

# BC COMMERCIAL ROASTER

## QUICK START GUIDE

### **IMPORTANT:**

THE QUICK START GUIDE IS TO BE USED WHEN STARTING TO ROAST COFFEE FOR QUICK REMINDERS OF EQUIPMENT USE AND COFFEE ROASTING PROCEDURES. IT IN NO WAY IS DESIGNED TO REPLACE THE FULL MANUAL. YOU SHOULD NEVER OPERATE ANY OF OUR COMMERCIAL EQUIPMENT WITHOUT FIRST READING AND FOLLOWING ALL SAFETY AND USAGE POINTS IN THE FULL MANUAL



THE QUICK START GUIDE IS A GENERAL GUIDE FOR ROASTING WITH ALL OUR BC MODELS. IT IS DESIGNED TO PROVIDE BASIC PRINCIPLES FOR ROASTING ON THE BC LINE. BUT NOTE THAT EVERY MODEL MAY OPERATE WITH DIFFERENT GAS AND AIRFLOW SETTINGS AND EVEN THE SAME ROASTER WILL REQUIRE DIFFERENT SETTINGS DEPENDING ON A NUMBER OF FACTORS SUCH AS SIZE OF LOAD, AMBIENT TEMPERATURE, ALTITUDE AT YOUR LOCATION AND OTHER FACTORS. SO ANY EXAMPLES MENTIONED FOR SETTINGS ARE PROVIDED AS A GUIDE TO HELP YOU HAVE A STARTING POINT.

# **INSTALLING THE PROPER EXHAUST PIPING OUT OF YOUR BUILDING**

ALL COMMERCIAL ROASTERS PRODUCE SMOKE AND SMOKE MUST BE PROPERLY EXHAUSTED OUT OF BUILDING FOR SAFETY REASONS AS WELL AS PROPER USE OF ROASTER. EVEN IF USING A SMOKE SUPPRESSION SYSTEM YOU MUST EXHAUST AIR OUT OF BUILDING AS IT CONTAINS CARBON MONOXIDE

## **TOPICS COVERED:**

1. SAFETY FIRST
2. SETUP ROASTER
3. ELECTRIC & GAS REQUIREMENTS
4. STARTING & TESTING UNIT
5. ROASTING COFFEE
6. PROPER SHUT DOWN AFTER ROASTING
7. CLEANING & DAILY MAINTENANCE
8. WEEKLY & MONTHLY MAINTENANCE
9. QUARTERLY CARE
10. TROUBLESHOOTING & TECH SUPPORT
11. WARRANTY INFORMATION



**BC-2 ROASTER**

## **1. SAFETY FIRST**

NEVER WORK WITH OR ON ANY EQUIPMENT WITHOUT FIRST READING THE ENTIRE BC MANUAL AND ALL THE SAFETY GUIDES WITHIN. IF YOU DO NOT HAVE OR HAVE LOST YOUR COMPLETE MANUAL PLEASE EMAIL [TECH@BUCKEYECOFFEE.COM](mailto:TECH@BUCKEYECOFFEE.COM) AND REQUEST A NEW MANUAL (YOU WILL NEED TO PROVIDE YOUR ACCOUNT NUMBER THAT WAS ON YOUR ORIGINAL INVOICE)

## **NEVER START A GAS ROASTER WITHOUT RUNNING AIRFLOW!**

**WHEN USING A GAS ROASTER ALWAYS FOLLOW THE SAFETY INSTRUCTIONS IN MANUAL.**

### **FOLLOW THESE STEPS FOR A SAFE AND PRODUCTIVE ROAST:**

1. ALWAYS BE SURE YOUR GAS LINE IS FREE OF LEAKS. (SOAPY WATER TEST)
2. TURN ON MACHINE AND CHECK THAT ALL COMPONENTS ARE WORKING PROPERLY
3. WHEN IGNITING ROASTER YOU MUST FOLLOW THIS PROCEDURE:
  - A. TURN ON CHAFF FAN (AIR FLOW) ON CONTROL PANEL TO 100% - THEN DEPENDING ON ROASTER SET MANUAL DAMPER TO 1-2 (LISTEN FOR RUNNING FAN)
  - B. PRESS IGNITOR BUTTON (HEAT OR ROASTING BUTTON ON CONTROL PANEL) IT WILL BUZZ
  - C. THEN TURN ON GAS FROM UNIT. **NEVER TURN GAS ON UNLESS AIR FLOW IS ON OR GAS COULD BUILD UP IN BURNER ROOM. (BC-8-35 OPERATE WITH A PILOT LIGHT BURNER FIRST)**
4. ONCE FLAME IGNITES ADJUST PRESSURE USING THE KPA GAUGE TO 1-4 KPA. SOME POSTS DEPENDING ON SIZE CAN BE ROASTED AT LOW KPA GAS PRESSURE WHILE LARGE ROASTS REQUIRE MUCH HIGHER PRESSURES.
5. ADJUST AIRFLOW UP AS ROAST DEVELOPS TO REMOVE SMOKE AND CHAFF FROM DRUM AND IN CONTROLLING TEMPERATURE (ROR)

# **1. SAFETY ALWAYS- SAFETY FIRST**

**IMPORTANT: ALWAYS READ ENTIRE MANUAL BEFORE ATTEMPTING ANY WORK OF UNPACKING ROASTER OR SETTING UP EQUIPMENT.** FAILURE TO DO SO COULD RESULT IN DAMAGE TO EQUIPMENT NOT COVERED BY WARRANTY AND MORE IMPORTANT COULD RESULT IN SERIOUS INJURY AND/OR DEATH!

**CAUTION:** THIS **QUICK START GUIDE** IS NOT THE COMPLETE MANUAL & IS PROVIDED ONLY AS A GUIDELINE AND IS NOT INTENDED TO COVER ALL POTENTIAL SAFETY ISSUES THAT MAY ARRISE IN YOUR AREA. CONSULT WITH LOCAL AUTHORITIES FOR ACTUAL SAFE WORK METHODS IN YOUR FACILITY. WE ARE NOT RESPONSIBLE FOR THE FAILURE OF ANYONE USING THIS EQUIPMENT WITHOUT SAFE WORKING PROCEDURES.

**IMPORTANT: A HIGH QUALITY GOVERNMENT APPROVED FIRE EXTINGUISHER SHOULD ALWAYS BE KEPT NEAR EACH COFFEE ROASTING MACHINE.**

1. NEVER RUSH TO GET A JOB DONE. THIS CAN RESULT IN MISTAKES. AND MISTAKES WITH ELECTRIC AND GAS CAN BE FATAL TO YOU AND YOUR EMPLOYEES.
2. NEVER ALLOW AN UNQUALIFIED PERSON TO WORK ON EQUIPMENT OR BE INVOLVED IN ANY PROCESS RELATING TO UNPACKING, INSTALLING OR USING OF EQUIPMENT.
3. **NEVER RUN ROASTER UNATTENDED.** COFFEE IS A COMBUSTIBLE MATERIAL AND CAN EXPLODE AND CAUSE LOSS OF PROPERTY AND LIFE TO ANY NEAR ACCIDENT AREA. ALWAYS RUN EQUIPMENT ONLY BY AUTHORIZED PERSONNEL FULLY TRAINED IN SAFETY PROCEDURES & FIRST AID TRAINING.
4. MACHINE MUST BE PLACED ON LEVEL SURFACE IN HORIZONTAL POSITION. USE A LEVEL TO BALANCE ROASTER PROPERLY.
5. ELECTRIC POWER AT 220V IS VERY DANGEROUS IF NOT PROPERLY SETUP. USE A QUALIFIED CERTIFIED ELECTRICIAN TO SET UP YOUR ELECTRIC CONNECTIONS **BEFORE** ATTEMPTING TO SETUP AND USE ROASTER (**SEE SECTION: MAKE SURE YOUR ELECTRIC IS CORRECT IN FULL MANUAL**)
6. NEVER OPEN UP ROASTING UNIT AT ELECTRICAL BOX OR CONNECTIONS WHILE OPERATING ROASTER. **NEVER OPEN MOTOR GUARD OR TOUCH OR OPEN ELECTRICAL CONNECTIONS WHILE IN USE.** ANY TIME MACHINE IS SERVICED OR MAINTENANCE IS PERFORMED MACHINE MUST BE TURNED OFF AND **DISCONNECTED** FROM POWER SOURCE. IF UNIT IS HARD WIRED SHUT OFF CIRCUIT AT CIRCUIT BREAKER OR CIRCUIT ELECTRIC BOX. **WHEN ATTACHING THE AVIATION PLUGS FOR CHAFF FAN AND COOLING FAN ON SOME MODELS ALWAYS UNPLUG ROASTER FIRST. NEVER CONNECT OR DISCONNECT PLUG WHEN MACHINE IS PLUGGED IN. WHEN ROASTER IS NOT IN USE IT SHOULD BE DISCONNECTED FROM POWER LINES**
7. DO NOT TOUCH SURFACE OF ROASTER WHILE HEATING AS UNIT BECOMES VERY HOT AND INJURY OR BURNS COULD OCCUR. USE PROTECTIVE INSULATED SAFETY GLOVES WHEN OPERATING ROASTER TO AVOID BURNS TO HANDS. **KEEP AN APPROVED FIRST AID KIT NEARBY IN CASE OF ACCIDENTS.**
8. COFFEE AND CHAFF ARE COMBUSTIBLE MATERIALS. **ALWAYS CHECK DEBRIS TRAY BELOW DRUM AND CHAFF UNIT AFTER EACH ROAST TO KEEP CLEAN FROM POTENTIAL DUST OR CHAFF FIRES.** IF A FIRE OCCURS **NEVER OPEN UP DRUM. TURN OFF UNIT AND UNPLUG** AND CUT OFF ALL OXYGEN FROM FLAME. IF NEEDED USE APPROVED FIRE EXTINGUISHER ONLY TO PUT OUT FIRE. NEVER USE WATER AS THIS COULD RESULT IN FATAL ELECTRICAL SHOCK AND WILL DAMAGE EQUIPMENT AND VOID WARRANTY.
9. **NEVER OVER-ROAST COFFEE!** COFFEE IS COMBUSTIBLE MATERIAL AND IF OVER HEATED WILL BURN AND PERHAPS EXPLODE. MACHINE MUST BE SUPERVISED AT ALL TIMES IT IS IN USE AND NEVER SHOULD BEANS BE OVERHEATED OR BURNED. WHILE OUR ROASTERS CAN PRODUCE FRENCH & ITALIAN ROASTS OFTEN WITHIN ONLY 15-30 SECONDS AFTER ACHIEVING THIS DARK ROAST YOU RISK OVERCOOKING BEANS AND RISK DESTROYING ENTIRE BATCH AS WELL AS CREATE A FIRE HAZARD. ONCE COFFEE REACHES DARK FRENCH ROAST MOST THE FLAVOR OF THE COFFEE HAS ALREADY BEEN COOKED OUT OF BEANS AND ONLY THE TASTE OF BURNT BEANS EXISTS. AVOID OVER ROASTING AND BURNING BEANS. **(OILY BEANS ARE OVERCOOKED BEANS. THE CELLAR STRUCTURE OF BEANS ARE DAMAGED WHEN OILY.)**

10. DO NOT WEAR LOOSE FITTING CLOTHES WHILE OPERATING MACHINERY. CLOTHING CAN BE CAUGHT BY POWERFUL MOTORS RESULTING IN SERIOUS INJURY. DO NOT PUT FINGERS OR HANDS NEAR ANY MOVING PART OR OPEN ANY PART OF ACCESS DOORS WHILE MACHINE IS ON.

11. NEVER ALLOW MACHINE TO COME INTO CONTACT WITH WATER. EVEN WHEN MACHINE IS OFF **DO NOT CLEAN ATTACHED SURFACES WITH WATER OR SPRAY LIQUIDS ON UNIT.** IF COOLING TRAY OR HOPPER NEEDS CLEANED DISCONNECT AND CLEAN AWAY FROM UNIT. NEVER LEAVE ELECTRICAL ATTACHED OR ON WHEN SERVICING UNIT. DRY ALL PARTS BEFORE REASSEMBLY OF UNIT.

