



## **New Venture Holdings, LLC**

10230 North Holly Road  
Grand Blanc, Michigan 48439

# **Abatement System Study**



## **Comptech Corporation**

275 East Big Beaver, Suite 111  
Troy, MI 48083  
Phone: 248-740-8831, Fax: 248-740-9281  
Sales@ComptechCorporation.com

*visit our Web Site at: [www.ComptechCorporation.com](http://www.ComptechCorporation.com)*

Prepared by  
Comptech Corporation  
November 8, 2005

# **Abatement System Study**

Prepared for  
New Venture Holdings, LLC  
Grand Blanc, Michigan

## **Phase One Baseline Test Data**

Prepared by  
Comptech Corporation  
November 8, 2005

# Grand Blanc Abatement Test Data

## Section 2 - Fascia "A" Booth

- System Exhaust Summary
- Field Survey Documents for Exhaust Fans

## Section 3 - Fascia "B" Booth

- System Exhaust Summary
- Field Survey Documents for Exhaust Fans

## Section 4 - Manual "C" Booth

- System Exhaust Summary
- Field Survey Documents for Exhaust Fans

## Section 5 - Airbag "D" Booth

- System Exhaust Summary
- Field Survey Documents for Exhaust Fans

## Section 6 - Prime "A" Booth

- System Exhaust Summary
- Field Survey Documents for Exhaust Fans

## Section 7 - Prime "B" Booth

- System Exhaust Summary
- Field Survey Documents for Exhaust Fans

## Section 8 - Fascia "A" Oven

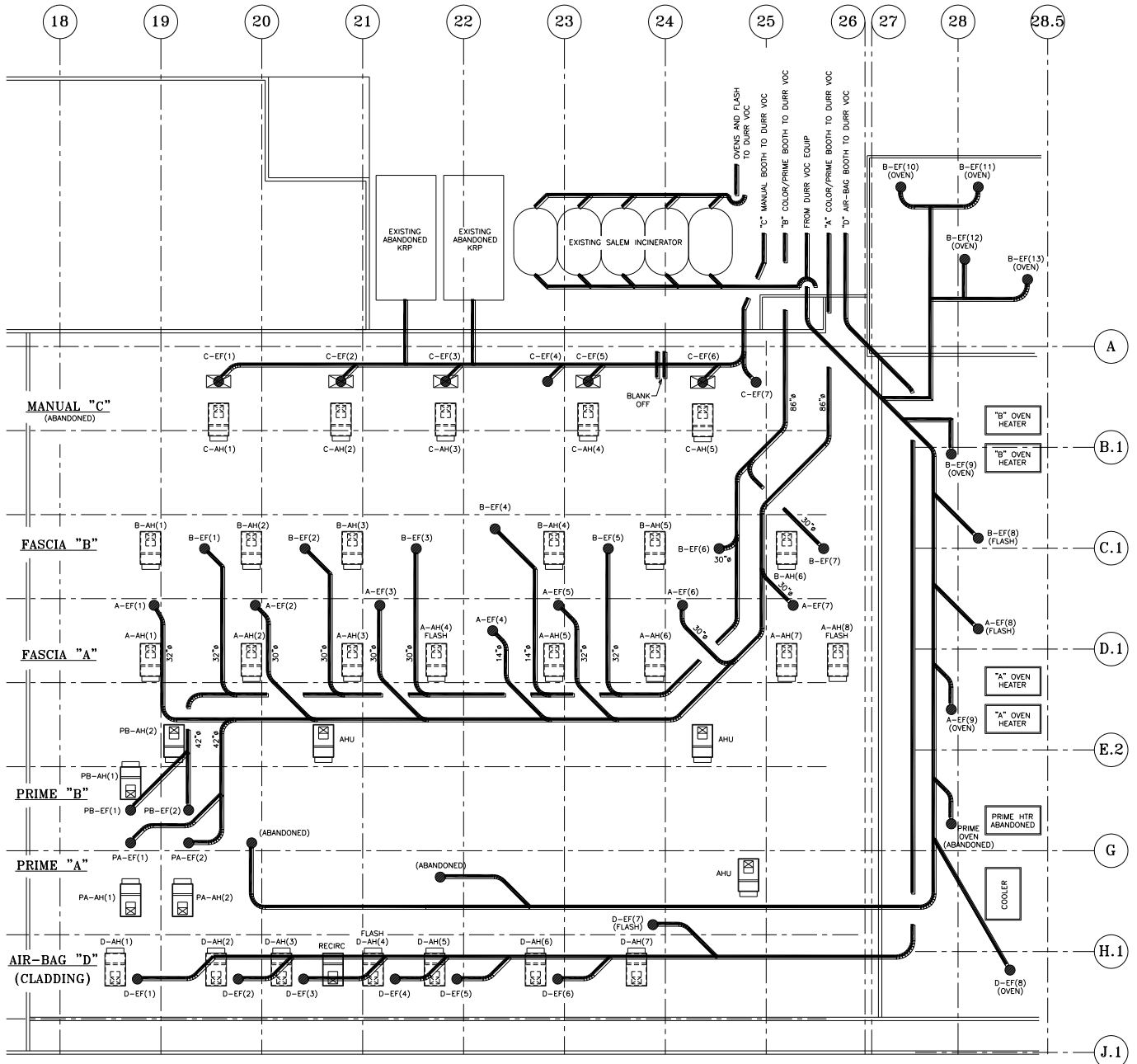
- System Exhaust Summary
- Field Survey Documents for Exhaust Fans

## Section 9 - Fascia "B" Oven

- System Exhaust Summary
- Field Survey Documents for Exhaust Fans

## Section 10 - Airbag "D" Oven

- System Exhaust Summary
- Field Survey Documents for Exhaust Fans



New Venture Industries, LLC  
Grand Blanc, Michigan

# System Fan Key Plan

**Comptech Corporation**

275 East Big Beaver • Suite 111 • Troy, MI 48083 • Phone: (248) 740 8831 • Fax: (248) 740 9281

New Venture Holdings, LLC  
Grand Blanc, Michigan

System Exhaust  
Evaluation

Fascia "A" Booth

Submitted by  
Comptech Corporation

November 1, 2005

## Fascia "A" Booth System Exhaust Summary

Fan Identification		Exhaust Volume (ACFM)	Exhaust Volume (SCFM)
A-EF (1)	Basecoat Booth	15,120	15,180
A-EF (2)	Basecoat Booth	12,890	13,010
A-EF (3)	Basecoat Booth	15,730	15,880
A-EF (4)	Flash Tunnel	Missing Belts	0
A-EF (5)	Clearcoat Booth	12,380	12,500
A-EF (6)	Clearcoat Booth	13,480	13,610
A-EF (7)	Clearcoat Booth	17,000	17,100
Total Fascia "A" Booth Exhaust		86,600	87,280

Fascia "A" Booth Exhaust: 86,600 ACFM

Identification A-EF (1)  
 Location Fascia "A" Booth

 Customer New Venture Holdings, LLC  
 Test Date November 1, 2005
**Fan Design Data**

 Manufacturer Northern Blower  
 Type/Size Vaneaxial Fan / 3300  
 Model Number 8096  
 Serial Number A47535-6  
 Capacity (CFM) 18,000  
 Speed (RPM) 1,647  
 SP (in H<sub>2</sub>O) 7  
 BHP 30
**Motor Design Data**

 Manufacturer \_\_\_\_\_  
 Model Number \_\_\_\_\_  
 Serial Number \_\_\_\_\_  
 Frame Size 324T  
 SF - PF - EFF - -  
 Size (HP) 40.0  
 Amps \_\_\_\_\_  
 Speed (RPM) 1,800
**Fan Test Data**

 SP<sub>in</sub> / A<sub>in</sub> -4.90 / 10.56  
 SP<sub>out</sub> / A<sub>out</sub> -0.52 / 10.56  
 T<sub>vp</sub> / A<sub>vp</sub> 68 / 5.60  
 RPM / P<sub>barametric</sub> / 29.91  
 Velocity<sub>avg-read</sub> 2,700  
 ACFM / SP<sub>FANacfm</sub> 15,120 / 4.25 in WC  
 SCFM / SP<sub>FANscfm</sub> 15,180 / 4.24 in WC
**Motor Test Data**

 Amps 34 34 35  
 Volts 267 268 267  
 Speed (RPM) \_\_\_\_\_  
 Power (kW) 9.178  
 HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.253	0.306	0.420	0.390	0.482	0.578	0.536	0.533	0.533	0.505	0.330	0.415	0.501	0.558	0.481	0.484	0.491	0.545	0.467	0.392
VP <sup>1/2</sup>	0.503	0.553	0.648	0.625	0.694	0.760	0.732	0.730	0.730	0.711	0.575	0.644	0.708	0.747	0.694	0.696	0.701	0.739	0.684	0.626

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\Sigma(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

**Notes**

Identification A-EF (2)  
 Location Fascia "A" Booth

 Customer New Venture Holdings, LLC  
 Test Date November 1, 2005
**Fan Design Data**

 Manufacturer Northern Blower  
 Type/Size Vaneaxial Fan / 3300  
 Model Number 8096  
 Serial Number A47535-12  
 Capacity (CFM) 16,400 (Durr)  
 Speed (RPM) \_\_\_\_\_  
 SP (in H<sub>2</sub>O) 7  
 BHP 30
**Motor Design Data**

 Manufacturer \_\_\_\_\_  
 Model Number \_\_\_\_\_  
 Serial Number \_\_\_\_\_  
 Frame Size 324T  
 SF - PF - EFF - -  
 Size (HP) 40.0  
 Amps \_\_\_\_\_  
 Speed (RPM) 1,800
**Fan Test Data**

 SP<sub>in</sub> / A<sub>in</sub> -5.60 / 10.56  
 SP<sub>out</sub> / A<sub>out</sub> -0.66 / 10.56  
 T<sub>vp</sub> / A<sub>vp</sub> 65 / 4.90  
 RPM / P<sub>barametric</sub> \_\_\_\_\_ / 29.91  
 Velocity<sub>avg-read</sub> 2,630  
 ACFM / SP<sub>FANacfm</sub> 12,890 / 4.85 in WC  
 SCFM / SP<sub>FANscfm</sub> 13,010 / 4.80 in WC
**Motor Test Data**

