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**Your specialist for water hygiene!**

## HygieneSiphon



### Optional accessories

Drain trap G1¼"



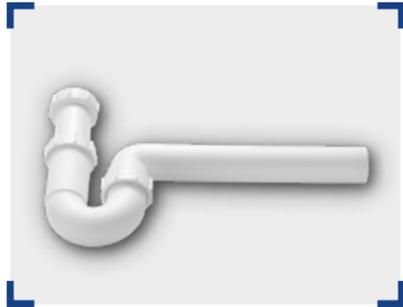
Cover



Hook tool



Drain trap G1½"



Mounting Accessories



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9. Su, L.H., et al., Outbreaks of nosocomial bloodstream infections associated with multiresistant Klebsiella pneumoniae in a pediatric intensive care unit. Chang Gung Med J, 2001. 24(2): p. 103-13.
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For additional references, please contact us at info@aqua-free.com

## HygieneSiphon



### HygieneSiphon for hospitals, medical centres and nursing homes

- Reduction of pathogen-containing aerosols from the drain trap
- Reduction of biofilm formation in the down pipe
- Improved access for cleaning and disinfection of the drain trap
- Ease of installation
- Quick exchange of the inlet
- Cost effective
- Quality controlled in accordance with DIN EN 274-1



For more information visit

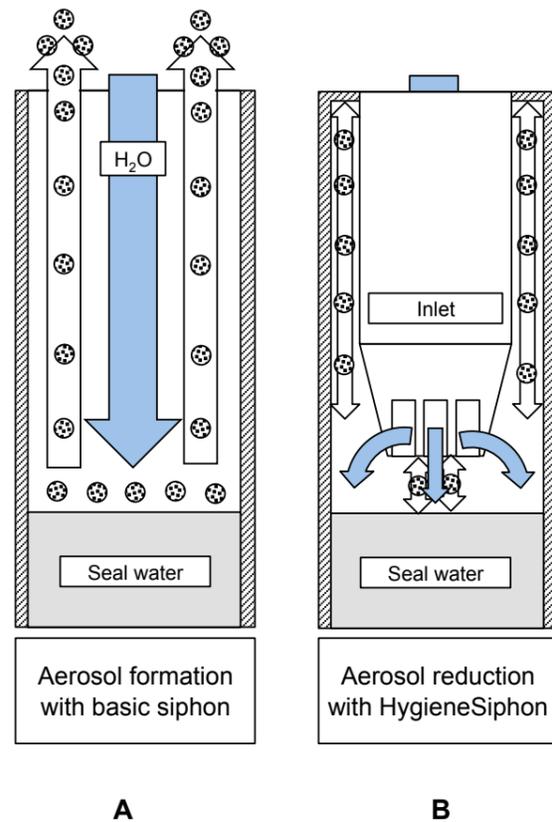
[www.aqua-free.com](http://www.aqua-free.com)



## HygieneSiphon

The design of a washbasin waste system serves to separate the sewerage system from the ambient air in a room, preventing the escape of unpleasant odours with the U-bend acting as a water trap containing water which acts as a seal. The availability of nutrients and oxygen, together with temperatures ranging between 20°C and 40°C provide ideal conditions for biofilm formation and the proliferation of bacteria in the water seal. Studies have shown that the seal water of a typical washbasin can contain between 10<sup>5</sup> and 10<sup>10</sup> CFU/ml of bacteria of which between 10<sup>3</sup> and 10<sup>6</sup> CFU/ml are gram negative bacteria [1].

When the washbasin is used running water impacts the surface of the seal water and aerosols are formed (figure A). Those aerosols contain bacteria [2]. Air is forced upwards due to the displacement of air in the drain allowing pathogen containing aerosols to escape into the surrounding air. Tests have shown that patients have been infected with *Pseudomonas aeruginosa* from a washbasin waste system [3-6]. It has also been found that the seal water contains many other species of bacteria including resistant strains that proliferate after release in the environment [7-9]. Additionally, a bacterial contamination of >10<sup>5</sup> CFU/ml in the seal water can be transferred to the hands of staff by using the washbasin, and thus spread further in the surrounding environment [1, 2]. The washbasin waste is a pathogen reservoir and a potential source of infection for patients and staff.



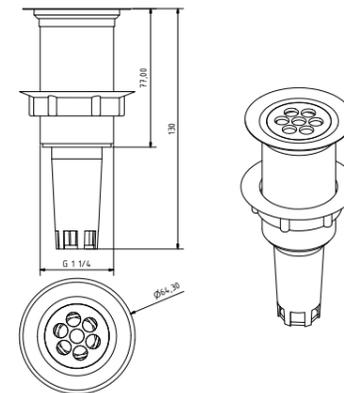
Therefore, Aqua free has developed the HygieneSiphon which is a patented system ideal for use in hospitals, medical centres and nursing homes that is proven to dramatically reduce the aerosols exiting from the washbasin waste during water run-off.

The HygieneSiphon function is simple but effective: With a traditional drain system the run-off water impacts the seal water at high speed encouraging turbulence and aerosol formation. The HygieneSiphon guides the water into the seal water with less impact, reducing turbulence.

### Technical data

#### HygieneSiphon G1¼"

- Material: Plastic (PE/ABS chrome plated)
- Quality controlled: DIN EN 274-1
- Dimension: G1¼"
- Dimensional drawing:

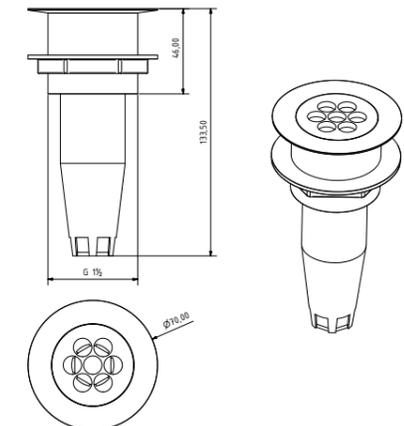


The design of the HygieneSiphon inlet creates a barrier to prevent any aerosols which are formed from exiting the waste (Figure B).

The HygieneSiphon inlet is easily removable and it is recommended to replace the inlet at least every quarter to help prevent biofilm formation. Additionally the easy removal of the inlet allows easy access for manual cleaning or unblocking the drain.

#### HygieneSiphon G1½"

- Material: Plastic (PE/ABS chrome plated)
- Quality controlled: DIN EN 274-1
- Dimension: G1½"
- Dimensional drawing:



*„Besides outbreaks to the reservoir drinking water, which were brought effectively under control by using point-of-use-filter or splash protection, especially the siphon could be identified as a relevant, yet largely overlooked reservoir of infection.“ Prof. Exner 2014 on the DGKH Congress [10].*