**Report By:**

**National TAB**
**1329 E. KEMPER ROAD**
**SUITE 4210**
**CINCINNATI, OH 45246**

**Report: TAB Report**

**Function: Test, Adjust, & Balance**

**Date: 04/29/2025**

**Completed By: National TAB**

# PROJECT

## 04-28-25 Penn Station (Massillon, OH)

1139 Lincoln Way East

Massillon , OH 44646

Client

C&T DESIGN

4025 PORT UNION RD.

FAIRFIELD, OH 45014

# National TAB

**Project: 04-28-25 Penn Station (Massillon, OH)**

## Table Of Contents

## Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report is further detail about your building performance including recommendations, asset data, and pictures. Our focus is to work with the trades to remedy any issues or deficiencies during the actual field balancing and not after the balancing has occurred to achieve a positive environment and outcome. The level of success is determined by the availability of the trades, possible parts needed, or time constraints.

RTU's (Roof Top Units) w/ Diffusers
Each of the RTU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within tolerance of the engineer's design flow. Each outlet was then adjusted to within tolerance of the design flow. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. The outside air damper was adjusted until the airflow was within the design requirements. Any equipment that fell outside of that tolerance is noted throughout the report.

Kitchen Exhaust Hood & Associated Fans
Each kitchen exhaust fan was measured at the hood filter bay utilizing a velocity matrix and a manufacturer's correction factor. Each filter velocity is multiplied by the manufacturer's corrected area. The sum of these readings equals the total flow of the exhaust fans. The total flow of the exhaust was then adjusted to within tolerance of the design flow. . Any EF's that fell outside of this tolerance is noted throughout the report.

MUA (Make Up Air Unit) w/ PSP
Total flow for the MAU (Make-up Air Unit) unit was measured by readings taken at the discharge of the hood's perforated supply plenum. Readings taken with a velocity matrix were averaged and multiplied by a manufacturer's corrected area. Adjustments to the fan speed were made in order to bring the unit to within design tolerance. Any MUA's that fell outside of this tolerance is noted throughout the report.

General Exhaust Fans w/ Grilles
The general exhaust fans were measured by reading each air device with a flow hood. The total airflow for each fan is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within tolerance of design. Each terminal device was balanced to within tolerance of the design volume using the installed volume dampers. Any equipment that fell outside of this tolerance is noted throughout the report.

Final Building Tests
After completing the test and balance the final building pressure was measured. It was confirmed that the building pressure fell within acceptable tolerances of -0.02" wc to +0.02" wc and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report.
The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat on to ensure satisfactory hood capture and containment.

## Issue List

- Hail Guards
- Hood 2 Tag
- RTU-1 Final Filters
- RTU-2 Final Filters

## 04-28-25 Penn Station (Massillon, OH)

### Project Issue Information

**Issue Name :** Hail Guards

**Description :** RTU1 & RTU2 are missing their hail guards recommend installing

**Created By :** National TAB

**Assigned To :** National TAB - Kristopher Passley

**Status :** Open

**Priority :** Medium

**Asset Tag :**

**Originated Date :** 04/29/2025 - Kristopher Passley - National TAB

Project Issue File Details

**04/29/2025**

**04/29/2025**

**04/29/2025**

## 04-28-25 Penn Station (Massillon, OH)

### Project Issue Information

**Issue Name :** Hood 2 Tag
**Description :** Tag is missing from hood

**Created By :** National TAB
**Assigned To :** National TAB - Kristopher Passley

**Status :** Open
**Priority :** Low
**Asset Tag :**
**Originated Date :** 04/29/2025 - Kristopher Passley - National TAB

Project Issue File Details

**04/29/2025**

## 04-28-25 Penn Station (Massillon, OH)

### Project Issue Information

**Issue Name :** RTU-1 Final Filters

**Description :** Final filters are filled with construction dust and is currently a MERV 4 rated filter. Recommend replacing filters with MERV 8 or better.

**Created By :** National TAB

**Assigned To :** National TAB - Kristopher Passley

**Status :** Open

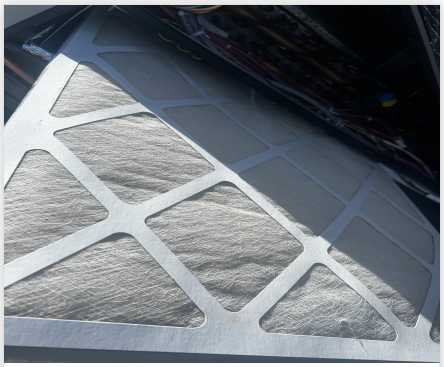
**Priority :** Medium

**Asset Tag :**

**Originated Date :** 04/29/2025 - Kristopher Passley - National TAB

Project Issue File Details

**04/29/2025**



**04/29/2025**

## 04-28-25 Penn Station (Massillon, OH)

### Project Issue Information

**Issue Name :** RTU-2 Final Filters

**Description :** Final filters are filled with construction dust and is currently a MERV 4 rated filter. Recommend replacing filters with MERV 8 or better.

