Coin- & Card-Operated Laundries

Coin- and card-operated laundries range from those in apartment-complex common rooms to busy commercial laundromats.

Standards and Practices

Currently the Federal Energy Policy Act Standards of 2005 for commercial coin- and card-operated single-load, soft-mount, residential-style laundry equipment specify a water factor of 9.5, while the US EPA Energy Star criteria level as of 2007 is 8.0. This applies to clothes washers with capacities up to 3.5 cubic feet for horizontal-axis machines and 4.0 cubic feet for top-loading machines. For greater efficiency, a water factor of less than or equal to 8.0 is desirable for single-load soft-mount washers.

Laundry operators are installing more large, multi-load machines. The majority of these are hard-mount or solid-mount machines that are bolted to the floor. All multi-load washers can be set to operate at a number of cycles, including flush, wash, bleach, rinse, scour, and sizing. Also, water levels can be set differently for each cycle, so water use varies greatly depending upon the setting. It is important to specify that washers be preset to meet the water factor, which can be done by the factory or by the route operator who leases the equipment. A water factor of 8.0 for all equipment is achievable and recommended.

Laundry operators are installing large, multi-load washing machines that offer more options for cycles and water levels, as well as opportunities for water savings.

Heating Systems

Hot-water boilers (heaters) provide hot water to clothes-washing machines. No water is returned to the water heater for reuse. The two major water-saving actions related to hot-water boilers are water-efficient washers and preventing plumbing leaks. Temperature- and water-pressure-relief valves (TPRVs) may open or leak. Make discharge pipes easy to inspect for flow, and ensure that there are visible indicators of whether a valve has activated.

Water Treatment

If water softeners are used, equip all softener systems with controllers that activate based

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upon the volume of water treated. Alternatively, some controllers actually measure water hardness. Use water softeners and other treatments only when necessary, and don't recharge softener systems based upon a timer. Where filtration systems are employed, require pressure gauges to determine when to backwash or change cartridges, and backwash based upon pressure differential.

Plumbing

Appropriate technologies include high-efficiency toilets requiring not more than 1.3 gallons per flush and urinals which flush with 1 gallon or less. Use no automatically-timed flushing systems. Use self-closing faucets with flows of 0.5 gpm for hand washing. If available, and where codes and health departments permit, use non-potable water for flushing.

Spaces where regular water use may result in spills or where floors may be washed frequently often have floor drains. Plumbing codes require traps to prevent gases and odors from seeping from sanitary sewers into rooms through the drains. The gas is blocked by water trapped below the drain in an "S" shaped pipe called a "P trap." To sustain water in the trap in less frequently used spaces, additional water must be added with a device called a trap primer — a valve or other connection from a water source that allows a small amount of water to flow through pipes to recharge traps of one or more drains. Avoid continuous flow to trap primers. Instead, install pressure-activated or electronic trap primers, each serving several drains.

Install automatic-shutoff and solenoid valves on all hoses and water-using equipment.

Install faucets on set tubs and janitorial sinks with flows not to exceed 2.2 gpm.

Floor Cleaning

Employ these floor-cleaning efficiency practices:

- Use low-flow, high-pressure nozzles on hoses or water brooms used for floor and mat washing where a flow of water is needed.
- Minimize the need to use a hose as a broom by installing drains close to areas where liquid discharges are expected.

TIP: Conspicuously mark fire-protection plumbing so no connections will be made other than those for fire protection. Install flow-detection meters on fire services to reveal unauthorized water flows.