

Certification

Kingbull piping systems have certificates from Australia SAI Global, French BV, Spanish AENOR, Swedish SP, Swiss SGS, ISO 9001, ISO 14001, China National Accreditation Service (CNAS) for Kingbull Lab, and other institutes. Kingbull piping products working life is 50 years and Kingbull provides customers 10 years quality warranty.



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Introduction of siphonic roof drainage system

Overview of siphonic roof drainage system

Siphonic roof drainage system is a new style of rainwater drainage system that is working by the effect of siphon, so that the pipe fully filled with pressure flow that make the water of roof be drained promptly. Widely used in high-rise buildings and shopping malls, supermarkets, railway stations, airports, factories and mines, arts and sports building and other large roof rainwater drainage system.

The principle of siphon phenomenon and the siphonic roof drainage system

Siphonic rainwater drainage system, use the height of building as the energy of producing siphon power, through the professional design of siphon rain water bucket isolated from the air, and the pipe diameter of the system to the reasonable proportion, generate negative pressure partially, the siphon phenomenon is formed. Using siphon phenomenon, siphon rainwater system can form a full pipe flow without slope of bean pipes, and drain the water of roof with an extremely fast speed.

Comparison between siphonic rainwater roof drainage system and traditional drainage system

Compared with the traditional drainage system without pressure using gravity as drainage power, siphonic drainage is a system using pressure as drainage power, with four major advantages

1. high efficiency of drainage

The traditional gravity drainage belongs to "air flow and water flow together", water flow only used one third of the cross-sectional area of the pipeline, but siphonic rainwater drainage system, based on "Bernoulli equation" principle, cross-sectional area is fully exploited by water flow, is realized by using the professional calculation and specialized siphonic rainwater bucket, so that efficiency of drainage is greatly improved

2. Small diameter, little vertical pipe, maintenance free

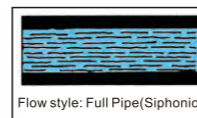
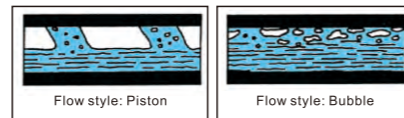
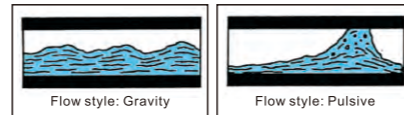
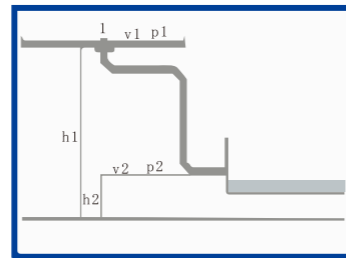
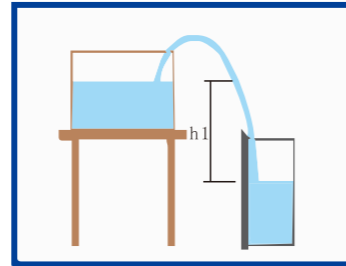
Since the siphonic rainwater drainage system is fully exploited by water flow, the pipe diameter of the siphonic rainwater drainage system is smaller than that of the gravity rainwater pipe diameter by 50%. Due to the drainage power of single vertical pipe of siphonic drainage system is more than 4 times of single vertical pipe of gravity drainage system, thus the quantity of vertical pipes are greatly decreased, compared with the traditional gravity drainage system- the vertical tube amount of the siphonic rainwater drainage system can be reduced by 75%. due to the velocity in the siphonic drainage system is more than 1m / s, self-cleaning can be achieved, the routine maintenance costs are avoided.

