

Report By:

National TAB
1329 E Kemper Rd, Ste 4210
Cincinnati, OH 45246



Report: Test and Balance

Date: 1/25/2019

PROJECT

CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)

660 Commack Road
COMMACK, NY 11725

Client

Chipotle Mexican Grill
1401 Wynkoop Street, Suite 500
Denver, CO 80202

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Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)

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deficiency list

Assigned Organization: National TAB

Status: Not Submitted

Asset:

| PRIORITY (HIGH/LOW/INFO ONLY) | |
|-------------------------------|---|
| LOW | Backdraft damper not installed for EF-2 |

Notes/Comments:



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Project Summary

Preface

The summary below provides a quick understanding of how well your HVAC systems balanced in respect to the design criteria. The summary concludes with a quick understanding of your building environment and possible suggestions for each of your systems after testing has been performed. 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. Our focus is 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. Also, enclosed are pictures of building assets and items listed below that will provide your team with more insight

Facility Identification and TAB Requirements

Chipotle #3349 is located at 660 Commack Rd. Commack, NY 11725. The mechanical equipment to be tested, adjusted, and balanced includes: (3) Roof Top Units (RTU), (2) Exhaust Fans (EF), (1) Make Up Air Units (MUA), (1) Kitchen Hoods, and all associated air devices.

Constant Volume RTU's with Lay-In Ceiling Diffusers

Each of the RTU's were measured at their terminal devices utilizing a flow hood and a Kfactor developed for dining units. The sum of these readings is equal to the total flow for that particular unit. The total flow of each RTU was then adjusted to +/-10% of the specified design. Each terminal diffuser was balanced to within +/-10% of the engineer's design volume utilizing the provided hand damper located at the takeoff of the main & branch trunk line(s).

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 +/-10% of the engineers design flow. 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 +/-10% of design criteria.

General Exhaust Fans

EF2 was measured by reading each air device with a flow hood. The total airflow is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within +/-10% of design. Each terminal device was balanced to within +/-10% of the design volume using the installed volume dampers.

Final Building Tests

After completing the test and balance, the final building pressure was recorded at 0.015" W.C. average. This pressure falls within the recommended tolerances by the International Mechanical Code of +0.02" W.C. to -0.02" W.C. The building is designed for a net positive pressure and this measurement coincides with that requirement. The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat "on" and 100% capture was observed.



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 | KITCHEN | 2400 | 2476 | 1900 | 2019 | 500 | 457 | 20.8% | 18.5% | | | | | | |
| RTU-2 | DINING | 1750 | 1798 | 1250 | 1325 | 500 | 473 | 28.6% | 26.3% | | | | | | |
| RTU-3 | DINING | 1750 | 1841 | 1250 | 1388 | 500 | 453 | 28.6% | 24.6% | | | | | | |
| MUA-1 | HD-1 | | | | | | | | | 1775 | 1664 | | | | |
| EF-1 | HD-1 | | | | | | | | | | | 2925 | 2654 | | |
| EF-2 | RR | | | | | | | | | | | | | 150 | 153 |
| TOTALS | | 5900 | 6115 | 4400 | 4732 | 1500 | 1383 | | | 1775 | 1664 | 2925 | 2654 | 150 | 153 |

NET BUILDING AIRFLOW CALCULATION

| TOTALS | DESIGN | ACTUAL |
|--------------------|--------|--------|
| TOTAL OA | 3275 | 3047 |
| TOTAL EXHAUST | 3075 | 2807 |
| NET AIRFLOW | 200 | 240 |

| DOOR TESTED | BUILDING PRESSURE MEASUREMENTS (IN. H ₂ O) |
|----------------|---|
| FRONT | 0.015 |
| SIDE | 0.015 |
| REAR | 0.015 |
| AVERAGE | 0.015 |

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:

STORE FRONT

HOOD



EF1

EF2



MAU

RTU1



RTU2

RTU3



GREASE DUCT





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TECH - STEP 1: INITIAL SITE WALKTHROUGH

