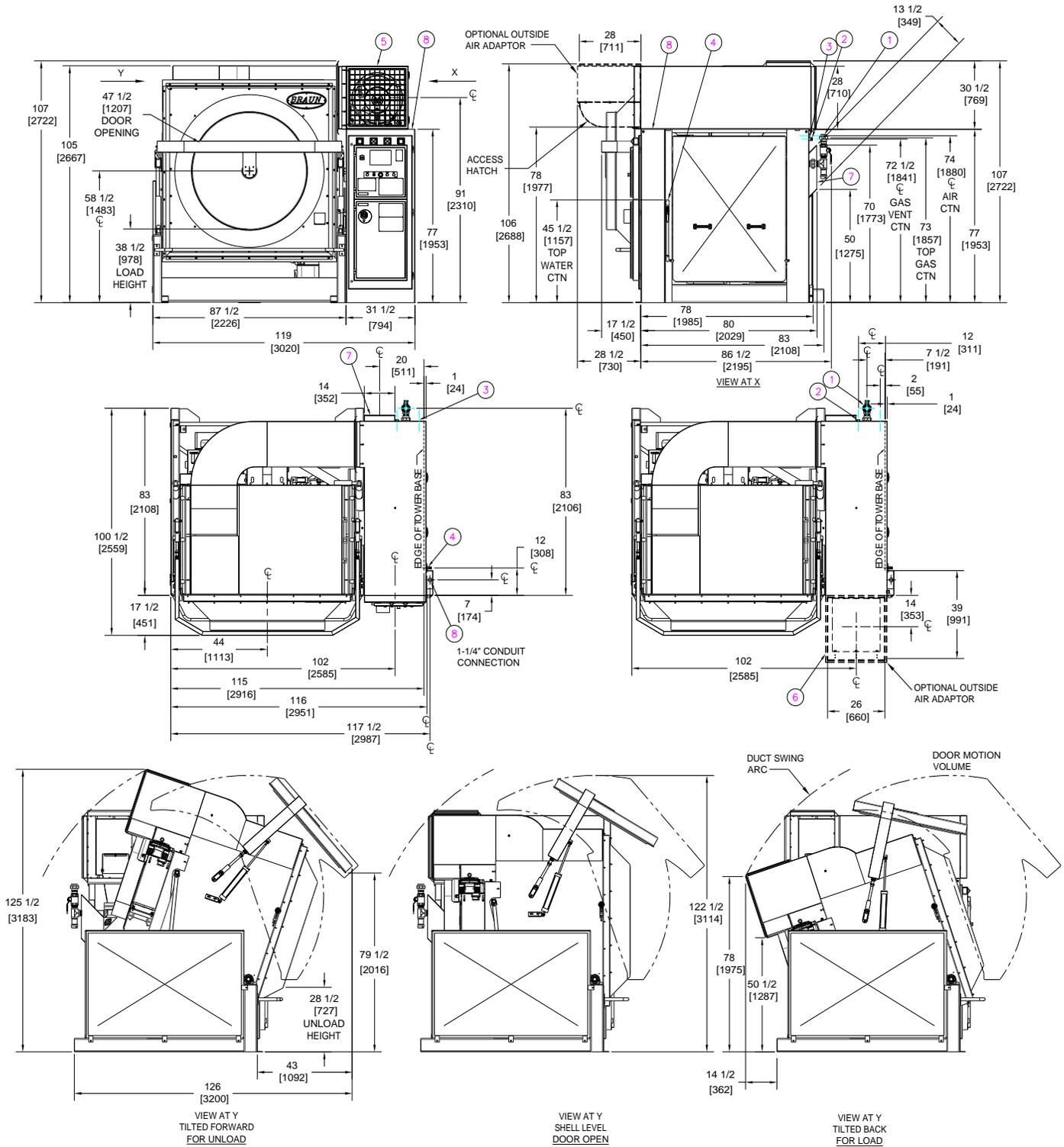




BRAUN PASS THRU DRYER 123H – NGF/PGF

G.A. BRAUN, INC., 79 GENERAL IRWIN BLVD. NORTH SYRACUSE, NY. 13212, 315-475-3123



Please consult Braun Inside Sales for all
LOW NOx emissions requirements



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RECOMMENDED CAPACITY

Terry: 250 – 425 lbs clean dry weight [113 - 193 kg]
 Blended Fabric: 250 – 425 lbs clean dry weight [113 - 193 kg]
 Barrier Fabrics: 250 – 300 lbs clean dry weight [113 - 136 kg]
 (ISO Gowns, non-breathable material, etc.)

*Running under 400 lbs [181 kg] clean dry weight with any product may result in reduced dryer performance and efficiency
 **Running over recommended capacities may result in poor dryer performance and reduced efficiency

OPENING REQUIREMENTS TO RECEIVE UNIT

Height: 114" [2,896mm] Width: 90" [2,286mm] (include 3" rolls & 3" skids)
 (2 Piece disassembly and shipping brackets installed)
 Refer to rigging instructions in O&M manual

SPECIFICATIONS

Gas Models NGF/PGF

- ① Gas supply connection _____ 2" NPT
- Natural gas supply pressure _____ 18" w.c. [457mm w.c.]
- Propane gas supply pressure _____ 7" w.c. [178mm w.c.]
- ② Gas vent connection (CSA) _____ 3/4" NPT
- Burner firing range, NGF (BTU/HR x 1000) _____ 620 to 2500
- Nominal firing range, NGF (BTU/HR x 1000) _____ 1500
- Combustion Blower _____ 500 cfm [14.2m³/min]
