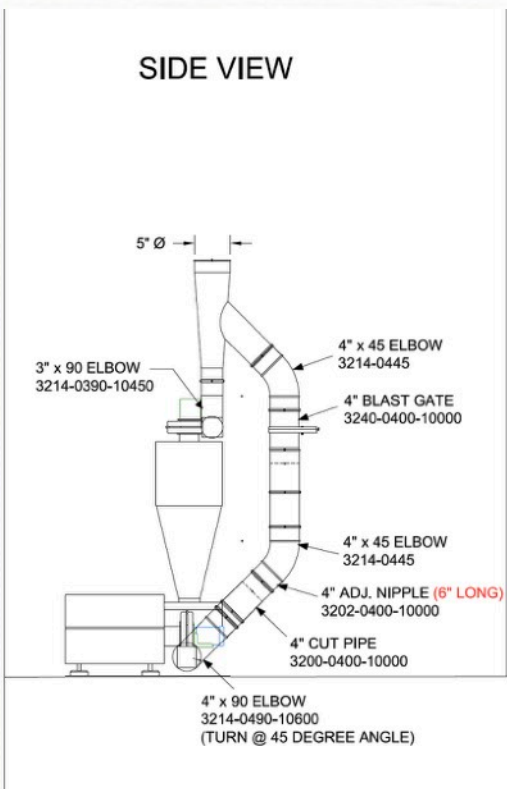


# BUCKEYE ARIZONA ROASTING COMPANY

## BC ROASTERS INSTALLATION GUIDE:

PROPER INSTALLATION INCLUDES READING AND FOLLOWING ALL INSTRUCTIONS OUTLINED IN THE BC MANUAL. FOR THE BC-1,2,3.5, AND 5 THESE SMALLER UNITS HAVE A DIRECT CONNECT CHAFF UNIT ATTACHED TO ROASTER. THE CHAFF FANS MUST BE ATTACHED TO TOP OF CHAFF UNIT AND PROPERLY VENTED OUT OF BUILDING USING POSITIVE PRESSURE PIPING AND SEALED OR CLAMPED CONNECTIONS. ALSO THERE MUST BE ACCESSIBLE AREAS WHERE PIPES CAN BE OPENED AND CLEANED REGULARLY WITH A PIPE BRUSH. ALSO ON THE BC-2,3.5, & 5 AND UP PROPER PIPING AND VENTING OFF COOLING TRAY FAN MUST BE PROVIDED. WHILE IT IS BEST TO VENT EACH PIPE OUT SEPARATELY YOU MAY RUN THE COOLING TRAY PIPE INTO THE MAIN EXHAUST PIPE ABOVE CHAFF PIPE CONNECTION ONLY IF USING A BLAST OR BACKDRAFT DAMPER.



**ABOVE ILLUSTRATION IS JUST FOR  
GENERAL SETUP. PIPE SETUP AND  
SIZES VARY DEPENDING ON  
ROASTER**

**THIS IS JUST AN EXAMPLE OF AN APPROVED  
METHOD TO EXHAUST BOTH THE CHAFF UNIT  
AND COOLING TRAY FAN OUT OF BUILDING IF  
COMBINING THE TWO PIPES INTO ONE USING A  
BACKDRAFT OR BLAST DAMPER.**

### PROPER CLEARANCE FROM WALLS & COMBUSTABLE MATERIALS:

- + THE ROASTER AND ALL PIPES DIRECTLY BEHIND UNIT SHOULD BE AT LEAST 12-24" AWAY FROM WALLS AND ANY COMBUSTABLE MATERIAL. (SEE EACH SPEC SHEET FOR PROPER CLEARANCE)
- + IT IS BEST TO LEAVE PLENTY OF ROOM ON ALL SIDES FOR EASY ACCESS WHEN DOING MAINTENANCE OR REPAIRS
- + THE BC-1, 2, 3 & 5 ARE NOT DESIGNED AS FLOOR MODELS SO ARE BEST PLACED ON A STAND 18-24" IN HEIGHT DEPENDING ON CLIENTS NEEDS.
- + A **NON-COMBUSTABLE STAND** SHOULD BE USED ON THE BC-1-5 UNITS SUCH AS A STEEL CART OR STAND. IF USING A WOOD STAND OR FLOORING A NON-COMBUSTABLE SHEETING SHOULD BE PLACED BELOW UNITS BURNER ROOM ON STAND OR FLOORING SUCH AS CERAMIC TILE OR ANOTHER NON-COMBUSTABLE MATERIAL.

