

PRODUCT BULLETIN – PB-188

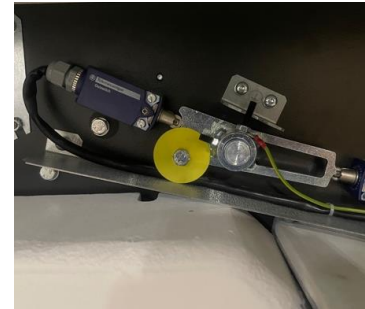
X-Series Ironer Installation Requirements

Summary

Validating installation on gas-heated X-Series ironers is critical to ensure that the ironer will operate as designed. This bulletin is a quick reference document that will assist in the correct installation and validation for the venting and make-up air on the X-Series ironers. As always, please follow the installation manual and local codes.

Shipping braces

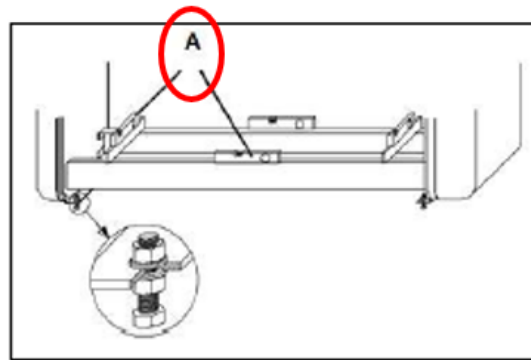
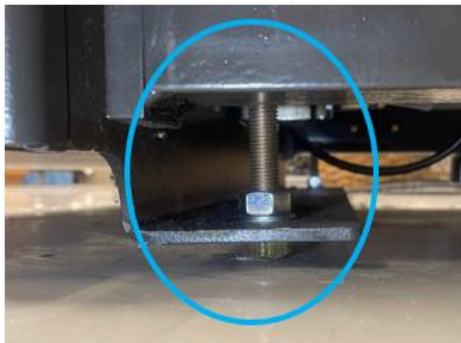
- Tools – 10 mm, 13 mm wrench
- Tensioner roll brackets
- Plastic cover on the gas inlet valve (not pictured)
- Metal bracket that protects the gas inlet valve
- Hand guard switch



Machine leveling

The X20 and X13 ironers have a floating heated roll. Side-to-side travel of this heated roll is limited by the heated roll's ring gear and the lateral bearings. The heated roll can shift left or right if the ironer is not properly leveled. This can cause premature wear on the feed ribbons and lateral bearings. Leveling legs are included in the installation box that comes with the ironer. They should always be installed no matter how level the machine appears to be.

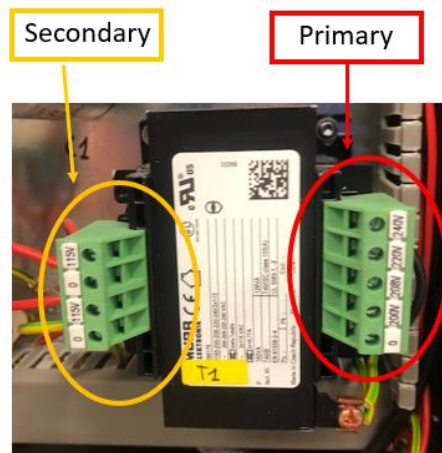
- Leveling procedure
 - Tools – 25 mm, crescent wrench, level
 - Install the 4 leveling legs (with the jam nuts) in the holes on the lower frame of the machine. Keep the nuts as low to the ground as possible.
 - Place a level on the lower frame of the ironer to ensure that it is level front-to-back and side-to-side.
 - Do not level off the cabinet of the machine
 - Adjust the jamb nut up and down until the ironer is perfectly level, while trying to keep the ironer as low to the ground as possible.



115 VAC control voltage calibration

The X-Series ironer uses 115 VAC control voltage to provide the “burner ready” and “burner on” signal to the ignition control. It is critical that this voltage is as close to 115 VAC +/- 5% as possible, it is better to be slightly above 115 VAC than below.

- Voltage setting procedure
 - Tools – multimeter, small flat tipped screwdriver
 - Measure the secondary voltage on the tapped transformer.
 - On some machines there are a 200-208 VAC plug and 230-240 VAC plug.
 - Connect the appropriate plug depending on your input voltage.
 - Depending on secondary voltage of your transformer you might have to move wires on the primary side of the tapped transformer to get the secondary side with in the 115 VAC +/- 5%.



Gas Pressure

The X- Series Ironers use ETL certified natural gas. Verifying the dynamic gas pressure is critical to ensure that the ironer will operate as it was designed. The gas pressure must remain stable regardless of possible differences in consumption caused by the operation of other gas appliances connected to the same source.

- **Gas pressure regulator**
 - Ironers are required to have a gas pressure regulator installed prior to the ironer. The regulator has to be able to regulate the pressure and gas flow to the recommended specs.
 - The gas pressure regulator is not included or sold by Continental.
- **Gas supply line**
 - Gas should be supplied with a line at least ¾” in diameter.
 - Larger diameter gas lines can supply more volume.
- **Gas pressure testing**
 - Tools – manometer, pipe wrenches
 - It is recommended to install a gas port in between the external gas regulator and the ironer to easily test the gas pressure.
 - This gas port will allow you to verify the dynamic gas pressure.
 - The dynamic gas pressure is when the gas is flowing or the ironer’s burning is running.
 - Test with just the ironer running.
 - Test with the ironer along with any other gas consuming devices running.

