hidrotermal®

Antivortex Main Drain

PF - 2011

PF - 2012

USER MANUAL

1. Parameters

Model	Description	Flow rate (L/min)
PF-2011	Antivortex Main Drain	240
PF-2012	Antivortex Main Drain	240

2. Safety precautions

Read and follow all instructions in this owner's manual including safety precautions and notice. Failure to follow instructions can cause severe injury and/ or death.
Save this instruction carefully for future reference.
Suction Entrapment Hazard as following if failure to follow the instructions.

NOTE

a. **Hair Entrapment**- Hair can become entangled in suction outlet cover.
b. **Limb Entrapment**- A limb inserted into an opening of a suction outlet sump or suction outlet cover that is damaged, broken, cracked, missing, or not securely attached can result in a mechanical bind or swelling of the limb.
c. **Body Suction Entrapment**- A negative pressure applied to a large portion of the body or limbs can result in an entrapment.
d. **Evisceration/ Disembowelment Entrapment**- A negetive pressure applied directly to the intestines through an unprotected suction outlet sump or suction outlet cover which is damaged, broken, cracked, missing, or unsecured can result in evisceration/ disembowelment entrapment.
e. **Mechanical Entrapment**- There is potential for jewelry, swimsuit, hair decorations, finger, toe or knuckle to be caught in an opening of a suction outlet cover resulting in mechanical entrapment.

