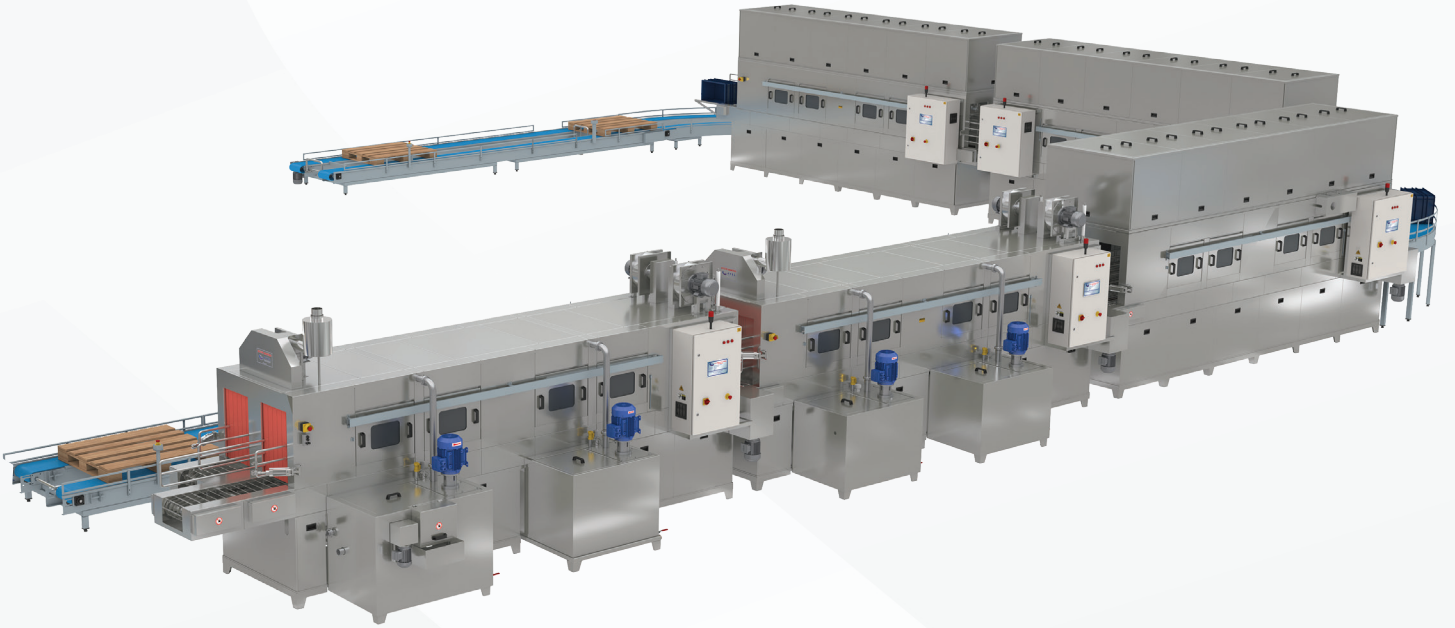




# AYEL

ENDÜSTRİYEL YIKAMA SİSTEMLERİ  
İMALAT SANAYİ VE DİŞ TİC. LTD. ŞTİ.

**Customized Solutions for Industrial Parts Cleaning**



**Product Catalog for  
Tunnel Type Washing Machines**

## TUNNEL TYPE WASHING MACHINES



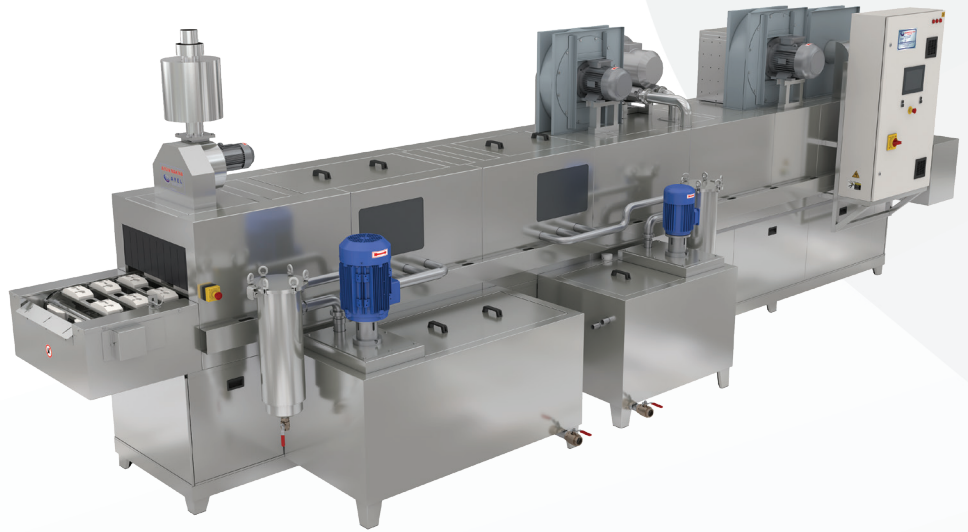
**Tunnel type washing machines offers high capacity and maximum flexibility with optimized cost efficiency.**

