



MECHANICAL AND VENTILATION

2015 WSEC SECTION R403.5, 2015 AMENDED IRC SECTION R303.4,
2015 AMENDED IMC SECTION 403.8.5, WAC 51-51-1507, IRC SECTION M1507

JOB ADDRESS: _____

FURNACE BRAND: _____

FURNACE MODEL #: _____

ECM OR VARIABLE SPEED BLOWER? YES NO

TOTAL CONDITIONED FLOOR AREA _____ SF

OF BEDROOMS _____

REQ AIR FLOW _____ CFM

*TABLE 403.8.1 *TABLE 2A *TABLE M1507.3.3(1)

CONTINUOUS VENTILATION

INTERMITTENT VENTILATION

* REFER TO TABLE 403.8.5.1 OR M1507.3.3(2)

EFFICACY RATING _____ CFM / WATT

* REFER TO TABLE R403.51

RUN % _____

FACTOR _____

INSTALLED AIR FLOW _____ CFM

METHOD

WHOLE HOUSE SUPPLY FAN

VOLUME _____ DUCT SIZE _____

WA ST AMENDED IMC 403.8.5.2
WAC 51-51-1507 IRC SECTION M1507.3.4

*REFER TO TABLE: IMC 403.8.5.2 OR IRC M1507.3.6.2 FOR SIZING
*PROVIDE SUBMITTAL FOR VERIFICATION

WHOLE HOUSE EXHAUST FAN WITH OUTDOOR AIR INLETS

MAKE _____

MODEL _____

VENTILATION RATE AT .25 W.G. _____

SONE RATING AT .1 W.G. _____

WA ST AMENDED IMC 403.8.6
WAC 51-51-1507 IRC SECTION M1507.3.4

*PROVIDE SUBMITTAL FOR VERIFICATION

INTEGRATED FORCED AIR SYSTEM

VOLUME _____ CFM

DUCT SIZE _____

WA ST AMENDED IMC 403.8.7
WAC 51-51-1507 IRC SECTION M1507.3.5
WA STATE AMENDED IMC R403.5.1 ***EXCEPTION***

FLEX DUCT

RIGID DUCT

*PROVIDE SUBMITTAL FOR VERIFICATION

HEAT RECOVERY VENTILATOR (HRV / ERV)

MAKE _____

MODEL _____

VENTILATION RATE AT .25 W.G. _____

SONE RATING AT .1 W.G. _____

WA ST AMENDED IMC 403.8.6
WAC 51-51-1507 IRC SECTION M1507.3.7

*PROVIDE SUBMITTAL FOR VERIFICATION

ALTERNATE SYSTEM DESIGN

MAKE _____

MODEL _____

VENTILATION RATE AT .25 W.G. _____

SONE RATING AT .1 W.G. _____

WA ST AMENDED IMC 403.8.11
ASHRAE 62.2-2013

*PROVIDE SUBMITTAL FOR VERIFICATION
*REFER TO TABLE 2A

TABLE M1507.3.3(1), 403.8.1, 2A					
(Square Feet)	NUMBER OF BEDROOMS				
	0 - 1	2 - 3	4 - 5	6 - 7	>7
	Airflow in CFM				
<1,500	30	45	60	75	90
1,501 – 3,000	45	60	75	90	105
3,001 – 4,500	60	75	90	105	120
4,501 – 6,000	75	90	105	120	135
6,001 – 7,500	90	105	120	135	150
>7,501	105	120	135	150	165

**TABLE R403.5.1
MECHANICAL VENTILATION SYSTEM FAN EFFICACY**

FAN LOCATION	AIR FLOW RATE MINIMUM (CFM)	MINIMUM EFFICACY (CFM / WATT)	AIR FLOW RATE MAXIMUM (CFM)
Range Hood	Any	2.8 cfm/watt	Any
In-line fan	Any	2.8 cfm/watt	Any
Bathroom, utility room	10	1.4 cfm/watt	<90
Bathroom, utility room	90	2.8 cfm/watt	Any

**TABLE 403.8.5.2
PRESCRIPTIVE SUPPLY FAN DUCT SIZING**

Specified Volume from Table 403.8.1	Minimum Smooth Duct Diameter	Minimum Flexible Duct Diameter
50-90 cfm	4 inch	5 inch
90-150 cfm	5 inch	6 inch
150-120 cfm	6 inch	7 inch
250-400 cfm	7 inch	8 inch

**TABLE M1507.3.3(2)
INTERMITTENT WHOLE-HOUSE MECHANICAL VENTILATION RATE FACTORS^{a,b}**

Run-Time Percentage in Each	25%	33%	50%	66%	75%	100%
Factor	4	3	2	1.5	1.3	1

a. For ventilation system run-time values between those given, the factors are permitted to be determined by interpolation.

b. Extrapolation beyond the table is prohibited