Primary Air Valve

Superior Design

The 22 gauge round air valve is the heart of variable air volume terminals. An automated manufacturing process produces damper blades to exacting specifications. The dampers are designed for low noise operation with minimal friction loss and a tight closure seal. Air valve leakage is less than 1% of rated capacity at 3" W.G. inlet pressure.

Solid Molded Damper Shaft

The solid damper shaft is molded using a high-impact, high-strength composite material. It is designed to eliminate condensation on the extended portion that penetrates the unit casing. The shaft allows a more secure attachment to the damper actuator, since set screws adhere to this material better than metal. The high impact material gives the shaft superior impact strain resistance compared to cast metal shafts.

The damper blade is mounted on the damper shaft and connected by means of an integral molded sleeve. The shaft rotates in low friction self lubricating bearings.

The primary air valve and damper shaft meet the criteria for UL 1995, UL 723, UL 94, NFPA 90A and B, NFPA 255, and ASTM E84.

Standard Construction Features



balancing and measurement

1/2" diameter solid composite damper shaft prevents condensation and breakage

Damper position indicator molded into end of shaft for external visual verification

Molded shaft includes integral sleeve that encompasses blade, eliminating the need for conventional fasteners that can loosen with time



Low leakage damper blade, < 1% at 3" W.G.

Two welded stop pins prevent damper from rotating more than 90°

Full circular closed cell gasket secured between two pieces of 22 gauge sheet metal without use of adhesives