 Amps 36 35 38  
 Volts 268 266 267  
 Speed (RPM) \_\_\_\_\_  
 Power (kW) 9.701  
 HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.419	0.456	0.508	0.505	0.494	0.507	0.469	0.455	0.443	0.319	0.342	0.386	0.484	0.450	0.503	0.480	0.457	0.381	0.433	0.263
VP <sup>1/2</sup>	0.647	0.675	0.713	0.710	0.703	0.712	0.685	0.674	0.666	0.565	0.585	0.621	0.696	0.671	0.709	0.693	0.676	0.617	0.658	0.513

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\Sigma(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

**Notes**



Identification A-EF (3)  
 Location Fascia "A" Booth

 Customer New Venture Holdings, LLC  
 Test Date November 1, 2005
**Fan Design Data**

 Manufacturer Northern Blower  
 Type/Size Vaneaxial Fan / 3300  
 Model Number 8096  
 Serial Number A47535-10  
 Capacity (CFM) 16,400 (Durr)  
 Speed (RPM) \_\_\_\_\_  
 SP (in H<sub>2</sub>O) 7  
 BHP 30
**Motor Design Data**

 Manufacturer \_\_\_\_\_  
 Model Number \_\_\_\_\_  
 Serial Number \_\_\_\_\_  
 Frame Size 324T  
 SF - PF - EFF - -  
 Size (HP) 40.0  
 Amps \_\_\_\_\_  
 Speed (RPM) 1,800
**Fan Test Data**

 SP<sub>in</sub> / A<sub>in</sub> -5.50 / 10.56  
 SP<sub>out</sub> / A<sub>out</sub> -0.79 / 10.56  
 T<sub>vp</sub> / A<sub>vp</sub> 65 / 4.90  
 RPM / P<sub>barametric</sub> \_\_\_\_\_ / 29.91  
 Velocity<sub>avg-read</sub> 3,210  
 ACFM / SP<sub>FANacfm</sub> 15,730 / 4.57 in WC  
 SCFM / SP<sub>FANscfm</sub> 15,880 / 4.53 in WC
**Motor Test Data**

 Amps 31 31 30  
 Volts 267 267 267  
 Speed (RPM) \_\_\_\_\_  
 Power (kW) 8.188  
 HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.506	0.667	0.627	0.705	0.747	0.814	0.933	0.923	0.805	0.540	0.709	0.759	0.929	0.996	0.952	0.486	0.428	0.304	0.304	0.244
VP <sup>1/2</sup>	0.711	0.817	0.792	0.839	0.864	0.902	0.966	0.961	0.897	0.735	0.842	0.871	0.964	0.998	0.976	0.697	0.654	0.552	0.552	0.494

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\Sigma(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

**Notes**

Identification A-EF (4)  
Location Fascia "A" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

**Fan Design Data**

Manufacturer \_\_\_\_\_  
Type/Size Vaneaxial Fan  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Capacity (CFM) 3,000 (Durr)  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) \_\_\_\_\_  
BHP \_\_\_\_\_

**Motor Design Data**

Manufacturer Dayton  
Model Number 3N733  
Serial Number E3666U07U135RO09M  
Frame Size 184T  
SF - PF - EFF 1.15 - .85 - .855  
Size (HP) 5.0  
Amps \_\_\_\_\_  
Speed (RPM) 1,740

**Fan Test Data**

SP<sub>in</sub> / A<sub>in</sub> \_\_\_\_\_ /  
SP<sub>out</sub> / A<sub>out</sub> \_\_\_\_\_ /  
T<sub>vp</sub> / A<sub>vp</sub> \_\_\_\_\_ /  
RPM / P<sub>barametric</sub> \_\_\_\_\_ /  
Velocity<sub>avg-read</sub> \_\_\_\_\_  
ACFM / SP<sub>FANacfm</sub> \_\_\_\_\_ /  
SCFM / SP<sub>FANscfm</sub> \_\_\_\_\_ /

**Motor Test Data**

Amps \_\_\_\_\_  
Volts \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
Power (kW) \_\_\_\_\_  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP																				
VP <sup>1/2</sup>																				

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\Sigma(VP)^{1/2}/N_{read})$$

$$SP_{Fan actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

**Notes**

Fan is off and abandoned, the fan belts have been removed.  
Fan tag was painted over and could not be read.

Identification A-EF (5)  
Location Fascia "A" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Northern Blower  
Type/Size Vaneaxial Fan / 3300  
Model Number 8096  
Serial Number A47535-3  
Capacity (CFM) 18,000  
Speed (RPM) 1,647  
SP (in H<sub>2</sub>O) 7  
BHP 30

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size 324T  
SF - PF - EFF - -  
Size (HP) 40.0  
Amps \_\_\_\_\_  
Speed (RPM) 1,800

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -6.00 / 10.56  
SP<sub>out</sub> / A<sub>out</sub> -1.80 / 10.56  
T<sub>vp</sub> / A<sub>vp</sub> 65 / 5.60  
RPM / P<sub>barametric</sub> / 29.91  
Velocity<sub>avg-read</sub> 2,210  
ACFM / SP<sub>FANacfm</sub> 12,380 / 4.11 in WC  
SCFM / SP<sub>FANscfm</sub> 12,500 / 4.07 in WC

### Motor Test Data

Amps 27 30 29  
Volts 266 267 267  
Speed (RPM) \_\_\_\_\_  
Power (kW) 7.644  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.400	0.714	0.641	0.637	0.543	0.000	0.000	0.020	0.289	0.021	0.403	0.507	0.307	0.168	0.013	0.436	0.673	0.799	0.794	0.541
VP <sup>1/2</sup>	0.632	0.845	0.800	0.798	0.737	0.000	0.000	0.141	0.538	0.144	0.635	0.712	0.554	0.410	0.115	0.660	0.820	0.894	0.891	0.736

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\Sigma(VP)^{1/2}/N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan\ @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

### Notes

Identification A-EF (6)  
Location Fascia "A" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Northern Blower  
Type/Size Vaneaxial Fan / 3300  
Model Number 8096  
Serial Number A47535-1  
Capacity (CFM) 16,400 (Durr)  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) 7  
BHP 30

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size 324T  
SF - PF - EFF - -  
Size (HP) 40.0  
Amps \_\_\_\_\_  
Speed (RPM) 1,800

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -6.50 / 10.56  
SP<sub>out</sub> / A<sub>out</sub> -1.10 / 10.56  
T<sub>vp</sub> / A<sub>vp</sub> 65 / 4.90  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / 29.91  
Velocity<sub>avg-read</sub> 2,750  
ACFM / SP<sub>FANacfm</sub> 13,480 / 5.30 in WC  
SCFM / SP<sub>FANscfm</sub> 13,610 / 5.25 in WC

### Motor Test Data

Amps 35 36 34  
Volts 266 267 266  
Speed (RPM) \_\_\_\_\_  
Power (kW) 9.322  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.343	0.442	0.423	0.416	0.508	0.580	0.540	0.526	0.470	0.500	0.251	0.372	0.318	0.348	0.461	0.528	0.588	0.675	0.721	0.610
VP <sup>1/2</sup>	0.586	0.665	0.651	0.645	0.713	0.761	0.735	0.725	0.686	0.707	0.501	0.610	0.564	0.590	0.679	0.727	0.767	0.822	0.849	0.781

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\Sigma(VP)^{1/2}/N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan\ @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

### Notes

Identification A-EF (7)  
 Location Fascia "A" Booth

 Customer New Venture Holdings, LLC  
 Test Date November 1, 2005
**Fan Design Data**

 Manufacturer Northern Blower  
 Type/Size Vaneaxial Fan / 3300  
 Model Number 8096  
 Serial Number A47535-14  
 Capacity (CFM) 16,400 (Durr)  
 Speed (RPM) \_\_\_\_\_  
 SP (in H<sub>2</sub>O) 7  
 BHP 30
**Motor Design Data**

 Manufacturer \_\_\_\_\_  
 Model Number \_\_\_\_\_  
 Serial Number \_\_\_\_\_  
 Frame Size 324T  
 SF - PF - EFF - -  
 Size (HP) 40.0  
 Amps \_\_\_\_\_  
 Speed (RPM) 1,800
**Fan Test Data**

 SP<sub>in</sub> / A<sub>in</sub> -3.50 / 10.56  
 SP<sub>out</sub> / A<sub>out</sub> -1.20 / 10.56  
 T<sub>vp</sub> / A<sub>vp</sub> 67 / 4.90  
 RPM / P<sub>barametric</sub> \_\_\_\_\_ / 29.91  
 Velocity<sub>avg-read</sub> 3,470  
 ACFM / SP<sub>FANacfm</sub> 17,000 / 2.14 in WC  
 SCFM / SP<sub>FANscfm</sub> 17,100 / 2.13 in WC
**Motor Test Data**

 Amps 30 33 31  
 Volts 265 267 266  
 Speed (RPM) \_\_\_\_\_  
 Power (kW) 8.335  
 HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	1.374	1.266	1.066	0.850	0.663	0.626	0.700	0.790	0.932	0.934	0.665	0.907	0.931	0.837	0.600	0.500	0.503	0.534	0.485	0.314
VP <sup>1/2</sup>	1.172	1.125	1.032	0.922	0.814	0.791	0.837	0.889	0.966	0.967	0.815	0.953	0.965	0.915	0.775	0.707	0.709	0.731	0.696	0.560

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

**Notes**

New Venture Holdings, LLC  
Grand Blanc, Michigan

System Exhaust  
Evaluation

Fascia "B" Booth

Submitted by  
Comptech Corporation

November 1, 2005

## Fascia "B" Booth System Exhaust Summary

Fan Identification	Exhaust Volume (ACFM)	Exhaust Volume (SCFM)
B-EF (1) Basecoat Booth	14,220	14,250
B-EF (2) Basecoat Booth	14,110	14,240
B-EF (3) Basecoat Booth	14,900	15,070
B-EF (4) Flash Tunnel	1,160	1,160
B-EF (5) Clearcoat Booth	12,540	12,590
B-EF (6) Clearcoat Booth	10,730	10,710
B-EF (7) Clearcoat Booth	13,080	13,200
<b>Total Fascia "B" Booth Exhaust</b>	<b>80,740</b>	<b>81,220</b>

