Airfoil Pressure Drop Test

All of the dampers mentioned below were ordered from their respected factory as a 24"w by 24"h damper with a factory installed actuator. These dampers were then shipped to an independent testing laboratory and pressure drop tested in duct per AMCA 500, figure 5.3. All of the test results have been converted to standard air density of .075 lb/ft³. All of the dampers except, the Greenheck sample, were tested on the same day. The pressure drops shown have the system losses deducted from them. All dampers are of a type "A" construction.

Test Size 24" x 24" Duct

	Pressure Drop, Δ P inches of w.g.			
Velocity FPM	**Leader 601-A**	**Ruskin FSD-60**	**Air Balance FA2250AE**	**Greenheck FSD 33**
4000	.38	.44	.85	.61
3500	.30	.34	.65	.47
3000	.22	.25	.48	.34
2500	.15	.17	.33	.24
2000	.10	.11	.21	.15
1500	.05	.06	.12	.09
1000	.02	.03	.05	.04

Velocity FPM	**Leader 601-C**
4000	.19
3500	.15
3000	.10
2500	.07
2000	.04
1500	.03
1000	.01

The table to the right represents a type "C" transition on Leader's model 601 airfoil blade combination fire and smoke damper. This damper has been oversized to 28" x 28" with a transition to a 24" x 24" duct. The oversize allows for 100% free area going through the damper. This data shows when type "C" transitions are requested then Leader's dampers will give you almost half the pressure drop.

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