12. NEVER OPERATE MACHINERY WHILE UNDER THE INFLUENCE OF ALCOHOL OR DRUGS OR IF ILL OR EVEN ON PRESCRIPTION MEDICATIONS. DO NOT OPERATE WHILE FATIGUED. USER MUST BE FULLY ALERT WHILE OPERATING MACHINERY.

13. NEVER OVER LOAD MACHINE WITH TOO MUCH COFFEE.

14. KEEP ALL UNAUTHORIZED PERSONS AND CHILDREN AWAY FROM EQUIPMENT.

15. NEVER TOUCH HOT EXHAUST PIPES OR CONNECTIONS. ALWAYS USE APPROVED GLOVES TO PROTECT HANDS.

16. NEVER STOP DRUM WHILE HEATING COFFEE. THIS WILL RESULT IN BURNED PRODUCT AND MAY RESULT IN FIRE HAZARD. IF POWER GOES OFF OR DRUM STOPS TURN OFF MACHINE IMMEDIATELY USE THE TOOLS OR HARDWARE TO GET BEANS FROM DRUM. BUT IF A FIRE OCCURS DO NOT OPEN DRUM AS AIR OR OXYGEN WILL EXPAND OR FEED FIRE. IF ABLE MANUALLY ROTATE DRUM UNTIL POWER RESTORED. **(NEWER 2023 BC-3.5-25 ALL HAVE WHEELS ON DRUM TO MANUALLY TURN DRUM IN THE EVENT THAT POWER GOES OUT WHILE ROASTING)**

17. USE A DRY SOFT CLOTH TO CLEAN EXTERIOR OF UNIT WHEN MACHINE IS OFF AND DISCONNECTED FROM ELECTRIC. NEVER USE WATER OR WET CHEMICALS WHILE IN USE.

18. **GAS UNITS: ALWAYS CHECK GAS LINES TO ENSURE NO LEAKS.** USE SOAPY WATER ON GAS LINES (NOT ON MACHINE) BEFORE IGNITING ROASTER TO MAKE SURE THERE ARE NO LOOSE CONNECTIONS. IF LOOSE CONNECTIONS OR LEAKS ARE FOUND **IMMEDIATELY TURN OFF ALL ELECTRIC AND CONTACT A SPECIALIST OR CERTIFIED TECHNICIAN TO PERFORM REPAIRS.** GAS CAN BE DEADLY AS IT CAN SUFFOCATE USER IN CONFINED AREAS BY LEAKAGE AND/OR CAN CAUSE EXPLOSION IF COMING INTO CONTACT WITH A SPARK OR ELECTRIC CONNECTION.

19. **DO NOT USE EXTENSION CORDS** AND MAKE SURE ALL CORDS ARE NOT TWISTED, RESTRICTED OR DAMAGED IN ANY WAY PRIOR TO USE.

20. **IF ANY PROBLEMS ARE FOUND TURN OFF MACHINE & DISCONNECT FROM POWER SOURCE AND CONTACT A CERTIFIED TECHNICIAN TO PERFORM ALL REPAIRS AND TEST BEFORE USING UNIT. KEEP ALL UNITS IN GOOD REPAIR. IF REPAIRS OR PART REPLACEMENTS ARE NEEDED DO NOT USE MACHINE UNTIL UNIT HAS BEEN SAFELY BROUGHT UP TO STANDARDS.**

## NOTES:

### 2. UNPACKING & SETTING UP ROASTER

YOUR BC ROASTER WILL ARRIVE CRATED AND SECURED TO BASE OF CRATE EITHER WITH STEEL BRACKETS OR IN THE CASE OF SMALLER ROASTERS THEY MAY BE STRAPPED TO BASE. ROASTERS WILL ARRIVE MOSTLY ASSEMBLED. OFTEN THE ONLY THING REQUIRED AFTER CAREFULLY UNPACKING IS TO ATTACH THE CHAFF FAN OR PERHAPS THE CHAFF UNIT AND FAN ON LARGER MODELS AND THEN SETUP WITH PROPER EXHAUST VENTING

#### SETTING UP YOUR MACHINE:

YOUR MACHINE WILL ARRIVE MOSTLY ASSEMBLED. THE DIRECT CONNECT CHAFF UNIT WILL BE ATTACHED TO ROASTER. BUT YOU WILL NEED TOUT CHAFF FAN UNTO TOP OF CHAFF UNIT. (SOME MODELS JUST SIT ON CHAFF UNIT AND OTHERS MAY ATTACH WITH BOLTS)





1. YOUR ROASTER WILL ARRIVE ATTACHED TO BASE OF CRATE EITHER BY BOLTS AND STEEL BRACKETS (BC-3 TO BC-25) OR STRAPPED TO BASE. CAREFULLY REMOVE BOLTS AND BRACKETS WITH A WRENCH OR HEX KEY.

2. CAREFULLY REMOVE ALL SHRINK WRAP AND STYROFOAM PACKING SO AS NOT TO SCRATCH ROASTER HOUSING OR CHROME PARTS.

3. ON THE BC-1,2,3.5 & 5 THE CHAFF UNITS ARE ATTACHED TO ROASTER. ON BC-8,15,25 CHAFF UNIT WILL BE ATTACHED TO BASE OF CRATE WITH STRAPS. CAREFULLY REMOVE STRAPS.

4. IF NEEDED ATTACH CHAFF UNIT TO ROASTER USING THE PROVIDED FERRULE CLAMPS. THEN ATTACH CHAFF FAN TO TOP OF CHAFF UNIT. SOME MODELS PROVIDE THUMB SCREWS THAT CAN BE USED TO SECURE FAN TO CHAFF UNIT. THIS IS OPTIONAL AS YOU WILL NEED TO REMOVE CHAFF FAN REGULARLY TO CLEAN INSIDE SQUIRREL CAGE AS PART OF YOUR DAILY AND WEEKLY MAINTENANCE.

5. ONCE SET UP PROPERLY YOUR UNIT SHOULD LOOK LIKE IN THE PICTURES BELOW:

BC-1 THRU 5 MODELS WILL COME WITH CHAFF UNIT DIRECTLY ATTACHED TO ROASTER. THEREFORE YOU WILL JUST NEED TO ATTACH CHAFF FAN AND THE EXHAUST SETUP YOU PLAN TO USE. (SEE BC-1 & 5 PICTURES BELOW)



### **IMPORTANT:**

**ALWAYS CONNECT AVIATION PLUG TO ROASTER WHILE UNIT IS UNPLUGGED. NEVER ATTACH OR REMOVE AVIATION PLUG WHEN UNIT IS PLUGGED IN OR MACHINE IS ON.**



BC-8-35 MODELS AND UP COME WITH CHAFF UNIT DETACHED TO AID IN GETTING ROASTER IN THROUGH DOORWAYS & THEN SETUP IN FINAL

### **INSTALLING THE PROPER EXHAUST PIPING OUT OF YOUR BUILDING**

All commercial Roasters produce smoke and smoke must be properly exhausted out of building for safety reasons as well as proper use of roaster. Even if using a smoke suppression system you must exhaust air out of building as it contains carbon monoxide



### **COMMERCIAL ROASTER VENTING:**

OUR COMMERCIAL ROASTERS HAVE SPECIFIC VENTING REQUIREMENTS. COMMERCIAL ROASTERS WORK DIFFERENTLY THAN NEGATIVE PRESSURE VENTING SYSTEMS: COMBUSTION GASES, SMOKE, MOISTURE FROM COFFEE, AND SOME CONDENSED COFFEE BEAN OILS ARE VENTED OUT OF BUILDING WITH AN EXHAUST FAN THAT IS A HIGHER PRESSURE THAN THE NORMAL ATMOSPHERIC AIR IN BUILDING. THEREFORE THIS FALLS INTO THE CATEGORY KNOWN AS CLASS 111 POSITIVE PRESSURE SYSTEMS AND REQUIRES VENTING THAT HANDLES THIS PRESSURE PLUS HEAT.

GENERALLY NEGATIVE PRESSURE VENTING ( SUCH AS CLASS B,L OR A VENTING) IS NOT RECOMMENDED UNLESS EACH PIPE JOINT IS SEALED TO ACCOMMODATE A PRESSURIZED SYSTEM. IF USING SUCH PIPE VENTING BE SURE FIRST IT IS APPROVED IN YOUR COUNTY AND WILL HANDLE TEMPERATURES OF AT LEAST 500F-1000F DIRECTLY OFF CHAFF UNIT AND YOU ALLOW A REMOVABLE CAP TO CLEAN PIPE VENTING WITH A PROPER PIPE BRUSH EVERY FEW MONTHS. (DEPENDING ON USAGE YOU MAY NEED TO CLEAN VENTING PIPES MORE OFTEN)

WHERE LOCAL REGULATIONS PERMIT WE RECOMMEND NORDFAB QF VENTING OR SIMILAR CLASS 111 POSITIVE PRESSURE VENTING AND CAN BE DISASSEMBLED FOR EASY CLEANING.

#### **KEY POINTS:**

- + EXHAUST PIPING SHOULD BE POSITIVE PRESSURE AND OR PROPERLY HEAT SEALED
- + THERE SHOULD BE PIPE CAPS OR EASY ACCESS TO CLEAN AND MAINTAIN PIPES
- + PIPE THAT COMES DIRECTLY OFF CHAFF UNIT SHOULD BE RATED AT MINIMUM 500F (UP TO 1000F ON LARGER ROASTERS)
- + ANY PIPE GOING THROUGH A WALL OR CEILING OR ROOF SHOULD BE PROPERLY INSULATED AND FIRE-PROOFED
- + ALL EXIT PIPES MUST BE PROPERLY CAPPED TO PREVENT AIR FROM BACK FLOW AS WELL AS GETTING BLOCKED OR CLOGGED BY SNOW OR DEBRIS.

### **EXAMPLES OF PROPER EXHAUST SETUP:**

**IT IS ALWAYS BEST TO RUN TWO EXHAUST PIPES SEPARATELY OUT OF BUILDING:  
ONE OFF CHAFF UNIT (MAIN EXHAUST)  
ONE OFF COOLING TRAY**



### **PREFERRED CHOICE:**

**IT IS ALWAYS BEST TO RUN SEPARATE PIPES  
FOR EACH EXHAUST OUT OF BUILDING  
USING**

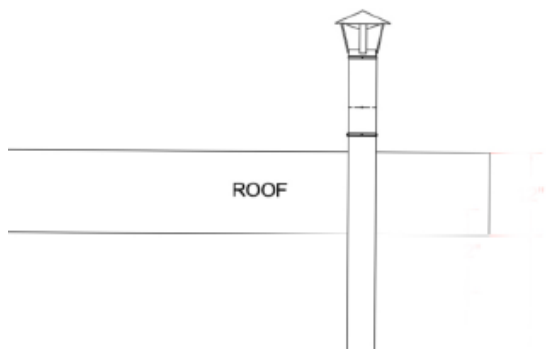
- **POSITIVE PRESSURE PIPE**
- **RATED AT 500F (FOR BC-1 THRU 8)**
- **RATED AT 1000F (BC-15 & UP)**
- **WITH EASY ACCESS POINT FOR  
CLEANING PIPES**

### **INSULATED THROUGH WALLS AND CEILINGS**

**USE ONLY APPROVED INSULATED FIXTURES WHEN RUNNING THROUGH WALLS AND CEILINGS OR  
ROOF.**

#### **ALSO REMEMBER:**

**A PROPER PIPE CAP IS REQUIRED TO PREVENT BACK-FLOW OF SMOKE OR ANYTHING  
GETTING IN PIPE**



### **INSULATED THROUGH WALLS AND CEILINGS**

**Use only approved  
Insulated fixtures  
when running through  
walls and  
ceilings or roof.**

**Also remember:  
A PROPER PIPE CAP  
IS REQUIRED TO  
PREVENT BACK-FLOW  
OF SMOKE OR  
ANYTHING GETTING  
IN PIPE**



### **IF RUNNING PIPES HORIZONTALLY OUT OF BUILDING:**

**YOU MUST RUN PIPE  
OUTSIDE BUILDING  
VERTICALLY UPWARD AND  
PROPERLY CAP PIPE  
OUTSIDE**

### **PROPER ROOF CAPS:**

A PROPER ROOF CAP PREVENTS AIR FROM MOVING BACKWARD INTO ROASTER AS WELL AS PREVENTING RAIN, SNOW OR DEBRIS FROM GETTING INTO PIPE.



