

**Errata to**  
**ASHRAE Transactions, Volume 119, Part 2, Paper DE-13-036,**  
**“Energy Implications of In-Line Filtration in California Homes”**

**April 29, 2014**

**Page 406:** Figure 6 shows an incorrect axis label. Please use the corrected Figure 6 that follows.

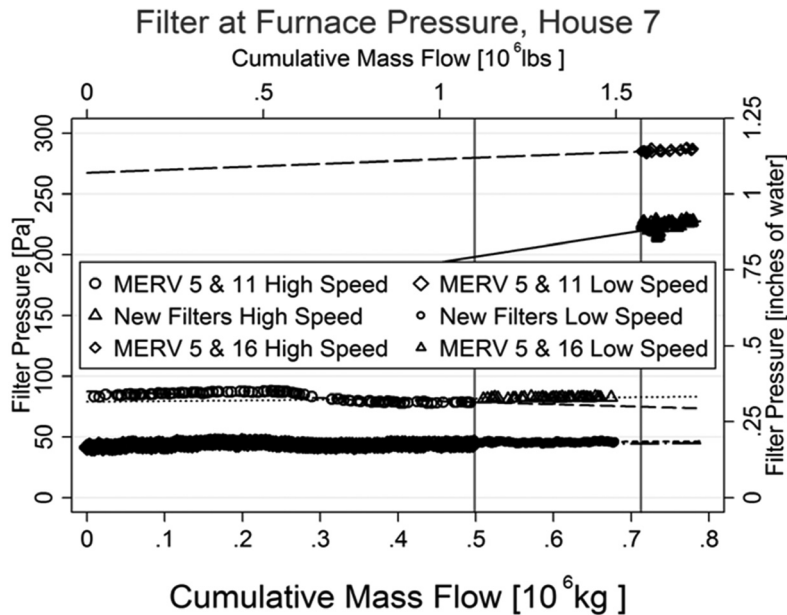


Figure 6 Pressure across the plenum filter for House 7.

**Pages 407–408:** Table 3 was published with incorrect values in the “Initial” column for “Blower Power, W (Btu/h).” The following pages include the corrected values.

**Table 3. Changes in Filter Pressure Difference and Blower Performance**

House	Motor Type	Yearly Cumulative Air Mass Flow Rate, 10 <sup>6</sup> kg/yr	Mode	Filter Pressure, Pa (psf)		Blower Flow, cfm (lps)		Blower Power, W (Btu/h)	
				Initial	Slope, Pa/10 <sup>6</sup> kg	Initial	Slope, cfm/10 <sup>6</sup> kg	Initial	Slope, W/10 <sup>6</sup> kg
1	PSC	1400	MERV 8 Cooling	64 (1.3)	-3.1	731 (345)	-13.3	351 (1190)	4.6
			MERV 8 Heating	48 (1.0)	0.7	651 (307)	-14.3	224 (762)	-5.6
			MERV 16 Cooling	89 (1.9)	3.9	659 (311)	-16.7	327 (1110)	-17.7
			MERV 16 Heating	72 (1.5)	0.5	597 (282)	-11.7	211 (717)	-6.0
2	PSC	1000	MERV 8 Cooling	129 (2.7)	n/a	695 (328)	n/a	413 (1400)	n/a
			MERV 8 Heating	118 (2.5)	32.9	736 (347)	-56.9	325 (1111)	-22.7
			MERV 16 Cooling	226 (4.7)	n/a	470 (222)	n/a	347 (1180)	n/a
			MERV 16 Heating	210 (4.4)	23.1	557 (263)	-178.7	262 (891)	-35.5
3	PSC	2500	Original MERV 11 Cooling	99 (2.1)	2.1	1334 (630)	20.0	1027 (3492)	6.3
			Replacement MERV 11 Heat	88 (1.8)	1.3	1392 (657)	-2.8	775 (2640)	0.3
			MERV 16 Cooling	183 (3.8)	n/a	967 (456)	n/a	864 (2940)	n/a
			MERV 4 Heating	65 (1.4)	0.3	1423 (672)	-31.2	739 (2510)	-14.2
			MERV 4 Cooling	80 (1.7)	2.6	1419 (670)	6.7	1047 (3560)	-19.4
4	PSC	2300	MERV 6 Cooling	143 (3.0)	6.3	790 (373)	-15.2	646 (2200)	-40.5
			MERV 6 Heating	108 (2.3)	14.3	727 (343)	42.6	568 (1930)	-20.8
			MERV 6 Ventilation	173 (3.6)	15.3	789 (372)	-42.9	624 (2120)	-6.2
			MERV 16 Cooling	289 (6.1)	19.1	451 (213)	-93.1	487 (1660)	-37.2
			MERV 16 Heating	277 (5.8)	n/a	509 (240)	-n/a	n/a	n/a
			MERV 16 Ventilation	300 (6.3)	15.3	482 (227)	-83.1	495 (1680)	-35.6
5	BPM	9400	MERV 11 Blower ON	31 (0.7)	1.6	1079 (509)	-14.2	193 (656)	0.6
			MERV 11 Heat and Cool	45 (0.9)	2.3	1730 (816)	-22.4	398 (1350)	0.7
			MERV 16 Blower ON	167 (3.5)	10.2	877 (414)	-9.4	263 (894)	4.0
			MERV 16 Heat and Cool	190 (4.0)	8.1	1113 (525)	-34.8	345 (1170)	-3.7
6	BPM	890	MERV 11, Zone: Up and Downstairs	38 (0.8)	6.8	1276 (602)	21.2	129 (439)	10.3
			MERV 11, Zone: Upstairs	87 (1.8)	11.2	1072 (506)	-123.6	348 (1180)	-4.2
			MERV 11, Zone: Downstairs	66 (1.4)	9.0	1095 (517)	0.9	348 (1180)	17.6
			MERV 16, Zone: Up and Downstairs	83 (1.7)	2.6	1278 (603)	-4.9	162 (551)	-0.4
			MERV 16, Zone: Upstairs	165 (3.5)	9.3	1002 (473)	17.2	424 (1440)	9.1
			MERV 16, Zone: Downstairs	139 (2.9)	6.6	1063 (502)	9.2	422 (1430)	1.2