- Ignition type _____ Intermittent Pilot

123H Models

- Basket volume (66" dia. x 60" deep) _____ 123 ft³ [3.48 m³]
- Door opening _____ 47 1/2" dia. [1,207mm]
- Loading height – tilted to rear position _____ 38 1/2" [978mm]
- Unload height- tilted to forward position _____ 28 1/2" [724mm]
- Minimum dryer spacing, center to center _____ 146" [3,708mm]
- Maximum machine depth, overall _____ 140 1/2" [3,569mm]
- ③ Compressed air connection _____ 1/4" NPT

SHIPPING WEIGHTS/SIZES

Standard 2 piece disassembly (not including skids)

- Shell/Base dimensions _____ 97"H x 88"W x 112"D
[2,463 x 2,235 x 2,845]
- Shell weight _____ 5,350 lbs [2,427 kg]
- Tower and duct (Standing upright) _____ 107"H x 35"W x 88"D
[2,718 x 889 x 2,235]
- Tower and duct weight _____ 2,650 lbs [1,202 kg]
- Tower and duct dimensions (laying down) _____ 35"H x 88"W x 107"D
[889 x 2,235 x 2,718]

4 piece disassembly (not including skids)

- Shell dimensions _____ 88"H x 86"W x 96"D [2,235 x 2,184 x 2,438]
- Shell weight _____ 4,500 lbs [2,041 kg]
- Base dimensions _____ 32"H x 88"W x 83"D [813 x 2,235 x 2,108]
- Base weight _____ 850 lbs [386 kg]
- Tower dimensions _____ 77"H x 32"W x 88"D [1,956 x 812 x 2,235]
- Tower weight _____ 1,750 lbs [793 kg]
- Duct dimensions _____ 28"H x 32"W x 83"D [711 x 812 x 2,108]
- Duct weight _____ 900 lbs [408 kg]

Additional break down is available on the shell if necessary. Contact sales.