**Created By :** National TAB

**Assigned To :** National TAB - Kristopher Passley

**Status :** Open

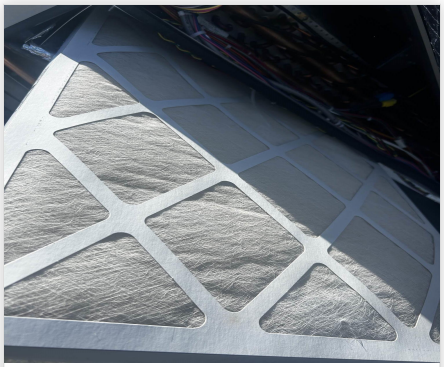
**Priority :** Medium

**Asset Tag :**

**Originated Date :** 04/29/2025 - Kristopher Passley - National TAB

Project Issue File Details

**04/30/2025**



**04/30/2025**

NATIONAL TAB

## AIR BALANCE SCHEDULE

| UNIT | AREA SERVED | HVAC SUPPLY | | HVAC RETURN | | HVAC OUTDOOR | | OA % | | HOOD MAKE-UP | | HOOD EXHAUST | | GENERAL EXH. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | DESIGN | ACTUAL | DESIGN | ACTUAL | DESIGN | ACTUAL | DESIGN | ACTUAL | DESIGN | ACTUAL | DESIGN | ACTUAL | DESIGN | ACTUAL |
| RTU-1 | DINING | 2940 | 3060 | 2190 | 2307 | 750 | 753 | 25.5% | 24.6% | | | | | | |
| RTU-2 | KIT;CHEN | 3000 | 3116 | 2250 | 2364 | 750 | 752 | 25.0% | 24.1% | | | | | | |
| MUA-1 | COOKLINE | | | | | | | | | 1650 | 1671 | | | | |
| KEF-1 | GRILL | | | | | | | | | | | 1120 | 1124 | | |
| KEF-2 | OVEN | | | | | | | | | | | 700 | 702 | | |
| KEF-3 | FRY | | | | | | | | | | | 660 | 685 | | |
| EF-WOMENS | | | | | | | | | | | | | | 75 | 74 |
| EF-MENS | | | | | | | | | | | | | | 150 | 153 |
| **TOTALS** | | 5940 | 6176 | 4440 | 4671 | 1500 | 1505 | | | 1650 | 1671 | 2480 | 2511 | 225 | 227 |

**NET BUILDING AIRFLOW CALCULATION**

| TOTALS | DESIGN | ACTUAL |
|---|---|---|
| TOTAL OA | 3150 | 3176 |
| TOTAL EXHAUST | 2705 | 2738 |
| **NET AIRFLOW** | 445 | 438 |

| DOOR TESTED | BUILDING PRESSURE MEASUREMENTS (IN. H20) |
|---|---|
| FRONT | 0.009 |
| SIDE | |
| REAR | 0.001 |
| **AVERAGE** | **0.005** |

**FINAL CHECKS**

ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✓

NOTES:

# CheckList List

- STEP 1: INITIAL WALKTHROUGH
- STEP 2: UNIT DATA AND EVAL
- STEP 3: TEST, ADJUST AND BALANCE
- STEP 4: FINAL TESTS

# 04-28-25 Penn Station (Massillon, OH)

## CheckList Information

| | | | |
|---|---|---|---|
| **Name :** | STEP 1: INITIAL WALKTHROUGH | **Status :** | Completed |
| **Assigned Organization :** | National TAB | **Asset :** | |
| **Requesting Organization :** | National TAB | | |
| **Created Date :** | 04/23/2025 - Tara Metcalf - National TAB | | |
| **Completed Date :** | 04/30/2025 - Kristopher Passley - National TAB | | |

## CheckList Item Details

**INITIAL SITE WALKTHROUGH**

**Review Plan Review Checklist, has it been signed off and meets our standards to start balancing? If not contact processor to ensure job is ready.**

**Comment:**

YES

**All diffusers and grilles are installed and match design?**

**Comment:**

YES

**All hood filters installed and accounted for?**

**Comment:**

YES

**Hoods are wired and have power?**

**Comment:**

YES

**Hood is free of alarms?**

**Comment:**

YES

**Thermostats have power?**

**Comment:**

YES

**Have trades/general contractor been notified about any issues and are they created on FaciliBuild?**

**Comment:**

YES

# 04-28-25 Penn Station (Massillon, OH)

## CheckList Information

| | | | |
|---|---|---|---|
| **Name :** | STEP 2: UNIT DATA AND EVAL | **Status :** | Completed |
| **Assigned Organization :** | National TAB | **Asset :** | |
| **Requesting Organization :** | National TAB | | |
| **Created Date :** | 04/23/2025 - Tara Metcalf - National TAB | | |
| **Completed Date :** | 04/30/2025 - Kristopher Passley - National TAB | | |