Assigned Organization: National TAB

Status: Not Submitted

Asset:

| INITIAL SITE WALKTHROUGH | |
|--|-----|
| All diffusers and grilles are installed and match design? | Yes |
| Deflector plates are removed from 1x1 diffusers on the serve line (double check that this is specified on the diffuser schedule first) | Yes |
| All hood filters installed and accounted for? | Yes |
| Hoods are wired and have power? | Yes |
| Hood is free of alarms? | Yes |
| Thermostats have power? | Yes |
| Have trades/general contractor been notified about any issues and are they created on FaciliBuild? | Yes |

Notes/Comments:



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TECH - STEP 2: UNIT DATA AND EVALUATION

Assigned Organization: National TAB

Status: Not Submitted

Asset:

| UNIT DATA AND EVALUATION WHILE GATHERING UNIT DATA CHECK THE FOLLOWING: | |
|---|-----|
| RTU's/AHU's | |
| Economizer blank plate is installed below the outside air intake (Trane only) (N/A = not applicable) | Yes |
| Economizers are assembled and functional? | Yes |
| DCV Max damper opening position is set to minimum? | Yes |
| Free cooling enthalpy set point set for lowest setting (Typically "D") | Yes |
| Motors are all operating below the FLA rating? | Yes |
| Are belts tight? | Yes |
| If direct drive unit is the speed controller working. | NA |
| Is gas piping installed and valves turned on? | Yes |
| Unit free of noticeable noise and vibration | Yes |
| EF's | |
| Rotation is correct? | Yes |
| Belts are tight? | Yes |
| Grease cup installed on hood fan? | Yes |
| Hinge kit installed installed on hood fan? | Yes |
| Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan? | Yes |
| Flex conduit is long enough so that fan can be completely tilted back? | Yes |
| There is no major leakage around base of fan? | Yes |
| Is the motor operating below the motor FLA rating? | Yes |
| For restroom fan(s) is the back draft damper installed and can it fully open? | No |
| Unit free of noticeable noise and vibration? | Yes |
| MUA | |



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| | |
|--|-----|
| Rotation is correct? | Yes |
| Gas piping is installed and valves are in on position? | Yes |
| Heater tested and is functional? | Yes |
| Internal motorized damper is fully opening? | Yes |
| Motor is operating below the FLA rating? | Yes |
| Unit free of noticeable noise and vibration? | Yes |
| HOODS | |
| Kitchen equipment installed in proper places? | Yes |
| Can kitchen equipment be turned on for final smoke test? | Yes |
| DOCUMENTATION | |
| Have trades/general contractor been notified about any issues and are they created on FaciliBuild? | Yes |
| PICTURES TAKEN OF: | |
| All Issues | Yes |
| Each Piece of equipment | Yes |
| Each Hood | Yes |
| Front of Store | Yes |
| Grease duct | Yes |

Notes/Comments:



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TECH - STEP 3: TEST ADJUST AND BALANCE

Assigned Organization: National TAB

Status: Not Submitted

Asset:

| | |
|---|-----|
| TEST, ADJUST, AND BALANCE ALL EQUIPMENT: | |
| DURING TESTING MAKE NOTE OF THE FOLLOWING: | |
| Is space free of drafting? | Yes |
| Is space comfortable in all areas? | Yes |
| Is the space free of ventilation noise? | Yes |
| If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA". | NA |

Notes/Comments:



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TECH - STEP 4: FINAL TESTS

Assigned Organization: National TAB

Status: Not Submitted

Asset:

| | |
|---|---------------------------------------|
| FINAL TESTS | |
| HOOD CAPTURE TEST | |
| List equipment turned on for testing | ALL EQUIPMENT |
| List smoke candle type used | 45 SEC SMOKE BOMB |
| Smoke test capture - Perimeter of hood | 100% |
| Smoke test capture - Top of cooking surface | 100% |
| WITNESS | |
| Date test was completed | 11/29/2018 |
| TAB tech name / Firm | BRIAN IRVIN / NATIONAL TAB |
| Site super name / Firm | BILL / CUSTOM COMMERCIAL CONSTRUCTION |
| Owner representative name / Firm (if Applicable) | NA |
| Building pressure at front & back doors (All Systems On) | 0.015" AVERAGE |
| ADDITIONAL | |
| Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative) | YES |
| Thermostats are programmed? (If Lightstats put "N/A") | GRID POINT |
| If Lightstats, are the dimmers set to dim (Otherwise put N/A) | GRID POINT |

