

# Installation Suggestions and Equipment Specifications

## GENERAL ROOM INFORMATION

1. Determine the size of the laundry room by allowing a minimum of 25 square feet (2.25 m<sup>2</sup>) per machine.
2. At least one floor drain should be provided in each laundry.
3. Washtubs not required. However, if they are installed, provide adequate space for them. Such space shall be in addition to that recommended for each machine.
4. Locate dryers on outside walls, since long ducts increase installation cost and are less effective for proper venting.
5. For proper operation, it is important to locate the dryer in an area that has an ample amount of make-up air to replace the amount exhausted by the dryer. Energy efficient multi-housing facilities with low air infiltration rates should be equipped with an air exchanger that can accommodate on-demand make-up air. These devices can be obtained through your building contractor or building material suppliers.
6. Tumbler make-up air must be brought into the room to replace air being exhausted. Tumblers require fresh outside make-up air.  
  
*Minimum requirement:*  
Single Tumblers – 144 sq. in. opening to the outside.  
  
Stack Tumblers – 288 sq. in. opening to the outside.
7. Provide sufficient lighting, preferably fluorescent.

## EQUIPMENT SIZING RECOMMENDATION

One dryer for each single load (top load or front load) washer is the recommended product balance. One stacked dryer, or one 25 lb RouteMaster™ tumbler will accommodate two top load or front load washers. A stacked tumbler will accommodate four top load washers.

## TOP LOAD AND FRONT LOAD WASHERS

### Electrical Requirements

1. Each washer is designed to be operated on an individual three-wire grounded, 120 volt, 60 Hz electrical circuit protected by a 15 or 20 amp fuse, equivalent fusetron or circuit breaker. No. 12 wire recommended for electrical connection or as required by local codes.
2. All receptacles shall be equipped for a three-prong grounded plug.

### Plumbing Requirements

1. Water supply faucets must fit standard 3/4" (19.1 mm) female hose couplings.
2. Hot water facilities should have the capability of maintaining a constant water temperature of between 120°-140°F.
3. Maintain cold water temperature at not less than 35°F (1.6°C).
4. Washer will operate under a variety of sufficient water pressure conditions; however, a constant water pressure of 30 psi must be maintained.
5. Drain each washer into a minimum 2" (50.8 mm) diameter by 3' tall cast iron, PVC or copper standpipe.

## TOP LOAD AND FRONT LOAD WASHER ENERGY AND WATER USAGE

### EcoWatersaver™ High Efficiency Front Load Washer

Modified Energy Factor (MEF) = 2.24  
Water Factor (WF) = 4.5  
Water Consumption per cycle = 12.8 gal.

### MDC Top Load Washer

Modified Energy Factor (MEF) = 1.50  
Water Factor (WF) = 8.8  
Water Consumption per cycle = 23.7 gal.

### Coin Slide Top Load Washer

Modified Energy Factor (MEF) = 1.26  
Water Factor (WF) = 9.5  
Water Consumption per cycle = 26.1 gal.

### Quantum™ Control High Efficiency Extra-Large Top Load Washer

Modified Energy Factor (MEF) = 1.34  
Water Factor (WF) = 9.4  
Water Consumption per cycle = 29.7 gal.

# Installation Suggestions and Equipment Specifications Cont.

## SINGLE AND STACK DRYERS (Gas and Electric Models)

### Electrical Requirements

- (Electric Models)* Provide separate circuits from the main panel to each dryer. Each dryer has its own terminal block that must be connected to a separate branch three-wire, 120/240 or 120/208 volt, 60 Hz, single phase circuit using at least No. 10 copper wire and fused at 30 amps; a grounded neutral wire must be provided. Do not connect dryers to 110, 115 or 120 volt circuits.
- (Electric Models)* If branch circuit to electric dryers is 15 ft. (4572 mm) or less in length, use UL approved No. 10 copper wire, or as required by local codes. If over 15 ft. (4572 mm), use No. 8 UL approved copper wire, or as required by local codes.
- (Gas Models)* Each gas dryer is designed to be operated on an individual three-wire grounded 120 volt, 60 Hz. electrical circuit protected by a 15 amp fuse, equivalent fusetrone or circuit breaker. (See specifications)

- (Gas Models)* Plug each dryer's power cord into a grounded 3-slot wall receptacle on a separate circuit. Do not operate other appliances on the same circuit when dryer is operating.
- (Electric and Gas Models)* All dryer installations should conform to the latest edition of the National Electrical Code, NFPA 70, and such local requirements as might apply.