Fascia "B" Booth Exhaust: 80,740 ACFM

Identification B-EF (1)  
Location Fascia "B" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Northern Blower  
Type/Size Vaneaxial Fan / 3300  
Model Number 8096  
Serial Number A47535-8  
Capacity (CFM) 18,000  
Speed (RPM) 1,647  
SP (in H<sub>2</sub>O) 7  
BHP 30

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size 324T  
SF - PF - EFF - -  
Size (HP) 40.0  
Amps \_\_\_\_\_  
Speed (RPM) 1,800

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -5.70 / 10.56  
SP<sub>out</sub> / A<sub>out</sub> -0.40 / 10.56  
T<sub>vp</sub> / A<sub>vp</sub> 69 / 5.60  
RPM / P<sub>barametric</sub> / 30.46  
Velocity<sub>avg-read</sub> 2,540  
ACFM / SP<sub>FANacfm</sub> 14,220 / 5.19 in WC  
SCFM / SP<sub>FANscfm</sub> 14,250 / 5.18 in WC

### Motor Test Data

Amps 30 32 30  
Volts 267 268 267  
Speed (RPM) \_\_\_\_\_  
Power (kW) 8.198  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.549	0.635	0.657	0.663	0.570	0.000	0.000	0.247	0.384	0.273	0.601	0.725	0.661	0.675	0.516	0.258	0.477	0.477	0.518	0.393
VP <sup>1/2</sup>	0.741	0.797	0.811	0.814	0.755	0.000	0.000	0.497	0.620	0.522	0.775	0.852	0.813	0.822	0.718	0.508	0.691	0.691	0.720	0.627

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\Sigma(VP)^{1/2}/N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan\ @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

### Notes



Identification B-EF (2)  
Location Fascia "B" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Northern Blower  
Type/Size Vaneaxial Fan / 3300  
Model Number 8096  
Serial Number A47535-4  
Capacity (CFM) 16,400 (Durr)  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) 7  
BHP 30

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size 324T  
SF - PF - EFF - -  
Size (HP) 40.0  
Amps \_\_\_\_\_  
Speed (RPM) 1,800

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -5.70 / 10.56  
SP<sub>out</sub> / A<sub>out</sub> -1.40 / 10.56  
T<sub>vp</sub> / A<sub>vp</sub> 65 / 4.90  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / 30.46  
Velocity<sub>avg-read</sub> 2,880  
ACFM / SP<sub>FANacfm</sub> 14,110 / 4.19 in WC  
SCFM / SP<sub>FANscfm</sub> 14,240 / 4.15 in WC

### Motor Test Data

Amps 32 28 28  
Volts 267 266 268  
Speed (RPM) \_\_\_\_\_  
Power (kW) 7.832  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.661	0.780	0.754	0.623	0.366	0.194	0.625	0.668	0.695	0.463	0.445	0.758	0.733	0.534	0.440	0.000	0.608	0.686	0.704	0.650
VP <sup>1/2</sup>	0.813	0.883	0.868	0.790	0.605	0.440	0.791	0.817	0.833	0.680	0.667	0.871	0.856	0.731	0.664	0.000	0.780	0.828	0.839	0.806

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\Sigma(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

### Notes

Identification B-EF (3)  
Location Fascia "B" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Northern Blower  
Type/Size Vaneaxial Fan / 3300  
Model Number 8096  
Serial Number A47535-7  
Capacity (CFM) 16,400 (Durr)  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) 7  
BHP 30

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size 324T  
SF - PF - EFF - -  
Size (HP) 40.0  
Amps \_\_\_\_\_  
Speed (RPM) 1,800

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -5.50 / 10.56  
SP<sub>out</sub> / A<sub>out</sub> -0.70 / 10.56  
T<sub>vp</sub> / A<sub>vp</sub> 64 / 4.90  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / 30.46  
Velocity<sub>avg-read</sub> 3,040  
ACFM / SP<sub>FANacfm</sub> 14,900 / 4.68 in WC  
SCFM / SP<sub>FANscfm</sub> 15,070 / 4.62 in WC

### Motor Test Data

Amps 31 29 32  
Volts 267 267 267  
Speed (RPM) \_\_\_\_\_  
Power (kW) 8.188  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.292	0.397	0.548	0.659	0.588	0.811	0.716	0.804	0.718	0.544	0.749	0.599	0.708	0.725	0.730	0.617	0.519	0.499	0.426	0.410
VP <sup>1/2</sup>	0.540	0.630	0.741	0.812	0.767	0.901	0.846	0.897	0.847	0.737	0.866	0.774	0.842	0.852	0.855	0.785	0.721	0.707	0.653	0.640

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

### Notes

Fan inlet fitting is very rusty and crushed in on one side. Stiffeners were added for support and are rusting as well.

Identification B-EF (4)  
 Location Fascia "B" Booth

 Customer New Venture Holdings, LLC  
 Test Date November 1, 2005
**Fan Design Data**

 Manufacturer \_\_\_\_\_  
 Type/Size Vaneaxial Fan  
 Model Number \_\_\_\_\_  
 Serial Number \_\_\_\_\_  
 Capacity (CFM) 3,000 (Durr)  
 Speed (RPM) \_\_\_\_\_  
 SP (in H<sub>2</sub>O) \_\_\_\_\_  
 BHP \_\_\_\_\_

**Motor Design Data**

 Manufacturer Weg  
 Model Number 1PE5-184T  
 Serial Number AM81574  
 Frame Size 184T  
 SF - PF - EFF 1.15 - .82 - .875  
 Size (HP) 5.0  
 Amps 12.9 / 6.44  
 Speed (RPM) 1,745
**Fan Test Data**

 SP<sub>in</sub> / A<sub>in</sub> -1.85 / 1.77  
 SP<sub>out</sub> / A<sub>out</sub> -1.00 / 1.77  
 T<sub>vp</sub> / A<sub>vp</sub> 70 / 1.07  
 RPM / P<sub>barametric</sub> / 30.46  
 Velocity<sub>avg-read</sub> 1,080  
 ACFM / SP<sub>FANacfm</sub> 1,160 / 0.82 in WC  
 SCFM / SP<sub>FANscfm</sub> 1,160 / 0.82 in WC
**Motor Test Data**

 Amps 4      4      4  
 Volts 267    266    268  
 Speed (RPM) \_\_\_\_\_  
 Power (kW) 0.952  
 HP 1.586

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.149	0.150	0.145	0.079	0.000	0.006	0.130	0.145	0.123	0.082	0.054	0.047	0.058	0.000	0.000	0.180	0.152	0.144	0.129	0.098
VP <sup>1/2</sup>	0.386	0.387	0.381	0.281	0.000	0.077	0.361	0.381	0.351	0.286	0.231	0.218	0.240	0.000	0.000	0.424	0.390	0.380	0.359	0.313

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

**Notes**

Fan tag was painted over and could not be read.  
 Turbulent air flow.

Identification B-EF (5)  
Location Fascia "B" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Northern Blower  
Type/Size Vaneaxial Fan / 3300  
Model Number 8096  
Serial Number A47535-16  
Capacity (CFM) 18,000  
Speed (RPM) 1,647  
SP (in H<sub>2</sub>O) 7  
BHP 30

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size 324T  
SF - PF - EFF - -  
Size (HP) 40.0  
Amps \_\_\_\_\_  
Speed (RPM) 1,800

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -5.80 / 10.56  
SP<sub>out</sub> / A<sub>out</sub> -0.90 / 10.56  
T<sub>vp</sub> / A<sub>vp</sub> 68 / 5.60  
RPM / P<sub>barametric</sub> / 30.46  
Velocity<sub>avg-read</sub> 2,240  
ACFM / SP<sub>FANacfm</sub> 12,540 / 4.81 in WC  
SCFM / SP<sub>FANscfm</sub> 12,590 / 4.79 in WC

### Motor Test Data

Amps 30 29 30  
Volts 266 267 267  
Speed (RPM) \_\_\_\_\_  
Power (kW) 7.911  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.388	0.458	0.404	0.292	0.319	0.362	0.291	0.286	0.163	0.075	0.527	0.608	0.526	0.459	0.403	0.260	0.207	0.203	0.227	0.202
VP <sup>1/2</sup>	0.623	0.677	0.636	0.540	0.565	0.602	0.539	0.535	0.404	0.274	0.726	0.780	0.725	0.677	0.635	0.510	0.455	0.450	0.477	0.450

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\Sigma(VP)^{1/2}/N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan\ @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

### Notes

Identification B-EF (6)  
 Location Fascia "B" Booth

 Customer New Venture Holdings, LLC  
 Test Date November 1, 2005
**Fan Design Data**

 Manufacturer Northern Blower  
 Type/Size Vaneaxial Fan / 3300  
 Model Number 8096  
 Serial Number A47535-9  
 Capacity (CFM) 16,400 (Durr)  
 Speed (RPM) \_\_\_\_\_  
 SP (in H<sub>2</sub>O) 7  
 BHP 30
**Motor Design Data**

 Manufacturer \_\_\_\_\_  
 Model Number \_\_\_\_\_  
 Serial Number \_\_\_\_\_  
 Frame Size 324T  
 SF - PF - EFF - -  
 Size (HP) 40.0  
 Amps \_\_\_\_\_  
 Speed (RPM) 1,800
**Fan Test Data**

 SP<sub>in</sub> / A<sub>in</sub> -6.20 / 10.56  
 SP<sub>out</sub> / A<sub>out</sub> -1.90 / 10.56  
 T<sub>vp</sub> / A<sub>vp</sub> 71 / 4.90  
 RPM / P<sub>barametric</sub> \_\_\_\_\_ / 29.91  
 Velocity<sub>avg-read</sub> 2,190  
 ACFM / SP<sub>FANacfm</sub> 10,730 / 4.24 in WC  
 SCFM / SP<sub>FANscfm</sub> 10,710 / 4.24 in WC
**Motor Test Data**

 Amps 33 36 35  
 Volts 266 267 266  
 Speed (RPM) \_\_\_\_\_  
 Power (kW) 9.233  
 HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.506	0.457	0.348	0.000	0.000	0.091	0.487	0.652	0.648	0.436	0.802	1.092	1.153	1.074	0.708	0.000	0.000	0.071	0.201	0.003
VP <sup>1/2</sup>	0.711	0.676	0.590	0.000	0.000	0.301	0.698	0.807	0.805	0.660	0.896	1.045	1.074	1.036	0.842	0.000	0.000	0.266	0.449	0.058

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

**Notes**

Turbulent air flow.