**IF CHOOSING TO RUN BOTH EXHAUST PIPES TOGETHER YOU MUST USE A BLAST OR BACKDRAFT DAMPER OFF THE COOLING TRAY EXHAUST!**

**MANUAL 4" NORDFAB BLAST GATE:**

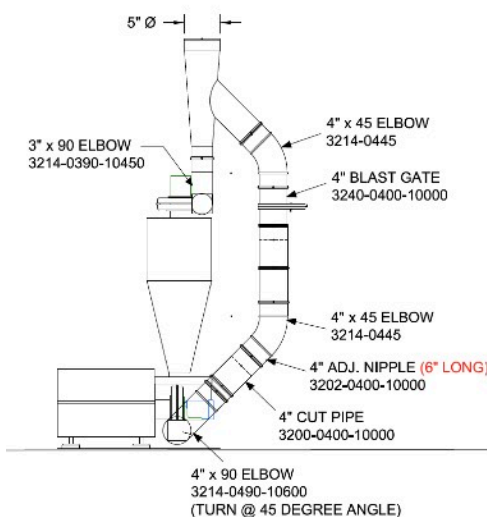


**BACKDRAFT DAMPER**

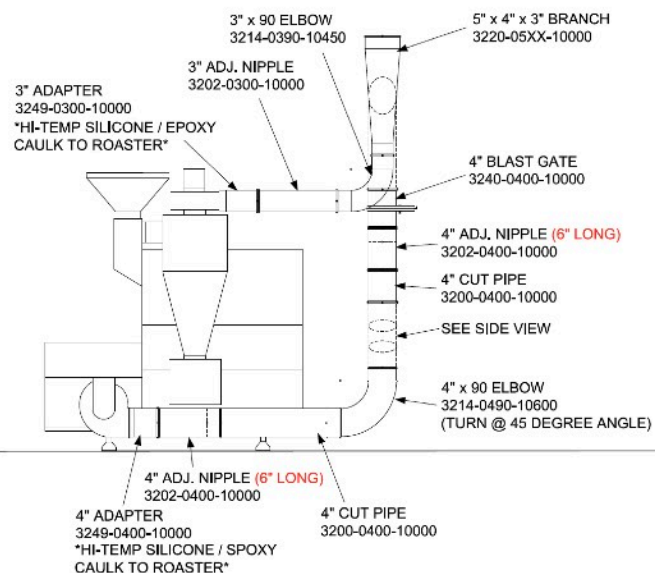


HERE IS JUST A SAMPLE DRAWING OF A BC-5 WITH BOTH PIPES CONNECTED TO ONE WITH A BLAST DAMPER USED:

**SIDE VIEW**



**FRONT VIEW**



**SEE THE  
COMPLETE  
MANUAL FOR  
GENERAL  
SETUP OF ALL  
ROASTERS**

**SEE ALSO THE  
ROASTER SETUP  
GUIDE FOR  
INFORMATION  
ON EXHAUST  
SETUPS**



## **BOOSTER FANS FOR EXHAUST?**

GENERALLY A BOOSTER FAN IS ONLY NEEDED ON AN EXHAUST IF YOUR PIPE IS LONG OR RUNS HORIZONTALLY FOR SEVERAL FEET. AND IF YOUR INSTALLER RECOMMENDS A BOOSTER FAN IT IS BEST PLACED AT THE END OF PIPE NEAREST EXIT OUT OF BUILDING. IT IS ALWAYS BEST IF INSTALLING A BOOSTER FAN TO HAVE AN ON/OFF SWITCH NEAR ROASTER IN CASE THE POWER OF BOOSTER FAN BECOMES TOO STRONG. SOME FANS ALLOW SPEED CONTROL.

## **POTENTIAL PROBLEMS WITH BOOSTER FANS:**

ONE POTENTIAL PROBLEM WITH USING A BOOSTER FAN IS IF IT PULLS AIR TOO MUCH IT WILL PULL BEANS FROM DRUM OF ROASTER INTO CHAFF FAN RESULTING IN LOSS OF ROAST. IF YOU FEEL A BOOSTER FAN IS NEEDED PLEASE OPT FOR ONE WITH AN ON/OFF SWITCH NEAR ROASTER AND OR A SPEED CONTROL OR GOVERNOR ON FAN.

## **COOLING TRAY EXHAUST:**

THE COOLING TRAY IS ONLY USED SEVERAL MOMENTS PER HOUR AND ITS PURPOSE IS TO PULL COOL AIR INTO TRAY FROM ABOVE AND EXHAUST ALL HOT AIR AS WELL AS A VERY LIMITED 'PUFF' OF SMOKE WHEN DRUM DOOR OPENS TO DROP ROAST. THIS EXHAUST PIPE WILL GET VERY LITTLE HEAT AND SMOKE AND WILL NOT NEED TO BE CLEANED AS OFTEN. **TO CLEAN:** VACUUM DEBRIS UNDER TRAY & WELL AS AIR HOLES IN TRAY. THIS CAN BE ACHIEVED WITH A BRUSH OR SHOP VAC. THE RELEASE OF COFFEE OILS INTO TRAY WOULD BE VERY LIMITED EVEN IF CLIENT TAKES COFFEE INTO SECOND CRACK AND MOST OILS WOULD SIMPLY EVAPORATE AS IT IS PULLED INTO EXHAUST PIPES. **BUT YOU SHOULD REGULARLY CLEAN OILS FROM COOLING TRAY & ALL SURFACES SHOULD BE KEPT CLEAN BY WIPING WITH A SOFT CLOTH TO REMOVE DIRT OR DUST.**

## **USING A VOLTAGE CONVERTER:**

**SEE FULL MANUAL FOR MORE DETAILS ON PROPER GAS & ELECTRIC SETUP**

**(BC-1 THRU 8 UNITS COME WITH A 110-120 VOLTAGE CONVERTER)**

**WE DO NOT PROVIDE 110 VOLTAGE CONVERTERS FOR BC-15'S, 25'S OR LARGER**



**WHEN PLUGGING YOUR VOLTAGE CONVERTER INTO A 110V COMMON ELECTRICAL OUTLET IN NORTH AMERICA YOU MUST FIRST SET THE BACK FOR 110-115V. SOME**



**ALWAYS PLUG ROASTER INTO ONLY THE 220V OUTLET ON FRONT. (220V IS THE POWER YOUR ROASTER NEEDS TO RUN)**

### **3. ELECTRIC & GAS REQUIREMENTS**

IT IS VITAL THAT YOU HAVE THE PROPER ELECTRICAL & GAS LINES SETUP IN YOUR BUILDING BEFORE USING YOUR EQUIPMENT:

#### **ELECTRIC:**

ALL OUR COMMERCIAL ROASTERS RUN ON 220V FOR UNIVERSAL USE IN ALL COUNTRIES. ALL FULLY ELECTRIC MODELS MUST HAVE A DEDICATED 220 LINE WITH AT LEAST 30 TO 60A BREAKER DEPENDING ON MODEL. FOR COUNTRIES THAT USE 110V YOU MAY USE A 110V VOLTAGE CONVERTER WITH THE GAS ROASTERS ONLY. IN THE USA WE PROVIDE A 110V VOLTAGE CONVERTER FOR GAS MODELS FROM THE BC-1 TO BC-8. WE DO NOT PROVIDE A 110V VOLTAGE CONVERTER FOR THE 15LB OR LARGER MODELS AS THEY SHOULD BE TIED INTO 220V FOR BEST USE. (A VOLTAGE CONVERTER OF 5000W COULD BE USED FOR A BC-15 OR 25 BUT IS NOT PROVIDED NOR RECOMMENDED)

**CHECK THE SPEC SHEETS FOR THE TYPE AND SIZE ROASTER YOU ARE CHOOSING TO GET FULL DETAILS ON WATTAGE AND VOLTAGE REQUIREMENTS**

#### **ELECTRICAL OUTLET & PLUG TYPE:**

##### **GAS ROASTERS:**

**2-POLE/3-WIRE, 20A, 250-VOLT**



##### **ELECTRIC ROASTERS:**

**LOCKING PLUG, BLACK & WHITE, 2-POLE, 3-WIRE GROUNDING, NEMA L6-30P, 30-AMP., 250-VOLT**





## **GAS COFFEE ROASTERS:**

ALL CURRENT 2019 BC GAS ROASTERS ARE CAPABLE OF RUNNING ON BOTH NATURAL GAS OR LPG (PROPANE) WITH THE PROPER CONVERSION KIT.

### **IT IS VITAL TO MAKE SURE YOU CAN USE THE GAS ROASTER OF YOUR CHOICE IN THE BUILDING YOU PLAN TO RUN ROASTER.**

YOU MUST CHECK BOTH THE SPEC SHEETS FOR THE SIZE ROASTER YOU PLAN TO BUY AS WELL AS THE SETUP AT YOUR FACILITY BEFORE PURCHASING A GAS ROASTER.

### **LPG OR NATURAL GAS?**

GENERALLY IF YOU HAVE A NATURAL GAS LINE IN THE BUILDING YOU PLAN TO USE FOR ROASTING THIS WOULD BE YOUR FIRST CHOICE OF GAS TYPE. BUT JUST HAVING A GAS LINE IN BUILDING DOES NOT MEAN IT WILL WORK WITH YOUR ROASTER. YOU MUST FIND OUT FIRST IF GAS LINE HAS THE PROPER PRESSURE AND ENOUGH BTU'S TO SUPPLY YOUR ROASTER WITH THE FUEL IT NEEDS TO DO FULL ROASTS.

### **NATURAL GAS:**

YOU SHOULD HAVE 7WC GAS PRESSURE IN YOUR GAS LINE FOR SMALLER ROASTERS (BC-1 TO BC-5) AND UP TO 14WC FOR ROASTERS SIZED BC-8 TO BC-25 OR ABOVE. ALSO YOU MUST FIND THE BTU'S PROVIDED AT END OF GAS LINE.

### **LPG GAS ROASTERS**

LPG OR LIQUID PROPANE GAS MAY BE THE BEST CHOICE FOR YOUR LOCATION IF YOU DO NOT ALREADY HAVE NATURAL GAS IN YOUR BUILDING. IT OFFERS MUCH MORE FLEXIBILITY AND CAN BE USED PORTABLY OR ON A PERMANENT INSTALL.

YOU WILL NEED TO ENSURE YOUR BUILDING ALLOWS THE USE OF PROPANE & TANK MUST BE INSTALLED OUTSIDE OF BUILDING ON PERMANENT INSTALLS.

### **THE PROPER LPG REGULATOR MUST BE USED**

FAILURE TO USE THE PROPER LPG REGULATOR COULD VOID YOUR WARRANTY AND DAMAGE YOUR EQUIPMENT.

ON A **BC-1 & 2** YOU CAN USE A LPG REGULATOR THAT IS LOW PRESSURE SUCH AS 11WC OR 13WC. YOU CAN ALSO USE ONE THAT ALLOWS UP TO 24WC BUT THAT IS THE LIMIT. YOU SHOULD ALSO ONLY BUY ONE THAT HAS PROFESSIONALLY CRIMPED GAS LINES.

BC-3 TO BC-25: YOU WILL NEED A LPG REGULATOR THAT IS LOW PRESSURE BUT ALLOWS UP TO 24WC. WE HIGHLY RECOMMEND THE MARSHALL 1912/197 WITH PROFESSIONALLY CRIMPED LINES ONLY.

### **LPG TANKS:**

MANY PEOPLE USE THE SMALL 20LB. TANKS. IF USING THESE BUY A COUPLE BRAND NEW ONES AND YOU WILL ONLY NEED TO PAY FOR REFILLING THEM.

### **DO NOT USE THE RENT OR TRADE IN TYPE TANKS.**

MOST OF THESE COMPANIES CHARGE UPWARDS TO \$20 TO FILL AND THEY ONLY FILL TANK 3/4 UP. PLUS TANKS ARE OFTEN DAMAGED AND LEAK AND EVEN MAY HAVE GAS THAT IS CORRUPTED CAUSING DAMAGE TO ROASTER OR SOLENOID & IGNITOR.

