

Test number 119  
 Category # Cat. #1  
 Test Date 2/8/2011  
 Operator Anthony Tronerud  
 Stove Model FF 30 Serial Number 120110009

Run Time 160 min  
 Wood Type Crib Wood  
 Total Fuel Weight 40.3 lb  
 Moisture Content 17.65 %

Qin (HHV) 293410.00 BTU  
 Qin (LHV) 256622.00 BTU  
 Qout 229940.00 BTU  
 Qoutput 86227.5 BTU/hr

**Emissions Summary**

Burn Rate	BR	5.826707257 kg/hr	$E_T$	9.51 g
Particulate Matter	Mn	2.8 mg	$E_{g/MJ}$	0.04 g/MJ
Volume of Gas	Vm(std)	23.08966708 ft <sup>3</sup>	$E_{lb/MMBTU \text{ input HHV}}$	0.07 lb/MMBTU input HHV
Gas Velocity	Vs	11.69 ft/sec	$E_{lb/MMBTU \text{ input LHV}}$	0.08 lb/MMBTU input LHV
Particulate Concentration	Cs	0.000121266 g/dscf	$E_{lb/MMBTU \text{ output}}$	0.09 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	29396.67 dscf/hr	$E_{g/hr}$	3.56 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr \text{ 10,000 BTU}}$	0.16 g/hr 10,000 BTU

Test number 120  
 Category # Cat. #3  
 Test Date 2/10/2011  
 Operator Anthony Tronerud  
 Stove Model FF 30 Serial Number 120110009

Run Time 380.6 min  
 Wood Type Cord Wood  
 Total Fuel Weight 50.2 lb  
 Moisture Content 20.37 %

Qin (HHV) 350890.00 BTU  
 Qin (LHV) 306896.00 BTU  
 Qout 265063.00 BTU  
 Qoutput 41786.07462 BTU/hr

### Emissions Summary

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Burn Rate	BR	2.982228862 kg/hr	$E_T$	31.24 g
Particulate Matter	Mn	9.2 mg	$E_{g/MJ}$	0.11 g/MJ
Volume of Gas	Vm(std)	54.42451855 ft <sup>3</sup>	$E_{lb/MMBTU \text{ input HHV}}$	0.20 lb/MMBTU input HHV
Gas Velocity	Vs	11.43 ft/sec	$E_{lb/MMBTU \text{ input LHV}}$	0.22 lb/MMBTU input LHV
Particulate Concentration	Cs	0.000169041 g/dscf	$E_{lb/MMBTU \text{ output}}$	0.26 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	29138.66 dscf/hr	$E_{g/hr}$	4.93 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr \text{ 10,000 BTU}}$	0.19 g/hr 10,000 BTU

Test number 0126  
 Category # Cat. #3  
 Test Date 10/4/2011  
 Operator Kory Johnson  
 Stove Model FF30 Serial Number 120110009

Run Time 171.1 min  
 Wood Type Crib Wood  
 Total Fuel Weight 52.5 lb  
 Moisture Content 21.80 %

Qin (HHV) 368397.00 BTU  
 Qin (LHV) 340391.00 BTU  
 Qout 329435.00 BTU  
 Qoutput 115523.6704 BTU/hr

### Emissions Summary

Burn Rate	BR	6.856244584 kg/hr	$E_T$	7.40 g
Particulate Matter	Mn	2.4 mg	$E_{g/MJ}$	0.02 g/MJ
Volume of Gas	$V_m(\text{std})$	24.13968046 ft <sup>3</sup>	$E_{\text{lb/MMBTU input HHV}}$	0.04 lb/MMBTU input HHV
Gas Velocity	$V_s$	10.59 ft/sec	$E_{\text{lb/MMBTU input LHV}}$	0.05 lb/MMBTU input LHV
Particulate Concentration	Cs	9.94214E-05 g/dscf	$E_{\text{lb/MMBTU output}}$	0.05 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	26090.62 dscf/hr	$E_{g/hr}$	2.59 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr 10,000 BTU}$	0.08 g/hr 10,000 BTU

Test number 0127  
 Category # Cat. #1  
 Test Date 10/5/2011  
 Operator Kory Johnson  
 Stove Model FF30 Serial Number 120110009