Identification B-EF (7)  
 Location Fascia "B" Booth

 Customer New Venture Holdings, LLC  
 Test Date November 1, 2005
**Fan Design Data**

 Manufacturer Northern Blower  
 Type/Size Vaneaxial Fan / 3300  
 Model Number 8096  
 Serial Number A47535-2  
 Capacity (CFM) 16,400 (Durr)  
 Speed (RPM) \_\_\_\_\_  
 SP (in H<sub>2</sub>O) 7  
 BHP 30
**Motor Design Data**

 Manufacturer \_\_\_\_\_  
 Model Number \_\_\_\_\_  
 Serial Number \_\_\_\_\_  
 Frame Size 324T  
 SF - PF - EFF - -  
 Size (HP) 40.0  
 Amps \_\_\_\_\_  
 Speed (RPM) 1,800
**Fan Test Data**

 SP<sub>in</sub> / A<sub>in</sub> -5.50 / 10.56  
 SP<sub>out</sub> / A<sub>out</sub> -1.00 / 10.56  
 T<sub>vp</sub> / A<sub>vp</sub> 65 / 4.90  
 RPM / P<sub>barametric</sub> \_\_\_\_\_ / 30.46  
 Velocity<sub>avg-read</sub> 2,670  
 ACFM / SP<sub>FANacfm</sub> 13,080 / 4.40 in WC  
 SCFM / SP<sub>FANscfm</sub> 13,200 / 4.36 in WC
**Motor Test Data**

 Amps 27 29 28  
 Volts 265 267 266  
 Speed (RPM) \_\_\_\_\_  
 Power (kW) 7.448  
 HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.629	0.763	0.845	0.561	0.676	0.000	0.000	0.287	0.453	0.083	0.665	0.907	0.931	0.837	0.600	0.500	0.503	0.534	0.485	0.314
VP <sup>1/2</sup>	0.793	0.873	0.919	0.749	0.822	0.000	0.000	0.536	0.673	0.288	0.815	0.953	0.965	0.915	0.775	0.707	0.709	0.731	0.696	0.560

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

**Notes**

New Venture Holdings, LLC  
Grand Blanc, Michigan

System Exhaust  
Evaluation

Manual "C" Booth

Submitted by  
Comptech Corporation

November 1, 2005

## Manual "C" Booth System Exhaust Summary

Fan Identification			Exhaust Volume (ACFM)	Exhaust Volume (SCFM)
C-EF (1)	Basecoat Booth	Not in use	0	0
C-EF (2)	Basecoat Booth	Not in use	0	0
C-EF (3)	Basecoat Booth	Not in use	0	0
C-EF (4)	Flash Tunnel	Not in use	0	0
C-EF (5)	Clearcoat Booth	Not in use	0	0
C-EF (6)	Clearcoat Booth	Not in use	0	0
C-EF (7)	Clearcoat Booth	Not in use	0	0
Total Manual "C" Booth Exhaust			0	0

Manual "C" Booth Exhaust: 0 ACFM



Identification C-EF (1)  
Location Manual "C" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Barry Blower  
Type/Size 300 TUB-AF  
Model Number \_\_\_\_\_  
Serial Number 4YM-00245  
Capacity (CFM) \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) \_\_\_\_\_  
BHP \_\_\_\_\_

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF     -    -  
Size (HP) \_\_\_\_\_  
Amps \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> \_\_\_\_\_ / \_\_\_\_\_  
SP<sub>out</sub> / A<sub>out</sub> \_\_\_\_\_ / \_\_\_\_\_  
T<sub>vp</sub> / A<sub>vp</sub> \_\_\_\_\_ / \_\_\_\_\_  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / \_\_\_\_\_  
Velocity<sub>avg-read</sub> \_\_\_\_\_  
ACFM / SP<sub>FANacfm</sub> \_\_\_\_\_ / \_\_\_\_\_  
SCFM / SP<sub>FANscfm</sub> \_\_\_\_\_ / \_\_\_\_\_

### Motor Test Data

Amps \_\_\_\_\_  
Volts \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
Power (kW) \_\_\_\_\_  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP																				
VP <sup>1/2</sup>																				

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\sum(VP)^{1/2}/N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan\ @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

Notes

Identification C-EF (2)  
Location Manual "C" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Barry Blower  
Type/Size 300 TUB-AF  
Model Number \_\_\_\_\_  
Serial Number 4YM-00248  
Capacity (CFM) \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) \_\_\_\_\_  
BHP \_\_\_\_\_

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF     -    -  
Size (HP) \_\_\_\_\_  
Amps \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> \_\_\_\_\_ / \_\_\_\_\_  
SP<sub>out</sub> / A<sub>out</sub> \_\_\_\_\_ / \_\_\_\_\_  
T<sub>vp</sub> / A<sub>vp</sub> \_\_\_\_\_ / \_\_\_\_\_  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / \_\_\_\_\_  
Velocity<sub>avg-read</sub> \_\_\_\_\_  
ACFM / SP<sub>FANacfm</sub> \_\_\_\_\_ / \_\_\_\_\_  
SCFM / SP<sub>FANscfm</sub> \_\_\_\_\_ / \_\_\_\_\_

### Motor Test Data

Amps \_\_\_\_\_  
Volts \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
Power (kW) \_\_\_\_\_  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP																				
VP <sup>1/2</sup>																				

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\sum(VP)^{1/2}/N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan\ @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

Notes

Identification C-EF (3)  
Location Manual "C" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

**Fan Design Data**

Manufacturer Barry Blower  
Type/Size 300 TUB-AF  
Model Number \_\_\_\_\_  
Serial Number 4YM-00246  
Capacity (CFM) \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) \_\_\_\_\_  
BHP \_\_\_\_\_

**Motor Design Data**

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF - -  
Size (HP) \_\_\_\_\_  
Amps \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_

**Fan Test Data**

SP<sub>in</sub> / A<sub>in</sub> \_\_\_\_\_ / \_\_\_\_\_  
SP<sub>out</sub> / A<sub>out</sub> \_\_\_\_\_ / \_\_\_\_\_  
T<sub>vp</sub> / A<sub>vp</sub> \_\_\_\_\_ / \_\_\_\_\_  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / \_\_\_\_\_  
Velocity<sub>avg-read</sub> \_\_\_\_\_  
ACFM / SP<sub>FANacfm</sub> \_\_\_\_\_ / \_\_\_\_\_  
SCFM / SP<sub>FANscfm</sub> \_\_\_\_\_ / \_\_\_\_\_

**Motor Test Data**

Amps \_\_\_\_\_  
Volts \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
Power (kW) \_\_\_\_\_  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP																				
VP <sup>1/2</sup>																				

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

Notes

Identification C-EF (4)  
Location Manual "C" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer \_\_\_\_\_  
Type/Size \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Capacity (CFM) \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) \_\_\_\_\_  
BHP \_\_\_\_\_

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF     -    -      
Size (HP) \_\_\_\_\_  
Amps \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> \_\_\_\_\_ / \_\_\_\_\_  
SP<sub>out</sub> / A<sub>out</sub> \_\_\_\_\_ / \_\_\_\_\_  
T<sub>vp</sub> / A<sub>vp</sub> \_\_\_\_\_ / \_\_\_\_\_  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / \_\_\_\_\_  
Velocity<sub>avg-read</sub> \_\_\_\_\_  
ACFM / SP<sub>FANacfm</sub> \_\_\_\_\_ / \_\_\_\_\_  
SCFM / SP<sub>FANscfm</sub> \_\_\_\_\_ / \_\_\_\_\_

### Motor Test Data

Amps \_\_\_\_\_  
Volts \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
Power (kW) \_\_\_\_\_  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP																				
VP <sup>1/2</sup>																				

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

### Notes

Fan tag was painted over and could not be read.

Identification C-EF (5)  
Location Manual "C" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

**Fan Design Data**

Manufacturer Barry Blower  
Type/Size 300 TUB-AF  
Model Number \_\_\_\_\_  
Serial Number 4YM-00244  
Capacity (CFM) \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) \_\_\_\_\_  
BHP \_\_\_\_\_

**Motor Design Data**

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF - -  
Size (HP) \_\_\_\_\_  
Amps \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_

**Fan Test Data**

SP<sub>in</sub> / A<sub>in</sub> \_\_\_\_\_ /  
SP<sub>out</sub> / A<sub>out</sub> \_\_\_\_\_ /  
T<sub>vp</sub> / A<sub>vp</sub> \_\_\_\_\_ /  
RPM / P<sub>barametric</sub> \_\_\_\_\_ /  
Velocity<sub>avg-read</sub> \_\_\_\_\_  
ACFM / SP<sub>FANacfm</sub> \_\_\_\_\_ /  
SCFM / SP<sub>FANscfm</sub> \_\_\_\_\_ /

**Motor Test Data**

Amps \_\_\_\_\_  
Volts \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
Power (kW) \_\_\_\_\_  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP																				
VP <sup>1/2</sup>																				

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\Sigma(VP)^{1/2}/N_{read})$$

$$SP_{Fan actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

Notes

Identification C-EF (6)  
Location Manual "C" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

**Fan Design Data**

Manufacturer Barry Blower  
Type/Size 300 TUB-AF  
Model Number \_\_\_\_\_  
Serial Number 4YM-00247  
Capacity (CFM) \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) \_\_\_\_\_  
BHP \_\_\_\_\_

**Motor Design Data**

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF     -    -      
Size (HP) \_\_\_\_\_  
Amps \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_

**Fan Test Data**

SP<sub>in</sub> / A<sub>in</sub> \_\_\_\_\_ / \_\_\_\_\_  
SP<sub>out</sub> / A<sub>out</sub> \_\_\_\_\_ / \_\_\_\_\_  
T<sub>vp</sub> / A<sub>vp</sub> \_\_\_\_\_ / \_\_\_\_\_  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / \_\_\_\_\_  
Velocity<sub>avg-read</sub> \_\_\_\_\_  
ACFM / SP<sub>FANacfm</sub> \_\_\_\_\_ / \_\_\_\_\_  
SCFM / SP<sub>FANscfm</sub> \_\_\_\_\_ / \_\_\_\_\_

**Motor Test Data**

Amps \_\_\_\_\_  
Volts \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
Power (kW) \_\_\_\_\_  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP																				
VP <sup>1/2</sup>																				

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\sum(VP)^{1/2}/N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan\ @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

**Notes**

Fan is abandond, but air is being pulled by the abatement system.