### **SEE FULL MANUAL FOR MORE DETAILS ON PROPER GAS & ELECTRIC SETUP**

### **ALWAYS TEST AND CHECK FOR PROPER SETUP & NO GAS LEAKS PRIOR TO USE.**

## **4. & 5. STARTING & TESTING UNIT & ROASTING COFFEE**

ONCE YOU HAVE PROPERLY SETUP YOUR ROASTER AND PROPERLY VENTED IT AND HAVE THE ELECTRIC & GAS SETTINGS CORRECT AND ATTACHED AND TESTED YOU ARE NOW READY TO START UP ROASTER AND TEST IT.

### **STARTING AND PREHEATING A GAS ROASTER:**

#### **BC-1 THROUGH BC-5 ROASTERS**

#### **TURNING ON AND STARTING A GAS ROASTER:**

TO TURN ON A GAS ROASTER MAKE SURE THAT GAS AND ELECTRIC ARE FIRST PROPERLY SETUP AND NO LEAKS IN GAS LINES. MAKE SURE BUILDINGS GAS LINE IS OPEN OR IF USING PROPANE (LPG) THAT GAS TANK IS OPEN.

1. TURN ON POWER BUTTON

2. MAKE SURE THE AIRFLOW FAN IS TURNED ON TO 100% (ONLY ON 2021 AND OLDER MODELS)

3. ADJUST THE MANUAL DAMPER BETWEEN 1-2 (YOU MAY NEED TO ADJUST HIGHER AND ATTEMPT LIGHTING MORE THAN ONCE ON FIRST ROAST OF THE DAY)

4. MAKE SURE YOUR DRUM IS ON AND MOVING AND SET DRUM SPEED BETWEEN 7-8 ON MOST ROASTERS.

5. PRESS IGNITER BUTTON: IF ROASTER DOES NOT LIGHT WITHIN ABOUT 3-4 SECONDS THE IGNITER WILL SHUT OFF GAS AT SOLENOID AND SET OFF AN **ALARM**- IF THIS HAPPENS SIMPLY TURN OFF IGNITER BUTTON THEN TURN ON AGAIN. IF NEEDED EITHER ADD OR SUBTRACT AIRFLOW ON MANUAL DAMPER

6. TURN NEEDLE GAS VALVE COUNTERCLOCKWISE TO OPEN GAS INTO BURNER ROOM BETWEEN 1-2 ON LPG (NATURAL GAS WILL BE LOWER PERHAPS 0.50-1KPA)

7. YOU MAY NEED TO ADJUST THE MANUAL DAMPER BY OPENING IT OR CLOSING IT SOME TO GET GAS TO REACH THE IGNITOR NEEDLE IN BURNER ROOM.

8. IF GAS DOES NOT LIGHT WITHIN A FEW SECONDS THE IGNITOR WILL SHUT OFF AND CUT OFF GAS FROM FLOWING INTO BURNER ROOM AND SET OFF A BEARING SOUND ALARM. IF THIS HAPPENS SIMPLY TURN OFF THE IGNITOR BUTTON AND THEN TURN ON ADJUSTING GAS AND AIRFLOW AS NEEDED TO LIGHT BURNERS.

9. ONCE BURNERS LIGHT YOU CAN TURN GAS UP TO 2-3 (0.50-1.0 ON NATURAL GAS MODELS) OR HIGHER IN LARGER ROASTERS TO 3-4.5 (1.0 TO 1.75 ON NATURAL GAS MODELS) TO PREHEAT ROASTER. DURING PREHEAT IT IS BEST TO KEEP AIRFLOW LOW (ABOUT 2) TO ALLOW THE METALS IN DRUM TO THROUGHLY HEAT. IF USING A DOUBLE WALL DRUM ROASTER THIS WILL TAKE LONGER. (SEE SUBJECT:

**ROASTING WITH A DOUBLE WALL DRUM)**

10. PREHEAT TIMES WILL VARY DEPENDING ON AMBIENT TEMPERATURE IN BUILDING AND HOW HIGH YOU HAVE GAS TURNED UP. **NOTE: IF ROASTING IN A HIGHER ALTITUDE YOU MAY NEED TO TURN UP GAS HIGHER AND INCREASE AIRFLOW.**

11. SOME SINGLE WALL DRUMS WILL PREHEAT IN ONLY 10 MINUTES (WE GENERALLY TAKE TEMPS HIGHER THAN PLANNED CHARGE POINT ON FIRST ROAST AS THE ACTUAL TEMPS OF METALS IN DRUM WILL NOT BE AS HIGH AS SHOWN ON CONTROLS IN FIRST ROAST) DOUBLE WALL DRUMS MAY TAKE TWICE AS LONG TO PREHEAT.

12. ONCE ROASTER IS PREHEATED PROPERLY YOU ARE READY TO BEGIN ROASTING COFFEE.

13. FILL HOPPER WITH THE DESIGNATED AMOUNT OF COFFEE YOU PLAN TO ROAST

14. WHEN YOU ARE AT YOUR DESIRED CHARGE POINT OPEN HOPPER GATEWAY AND LET COFFEE INTO DRUM. (CHARGE TEMPERATURES VARY BASED ON YOUR PREFERENCES. SOME CHARGE REGULAR COFFEE BETWEEN 320F AND 400F. IF ROASTING DECAFFEINATED COFFEE YOU MAY CHARGE IT AT 50-75F LIES AS IT HAS ALREADY BEEN PARTIALLY COOKED TO REMOVE CAFFEINE

15. **GAS PRESSURE:** GAS PRESSURE OR THE AMOUNT OF GAS YOU BURN IN BURNER ROOM WILL VARY DEPENDING ON THE SIZE OF YOUR ROAST AS WELL AS IF ROASTING WITH LPG OR NG. SINCE

16. START TIMER WHEN CHARGING BEANS INTO DRUM. CLOSE HOPPER GATEWAY AS SOON AS ALL BEANS GO INTO DRUM. IF PLANNING TO DO BACK TO BACK ROASTS YOU MAY CHOOSE TO RELOAD HOPPER NOW OR WAIT.

- 17. AIRFLOW DURING DRYING PHASE:** FROM THE TIME YOU CHARGE BEANS UNTIL ABOUT 330F THIS IS CALLED THE DRYING PHASE. YOU GENERALLY KEEP YOUR AIRFLOW LOWER DURING THE DRYING PHASE. BUT FACTORS SUCH AS CHAFF IN DRUM AND EVEN SMOKE MAY CAUSE YOU TO INCREASE AIRFLOW DURING THIS PHASE. (MANUAL DAMPER MAY BE SET BETWEEN 2-4 DURING DRYING PHASE. BUT IF EXCESSIVE CHAFF IS IN DRUM YOU CAN INCREASE OR OPEN UP AIRFLOW EVEN IF JUST TEMPORARY TO PULL EXCESSIVE CHAFF OUT OF DRUM.
- 18. DRUM SPEED CONTROL:** IF YOUR ROASTER IS EQUIPPED WITH DRUM SPEED CONTROL YOU WILL WANT THE BEANS INSIDE DRUM TO TUMBLE AT A 45 DEGREE ANGLE. THIS LIKELY WILL BE ACHIEVED AT DRUM SPEEDS OF 5-8 (NUMBER MAY VARY DEPENDING ON SIZE OF ROASTER). MOST PEOPLE DO NOT CHANGE DRUM SPEED CONTROL OFTEN BUT AS ROAST NEARS FIRST CRACK MAY INCREASE IT BY 5-10% WHEN CUTTING BACK ON GAS TO EVEN OUT OR SLOW THE ROR (RATE OF RISE)
- 19. GENERALLY THE DRYING PHASE WILL LAST ABOUT 5 MINUTES.** (TIME OF CHARGE TO 330F) BUT THIS MAY VARY DUE TO MANY FACTORS. DURING DRYING PHASE YOU WILL SEE BEANS TURN FROM DULL GREEN TO YELLOW.
- 20. FROM THE DRYING PHASE TO FIRST CRACK IS CALLED THE BROWNING OR MAILLARD PHASE.** THIS WILL BE FROM 330F TO FIRST CRACK. FIRST CRACK MAY VARY GREATLY IN TEMPERATURE DEPENDING ON TYPE OF BEAN BEING ROASTED. SOME START FIRST CRACK AS SOON AS 375F BT WHILE OTHERS MAY BE 400F. THE BROWNING PHASE MAY LAST 2-3 MINUTES DEPENDING ON A NUMBER OF FACTORS. BUT GENERALLY DURING THIS PART OF ROAST YOU ARE CUTTING BACK A BIT ON THE GAS AND INCREASING AIRFLOW. AIRFLOW MAY INCREASE TO 5-6 OR MORE IF NEEDED.
- 21. ROASTING PHASE:** THIS PART OF THE ROASTING PROCESS IS MOST CRITICAL AS CHANGES ARE TAKING PLACE EVERY 15 SECONDS OR SO. THE ROASTING PHASE BEGINS AT FIRST CRACK AND CONTINUES UNTIL YOU DROP BEANS INTO COOLING TRAY. THIS PROCESS, DEPENDING ON THE TYPE OF ROAST YOU WANT, MAY LAST ONLY A MOMENT UP TO 2-3 MOMENTS. GENERALLY YOU ARE DECREASING THE HEAT WHILE INCREASING AIRFLOW. YOU MAY INCREASE AIRFLOW AS HIGH AS 8 OR 9 DEPENDING ON MANY FACTORS. ALSO SOME WILL INCREASE DRUM SPEED DURING OR JUST BEFORE THIS PHASE.
- 22. FINISHING THE ROAST:** DEPENDING ON THE DESIRED EFFECT YOU WANT FOR YOUR ROAST WHEN YOU DECIDE TO DROP BEANS INTO COOLING TRAY YOU WILL CUT OFF THE GAS, TURN ON COOLING FAN AND MIXING ARMS AND DROP ALL BEANS INTO COOLING TRAY.
- 23. ONCE ALL BEANS ARE IN COOLING TRAY CLOSE DRUM DOOR AND YOU ARE NOW READY TO CHARGE THE NEXT BATCH OF BEANS INTO DRUM.** KEEP IN MIND THAT IF YOU DID NOT FULLY PREHEAT DRUM ON FIRST ROAST THAT NOW YOUR DRUM IS THOROUGHLY HEATED AND YOU MAY NEED TO ADJUST YOUR HEAT SETTINGS DOWN FROM WHAT YOU HAD IN FIRST ROAST. OF COURSE THIS WILL DEPEND ON MANY FACTORS INCLUDING THE SIZE OF ROAST AND DESIRED EFFECTS YOU CHOOSE IN YOUR ROASTING PROCESS.
- 24. END OF DAY: COOLING DOWN THE ROASTER:** ONE OF THE MOST IMPORTANT THINGS TO KEEP IN MIND WHEN YOU HAVE FINISHED ROASTING IS TO PROPERLY COOL DOWN YOUR ROASTER TO NEAR ROOM TEMPERATURE BEFORE TURN UNIT OFF. THIS PROCESS MAY TAKE 30-45 MINUTES. IT IS BEST TO TURN MANUAL DIAL DAMPER FULLY OPEN TO 10 AND THEN OPEN DRUM DOOR AND HOPPER GATEWAY AND RUN AIRFLOW AT 100% UNTIL COOL. ALSO BEST ONCE TEMPS IN DRUM COOL TO ABOUT 100F TO LEAVE DOORS OPEN AFTER TURNING OFF UNIT.
- 25. CLEANING UNIT:** ONCE UNIT HAS COOLED IT IS NOW A GOOD TIME TO CLEAN ALL CHAFF AND DEBRIS (IF DOING BACK TO BACK ROASTS THE CHAFF UNIT AND DEBRIS TRAY MUST BE CHECKED REGULARLY AND EMPTIED. BEST TO LIFT UP CHAFF FAN AND USE A BLOWER TO CLEAN SQUIRREL CAGE. ALSO BRUSH THE COOLING TRAY WITH A SOFT BRUSH TO REMOVE ANY BEANS PIECES THAT MAY BE LODGED IN PERFORATED TRAY. WHEN UNIT IS COMPLETELY COOL (PERHAPS THE NEXT MORNING) YOU CAN WIPE DOWN ALL SURFACES WITH A SOFT DRY CLEAN CLOTH.