Notes/Comments:



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TECH - STEP 5: FINAL DOCUMENTATION

Assigned Organization: National TAB

Status: Not Submitted

Asset:

| FINAL DOCUMENTATION | |
|---|-----|
| Marked Data capture complete for all assets? | Yes |
| Picture file sent to processing team or uploaded? | Yes |
| Balance schedule complete and uploaded? | Yes |
| Prelim report generated and reviewed? | Yes |

Notes/Comments:



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Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)

System/Unit: AHU/RTU



Asset: RTU-1

AREA: KITCHEN

| Unit Data | | |
|---------------------|--------------------|--------------------|
| | Design | Actual |
| MFG | TRANE | TRANE |
| Model Num | YHC072 | YHC072 |
| Serial Num | - | 1837143L |
| Type | RTU | RTU |
| Configuration | VERTICAL DISCHARGE | VERTICAL DISCHARGE |
| Num OA Filters 1 | - | 1 |
| OA Filter Size 1 | - | 36X15.5 |
| Num Final Filter 1 | - | 4 |
| Final Filter Size 1 | - | 20X25X2 |

| Motor Data | | |
|----------------|--------|-------------|
| | Design | Actual |
| Motor MFG | - | MARATHON |
| Frame | - | 56 |
| Horsepower | - | 1 |
| Motor Rpm | - | 1725 |
| Phase | 3 | 3 |
| Rated Voltage | 208 | 208-230/460 |
| Rated Amperage | - | 3.4-3.3/1.6 |

| Drive Data | | |
|--------------------|--------|-------------|
| | Design | Actual |
| Motor Sheave Size | - | VP40 |
| Motor Bore Size | - | 5/8 |
| Motor Sheave SetPt | - | 3 TURNS OUT |
| Fan Sheave Size | - | AK64 |
| Fan Sheave Bore | - | 1 |
| Belt CL Distance | - | 10 3/4 |
| Num of Belts | - | 1 |
| Belt Size | - | AX35 |
| Belt Alignment | - | VERIFIED |

| Test Data | | |
|------------------------|--------|----------------|
| | Design | Actual |
| SF CFM | 2400 | 2476 |
| SF RPM | - | 840 |
| RA CFM | 1900 | 2019 |
| OA CFM | 500 | 457 |
| RL Voltage | - | 213/212/212 |
| RL Amperage | - | 3.2/3.3/3.1 |
| SF Rotation | - | CW |
| RA Damper Position | - | 8 1/2" OPEN |
| Min OA Damper Position | - | 1" OPEN |
| Min OA Damper Type | - | ACTUATED BLADE |
| Brake Horse Power | - | 0.94 |

| Performance Data | | |
|------------------|--------|--------|
| | Design | Actual |
| MA Plenum SP | - | -0.39" |
| Fan Suction SP | - | -0.63" |
| Fan Discharge SP | - | 0.62" |
| Total ESP | 0.8" | 1.01" |
| Fan Total SP | - | 1.25" |

| General | | |
|----------------------------|--------|--------|
| | Design | Actual |
| Fan Rotation Correct | - | YES |
| Unit Filters Clean | - | YES |
| Condensate Drain Installed | - | YES |

Completed By: Brian Irvin on 11/30/2018

Notes:



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Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)

System/Unit: AHU/RTU



Diffuser Supply (GRD)

RTU-1 / KITCHEN

| Asset | Area Served | Type | Size | DESIGN CFM | CFM(1) | CFM(2) | FINAL CFM | % to design |
|-------|--------------|-------|---------|------------|--------|--------|-----------|-------------|
| SGRD1 | OFFICE | CD1 | 8" | 150 | 183 | 157 | 157 | 104.7 |
| SGRD2 | KITCHEN | CD1 | 8" | 100 | 172 | 102 | 102 | 102.0 |
| SGRD3 | KITCHEN | CD1 | 14" | 550 | 642 | 587 | 587 | 106.7 |
| SGRD4 | SERVICE LINE | CD3 | 8" | 275 | 256 | 286 | 286 | 104.0 |
| SGRD5 | SERVICE LINE | CD3 | 8" | 275 | 258 | 270 | 270 | 98.2 |
| SGRD6 | SERVICE LINE | CD2 | 8" | 225 | 283 | 236 | 236 | 104.9 |
| SGRD7 | SERVICE LINE | CD2 | 8" | 225 | 263 | 233 | 233 | 103.6 |
| SGRD8 | ACPSP | ACPSP | 168"X6" | 600 | 435 | 605 | 605 | 100.8 |