Identification C-EF (7)  
Location Manual "C" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

**Fan Design Data**

Manufacturer \_\_\_\_\_  
Type/Size \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Capacity (CFM) \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) \_\_\_\_\_  
BHP \_\_\_\_\_

**Motor Design Data**

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF \_\_\_\_\_ - \_\_\_\_\_  
Size (HP) \_\_\_\_\_  
Amps \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_

**Fan Test Data**

SP<sub>in</sub> / A<sub>in</sub> \_\_\_\_\_ / \_\_\_\_\_  
SP<sub>out</sub> / A<sub>out</sub> \_\_\_\_\_ / \_\_\_\_\_  
T<sub>vp</sub> / A<sub>vp</sub> \_\_\_\_\_ / \_\_\_\_\_  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / \_\_\_\_\_  
Velocity<sub>avg-read</sub> \_\_\_\_\_  
ACFM / SP<sub>FANacfm</sub> \_\_\_\_\_ / \_\_\_\_\_  
SCFM / SP<sub>FANscfm</sub> \_\_\_\_\_ / \_\_\_\_\_

**Motor Test Data**

Amps \_\_\_\_\_  
Volts \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
Power (kW) \_\_\_\_\_  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP																				
VP <sup>1/2</sup>																				

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\sum(VP)^{1/2}/N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan\ @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

**Notes**

Could not read fan tag, it was painted over. Fan is abandoned, but air is being pulled by the abatement system.

New Venture Holdings, LLC  
Grand Blanc, Michigan

System Exhaust  
Evaluation

Air Bag "D" Booth

Submitted by  
Comptech Corporation

November 1, 2005



## Air Bag "D" Booth System Exhaust Summary

Fan Identification	Exhaust Volume (ACFM)	Exhaust Volume (SCFM)
D-EF (1) Basecoat Booth	9,410	9,540
D-EF (2) Basecoat Booth	11,700	11,770
D-EF (3) Basecoat Booth	8,740	8,740
D-EF (4) Clearcoat Booth	10,470	10,590
D-EF (5) Clearcoat Booth	13,780	13,910
D-EF (6) Clearcoat Booth	9,460	9,550
D-EF (7) Flash Tunnel	2,460	2,360
<b>Total Air Bag "D" Booth Exhaust</b>	<b>66,020</b>	<b>66,460</b>

Air Bag "D" Booth Exhaust: 66,020 ACFM

**Identification**         D-EF (1)          
**Location**         Air Bag "D" Booth        
**Customer**         New Venture Holdings, LLC          
**Test Date**         November 1, 2005        
**Fan Design Data**
**Manufacturer**         Northern Blower          
**Type/Size**         Vaneaxial Fan / 3000          
**Model Number**         8096          
**Serial Number**         A44563-2          
**Capacity (CFM)**         14,400          
**Speed (RPM)**         1,783          
**SP (in H<sub>2</sub>O)**         7          
**BHP**         25        
**Motor Design Data**
**Manufacturer**                                   
**Model Number**                                   
**Serial Number**                                   
**Frame Size**         324T          
**SF - PF - EFF**         -        -  
**Size (HP)**         40.0          
**Amps**                                   
**Speed (RPM)**         1,800        
**Fan Test Data**
**SP<sub>in</sub> / A<sub>in</sub>**         -4.60        /        8.70          
**SP<sub>out</sub> / A<sub>out</sub>**         -0.07        /        8.70          
**T<sub>vp</sub> / A<sub>vp</sub>**         63        /        5.60          
**RPM / P<sub>barametric</sub>**                         /        30.46          
**Velocity<sub>avg-read</sub>**         1,680          
**ACFM / SP<sub>FANacfm</sub>**         9,410        /        4.46 in WC          
**SCFM / SP<sub>FANscfm</sub>**         9,540        /        4.40 in WC        
**Motor Test Data**
**Amps**         27        28        27          
**Volts**         264        266        266          
**Speed (RPM)**                                   
**Power (kW)**         7.261          
**HP**                                 

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.091	0.021	0.000	0.000	0.213	0.306	0.288	0.299	0.242	0.217	0.236	0.252	0.247	0.255	0.296	0.397	0.304	0.236	0.216	0.124
VP <sup>1/2</sup>	0.302	0.145	0.000	0.000	0.461	0.554	0.536	0.547	0.492	0.466	0.486	0.502	0.497	0.505	0.544	0.630	0.552	0.485	0.465	0.352

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

**Notes**

Identification D-EF (2)  
Location Air Bag "D" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Northern Blower  
Type/Size Vaneaxial Fan / 3000  
Model Number 8096  
Serial Number A44563-6  
Capacity (CFM) 14,400  
Speed (RPM) 1,783  
SP (in H<sub>2</sub>O) 7  
BHP 25

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF - -  
Size (HP) \_\_\_\_\_  
Amps \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -5.30 / 8.70  
SP<sub>out</sub> / A<sub>out</sub> 0.83 / 8.70  
T<sub>vp</sub> / A<sub>vp</sub> 67 / 5.60  
RPM / P<sub>barametric</sub> / 30.46  
Velocity<sub>avg-read</sub> 2,090  
ACFM / SP<sub>FANacfm</sub> 11,700 / 6.02 in WC  
SCFM / SP<sub>FANscfm</sub> 11,770 / 5.98 in WC

### Motor Test Data

Amps 34 35 37  
Volts 265 264 266  
Speed (RPM) \_\_\_\_\_  
Power (kW) 9.355  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.446	0.435	0.304	0.407	0.000	0.000	0.330	0.477	0.729	0.425	0.739	0.778	0.577	0.172	0.000	0.000	0.089	0.441	0.527	0.438
VP <sup>1/2</sup>	0.668	0.659	0.551	0.638	0.000	0.000	0.574	0.691	0.854	0.652	0.859	0.882	0.760	0.414	0.000	0.000	0.298	0.664	0.726	0.662

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\Sigma(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

### Notes

Identification D-EF (3)  
Location Air Bag "D" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Northern Blower  
Type/Size Vaneaxial Fan / 3000  
Model Number 8096  
Serial Number A44563-5  
Capacity (CFM) 14,400  
Speed (RPM) 1,783  
SP (in H<sub>2</sub>O) 7  
BHP 25

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF - -  
Size (HP) \_\_\_\_\_  
Amps \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -5.70 / 8.70  
SP<sub>out</sub> / A<sub>out</sub> 0.17 / 8.70  
T<sub>vp</sub> / A<sub>vp</sub> 70 / 5.60  
RPM / P<sub>barametric</sub> / 30.46  
Velocity<sub>avg-read</sub> 1,560  
ACFM / SP<sub>FANacfm</sub> 8,740 / 5.81 in WC  
SCFM / SP<sub>FANscfm</sub> 8,740 / 5.81 in WC

### Motor Test Data

Amps 30 31 30  
Volts 266 266 264  
Speed (RPM) \_\_\_\_\_  
Power (kW) 7.995  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.373	0.117	0.124	0.225	0.392	0.339	0.128	0.093	0.142	0.090	0.131	0.242	0.433	0.373	0.578	0.236	0.003	0.007	0.000	0.000
VP <sup>1/2</sup>	0.611	0.341	0.352	0.474	0.626	0.583	0.358	0.305	0.377	0.300	0.363	0.492	0.658	0.611	0.760	0.486	0.058	0.081	0.000	0.000

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\Sigma(VP)^{1/2}/N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan\ @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

### Notes

All ductwork, including bypass stack, is severely rusted and has many holes in it.

Identification D-EF (4)  
Location Air Bag "D" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Northern Blower  
Type/Size Vaneaxial Fan / 3000  
Model Number 8096  
Serial Number A44563-3  
Capacity (CFM) 14,400  
Speed (RPM) 1,783  
SP (in H<sub>2</sub>O) 7  
BHP 25

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF - -  
Size (HP) \_\_\_\_\_  
Amps \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -5.70 / 8.70  
SP<sub>out</sub> / A<sub>out</sub> -0.30 / 8.70  
T<sub>vp</sub> / A<sub>vp</sub> 64 / 5.60  
RPM / P<sub>barametric</sub> / 30.46  
Velocity<sub>avg-read</sub> 1,870  
ACFM / SP<sub>FANacfm</sub> 10,470 / 5.31 in WC  
SCFM / SP<sub>FANscfm</sub> 10,590 / 5.25 in WC

### Motor Test Data

Amps 33 32 32  
Volts 265 265 264  
Speed (RPM) \_\_\_\_\_  
Power (kW) 8.522  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.414	0.419	0.545	0.572	0.461	0.476	0.000	0.000	0.000	0.000	0.204	0.310	0.157	0.196	0.046	0.266	0.411	0.520	0.526	0.418
VP <sup>1/2</sup>	0.644	0.647	0.739	0.756	0.679	0.690	0.000	0.000	0.000	0.000	0.452	0.557	0.397	0.442	0.215	0.516	0.641	0.721	0.726	0.647

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\Sigma(VP)^{1/2}/N_{read})$$

$$SP_{Fan actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

### Notes

All ductwork, including bypass stack, is severely rusted and has many holes in it.