## CheckList Item Details

**UNIT DATA AND EVALUATION WHILE GATHERING UNIT DATA CHECK THE FOLLOWING:**

**RTU's/AHU's**

**Economizers are assembled and functional?**

**Comment:**

YES

**DCV Max damper opening position is set to minimum?**

**Comment:**

YES

**Free cooling enthalpy set point set for lowest setting (Typically "D")**

**Comment:**

YES

**Motors are all operating below the FLA rating?**

**Comment:**

YES

**Are belts tight?**

**Comment:**

NA

**If direct drive unit is the speed controller working.**

**Comment:**

YES

---

**Is gas piping installed and valves turned on?**

**Comment:**

YES

---

**Unit free of noticeable noise and vibration**

**Comment:**

YES

---

**EF's**

---

**Rotation is correct?**

**Comment:**

YES

---

**Belts are tight?**

**Comment:**

NA

---

**Grease cup installed on hood fan?**

**Comment:**

YES

---

**Hinge kit installed installed on hood fan?**

**Comment:**

YES

---

**Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?**

**Comment:**

YES

---

**Flex conduit is long enough so that fan can be completely tilted back?**

**Comment:**

YES

---

**There is no major leakage around base of fan?**

**Comment:**

YES

---

**Is the motor operating below the motor FLA rating?**

**Comment:**

YES

---

**For restroom fan(s) is the back draft damper installed and can it fully open?**

**Comment:**

YES

---

**Unit free of noticeable noise and vibration?**

**Comment:**

YES

---

**MUA**

---

**Rotation is correct?**

**Comment:**

YES

---

**Gas piping is installed and valves are in on position?**

**Comment:**

YES

---

**Heater tested and is functional?**

**Comment:**

YES

---

**Internal motorized damper is fully opening?**

**Comment:**

YES

---

**Motor is operating below the FLA rating?**

**Comment:**

YES

---

**Unit free of noticeable noise and vibration?**

**Comment:**

YES

**HOODS**

**Kitchen equipment installed in proper places?**

**Comment:**

YES

**Can kitchen equipment be turned on for final smoke test?**

**Comment:**

NO

**DOCUMENTATION**

**Have trades/general contractor been notified about any issues and are they created on FaciliBuild?**

**Comment:**

YES

# 04-28-25 Penn Station (Massillon, OH)

## CheckList Information

| | | | |
|---|---|---|---|
| **Name :** | STEP 3: TEST, ADJUST AND BALANCE | **Status :** | Completed |
| **Assigned Organization :** | National TAB | **Asset :** | |
| **Requesting Organization :** | National TAB | | |
| **Created Date :** | 04/23/2025 - Tara Metcalf - National TAB | | |
| **Completed Date :** | 04/29/2025 - Kristopher Passley - National TAB | | |

## CheckList Item Details

**TEST, ADJUST, AND BALANCE ALL EQUIPMENT:**

**DURING TESTING MAKE NOTE OF THE FOLLOWING:**

| | |
|---|---|
| **Is space free of drafting?** | Yes |
| **Comment:** | |
| **Is space comfortable in all areas?** | Yes |
| **Comment:** | |
| **Is the space free of ventilation noise?** | Yes |
| **Comment:** | |

**If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".**

**Comment:**

NA

# 04-28-25 Penn Station (Massillon, OH)

## CheckList Information

| | | | |
|---|---|---|---|
| **Name :** | STEP 4: FINAL TESTS | **Status :** | Completed |
| **Assigned Organization :** | National TAB | **Asset :** | |
| **Requesting Organization :** | National TAB | | |
| **Created Date :** | 04/23/2025 - Tara Metcalf - National TAB | | |
| **Completed Date :** | 04/30/2025 - Kristopher Passley - National TAB | | |

## CheckList Item Details

**FINAL TESTS**

**HOOD CAPTURE TEST**

**List equipment turned on for testing**

**Comment:**

NONE

**List smoke candle type used**

**Comment:**

45 SECOND CANDLE

**Smoke test capture - Perimeter of hood**

**Comment:**

100% CAPTURE

**Smoke test capture - Top of cooking surface**

**Comment:**

100% CAPTURE

**WITNESS**

| | |
|---|---|
| **Date test was completed** | 04/29/2025 |

**Comment:**

**TAB tech name / Firm**

**Comment:**

Kristopher Passley / National TAB Int.