**Table 3. Changes in Filter Pressure Difference and Blower Performance (Continued)**

House	Motor Type	Yearly Cumulative Air Mass Flow Rate, 10 <sup>6</sup> kg/yr	Mode	Filter Pressure, Pa (psf)		Blower Flow, cfm (lps)		Blower Power, W (Btu/h)	
				Initial	Slope, Pa/10 <sup>6</sup> kg	Initial	Slope, cfm/10 <sup>6</sup> kg	Initial	Slope, W/10 <sup>6</sup> kg
7	BPM	690	Upstream filter data:	Filter at ceiling					
			MERV 5 High Speed	32 (0.7)	50.9	1231 (581)	-12.9	534 (1820)	20.3
			MERV 5 Low Speed	16 (0.3)	30.2	591 (279)	94.7	153 (520)	53.5
			New MERV 5 Filter High Speed	34 (0.7)	29.8	1252 (591)	-17.9	533 (1810)	23.8
			New MERV 5 Filter Low Speed	17 (0.4)	14.8	660 (311)	-26.3	175 (595)	11.2
			Plenum MERV 16 High Speed	22 (0.5)	n/a	863 (407)	n/a	588 (2000)	n/a
			Plenum MERV 16 Low Speed	16 (0.3)	23.7	631 (298)	147.4	362 (1230)	-672.2
			The downstream filter data:	Filter at furnace					
			MERV 5 and 11 High Speed	83 (1.7)	-17.8				
			MERV 5 and 11 Low Speed	42 (0.9)	1.4				
			New Filters High Speed	82 (1.7)	5.4				
			New Filters Low Speed	46 (1.0)	3.1				
			Plenum MERV 16 High Speed	286 (6.0)	n/a				
			Plenum MERV 16 Low Speed	224 (4.7)	101.4				
8	PSC	900	MERV 13 Heating	132 (2.8)	1.9	921 (435)	9.4	398 (1350)	-8.1
			MERV 16 Heating	176 (3.7)	7.9	827 (390)	-7.1	352 (1200)	-22.0
9	PSC	690	MERV 7 Heating	57 (1.2)	-2.1	1088 (513)	28.9	716 (2430)	-12.5
			MERV 16 Heating	22 (0.5)	13.2	875 (413)	103.7	570 (1940)	15.9
10	PSC	600	MERV 10 High Heating	31 (0.7)	4.7	1062 (501)	-40.5	489 (1650)	-45.3
			MERV 10 Low Heating	23 (0.5)	3.1	824 (389)	-43.6	382 (1300)	-40.4
			MERV 16 High Heating	112 (2.4)	15.7	926 (437)	-51.6	432 (1470)	-43.7
			MERV 16 Low Heating	92 (1.9)	18.7	775 (366)	-5.2	354 (1200)	-20.1