### GAS REQUIREMENTS

(also see Figure 1 below)

- The gas dryer installation must conform with the latest edition of American National Standard Z223.1 (NFPA 54) National Fuel Gas Code.
- Size of main gas supply unit will depend on number of dryer units connected. Consult local gas utility.
- Where bottled gas (L.P.) is used, follow the specifications of the local gas company. A special conversion kit for L.P. is required. Consult your Speed Queen route operator for details.

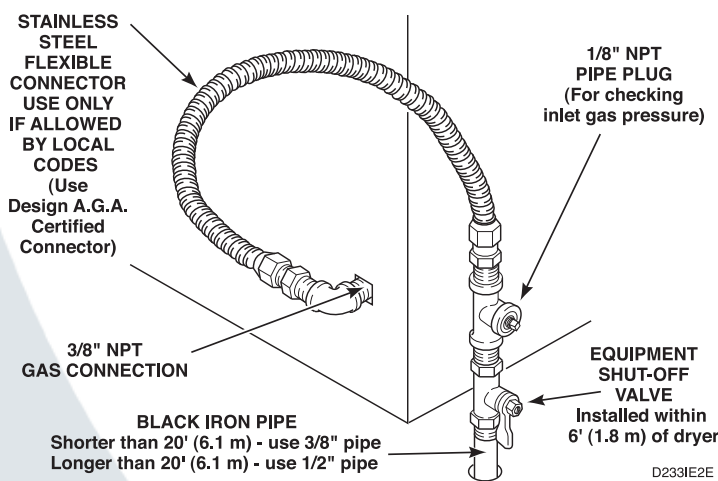


Figure 1

## VENTING REQUIREMENTS FOR SINGLE AND MULTI-DRYER INSTALLATIONS

- The gas dryer installation should comply with the latest edition of the National Fuel Gas Code, Z223.1 (NFPA 54).
- A 4" (102 mm) vent hood with a damper (for each dryer) should be placed in the wall behind the dryer while the building is under construction.

| Weather Hood Type    |   |
|----------------------|---|
| Recommended          |   |
|                      |   |
| Number of 90° Elbows | Maximum length of 4" (102 mm) diameter rigid metal duct |
| 0                    | 65 ft (19.8 m)  |
| 1                    | 55 ft (16.8 m)  |
| 2                    | 47 ft (14.3 m)  |
| 3                    | 36 ft (11.0 m)  |
| 4                    | 28 ft (8.5 m)   |
| 0                    | 45 ft (13.7 m)  |
| 1                    | 35 ft (10.7 m)  |
| 2                    | 30 ft (9.1 m)   |
| 3                    | 25 ft (7.6 m)   |
| 4                    | 20 ft (6.1 m)   |

| Weather Hood Type    |   |
|----------------------|---|
| Recommended          |   |
|                      |   |
| Number of 90° Elbows | Maximum length of 4" (102 mm) diameter rigid metal duct |
| 0                    | 55 ft (16.8 m)  |
| 1                    | 47 ft (14.3 m)  |
| 2                    | 41 ft (12.5 m)  |
| 3                    | 30 ft (9.1 m)   |
| 4                    | 22 ft (6.7 m)   |
| 0                    | 35 ft (10.7 m)  |
| 1                    | 27 ft (8.2 m)   |
| 2                    | 21 ft (6.4 m)   |
| 3                    | 17 ft (5.2 m)   |
| 4                    | 15 ft (4.5 m)   |

3. Exhaust pipe must be 4" (102 mm) in diameter having no obstructions. Rigid or flexible metal pipe must be used. **DO NOT use flexible plastic or thin foil ducting** as it will greatly reduce the dryer's performance. Outer end of exhaust pipe must have weather hood installed at least 12" (305 mm) above ground. Always keep exhaust duct as short as possible.

4. Gas dryers can be vented from the right side, back, or bottom (except upper unit of stack dryer). Dryer can be installed flush to the wall at side and back. Electric dryers can be routed from left side as well.