**Site super name / Firm**

**Comment:**

Reborn Nelson/

**Owner representative name / Firm (if Applicable)**

**Comment:**

NA

**Building pressure at front & back doors (All Systems On)**

**Comment:**

Front Door: 0.009" Back Door: 0.001"

**ADDITIONAL**

**Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)**

**Comment:**

YES

**PROGRAM THERMOSTATS**

| | |
|---|---|
| **Occupied 7:15AM-10:15PM: 68 Heat/72 Cool (NOTE: 3 degree MAX setback)** | Yes |

**Comment:**

| | |
|---|---|
| **Unoccupied 10:16PM-7:14AM: 65 Heat/75 Cool** | Yes |

**Comment:**

# National TAB

**Project: 04-28-25 Penn Station (Massillon, OH)**

## System/Unit: AHU/RTU

**Asset: RTU1** AREA:DINING

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | LENNOX | LENNEX |
| **Serial Num** | - | 5625A01174 |
| **Model Num** | LGH092H | LGT092H5EM2Y |
| **Type** | RTU | RTU |
| **Configuration** | VERTICAL | VERTICAL |
| **Num OA Filters 1** | - | 1 |
| **OA Filter Size 1** | - | 16”X25”X1” |
| **Num Final Filter 1** | - | 4 |
| **Final Filter Size 1** | - | 20”X25”X2” |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | EBMPAPST |
| **Frame** | - | IP55 |
| **Horsepower** | - | 3.8 |
| **Motor Rpm** | - | 1780 |
| **Phase** | - | 3 |
| **Rated Voltage** | - | 200-240 |
| **Rated Amperage** | - | 8.0 |

| Drive Data | |
|---|---|
| | **Actual** |
| **Motor Sheave SetPt** | DD |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **SF CFM** | 2940 | 3060 |
| **SF RPM** | - | 1157 |
| **RA CFM** | 2190 | 2307 |
| **OA CFM** | 750 | 753 |
| **RL Voltage** | - | 208/28/208 |
| **RL Amperage** | - | 2.5/2.6/2.5 |
| **SF Rotation** | - | CORRECT |
| **SF System SetPt** | - | 65% |
| **Min OA Damper Position** | - | 50% |
| **Min OA Damper Type** | - | SINGLE BLADE |
| **OA Enthalpy Setpt** | - | 5mA |

| Performance Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MA Plenum SP** | - | -0.385” |
| **Fan Suction SP** | - | -0.582” |
| **Fan Discharge SP** | - | 0.323” |
| **Total ESP** | - | 0.708” |
| **Fan Total SP** | - | 0.905” |

| General | |
|---|---|
| | **Actual** |
| **Fan Rotation Correct** | YES |
| **Unit Filters Clean** | NO |
| **Condensate Drain Installed** | YES |

Completed By: Kristopher Passley on 04/29/2025

## Unit Data - PHOTO LOG

**04/29/2025**

**04/29/2025**


**04/29/2025**

## Motor Data - PHOTO LOG


**04/29/2025**

# National TAB

**Project:04-28-25 Penn Station (Massillon, OH)**

## AHU/RTU

**Diffuser Supply (GRD)**

**RTU1/DINING**

| Asset | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Asset Name** | **Location** | **Type** | **Size** | **DESIGN CFM** | **AK** | **CFM(1)** | **CFM(2)** | **FINAL CFM** | **% to design** |
| SGRD1 | DINING | | 10" | 400 | 1 | 585 | 388 | 408 | 102.0 |
| SGRD2 | DINING | | 10" | 400 | 1 | 585 | 381 | 400 | 100.0 |
| SGRD3 | DINING | | 16" | 300 | 1 | 412 | 342 | 330 | 110.0 |
| SGRD4 | DINING | | 16" | 300 | 1 | 379 | 300 | 314 | 104.7 |
| SGRD5 | DINING | | 10" | 300 | 1 | 349 | 281 | 291 | 97.0 |
| SGRD6 | DINING | | 18" | 300 | 1 | 385 | 312 | 323 | 107.7 |
| SGRD7 | DINING | | 18" | 240 | 1 | 376 | 320 | 258 | 107.5 |
| SGRD8 | DINING | | 10" | 240 | 1 | 420 | 346 | 254 | 105.8 |
| SGRD9 | HALL | | 10" | 250 | 1 | 413 | 332 | 255 | 102.0 |
| SGRD10 | RESTROOMS | | 12" | 70 | 1 | 130 | 126 | 74 | 105.7 |
| SGRD11 | RESTROOMS | | 12" | 140 | 1 | 176 | 168 | 153 | 109.3 |
| Total | | | | 2940 | | 4210 | 3296 | 3060 | 104.08% |