### Equipment and Process

- Serial washing is provided on a single line with the conveyor belt
- Multi-stage processes that spray washing, rinsing, air jet fan drying, performs on the same line
- The process and nozzle placements are created according to the material structure
- Scanning the all part surfaces with specially arranged nozzles
- Adjustable process times
- Special bands and Suspended Belt Conveyor lines
- Special design washing machines according to part shapes and capacity
- Helical Spiral Tunnel Washing Machines for uncountable small parts and bulk parts

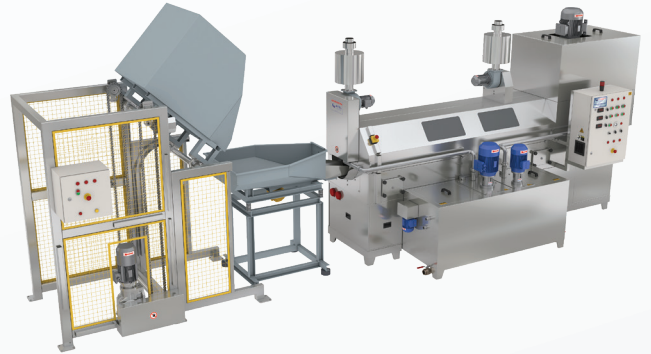


- Pre-wash
- Washing
- Rinsing
- Rinsing with Mains Water
- Cold/Hot Air Jet Drying

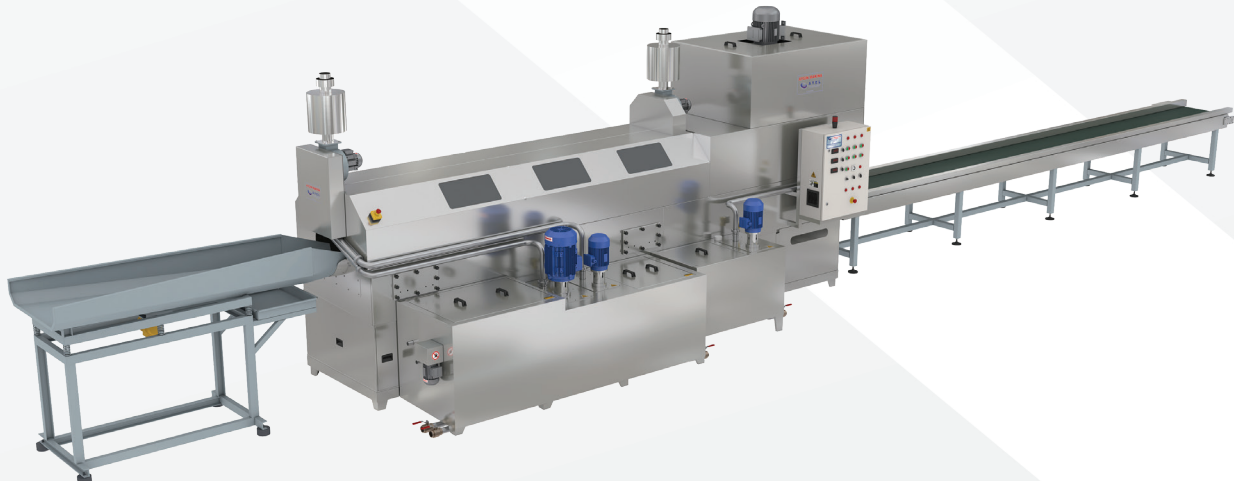
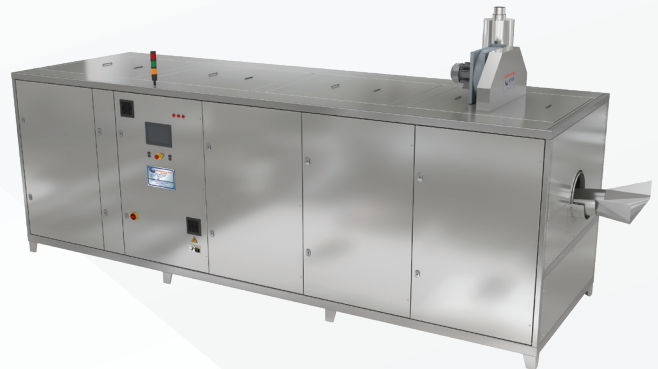