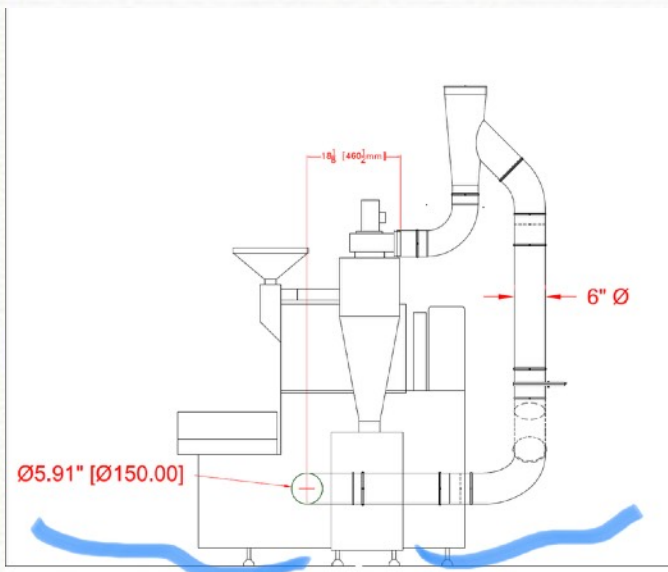
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# BUCKEYE ARIZONA ROASTING COMPANY

- + THE AREA DIRECTLY BELOW THE BC-1 THROUGH 5 IS WHERE AIR MUST ENTER INTO THE ROASTER FOR PROPER AIRFLOW. THIS AREA MUST BE KEPT FREE FROM ANY BLOCKAGE. (PLEASE SEE FRONT IMAGE BELOW)

## **PROPER AIRFLOW:**

**PROPER AIRFLOW IS THE LIFE OF YOUR COMMERCIAL COFFEE ROASTER AND MUST BE MAINTAINED AT ALL TIMES.**



AS SEEN IN ILLUSTRATION OF FRONT VIEW ON THE BC-1 THRU 5 AIRFLOW INTO ROASTER IN PART COMES THROUGH THE BOTTOM OF UNIT AND MUST NOT BE COVERED OR BLOCKED IN ANY WAY. THERE ARE ALSO SIDE VENTS NEAR BURNER ROOM.

AIRFLOW THEN TRAVELS INTO ROASTER WHILE KEEPING THE FAN ON DURING ALL ROASTING.

## **MANUAL DIAL DAMPERS**

BC ROASTERS MADE FROM 2018 ONWARD HAVE BOTH A FAN SPEED AND MANUAL DIAL DAMPER. **THE FAN SPEED FOR AIRFLOW ON ROASTERS MUST BE TURNED**

**ON 100%.** THE AIRFLOW IS CONTROLLED USING THE MANUAL DIAL DAMPER:

## **BC-8 THRU BC-135 MODELS**

ON THE BC-8 AND UP SIZES THERE ARE AIR VENTS ON BOTH FRONT AND BACK OF ROASTER FOR AIR INTAKE. THESE AREAS MUST BE KEPT OPEN AND CLEAR TO ALLOW SUFFICIENT AIR TO ENTER INTO BURNER ROOM DURING ROASTING.

### **FRESH AIR INTAKE**

CONTRACTORS MAY NEED TO INSTALL AN AIRFLOW VENT IN THE ROOM YOU USE TO ALLOW FRESH AIR INTAKE FROM OUTSIDE BUILDING. BUT NO INTAKE VENT ATTACHES DIRECTLY TO ROASTER.



# BUCKEYE ARIZONA ROASTING COMPANY



## **MDDS SYSTEM:**

THE MANUAL DIAL DAMPER IS USED TO KEEP A CONTACT AIRFLOW RUNNING THROUGH ROASTER DURING ROASTING AS WELL AS PREHEAT AND COOLING BEFORE TURNING ROASTER OFF AT END OF DAY.



DAMPER HAS OPENINGS RANGING FROM 1-10. MOST ROASTING BEGINS WITH LOWER AIRFLOW (2-4 DURING DRYING PHASE) THEN INCREASES DURING BROWNING OR MAILLARD PHASE (4-6) AND MAY INCREASE MUCH HIGHER DURING ROASTING PHASE(6-9) DEPENDING ON

MANY FACTORS AND GOALS OF THE ROASTMASTER.