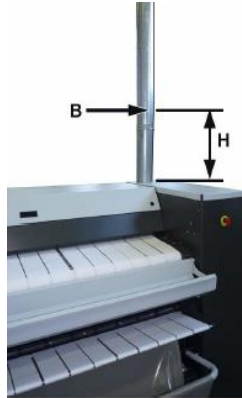
- The gas supply will have to be reevaluated if the gas pressure drops below the recommendation range.
 - Dynamic gas pressure (all models)
 - Natural gas
 - 7.0 in. w.c. (supply)
 - Propane
 - 11.0 in. w.c.(supply)

Venting

Static exhaust pressure is the pressure that the exhaust exerts on the exhaust duct. Measuring static exhaust pressure will help determine if your venting is adequate.

It is advisable to follow the instructions set forth in the local regulations currently in force regarding the exhaust duct outlet

- **Static exhaust pressure**
 - Tools – 1/8" drill bit, drill, manometer
 - Measure about 20 inches (H) from the top of the ironer.
 - Measurement should be taken at room temperature with burner off.
 - Measurements should be made at least 12 inches away from any elbow.



- **Duct material**
 - Must be fire-resistant, rigid, anti-corrosive with a smooth inside surface and these properties must remain unaltered at a minimum of 150°C (302°F).
 - Watertight all around and thermally insulated up to a height from the floor of at least 2.7 meters (107 in).
 - Appropriate duct sound proofing can be used if there is significant noise.
- **Ducting installation**
 - Must have the minimum number of bends (to avoid high static pressure the angle of the bends should not be more than 45°).
 - The machine's exhaust duct should always lead directly to a secure outside location and never be connected to any other duct or flue.
 - The duct must always be conducted in an upwards direction, with an upwards gradient of at least 3% and the shortest length possible.
 - When passing through walls or roofs made of wood or other combustible materials, the diameter of the cavity has to be 100 mm (4 in) greater than the ducting. In these cases the ducting must be protected by fire resistant material.

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- In ducting above 10 m (400 in) or if there is a lot of water from condensation, install a 1/2" o 3/4" drain at the lowest point, to drain the water. In cold temperatures, insulate the ducting to reduce condensation.
- The X-Series ironer does not provide a signal for any air movers or louvers.
- **Vent length sizing**
 - Maximum allowable length is 14 feet + two 90° elbows
 - Each 90° 5-inch elbow is equivalent to 5.85 feet.
 - (Equivalent Length = 1.17 x Duct Diameter)
 - Maximum allowable length with no elbows
 - 14' + 5.85' + 5.85' = 25.7'

	Units	X13	X20
Min static exhaust pressure	in. w.c.	0.14	0.30
Max static exhaust pressure	in. w.c.	0.34	0.69
Minimum flow	cfm	387	564
Max flow	cfm	558	841
Duct diameter	inches	4.49	5.1

Make-up Air

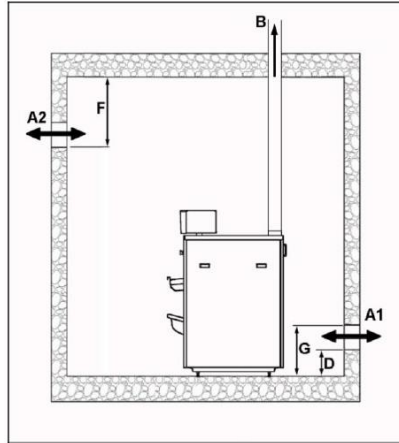
Make-up air is the fresh air that is required to make-up for the exhausted air that is vented outside of the building. Adequate make-up air ensures balanced airflow thus preventing negative pressures. A good indication of a negative pressure in your laundry is when it is hard to open a door due to the pressure imbalance from inside and outside of your laundry.

- **Make up air locations**
 - The two openings are recommended: one located at the top of the premises (A2) and another at the bottom (A1), close to the machine. It is advisable to create the openings in opposite walls.
 - In the case of rectangular air openings, the longest side must not be more than double the length of the smaller side.
 - Size of the A1 and A2 openings
 - The minimum free surface area of the openings should be 5 cm² (0.75 sq.in) per kW of nominal heat consumption installed.
 - The minimum area of each of the openings should never be less than 250 cm² (37.5 sq.in).
 - In openings protected with protective grilles, the free surface of the opening must be equal to or greater than the minimum area indicated.
 - The X-Series ironer does not provide a signal for any air movers or louvers.
- **Position of the openings**
 - Bottom opening (A1)
 - The bottom edge should be at a height (D) of less than or equal to 15 cm (5.9 in) from the floor of the premises.
 - The top edge should be at a height (G) of less than or equal to 50 cm (20 in) from the floor of the premises.
 - Top opening (A2)

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- The bottom of the opening should be at a maximum distance (F) of 30 cm (11.8 in) from the ceiling.



*** Always follow the warnings and procedures in the corresponding equipment instruction manual. ***