SPECIFICATIONS CONTINUED

- Minimum air pressure required, filtered and dry _____ 90-100psi [620kpa]
- Air consumption* _____ 3cfm [0.08m³/min]
- ④ Water supply (Fire suppression system) (40psi minimum) _____ 3/4" NPT
- ⑤ Air intake (Non-Ducted Room Make Up Air) _____ 28" x 28"
[711mm x 711mm]
- ⑥ Air intake (Optional Outside Air Adaptor) _____ 26" x 28"
[660mm x 711mm]
- Air intake duct size _____ SEE PAGE 3
- ⑦ Exhaust duct opening (Raw edge connection) _____ 14" x 14"
[356mm x 356mm]
- Exhaust duct volume _____ 7,100cfm [210m³/min]
- Exhaust duct size _____ SEE PAGE 3
- Maximum external duct total static pressure allowed _____ 1" wc. [25mm wc]

*- Does not include external lint collector air consumption, if equipped.
 See lint collector manufacturer's specifications for air consumption rates.
 These are in addition to the dryer air consumption.

LINT COLLECTION

External only. Not manufactured by Braun.

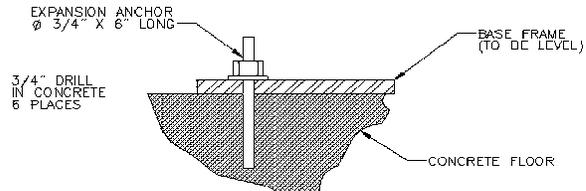
FLOOR LOADING

- Weight of dryer assembly * _____ 8,000lbs [3,628kg]
- Weight of operational loaded dryer (at rated capacity and 60% moisture retention) _____ 8,480lbs [3,846kg]
- Lagging _____ 3/4" x 6" lg (7 req'd)

*- Does not include weight of ducting or utility connections. See notes on ductwork.

FOUNDATION

Floor must be able to support machine, suggested minimum 6", 2500psi concrete. This is necessary to maintain floor integrity and prevent pull out of lagging anchors. Local conditions may require longer or different anchors.



Customer is responsible to meet all Local, State, and Federal Code requirements, to include obtaining any applicable permits to install or operate this equipment.

⑧ ELECTRICAL SPECS

3-PHASE SUPPLY VOLTAGE/FREQUENCY	208/3/60	240/3/60	480/3/60	600/3/60
Machine Disconnect (Internally Mounted Circuit Breaker) (Amps)	100	100	60	60
Machine Full Load Amps (FLA)	68	65	34	27
MAIN BLOWER 20HP (FLA)	49.4	47	23.5	19.2
BASKET MOTOR 5HP (FLA)	14.8	14	7	5.6
COMBUSTION BLOWER .5HP (FLA)	2	2.2	1.1	0.8
HYDRAULIC PUMP MOTOR 2HP (FLA)	6.4	6.2	3	2.3

- **Grounding:** Ground machine to an earth ground (zero potential) per National Electric Code (NEC) section 250 and any applicable local codes. Use a ground wire sized in accordance with NEC Table 250.122. Do not rely on conduit, machine anchorage, etc. Connect the ground wire between the ground lug on the incoming power junction box on the machine and the external disconnect box or other location as required to assure a reliable earth ground.
- **Branch Circuit Protection:** Size external fuses or circuit breakers per the recommended minimum branch circuit requirements listed above. Installation of this branch circuit must be in accordance with the National Electric Code (NEC) and any applicable local codes.
 - Use only Dual Element (Time-Delay) fuses FRN (up to 250V), FRS (250 to 600V).
 - If an inverse time circuit breaker is to be used instead of fuses, it should have the same characteristics as FRN/FRS type fuses.
- **Wire Sizing:** Wire shall be sized in accordance with the National Electric Code and any applicable local codes. The required wire size will vary with the length of the wire run as well as any specific local codes. The use of THHN type copper supply conductors with a minimum of 90 deg C insulation is strongly recommended.