Completed By: Brian Irvin on 11/29/2018

| Asset | Area Served | Notes |
|-------|-------------|-------|
| | | |



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Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)

System/Unit: AHU/RTU



Asset: RTU-2

AREA: DINING

| Unit Data | | |
|---------------------|--------------------|--------------------|
| | Design | Actual |
| MFG | TRANE | TRANE |
| Model Num | YHC060 | YHC060 |
| Serial Num | - | 162911636L |
| Type | RTU | RTU |
| Configuration | VERTICAL DISCHARGE | VERTICAL DISCHARGE |
| Num OA Filters 1 | - | 1 |
| OA Filter Size 1 | - | 36X15.5 |
| Num Final Filter 1 | - | 4 |
| Final Filter Size 1 | - | 16X25X2 |

| Motor Data | | |
|----------------|--------|-------------|
| | Design | Actual |
| Motor MFG | - | MARATHON |
| Frame | - | 56 |
| Horsepower | - | 1 |
| Motor Rpm | - | 1725 |
| Phase | 3 | 3 |
| Rated Voltage | 208 | 208-230/460 |
| Rated Amperage | - | 3.4-3.3/1.6 |

| Drive Data | | |
|--------------------|--------|-----------------|
| | Design | Actual |
| Motor Sheave Size | - | VP34 |
| Motor Bore Size | - | 5/8 |
| Motor Sheave SetPt | - | 2 1/2 TURNS OUT |
| Fan Sheave Size | - | AK49 |
| Fan Sheave Bore | - | 3/4 |
| Belt CL Distance | - | 9 3/8 |
| Num of Belts | - | 1 |
| Belt Size | - | AX29 |
| Belt Alignment | - | VERIFIED |

| Test Data | | |
|------------------------|--------|----------------|
| | Design | Actual |
| SF CFM | 1750 | 1798 |
| SF RPM | - | 931 |
| RA CFM | 1250 | 1325 |
| OA CFM | 500 | 473 |
| RL Voltage | - | 213/213/213 |
| RL Amperage | - | 2.9/2.9/3.0 |
| SF Rotation | - | CW |
| RA Damper Position | - | 8 1/2" OPEN |
| Min OA Damper Position | - | 1" OPEN |
| Min OA Damper Type | - | ACTUATED BLADE |
| Brake Horse Power | - | 0.86 |

| Performance Data | | |
|------------------|--------|--------|
| | Design | Actual |
| MA Plenum SP | - | -0.27" |
| Fan Suction SP | - | -0.50" |
| Fan Discharge SP | - | 0.36" |
| Total ESP | 0.8" | 0.63" |
| Fan Total SP | - | 0.86" |

| General | | |
|----------------------------|--------|--------|
| | Design | Actual |
| Fan Rotation Correct | - | YES |
| Unit Filters Clean | - | YES |
| Condensate Drain Installed | - | YES |

Completed By: Brian Irvin on 11/30/2018

Notes:



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Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)

System/Unit: AHU/RTU



Diffuser Supply (GRD)

RTU-2 / DINING

| Asset | Area Served | Type | Size | DESIGN CFM | CFM(1) | CFM(2) | FINAL CFM | % to design |
|-------|-------------|------|--------|------------|--------|--------|-----------|-------------|
| SGRD1 | RR | CD4 | 6" | 50 | 106 | 54 | 54 | 108.0 |
| SGRD2 | DINING | SR2 | 12"X8" | 425 | 413 | 420 | 420 | 98.8 |
| SGRD3 | DINING | SR2 | 12"X8" | 425 | 427 | 438 | 438 | 103.1 |
| SGRD4 | DINING | SR2 | 12"X8" | 425 | 436 | 446 | 446 | 104.9 |
| SGRD5 | DINING | SR2 | 12"X8" | 425 | 429 | 440 | 440 | 103.5 |