## **PROPER EXHAUST PIPING OUT OF BUILDING**

AIRFLOW CAN BE GREATLY EFFECTED BASED ON THE EXHAUST PIPING FROM ROASTER TO EXIT OUT OF BUILDING. LONG EXHAUST PIPES OR HORIZONTAL PIPING MAY NECESSITATE THE USE OF BOOSTER FANS TO PULL AIR & SMOKE PROPERLY OUT OF BUILDING. IT IS VITAL TO CHECK AIRFLOW REGULARLY AFTER INSTALLING YOUR EXHAUST SYSTEM. IT IS JUST AS VITAL TO KEEP AIRWAYS CLEAN AND UNOBSTRUCTED. IN GENERAL YOUR CHAFF FAN WILL ONLY MAINTAIN POSITIVE PRESSURE IF **TOTAL EXHAUST LINE IS 20' OR LESS (DEDUCT 3-5' PER 45 DEGREE ANGLE PIPE)**

## **PREVENT DANGEROUS BACKDRAFTING AIR FROM VENTING:**

ALSO ALL EXHAUST PIPING SHOULD BE PROPERLY EQUIPPED WITH CAPPED VENTING OUTSIDE TO **PREVENT BACKDRAFT OR DOWNDRAFT OF SMOKE & AIR** OR AIR PRESSURE FROM REDUCING POSITIVE PRESSURE OF AIRWAYS. EXHAUSTS MUST BE CLEANED & KEPT CLEAR AND CHECKED REGULARLY TO ENSURE THERE IS NO RISK OF BLOCKAGE.



# BUCKEYE ARIZONA ROASTING COMPANY

## **RECOMMENDED VENTING OF YOUR ROASTER:**

THE BEST WAY TO VENT YOUR ROASTER TO ENSURE PROPER AIRFLOW IS TO VENT BOTH THE COOLING

WHEN VENTING EACH EXHAUST PIPE SEPARATELY YOU MAY FIND IT BEST TO USE THE SAME SIZE PIPING AS THE ACTUAL EXHAUST ON ROASTER.

### **FOR EXAMPLE:**

IF YOUR CHAFF FAN HAS A 4" EXHAUST YOU MAY USE 4" PIPING TO EXHAUST OUT OF BUILDING (NEVER USE A SMALLER SIZE PIPE AS THIS WILL RESTRICT AIRFLOW)

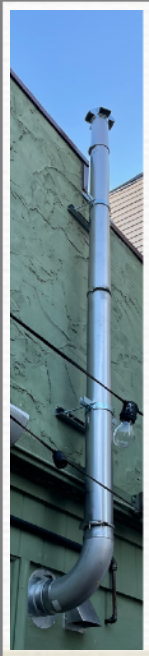
ALSO CAREFUL NOT TO USE TOO BIG OR WIDE OF AN EXHAUST PIPE AS THIS CAN REDUCE POSITIVE AIR PRESSURE

## **TOTAL LENGTH OF EXHAUST:**

TOTAL LENGTH OF EXHAUST OFF CHAFF UNIT SHOULD NOT EXCEED 20'. DEDUCT 3-5' FOR EVERY CURVED PIPE.

(IMAGE BELOW SHOWS CHAFF EXHAUST OUT OF BUILDING WITH TWO ANGLE PIPES: THEREFORE TOTAL LENGTH OF THIS PIPE REACHES THE 20' LIMIT)

ADDITIONAL BOOSTER FAN MAY BE NEEDED IF YOU EXCEED 20' TOTAL EXHAUST LENGTH



**EXCESSIVE PIPE LENGTHS** WILL REQUIRE YOUR CONTRACTOR TO INSTALL A MULTI SPEED BOOSTER FAN PURCHASED THROUGH A SUITABLE SUPPLY COMPANY (WE DO NOT SUPPLY THESE FANS NOR RECOMMEND A BRAND)



# BUCKEYE ARIZONA ROASTING COMPANY

## **EXHAUST VENTING: COMBINING TWO EXHAUSTS INTO ONE:**

EXTREME CARE MUST BE EMPLOYED WHEN COMBINING THE EXHAUST FROM COOLING TRAY INTO MAIN CHAFF FAN EXHAUST. IF NOT PROPERLY EXECUTED SMOKE FROM CHAFF UNIT WILL FLOW BACKWARDS INTO COOLING EXHAUST PIPE AND SMOKE WILL COME OUT OF COOLING TRAY WHEN ITS FAN IS OFF.

TO AVOID THIS ISSUE EITHER EXHAUST BOTH PIPES OUT SEPARATELY AS RECOMMENDED ABOVE OR YOU MUST OTHERWISE USE A **BLAST OR BACKDRAFT DAMPER** OFF THE COOLING EXHAUST AS IT ATTACHES TO MAIN CHAFF EXHAUST. EXAMPLES OF THESE ARE SEEN BELOW:

### **PIPE ONE WAY BACKDRAFT OR BLAST DAMPER:**

IF RUNNING TWO PIPES INTO ONE YOU MUST USE A ONE WAY DAMPER WHERE COOLING TRAY PIPE CONNECTS TO EXHAUST PIPE FROM CHAFF UNIT. IF YOU FAIL TO DO SO SMOKE FROM EXHAUST PIPE WILL BLOW INTO COOLING TRAY AND FILL BUILDING WITH SMOKE AND CHAFF. SEE PICTURES BELOW

