FLOOR DRAINS

How To Choose A Floor Drain (continued)

CONNECTIONS

The means by which the drain becomes an integral component of the drainage system must be carefully considered so that specifications will reflect proper outlets compatible to both the piping material and layout. There are five basic outlet connections: inside caulk, hub (outside caulk), no-hub, spigot and threaded. These connections are provided on the three common outlet types: bottom, side, and side with integral trap. There are a few pointers relative to connections that should be kept in mind. Inside caulk connections (-X) can be made with any type of pipe using JOSAM JIFFEE-JOINTS more quickly and economically than with conventional caulking materials and methods. Hub (outside caulk) connections (-Y) can be made to soil pipe using the popular JIFFEE-SET compression gasket. Spigot connections can be joined with soil pipe hubs using compression gaskets or to no-hub using the conventional couplings. Specific details on outlet connections and types are included with the product listings in this section.

FLOOR CONSTRUCTION

Drain selection is influenced by floor construction. Elements such as slab type and thickness, surface finish, depth of fill, finished floor materials and waterproofing requirements are primary considerations. Installation diagrams illustrating various types of drains are included in this section to help you choose the right drain.

MATERIALS

After the duty type is determined, top materials must be considered. The basic material used in the manufacture of floor drain grates is cast iron, conforming to ASTM Specification A48. Cast iron grates are suitable for most duty types in areas where aesthetics is not a factor. In such locations where shock or impact loading will be encountered, ductile iron grates should be specified as this material not only possesses superior strength but will yield rather than fracture under severe service conditions. For installations where appearance and service are important, tops of bronze or Nikaloy should be considered. These materials are usually accepted for exposed components of all plumbing drainage products in finished areas. Most heavy-duty types are available with non-ferrous tops over iron grates for those finished areas where service loading is anticipated. Detailed information on materials is presented in the Materials and Finishes section of this book and optional top materials are shown with specific series.

WEIGHT LOADS

Apart from their primary purpose of receiving and conveying liquids, floor drains, as integral components of the floor, must be structurally suitable to withstand the anticipated loads that will be imposed on the floor. Weight support requirements of the drain vary with the location, construction, and service condition. The top loading classifications as published in Floor Drain Standard ANSI A112.21.1M-1980 are as follows:

Light-Duty– All grates testing under 2000 lb. (900 kg.).

Medium-Duty – All grates testing between 2000 lb. (900 kg.) and 4999 lb. (2250 kg.).

Heavy-Duty– All grates testing between 5000 lb. (2250 kg.) and 7499 lb. (3375 kg.).

Extra Heavy-Duty– All grates testing between 7500 lb. (3375 kg.) and 10,000 lb. (4500 kg.).

Special-Duty– Grates testing over 10,000 lb. (4500 kg.) should be considered special and treated accordingly.

When the top loading requirements for a drain have been determined, the duty type needed can be resolved. Selection is easily accomplished as all JOSAM Floor Drains are classified according to duty type in this section. For specific detail loading data, contact JOSAM Engineering.