**Completed By: Kristopher Passley on 04/28/2025**

# National TAB

**Project: 04-28-25 Penn Station (Massillon, OH)**

## System/Unit: AHU/RTU

**Asset: RTU2** AREA:KITCHEN

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | LENNOX | LENNOX |
| **Serial Num** | - | 5625A01173 |
| **Model Num** | LGH092H | LGT092H5EM2Y |
| **Type** | RTU | RTU |
| **Configuration** | VERTICAL | VERTICAL |
| **Num OA Filters 1** | - | 1 |
| **OA Filter Size 1** | - | 16”X25”X1” |
| **Num Final Filter 1** | - | 4 |
| **Final Filter Size 1** | - | 20”X25”X2” |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | EBMPAPST |
| **Frame** | - | IP55 |
| **Horsepower** | - | 3.8 |
| **Motor Rpm** | - | 1780 |
| **Phase** | - | 3 |
| **Rated Voltage** | - | 200-240 |
| **Rated Amperage** | - | 8.7 |

| Drive Data | |
|---|---|
| | **Actual** |
| **Motor Sheave SetPt** | DD |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **SF CFM** | 3000 | 3116 |
| **SF RPM** | - | 1104 |
| **RA CFM** | 2250 | 2364 |
| **OA CFM** | 750 | 752 |
| **RL Voltage** | - | 208/208/208 |
| **RL Amperage** | - | 2.4/2.5/2.5 |
| **SF Rotation** | - | CORREXT |
| **SF System SetPt** | - | 62% |
| **Min OA Damper Position** | - | 50% |
| **Min OA Damper Type** | - | SINGLE BLADE |
| **OA Enthalpy Setpt** | - | 5mA |

| Performance Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MA Plenum SP** | - | -0.309” |
| **Fan Suction SP** | - | -0.550” |
| **Fan Discharge SP** | - | 0.361” |
| **Total ESP** | - | 0.67” |
| **Fan Total SP** | - | 0.911” |

| General | |
|---|---|
| | **Actual** |
| **Fan Rotation Correct** | YES |
| **Unit Filters Clean** | NO |
| **Condensate Drain Installed** | YES |

Completed By: Kristopher Passley on 04/30/2025

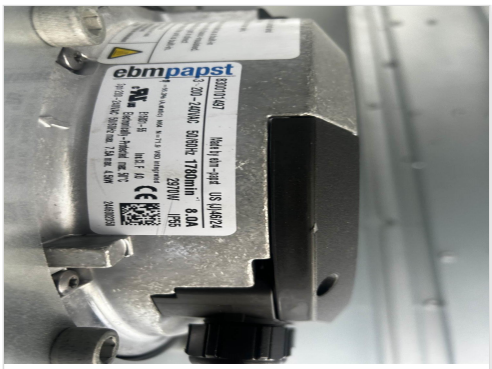
### Unit Data - PHOTO LOG


**04/29/2025**

**04/29/2025**

**04/29/2025**

## Motor Data - PHOTO LOG




**04/29/2025**

# National TAB

**Project:04-28-25 Penn Station (Massillon, OH)**

## AHU/RTU

**Diffuser Supply (GRD)**

**RTU2/KITCHEN**

| Asset | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Asset Name** | **Location** | **Type** | **Size** | **DESIGN CFM** | **AK** | **CFM(1)** | **CFM(2)** | **FINAL CFM** | **% to design** |
| SGRD1 | MUA | ACPSP | 6"X84" | 600 | 3.5 | 499 | 683 | 649 | 108.2 |
| SGRD2 | KITCHEN | | 10" | 350 | 1 | 433 | 371 | 352 | 100.6 |
| SGRD3 | KITCHEN | | 10" | 350 | 1 | 526 | 364 | 346 | 98.9 |
| SGRD4 | KITCHEN | | 10" | 350 | 1 | 439 | 386 | 367 | 104.9 |
| SGRD5 | KITCHEN | ACPSP | 6"X50" | 350 | 2.08 | 275 | 384 | 365 | 104.3 |
| SGRD6 | KITCHEN | | 10" | 300 | 1 | 300 | 327 | 310 | 103.3 |
| SGRD7 | KITCHEN | | 10" | 300 | 1 | 363 | 327 | 311 | 103.7 |
| SGRD8 | KITCHEN | | 8" | 200 | 1 | 232 | 218 | 207 | 103.5 |
| SGRD9 | KITCHEN | | 8" | 200 | 1 | 233 | 220 | 209 | 104.5 |
| Total | | | | 3000 | | 3300 | 3280 | 3116 | 103.87% |