## **BC ROASTERS-ROASTING ON A DOUBLE WALL DRUM:**

**ROASTING COFFEE:** IN MOST ALL OF OUR INSTRUCTIONS ON COFFEE ROASTING WE ATTEMPT TO PROVIDE THE BASICS. WE DO NOT GET TOO MUCH INTO THE “ART” OF ROASTING. WITH ART THERE ARE MANY WAYS TO CREATE A FINAL PRODUCT THAT YOU AND YOUR CUSTOMERS WILL ENJOY. LET ME QUOTE THE WORDS OF A WELL KNOWN COFFEE ROASTER:

“THERE ARE MANY THINGS GOING ON IN THE ROASTING ENVIRONMENT THAT WE STILL DON'T UNDERSTAND. ROASTING IS A VERY COMPLEX EVENT. AS ROASTERS, WE SHOULD ALWAYS BE PREPARED TO HAVE OUR THEORIES DISPROVED AND ALWAYS BE RECEPTIVE TO NEW THEORIES—WITH AN APPROPRIATE LEVEL OF SKEPTICISM OF COURSE. DO YOUR OWN EXPERIMENTS. ROAST, CUP, AND ANALYZE EACH BATCH...THE TRUTH IS ALWAYS IN THE CUPPING RESULTS AND WHAT YOU—AND YOUR CUSTOMERS IF YOU ARE SELLING—PREFER.”-MICHAEL IS AN AMERICAN EXPAT LIVING IN SINGAPORE WHERE HE WRITES ABOUT MANY THINGS COFFEE-RELATED. A ROASTER BY TRADE, MICHAEL IS ALSO A LICENSED Q GRADER AND AN AUTHORIZED SCA TRAINER (AST).

### **GENERAL ROASTING PROCEDURES IN A DOUBLE WALL (MODELS AND SIZES MAY VARY)**

#### **TO CLEAR UP ONE POINT ABOUT DOUBLE VS SINGLE WALL DRUMS:**

YOU CAN ROAST EQUALLY GREAT COFFEES IN EITHER A SINGLE WALL OR DOUBLE WALL ROASTER. THE BASICS ON ROASTING WITH EITHER IS NOT MUCH DIFFERENT. OF COURSE THE ADJUSTMENTS ON GAS PRESSURE AND PERHAPS SOMEWHAT ON AIRFLOW MAY VARY BUT THE GENERAL ROASTING PROCEDURE WILL BE VERY SIMILAR.

#### **IF SO SIMILAR WHY BOTHER PAYING EXTRA FOR A DOUBLE WALL?**

IT'S A PERSONAL CHOICE. SOME BIG NAME BRANDS ONLY OFFER DOUBLE WALL DRUMS WHILE OTHERS ONLY OFFER SINGLE WALL. WE OFFER BOTH. HERE ARE A FEW THINGS WE NOTE WITH OUR ROASTERS:

IN GENERAL ON THE SMALL ROASTERS (BC-1 & 2) WE DO NOT RECOMMEND A DOUBLE WALL. GENERALLY THERE ARE NO BIG ADVANTAGES. ONE OF THE KEY PLUSES WE HAVE FOUND WITH ADDING A DOUBLE WALL TO THE SMALL BC-3.5 AND UP IS THIS ALLOWS SMALLER BATCH ROASTING. BUT WITH THE BC-1 & 2 YOU ALREADY CAN ROAST 3-4 ONCE BATCHES. SO THE ONLY OTHER ADVANTAGE MAY BE IF YOU PERSONALLY STRUGGLE WITH SCORCHING OR TIPPING BEANS THEN A DOUBLE MIGHT HELP. BUT LEARNING HOW TO ROAST WITHOUT TIPPING OR SCORCHING WOULD BE A BETTER OPTION.

IN GENERAL WE SEE ADVANTAGES IN GETTING A DOUBLE WALL DRUM ON A BC-3.5 AND UP. YOU CAN ROAST SMALLER BATCHES SUCH AS SAMPLES ON SOME. THERE IS A BIT OF PROTECTION WITH THE ADDED AIR CUSHION BETWEEN EACH LAYER OF THE DRUM. BUT IT WILL TAKE A BIT LONGER TO PREHEAT AND MUCH LONGER TO COOL DOWN AT DAYS END. ON THE BC-8 THROUGH 135 A DOUBLE WALL IS RECOMMENDED. YOU CAN ROAST GREAT AND EVEN ROASTS ON THE SINGLE WALL IN THE BIGGER ROASTERS BUT IT IS EASIER IN A DOUBLE WALL DRUM.

### **SOME TIPS & STEPS IN ROASTING:**

WHEN STARTING PRESS IGNITER BUTTON (ROASTING BUTTON ON BC MODELS) WHILE TURNING UP GAS TO 1-2 KPA. (0.25-1KPA ON NATURAL GAS) (MOST SETTING DESCRIPTIONS ARE WHEN USING AN LPG GAS ROASTER- SETTINGS WOULD BE MUCH LOWER ON NATURAL GAS MODEL) YOU MAY NEED TO TURN UP MANUAL DAMPER TO 5-8 TO GET ENOUGH AIR IN BURNER ROOM TO QUICKLY PULL GAS UP TO IGNITER NEEDLE. IF IGNITOR DOES NOT LIGHT BURNERS WITHIN A FEW SECONDS THE IGNITOR WILL SHUT DOWN THE SOLENOID TO PREVENT EXCESSIVE GAS BUILDUP IN BURNER ROOM AND SEND OUT AN

**ALARM. IF THIS HAPPENS PRESS IGNITOR BUTTON OFF THEN ON AGAIN TO REATTEMPT LIGHTING OF BURNERS.**

ONCE LIT YOU CAN TURN DOWN AIRFLOW TO 2-4. DURING PREHEAT PHASE AND DRYING PHASE YOU WILL WANT BURNERS TO HEAT DRUM WITH CONDUCTIVE HEAT. THEREFORE YOU WILL WANT TO REDUCE

#### **THE AIRFLOW THROUGH DRUM.**

**NOTE ON AIRFLOW:** GENERALLY DURING THE EARLY STAGES OF ROASTING IF YOU INCREASE THE AIRFLOW TOO MUCH THIS MAY RESULT IN SLOWING THE ROR AS COOLER AIR MAY BE PULLED THROUGH DRUM. BUT DURING THE LATER PART OF ROAST INCREASING AIRFLOW MAY RESULT IN AN INCREASED ROR AS MORE HOT AIR IS RUNNING THROUGH DRUM. FOR MORE DETAILS SEE OUR MANUAL ON AIRFLOW.

### **PREHEAT TIMES**

+ PREHEAT TIME FROM TYPICAL AMBIENT TEMPERATURE OF 70-80F MAY RANGE FROM 20-30 MINUTES. THERE ARE A COUPLE WAYS YOU COULD PREHEAT ROASTER.

1. ONE WAY IS TO JUST HEAT ROASTER SLOWLY WITH LOW AIRFLOW TO 450-500F AND THEN SHUT OFF GAS AND CUT OFF AIRFLOW TO 0 ON DAMPER AND LET TEMPS DROP FOR 2-3 MINUTES TO GET A TRUE READING ON THE ACTUAL METAL TEMPS IN DRUM.

2. ANOTHER WAY IS EXPLAINED NEXT: (IF YOU PLAN TO CHARGE BEANS AT 400F YOU COULD SET THE BT TEMPERATURE DEVICE TO 400-425 AND AIRFLOW LOW AT PERHAPS 2 ON MANUAL DAMPER AND ALLOW METALS THROUGH DRUM TO FULLY HEAT. TO ENSURE DRUM TEMPS ARE AS HOT AS THE TEMPERATURE GAUGE SUGGESTS ON BT YOU CAN TURN OFF GAS AND LOWER AIRFLOW TO SEE IF TEMPERATURE STEADIES IN THE RANGE YOU PLAN TO CHARGE BEANS (THIS LATTER APPROACH MAY REQUIRE A LONGER PREHEAT TIME OF UP TO 20 MINUTES OR SO DEPENDING ON AMBIENT TEMPERATURE IN BUILDING)

BASICALLY THE SAME STEPS USED WHEN ROASTING IN A SINGLE WALL APPLY. PREHEAT TIMES MAY BE A BIT LONGER. ALSO YOU MAY NEED TO INCREASE GAS PRESSURE MORE IN THE EARLY STAGES OF ROASTING (MANY DOUBLE WALL MODELS HAVE LARGER BURNERS THAN THE SINGLE WALL ONES SO ONCE THE ROASTER IS THOROUGHLY HEATED YOU MAY BE ABLE TO BACK OFF THE HEAT AS DRUM WILL HOLD HEAT LONGER)

### **DRYING PHASE:**

ONCE THE BEANS ARE CHARGED INTO DRUM UNTIL THE TIME THE TEMPERATURE OF THE BEANS (BT) REACHES 320F YOU ARE IN THE DRYING PHASE. MOST ROAST MASTERS WILL TRY TO ACHIEVE THIS PROCESS IN 5-7 MINUTES OR LESS DEPENDING ON THE SIZE AND TYPE OF ROASTER. GENERALLY DURING THIS TIME THE AIRFLOW IS KEPT LOW. DRUM SPEED WILL BE SUCH THAT BEANS TUMBLE AT A 45 DEGREE ANGLE IN DRUM (SETTINGS OF MOST BC MODELS ON DRUM SPEED WILL BE BETWEEN 70-80%)

### **MAILLARD PHASE:**

320F TO FIRST CRACK: DURING THIS TIME THE HEAT OR GAS PRESSURE WILL GENERALLY BE REDUCED AND AIRFLOW WILL INCREASE. (ON THE NEW HD ROASTERS THE CHAFF FANS ARE MUCH MORE POWERFUL THAN ON PREVIOUS MODELS SO BE CAREFUL NOT TO INCREASE AIRFLOW TOO MUCH) DURING THIS PART THE ENVIRONMENTAL AIRFLOW WILL BECOME THE MAIN SOURCE OF HEAT. THE TIME DURING THIS PART WILL VARY DEPENDING ON YOUR ARTISTIC GOALS WITH THE ROAST AS WELL AS ONE THE SIZE AND TYPE OF ROASTER. OFTEN THIS PROCESS MAY LAST 2-3 MINUTES.

### **ROASTING PHASE:**

FROM FIRST CRACK UNTIL YOU DROP BEANS INTO COOLING TRAY. THIS IS THE MOST CRITICAL PHASE AS CHANGES ARE OCCURRING QUICKLY. GENERALLY DURING THIS TIME YOU WILL REDUCE HEAT FURTHER AND INCREASE AIRFLOW SOMEWHAT. THIS PHASE MAY LAST FOR AS LITTLE AS A MOMENT OR UP TO A FEW MOMENTS DEPENDING ON THE DARKNESS OF ROAST AND TYPE OF BEAN BEING ROASTED AS WELL AS YOUR ARTISTIC GOALS. MOST ROAST MASTERS WILL AT LEAST CONTINUE ROAST UNTIL THE END OF FIRST CRACK (NOTE: SOME COFFEES GO DIRECTLY FROM FIRST CRACK INTO A SECOND CRACK SO CARE MUST BE MAINTAINED TO KNOW YOUR COFFEE ORIGINS AND THE SOUND CHANGES FROM 1ST TO 2ND CRACK.

### **MAINTENANCE DURING ROAST:**

IT IS VITAL YOU KEEP THE CHAFF UNIT CLEANED AND DEBRIS TRAY EMPTIED BETWEEN ROASTS AS WELL AS MONITOR YOUR AIRFLOW AND KEEP ALL AIRWAYS CLEAN WHILE ROASTING. OTHER MAINTENANCE CAN BE PERFORMED AFTER OR BEFORE YOU BEGIN A ROAST DAY. SEE MAINTENANCE IN MANUAL AND ONLINE VIDEOS.