Run Time 476.1 min  
 Wood Type Crib Wood  
 Total Fuel Weight 48.92 lb  
 Moisture Content 20.70 %

Qin (HHV) 346471.00 BTU  
 Qin (LHV) 320131.00 BTU  
 Qout 295853.00 BTU  
 Qoutput 37284.56207 BTU/hr

## Emissions Summary

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Burn Rate	BR	2.316889349 kg/hr	$E_T$	16.76 g
Particulate Matter	Mn	5.2 mg	$E_{g/MJ}$	0.05 g/MJ
Volume of Gas	$V_m(\text{std})$	68.7198826 ft <sup>3</sup>	$E_{\text{lb/MMBTU input HHV}}$	0.11 lb/MMBTU input HHV
Gas Velocity	$V_s$	10.96 ft/sec	$E_{\text{lb/MMBTU input LHV}}$	0.12 lb/MMBTU input LHV
Particulate Concentration	Cs	7.56695E-05 g/dscf	$E_{\text{lb/MMBTU output}}$	0.12 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	27909.57 dscf/hr	$E_{g/hr}$	2.11 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr 10,000 BTU}$	0.07 g/hr 10,000 BTU

Test number 0128  
 Category # Cat. #2  
 Test Date 10/6/2011  
 Operator Kory Johnson  
 Stove Model FF30 Serial Number 120110009

Run Time 348.1 min  
 Wood Type Crib Wood  
 Total Fuel Weight 53 lb  
 Moisture Content 21.80 %

Qin (HHV) 372099.00 BTU  
 Qin (LHV) 343811.00 BTU  
 Qout 334217.00 BTU  
 Qoutput 57607.06693 BTU/hr

### Emissions Summary

Burn Rate	BR	3.402113939 kg/hr	$E_T$	7.61 g
Particulate Matter	Mn	2.2 mg	$E_{g/MJ}$	0.02 g/MJ
Volume of Gas	$V_m(\text{std})$	47.87724281 ft <sup>3</sup>	$E_{\text{lb/MMBTU input HHV}}$	0.05 lb/MMBTU input HHV
Gas Velocity	$V_s$	11.26 ft/sec	$E_{\text{lb/MMBTU input LHV}}$	0.05 lb/MMBTU input LHV
Particulate Concentration	Cs	4.59508E-05 g/dscf	$E_{\text{lb/MMBTU output}}$	0.05 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	28548.07 dscf/hr	$E_{g/hr}$	1.31 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr 10,000 BTU}$	0.04 g/hr 10,000 BTU

Test number	0129		
Category #	Cat. #1		
Test Date	11/29/2011		
Operator	Kory Johnson		
Stove Model	FF30	Serial Number	120110009
Run Time	190 min	414	Eff run time
Wood Type	Cord Wood		
Total Fuel Weight	40.2 lb		
Moisture Content	14.62 %		
Qin (HHV)	300172.00 BTU		
Qin (LHV)	262536.00 BTU		
Qout	243842.00 BTU		
Qoutput	77002.73684 BTU/hr		

### Emissions Summary

Burn Rate	BR	5.023977143 kg/hr	$E_T$	12.42 g
Particulate Matter	Mn	3.6 mg	$E_{g/MJ}$	0.05 g/MJ
Volume of Gas	Vm(std)	26.87610493 ft <sup>3</sup>	$E_{lb/MMBTU \text{ input HHV}}$	0.09 lb/MMBTU input HHV
Gas Velocity	Vs	11.43 ft/sec	$E_{lb/MMBTU \text{ input LHV}}$	0.10 lb/MMBTU input LHV
Particulate Concentration	Cs	0.000133948 g/dscf	$E_{lb/MMBTU \text{ output}}$	0.11 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	29287.21 dscf/hr	$E_{g/hr}$	1.80 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr \text{ 10,000 BTU}}$	0.16 g/hr 10,000 BTU

Test number 0130  
 Category # Cat. #1  
 Test Date 12/15/2011  
 Operator Kory Johnson  
 Stove Model FF30 Serial Number 120110009