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EQUIPMENT SPECIFICATION

BRAUN 123HNGF/PGF DRYER

General-

Basket size _____ 72" dia. x 55" deep
 [1,828 x 1,397 mm]
 Cylinder volume (Gross) _____ 123 ft³ [3,483 liters]
 Recommended capacity _____ 400 Lbs [182 kg]
 Cylinder opening (Usable) _____ 47 1/2" DIA. [1,207mm]
 Basket rotation speed (fixed) _____ 24rpm
 Basket motor size _____ 5hp [3.75kW]
 Main blower motor size _____ 20hp [15kW]
 Combustion blower motor size _____ .5hp [.37kW]
 Overall dimensions required for dryer operation
 _____ Refer to page 1

Basket Drive-

Trunnion shaft _____ 4" dia. [101 mm]
 Drive shaft bearings (2) _____ Roller type
 Jack shaft _____ 1 7/8" dia. [48 mm]
 Jack shaft bearings (2) _____ Roller type
 Drive belt _____ Single cog type
 Drive belt _____ V type

Shell-

Construction- carbon steel plate cabinet
 Powder coat finish inside and out
 Sealed basket drying chamber minimizes outside air infiltration
 Easy access to basket seals through shell
 Basket drive components accessible from rear
 Removable blower housing
 Heavy gauge steel blower wheel
 Burner visible and accessible through front access door

Basket-

Fully welded basket cage standard, carbon or stainless steel
 Carbon steel perf sheets, ribs, back plate, cone, standard
 Carbon steel removable perforation panels, optional
 Type t-304 Stainless steel removable perforation panels, optional
 Type t-304 Stainless steel ribs, back plate, cone, optional

Optional high performance non-stick coatings available-
 Coat entire basket with non-removable panels
 Coat removable perf panels only
 Coat basket and removable panels

Electrical/Controls-

SG4 touch screen PLC control
 Operations viewing screen
 Intuitive operator controls
 Real time operator feedback
 Displays all operating conditions
 50 Dry Formulas
 Formula backup to external flash drive
 Records alarm history
 Audio and visual alarms for all machine movement and operator prompts
 Central located controls- electrical and pneumatic
 Split high and low voltage control cabinets for arc flash protection
 Plug and play harnesses for electrical components
 Illuminated outputs at all control points for easy trouble shooting
 Plug and play pneumatic
 Ambient, inlet, and exhaust temperature probes
 Over temperature safety

Fire Suppression- Standard on all Braun Dryers!

Automatic water valve activation
 Manual water valve override
 Audio and visual alarm

Braun Dryers are  certified.

Braun dryers may be covered by one or more of the following US patent numbers: **4,006,534 4,509,275 4,961,274 4,964,228 5,036,620 7,886,458-B2 & PAT. PEND.**

INSTALLATION NOTES

1. All dimensions shown are inches. Millimeters are shown in brackets [].
2. These specifications are subject to change without notice. Please contact G.A. Braun for verification of, or to obtain the latest release.
3. Mechanical contractor shall install the main gas pressure reducing regulator and CSA approved gas shut off valve included with each dryer, for each dryer installed. Failure to do so may result in unsatisfactory dryer performance.
4. An external compressed air tank reservoir with trim may be required for optional lint collector. Contact lint collector manufacturer for specific information. Mechanical contractor is responsible to mount and plumb tank(s). Contact lint collector manufacturer for details.

DUCTWORK- Reference Appendix A in the O&M Manual for specific ductwork requirements.

1. Ductwork sizing is critical. A qualified mechanical contractor or engineer should size the ductwork. Failure to follow good duct design and fabrication practices will result in improper, poorly functioning, or inoperable equipment.
2. The duct connections on the equipment do not indicate final duct sizes. The ducts must be sized to provide adequate air flow to and from the dryer.
3. **Do not exceed a total duct system static pressure of 0.5 in. w.c.** This is the combined static pressure of the exhaust and inlet duct.
 (TOTAL INLET DUCT SP"wc)+(TOTAL EXHAUST DUCT SP"wc)= TOTAL SYSTEM SP
4. In some cases, by preference or necessity, the dryer inlet air will not be ducted. Instead, the air may come directly from inside the building. Make up air will have to be ducted into the building to account for the air that is pumped out by the dryer exhaust. Refer to the equipment specifications to determine the amount of building make up air required as indicated by the EXHAUST DUCT VOLUME. The number of machines will determine the total make up air volume required.
5. Do not install any type of screen over the ends of the exhaust or inlet ducts. This can impede airflow to and from the dryer.