**Completed By: Kristopher Passley on 04/29/2025**

# National TAB

**Project: 04-28-25 Penn Station (Massillon, OH)**

## System/Unit: FAN - Exhaust

**Asset: EF1** AREA:Women Restroom

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | NA | GREENHECK |
| **Model Num** | NA | SP-B110-QD |
| **Serial Num** | - | 181313856-0054 |
| **Type** | - | CEILING |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | GREENHECK |
| **Frame** | - | 24E |
| **Horsepower** | - | NL |
| **Motor Rpm** | - | 950 |
| **Phase** | - | 1 |
| **Voltage (rated)** | - | 115 |
| **Amperage (rated)** | - | 1.15 |
| **Service Factor** | - | NL |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **CFM** | 75 | 74 |
| **RL Voltage** | - | 118 |
| **RL Amperage** | - | 1.0 |
| **Discharge ESP** | - | -0.137" |
| **Total ESP** | - | 0.137" |

Completed By: Kristopher Passley on 04/29/2025

### Unit Data - PHOTO LOG


**04/29/2025**


**04/29/2025**

# National TAB

**Project: 04-28-25 Penn Station (Massillon, OH)**

## System/Unit: FAN - Exhaust

**Asset: EF2** AREA:MENS RESTROOM

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | NA | GREENHECK |
| **Model Num** | NA | SP-B150-QD |
| **Serial Num** | - | 188955247-0054 |
| **Type** | - | CEILING |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | GREENHECK |
| **Frame** | - | 24J |
| **Horsepower** | - | NL |
| **Motor Rpm** | - | 1050 |
| **Phase** | - | 1 |
| **Voltage (rated)** | - | 115 |
| **Amperage (rated)** | - | 1.8 |
| **Service Factor** | - | NL |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **CFM** | 150 | 153 |
| **RL Voltage** | - | 119 |
| **RL Amperage** | - | 1.5 |
| **Discharge ESP** | - | -0.179" |
| **Total ESP** | - | 0.179" |

Completed By: Kristopher Passley on 04/29/2025

### Unit Data - PHOTO LOG


**04/29/2025**


**04/29/2025**

# National TAB

**Project: 04-28-25 Penn Station (Massillon, OH)**

## System/Unit: FAN - Exhaust

**Asset: KEF1** AREA:GRIDDLE FAN

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CAPTIVAIRE | ECON-AIR |
| **Model Num** | DU85HFA | EADU85H |
| **Serial Num** | - | 69222359 |
| **Type** | UPBLAST | UPBLAST |
| **Configuration** | VERTICAL | VERTICAL |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | TELCO GREEN |
| **Frame** | - | NL |
| **Horsepower** | 0.750 | 0.750 |
| **Motor Rpm** | 1217 | 1800 |
| **Phase** | 1 | 1 |
| **Voltage (rated)** | 115 | 115 |
| **Amperage (rated)** | - | 8.9 |
| **Service Factor** | - | NL |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **CFM** | 1120 | 1124 |
| **Fan RPM** | - | 829 |
| **Fan Rotation** | - | CORRECT |
| **Motor RPM** | - | 829 |
| **System SetPt** | - | 47% |
| **RL Voltage** | - | 120 |
| **RL Amperage** | - | 2.1 |
| **Total ESP** | 1.100" | 0.281” |
| **Fan Inlet SP** | - | -0.281” |
| **Fan Discharge SP** | - | ATM |

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### Unit Data - PHOTO LOG


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# National TAB

**Project: 04-28-25 Penn Station (Massillon, OH)**

## System/Unit: FAN - Exhaust

**Asset: KEF2** AREA:OVEN FAN

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CAPTIVEAIRE | ECON-AIR |
| **Model Num** | DU33HFA | EDU33HFA |
| **Serial Num** | - | 6922359 |
| **Type** | UPBLAST | UPBLAST |
| **Configuration** | VERTICAL | VERTICAL |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | TELCO GREEN |
| **Frame** | - | NL |
| **Horsepower** | - | 0.33 |
| **Motor Rpm** | 1203 | 1800 |
| **Phase** | 1 | 1 |
| **Voltage (rated)** | 115 | 115 |
| **Amperage (rated)** | - | 4.3 |
| **Service Factor** | - | NL |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **CFM** | 700 | 702 |
| **Fan RPM** | - | 1475 |
| **Fan Rotation** | - | CORRECT |
| **Motor RPM** | - | 1475 |
| **System SetPt** | - | 82% |
| **RL Voltage** | - | 120 |
| **RL Amperage** | - | 3.6 |
| **Total ESP** | 0.730" | 0.572” |
| **Fan Inlet SP** | - | -0.572” |
| **Fan Discharge SP** | - | ATM |