### Machine Groups

1. Tunnel Washing Machines with Conveyor Belt
2. Tunnel Washing Machines with Suspended Belt Conveyor
3. Helical Spiral Tunnel Washing Machines
4. Pipe-Inside Tunnel Washing Machines
5. Plastic Case Tunnel Washing Machines
6. Sheet Metal and Strip Roll Washing Tunnels
7. Heat Treatment Lines Tunnel Washing Machines
8. Food Industry Tunnel Washing Machines
9. Food Plastic Mold Pallet Tunnel Washing Machines
10. Food Jar and Tetrapak Pasteurization and Cooling Tunnels



- Intermediate cleaning during production processes  
e.g. after machining, before heat treatment
- Final cleaning before assembly, quality control, packaging
- Cleaning with corrosion protection or passivation
- Deburring and oil removing





## Equipment Technology

- Flexible process; Pre-Wash, Alkaline Washing, Rinsing, Rinsing with Mains Water, Passivation, Air Jet Drying
- Filtration Systems
- Glass wool coated tanks to prevent heat loss
- Customizable loading and unloading conveyor concepts according to requirements
- Customizable fixtures based on part requirements
- Customizable belt for part requirements
- Operator-Saving Design Lines



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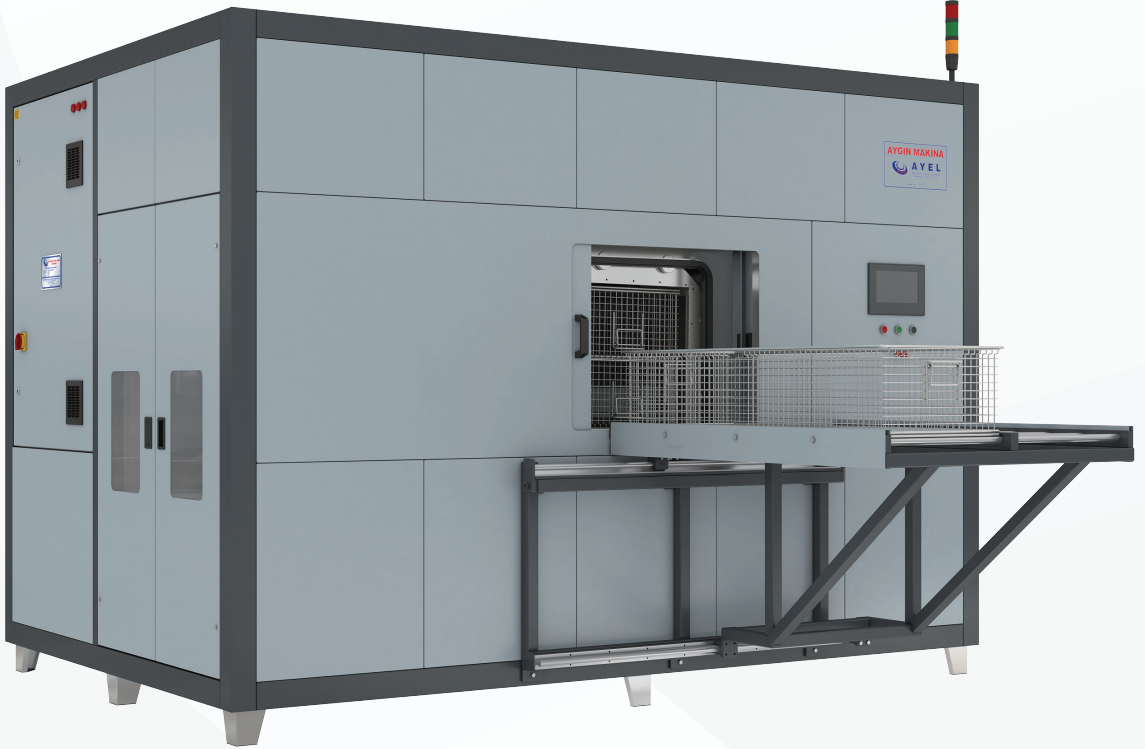




