



# Afak-018

## Trolley Washing / Disinfecting System

It is the first device of its kind designed and developed by Afaq for Development Industries



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### Contents

Summary	1
Brief product Information	2
Product usage and Benefits	4
Methods of washing/disinfecting	5
Types of compatible carts	8
Compatible chemicals	11
Mechanisim	12
Available modules	13
Sprinklers details	16
Pump details	17
Water recycling unit	18
Resources	19

## Summary

### **Afak Makina Limited**

*Safety is one of the basic needs for individuals and groups of any relation or kind to survive.*

Established in 2018 in Turkey with the goal to produce a unique and reliable machine in the Turkish high standards industry, came the urgency to manufacture **The Afak-018 trolley washing and disinfecting system** as the increasing need for a sustainable yet effective way of disinfecting a trolley or a cart (whichever kind or size) still not enough addressed worldwide, we as Afak Makina took fulfilling this need upon our responsibility as part of the Turkish community which without a doubt is one of the massive markets in the world.

Safety is something should be obtainable naturally to the masses, without requiring or demanding it, as it is one of the basic needs for individuals and groups of any relation or kind to survive.

Germs, viruses and dirt are not visible to the naked eye of a human being yet it is everywhere around us, in such places we are used to contact on a daily basis like in a trolley, tray, or any mean of transferring or moving items, for an example a shopping cart or trolley, a set of trays in a hospital or a restaurant, medicinal equipment or substances, etc.

The damage it has on our immune system is harmful and in some cases is fatal, nonetheless there is a simple solution for having not to worry about that issue anymore, **The Afak-018 trolley washing and disinfecting system.**

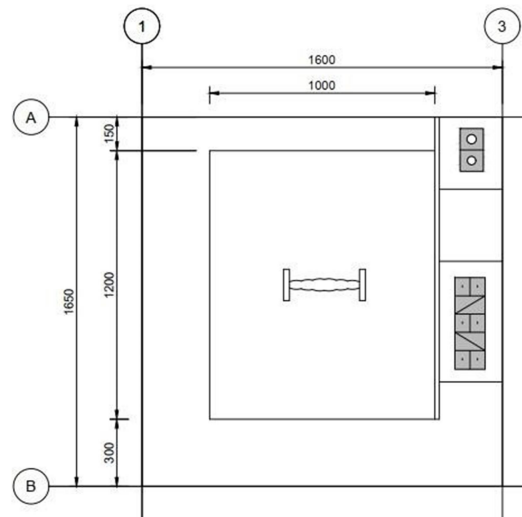
It is with certainty that this module will leave you as a customer satisfied to know that the grocery store, the hyper market, the airport or the restaurant you are dealing with, have all made sure that your safety is preserved.

## Brief product Information

The Afak-018 trolley washing and disinfecting system is a high capacity machine intended for items that are present in airports, hospitals, cargos, food suppliers and markets, is easy to use (automated procedure) and cost effective in operation , due to the high capacity of 320 \* 165 Cm exterior , it will fully disinfects up to 100 trolleys per an hour

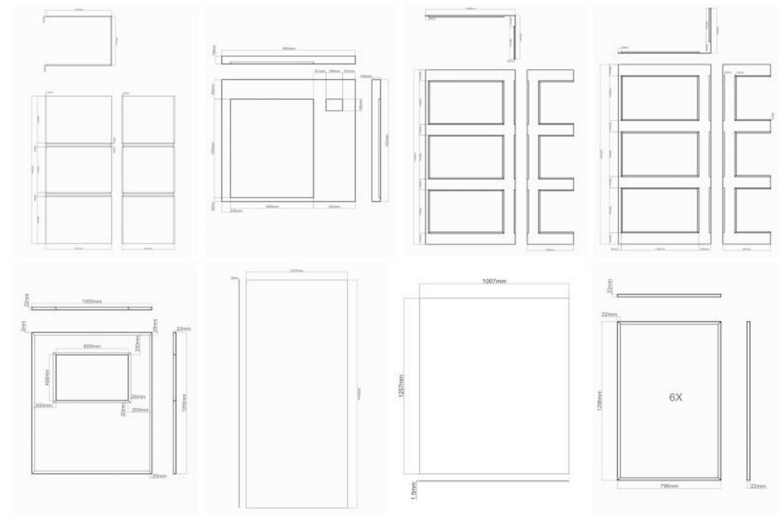
(up to 7 trolleys at each cycle) Depending on degree of soiling.