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| Asset | Area Served | Notes |
|-------|-------------|-------|
| | | |



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Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)

System/Unit: AHU/RTU



Asset: RTU-3

AREA: DINING

| Unit Data | | |
|---------------------|--------------------|--------------------|
| | Design | Actual |
| MFG | TRANE | TRANE |
| Model Num | YHC060. | YHC060. |
| Serial Num | - | 162911652L |
| Type | RTU | RTU |
| Configuration | VERTICAL DISCHARGE | VERTICAL DISCHARGE |
| Num OA Filters 1 | - | 1 |
| OA Filter Size 1 | - | 36X15.5 |
| Num Final Filter 1 | - | 4 |
| Final Filter Size 1 | - | 20X25X2 |

| Motor Data | | |
|----------------|--------|-------------|
| | Design | Actual |
| Motor MFG | - | MARATHON |
| Frame | - | 56 |
| Horsepower | - | 1 |
| Motor Rpm | - | 1725 |
| Phase | 3 | 3 |
| Rated Voltage | 208 | 208-230/460 |
| Rated Amperage | - | 3.4-3.3/1.6 |

| Drive Data | | |
|--------------------|--------|-----------------|
| | Design | Actual |
| Motor Sheave Size | - | VP34 |
| Motor Bore Size | - | 5/8 |
| Motor Sheave SetPt | - | 2 1/2 TURNS OUT |
| Fan Sheave Size | - | AK49 |
| Fan Sheave Bore | - | 3/4 |
| Belt CL Distance | - | 9 3/8 |
| Num of Belts | - | 1 |
| Belt Size | - | A29 |
| Belt Alignment | - | VERIFIED |

| Test Data | | |
|------------------------|--------|----------------|
| | Design | Actual |
| SF CFM | 1750 | 1841 |
| SF RPM | - | 937 |
| RA CFM | 1250 | 1388 |
| OA CFM | 500 | 453 |
| RL Voltage | - | 213/213/213 |
| RL Amperage | - | 2.9/3.0/2.9 |
| SF Rotation | - | CW |
| RA Damper Position | - | 8 1/2" OPEN |
| Min OA Damper Position | - | 1" OPEN |
| Min OA Damper Type | - | ACTUATED BLADE |
| Brake Horse Power | - | 0.86 |

| Performance Data | | |
|------------------|--------|--------|
| | Design | Actual |
| MA Plenum SP | - | -0.11" |
| Fan Suction SP | - | -0.34" |
| Fan Discharge SP | - | 0.52" |
| Total ESP | 0.8" | 0.63" |
| Fan Total SP | - | 0.86" |

| General | | |
|----------------------------|--------|--------|
| | Design | Actual |
| Fan Rotation Correct | - | YES |
| Unit Filters Clean | - | YES |
| Condensate Drain Installed | - | YES |

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Notes:



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Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)

System/Unit: AHU/RTU



Diffuser Supply (GRD)

RTU-3 / DINING

| Asset | Area Served | Type | Size | DESIGN CFM | CFM(1) | CFM(2) | FINAL CFM | % to design |
|-------|-------------|------|--------|------------|--------|--------|-----------|-------------|
| SGRD1 | DINING | SR1 | 12"X8" | 437 | 442 | - | 442 | 101.1 |
| SGRD2 | DINING | SR1 | 12"X8" | 437 | 446 | - | 446 | 102.1 |
| SGRD3 | DINING | SR1 | 12"X8" | 438 | 481 | - | 481 | 109.8 |
| SGRD4 | DINING | SR1 | 12"X8" | 438 | 472 | - | 472 | 107.8 |

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| Asset | Area Served | Notes |
|-------|-------------|-------|
| | | |



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Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)

