

Efficiency analysis report

Sample audit A_copy_11/08/2017 13:32:46

Audited from 2013-08-12 09:20 until 2013-09-02 13:23

SIM_COLLECTION_0

Supply side calculated flow 0 (Timespan)

2017-09-26

EQUIPMENT DATA

Existing configuration

ZR4/51		ZT90 VSD		ZT160 FF		ZT30 FF	
Rated pressure	116 psi	Rated pressure	130 psi	Rated pressure	108.1 psi	Rated pressure	116 psi
Full load	187 kW	Full load	139 kW	Full load	175 kW	Full load	32.8 kW
Offload	56 kW	Offload	20 kW	Offload	58 kW	Offload	10.1 kW
Full output	433.7 m³/min	Full output	226.3 m³/min	Full output	339.4 m³/min	Full output	63.8 m³/min
Offload pressure	105.2 psi	Offload pressure	101.55 psi	Offload pressure	97.9 psi	Offload pressure	94.25 psi
Onload pressure	97.9 psi	Onload pressure	94.25 psi	Onload pressure	90.6 psi	Onload pressure	86.95 psi

Proposed configuration



ACTIVE

ZR4/51		ZT90 VSD		ZT160 FF		ZT30 FF	
Rated pressure	116 psi	Rated pressure	130 psi	Rated pressure	108.1 psi	Rated pressure	116 psi
Full load	187 kW	Full load	139 kW	Full load	175 kW	Full load	32.8 kW
Offload	56 kW	Offload	20 kW	Offload	58 kW	Offload	10.1 kW
Full output	433.7 m³/min	Full output	226.3 m³/min	Full output	339.4 m³/min	Full output	63.8 m³/min
Offload pressure	88.4 psi	Offload pressure	88.4 psi	Offload pressure	88.4 psi	Offload pressure	88.4 psi
Onload pressure	85.5 psi	Onload pressure	85.5 psi	Onload pressure	85.5 psi	Onload pressure	85.5 psi

