

**Table 5-4. Sample Pressure Loss Calculations**

<b><i>Supply Air Fan</i></b>	
<b>Item</b>	<b>Pressure Drop, in. of Water [Pa]</b>
Outdoor air louver	0.05 [12.4]
Mixed-air damper plenum	0.05 [12.4]
Preheat coil	0.13 [32.3]
Filters (dirty)	0.75 [186.6]
Cooling coil (wet)	1.30 [323.4]
Heating coil	0.13 [32.3]
Fan inlet	0.50 [124.4]
VAV inlet vanes	0.75 [186.6]
Fan outlet	0.50 [124.4]
Primary ductwork	2.00 [497.6] (from calculations)
Terminal box	0.20 [49.8] (from calculations)
Air diffuser	0.10 [24.9]
<b>Total</b>	<b>6.66 [1607.1]</b>
<b><i>Return Air Fan</i></b>	
<b>Item</b>	<b>Pressure Drop, in. of Water [Pa]</b>
Room/plenum/ceiling	0.04 [9.9]
Plenum drop	0.05 [12.4]
Duct inlet	0.03 [7.5]
Fan inlet	0.30 [74.6]
Ductwork	0.50 [124.4] (from calculations)
Fan inlet vanes	0.50 [124.4]
Fan outlet	0.10 [24.9]
<b>Total</b>	<b>1.52 [378.1]</b>
<b><i>Exhaust Air Fan</i></b>	
<b>Item</b>	<b>Pressure Drop, in. of Water [Pa]</b>
Exhaust register	0.10 [24.9]
Fire damper	0.04 [9.9]
Ductwork	0.50 [124.4] (from calculations)
<b>Total</b>	<b>0.64 [159.2]</b>