Identification D-EF (5)  
Location Air Bag "D" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Northern Blower  
Type/Size Vaneaxial Fan / 3000  
Model Number 8096  
Serial Number A44563-4  
Capacity (CFM) 14,400  
Speed (RPM) 1,783  
SP (in H<sub>2</sub>O) 7  
BHP 25

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF - -  
Size (HP) \_\_\_\_\_  
Amps \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -4.40 / 8.70  
SP<sub>out</sub> / A<sub>out</sub> -0.42 / 8.70  
T<sub>vp</sub> / A<sub>vp</sub> 65 / 5.60  
RPM / P<sub>barametric</sub> / 30.46  
Velocity<sub>avg-read</sub> 2,460  
ACFM / SP<sub>FANacfm</sub> 13,780 / 3.82 in WC  
SCFM / SP<sub>FANscfm</sub> 13,910 / 3.79 in WC

### Motor Test Data

Amps 28 29 29  
Volts 265 265 264  
Speed (RPM) \_\_\_\_\_  
Power (kW) 7.614  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.202	0.360	0.308	0.365	0.421	0.778	0.714	0.612	0.620	0.411	0.136	0.173	0.136	0.110	0.129	0.610	0.642	0.642	0.657	0.345
VP <sup>1/2</sup>	0.450	0.600	0.555	0.604	0.649	0.882	0.845	0.782	0.788	0.641	0.369	0.416	0.369	0.332	0.359	0.781	0.801	0.801	0.811	0.587

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

### Notes

All ductwork, including bypass stack, is severely rusted and has many holes in it.

Identification         D-EF (6)          
Location         Air Bag "D" Booth        

Customer         New Venture Holdings, LLC          
Test Date         November 1, 2005        

**Fan Design Data**

Manufacturer         Northern Blower          
Type/Size         Vaneaxial Fan / 3000          
Model Number         8096          
Serial Number         A44563-1          
Capacity (CFM)         14,400          
Speed (RPM)         1,783          
SP (in H<sub>2</sub>O)         7          
BHP         25        

**Motor Design Data**

Manufacturer           
Model Number           
Serial Number           
Frame Size           
SF - PF - EFF         -        -  
Size (HP)           
Amps           
Speed (RPM)         

**Fan Test Data**

SP<sub>in</sub> / A<sub>in</sub>         -5.80 / 8.70          
SP<sub>out</sub> / A<sub>out</sub>         -0.55 / 8.70          
T<sub>vp</sub> / A<sub>vp</sub>         65 / 5.60          
RPM / P<sub>barametric</sub>         / 30.46          
Velocity<sub>avg-read</sub>         1,690          
ACFM / SP<sub>FANacfm</sub>         9,460 / 5.18 in WC          
SCFM / SP<sub>FANscfm</sub>         9,550 / 5.13 in WC        

**Motor Test Data**

Amps         33        33        33          
Volts         264        263        265          
Speed (RPM)           
Power (kW)         8.747          
HP         

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.250	0.327	0.244	0.202	0.200	0.343	0.312	0.254	0.225	0.162	0.041	0.064	0.062	0.105	0.332	0.241	0.164	0.158	0.127	0.103
VP <sup>1/2</sup>	0.500	0.572	0.494	0.449	0.448	0.586	0.559	0.504	0.474	0.403	0.203	0.253	0.249	0.324	0.576	0.491	0.405	0.398	0.356	0.321

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\sum(VP)^{1/2}/N_{read})$$

$$SP_{Fan actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

**Notes**

All ductwork, including bypass stack, is severely rusted and has many holes in it.

Identification D-EF (7)  
Location Air Bag "D" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Cincinnati  
Type/Size Tubeaxial Fan  
Model Number TAF-24  
Serial Number 877796  
Capacity (CFM) \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) \_\_\_\_\_  
BHP \_\_\_\_\_

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF - -  
Size (HP) \_\_\_\_\_  
Amps \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -1.25 / 3.14  
SP<sub>out</sub> / A<sub>out</sub> -0.09 / 3.14  
T<sub>vp</sub> / A<sub>vp</sub> 93 / 1.77  
RPM / P<sub>barametric</sub> / 30.05  
Velocity<sub>avg-read</sub> 1,390  
ACFM / SP<sub>FANacfm</sub> 2,460 / 1.12 in WC  
SCFM / SP<sub>FANscfm</sub> 2,360 / 1.17 in WC

### Motor Test Data

Amps 3 3 3  
Volts 367 366 367  
Speed (RPM) \_\_\_\_\_  
Power (kW) 1.100  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.082	0.136	0.155	0.118	0.114	0.182	0.157	0.147	0.140	0.072	0.072	0.094	0.087	0.099	0.121	0.154	0.150	0.136	0.115	0.051
VP <sup>1/2</sup>	0.287	0.369	0.394	0.343	0.337	0.426	0.396	0.383	0.374	0.269	0.268	0.307	0.296	0.315	0.348	0.393	0.387	0.369	0.340	0.225

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

### Notes



New Venture Holdings, LLC  
Grand Blanc, Michigan

System Exhaust  
Evaluation

Prime "A" Booth

Submitted by  
Comptech Corporation

November 1, 2005

## Prime "A" Booth System Exhaust Summary

Fan Identification	Exhaust Volume (ACFM)	Exhaust Volume (SCFM)
PA-EF (1) Prime Booth	17,080	17,340
PA-EF (2) Prime Booth	13,400	13,430
Total Prime "A" Booth Exhaust	30,480	30,770

Prime "A" Booth Exhaust: 30,480 ACFM

Identification PA-EF (1)  
Location Prime "A" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Northern Blower  
Type/Size Vaneaxial Fan / 3300  
Model Number 8096  
Serial Number A47535-13  
Capacity (CFM) 18,000  
Speed (RPM) 1,647  
SP (in H<sub>2</sub>O) 7  
BHP 30

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size 324T  
SF - PF - EFF - -  
Size (HP) 40.0  
Amps \_\_\_\_\_  
Speed (RPM) 1,800

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -4.30 / 10.56  
SP<sub>out</sub> / A<sub>out</sub> -0.60 / 10.56  
T<sub>vp</sub> / A<sub>vp</sub> 62 / 5.60  
RPM / P<sub>barametric</sub> / 30.46  
Velocity<sub>avg-read</sub> 3,050  
ACFM / SP<sub>FANacfm</sub> 17,080 / 3.54 in WC  
SCFM / SP<sub>FANscfm</sub> 17,340 / 3.48 in WC

### Motor Test Data

Amps 31 30 29  
Volts 267 267 265  
Speed (RPM) \_\_\_\_\_  
Power (kW) 8.017  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.133	0.077	0.079	0.182	0.160	0.898	1.029	0.959	1.076	0.787	0.723	0.605	0.659	0.553	0.748	0.948	0.964	0.910	0.931	0.826
VP <sup>1/2</sup>	0.365	0.278	0.281	0.427	0.400	0.948	1.014	0.980	1.037	0.887	0.850	0.778	0.812	0.744	0.865	0.974	0.982	0.954	0.965	0.909

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\Sigma(VP)^{1/2}/N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan\ @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

### Notes

Identification PA-EF (2)  
Location Prime "A" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Northern Blower  
Type/Size Vaneaxial Fan / 3300  
Model Number 8096  
Serial Number A47535-15  
Capacity (CFM) 14,400 (Durr)  
Speed (RPM) 1,647  
SP (in H<sub>2</sub>O) 7  
BHP 30

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size 324T  
SF - PF - EFF - -  
Size (HP) 40.0  
Amps \_\_\_\_\_  
Speed (RPM) 1,800

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -4.50 / 10.56  
SP<sub>out</sub> / A<sub>out</sub> -0.52 / 10.56  
T<sub>vp</sub> / A<sub>vp</sub> 69 / 4.28  
RPM / P<sub>barametric</sub> / 29.91  
Velocity<sub>avg-read</sub> 3,130  
ACFM / SP<sub>FANacfm</sub> 13,400 / 3.88 in WC  
SCFM / SP<sub>FANscfm</sub> 13,430 / 3.87 in WC

### Motor Test Data

Amps 30 29 28  
Volts 267 266 267  
Speed (RPM) \_\_\_\_\_  
Power (kW) 7.733  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.443	0.510	0.647	0.524	0.496	0.839	0.992	1.156	1.081	0.606	0.772	0.867	0.717	0.720	0.594	0.516	0.334	0.307	0.311	0.262
VP <sup>1/2</sup>	0.666	0.714	0.804	0.724	0.704	0.916	0.996	1.075	1.040	0.779	0.879	0.931	0.847	0.849	0.771	0.718	0.578	0.554	0.558	0.512

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\Sigma(VP)^{1/2}/N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan\ @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

### Notes

New Venture Holdings, LLC  
Grand Blanc, Michigan

System Exhaust  
Evaluation

Prime "B" Booth

Submitted by  
Comptech Corporation

November 1, 2005

## Prime "B" Booth System Exhaust Summary

Fan Identification	Exhaust Volume (ACFM)	Exhaust Volume (SCFM)
PB-EF (1) Prime Booth	14,210	14,290
PB-EF (2) Prime Booth	15,140	15,230
Total Prime "B" Booth Exhaust	29,350	29,520

Prime "B" Booth Exhaust: 29,350 ACFM

Identification PB-EF (1)  
Location Prime "B" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Northern Blower  
Type/Size Vaneaxial Fan / 3300  
Model Number 8096  
Serial Number A47535-11  
Capacity (CFM) 18,000  
Speed (RPM) 1,647  
SP (in H<sub>2</sub>O) 7  
BHP 30

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size 324T  
SF - PF - EFF - -  
Size (HP) 40.0  
Amps \_\_\_\_\_  
Speed (RPM) 1,800

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -3.90 / 10.56  
SP<sub>out</sub> / A<sub>out</sub> -0.20 / 10.56  
T<sub>vp</sub> / A<sub>vp</sub> 67 / 4.90  
RPM / P<sub>barametric</sub> / 30.46  
Velocity<sub>avg-read</sub> 2,900  
ACFM / SP<sub>FANacfm</sub> 14,210 / 3.59 in WC  
SCFM / SP<sub>FANscfm</sub> 14,290 / 3.57 in WC

### Motor Test Data

Amps 31 30 30  
Volts 265 267 267  
Speed (RPM) \_\_\_\_\_  
Power (kW) 8.079  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.703	0.672	0.555	0.780	0.676	0.596	0.447	0.424	0.343	0.435	0.354	0.536	0.419	0.594	0.576	0.636	0.521	0.557	0.433	0.580
VP <sup>1/2</sup>	0.839	0.820	0.745	0.883	0.822	0.772	0.669	0.651	0.586	0.659	0.595	0.732	0.647	0.771	0.759	0.798	0.722	0.747	0.658	0.762