5. The exhaust duct should not be built into the wall. If laundries are distributed in multi-story buildings, the duct size at the first floor should be at least 4" (102 mm) and should be increased in size 1" (25.4 mm) per floor to a maximum of 12" (305 mm). For the installation of several dryers where a main collector duct is used, see illustration for proper angle of airflow. Dryer exhaust duct should enter main duct at an angle of no more than 30° pointing in the direction of the airflow. Ducts entering the main duct from opposite sides should be staggered so as not to oppose each other. Provisions should be made for periodic lint removal and cleaning of the main collector duct.

6. If several dryers are exhausted into a main collector duct, it is essential that ductwork be adequate in size and properly constructed for efficient operation. Provisions for make-up air must be provided. Each dryer exhausts approximately 220 cubic feet\* (6.1 m<sup>3</sup>) of air per minute.

\* Measured at point of exit from the dryer.

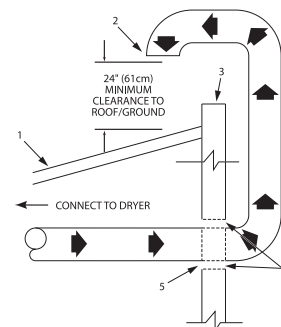
7. The main collector duct should be sized according to specifications presented in the chart below. The outside of the main duct should have a weather hood (with hinged damper) installed to prevent passage of weather elements, insects, dust and dirt into the dryer.

8. Each dryer should have a back draft damper kit, part number 58786.

| Duct Station | Minimum Diameter of Collector Duct |
|--------------|------------------------------------|
| A            | 4 inches (102 mm)                  |
| B            | 8 inches (203 mm)                  |
| C            | 9 inches (229 mm)                  |
| D            | 10 inches (254 mm)                 |
| E            | 11 inches (279 mm)                 |
| F            | 12 inches (305 mm)                 |
| G            | 13 inches (330 mm)                 |
| H            | 14 inches (356 mm)                 |
| I            | 15 inches (381 mm)                 |
| J            | 15 inches (381 mm)                 |
| K            | 16 inches (406 mm)                 |

NOTE: Main collector ducts should be equipped with an auxiliary fan that can maintain the duct airflow at a minimum of 1,200 ft (366 m) per min. If you do not have a fan, clean the main collector duct at least twice a year.

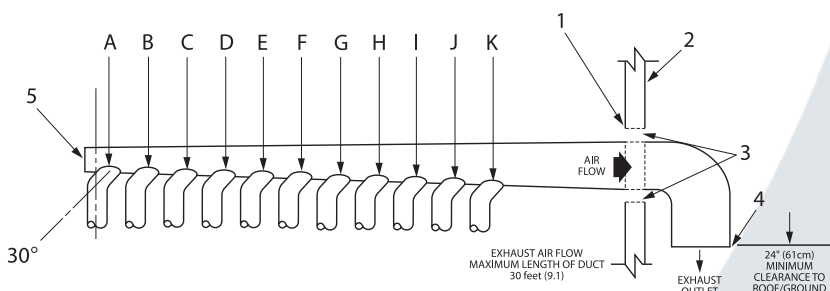
| Electrical Requirements          |   |
|----------------------------------|---|
| Electric Dryer and Stacked Dryer | 60 Hz, 5350 watt element, 120/240V or 4750 watt element, 120/208V, 3-wire, 1 phase, 30 amp.               |
| Canada                           | 60Hz, 5,000 watt element, 120/240 or 120/208V, 4-wire, 1 phase, 30 amp on dryer; 60 amp on stacked dryer. |
| Gas Dryer and Stacked Dryer      | 60 Hz, AC, 120V, grounded 3-wire, 1 phase, 15 amp.  |
| Canada                           | 60 Hz, AC, 120V, grounded 3-wire, 1 phase 15 amp on dryer; 30 amp on stacked dryer.                       |



**VERTICAL EXHAUST INSTALLATION**

- 1 Roof
- 2 No Screen or Cap
- 3 Wall
- 4 2" (5 cm) Minimum
- 5 NOTE: Where the exhaust duct pierces a combustible wall or ceiling, the opening must be sized per local codes.

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**HORIZONTAL EXHAUST INSTALLATION**

- 1 NOTE: Where the exhaust duct pierces a combustible wall or ceiling, the opening must be sized per local codes.
- 2 Wall
- 3 2" (5 cm) Minimum or Clearance per local codes
- 4 No Screen or Cap
- 2 Clean Out Cover - Inspect Monthly

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# Installation Suggestions and Equipment Specifications Cont.