3. Plan and Dimension

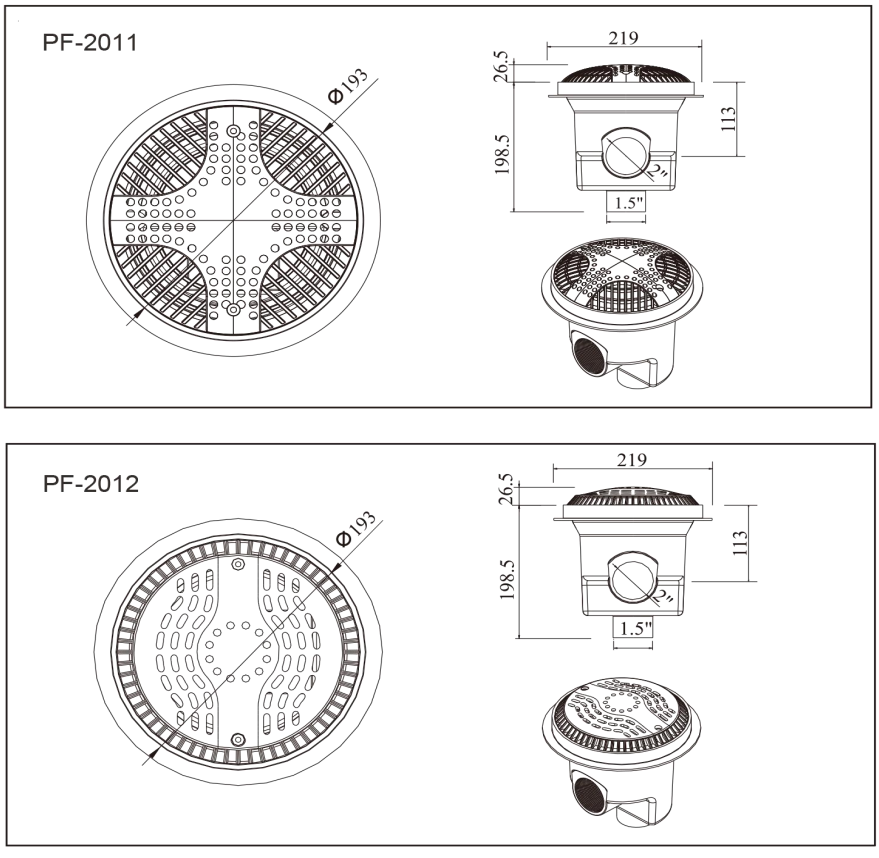

Figure 1

4. Exploded view

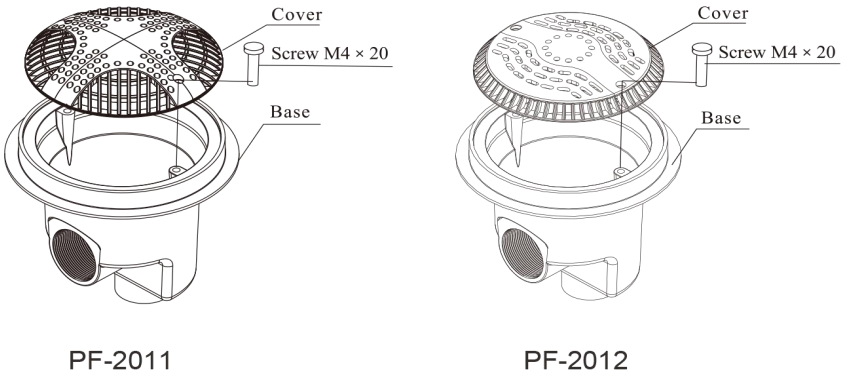

Figure 2

5. Security specification

1.Each pump should be parallel installed with two pieces of main drains, and in the same plane(floor or wall) the distance between two main drains is 3 feet (0.92m) at least, measurement standard is from one center of sucking pipe to another(See Figure 3).

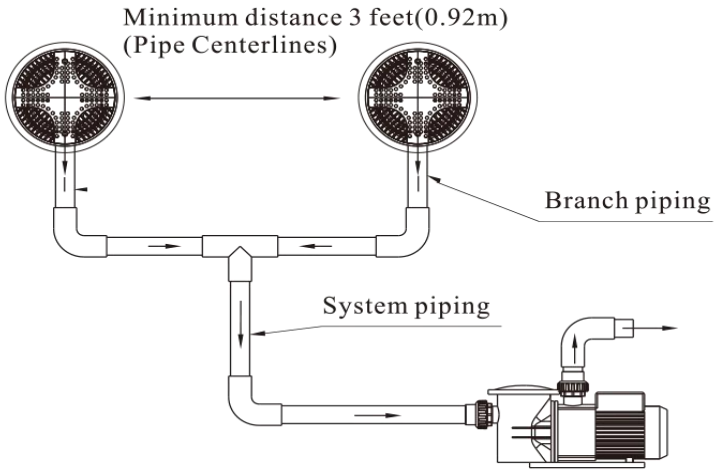

Figure 3

If the condition is not allowed, the suction inlet should be installed in less than 3 feet(0.92m), the two main drains should be installed in different plane. For example, one is installed at the bottom, the other on the wall; or installed on two separate vertical wall(See Figure 4).

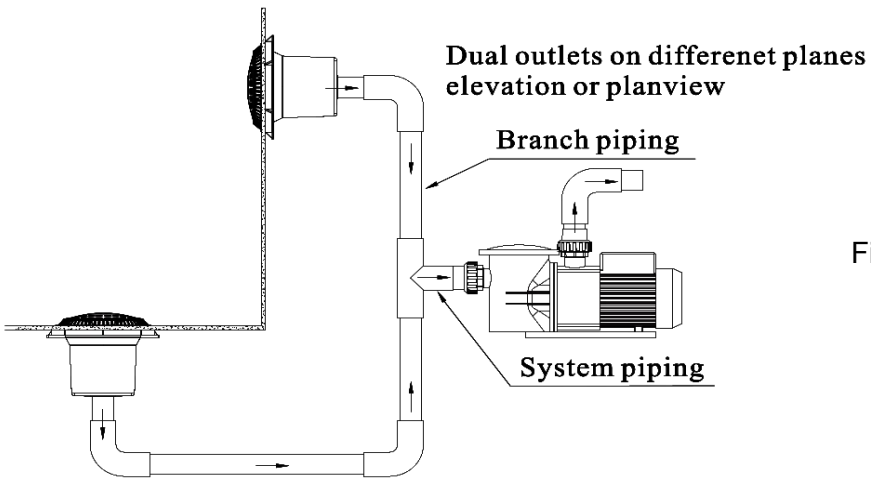

Figure 4

2.Recommended system specifications:
a.The quantity of suction outlet must meet the request of circulation flow rate of swimming pool.
b.The suction outlets should be installed where match the water circulating well, no short circuit.
c.The surface area of suction outlets which water flow is not less than 6 times sectional area of branch piping.
d.The water speed through suction outlets must not exceed 0.2m/s.
e.The frame and cover must be fixed tightly by stainless steel screws, frame and plane of pool are in same