Run Time 960.1 min If test was a cold start  
 Wood Type Cord Wood Eff run time min  
 Total Fuel Weight 50.9 lb  
 Moisture Content 15.69 %

Qin (HHV) 376178.00 BTU  
 Qin (LHV) 329013.00 BTU  
 Qout 251777.00 BTU  
 Qoutput 15734.4235 BTU/hr

## Emissions Summary

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Burn Rate	BR	1.24718928 kg/hr	$E_T$	24.55 g
Particulate Matter	Mn	6.8 mg	$E_{g/MJ}$	0.09 g/MJ
Volume of Gas	$V_m(\text{std})$	133.4035927 ft <sup>3</sup>	$E_{\text{lb/MMBTU input HHV}}$	0.14 lb/MMBTU input HHV
Gas Velocity	$V_s$	11.70 ft/sec	$E_{\text{lb/MMBTU input LHV}}$	0.16 lb/MMBTU input LHV
Particulate Concentration	Cs	5.09731E-05 g/dscf	$E_{\text{lb/MMBTU output}}$	0.21 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	30097.47 dscf/hr	$E_{g/hr}$	1.53 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr 10,000 BTU}$	0.06 g/hr 10,000 BTU

Test number 131  
 Category # Cat. #2  
 Test Date 1/3/2012  
 Operator Kory Johnson  
 Stove Model FF30 Serial Number 120110009

Run Time 617 min If test was a cold start  
 Wood Type Cord Wood Eff run time min  
 Total Fuel Weight 50 lb  
 Moisture Content 15.73 %

Qin (HHV) 369410.00 BTU  
 Qin (LHV) 323093.00 BTU  
 Qout 288859.00 BTU  
 Qoutput 28090.01621 BTU/hr

## Emissions Summary

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Burn Rate	BR	1.905737955 kg/hr	$E_T$	13.47 g
Particulate Matter	Mn	3.9 mg	$E_{g/MJ}$	0.04 g/MJ
Volume of Gas	$V_m(\text{std})$	85.44909964 ft <sup>3</sup>	$E_{\text{lb/MMBTU input HHV}}$	0.08 lb/MMBTU input HHV
Gas Velocity	$V_s$	11.25 ft/sec	$E_{\text{lb/MMBTU input LHV}}$	0.09 lb/MMBTU input LHV
Particulate Concentration	Cs	4.56412E-05 g/dscf	$E_{\text{lb/MMBTU output}}$	0.10 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	28709.60 dscf/hr	$E_{g/hr}$	1.31 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr 10,000 BTU}$	0.05 g/hr 10,000 BTU



Test number 132  
 Category # Cat. #2  
 Test Date 1/10/2012  
 Operator Kory Johnson  
 Stove Model FF30 Serial Number 120110009

Run Time 627 min If test was a cold start  
 Wood Type Cord Wood Eff run time min  
 Total Fuel Weight 49.44 lb  
 Moisture Content 21.14 %

Qin (HHV) 348939.00 BTU  
 Qin (LHV) 305189.00 BTU  
 Qout 283418.00 BTU  
 Qoutput 27121.33971 BTU/hr

## Emissions Summary

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Burn Rate	BR	1.771526479 kg/hr	$E_T$	21.60 g
Particulate Matter	Mn	6.4 mg	$E_{g/MJ}$	0.07 g/MJ
Volume of Gas	$V_m(\text{std})$	87.10224656 ft <sup>3</sup>	$E_{\text{lb/MMBTU input HHV}}$	0.14 lb/MMBTU input HHV
Gas Velocity	$V_s$	11.01 ft/sec	$E_{\text{lb/MMBTU input LHV}}$	0.16 lb/MMBTU input LHV
Particulate Concentration	Cs	7.34769E-05 g/dscf	$E_{\text{lb/MMBTU output}}$	0.17 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	28125.17 dscf/hr	$E_{g/hr}$	2.07 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr 10,000 BTU}$	0.07 g/hr 10,000 BTU

Category #  
 Test Date  
 Operator  
 Stove Model

Cat. #1  
 2/20/2012  
 Kory Johnson  
 FF30

Serial Number 120110009

Run Time 224.1 min  
 Wood Type Cord Wood  
 Total Fuel Weight 50 lb  
 Moisture Content 14.50 %