System/Unit: FAN - Supply



Asset: MAU-1

AREA: HD-1 - COOKLINE

| Unit Data | | |
|---------------|--------------------|--------------------|
| | Design | Actual |
| MFG | CAPTIVE-AIRE | CAPTIVE-AIRE |
| Model Num | A1-D.250-G10 | A1-D.250-G10 |
| Serial Num | - | 3523365 |
| Type | MUA | MAU |
| Configuration | VERTICAL DISCHARGE | VERTICAL DISCHARGE |

| Test Data | | |
|------------------|--------|-------------|
| | Design | Actual |
| CFM | 1775 | 1644 |
| SF RPM | - | 1051 |
| Motor RPM | - | 1766 |
| RL Voltage | - | 212/213/212 |
| RL Amperage | - | 3.0/3.0/3.2 |
| Total ESP | 0.80" | NR |
| Fan Discharge SP | - | NR |

| Motor Data | | |
|------------------|--------|-----------|
| | Design | Actual |
| Motor MFG | - | WEG |
| Frame | - | 56HZ |
| Horsepower | 2 | 2 |
| Motor Rpm | - | 1740 |
| Phase | 3 | 3 |
| Voltage (rated) | 208 | 230/460 |
| Amperage (rated) | - | 5.38/2.69 |
| Service Factor | - | 1.15 |

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

| Drive Data | | |
|-------------------------|--------|----------|
| | Design | Actual |
| Motor Sheave Size | - | VL40 |
| Motor Bore Size | - | 7/8 |
| Fan Sheave Size | - | AK54 |
| Fan Sheave Bore | - | 3/4 |
| Belt CL Distance | - | 14 |
| Num of Belts | - | 1 |
| Belt Size | - | AX40 |
| Belt Alignment Verified | - | VERIFIED |

| Gas Heat | | |
|---------------------------|--------|--------|
| | Design | Actual |
| Heater Operates (y/n) | - | YES |
| Flame Status (pass/fail) | - | YES |
| Inlet Air Temp SetPt | 55 | 55 |
| Discharge Air Temp SetPt | 60 | 60 |
| Air Flow Switch SP Actual | - | 0.39" |

Completed By: Brian Irvin on 11/29/2018

Notes:



National TAB

Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)

System/Unit: FAN - Exhaust



Asset: EF-1

AREA: HD-1 - COOKLINE

| Unit Data | | |
|----------------------|--------------|--------------|
| | Design | Actual |
| MFG | CAPTIVE-AIRE | CAPTIVE-AIRE |
| Model Num | NCA24HPFA | NCA24HPFA |
| Serial Num | - | 3523365 |
| Type | CENTRIFUGAL | CENTRIFUGAL |
| Configuration | UPBLAST | UPBLAST |

| Motor Data | | |
|-------------------------|--------|-----------|
| | Design | Actual |
| Motor MFG | - | WEG |
| Frame | - | 56HZ |
| Horsepower | 2 | 2 |
| Motor Rpm | - | 1740 |
| Phase | 3 | 3 |
| Voltage (rated) | 208 | 230/460 |
| Amperage (rated) | - | 5.38/2.69 |
| Service Factor | - | 1.15 |

| Drive Data | | |
|---------------------------|--------|--------------|
| | Design | Actual |
| Motor Sheave Size | - | 2VP42 |
| Motor Bore Size | - | 7/8 |
| Motor Sheave SetPt | - | 1/2 TURN OUT |
| Fan Sheave Size | - | 7 3/4 |
| Fan Sheave Bore | - | 1 |
| Belt CL Distance | - | 7 |
| Num of Belts | - | 2 |
| Belt Size | - | BX30 |

| Test Data | | |
|--------------------------|--------|-------------|
| | Design | Actual |
| CFM | 2925 | 2654 |
| Fan RPM | - | 944 |
| Fan Rotation | - | CCW |
| Motor RPM | - | 1755 |
| RL Voltage | - | 213/213/213 |
| RL Amperage | - | 4.3/4.5/4.2 |
| Suction ESP | - | -1.06" |
| Discharge ESP | - | ATM |
| Total ESP | 1.20" | 1.06" |
| Brake Horse Power | - | 1.61 |

Completed By: Brian Irvin on 11/29/2018

Notes:



National TAB

Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)