3. Efficiency and environmentally friendly

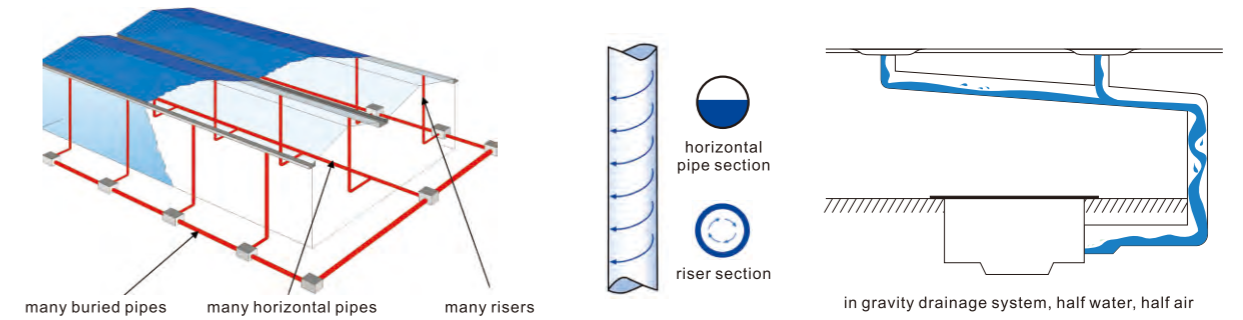
Since the siphonic drainage system turns the no pressure drainage into drainage by pressure, it is easy for the collection of rainwater and brings the possibility of second use of rain water. There are many sample projects in the north that combined the functions of siphonic drainage system and rainwater as a perfect way to realize the high efficiency of water resource

4. Less occupation of system

《construction of water supply and drainage design specification GB50015-2003》the 4.9.25 stipulates that gravity drainage pipe hanging slope is not less than 5%(including suspension slope degree of metal tubes are not less than 1%), whereas siphonic rainwater drainage system suspension tube needs no slope to be set up, take a 400-meter long factory plant as an example, the siphonic rainwater drainage system will save at least 2-meter construction space than the gravity drainage system in comparison

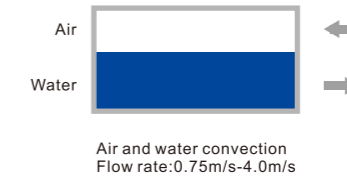


Traditional gravity rainwater drainage system

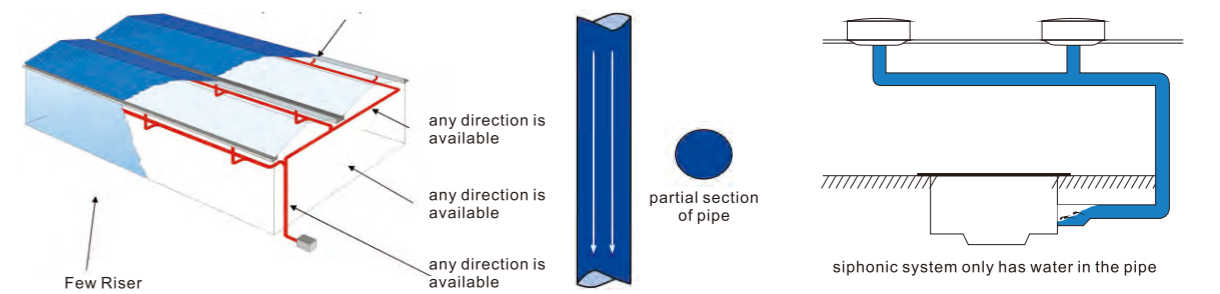


Characteristics of gravity drainage system

1. Cross pipe need certain degree of slope
2. Needs great vertical pipes and rainwater bucket
3. Great range of digging jobs
4. More expensive charge for detecting slope on structure of roof
5. More burden of rainwater from roof of high-floor building



kingbull siphonic drainage system



Characteristics of siphonic drainage system

1. slope, Barely occupy the suspension space
2. Less rainwater bucket and vertical pipes, one vertical pipe can carry out 10 rainwater buckets in maximum Least digging job
4. More efficient compare with gravity drainage system
5. Little burden from the rainwater of roof, the scope of rainwater of roof could be controlled in a very range.