If test was a cold start  
 Eff run time 862.1 min  
 calculated

Qin (HHV) 385000.00 BTU  
 Qin (LHV) 335000.00 BTU  
 Qout 285500.00 BTU  
 Qoutput 76439.08969 BTU/hr

### Emissions Summary

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Burn Rate	BR	5.303309307 kg/hr	$E_T$	13.80 g
Particulate Matter	Mn	4.1 mg	$E_{g/MJ}$	0.05 g/MJ
Volume of Gas	$V_m(\text{std})$	31.14663141 ft <sup>3</sup>	$E_{\text{lb/MMBTU input HHV}}$	0.08 lb/MMBTU input HHV
Gas Velocity	$V_s$	11.12 ft/sec	$E_{\text{lb/MMBTU input LHV}}$	0.09 lb/MMBTU input LHV
Particulate Concentration	Cs	0.000131635 g/dscf	$E_{\text{lb/MMBTU output}}$	0.11 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	28058.39 dscf/hr	$E_{g/hr}$	0.96 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr 10,000 BTU}$	0.13 g/hr 10,000 BTU

## Test Summary

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Test number	0134	
Category #	Cat. #1	
Test Date	4/18/2012	
Operator	Jennifer Kokesch	
Stove Model	FF30	Serial Number 120110009
Run Time	260.1 min	If test was a cold start
Wood Type	Cord Wood	Eff run time 260.1 min
Total Fuel Weight	45.7 lb	
Moisture Content	16.23 %	
Qin (HHV)	335000.00 BTU	
Qin (LHV)	300000.00 BTU	
Qout	252500.00 BTU	
Qoutput	58246.82814 BTU/hr	

## Emissions Summary

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Burn Rate	BR	4.114020521 kg/hr	$E_T$	12.01 g
Particulate Matter	Mn	3.2 mg	$E_{g/MJ}$	0.05 g/MJ
Volume of Gas	$V_{m(std)}$	32.60926482 ft <sup>3</sup>	$E_{lb/MMBTU \text{ input HHV}}$	0.08 lb/MMBTU input HHV
Gas Velocity	$V_s$	11.15 ft/sec	$E_{lb/MMBTU \text{ input LHV}}$	0.09 lb/MMBTU input LHV
Particulate Concentration	Cs	9.81316E-05 g/dscf	$E_{lb/MMBTU \text{ output}}$	0.10 lb/MMBTU output
Avg. Gas Flow Rate	$Q_{sd}$	28231.54 dscf/hr	$E_{g/hr}$	2.77 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr \text{ 10,000 BTU}}$	0.11 g/hr 10,000 BTU

## Test Summary

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Test number	135		
Category #	Cat. #1		
Test Date	4/25/2012		
Operator	Kory Johnson		
Stove Model	FF30	Serial Number	120110009
Run Time	349.1 min	If test was a cold start	
Wood Type	Crib Wood	Eff run time	min
Total Fuel Weight	40.16 lb		
Moisture Content	16.97 %		
Qin (HHV)	297754.78 BTU		
Qin (LHV)	260422.25 BTU		
Qout	191069.95 BTU		
Qoutput	32839.29315 BTU/hr		

## Emissions Summary

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Burn Rate	BR	2.676696126 kg/hr	$E_T$	201.01 g
Particulate Matter	Mn	53 mg	$E_{g/MJ}$	1.00 g/MJ
Volume of Gas	Vm(std)	42.93181749 ft <sup>3</sup>	$E_{lb/MMBTU \text{ input HHV}}$	1.49 lb/MMBTU input HHV
Gas Velocity	Vs	11.08 ft/sec	$E_{lb/MMBTU \text{ input LHV}}$	1.70 lb/MMBTU input LHV
Particulate Concentration	Cs	0.001234516 g/dscf	$E_{lb/MMBTU \text{ output}}$	2.32 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	27985.37 dscf/hr	$E_{g/hr}$	34.55 g/hr
			$E_{g/kg}$	0.06 g/kg
			$E_{g/hr \text{ 10,000 BTU}}$	1.81 g/hr 10,000 BTU

