

# ENGINEERING COMMUNIQUÉ



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## 2021 UPC/IAPMO & IPC/ICC PLUMBING CODES



FOR INFORMATIONAL PURPOSES - COMPARISON OF SPECIFIC COMPARABLE DIFFERENCES OF CERTAIN PRODUCT REQUIREMENTS

### UPC/IAPMO

UNIFORM PLUMBING CODE  
INTERNATIONAL ASSOCIATION OF PLUMBING &  
MECHANICAL OFFICIALS

### IPC/ICC

INTERNATIONAL PLUMBING CODE  
INTERNATIONAL CODE COUNCIL

#### **UPC/IAPMO CLEANOUTS:**

Table 707.1

Size of Pipe	Size of Cleanout (Opening)
1-1/2"	1-1/2"
2"	1-1/2"
2-1/2"	2-1/2"
3"	2-1/2"
4" & Larger	3-1/2"

#### **IPC/ICC CLEANOUTS:**

708.1.5 Cleanout size. Cleanouts shall be the same as the piping served by the cleanout, except that cleanouts for piping larger than 4" (102) need not be larger than 4" (102).

**UPC/IAMPO INTERCEPTORS (LINT):**

1012.1 General. Laundry equipment in commercial & industrial buildings that do not have integral strainers shall discharge into an interceptor having a wire basket or similar device that is removeable for cleaning and that will prevent passage into the drainage system of solids ½" (12.7) or larger in maximum dimensions, such as string, rags, buttons, or other solid materials detrimental to the public sewage system.

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**IPC/ICC INTERCEPTORS (LINT):**

1003.6 Clothes washer discharge interceptor. Clothes washers shall discharge thru an interceptor that is provided with a wire basket or similar device, removable for cleaning that prevents passage into the drainage system of solids ½" (12.7) or larger in size, such as string, rags, buttons or other materials detrimental to the public sewage system.

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**UPC/IAMPO ENGINEERED STORM DRAINAGE SYSTEM (SIPHONIC):**

1106.1 General. The design and sizing of a storm drainage system shall be permitted to be determined by accepted engineering practices. The system shall be designed by a registered design professional and approved in accordance with section 301.5.

1106.2 Siphonic roof drainage systems. The design of a siphonic roof drainage system shall comply with ASPE 45.

1106.3 Siphonic roof drains. Siphonic roof drains shall comply with ASME A113.6.9.

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**IPC/ICC ENGINEERED STORM DRAINAGE SYSTEM (SIPHONIC):**

1107. Siphonic roof drainage systems. 1107.1 General. Siphonic roof drains and drainage systems shall be designed in accordance with ASME A112.6.9 and ASPE 45.

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**UPC/IAMPO TRAP SEAL PROTECTION:**

1007.2 Trap Seal Primers. Potable water supply trap seal primer valves shall comply with ASSE 1018. Drainage and electronic type trap seal primer devices shall comply with ASSE 1044.

***Note: UPC/IAPMO still does not recognize ASSE Standard 1072. Therefore, does not allow for installation in new construction of the Fig. no. 2692 Quad Seal (Sink Stopper).***

**IPC/ICC TRAP SEAL PROTECTION:**

1002.4 Trap Seal Protection. Trap seals of emergency floor drain traps and trap seals subject to evaporation shall be protected by one of the methods in Sections 1002.4.1.1 through 1002.4.1.5.

1002.4.1.1 - Potable water supplied trap seal primer valve Figure numbers 2694 & 2699.

1002.4.1.2 - Reclaimed or graywater supplied trap seal primer valve. N/A.

1002.4.1.3. - Wastewater supplied trap primer valve. Figure number 2698.

***1002.4.1.4 - Barrier type trap seal protection device. A barrier type trap seal protection device shall protect the floor drain trap seal from evaporation. Barrier type floor drain trap seal protection devices shall conform to ASSE 1072. The devices shall be installed in accordance with the manufacturer's instructions.***

***Figure Number 2692.***

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**UPC/IAMPO OIL INTERCEPTORS:**

1017.1 Interceptors Required. Repair garages, gas stations with grease racks or grease pits, and factories have oily, flammable, or both types of waste as a result of manufacturing, storage, maintenance, repair, or testing processes shall be provided with an oil or flammable liquid interceptor that shall be connected to necessary floor drains.

Each interceptor shall be rated equal or greater than the incoming flow and shall be provided with an overflow line to an underground tank.

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**UPC/IAMPO SAND INTERCEPTORS:**

1016.1 Discharge. Where the discharge of a fixture or drain contains solids or semi-solids heavier than water that would be harmful to a drainage system or cause a stoppage within the system, the discharge shall be through a sand interceptor. Multiple floor drains shall be permitted to discharge into one sand interceptor.

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**UPC/IAMPO GREASE INTERCEPTORS:**

Grease Interceptors shall comply with ASME A112.14.3, ASME A112.14.4, CSA B481, PDI G-101, or PDI G-102, and sized in accordance with Section 1014.2.1 or section 1014.3.6, shall be installed in accordance with the manufacturer’s installation instructions to receive the drainage from fixtures or equipment that produce grease-laden waste.