- The inner box measurement is 300 \* 125 Cm, with the power consumption to 15 KWH, made of Stainless steel (304).
- The base is 4 Mm thick, voltage 50 Hz.
- Contains a PLG electronic board with 7 Inch screen and an emergency button.



## Brief product Information

- The total of **16 sprinklers** distributed around, **3** at each side, **4** on the top of the system and **6** at the bottom designed for reaching all the angles in the trolley.
- Main tank **450 Liter**, cleaning material tank **100 Liter**.
- Water recycling unit **200 Liter** tank, filtering with pump.
- Waste rate **20 %** maximum.
- The washing water temperature is from **0 to 90 degrees** with the pressure of **250 Bar**, the pumps are **1.200 Bar** and Controllable.
- The washing time **4 minutes**, controllable, (in case of trolley washing with non-rinse chemicals the rinsing will not be necessary).
- The warranty is **one year** and is made in **Turkey**.



## Product usage and Benefits

The **AFAK -018 Trolley washing and disinfecting system** is an extremely effective device to remove the different types of dirt, germs, viruses and sensitivity causers residing in the trolley resulting in getting sick.

The many ways to use the system is to disinfect the trolleys, carts and any container with the appropriate dimensions.

The other way is to clean the air conditioner's filters which are filled with grease and dust and other materials caught in its small slots, can be dangerous for most people especially for those with sensitivity issues and allergies like asthma, sinus blockage and any difficulties related to breathing.



## Methods of washing / disinfecting

**method no. 1 for trolley:**

A- Sprinkling water.

B- Sprinkling cleaning material (using no rinse needed chemicals).

C- Drying the trolley by high pressure air.

**method no. 2 for filters (like air conditioning):**

A- Sprinkling water.

B- Sprinkling cleaning material.

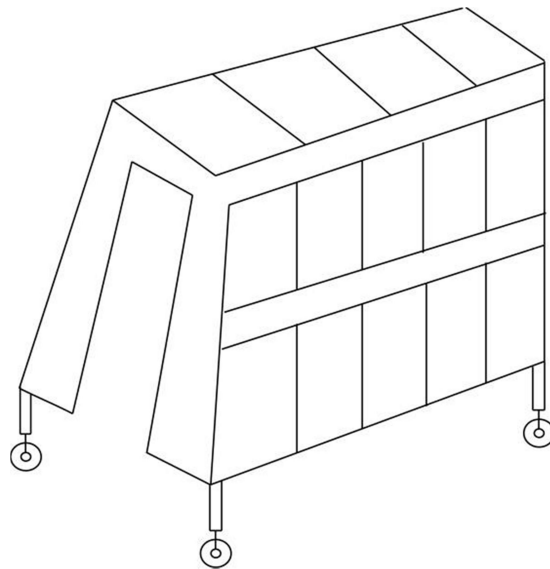
C- Sprinkling water again (due to high amount of grease and dirt).

D- Drying the trolley by high pressure air.