Test number 0092  
 Category # Cat. #2  
 Test Date 6/4/2010  
 Operator Matt Waldal  
 Stove Model FF 60 KW Serial Number 1234

Run Time 315.117 min  
 Wood Type Crib Wood  
 Total Fuel Weight 103.47 lb  
 Moisture Content 22.86 %

Qin (HHV) 681506.00 BTU  
 Qin (LHV) 572498.00 BTU  
 Qout 599504.00 BTU  
 Qoutput 114148.84 BTU/hr

### Emissions Summary

Burn Rate	BR	7.273717022 kg/hr	$E_T$	73.97 g
Particulate Matter	Mn	17.5 mg	$E_{g/MJ}$	0.12 g/MJ
Volume of Gas	Vm(std)	44.83610088 ft <sup>3</sup>	$E_{lb/MMBTU\ input\ HHV}$	0.24 lb/MMBTU input HHV
Gas Velocity	Vs	14.10 ft/sec	$E_{lb/MMBTU\ input\ LHV}$	0.28 lb/MMBTU input LHV
Particulate Concentration	Cs	0.00039031 g/dscf	$E_{lb/MMBTU\ output}$	0.27 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	36084.32 dscf/hr	$E_{g/hr}$	14.08 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr\ 10,000\ BTU}$	0.23 g/hr 10,000 BTU

Test number 0091  
 Category # Cat. #2  
 Test Date 6/3/2010  
 Operator Matt Waldal  
 Stove Model FF 60 kW Serial Number 1234

Run Time 314.617 min  
 Wood Type Crib Wood  
 Total Fuel Weight 101.8 lb  
 Moisture Content 18.98 %

Qin (HHV) 686707.00 BTU  
 Qin (LHV) 576868.00 BTU  
 Qout 577949.00 BTU  
 Qoutput 110219.5368 BTU/hr

### Emissions Summary

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Burn Rate	BR	7.401434908 kg/hr	$E_T$	57.72 g
Particulate Matter	Mn	14 mg	$E_{g/MJ}$	0.09 g/MJ
Volume of Gas	Vm(std)	45.24243968 ft <sup>3</sup>	$E_{lb/MMBTU \text{ input HHV}}$	0.19 lb/MMBTU input HHV
Gas Velocity	Vs	13.91 ft/sec	$E_{lb/MMBTU \text{ input LHV}}$	0.22 lb/MMBTU input LHV
Particulate Concentration	Cs	0.000309444 g/dscf	$E_{lb/MMBTU \text{ output}}$	0.22 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	35573.31 dscf/hr	$E_{g/hr}$	11.01 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr \text{ 10,000 BTU}}$	0.19 g/hr 10,000 BTU

Test number 0090  
 Category # Cat. #3  
 Test Date 6/2/2010  
 Operator Matt Waldal  
 Stove Model FF 60 Kw 120V Serial Number Northwest 1

Run Time 173.1 min  
 Wood Type Crib Wood  
 Total Fuel Weight 96 lb  
 Moisture Content 23.05 %

Qin (HHV) 634436.00 BTU  
 Qin (LHV) 532958.00 BTU  
 Qout 373127.00 BTU  
 Qoutput 129333.4489 BTU/hr

### Emissions Summary

Burn Rate	BR	12.26639211 kg/hr	$E_T$	31.13 g
Particulate Matter	Mn	7.6 mg	$E_{g/MJ}$	0.08 g/MJ
Volume of Gas	Vm(std)	25.12966009 ft <sup>3</sup>	$E_{lb/MMBTU \text{ input HHV}}$	0.11 lb/MMBTU input HHV
Gas Velocity	Vs	14.18 ft/sec	$E_{lb/MMBTU \text{ input LHV}}$	0.13 lb/MMBTU input LHV
Particulate Concentration	Cs	0.000302431 g/dscf	$E_{lb/MMBTU \text{ output}}$	0.18 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	35682.62 dscf/hr	$E_{g/hr}$	10.79 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr \text{ 10,000 BTU}}$	0.29 g/hr 10,000 BTU

Test number 0089  
 Category # Cat. #4  
 Test Date 6/1/2010  
 Operator Matt Waldal  
 Stove Model FF 60 Kw 120V Serial Number Northwest 1