- + **END OF DAY:** WHEN YOU ARE FINISHED ROASTING AT DAYS END IT'S VITAL YOU **COOL DOWN THE ROASTER COMPLETELY BEFORE TURNING OFF MACHINE:** FAILURE TO DO SO WILL IN TIME DAMAGE ELECTRONIC PARTS IN ELECTRICAL ROOM AND VOID WARRANTY. THE WAY TO COOL ROASTER IS TO TURN OFF ALL GAS AND HEAT. TURN THE MANUAL DIAL DAMPER UP TO 10 (AIRFLOW OPEN UP 100%) AND OPEN BOTH HOPPER CHUTE AND DRUM DOOR. SOME CLIENTS EVEN PUT A SMALL FAN IN COOLING TRAY TO BLOW COOL AIR INTO DRUM AND UP AND OUT EXHAUST. DOUBLE ROASTERS WILL TAKE 2-3 TIMES LONGER TO COOL THAN A SINGLE WALL. PERHAPS EVEN 45-60 MINUTES OR MORE. DURING THIS TIME THERE ARE PLENTY OF OTHER JOBS THAT CAN BE DONE IN THE ROASTERY. ONCE MACHINE IS COOLED NEAR TO ROOM TEMPERATURE YOU CAN TURN OFF MACHINE. MOST DETAILED MAINTENANCE CAN EASILY BE COMPLETED IN THE MORNING BEFORE PREHEATING ROASTER AS UNIT WILL STAY HOT FOR A LONG TIME AFTER YOU FINISH FINAL ROAST AT DAY END. BUT ALWAYS CLEAN DEBRIS FROM CHAFF FAN DAILY AS WELL AS DEBRIS AND CHAFF FROM CHAFF UNIT AND DEBRIS TRAY THROUGHOUT THE ROASTING DAY. CHAFF UNIT CAN BE EMPTIED IN BETWEEN ROASTS BY TURNING FAN POWER OFF MOMENTARILY AND BRUSHING OR VACUUMING CHAFF FROM UNIT QUICKLY THEN TURNING CHAFF FAN POWER BACK ON 100%. BC-8 TO BC-25 MODELS MAY HAVE AN ON/OFF FAN BUTTON IN BACK OF ROASTER WHERE THE AVIATION PLUG ATTACHES TO ROASTER BODY. SOME OF THE NEWER 2022 MODELS OF BC-3.5 & 5'S HAVE THE NEW ON/OFF FAN SWITCH OF BACK OF ROASTER.
- + **IMPORTANT:** NEVER UNPLUG OR PLUG IN CHAFF FAN FROM BODY OF ROASTER WHILE ROASTER IS POWERED ON OR ATTACHED TO ELECTRICAL POWER.

### **ALL ELECTRIC BC ROASTERS STARTUP GUIDE**

THE BC-3 & BC-5 ARE THE ONLY BC ROASTERS THAT COME IN AN ALL ELECTRIC MODEL. WHY CHOOSE ELECTRIC? GENERALLY A GAS (NATURAL GAS OR LPG) ROASTER IS THE BEST CHOICE FOR PRODUCTIVE COFFEE ROASTING. BUT SOME LOCATIONS DO NOT ALLOW A GAS ROASTER TO BE USED. IN THIS CASE THE ALL ELECTRIC ROASTER WILL BE YOUR ONLY OPTION. WHILE YOU CAN ACHIEVE THE SAME QUALITY ROASTS IN AN ELECTRIC MODEL AS IN GAS THERE ARE SOME DIFFERENT PROCEDURES OR STEPS IN THE PROCESS NEEDED TO GET THE MOST OUT OF YOUR ALL ELECTRIC ROASTER.

### **ELECTRIC REQUIRED:**

WHILE ALL OUR BC ROASTERS ARE SETUP AS 220V MACHINES FOR WORLDWIDE DISTRIBUTION THE GAS MODELS USE SUCH SMALL AMOUNTS OF ELECTRICITY THAT MOST FROM THE 8LB. SIZE AND UNDER CAN EASILY BE RAN ON 110V VOLTAGE WITH A VOLTAGE CONVERTER. WITH ELECTRIC MODELS THAT WATTAGE AND AMPERAGE IS MUCH HIGHER. IN SOME CASES 20 TIMES MORE ELECTRIC ARE NEEDED TO RUN THE HEAT ELEMENTS ON THE ALL ELECTRIC ROASTER. THEREFORE WE RECOMMEND YOU USE A DEDICATED 220V 30A BREAKER FOR BOTH THE BC-3 & BC-5 ELECTRIC ROASTER.

**NEVER ATTEMPT TO USE 110V OR SOME SORT OF TRANSFORMER OR CONVERTER.  
A DEDICATED 220V 30A (OR LARGER) LINE IS REQUIRED**

ALSO WE USE A MUCH LARGER 30A TYPE PLUG ON OUR ELECTRIC UNITS:



LOCKING PLUG:30A, 250V, BLACK & WHITE,  
2 POLE, 3 WIRE GROUNDING, LOCKING PLUG,  
NEMA L6-30P, UL, FEDERAL SPECIFICATION,  
CSA  
(IF ORDERING INTERNATIONAL YOU WILL NEED  
TO SUPPLY YOU OWN PLUG FOR YOUR  
COUNTRY)





## CONTROL PANEL ON ELECTRIC MODELS

**TWO OMRON TEMPERATURE CONTROLS** FOR BT & ET

**TIMER** FOR TIMING ROASTS (RESET BUTTON ON LEFT BOTTOM)

**FAN CONTROL** (TURN ON 100% WHEN USING THE MANUAL DIAL DAMPER FOR AIRFLOW)

**POWER BUTTON**- TURNS MACHINE ON  
**ROASTING BUTTON**- TURN ON TO POWER ON ELECTRIC BURNERS (YOU WILL THEN NEED TO ADJUST POWER OF BURNERS AS SEEN IN PICTURE BELOW)

**TIMER**- POWERS ON TIMER

**COOLING**- TURNS ON COOLING TRAY FAN

**MIXING**- TURNS ON MIXING ARMS



### **NEW FOR 2019:**

**POWER METER:** SHOWS THE WATTAGE, VOLTAGE AND AMPS BEING USED AT ANY GIVEN TIME. (PANEL LIGHTS UP WHEN TURNING THE HEATING REGULATOR UP)

**HEATING REGULATOR:** THIS IS THE CONTROL TO TURN UP THE POWER TO YOUR HEAT ELEMENTS



### **NEW FOR 2022:**

**EMERGENCY STOP:** POWERS OFF ENTIRE MACHINE IN CASE OF EMERGENCIES ONLY

**NOTES:**

## **ROASTING WITH THE ALL ELECTRIC BC UNITS:**

**IT'S IMPORTANT TO NOTE THAT ROASTING ON THE ELECTRIC ROASTER IS DIFFERENT THAN ON GAS MODEL AS AIRFLOW WILL BE MUCH DIFFERENT AND SO WILL ROAST TIMES**

### **PREHEAT:**

1. POWER ON MACHINE.
2. MAKE SURE DRUM SPEED IS TURNED ON AND BEST TO HAVE SPEED ROUND 7-8 (70-80)
3. NEXT TURN ON FAN SPEED TO 100% BUT LEAVE MANUAL DIAL DAMPER TO 0 OR 1 AT MOST
4. TURN ON ROASTING BUTTON WHICH POWERS ON THE HEAT TUBES
5. TURN THE HEAT REGULATOR TO 10 TO PREHEAT BURNERS
6. PREHEAT TIMES MAY TAKE 20 MINUTES OR LONGER. YOU WILL WANT TO PREHEAT THE BT (BEAN TEMPERATURE ABOVE DESIRED CHARGE POINT ON FIRST ROAST. FOE EXAMPLE IF YOUR CHARGE POINT IS 350F ITS BEST ON FIRST ROAST TO PREHEAT BEAN TEMP TO 400F. (THIS MAY VARY DEPENDING ON BEAN TYPE AND SIZE OF ROAST)
7. CHARGE YOUR BEANS INTO DRUM ( BT WILL DROP AS YOU ARE ADDING COOL BEANS INTO DRUM)
8. START TIMER
9. **DRYING PHASE:** THIS IS WHERE YOUR BEANS GO FROM RAW GREEN TO YELLOW. GENERALLY THIS CAN TAKE FROM 4-7 MINUTES DEPENDING ON SIZE OF ROAST AND DESIRED EFFECTS. DRYING PHASE ENDS WHEN TEMPS REACH ABOUT 330F. IF DRYING PHASE IS MOVING TO FAST DECREASE HEAT AND/OR INCREASE AIRFLOW.
10. TAKE NORTE OF TURN AROUND TIME. THIS IS WHERE THE TEMPS ON BT STOP DROPPING AND START TO INCREASE. GENERALLY THIS OCCURS IN LESS THAN 2 MINUTES.
11. **MAILLARD PHASE (BROWNING PHASE):** THIS IS FROM 330F TO FIRST CRACK. THIS CAN AVERAGE FROM 2-4 MINUTES. AS ROAST GETS NEAR FIRST CRACK (BT OF 375-400F DEPENDING ON BEAN TYPE) YOU MAY WISH TO INCREASE DRUM SPEED TO 80 OR 85. GENERALLY ABOUT 10%. THIS SHOULD HELP TO INCREASE TEMPERATURE AS IT GETS READY TO GO INTO FIRST CRACK AND WILL RELEASE MOISTURE FROM BEANS.
12. **ROASTING PHASE:** THIS IS THE MOST CRITICAL PHASE AS BEANS CHANGE EVERY 15-20 SECONDS. SO YOU SHOULD BE CHECKING THE APPEARANCE VERY 30 SECONDS OR SO. ( REFER TO MANUAL ON LEVELS OF ROAST) SOME COFFEES WILL BE READY WHEN BT REACHES 400F WHILE OTHERS MAY GO UP TO 435F OR MORE DEPENDING ON THE ROAST PROFILE YOU WANT.
13. WHEN BEANS ARE AT THE TEMPERATURE AND COLOR YOU WANT TURN ON COOLING MOTOR AND MIXING ARMS AND DROP BEANS INTO COOLING TRAY.
14. ONCE ALL BEANS ARE OUT OF DRUM CLOSE DRUM DOOR AND YOU SHOULD BE READY TO CHARGE A NEW ROAST.
15. WHEN DONE ROASTING AT THE END OF DAY YOU MUST COOL ROASTER BEFORE TURNING OFF. TURN OFF THE ROASTING BUTTON AND TURN THE HEAT REGULATOR TO 0 AND TURN UP MANUAL DAMPER TO LET 100% AIRFLOW INTO DRUM. ALSO YOU CAN OPEN DRUM DOOR AND HOPPER TO HELP SPEED UP COOLING PROCESS. IT MAY TAKE 30 MINUTES OR MORE TO COOL DRUM BEFORE TURNING ROASTER OFF.

### **AIRFLOW:**

GENERALLY ON AN ELECTRIC ROASTER YOU WILL NOT NEED TO TURN AIRFLOW UP VERY HIGH DURING ENTIRE ROAST. MAYBE DURING DRYING PHASE YOU CAN KEEP MANUAL DIAL DAMPER AT 1-2. DURING MAILLARD PHASE YOU MAY WISH TO INCREASE THIS A BIT TO REMOVE SMOKE AND CHAFF (2-4) DURING ROASTING PHASE YOU CAN CHOOSE THE AIRFLOW BUT RARELY WOULD YOU NEED TO GO ABOVE 5-6.

**NEVER ALLOW AIRFLOW TO SLOW OR STALL MOMENTUM OF ROAST AS THIS WILL EFFECT FLAVORS AND MAY GREATLY INCREASE ROAST TIME.**

## **6. PROPER SHUT DOWN AFTER ROASTING**

EVEN THOUGH WE HAVE COVERED THIS POINT A COUPLE TIMES IN THIS STARTUP GUIDE IT IS SO IMPORTANT WE WILL COVER IT AGAIN.