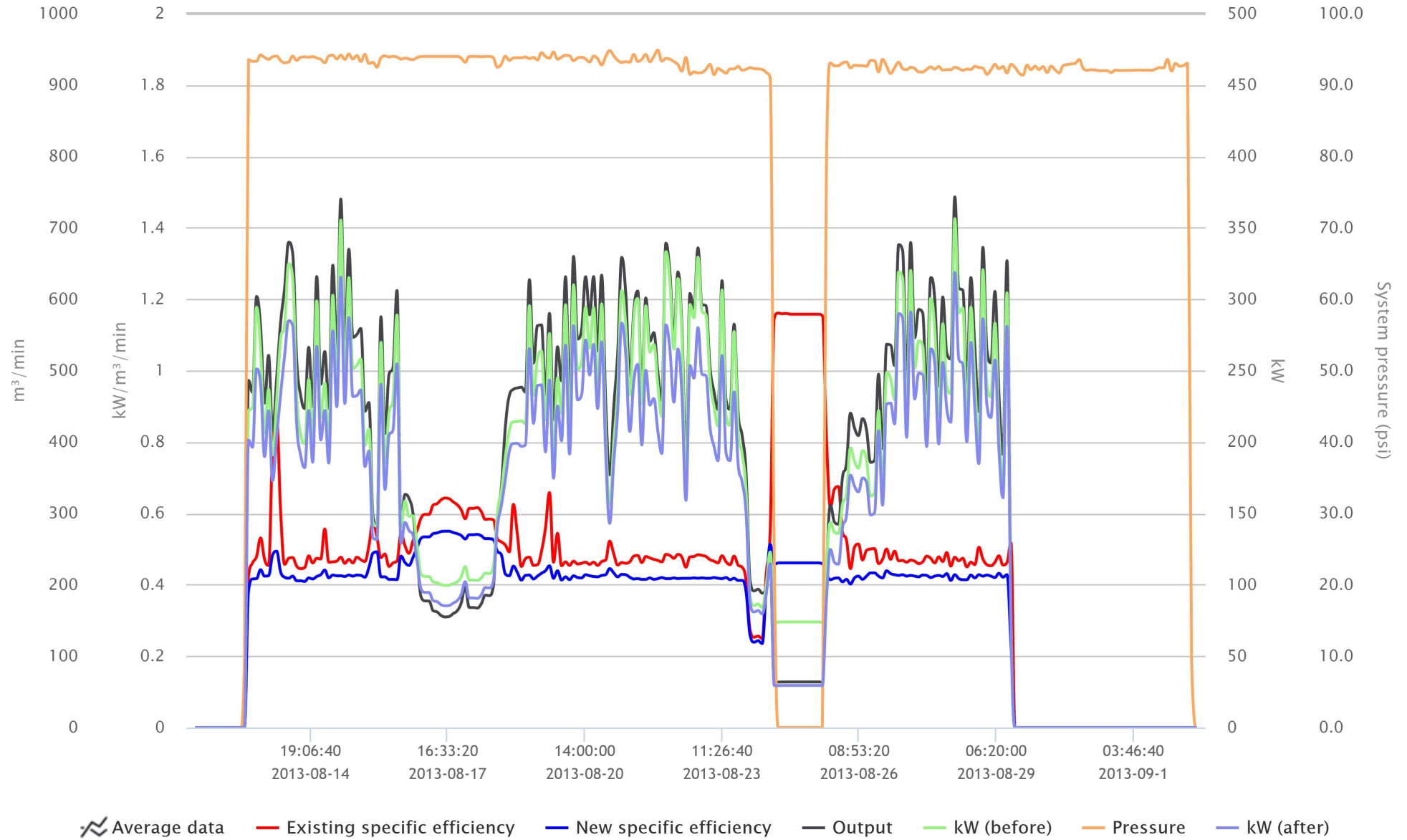
Units

Flow: m³/min

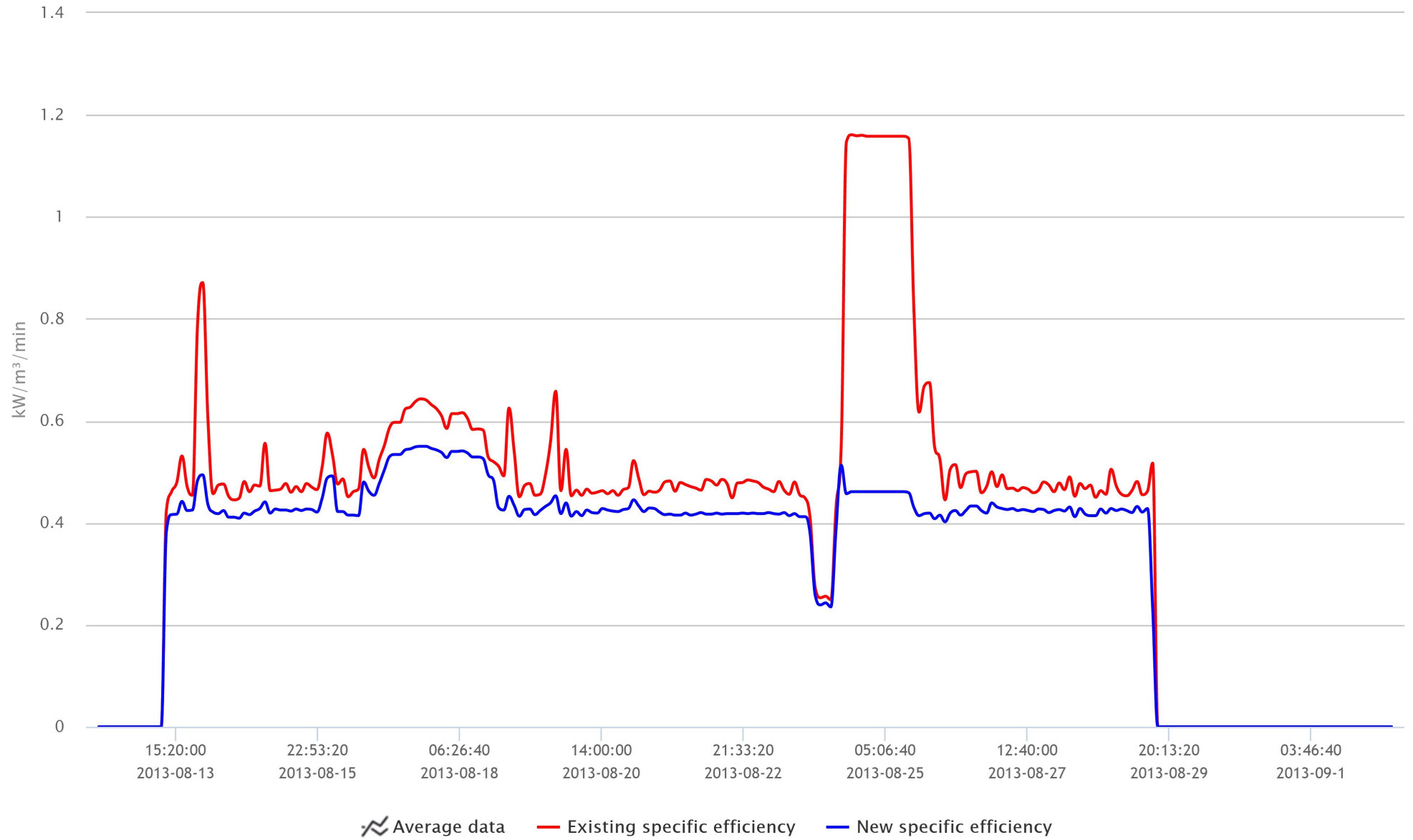
Pressure: psi

Power: kW

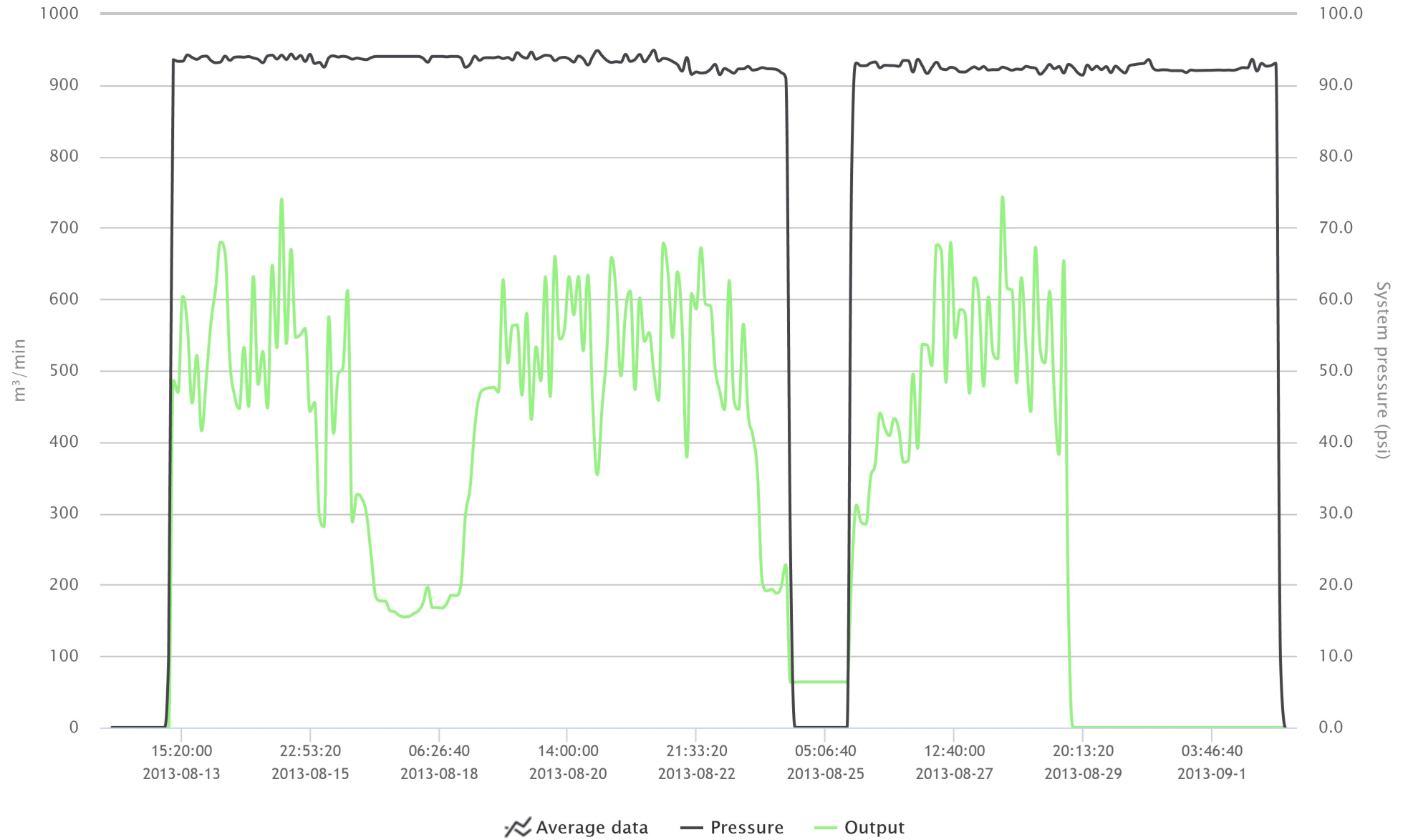
GRAPH DATA



GRAPH DATA



GRAPH DATA



GRAPH DATA

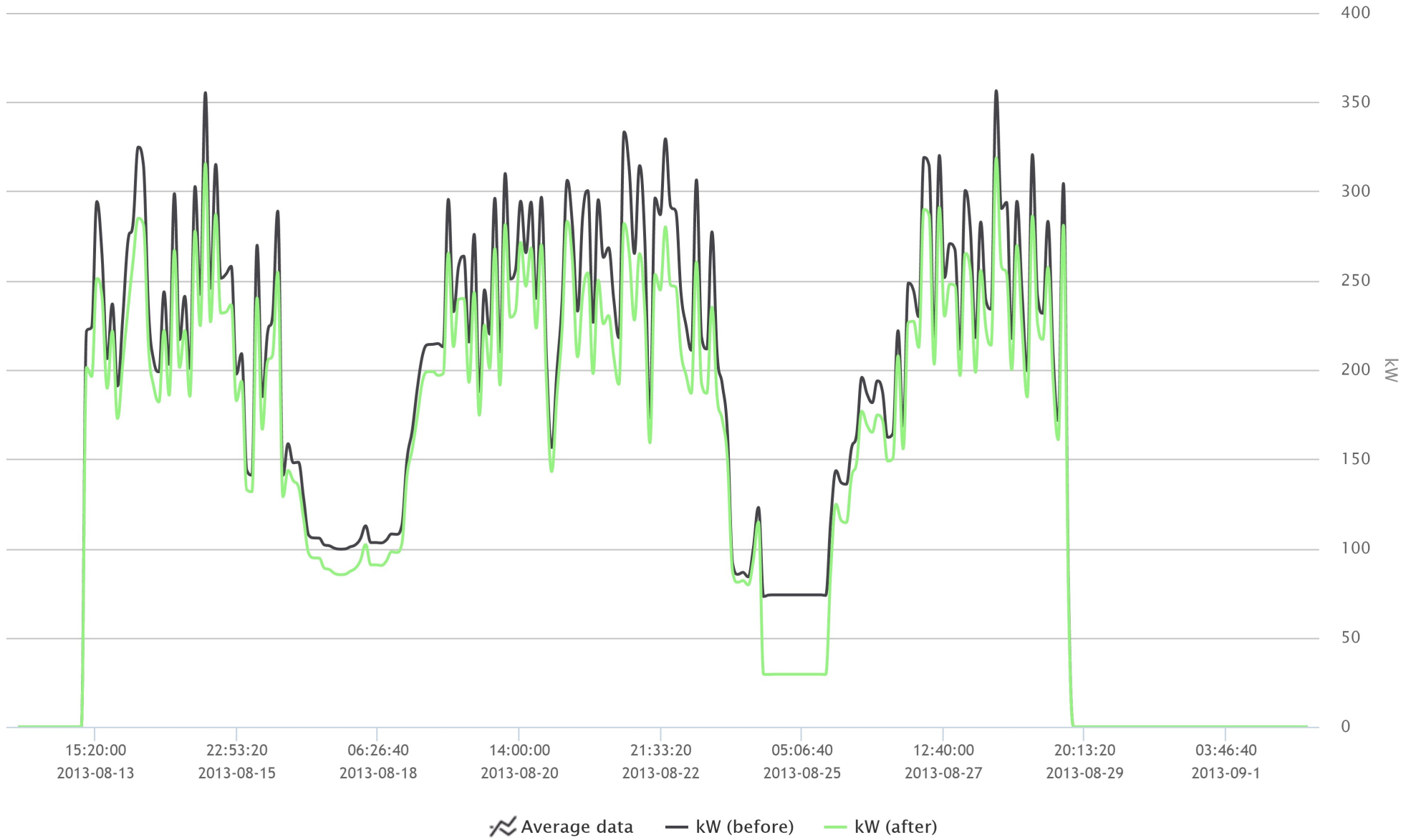

















CHART DATA

508								
0-10 %	36h 8m	0 - 106.3	74.8	33.7	41.1	3.29	25608.5	2048.68
10-20 %	52h 40m	106.3 - 212.6	105.7	94.6	11.1	0.89	10082.9	806.63
20-30 %	59m	212.6 - 319	126.4	120.1	6.3	0.50	107.4	8.59
30-40 %	85h 36m	319 - 425.3	159.7	151	8.7	0.70	12842.2	1027.38
40-50 %	89h 36m	425.3 - 531.6	214.2	195.8	18.4	1.47	28430.1	2274.41
50-60 %	48h 41m	531.6 - 637.9	249.1	235.5	13.6	1.09	11419.9	913.59
60-70 %	4h 4m	637.9 - 744.2	368.8	301.2	67.6	5.41	4745.9	379.67