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

### Notes

Identification PB-EF (2)  
Location Prime "B" Booth

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Northern Blower  
Type/Size Vaneaxial Fan / 3300  
Model Number 8096  
Serial Number A47535-5  
Capacity (CFM) 14,400 (Durr)  
Speed (RPM) 1,647  
SP (in H<sub>2</sub>O) 7  
BHP 30

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size 324T  
SF - PF - EFF - -  
Size (HP) 40.0  
Amps \_\_\_\_\_  
Speed (RPM) 1,800

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -5.10 / 10.56  
SP<sub>out</sub> / A<sub>out</sub> -1.90 / 10.56  
T<sub>vp</sub> / A<sub>vp</sub> 67 / 4.30  
RPM / P<sub>barametric</sub> / 30.46  
Velocity<sub>avg-read</sub> 3,520  
ACFM / SP<sub>FANacfm</sub> 15,140 / 3.07 in WC  
SCFM / SP<sub>FANscfm</sub> 15,230 / 3.05 in WC

### Motor Test Data

Amps 28 31 27  
Volts 266 265 266  
Speed (RPM) \_\_\_\_\_  
Power (kW) 7.616  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.847	0.541	0.257	0.323	0.319	1.445	1.230	1.161	0.882	0.496	0.904	1.062	0.738	0.729	0.449	0.639	1.084	1.046	1.222	1.198
VP <sup>1/2</sup>	0.920	0.736	0.507	0.568	0.565	1.202	1.109	1.078	0.939	0.704	0.951	1.030	0.859	0.854	0.670	0.799	1.041	1.023	1.106	1.095

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

### Notes



New Venture Holdings, LLC  
Grand Blanc, Michigan

System Exhaust  
Evaluation

Fascia "A" Oven

Submitted by  
Comptech Corporation

November 1, 2005

## Fascia "A" Oven System Exhaust Summary

Fan Identification	Exhaust Volume (ACFM)	Exhaust Volume (SCFM)
A-EF (8) Flash Tunnel (fan is off)	0	0
A-EF (9) Oven Exhaust	3,750	3,680
Total Fascia "A" Oven Exhaust	3,750	3,680

Fascia "A" Oven Exhaust: 3,680 SCFM

Identification A-EF (8)  
Location Fascia "A" Oven

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Cincinnati  
Type/Size Tubeaxial Fan  
Model Number TAF24  
Serial Number 877796  
Capacity (CFM) 5,000 ACFM @ 90° (Durr)  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) \_\_\_\_\_  
BHP \_\_\_\_\_

### Motor Design Data

Manufacturer Baldor  
Model Number M3615T  
Serial Number 36G784Y696H1  
Frame Size 184T  
SF - PF - EFF 1.15 - .79 - .875  
Size (HP) 5.0  
Amps 13.4 / 6.7  
Speed (RPM) 1,750

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> \_\_\_\_\_ / \_\_\_\_\_  
SP<sub>out</sub> / A<sub>out</sub> \_\_\_\_\_ / \_\_\_\_\_  
T<sub>vp</sub> / A<sub>vp</sub> \_\_\_\_\_ / \_\_\_\_\_  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / \_\_\_\_\_  
Velocity<sub>avg-read</sub> \_\_\_\_\_  
ACFM / SP<sub>FANacfm</sub> \_\_\_\_\_ / \_\_\_\_\_  
SCFM / SP<sub>FANscfm</sub> \_\_\_\_\_ / \_\_\_\_\_

### Motor Test Data

Amps \_\_\_\_\_  
Volts \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
Power (kW) \_\_\_\_\_  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP																				
VP <sup>1/2</sup>																				

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

### Notes

No readings were taken, the fan is shut off.

Identification A-EF (9)  
 Location Fascia "A" Oven

 Customer New Venture Holdings, LLC  
 Test Date November 1, 2005
**Fan Design Data**

 Manufacturer \_\_\_\_\_  
 Type/Size Tubeaxial Fan  
 Model Number \_\_\_\_\_  
 Serial Number \_\_\_\_\_  
 Capacity (CFM) 5,000 ACFM @ 270° (Durr)  
 Speed (RPM) \_\_\_\_\_  
 SP (in H<sub>2</sub>O) \_\_\_\_\_  
 BHP \_\_\_\_\_

**Motor Design Data**

 Manufacturer Baldor  
 Model Number M3616T  
 Serial Number 36A001X 875H1  
 Frame Size 184T  
 SF - PF - EFF 1.15 - .93 - .885  
 Size (HP) 7.5  
 Amps 18.5-17 4/8  
 Speed (RPM) 3,450
**Fan Test Data**

 SP<sub>in</sub> / A<sub>in</sub> -0.88 / 1.77  
 SP<sub>out</sub> / A<sub>out</sub> 1.15 / 1.77  
 T<sub>vp</sub> / A<sub>vp</sub> 80 / 1.22  
 RPM / P<sub>barametric</sub> / 29.91  
 Velocity<sub>avg-read</sub> 3,070  
 ACFM / SP<sub>FANacfm</sub> 3,750 / 1.75 in WC  
 SCFM / SP<sub>FANscfm</sub> 3,680 / 1.79 in WC
**Motor Test Data**

 Amps 5            6            6  
 Volts 266        266        267  
 Speed (RPM) \_\_\_\_\_  
 Power (kW) 1.509  
 HP 2.884

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	1.077	0.877	0.754	0.686	0.649	0.445	0.387	0.411	0.386	0.125	0.581	0.501	0.515	0.471	0.583	0.682	0.808	1.015	0.556	0.478
VP <sup>1/2</sup>	1.038	0.937	0.868	0.828	0.806	0.667	0.622	0.641	0.621	0.354	0.763	0.708	0.717	0.686	0.764	0.826	0.899	1.007	0.746	0.692

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

**Notes**

Oven heater fan was running, but the burner was off.

New Venture Holdings, LLC  
Grand Blanc, Michigan

System Exhaust  
Evaluation

Fascia "B" Oven

Submitted by  
Comptech Corporation

November 1, 2005

## Fascia "B" Oven System Exhaust Summary

Fan Identification	Exhaust Volume (ACFM)	Exhaust Volume (SCFM)
B-EF (8) Flash Tunnel (fan is off)	0	0
B-EF (9) Oven Exhaust (broken damper)	0	0
B-EF (10) Oven Exhaust	2,070	1,500
B-EF (11) Oven Exhaust	1,490	1,080
B-EF (12) Oven Exhaust	1,580	1,150
B-EF (13) Oven Exhaust	1,530	1,110
<b>Total Fascia "B" Oven Exhaust</b>	<b>6,670</b>	<b>4,840</b>

Fascia "B" Oven Exhaust: 4,840 SCFM

Identification B-EF (8)  
Location Fascia "B" Oven

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer Cincinnati  
Type/Size Tubeaxial Fan  
Model Number TAF-24  
Serial Number 877796  
Capacity (CFM) 5,000 ACFM @ 90° (Durr)  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) \_\_\_\_\_  
BHP \_\_\_\_\_

### Motor Design Data

Manufacturer General Electric  
Model Number 5K184BC220A  
Serial Number 3470130294  
Frame Size 184T  
SF - PF - EFF 1.15 - .93 - .855  
Size (HP) 5.0  
Amps 13 / 6.5  
Speed (RPM) 1,750

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> \_\_\_\_\_ / \_\_\_\_\_  
SP<sub>out</sub> / A<sub>out</sub> \_\_\_\_\_ / \_\_\_\_\_  
T<sub>vp</sub> / A<sub>vp</sub> \_\_\_\_\_ / \_\_\_\_\_  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / \_\_\_\_\_  
Velocity<sub>avg-read</sub> \_\_\_\_\_  
ACFM / SP<sub>FANacfm</sub> \_\_\_\_\_ / \_\_\_\_\_  
SCFM / SP<sub>FANscfm</sub> \_\_\_\_\_ / \_\_\_\_\_

### Motor Test Data

Amps \_\_\_\_\_  
Volts \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
Power (kW) \_\_\_\_\_  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP																				
VP <sup>1/2</sup>																				

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

### Notes

No readings were taken, the fan was off.

Identification B-EF (9)  
Location Fascia "B" Oven

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer \_\_\_\_\_  
Type/Size Tubeaxial Fan  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Capacity (CFM) 5,000 ACFM @ 270° (Durr)  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) \_\_\_\_\_  
BHP \_\_\_\_\_

### Motor Design Data

Manufacturer Baldor  
Model Number M3616T  
Serial Number 36A001X 875H1  
Frame Size 184T  
SF - PF - EFF 1.15 - .93 - .885  
Size (HP) 7.5  
Amps 18.5-17 4/8  
Speed (RPM) 3,450

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> \_\_\_\_\_ / \_\_\_\_\_  
SP<sub>out</sub> / A<sub>out</sub> \_\_\_\_\_ / \_\_\_\_\_  
T<sub>vp</sub> / A<sub>vp</sub> \_\_\_\_\_ / \_\_\_\_\_  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / \_\_\_\_\_  
Velocity<sub>avg-read</sub> \_\_\_\_\_  
ACFM / SP<sub>FANacfm</sub> \_\_\_\_\_ / \_\_\_\_\_  
SCFM / SP<sub>FANscfm</sub> \_\_\_\_\_ / \_\_\_\_\_

### Motor Test Data

Amps 6      7      7  
Volts 266      266      267  
Speed (RPM) \_\_\_\_\_  
Power (kW) 1.776  
HP 3.393

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP																				
VP <sup>1/2</sup>																				

$$V_{avg} = 952.8 ((460+T_{vp})/P_{barametric})^{1/2} (\Sigma(VP)^{1/2}/N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM}/1097A_i)^2$$

$$SP_{Fan\ @70} = ((460+T)/530)(SP_o - SP_i) - 0.075(Q_{ACFM}/1097A_i)^2$$

### Notes

No readings could be taken due to a broken actuator shaft on the damper; the damper was closed.