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## Unit Data - PHOTO LOG

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# National TAB

**Project: 04-28-25 Penn Station (Massillon, OH)**

## System/Unit: FAN - Exhaust

**Asset: KEF3** AREA:FRYER PAN

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CAPTIVEAIRE | ECON-AIR |
| **Model Num** | DU50HFA | EDU85H |
| **Serial Num** | - | 6922359 |
| **Type** | UPBLAST | UPBLAST |
| **Configuration** | VERTICAL | VERTICAL |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | TELCO GREEN |
| **Frame** | - | NL |
| **Horsepower** | - | 0.750 |
| **Motor Rpm** | 1433 | 1800 |
| **Phase** | 1 | 1 |
| **Voltage (rated)** | 115 | 115 |
| **Amperage (rated)** | - | 8.9 |
| **Service Factor** | - | NL |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **CFM** | 660 | 685 |
| **Fan RPM** | - | 668 |
| **Fan Rotation** | - | CORRECT |
| **Motor RPM** | - | 668 |
| **System SetPt** | - | 37% |
| **RL Voltage** | - | 120 |
| **RL Amperage** | - | 1.0 |
| **Total ESP** | 1.100" | 0.157” |
| **Fan Inlet SP** | - | -0.157” |
| **Fan Discharge SP** | - | ATM |

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### Unit Data - PHOTO LOG

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# National TAB

**Project: 04-28-25 Penn Station (Massillon, OH)**

## System/Unit: FAN - Supply

**Asset: MUA1** AREA:HEATED MUA HOOD

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CAPTIVEAIRE | CAPTIVEAIRE |
| **Model Num** | A1-D.250 15D | EA1-D.250 15D |
| **Serial Num** | - | 6922359 |
| **Type** | MUA | MUA |
| **Configuration** | VERTICAL | VERTICAL |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | TECO WESTINGHOUSE |
| **Frame** | - | 145T |
| **Horsepower** | 1.500 | 1.5 |
| **Motor Rpm** | 1855 | 1740 |
| **Phase** | 3 | 3 |
| **Voltage (rated)** | 208 | 208 |
| **Amperage (rated)** | - | 4.4 |
| **Service Factor** | - | 1.15 |

| Gas Heat | | |
|---|---|---|
| | **Design** | **Actual** |
| **Heater Operates (y/n)** | - | Y |
| **Flame Status (pass/fail)** | - | PASS |
| **Inlet Air Temp SetPt** | 55 | 55 |
| **Discharge Air Temp SetPt** | 60 | 60 |
| **Air Flow Switch SP Actual** | - | 0.335” |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **CFM** | 1650 | 1671 |
| **SF RPM** | - | 1394 |
| **Motor RPM** | - | 1394 |
| **SF System SetPt** | - | 48.4 HZ |
| **RL Voltage** | - | 208/208/208 |
| **RL Amperage** | - | 2.1/2.0/2.2 |
| **Total ESP** | - | 0.487” |
| **Fan Discharge SP** | - | 0.487” |

| General | |
|---|---|
| | **Actual** |
| **Fan Rotation Correct** | YES |

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### Unit Data - PHOTO LOG

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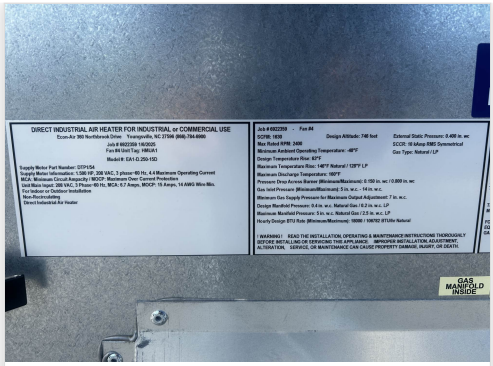


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## Motor Data - PHOTO LOG


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# National TAB

**Project: 04-28-25 Penn Station (Massillon, OH)**

## System/Unit: Kitchen Hood Type I

**Asset: HD1** AREA:GRILL HOOD

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CAPTIVEAIRE | ECON-AIR |
| **Model Num** | 3650 BD-2 | 3650 ELPX-2 |
| **Job / Serial Num** | - | 6922359 |
| **Type** | TYPE - LOW PROXIMITY | TYPE I CANOPY |
| **Hood length** | 72" | 84" |
| **Hood Width** | - | 36" |
| **Supply Plenum Type** | - | MUA ACPSP |
| **Supply Plenum Width** | - | 14" |
| **Supply Plenum Length** | - | 84" |