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6. Roof penetration and flashing/curb is by owner. The type and style of roof penetration weather protection for the dryer ducting is best determined by the roof manufacturer, and/or mechanical contractor. Don't void your roof warranty.
7. Minimum duct material shall be galvanized 18ga construction, for top inlet and exhaust models and 16ga for rear exhaust models on the first 20ft of exhaust duct connection from the blower discharge. If using square duct to transition to an external lint collector, a heavier gauge material may be needed to include bracing support on the square ductwork. G.A. Braun discourages the use of square ductwork, but if used, it must be adequately supported to withstand the normal surging tendencies of the industrial dryer. Stainless steel ducting is not required. SMACNA rules for high pressure duct construction SHALL apply.
8. **Round (spiral) duct is recommended over square or rectangular ducting.** Square and rectangular ducts tend to "oil-can" and produce excess noise. The seams will become brittle and break over time if the oil-canning is excessive. These ducts tend to build lint internally, more so than round duct. **If square ducting is used, responsibility for structurally bracing this ductwork to prevent breakage is the sole responsibility of the contractor installing said ductwork. G.A. Braun will assume no responsibility for square ductwork breakage at any point during its life span.**
9. Support ductwork independently of the dryer duct connections. This will help prevent sound transmission from the equipment to the duct work. Also, the dryer is not designed to bear the weight of the duct work.
10. Use of a zero or no loss stack above the roof is recommended, unless ducting to a second stage lint collection device. A no loss stack can be used on both the inlet and exhaust ducts. Maintain at least 5ft. of separation between the ends of the stacks.
11. A goose neck on the exhaust and a weather cap on the inlet are acceptable. Size the ductwork accordingly to account for the restrictions these will add to the duct system.
12. Exhaust duct should be sized so the air velocity does not fall below **2,400 ft./min.** This will help keep any lint collector bypass material from settling out in the ductwork, conveying it to the outside, or to a secondary lint collection system. Exhaust air duct velocity **MUST be maintained at 3,500 ft./min or less.** Failure to keep airflow within these specified limits will void any warranty support of said dryer.
13. The prevailing wind direction in your area can affect the discharge direction of the free exhaust air. Goose neck and mitered elbow exhaust ducts require special attention. They should not face into the prevailing wind. Be careful not to exhaust one dryer directly toward the inlet of another dryer, or other equipment fresh air intakes. No loss exhaust stacks are not affected by wind direction.
14. Exhaust discharge can be harmful or dangerous. Pay attention to the proximity of other equipment to the dryer exhaust discharge (This should apply to any equipment with high exhaust discharge temperature). This includes but is not limited to roof top air handling equipment, roof vents, and roof access hatches. Avoid discharging into or near these. A barrier may be required to isolate and protect those items that may be damaged by, or create a danger to, if the exhaust discharge is allowed to blow towards/into them.
15. All elbows shall be long radius and designed with a center line bend radius of at least 2x's the duct diameter or cross section..
16. On models with coaxial ductwork, the exhaust duct is inside the inlet duct. Size the exhaust duct first, and then the inlet duct. Do not forget to subtract the area of the exhaust duct from the area of the inlet duct. Do not forget to add the static pressure to the inlet duct from the exhaust duct (Friction from the incoming air on the internal exhaust duct). Failure to do so will cause the inlet duct to be undersized. Undersized ductwork will result in unsatisfactory operation of the dryer.