70-80 %	42h 3m	744.2 - 850.6	392.4	326.2	66.2	5.30	48001.3	3840.10
80-90 %	20h 41m	850.6 - 956.9	418.2	379.8	38.4	3.07	13704.9	1096.39
90-100 %	1h 39m	956.9 - 1063.2	444.2	418.5	25.7	2.06	734.5	58.76
 	4h 43m	N/A	0	0	0	0	0.00	0.00
 	121h 6m	<div>  1393119 kW  1237383 kW You will save: 155678 kW hours, \$ 12454.21, 96208.76 lbs/CO₂ per year </div>						
 	0 h							

CONCLUSIONS

SIMULATION DATA



Audit name Sample audit A_copy_11/08/2017 13:32:46
Collection name SIM_COLLECTION_0
Simulation name Supply side calculated flow 0 (Timespan)
Simulation type Supply side calculated flow

Prepared for

Company sample company name
Address line 1 sample Address 1
Address line 2 sample Address 2
City sample City
ZIP sample zip
State sample state
Country Belgium
Name Mr. sample given name sample family name
Job title 1

Prepared by (author)

Company CMC NV
Address line 1 /
Address line 2 /
City /
ZIP /
State /
Country Belgium
Name Mr. Anthony Hoeckman
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Summary conclusions

We have concluded that **you will save 155678 kW hours, \$ 12454.21 and 96208.76 kilo/CO₂ per year** by applying the proposed equipment configuration shown on page 2 of this report.

Evidence to support our conclusions is provided in the associated Graph & Chart data.

Graph data shows the sites unmanaged versus managed specific efficiency and operating pressure range alongside the annualised system utilisation.

Chart data tables system utilisation in easy to read 10% 'utilisation zones' and highlights the difference in unmanaged versus managed kW, kW hours and cost per annum within each zone before totalising savings at the foot of the table.

Additional author comments relating to this efficiency analysis report follow

AUTHOR COMMENTS

Signature of author: _____

Dated: _____

The estimates shown are calculated from given compressor performance data and are intended to demonstrate the potential energy cost savings achievable by the use of Gardner Denver energy efficient products. These estimates do not constitute a contract or part thereof. Site conditions vary and operating conditions are not known. Gardner Denver cannot accept liability if these savings are not achieved in practice.