System/Unit: FAN - Exhaust



Asset: EF-2

AREA: RR

| Unit Data | | |
|----------------------|--------------|--------------|
| | Design | Actual |
| MFG | CAPTIVE-AIRE | CAPTIVE-AIRE |
| Model Num | DR12HFA | DR12HFA |
| Serial Num | - | 3523365 |
| Type | CENTRIFUGAL | CENTRIFUGAL |
| Configuration | DOWNBLAST | DOWNBLAST |

| Test Data | | |
|-------------------------|--------|--------|
| | Design | Actual |
| CFM | 150 | 153 |
| Fan RPM | - | DD |
| Fan Rotation | - | CCW |
| Motor RPM | - | DD |
| System SetPt | - | LOW |
| RL Voltage | - | 117 |
| RL Amperage | - | 1.1 |
| Total ESP | 0.60" | 0.61" |
| Fan Inlet SP | - | -0.61" |
| Fan Discharge SP | - | ATM |

| Motor Data | | |
|-------------------------|--------|---------|
| | Design | Actual |
| Motor MFG | - | HSSA |
| Frame | - | 48Y |
| Horsepower | 0.18 | 0.18 |
| Motor Rpm | - | 1625 |
| Phase | 1 | 1 |
| Voltage (rated) | 120 | 120/230 |
| Amperage (rated) | - | 2.4/1.2 |
| Service Factor | - | 1.0 |

Completed By: Brian Irvin on 11/29/2018

Notes:

Diffuser Ret/Exh (GRD)

EF-2 / RR

| Asset | Area Served | Type | Size | DESIGN CFM | CFM(1) | FINAL CFM | % to design |
|-------|-------------|------|-------|------------|--------|-----------|-------------|
| EGRD1 | RR | ER1 | 6"X6" | 75 | 139 | 78 | 104.0 |
| EGRD2 | RR | ER1 | 6"X6" | 75 | 137 | 75 | 100.0 |

Completed By: Brian Irvin on 11/29/2018

| Asset | Area Served | Notes |
|-------|-------------|-------|
| | | |



National TAB

Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)

System/Unit: Kitchen Hood Type I



Asset: HD-1

AREA: COOK LINE

| Unit Data | | |
|----------------------|-------------------|-------------------|
| | Design | Actual |
| MFG | CAPTIVE-AIRE | CAPTIVE-AIRE |
| Model Num | 5424 ND-2-ACPSP-F | 5424 ND-2-ACPSP-F |
| Job / Serial Num | - | 3523365 |
| Type | TYPE I CANOPY | TYPE I CANOPY |
| Hood length | 156 | 156 |
| Hood Width | 54 | 54 |
| Supply Plenum Type | ACPSP | ACPSP |
| Supply Plenum Width | 12 | 12 |
| Supply Plenum Length | 168 | 168 |

| Test Data Exhaust | | |
|-------------------------|---------------|---------------|
| | Design | Actual |
| Filter Type | CAPTRATE SOLO | CAPTRATE SOLO |
| Filter Size 1 | 16X16 | 16X16 |
| Filter Qty 1 | 9 | 9 |
| Filter AK factor size 1 | 1.62 | 1.62 |
| Filter Total AK Area | 14.58 | 14.58 |
| Filter1 FPM | - | 183 |
| Filter2 FPM | - | 188 |
| Filter3 FPM | - | 178 |
| Filter4 FPM | - | 185 |
| Filter5 FPM | - | 176 |
| Filter6 FPM | - | 183 |
| Filter7 FPM | - | 182 |
| Filter8 FPM | - | 180 |
| Filter9 FPM | - | 181 |
| Filter Ave FPM(corr) | - | 182 |
| CFM | 2925 | 2654 |

| Cooking Equipment | | |
|-------------------|--------|-------------|
| | Design | Actual |
| Item 1 | - | RICE COOKER |
| Item 2 | - | GRIDDLE |
| Item 3 | - | FRYER |
| Item 4 | - | STOVE TOP |