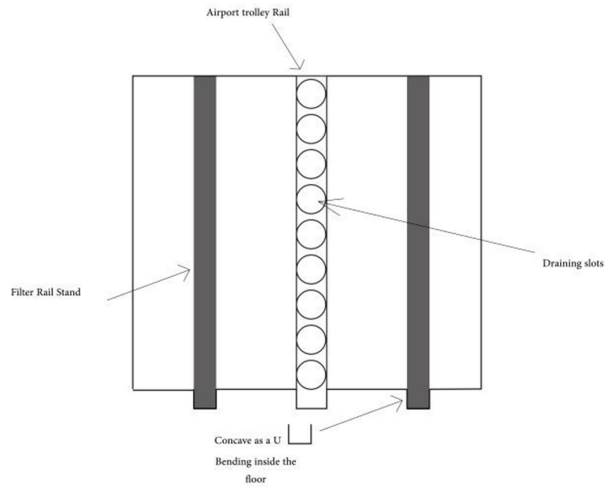


**Continue method no. 2 for filters (like air conditioning):**

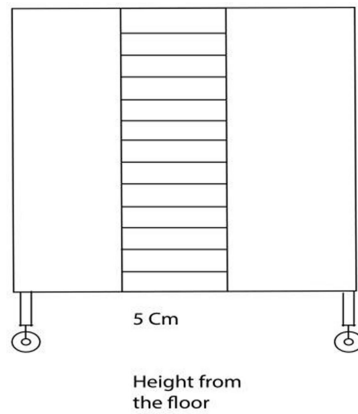
The **AFAK -018 Trolley washing and disinfecting system** can be used to wash and disinfect any kind of filters like an air conditioning filter in homes, offices, airports, hospitals, etc. with a rack stand made especially for them see the figures below, or use our new filter washing and disinfecting system which will be exclusively made for tricky gadgets like air conditioning filter, trays and such.



The filter rack stand comes with a special U shaped rail shown below to hold it in place.



Also the stand is divided from inside to hold each filter in racks designed to pull away the dirty water from each side to get collected in one place away from the newly washed and disinfected filters.



## Types of compatible carts

1. **Shopping Trolley** in different sizes (small, medium and big) and different materials made of (metal, plastic).





2. **Airport Trolley** in different sizes (small, medium and big) and different materials made of (metal, plastic).





3. **Warehouse Trolley** in different sizes (small, medium and big) and different materials made of (metal, plastic)



## Compatible chemicals

### MYHAF is our Exclusive Surface and Trolley Cleaning Agent and Disinfectant:

- A product able to clean dirt and dissolve stains and fats.
- Remove all kinds of stains and particles and isolating them from surfaces in an innovative scientific method.
- Disinfects surfaces from more than 100 type of bacteria in a highly safe and effective way, as it penetrates the bacteria's surrounding membranes and separates the proteins inside to drain and destroy it, without affecting the personnel in contact with it, consumers and the food materials.
- Is considered as a disinfectant and a Biodegradable anti biotic.
- Eco friendly as it does not cause any damage to environment or pollute it, is 100% chlorine free, does not produce harmful or dangerous gases whether inside the machine during disinfecting or outside it.

Geosil® chemicals manufactured by GeoSIL Pacific LTD in New Zealand.

Product	Features / Usage
GeoSIL® - Universal Disinfectant	This is full strength GeoSIL® than can be diluted to any required concentration for immediate use, or directly mixed using dosing equipment. It has a long shelf life that allows storage for emergency planning, and is ideal for larger commercial applications. It must be handled by trained approved handlers.
GeoSIL150	This is a lightly concentrated (15%) disinfectant that can be applied directly to surfaces or diluted as required. The reduced strength means that it is not classified as a dangerous goods, can be safely stored and used without special training, and can be transported and handled without extensive safety concerns. It is a convenient product suitable for a wide range of uses and is additionally stabilized for long shelf life.

## Mechanism

The AFAK -018 Trolley washing and disinfecting system mechanism is simple with these steps:

- 1- the water comes from the water tank through the pump, the pressure of the water can be controlled ( with the pressure control unit), then to the sprinklers and spreads all over the trolley.
- 2- The same process from Step 1 for the chemicals from the chemicals tank.
- 3- Step 1 will be repeated if cleaning air conditioner's filters.
- 4- Drying fans will dry the trolley with high pressure air.