| Test Data Exhaust | | |
|---|---|---|
| | **Design** | **Actual** |
| **Filter Type** | CAPTRATE SOLO FILTER | CAPTRATE SOLO FILTER |
| **Filter Size 1** | 16"X16" | 16"X16" |
| **Filter Qty 1** | 5 | 5 |
| **Filter AK factor size 1** | 1.62 | 1.62 |
| **Filter Total AK Area** | 8.1 | 8.1 |
| **Filter1 FPM** | - | 134 |
| **Filter2 FPM** | - | 144 |
| **Filter3 FPM** | - | 149 |
| **Filter4 FPM** | - | 140 |
| **Filter5 FPM** | - | 127 |
| **Filter Ave FPM(corr)** | - | 138.6 |
| **CFM** | - | 1124 |

| Cooking Equipment | |
|---|---|
| | **Actual** |
| **Item 1** | GRILL |

| Test Data Supply | | |
|---|---|---|
| | **Design** | **Actual** |
| **Total Area** | - | 8.17 |
| **Kv factor (Vel)** | - | 0.89 |
| **Num of Readings** | - | 7 |
| **Reading1 FPM** | - | 138 |
| **Reading2 FPM** | - | 127 |
| **Reading3 FPM** | - | 132 |
| **Reading4 FPM** | - | 115 |
| **Reading5 FPM** | - | 117 |
| **Reading6 FPM** | - | 164 |
| **Reading7 FPM** | - | 178 |
| **Ave FPM(corr)** | - | 138.7 |
| **CFM** | - | 1008 |

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## Unit Data - PHOTO LOG

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# National TAB

**Project: 04-28-25 Penn Station (Massillon, OH)**

## System/Unit: Kitchen Hood Type I

**Asset: HD2** AREA:OVEN HOOD

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CAPTIVAIRE | CAPTIVAIRE |
| **Model Num** | 4412 QUIZNO | 4412 QUIZNO |
| **Job / Serial Num** | - | 6922359 |
| **Type** | TYPE -CANOPY | TYPE |
| **Hood length** | 98" | 44” |
| **Hood Width** | - | 21” |

| Test Data Exhaust | | |
|---|---|---|
| | **Design** | **Actual** |
| **Filter Type** | SS BAFFLE W/HANDLES | KLEEN GUARD GREESE FILTER |
| **Filter Size 1** | 10"X20" | 10”X20” |
| **Filter Qty 1** | 2 | 2 |
| **Filter AK factor size 1** | - | 1.2 |
| **Filter Total AK Area** | - | 2.4 |
| **Filter1 FPM** | - | 293 |
| **Filter2 FPM** | - | 292 |
| **Filter Ave FPM(corr)** | - | 292.5 |
| **CFM** | - | 702 |

| Cooking Equipment | |
|---|---|
| | **Actual** |
| **Item 1** | OVEN |

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### Unit Data - PHOTO LOG

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# National TAB

**Project: 04-28-25 Penn Station (Massillon, OH)**

## System/Unit: Kitchen Hood Type I

**Asset: HD3** AREA:FRY HOOD

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CAPTIVAIRE | ECON-AIR |
| **Model Num** | 3650 BD-2 | 3650 ELPX-2 |
| **Job / Serial Num** | - | 6922359 |
| **Type** | TYPE- LOW PROXIMITY | TYPE I CANOPY |
| **Hood length** | 60" | 50" |
| **Hood Width** | - | 36" |
| **Supply Plenum Type** | - | MUA ACPSP |
| **Supply Plenum Width** | - | 14" |
| **Supply Plenum Length** | - | 50" |

| Test Data Supply | | |
|---|---|---|
| | **Design** | **Actual** |
| **Total Area** | - | 4.86 |
| **Kv factor (Vel)** | - | 0.89 |
| **Num of Readings** | - | 4 |
| **Reading1 FPM** | - | 151 |
| **Reading2 FPM** | - | 162 |
| **Reading3 FPM** | - | 154 |
| **Reading4 FPM** | - | 146 |
| **Ave FPM(corr)** | - | 153.25 |
| **CFM** | - | 663 |

| Test Data Exhaust | | |
|---|---|---|
| | **Design** | **Actual** |
| **Filter Type** | CAPTRATE SOLO FILTER | CAPTRATE SOLO FILTER |
| **Filter Size 1** | 16"x16" | 16"X16" |
| **Filter Qty 1** | 3 | 3 |
| **Filter AK factor size 1** | 1.62 | 1.62 |
| **Filter Total AK Area** | 4.86 | 4.86 |
| **Filter1 FPM** | - | 145 |
| **Filter2 FPM** | - | 140 |
| **Filter3 FPM** | - | 138 |
| **Filter Ave FPM(corr)** | - | 141 |
| **CFM** | - | 685 |

| Cooking Equipment | |
|---|---|
| | **Actual** |
| **Item 1** | FRYER |
| **Item 2** | FRYER |

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## Unit Data - PHOTO LOG

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