MyHomeWorks

Clothes Dryer (Electric)

Equipment Description

Clothes dryers consist of an electric motor attached by a drive belt to a rotating drum where the clothes are dried. Electrical heating elements are located adjacent to the drum and they work with fans to force air through a chamber and perforations in the drum wall. Moisture is carried away and is exhausted outside via a flexible duct. Air temperature and cycle times are adjusted by accessing controls mounted on the top or front of the dryer.

Loss Scenario

The dryer must be able to exhaust the heated air readily to keep operating temperatures at an acceptable level. Electrical motors can fail if run hot for long periods. Wiring can become brittle and loose connections can cause the dryer to stall. Excessive heat can be caused by lint that may clog the flexible discharge duct or the exterior dryer vent. A faulty dryer installation or confined space may kink the duct preventing free flow of air, resulting in dryer failure and/or causing a fire.

Size and Carbon Footprint

Most electric dryers draw power on a varying scale depending on the heat setting for a specific load. Most dryers range from 1800 watts (W) to 5000 W. If a typical dryer were run at 3,000 W for six hours a week, it would result in an energy consumption of about 936 kilowatt-hours (kWh). This would result in the production of approximately 1,440 pounds of carbon dioxide (CO_2).

Maintenance Tips

- For safety, always disconnect the dryer from the wall electrical outlet before performing any maintenance.
- Make sure that the exhaust duct is not clogged and that the exhaust air is free to move through it.
- The dryer door must close and latch in order for the unit to run. Check to make sure that lint or other material does not prevent the door from closing firmly.

Loss Prevention Tips

- Make sure the drum rotates freely before loading the dryer.
- Keep the exhaust duct open and lint free.
- Make sure that the exhaust vent on the outside wall is clear and open.
- Do not overfill the dryer. A unit operating above capacity will prevent heat from entering and escaping during the cycle. This will result in much longer drying times and could ultimately lead to premature failure of the dryer.