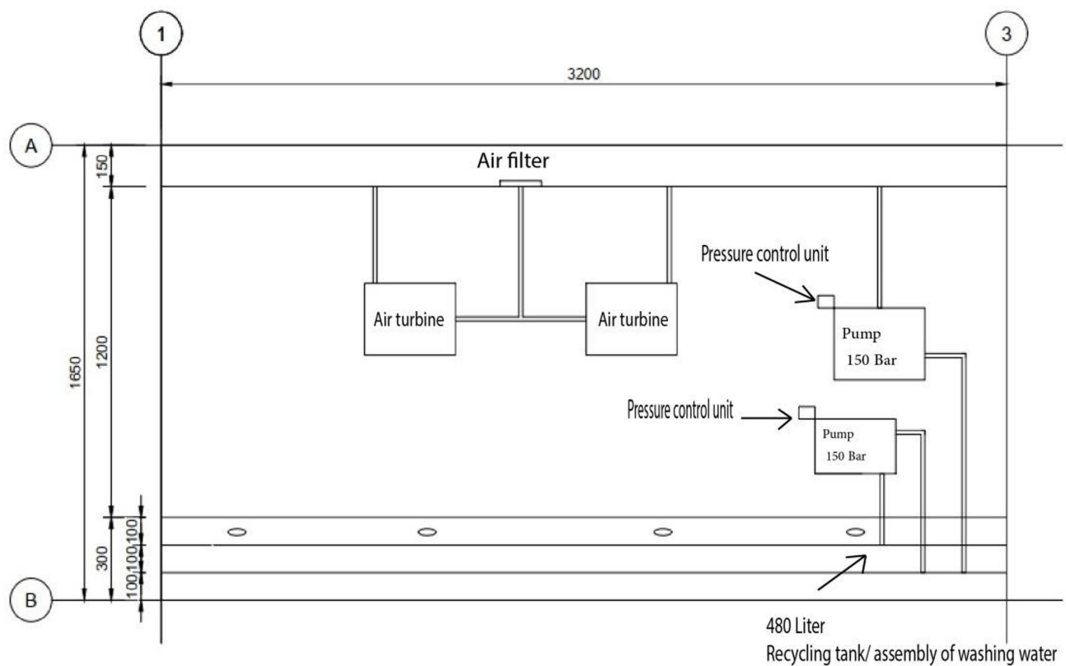
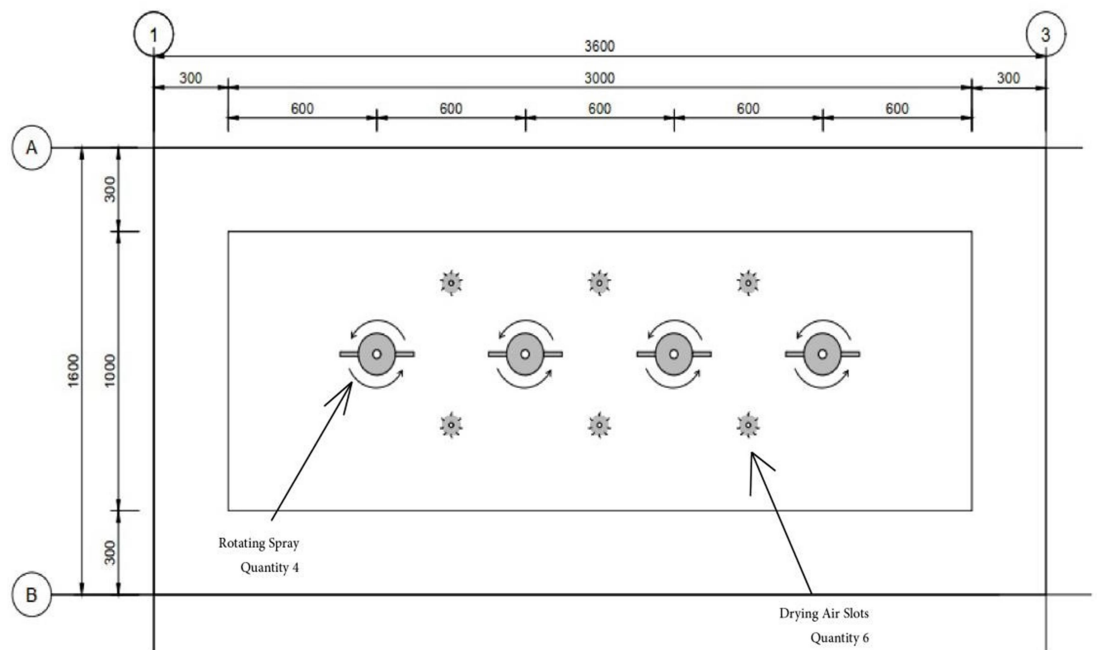