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**Customized Solutions for Industrial Parts Cleaning**



**Product Catalog for  
Cabin Type Washing Machines**

## CABIN TYPE WASHING MACHINES



**Cabin Type Washing Machines offers flexible adaptation to different part geometries and requirements with combined washing methods.**

**It is a Washing Machine model in which multiple washing processes are applied in a closed cabin.**

### Equipment and Process

- All processes perform on a closed cabin
- Efficient cleaning solutions for different part geometries and requirements
- Multi-stage processes that spray washing, immersion washing, ultrasonic washing, rinsing, air jet fan drying, vacuum drying performs on the same cabin.
- Chamber movement can be programable as full turn(360 degrees), half turn(180 degrees) and fixed.
- Spray washing performs with fixed nozzle collectors
- Immersion washing is the effective method to clean all complex geometry parts
- Ultrasonic cleaning can be performed together with immersion washing
- The cleaning effect can be increased by turning the parts in the immersion water by using ultrasonic systems
- Adjustable process times
- Up to 99 product recipes can be created for different parts on HMI Panel
- Baskets and fixtures are designed according to the material structure.
- Materials are loaded into the machine via a loading-unloading platform



## Operations

- Alkaline detergent based Cleaning
- Solvent-based Cleaning
- Spray Washing
- Immersion Washing
- Ultrasonic Washing
- Hot Air Jet Drying
- Pre-wash
- Hot Air Jet Drying
- Vacuum Drying



## Machine Groups

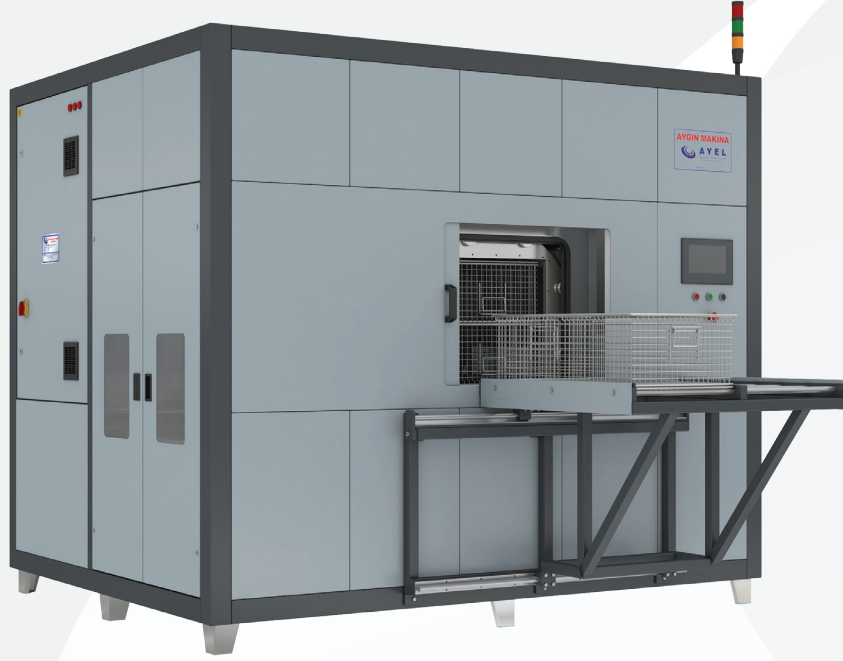
1. Rotary Chamber Washing Machines
2. Rotary Basket Washing Machines
3. Ultrasonic Washing Machines
4. Cabin Type Pipe and Shaft Washing Machines
5. High-Pressure Pipe Inner Washing Machines
6. High-Pressure Deburring Machines
7. Washing Machines in Heat Treatment Lines
8. Solvent Based Washing Machines
9. Tray Transport Carts Washing Machines



## Applications

- Intermediate cleaning during production processes e.g. after machining
- Final cleaning before assembly, quality control, packaging