## 25 LB, 30 LB AND 35 LB SINGLE TUMBLERS

### Electrical Requirements

1. Provide separate circuits from the main panel to each tumbler. The 120 volt, 60 Hz, single phase units require an individual three-wire, grounded, 120 volt, 60 Hz electrical circuit protected by a 15 amp fuse or circuit breaker. The 208 volt or 240 volt, 60 Hz, single phase units require a three-wire plus ground circuit (two hot leads, a neutral and a ground). Each circuit must be protected with a two-pole, 10 amp circuit breaker.
2. All tumbler units must be grounded in accordance with the latest edition of the National Electrical Code, NFPA 70, and local codes and ordinances.

### Gas Requirements

1. Install a 1-1/2" (38.1 mm) main gas line for the laundry room for up to 10 tumblers.
2. Install a 1/2" (12.7 mm) gas line on the wall for connection to the back of the dryer. Terminate it with a 1/2" (12.7 mm) T, 6" (152.4 mm) drip leg and 1/2" (12.7 mm) gas cock.

### Venting Requirements

1. Locate where least exhaust piping and elbows will be required. Use sweep elbows. The exhaust should be directed upward.
2. All duct work must be adequate in size. See ducting chart below.
3. Provide cleanout and inspection doors in duct. All electrical and plumbing installations must conform to local and national codes.

## 30 LB STACK TUMBLER

### Electrical Requirements

1. Provide separate circuits from the main panel to each tumbler. There is only **ONE** electrical connection to the stacked tumbler upper pocket junction box. The 120 volt, 60 Hz, single phase units require an individual three-wire, grounded, 120 volt, electrical circuit protected by a 30 amp fuse or circuit breaker. The 208 volt or 240 volt, 60 Hz, single phase units require a three-wire plus ground circuit (two hot leads, a neutral and a ground). Each circuit must be protected with a two pole, 20 amp circuit breaker.
2. All stacked tumbler units must be grounded in accordance with the latest edition of the National Electrical Code, NFPA 70, and local codes and ordinances.

### Gas Requirements

1. Install a 1-1/2" (38.1 mm) main gas line for the laundry room for up to 10 tumblers.
2. Install a 3/4" (19.05 mm) gas line on the wall for connection to the back of the dryer. Terminate it with a 3/4" (19.05 mm) T, 6" (152.4 mm) drip leg and 3/4" (12.7 mm) gas cock.

### Venting Requirements

1. Locate where least exhaust piping and elbows will be required. Use sweep elbows. The exhaust should be directed upward.
2. All duct work must be adequate in size. See ducting chart below.
3. Provide cleanout and inspection doors in duct. All electrical and plumbing installations must conform to local and national codes.

| Electrical Requirements               |   |
|---------------------------------------|---|
| <b>25 lb and 30 lb Single Tumbler</b> | 60 Hz. 120V, 1 phase 12.0 amps, 2-wire grounded circuit (L1, N, G). Requires 15 amp one-pole protection.<br><br>60 Hz. 208-240V, 1 phase 6.7 amps, 3-wire grounded circuit (L1, N, L2, G). Requires 10 amp two-pole protection. |
| <b>Canada</b>                         | Same as above   |
| <b>Export Models</b>                  | 50 Hz. 240V, 1 phase, 24.0 amps, 2-wire grounded circuit (L1, L2, G). Requires 10 amp two-pole protection.  |
| <b>Stacked Tumbler</b>                | 60 Hz. 120V, 1 phase, 24.0 amps, 2-wire grounded circuit (L1, N, G). Requires 30 amp one-pole protection. 60 Hz. 208-240V, 1 phase, 13.4 amps, 3-wire grounded circuit (L1, N, L2, G). Requires 20 amp two-pole protection.     |
| <b>Canada</b>                         | Same as above   |
| <b>Export Models</b>                  | 50 Hz. 240V, 1 phase, 15 amps, 2-wire grounded circuit (L1, L2, G). Requires 20 amp two-pole protection. 60 Hz. 220V, 1 phase, 11.6 amps, 2-wire (plus ground) (L1, N, G). Requires 15 amp two-pole protection.                 |

