

Multifamily Facility Management Services

SAFETY RELIEF VALVE

Description:

The safety relief valve is one of the critical safety devices on a heating boiler. Its purpose is to relieve excess pressure before damage can occur to the boiler or attached equipment. All safety relief valves have an opening pressure that equals the maximum operating pressure on the boiler and heating system. This opening pressure will be indicated on the nameplate of the valve itself. Under normal circumstances, the heating system will operate far below this maximum pressure level. However, if for some reason the operating pressure in the boiler ever reaches this maximum acceptable level, the safety relief valve will open to allow water or steam to be released. In this way the excess pressure in the system is relieved and there is no danger of the system exceeding its maximum safe operating pressure.

How to Implement:

Because of the essential role the safety relief valve plays in boiler safety, it is important to keep it in proper working order. **The discharge opening of the safety relief valve should not be plugged or capped under any circumstances.** It is also useful to check the operation of the safety relief valve periodically by running the boiler up to maximum pressure and making certain that the valve actually functions as intended. While not required, it is probably best to have a contractor perform this particular test. If the valve malfunctions, it should be replaced immediately. A replacement valve with the same opening pressure and Btu/h capacity as the existing valve should be used.

If the safety relief valve drips water from its discharge opening and the indicated pressure is not close to the opening pressure of the valve itself, there may be scale, or something else, in the valve seat preventing it from sealing completely. When this is the case, opening the valve fully for a moment or two may flush out the valve seat. However, take care not to be near the discharge opening of the valve when it is opened in this manner since scalding water or steam will discharge if the boiler water temperature is high. If this flushing procedure does not stop the dripping, the valve has failed and must be replaced.