### Equipment Technology

- Flexible process; Pre-Wash, Washing, Rinsing, Air Jet Drying, Vacuum Drying
- Filtration Systems
- Glass wool coated tanks to prevent heat loss and heat transfer
- Customizable loading tables according to requirements



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## Customized Solutions for Industrial Parts Cleaning



Product Catalog for Aerospace Parts Cleaning  
Systems and Surface Treatment Facilities

## AEROSPACE PARTS CLEANING SYSTEMS AND SURFACE TREATMENT FACILITIES



### Cleaning systems for components in the aerospace industry

#### Equipment and Process

- Aerospace Parts Cleaning Machines provides precision cleaning for parts
- All processes perform on a closed cabin
- Efficient cleaning solutions for different part geometries and requirements
- Multi-stage processes that spray washing, immersion washing, ultrasonic washing, rinsing, air jet fan drying, vacuum drying performs on the same cabin.
- Chamber movement can be programable as full turn(360 degrees), half turn(180 degrees) and fixed.
- Spray washing performs with fixed nozzle collectors
- Immersion washing is the effective method to clean all complex geometry parts
- Ultrasonic cleaning can be performed together with immersion washing
- The cleaning effect can be increased by turning the parts in the immersion water by using ultrasonic systems.
- The part is cooled with chillers, after the washing and drying processes
- Adjustable process times
- Up to 99 product recipes can be created for different parts on HMI Panel
- Baskets and fixtures are designed according to the material structure.
- Materials are loaded into the machine via a loading-unloading platform
- On HMI Panel, special applications can be adapted e.g. material identification, automatic receipt selection



1. Aircraft Engine Washing Machines
2. Aircraft Engine Parts, Coating Removal/Abrasion, Cleaning, and Neutralization Facility
3. Washing, Anodized Titanium Surface Treatment Facilities
4. FPI, Fluorescent Penetrant Inspection Lines
5. Precision Washing and Particle Measurement Machine



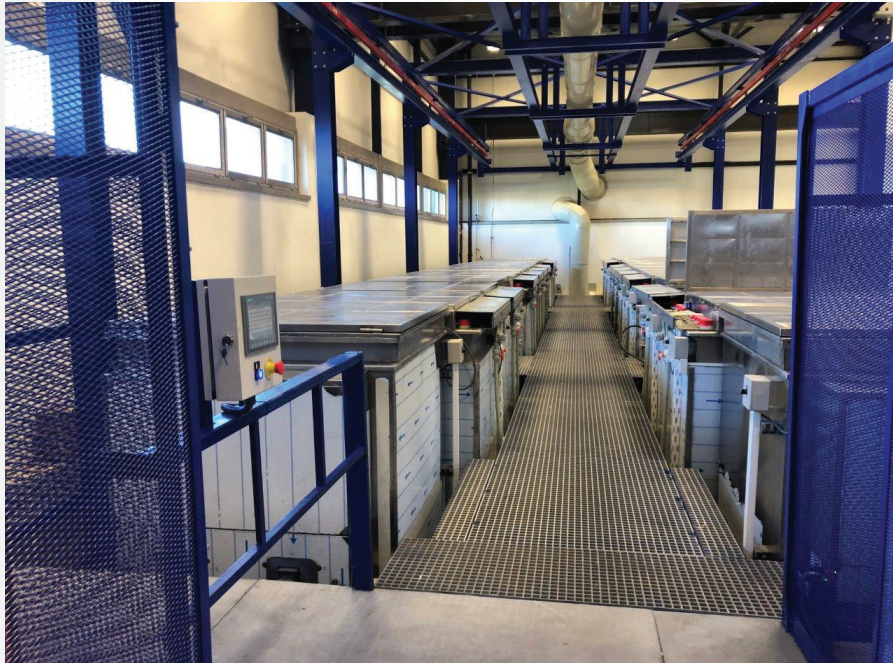
- Air Rail Line, Washing, FPI Application, Rinsing, FPI Control, Drying, Developer Application, and Inspection Room
- Processes are designed according to material size, capacity, and demands





### Equipment Technology

- Flexible process; Pre-Wash, Washing, Rinsing, Air Jet Drying
- Filtration Systems
- Glass wool coated tanks to prevent heat loss and heat transfer
- Customizable loading tables according to requirements
- Programmable HMI Panel



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