Figure for side from exterior

## Available modules of The AFAK -018 Trolley washing and disinfecting system:

### Module Afak -018A

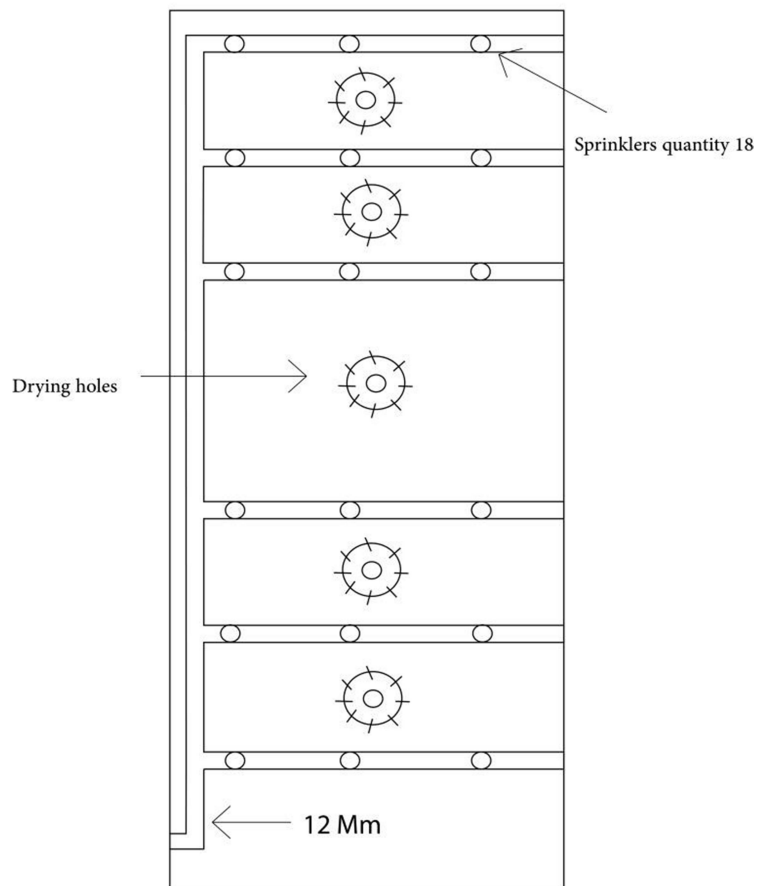
**Sprinklers/sprays at the ceiling** are Four rotating with Six slots for the drying air.



## Module Afak -018B

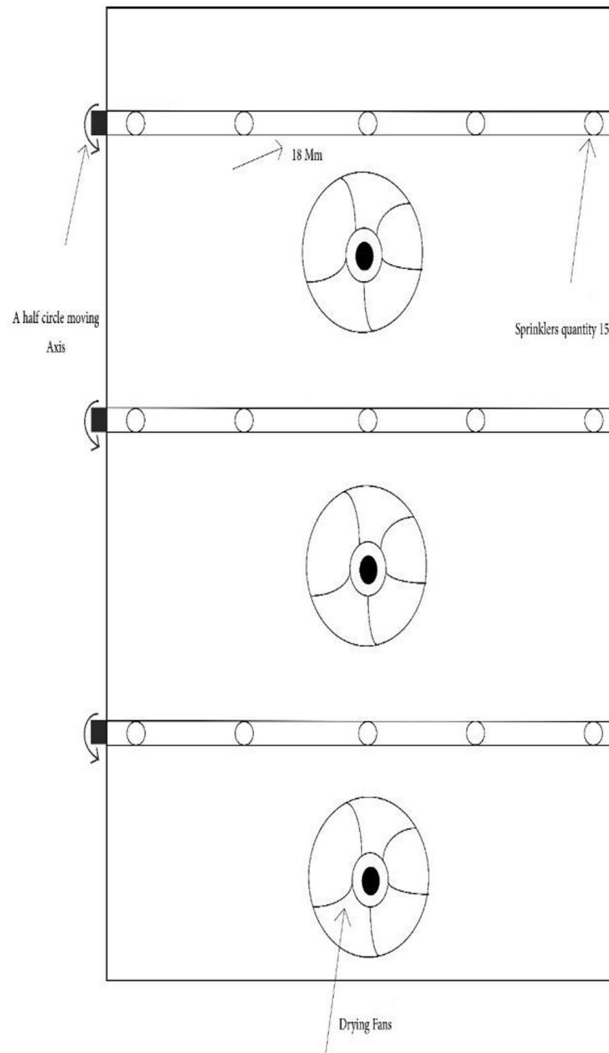
Sprinklers/sprays at the ceiling are Eighteen with slots for drying.