NOTE **Before using swimming pool and/ or spa, observe and replace damaged, broken, cracked, missing, or not securely attached suction outlet components immediately.**

3.Two or more suction outlets per pump should be installed in accordance with latest APSP Standards (ASME/ANSI A112.19.8M-1987,ASME/ A112.19.8B-2009, APSP-7), to reduce the suction entrapment hazard.
4.Spare parts of suction outlets, such as cover and screws must be inspected regularly because of their limited lifetime. Replacement is necessary if the suction outlet is cracked, damaged, aging, ect.
5.The suction outlet must match to the power of pump. Don't use the pump which exceeds the maximum flow rate of suction outlet.

6. Installation requirement

The rated flow rate of both Antivartex Main Drain is 33.5m3/h, suitable for swimming pool and spa.
The diameter of branch piping is not less than 2 inches or DN63mm.

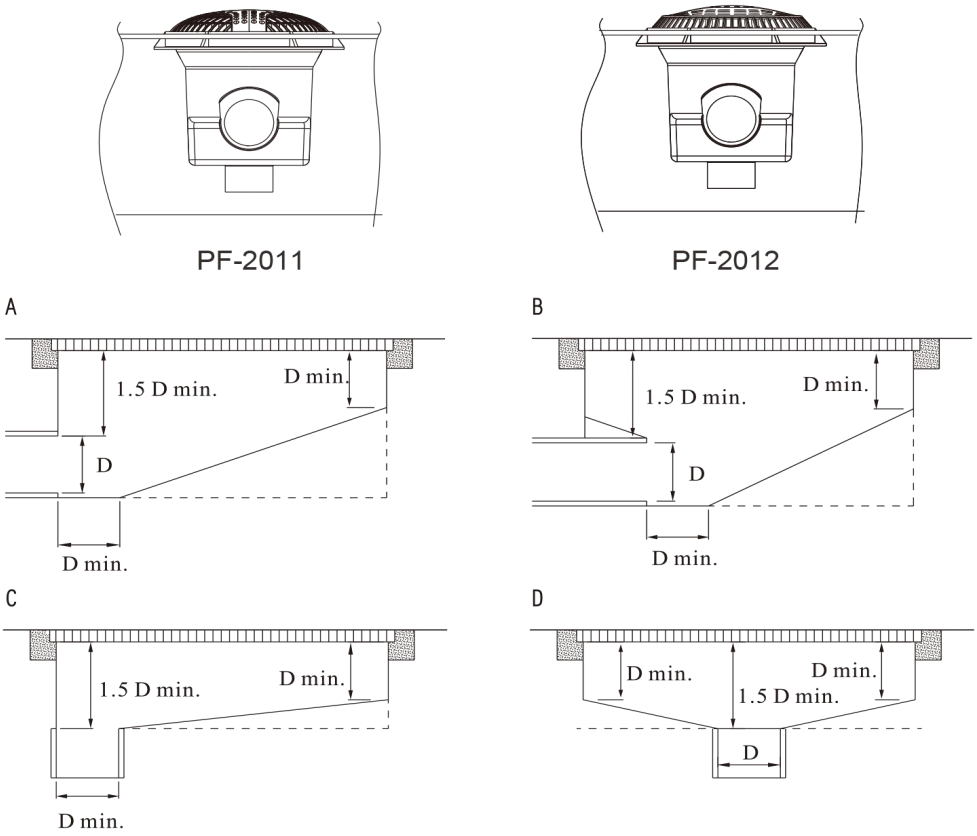

Figure 5