Identification B-EF (10)  
Location Fascia "B" Oven

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer New York Blower  
Type/Size Series 20 GI Fan  
Model Number 144 LS  
Serial Number \_\_\_\_\_  
Capacity (CFM) 2,500 ACFM @ 270° (Durr)  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) 2  
BHP 1

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF - -  
Size (HP) 3.0  
Amps \_\_\_\_\_  
Speed (RPM) 1,750

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -1.08 / 0.44  
SP<sub>out</sub> / A<sub>out</sub> 0.73 / 0.43  
T<sub>vp</sub> / A<sub>vp</sub> 270 / 0.92  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / 29.91  
Velocity<sub>avg-read</sub> 2,250  
ACFM / SP<sub>FANacfm</sub> 2,070 / 0.43 in WC  
SCFM / SP<sub>FANscfm</sub> 1,500 / 1.11 in WC

### Motor Test Data

Amps \_\_\_\_\_  
Volts \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
Power (kW) \_\_\_\_\_  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.128	0.176	0.198	0.232	0.228	0.258	0.269	0.255	0.301	0.268	0.128	0.176	0.198	0.232	0.228	0.258	0.269	0.255	0.301	0.268
VP <sup>1/2</sup>	0.358	0.420	0.445	0.482	0.477	0.508	0.519	0.505	0.548	0.518	0.358	0.420	0.445	0.482	0.477	0.508	0.519	0.505	0.548	0.518

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\Sigma(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

### Notes

Identification B-EF (11)  
Location Fascia "B" Oven

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer New York Blower  
Type/Size Series 20 GI Fan  
Model Number 144 LS  
Serial Number \_\_\_\_\_  
Capacity (CFM) 2,500 ACFM @ 270° (Durr)  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) 2  
BHP 1

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF - -  
Size (HP) 3.0  
Amps \_\_\_\_\_  
Speed (RPM) 1,750

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -0.80 / 0.44  
SP<sub>out</sub> / A<sub>out</sub> 0.66 / 0.43  
T<sub>vp</sub> / A<sub>vp</sub> 270 / 0.92  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / 29.91  
Velocity<sub>avg-read</sub> 1,620  
ACFM / SP<sub>FANacfm</sub> 1,490 / 0.75 in WC  
SCFM / SP<sub>FANscfm</sub> 1,080 / 1.30 in WC

### Motor Test Data

Amps \_\_\_\_\_  
Volts \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
Power (kW) \_\_\_\_\_  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.095	0.106	0.120	0.148	0.134	0.106	0.123	0.124	0.116	0.118	0.095	0.106	0.120	0.148	0.134	0.106	0.123	0.124	0.116	0.118
VP <sup>1/2</sup>	0.308	0.326	0.347	0.385	0.367	0.326	0.351	0.352	0.341	0.344	0.308	0.326	0.347	0.385	0.367	0.326	0.351	0.352	0.341	0.344

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\Sigma(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

### Notes

Identification B-EF (12)  
Location Fascia "B" Oven

Customer New Venture Holdings, LLC  
Test Date November 1, 2005

### Fan Design Data

Manufacturer New York Blower  
Type/Size Series 20 GI Fan  
Model Number 144 LS  
Serial Number \_\_\_\_\_  
Capacity (CFM) 2,500 ACFM @ 270° (Durr)  
Speed (RPM) \_\_\_\_\_  
SP (in H<sub>2</sub>O) 2  
BHP 1

### Motor Design Data

Manufacturer \_\_\_\_\_  
Model Number \_\_\_\_\_  
Serial Number \_\_\_\_\_  
Frame Size \_\_\_\_\_  
SF - PF - EFF - -  
Size (HP) 3.0  
Amps \_\_\_\_\_  
Speed (RPM) 1,750

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -1.04 / 0.44  
SP<sub>out</sub> / A<sub>out</sub> 0.47 / 0.43  
T<sub>vp</sub> / A<sub>vp</sub> 270 / 0.92  
RPM / P<sub>barametric</sub> \_\_\_\_\_ / 29.91  
Velocity<sub>avg-read</sub> 1,720  
ACFM / SP<sub>FANacfm</sub> 1,580 / 0.71 in WC  
SCFM / SP<sub>FANscfm</sub> 1,150 / 1.28 in WC

### Motor Test Data

Amps \_\_\_\_\_  
Volts \_\_\_\_\_  
Speed (RPM) \_\_\_\_\_  
Power (kW) \_\_\_\_\_  
HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.057	0.146	0.187	0.178	0.160	0.140	0.136	0.136	0.130	0.098	0.057	0.146	0.187	0.178	0.160	0.140	0.136	0.136	0.130	0.098
VP <sup>1/2</sup>	0.239	0.383	0.432	0.421	0.400	0.374	0.369	0.369	0.361	0.314	0.239	0.383	0.432	0.421	0.400	0.374	0.369	0.369	0.361	0.314

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

### Notes

Identification B-EF (13)  
 Location Fascia "B" Oven

 Customer New Venture Holdings, LLC  
 Test Date November 1, 2005
**Fan Design Data**

 Manufacturer New York Blower  
 Type/Size Series 20 GI Fan  
 Model Number 144 LS  
 Serial Number \_\_\_\_\_  
 Capacity (CFM) 2,500 ACFM @ 270° (Durr)  
 Speed (RPM) \_\_\_\_\_  
 SP (in H<sub>2</sub>O) 2  
 BHP 1
**Motor Design Data**

 Manufacturer \_\_\_\_\_  
 Model Number \_\_\_\_\_  
 Serial Number \_\_\_\_\_  
 Frame Size \_\_\_\_\_  
 SF - PF - EFF - -  
 Size (HP) 3.0  
 Amps \_\_\_\_\_  
 Speed (RPM) 1,750
**Fan Test Data**

 SP<sub>in</sub> / A<sub>in</sub> -0.83 / 0.44  
 SP<sub>out</sub> / A<sub>out</sub> 0.65 / 0.43  
 T<sub>vp</sub> / A<sub>vp</sub> 270 / 0.92  
 RPM / P<sub>barametric</sub> \_\_\_\_\_ / 29.91  
 Velocity<sub>avg-read</sub> 1,660  
 ACFM / SP<sub>FANacfm</sub> 1,530 / 0.73 in WC  
 SCFM / SP<sub>FANscfm</sub> 1,110 / 1.28 in WC
**Motor Test Data**

 Amps \_\_\_\_\_  
 Volts \_\_\_\_\_  
 Speed (RPM) \_\_\_\_\_  
 Power (kW) \_\_\_\_\_  
 HP \_\_\_\_\_

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.068	0.105	0.163	0.174	0.136	0.149	0.145	0.129	0.116	0.086	0.068	0.105	0.163	0.174	0.136	0.149	0.145	0.129	0.116	0.086
VP <sup>1/2</sup>	0.260	0.324	0.404	0.417	0.369	0.385	0.380	0.359	0.340	0.294	0.260	0.324	0.404	0.417	0.369	0.385	0.380	0.359	0.340	0.294

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\sum(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

**Notes**

New Venture Holdings, LLC  
Grand Blanc, Michigan

System Exhaust  
Evaluation

Air Bag "D" Oven

Submitted by  
Comptech Corporation

November 1, 2005

## Air Bag "D" Oven System Exhaust Summary

Fan Identification	Exhaust Volume (ACFM)	Exhaust Volume (SCFM)
D-EF (8) Flash Tunnel	4,550	3,840
Total Air Bag "D" Oven Exhaust	4,550	3,840

Air Bag "D" Oven Exhaust: 3,840 SCFM

Identification D-EF (8)  
 Location Air Bag "D" Oven

Customer New Venture Holdings, LLC  
 Test Date November 1, 2005

### Fan Design Data

Manufacturer Cincinnati  
 Type/Size Tubeaxial Fan  
 Model Number HTF-15  
 Serial Number 878670  
 Capacity (CFM) 5,000 ACFM @ 190° (Durr)  
 Speed (RPM) \_\_\_\_\_  
 SP (in H<sub>2</sub>O) \_\_\_\_\_  
 BHP \_\_\_\_\_

### Motor Design Data

Manufacturer Baldor  
 Model Number M355OT  
 Serial Number 35A0015253H1  
 Frame Size 143T  
 SF - PF - EFF 1.15 - .85 - .825  
 Size (HP) 1.5  
 Amps 4.3-4.2 / 2.1  
 Speed (RPM) 3,450

### Fan Test Data

SP<sub>in</sub> / A<sub>in</sub> -0.88 / 1.23  
 SP<sub>out</sub> / A<sub>out</sub> -0.32 / 1.23  
 T<sub>vp</sub> / A<sub>vp</sub> 168 / 1.23  
 RPM / P<sub>barametric</sub> \_\_\_\_\_ / 30.05  
 Velocity<sub>avg-read</sub> 3,700  
 ACFM / SP<sub>FANacfm</sub> 4,550 / -0.29 in WC  
 SCFM / SP<sub>FANscfm</sub> 3,840 / -0.19 in WC

### Motor Test Data

Amps 2 2 2  
 Volts 267 267 267  
 Speed (RPM) \_\_\_\_\_  
 Power (kW) 0.534  
 HP 0.869

Point	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VP	0.535	0.733	0.862	0.845	0.919	0.877	0.875	0.776	0.625	0.399	0.497	0.629	0.719	0.856	0.797	0.847	0.882	0.783	0.727	0.439
VP <sup>1/2</sup>	0.732	0.856	0.929	0.919	0.959	0.936	0.935	0.881	0.791	0.631	0.705	0.793	0.848	0.925	0.893	0.920	0.939	0.885	0.853	0.663

$$V_{avg} = 952.8 ((460 + T_{vp}) / P_{barametric})^{1/2} (\Sigma(VP)^{1/2} / N_{read})$$

$$SP_{Fan\ actual} = SP_o - SP_i - VP_i = SP_o - SP_i - 0.075(Q_{ACFM} / 1097A_i)^2$$

$$SP_{Fan\ @70} = ((460 + T) / 530)(SP_o - SP_i) - 0.075(Q_{ACFM} / 1097A_i)^2$$

### Notes

All ductwork, including bypass stack, is severely rusted and has many holes in it.