Run Time 169.617 min  
 Wood Type Crib Wood  
 Total Fuel Weight 102 lb  
 Moisture Content 22.57 %

Qin (HHV) 672502.00 BTU  
 Qin (LHV) 564935.00 BTU  
 Qout 533342.00 BTU  
 Qoutput 188663.4005 BTU/hr

## Emissions Summary

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Burn Rate	BR	13.35275573 kg/hr	$E_T$	45.77 g
Particulate Matter	Mn	10.4 mg	$E_{g/MJ}$	0.08 g/MJ
Volume of Gas	Vm(std)	23.08268334 ft <sup>3</sup>	$E_{lb/MMBTU \text{ input HHV}}$	0.15 lb/MMBTU input HHV
Gas Velocity	Vs	14.28 ft/sec	$E_{lb/MMBTU \text{ input LHV}}$	0.18 lb/MMBTU input LHV
Particulate Concentration	Cs	0.000450554 g/dscf	$E_{lb/MMBTU \text{ output}}$	0.19 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	35933.66 dscf/hr	$E_{g/hr}$	16.19 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr \text{ 10,000 BTU}}$	0.30 g/hr 10,000 BTU



Test number 0077  
 Category # Cat. #3  
 Test Date 5/3/2010  
 Operator Matt Waldal  
 Stove Model FF 60 kw 120v Serial Number Northwest 1

Run Time 333.617 min  
 Wood Type Crib Wood  
 Total Fuel Weight 103 lb  
 Moisture Content 21.27 %

Qin (HHV) 726178.00 BTU  
 Qin (LHV) 635130.00 BTU  
 Qout 536546.00 BTU  
 Qoutput 96496.16177 BTU/hr

### Emissions Summary

Burn Rate	BR	6.928831032 kg/hr	$E_T$	32.26 g
Particulate Matter	Mn	7.8 mg	$E_{g/MJ}$	0.06 g/MJ
Volume of Gas	Vm(std)	48.66475695 ft <sup>3</sup>	$E_{lb/MMBTU \text{ input HHV}}$	0.10 lb/MMBTU input HHV
Gas Velocity	Vs	14.21 ft/sec	$E_{lb/MMBTU \text{ input LHV}}$	0.11 lb/MMBTU input LHV
Particulate Concentration	Cs	0.00016028 g/dscf	$E_{lb/MMBTU \text{ output}}$	0.13 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	36201.14 dscf/hr	$E_{g/hr}$	5.80 g/hr
			$E_{g/kg}$	0.38 g/kg
			$E_{g/hr \text{ 10,000 BTU}}$	0.11 g/hr 10,000 BTU

Test number 0078  
 Category # Cat. #2  
 Test Date 5/4/2010  
 Operator Anthony Tronerud  
 Stove Model FF 60 kW Serial Number Northwest 1

Run Time 606.1 min  
 Wood Type Crib Wood  
 Total Fuel Weight 100 lb  
 Moisture Content 21.43 %

Qin (HHV) 704090.00 BTU  
 Qin (LHV) 615811.00 BTU  
 Qout 471836.00 BTU  
 Qoutput 46708.72793 BTU/hr

### Emissions Summary

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Burn Rate	BR	3.697890247 kg/hr	$E_T$	50.29 g
Particulate Matter	Mn	11.7 mg	$E_{g/MJ}$	0.10 g/MJ
Volume of Gas	Vm(std)	86.33880311 ft <sup>3</sup>	$E_{lb/MMBTU \text{ input HHV}}$	0.16 lb/MMBTU input HHV
Gas Velocity	Vs	14.36 ft/sec	$E_{lb/MMBTU \text{ input LHV}}$	0.18 lb/MMBTU input LHV
Particulate Concentration	Cs	0.000135513 g/dscf	$E_{lb/MMBTU \text{ output}}$	0.23 lb/MMBTU output
Avg. Gas Flow Rate	Qsd	36740.71 dscf/hr	$E_{g/hr}$	4.98 g/hr
			$E_{g/kg}$	0.00 g/kg
			$E_{g/hr \text{ 10,000 BTU}}$	0.11 g/hr 10,000 BTU