1014.1.1 Trapped and Vented. Each fixture discharging into a grease interceptor shall be individually trapped and vented in an approved manner.

1014.1.3 Food Waste Disposers and Dishwashers. No food waste disposer or dishwasher shall be connected to or discharge into a grease interceptor. Commercial food waste disposers shall be permitted to discharge directly into the building’s drainage system.

1014.2 Hydromechanical Grease Interceptors. An approved type of vented flow control shall be supplied and installed in an accessible and visible location. Flow control devices shall be designed and installed so that the total flow through such device or devices shall at no time be greater than the rated flow of the connected grease interceptor. No flow control device...

**IPC/ICC OIL INTERCEPTORS:**

1003.4 Oil Separators required. At repair garages where floor or trench drains are provided, car washing facilities, factories where oily and flammable liquid wastes are produced and hydraulic elevator pits, oil separators shall be installed into which oil bearing, grease bearing, or flammable wastes shall be discharged before emptying to the building drainage system or other point of disposal. Exception: An oil separator is not required in hydraulic elevator pits where an approved alarm system is installed.

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**ICP/ICC SAND INTERCEPTORS:**

1003.5 Sand Interceptors in Commercial Establishments. Sand and similar interceptors for heavy solids shall be designed and located so as to be provided with ready access for cleaning and shall a water seal of not less than 6 inches (152mm).

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**ICP/ICC GREASE INTERCEPTORS:**

Hydromechanical interceptors; fats, oils, and greases disposal systems and automatic grease removal devices shall be designed and tested in accordance with ASME A112.14.1, A112.14.4, CSA B481.1, PDI G101 or PDI G102. Hydromechanical grease interceptors; fats oils, and greases disposal systems and automatic grease removal devices shall be installed in accordance with the manufacturer’s instructions.

1003.3.2 Food Waste Disposers Restriction. A food waste disposal shall not discharge to a grease interceptor.

1003.3.5.2 Rate of Flow Controls. Grease interceptors shall be equipped with devices to control the rate of water flow so that the water flow does not exceed the rated flow. The flow control device shall be vented and terminate not less than 6 inches (152mm) above the flood rim level or be installed in accordance with the manufacturer’s instructions.

having adjustable or removable parts shall be approved. The vented flow control device shall be located such that no system vent shall be between the flow control and the grease interceptor inlet.

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**UPC/IAMPO WATER HAMMER ARRESTERS:**

609.11 Water Hammer. Buildings water supply systems where quick-acting valves are installed shall be provided with water hammer arresters to absorb high pressures resulting from the quick closing of these valves. Water hammer arresters shall be approved mechanical devices that comply with ASSE 1010 or PDI WH-201 and shall be installed as close as possible to quick-acting valves.

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**IPC/ICC WATER HAMMER ARRESTERS:**

604.9 Water Hammer. The flow velocity of the water distribution system shall be controlled to reduce the possibility of water hammer. A water hammer arrester shall be installed where quick closing valves are utilized. Water hammer arresters shall be installed in accordance with the manufacturer's instructions. Water hammer arresters shall conform to ASSE 1010.

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**UPC/IAMPO WATER PRESSURE:**

608.2 Excessive Water Pressure. Where static water pressure in the water supply piping is exceeding 80 psi (522 kPa), an approved type pressure regulator preceded by an adequate strainer shall be installed and the static pressure reduced to 80 psi (522 kPa) or less.

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**IPC/ICC WATER PRESSURE:**

604.8 Water Pressure Reducing Valve or Regulator. Where water pressure within a building exceeds 80 psi (522 kPa) static, an approved water reducing valve conforming to ASSE 1003 or CSA B356 with strainer shall be installed to reduce the pressure in the building water distribution piping to not greater than 80 psi (522 kPa) static.

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**DEFINITIONS:**

**UPC/IAMPO**

Hydromechanical Grease Interceptor.

A plumbing appurtenance or appliance that is installed in a sanitary drainage system to intercept nonpetroleum fats, oils, grease (FOG) from a wastewater discharge and is identified by flow rate, and separation and retention efficiency. The design incorporates air entrainment hydromechanical separation, interior baffling, or barriers in combination or separately and one of the following:

- (1) External flow control, with an air intake (vent), directly connected.
- (2) External flow control, without air intake (vent), directly connected.
- (3) Without external flow control, directly connected.
- (4) Without external flow control, indirectly connected.

Hydromechanical grease interceptors are generally installed inside.

**IPC/ICC**

Grease Interceptor.

Fats, oils, and greases (FOG) disposal systems. A plumbing appurtenance that reduces nonpetroleum fats, oils, and greases in effluent by separation or mass and volume reduction.

Gravity. Plumbing appurtenances of not less than 500 gallons (1893 L) capacity that are installed in the sanitary drainage system to intercept free-floating fats, oils, and grease from wastewater discharge. Separation is accomplished by gravity during a retention time of not less than 30 minutes.

Hydromechanical. Plumbing appurtenances that are installed in the sanitary drainage system to intercept free-floating fats, oils, and grease from wastewater discharge. Continuous separation is accomplished by air entrainment, buoyancy and interior baffling.