1. TURN OFF ALL HEAT ON ROASTER (ELECTRIC OR GAS)
2. OPEN THE AIRFLOW ON MANUAL DAMPER FULLY TO 10
3. OPEN DRUM DOOR AND HOPPER GATEWAY
4. MAKE SURE FAN IS ON 100%
5. COOL ROASTER DRUM TO AROUND ROOM TEMPERATURE
6. THIS MAY TAKE 30-45 MINUTES OR LONGER ON DOUBLE WALL DRUMS
7. SOME CLIENTS WILL RUN A SMALL FAN INTO DRUM DOOR TO HELP SPEED UP PROCESS
8. YOU CAN KEEP BUSY BAGGING COFFEE OR DOING OTHER JOBS WHILE ROASTER COOLS.,
9. CLEAN UNIT ONCE COOLED

**NOTES:**

## **7. CLEANING & DAILY MAINTENANCE**

CLEANING YOUR ROASTER WILL KEEP IT RUNNING SMOOTH AND AVOID EARLY BREAKDOWN OR WEARING OUT OF MOTORS AND ELECTRONIC PARTS. BUT CARE MUST BE USED THAT WHEN CLEANING ROASTER YOU DO IT PROPERLY SO AS NOT TO DAMAGE IT.

### **DURING ROASTING:**

THE MOST IMPORTANT THINGS TO KEEP IN MIND WHEN ROASTING IS THAT AIRFLOW IS THE LIFE OF YOUR ROASTER. YOU MUST KEEP ALL AIRWAYS OPEN AND CLEAN OR YOU COULD DAMAGE UNIT OR WEAR OUT PARTS PREMATURELY.

EMPTY CHAFF UNIT REGULARLY. IN LITTLE ROASTERS LIKE THE BC-1 & BC-2 YOU WILL LIKELY NEED TO EMPTY CHAFF UNIT AFTER EVERY 3 ROASTS. CHECK AND EMPTY DEBRIS TRAY AFTER EACH ROAST. YOU DO NOT NEED TO TURN ROASTER OFF TO EMPTY THE DEBRIS TRAY. IN BETWEEN ROAST YOU CAN PULL OUT TRAY AND EMPTY IN A METAL WASTE CAN OR USE A SHOP VAC. TO EMPTY CHAFF UNIT WITHOUT THE NEED TO TURN OFF ROASTER JUST EMPTY WHEN GAS ON BURNERS IS OFF. THEN TURN OFF THE CHAFF FAN FOR A MOMENT AND THEN YOU CAN OPEN CHAFF DOOR AND REMOVE CHAFF WITH EITHER A BRUSH OR SHOP VAC. BE SURE NONE OF THE CHAFF IS HOT.

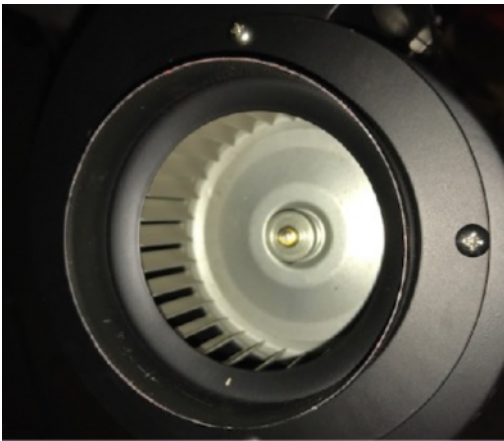
## **CLEANING UNIT AT DAYS END OR START OF NEW DAY**

IT IS BEST IF YOU CAN DO CLEANING AFTER MACHINE HAS COOLED AT DAYS END. BUT IF UNIT IS STILL HOT TO THE TOUCH (DRUM HOUSING, CHAFF FAN AND SUCH) THEN IT MAY BE BEST TO CLEAN UNIT THE NEXT MORNING BEFORE STARTING UP ROASTER FOR DAY.

1. **AIRFLOW IS THE LIFE OF YOUR ROASTER.** THEREFORE YOU MUST KEEP THE CHAFF FAN CLEAR OF MOISTURE AND DEBRIS WHICH WILL BEGIN TO CAKE UP ON SQUIRREL CAGE ON INSIDE OF FAN IF NOT CLEANED REGULARLY. SEE PICTURES BELOW OF UNITS NOT PROPERLY MAINTAINED:

**CLEAN SQUIRREL CAGE:**

**FAN DESTROYED BY NOT CLEANING**



IT IS BEST TO VACUUM OR BLOWOUT ANY MOIST DEBRIS THAT IS IN FAN AFTER FAN HAS COOLED AT DAYS END OR AT THE START OF A NEW DAY BEFORE ROASTING. IF DONE DAILY THEN YOU WILL ONLY NEED TO REMOVE SQUIRREL CAGE TO GIVE IT A COMPLETE CLEANING EVERY FEW MONTHS.

SQUIRREL CAGE IS EASILY REMOVED WITH A HEX KEY TO CLEAN:





**2. WIPE OUT COOLING TRAY DAILY AND BRUSH OUT WEEKLY. USE A SOFT BRUSH WITH A POKER THAT ALLOWS YOU TO CLEAN ANY PERFORATED HOLES THAT MAY CLOG UP WITH BROKEN PIECES OF BEANS:**

**PALLO ROLLSTER BRUSH:**

**3. WIPE DOWN ALL SURFACES OF ROASTER WITH A DRY SOFT CLOTH. DO NOT SPRAY LIQUID ON ROASTER AS THIS CAN DAMAGE ELECTRONICS. IF YOU EVER NEED TO USE A SOFT MOIST CLOTH YOU MUST UNPLUG MACHINE AND WIPE WITH A SLIGHTLY MOIST CLOTH WITH GLASS CLEANER OR A MILD ALL PURPOSE CLEANER THEN BUFF DRY WITH A SOFT DRY CLOTH. (SIMPLE GREEN IS O GOOD ALL PURPOSE CLEANER)**

**SEE MANUAL FOR MORE CLEANING & CARE**

## **8. WEEKLY & MONTHLY MAINTENANCE**

**WE HAVE STATED THAT AIRFLOW IS THE LIFE OF YOUR ROASTER AND  
WE REPEAT THIS AGAIN.**

**WE CANNOT OVERSTATE THIS. SO WEEKLY YOU SHOULD TAKE A FEW MOMENTS TO CHECK ALL PIPING ON ROASTER INCLUDING THE MANUAL DIAL DAMPER AND INSIDE CHAFF UNIT TO MAKE SURE IT IS CLEANED AND DEBRIS IS NOT STICKING TO SIDE:**



**ALL AREAS EXPOSED TO CHAFF UNIT AND DEBRIS TRAY NEED CLEANED REGULARLY TO AVOID REDUCTION OF AIRFLOW. EVEN OPENING AND CLEANING INSIDE CHAFF UNITS.**

**CLEAN CHAFF FAN REGULARLY  
ALSO CHECK THE EXHAUST PIPING COMING OFF OF CHAFF FAN & CLEAN AS NEEDED**



**GREASE BEARINGS EVERY 150 HOURS OF USE OR EVERY COUPLE MONTHS.**

AS OF THE 2019 BC MODELS WE HAVE ADDED OPEN BEARINGS TO THE FRONT OF THE BC-1, 2, 3 & 5. THESE NEED GREASED AT LEAST EVERY OTHER MONTH OR MORE OFTEN IF YOU HEAR NOISE FROM THEM. REMOVE THE 3 BOLTS HOLDING THE CHROME TYPE COVER AND PRESS INTO FRONT BEARING HIGH TEMPERATURE FOOD GRADE GREASE. WE RECOMMEND **SUPER LUBE HIGH TEMP FOOD GRADE GREASE:**



**FRONT BEARINGS ON BC-1-5 HAVE A GOLD CHROME PLATE YOU REMOVE TO HAND PACK BEARING WITH GREASE:**

**USE A PROPER GREASE GUN THAT FITS ONTO ZERK FITTING**



**ROASTERS WITH ZERK FITTINGS REQUIRE THE USE OF A GREASE GUN**

THE BC-3, BC-5 AND ABOVE ALL HAVE BACK BEARINGS WITH ZERO FITTINGS THAT REQUIRE YOU USE A GREASE GUN TO INJECT GREASE INTO BEARING. AND THE BC-8, 15 & 25 HAVE FRONT BEARINGS WITH ZERK FITTINGS:



## 9. QUARTERLY CARE

IT IS IMPORTANT TO DEEP CLEAN YOUR ROASTER EVERY FEW MONTHS. THIS CAN GENERALLY BE DONE IN JUST A COUPLE HOURS PROVIDING YOU DO IT QUARTERLY. WE HAVE VIDEOS ONLINE ABOUT THIS.

### MAINTENANCE VIDEOS:

DAILY & WEEKLY:

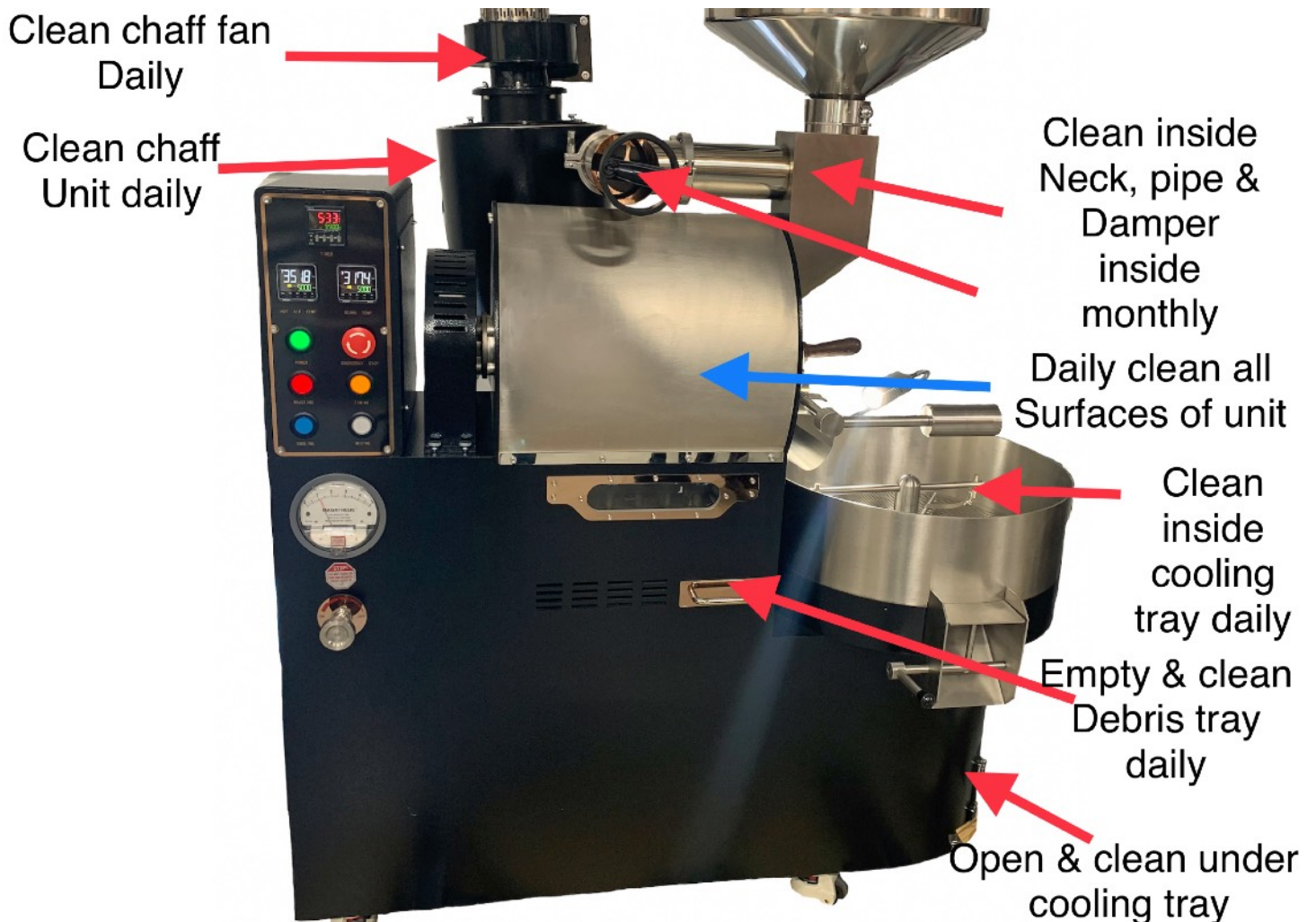
[HTTPS://YOUTU.BE/7FGZPCiOWKw](https://youtu.be/7FGZPCiOWKw)

COMPLETE:

[HTTPS://YOUTU.BE/8TLT5IMNLAY](https://youtu.be/8TLT5IMNLAY)

WE HOPE TO ADD MORE SOON.

