Some of the sagging can be remedied by using Double Cable/Rail suspension for appearance sake, but the low CFM will not reach the end of the fabric duct run.

**What is required to install fabric ducts?** Q-Sox ducts are suspended by either Cable or Rail with simple tools, home handyman skills, and two installation personnel.

**What is the cost comparison between fabric and typical sheet metal ducting?** DRAMATIC! The larger the duct diameter and length, the greater the savings in material, installation time and labor, shipping, painting, and job site refuse removal. No insulation is needed with fabric ducts!

**Why are fabric ducts more comfortable than conventional metal ducts?** Fabric ducts distribute air uniformly along the entire length of the duct in contrast to drafty, high velocity metal diffusers spaced every ten or fifteen feet.

**Can you make fabric fittings as well as straight duct?** Q-Sox produces Elbows, Bull nose Tees, Reducers and Zippered Take-offs in fabric.

**What is the life expectancy of a fabric duct?** With correct supply air parameters, proper installation and pre-filter maintenance, our quality Q-Sox products should perform beyond 15 years.

**Do you inventory standard size fabric duct for speedy delivery?** No. Every Q-Sox product is custom designed and manufactured for specific system layout and performance requirements. We ship suspension hardware within one week after production drawing approvals. This gives a head start to the installation process while waiting for the fabric duct production lead time for shipment.

**What is required for on-site balancing of fabric ducts?** Nothing! Q-Sox fabric ducts are factory designed to a certain CFM and Static Pressure. If the specified parameters at the inlet are accurate, the duct is balanced upon installation. For this reason also, fabric duct CANNOT be field-cut or modified during installation due to lighting or sprinkler heads!

**What maintenance is required for fabric ducts?** Fabric ducts can be removed and cleaned, but the cleaning interval depends on the environment and regular pre-filtration attention. Permeable fabric or fabric ducts incorporating linear vents will require more frequent inspection and cleaning than fabrics with punched orifices or air jets.

**Are fabric ducts useable for return air?** No. Fabric ducts are positive, supply air devices only.

**How much does a fabric duct system weigh?** Using our heaviest fabric, a 60" diameter fabric duct with double rail and all suspension hardware weighs less than two pounds per linear foot.

**What noise levels can be expected with fabric duct?** Fabric ducts will neither generate nor reflect noise. Neither will they transmit fan or bearing vibration or "rumble". Fabric ducts behave as sound baffles absorbing rather than reflecting noise as metal ducts.

**Can I get a logo, mascot, or company name screened on a fabric duct?** YES! Cost of screening depends on duct diameter, length of the logo, number of colors, and quantity of like logos.