

RETROFIT PERFORMANCE LEVELS FOR HIGH PERFORMANCE HVAC INSTALLATION

ALL SYSTEMS REQUIRE THAT ACCA MANUAL J, D, S AND T DESIGN IS PERFORMED AND DOCUMENTED.

ITEM	MEASURE	PERFORMANCE TARGET
1	COOL SEER/EER, HEAT AFUE/HSPF	COOLING 15 SEER / 12.5 EER- HEATING 92% AFUE/ 9.0 HSPF
2	MAXIMUM CAPACITY	1 TON / 800 SF, 18 BTUH/SF HEATING
3	COOLING COIL AIRFLOW	> 450 CFM/TON, < 0.25 WATTS/CFM
4	DUCT INSTALLATION AND AIRTIGHTNESS	3% TOTAL LEAKAGE, SHORT, FULLY EXTENDED, RAN LOW
5	DELIVERED SENSIBLE EER	>85% OF MANUFACTURER PERFORMANCE TABLES
6	ROOM AIR DELIVERY	3 DEGREE AND 5 PASCAL MAX DEVIATION*
7	VENTILATION	ASHRAE 62.2-2010 MINIMUM VENTILATION @> 5 CFM/WATT

ITEM	VERIFICATION METHODS
1	MANUFACTURER SPECIFICATIONS & AHRI MATCHED. FURNACES MUST BE DIRECT VENT.
2	CONDITIONED FLOOR AREA / MANUFACTURER NOMINAL AC TONS. SEE SIZING TABLES
3	MEASURED AT RETURN WITH OUTDOOR UNIT OFF (65F TO 78F INDOOR TEMP) MERV 8 MIN. MEASURED RMS FAN WATTS / COOLING COIL AIR FLOW CFM.
4	VISUAL INSPECTION AND CONFIRMED TOTAL LEAKAGE WITH DUCTBLASTER. DUCTS RUNS SHORT AS POSSIBLE, RAN LOW (IN ATTICS), AND INSTALLED FULLY EXTENDED, ALL TURNS MADE WITH METAL FITTINGS TO MAINTAIN INTERIOR VOLUME
5	AS MEASURED AT SUPPLY GRILLE AND COMPARED TO MANUFACTURER CAPACITY & EFFICIENCY USING EXPANDED PERFORMANCE DATA. INDOOR TEST CONDITION OF 70-78F. LIQUID LINE AT MINIMUM OF 95F FOR TESTING. OUTDOOR TEMPS <65F HEATING, >78F COOLING TESTING
6	ALL ROOM AMBIENT TEMPS MEASURED AFTER MIN. 15 MINUTE RUNTIME. NO PRESSURES ACROSS CLOSED DOORS GREATER THAN 5.0 PA. ALL OTHER INTERIOR DOORS OPEN DURING TESTING
7	MINIMUM MEASURED VENTILATION RATE AT OR EXCEEDING BPI BUILDING AIRFLOW STANDARD (BAS) USING NO MORE THAN 0.20 WATT/CFM EXHAUST ONLY, 0.45 WATT/CFM WITH HEAT RECOVERY

*ROOM AIRFLOWS MUST INITIALLY BE BALANCED TO WITHIN 10% OF DESIGN VALUES. IF ITEM 6 TESTING DEMONSTRATES OTHERWISE, VALUES CAN DEVIATE FROM 10% AS NECESSARY TO MEET 3 DEGREE ROOM AMBIENT VARIATION TARGET.

THE INSTALLERS AND CREW LEAD MUST MEASURE, VERIFY AND CERTIFY THEIR WORK MEETS ALL PERFORMANCE TARGETS. NO THIRD PARTIES.

THE SYSTEM DESIGNER MUST VERIFY AND CERTIFY THE PROJECT MEETS ALL PERFORMANCE TARGETS.

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18 BTUH / SF FURNACE, 800 SF PER TON SIZING TABLE

CONDITIONED SQUARE FOOTAGE		AC SIZING	MAX FURNACE OUTPUT		COOLING COIL MIN.	FAN WATT DRAW
MIN	MAX	MAXIMUM	MIN	MAX	REQUIRED CFM	MAXIMUM AT MIN CFM
0	1200	1.5	0	21600	675	169
1201	2000	2.0	21618	36000	900	225
2001	2400	2.5	36018	43200	1125	281
2001	2800	3.0	36018	50400	1350	338
2401	2800	3.0	43218	50400	1350	338
2801	3600	4.0	50418	64800	1800	450
3601	4400	5.0	64818	79200	2250	563