**BASICALLY YOU OPEN EVERY AVAILABLE PANEL AND COMPLETELY CLEAN INSIDE UNIT. AND GREASE ALL PARTS REQUIRING SUCH. CLEAN ALL MOTORS AND CHECK ALL PARTS AND BELTS & CHAINS FOR WEAR AND GREASE OR CLEAN AS NEEDED. WHILE THIS PICTURE IS NOT A BC UNIT IT DOES SHOW MANY OF THE POINTS THAT SHOULD BE CLEANED:**  
(SEE MANUAL FOR MORE DETAILS)



## **9. TROUBLESHOOTING & TECH SUPPORT**

(SEE THE FULL MANUAL FOR DETAILED TROUBLESHOOTING GUIDE.)

**IF YOU HAVE AN ISSUE:**

- 1. CONSULT THIS GUIDE AND FULL MANUAL**
- 2. CONSULT THE TECH PAGE AS WE HAVE MANY PDF'S & VIDEOS THAT ARE NOT COVERED IN MANUAL OR THIS QUICK GUIDE**
- 3. IF YOU CANNOT FIND A SOLUTION EMAIL THE TECH DEPARTMENT AND BE SURE TO INCLUDE YOUR ACCOUNT #, NAME, COMPANY AND TYPE OF EQUIPMENT YOU ARE USING**

### **TROUBLESHOOTING GUIDE:**

<b>FAILURE</b>	<b>CAUSES/REASON</b>	<b>SOLUTION</b>
<b>UNIT WILL NOT POWER ON.</b>	1. not plugged in 2. internal circuit breaker off 3. Check internal fuse	1. plug in. check all connections 2. unplug unit. Open electric room and turn circuit breaker on. 3. replace fuse
<b>COOLING FAN OR HOT AIR ADJUSTMENT FAN WILL NOT TURN ON</b>	Not properly connected  Or fan potentiometer is not turned to 100	1.be sure each blower is connected to proper plug in back of unit and tightened 2. Make sure fan is turned to 100 on control panel
<b>SMOKE IS COMING INTO BUILDING</b>	1. Improper setup 2. Improper piping setup	1.Connect pipes to correct components or points 2. use a backdraft damper if connecting 2 pipes to one exhaust
<b>BEANS ARE FALLING INTO DEBRIS DRAWER or excessive debris</b>	1. drum needs aligned 2. some debris will fall through front of drum at front plate	1.UNPLUG unit after cooled down and re- align drum so 3 mm of space exists between front wall & drum. 2. turn up airflow to remove debris



FAILURE	CAUSES/REASON	SOLUTION
<b>GAS UNIT WILL NOT IGNITE</b>	<ol style="list-style-type: none"> <li>1. Gas is not on at all controls</li> <li>2. ignitor is not buzzing allowing machine to ignite</li> <li>3. wrong gas being used</li> <li>4. KPA pressure is too low</li> </ol>	<ol style="list-style-type: none"> <li>1. Check all connections. carefully turn up tank and regulator while machine lines are off then when igniting turn gas control up slowly</li> <li>2. ignitor may be damaged. contact supplier</li> <li>3. make sure NG gas roaster is used with NG gas and LPG with LGP gas.</li> <li>4. MAKE SURE KPA pressure stays between 1-4 on LPG model (1/2-1.75 on NG)</li> </ol>
<b>KPA PRESSURE VALVE CONTROL STOPPED WORKING AND IS STUCK ON HIGH NUMBER</b>	You may have damaged KPA gas pressure valve by not following proper usage instructions. Damage will result if using wrong regulator	You may need to get and install a new KPA pressure valve. It is dangerous to use unit without proper regulator of gas pressure
<b>DRUM MAKES A LOUD NOISE WHEN HEATED UP</b>	Drum is out of alignment.	Turn off machine. Allow to cool. <b>UNPLUG UNIT.</b> realign drum as outlined in full manual
<b>BEANS ARE BEING SUCKED INTO CHAFF UNIT</b>	<ol style="list-style-type: none"> <li>1. roasting a batch too small</li> <li>2. Roasting a batch too large</li> <li>3. Too much Hot air flow</li> <li>4. Machine exhaust pipe is connected to or near an exhaust fan</li> </ol>	<ol style="list-style-type: none"> <li>1.&amp; 2. Roast within the range recommended by the manufacture</li> <li>3. Turn down hot air flow</li> <li>4. turn off all fans not connected to roaster during roast (booster fans)</li> </ol>
<b>ELECTRIC UNIT TURNS ON BUT BARELY HEATS UP AFTER 15 MINUTES</b>	Improper connection of plug	Make sure the GROUND WIRE IS PROPERLY CONNECTED TO THE GOUND ON PLUG

### **NOTES:**

## **10. WARRANTY INFORMATION**

### **WARRANTY VOID IF MANUAL IS NOT READ AND FOLLOWED PRIOR TO USE OF MACHINE**

YOUR COMMERCIAL COFFEE ROASTER HAS BEEN BUILT UNDER STRICT QUALITY CONTROL MEASURES AND SHOULD ARRIVE IN THE BEST OF CONDITION FOR YEARS OF QUALITY ROASTING. IT HAS BEEN THOROUGHLY TESTED BOTH AT THE FACTORY AS WELL AS BY BUCKEYE COFFEE WHEN ARRIVING AT OUR ARIZONA FACILITY. BUT

AS WITH ALL ELECTRONIC EQUIPMENT THERE IS THE CHANCE THAT AFTER RECEIVED AN ELECTRONIC COMPONENT COULD FAIL IN TIME. SO ALL NEW COFFEE ROASTERS PURCHASED BY BUCKEYE COFFEE ARE PROTECTED WITH THE MANUFACTURE PARTS WARRANTY OF ONE YEAR. THIS WARRANTY REMAINS IN EFFECT FROM THE DAY OF DELIVERY BY OUR TRANSIT COMPANIES OR THE DAY PICKED UP BY CUSTOMER OR THEIR CONTRACTED SHIPPING PROVIDER. THIS PARTS WARRANTY WILL REMAIN VALID FOR ORIGINAL PURCHASING COMPANY AND WARRANTY IS NONTRANSFERABLE. FURTHER IF NEGLECT IN MAINTENANCE OR DAMAGE CAUSED BY IMPROPER USE IS DETECTED OR DAMAGE DUE TO OVERROASTING AND OR FIRE SHOULD OCCUR THIS WARRANTY BECOMES VOID.

ADDITIONAL WARRANTY AND SERVICE IS PROVIDED THROUGH BUCKEYE COFFEE AND ALL SERVICE CLAIMS MUST BE SUBMITTED DIRECTLY TO THEM TO HANDLE CLAIM. ADDITIONAL WARRANTY BEYOND THE ONE YEAR PARTS REPLACEMENT WARRANTY ARE LISTED BELOW:

#### **NOTE: IF MACHINE IS MODIFIED IN ANY WAY THIS VOIDS WARRANTY**

ONE FULL YEAR PARTS REPLACEMENT WARRANTY ON ALL PARTS NOT DAMAGED DUE TO NEGLECT OR MISUSE OF PRODUCT. ONE YEAR IN-HOUSE SERVICE ON UNIT. BUYER IS RESPONSIBLE FOR RETURN SHIPPING COSTS FOR IN-HOUSE SERVICE AND WARRANTY REPAIRS. ONE YEAR PHONE AND INTERNET CONSULTATION OF REPAIRS.

MOST MINOR ISSUES CAN BE FIXED WITH AN EMAIL TO OUR TECH DEPARTMENT. OTHER FEATURES MAY APPLY BASED ON YOUR STATE OR LOCATION. SEE CONTRACT

FOR FURTHER DETAILS. IF SERVICE IS REQUIRED FIRST EMAIL US AT: TECH@BUCKEYECOFFEE.COM AND PROVIDE ACCOUNT NUMBER, NAME, TYPE OF EQUIPMENT AND PICTURES AND VIDEO OR DEFECT

**PARTS EXCEPTION: UNLESS YOU PURCHASE AND USE A MARSHALL 1912/197 5.9 KPA LOW PRESSURE REGULATOR OR OTHER APPROVED REGULATOR BY US THERE IS NO REPLACEMENT WARRANTY ON KPA GAS VALVES. USE ONLY LOW PRESSURE REGULATORS WITH A MAXIMUM KPA OF 5.9 (24WC)**

### **AFTER THE WARRANTY- SERVICE AND PARTS**

BUCKEYE COFFEE ROASTERS ARE BUILT WITH PARTS AVAILABLE BY ELECTRIC SHOPS ALL OVER THE WORLD AND IN THE EVENT OF A PART FAILURE AFTER WARRANTY PARTS CAN GENERALLY BE FOUND LOCALLY OR OVER THE INTERNET AND CAN BE SERVICED BY MOST ELECTRICAL APPLIANCE SERVICE COMPANIES AT A RELATIVELY LOW COST. ALSO MOST PARTS CAN BE REPLACED EASILY BY A DIY HANDY PERSON. YOU CAN ALSO EMAIL US OR CHECK OUT OUR WEBSITE FOR SIMPLE PARTS REPAIR TIPS AS WELL AS VIDEOS POSTED ON YOUTUBE FROM TIME TO TIME. WE ALSO OFFER AN IN-HOUSE SERVICE REPAIR PROGRAM AFTER WARRANTY FOR THOSE THAT WISH TO SEND ROASTER IN FOR AFTER WARRANTY REPAIRS. CALL US FOR DETAILS.

### **10 YEAR PARTS STOCK GUARANTEE**

WE TRY TO KEEP ALL PARTS IN STOCK FOR WARRANTY WORK AS WE'LL STOCK ON HAND SO THERE WILL BE NO DELAY AS WE WAIT FOR REPLACEMENT PARTS FROM CHINA. ALL IN WARRANTY CUSTOMERS RECEIVE PRIORITY ON ALL IN STOCK PARTS BUT WE DO GUARANTEE WE WILL STOCK REPLACEMENT PARTS ON HAND FOR ANY REPAIRS FOR 10 YEARS ON THE MODEL YOU PURCHASE. IN SOME CASES WE OFFER TO BUY BACK OR TRADE IN OLDER ROASTERS ON A NEW MODEL IF YOU FEEL COST TO SERVICE MAY BE TOO HIGH COMPARED TO REPLACEMENT OF MACHINE. CALL OR EMAIL FOR DETAILS IF CONSIDERING TRADING IN YOUR UNIT FOR A PRICE QUOTE.

EMAIL US FOR THE LATEST PARTS PRICE LIST AFTER WARRANTY EXPIRES IF YOU NEED NEW PARTS. PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE BUT WE DO GUARANTEE LOWEST PRICES TO PREVIOUS CUSTOMERS.

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

### **IF YOU NEED HELP FIRST:**

SEE OUR TECH PAGES AT:

[HTTP://WWW.BUCKEYECOFFEE.COM/TECH-SUPPORT---PARTS.HTML](http://www.buckeyecoffee.com/tech-support---parts.html)

OR OUR FREE MEMBER PAGES:

### **MEMBERS PAGE 1**

[HTTPS://BCROASTERS.COM/M/LOGIN?R=%2FMEMBERS-ONLY-PAGE](https://bcroasters.com/m/login?r=%2Fmembers-only-page)

### **MEMBERS PAGE 2:**

[HTTPS://BCROASTERS.COM/M/LOGIN?R=%2FMEMBER-ONLY-PAGE-2](https://bcroasters.com/m/login?r=%2Fmember-only-page-2)

### **MEMBERS PAGE 3:**

[HTTPS://BCROASTERS.COM/MEMBERS-ONLY-PAGE-3](https://bcroasters.com/members-only-page-3)

MORE PAGES ARE ADDED AS NEEDED

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