| Test Data Supply | | |
|------------------|--------|--------|
| | Design | Actual |
| AK factor | 1 | 1 |
| Total AK Area | 14 | 14 |
| Kv factor (Vel) | 0.87 | 0.87 |
| Reading1 FPM | - | 153 |
| Reading2 FPM | - | 114 |
| Reading3 FPM | - | 158 |
| Reading4 FPM | - | 154 |
| Reading5 FPM | - | 114 |
| Reading6 FPM | - | 133 |
| Reading7 FPM | - | 150 |
| Reading8 FPM | - | 119 |
| Reading9 FPM | - | 82 |
| Reading10 FPM | - | 181 |
| Reading11 FPM | - | 143 |
| Reading12 FPM | - | 116 |
| Reading13 FPM | - | 105 |
| Reading14 FPM | - | 175 |
| Ave FPM(corr) | - | 117 |
| CFM | 1775 | 1644 |

| Performance Data | | |
|-----------------------------|--------|-------------------|
| | Design | Actual |
| Exh-Supply Net CFM | 1150 | 1010 |
| Smoke Generation Type | - | 45 SEC SMOKE BOMB |
| Cooking Equip Heat On | - | YES |
| Hood Capture % | - | 100% |
| End Panels Installed (Y/N) | - | YES |
| Space Offset Temp Riser 1 | - | 15 |
| Space Offset Temp Riser 2 | - | 15 |
| Riser Temp F (idle) Riser 1 | - | 72 |
| Riser Temp F (idle) Riser 2 | - | 72 |
| Ambient Room Temp | - | 73 |
| 100% override functional | - | NA |

| General | | |
|---------------------|--------|--------------------------------|
| | Design | Actual |
| Third Party Witness | - | BILL SCHLEGEL |
| Third Party Company | - | CUSTOM COMMERCIAL CONSTRUCTION |



National TAB

Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)

System/Unit: Kitchen Hood Type I



| General | | |
|--------------|--------|--------------|
| | Design | Actual |
| Tech Witness | - | BRIAN IRVIN |
| Tech Company | - | NATIONAL TAB |

Completed By: Brian Irvin on 11/29/2018

Notes:



National TAB

Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)



Rectangular Duct Traverse Report

System: RTU-1 (TRANE-YHC072-KITCHEN)

Service:

Altitude: Density: Factor:

| Duct | | Design | Actual |
|--------------|-------------|---------------|---------------|
| Width: 36 | Readings: 3 | SCFM: | SCFM: |
| Height: 15.5 | Readings: 1 | FPM: 129 | FPM: 118 |
| Area: 3.88 | | CFM: 500 | CFM: 457 |
| S.P.: | Temp: | | |

Notes:

O/A VELOCITY PROFILE

Duct Traverse Data Points

| | | |
|-----|-----|-----|
| 118 | 122 | 115 |
|-----|-----|-----|



National TAB

Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)



Rectangular Duct Traverse Report

System: RTU-2 (TRANE-YHC060-DINING)

Service:

Altitude: Density: Factor:

| Duct | | Design | Actual |
|--------------|-------------|---------------|---------------|
| Width: 36 | Readings: 3 | SCFM: | SCFM: |
| Height: 15.5 | Readings: 1 | FPM: 129 | FPM: 122 |
| Area: 3.88 | | CFM: 500 | CFM: 473 |
| S.P.: | Temp: | | |

Notes:

O/A VELOCITY PROFILE

Duct Traverse Data Points

| | | |
|-----|-----|-----|
| 124 | 126 | 117 |
|-----|-----|-----|



National TAB

Project: CHIPOTLE - COMMACK#31-3349 (COMMACK, NY)



Rectangular Duct Traverse Report

System: RTU-3 (TRANE-YHC060.-DINING)

Service:

Altitude: Density: Factor:

| Duct | | Design | Actual |
|--------------|-------------|---------------|---------------|
| Width: 36 | Readings: 3 | SCFM: | SCFM: |
| Height: 15.5 | Readings: 1 | FPM: 129 | FPM: 117 |
| Area: 3.88 | | CFM: 500 | CFM: 453 |
| S.P.: | Temp: | | |

Notes:

O/A VELOCITY PROFILE

Duct Traverse Data Points

| | | |
|-----|-----|-----|
| 120 | 117 | 113 |
|-----|-----|-----|