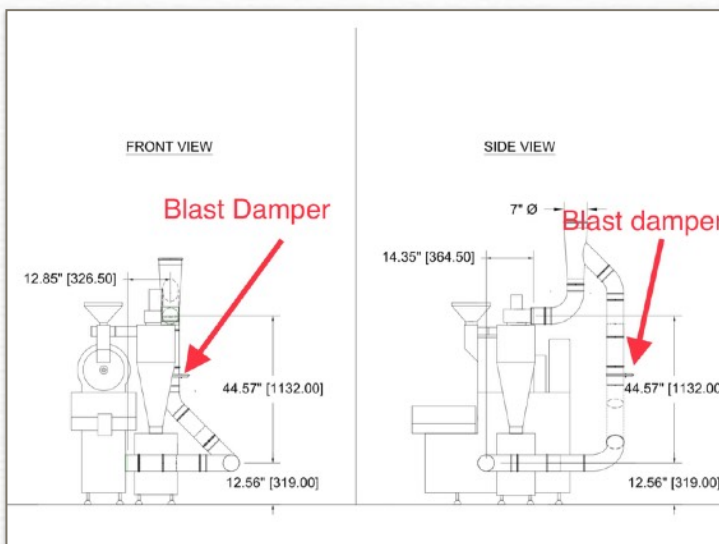


**INSTALLERS ASSUME FULL  
RESPONSIBILITY FOR  
INSTALLATION WORK**



## **EXAMPLE DRAWING OF COMBINING TWO EXHAUSTS INTO ONE USING A BLAST DAMPER:**

**NOTE:** WHEN COMBINING TWO EXHAUST PIPES INTO ONE YOU WILL NEED TO INCREASE THE ADDING EXIT PIPE OUT OF BUILDING TO AVOID REDUCING AIRFLOW.



### **EXHAUST PIPE KITS:**

DUE TO THE INCREASE IN EXHAUST PIPE KITS THROUGH VENDERS WE NOT LONGER OFFER THESE FOR SELL. GENERALLY YOU CAN SAVE A LOT OF MONEY DOING YOUR OWN SETUP. BUT IF YOU PREFER TO HAVE A VENDER DESIGN YOUR KIT YOU MAY FIND PROVIDERS ON OUR TECH PAGE AT [BUCKEYECOFFEE.COM](http://BUCKEYECOFFEE.COM)

## TEST YOUR AIRFLOW

YOU SHOULD REGULARLY TEST YOUR ROASTERS AIRFLOW TO BE SURE IT IS CLEAR AND PULLING AIR, CHAFF & SMOKE OUT OF ROASTER DRUM AS WELL AS PROPERLY EXHAUSTING IT OUR OF BUILDING. THIS CAN BE DONE BY TAKING AIRFLOW TESTS THROUGH THE **TRIER SPOON SLOT** OR IF YOUR UNIT IS EQUIP WITH AN **AIRFLOW GATEWAY**:

(PLEASE SEE OUR PDF ON TESTING AIRFLOW)

**USING A MAG AIRFLOW GAUGE WILL HELP YOU TO KEEP TRACK OF PROPER POSITIVE AIRFLOW THROUGH ROASTER AND EXHAUST**

FOR MORE DIRECTION ON INSTALLATION AND SAFETY PROCEDURES PLEASE SEE THE BC-MANUAL & OUR LIBRARY OF ONLINE VIDEOS AS WELL AS CONTACT THE TECH DEPARTMENT AT:

[TECH@BUCKEYECOFFEE.COM](mailto:TECH@BUCKEYECOFFEE.COM)

ALSO SEE THE **MEMBERS PAGE** AT [BCROASTERS.COM](http://BCROASTERS.COM)

\* TECH SUPPORT IS OFFERED FREELY DURING EQUIPMENT WARRANTY. ALSO FREE PDF SUPPORT AND WEBSITE SUPPORT & VIDEOS ARE OFFERED FOR THE LIFE OF EQUIPMENT. AFTER WARRANTY IF YOU WISH PERSONAL SUPPORT WE MAY RECOMMEND PROFESSIONAL CONSULTATION THROUGH A PARTNER COMPANY, TRAINING SEMINARS OR MORE WITH PREMIUM CONSULTATION SERVICES



**USING A MAG AIRFLOW GAUGE (SUCH AS THE ONE IN IMAGE ABOVE) WILL HELP YOU TO KEEP TRACK OF PROPER POSITIVE AIRFLOW THROUGH ROASTER AND EXHAUST**