

The Lowly Floor Drain

By Joseph P. Guzzo

I have reached a point in my career where I have developed these indicators as to whether a plumber has a true understanding of our plumbing trade. One of these indicators is the permitting and inspection process. For those plumbers that believe the only purpose for permits is to collect money for cities and towns and do not take the inspection process seriously, and seldom if ever call for final inspections, have disrespected the trade and in fact have no regards for their own livelihood. I could only wish these plumbers would either try very hard to understand or retire soon. One of my other indicators is if a plumber understands the use, purpose, and proper installation of a floor drain. That's right, the lowly floor drain speaks volumes for those that disrespect it.

The basics of a floor drain are relatively simple. It is a plumbing fixture. The minimum size is 2" it must be trapped, vented, and tied into the sanitary, and I emphasize sanitary drainage system just like any other plumbing fixture. Except you cannot see it like any other fixture, all you see is a grate in the floor, hence the disrespect. In addition many floor drains are not used on a continuous basis, which causes yet another problem, sewer gas. This problem has for the most part been solved since trap primers are now mandatory for all floor drains. However, because of this disrespect and pure ignorance people in general and believe it or not some licensed Master Plumbers, have this misconception that floor drains do not have to be connected to anything. I can't tell you how many installations I have seen where the floor drain just goes into the basement floor. That's right dig a hole, throw in some crushed stone, put a grate over it and presto you have nothing, that some call a floor drain.

Occasionally if I'm worked up enough, some of my Italian Grandmother will come out in me. I will say things like "close the light," and call the ground the floor. However, you must always keep one thing in mind about floor drains. That is the separation of storm and sanitary. This is extremely important and is one of the basics of a floor drain. A floor drain is for sanitary waste inside a building. Therefore you cannot use a floor drain outside, the ground is not the floor. Drains outside take storm water and are called either roof drains or area drains, and must be tied into the storm water system.

You must ask yourself why would you put a floor drain in a basement? First, if you have a wet basement, the cause has to be from ground water. The removal of this water must be handled by a system so that the water discharges outside on the ground, or into a storm drain system. This is usually done in its simplest form by installing a sump pump at a low point. Other systems are much more complex, none include the use of floor drains. So why would we install a floor drain in a basement? The most common purpose would be in a boiler room, in case a water tank leaked, pipe broke, drain the system, etc. This water cannot be discharged into the storm system and must be tied into the sanitary sewer system.

Another misconception I see almost on a daily basis is the use or should I say misuse of a safe waste system. Although the discharge of a safe pan/waste, and a floor drain will end up in the same place tied into the sanitary system. They are two completely different piping arrangements. The floor drain is direct and the safe drain is indirect. A safe waste comes from a safe pan under a piece of equipment for emergency purposes only,