Figure for ceiling



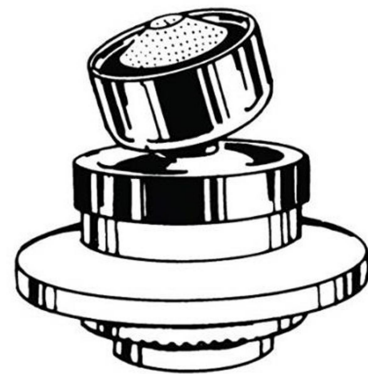
## Module Afak -018C

Sprinklers/sprays at the ceiling are Fifteen with Three drying fans.



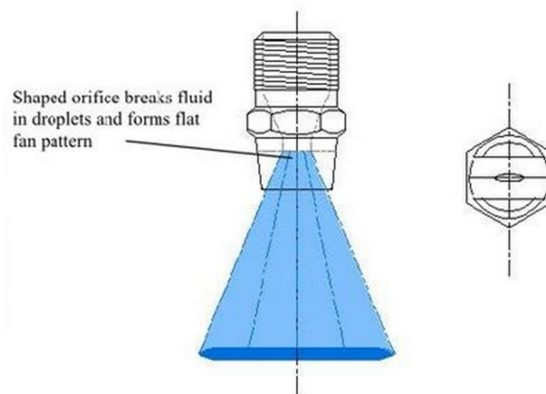
## Sprinklers/Sprays details

Module no.1 Rotating sprinkler / Spray the head rotates.



Module no.2 Swinging sprinkler / Spray the heads move sideways and are fixed on a rail pipe while the rail pipe goes back and forth.

Module no.3 fixed sprinkler / Spray is called Flat Fan head as it is fixed with no movement and a range of 65°.



**Module no.4 Full Cone Spiral sprinkler / Spray** is a High energy efficiency One-piece/no internal parts with clog-resistant performance, a high discharge velocity and a wide angle of 90 to 120° from the prestigious BETE company.



## Pump details

The high-pressure pump Series 228 RK Model is made by the prestigious Italian brand Annovi Reverberi, with the power of 7.5 KW ,10 Horse Power, a pressure of 250 Bar and a 1450 RPM.

**Water  
recycling**



**unit**



A 200 Liter tank, filtering with pump, for any kind of trolleys only, as the water mixed with the (no rinse needed) chemicals will be purified and recycled to use again, therefore not for the air conditioner filter washing as there is a high amount of grease and dirt.

The AP-EASY Filter is manufactured with polypropylene head equipped with brass inlet-outlet inserts, transparent SAN bowl, brass drain valve and available in different sizes.

Eco friendly (does not produce any harmful gases or components due to the aid of the eco-friendly chemicals used from Geosil company manufactured in Switzerland, the water recycling unit is cleaning the used water and then reusing it again for a 20% maximum water and chemicals waste rate, thus is cost and environment effective.

## **Resources:**

## Images:

- <https://www.homezada.com/home-maintenance/replace-central-air-conditioning-filters>.
- <https://airamericaac.com/air-conditioning-filters/>
- Shutterstock.com
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- <http://www.spray-nozzle.co.uk/spray-nozzles/flat-fan-nozzles/elliptical-orifice>.
- <https://www.bete.com/products/tf>
- <https://www.annovireverberi.it/en/industry/series228>
- <https://www.zahradnejazierka.sk/cerpacia-technologie/produkt/filter-aqua-ap-easy-obalvložka-5-4-velky-s-ventilom>