



**Innovative solution for urban comfort**



## **01 - PTMatic PROFILE**

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**PTMatic S.r.l.**



## PROFILE OF OUR COMPANY



### Company

PTMatic is a company, which is specialized in design, development, construction and maintenance of Public toilets.

The company was founded in 1983 and has been developing along the years a great experience in the production of urban automatic self-cleaning convenience. Thanks to its innovation capacity and to the deep attention paid to the customer, the company has become leader of many European markets, by developing not only serial production, but also customized products especially realized for the client's needs. PTMatic has developed a wide range of sanitary services, useful to satisfy most of requests and has developed deep capacity in producing automatic self-cleaning sanitary services and prefabricated sanitary services with reinforced-concrete structure.

### History

We are proud to sum up the innovative and advanced solutions studied by PTMatic, which have contributed to the development of this industrial sector.

1984 - PTMatic first company in Italy and the second in Europe. It produces and launches on the market the first T-MATIC self-cleaning automatic urban toilet for people who have no physical problems. Designer: Arch. Marco ZANUSO.

It is completely pre-fabricated for a rapid installation "Turn key ". The extensions and connections to the urban electric network and to the sewer system can be carried out in



few hours. Nowadays our T Matic is the smallest self-cleaning automatic urban sanitary service present on the market, able to show the same high performance.

1989 - PTMatic is the first company in Europe to introduce on the market the TAU-H toilet, especially studied for people with physical problems. Also this unit is completely pre-fabricated, to allow a rapid installation.

1990 - All the units are equipped with an electronic control system, useful to manage the automatic functioning, which is also fitted with a self-check system. Any malfunctions are indicated on a display, in order to evaluate the correct repair to be made and make the maintenance works faster.

1994 - A modular system for the remote control of the sanitary service unit working is carried out. Such a system permits to evaluate the efficiency of the unit and carry out the first remote intervention.

1996 - The series T-BOX is introduced on the market: it is a complete series of specific sanitary service units, to be installed in new or restructured buildings. The main groups of the units, which are completely pre-fabricated, automatic and self-cleaning, are dismantled and sent, in order to mount them in a faster way, within the buildings.

All the customer's requests regarding dimensions, plan and comfort, can be satisfied thanks to the modularity and to the high flexibility of the building system. Such a system also permits multiple installation.

1998 - Introduction of Lava;-Tergipavimento®, a system for washing and drying the floor with removal of mechanical objects and pneumatic handling.

2002 - The series Servizi Igienici Prefabbricati (S.I.P.) traditional or automatic, made of concrete is launched on the market.

2005 – Introduction of full disinfection night system (DCN). All inside toilet is disinfected with exclusively cleaning cycle by fog atomizer, during the 1 hour night stop.

2007 – Introduction of new full disinfection night ecological system (DCN2®ECO) environmental friendly solution without pollution in water sewage.

2009 – Multiuser APT glass design units with multiple toilet rooms and contemporary design.

2010 – With Tau 22R version PTMatic answer to a historical city with a historic design.



## Sites

PTMatic S.r.l. installed during the years, more than 2000 units in worldwide countries, inserting them perfectly in urban landscape, including art cities.

Some examples:

**UK:** London, Glasgow, Liverpool, Newcastle, etc.

**France:** Rer Parigi, Lione, Digione, Strasburgo, etc.

**Suisse:** Basilea, Zurigo, Ginevra, etc.

**Spain:** Barcellona, Bilbao, etc.

**Germany:** Wolsbourg, Hannover, Dresda, etc.

**Poland:** Chroiniza, Busko.

**Belgium:** Marche-en-Famenne, Perwez, etc.

**Holland:** Middlekerke, Genk

**Slovenia:** Lubiana, etc.

**Croatia:** Zagreb.

**UAE:** Dubai, Abu Dhabi, Sharjah

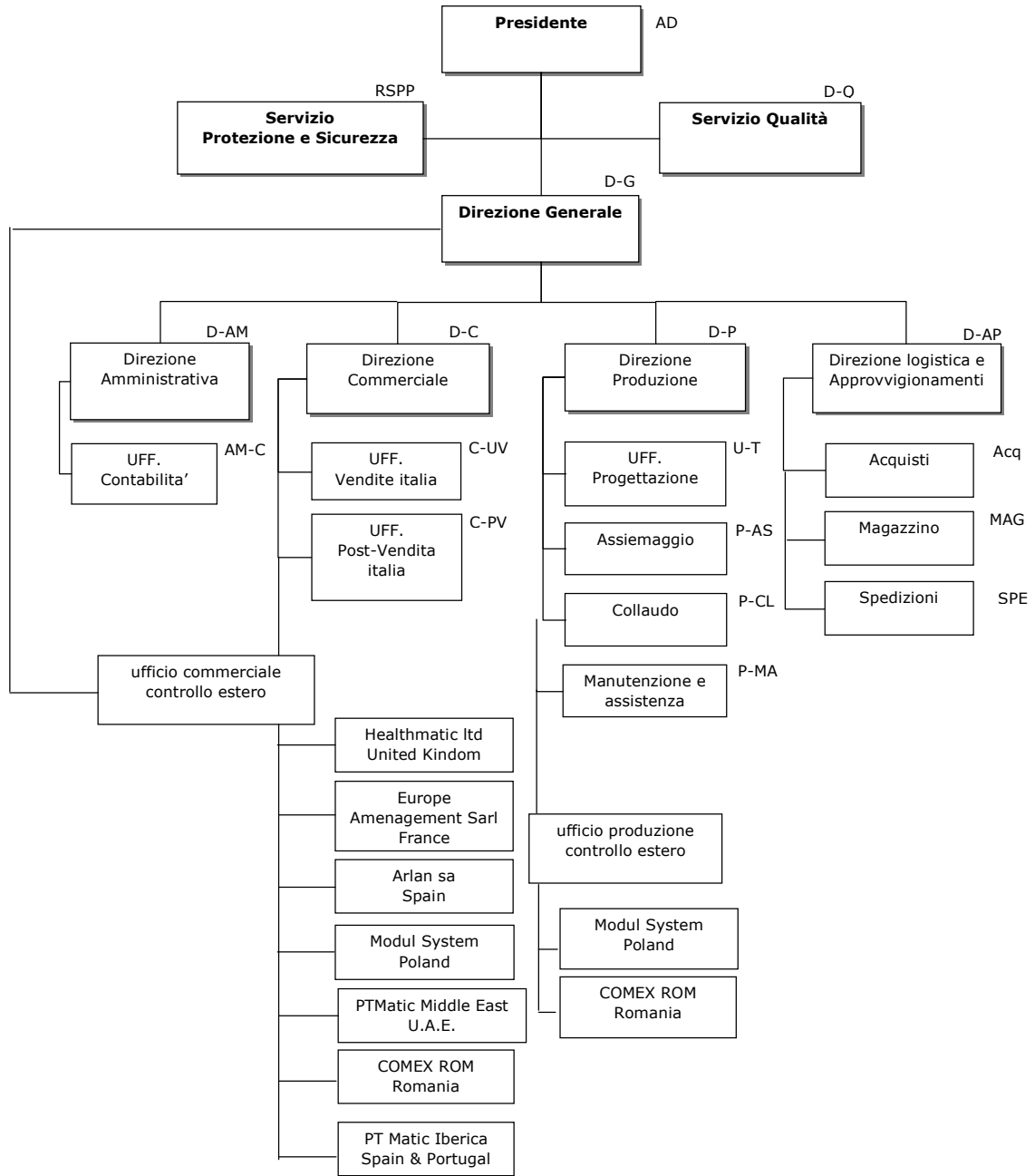
**Qatar:** Doha

**Romania:** Bucheresti, Pitesti

and more...



Organization's structure





## Products

- **Exterior Automatic self cleaning toilets** T WAW, TAU, T-MATIC, T CAB, UNIT and T-TURCA series, to be installed in urban environment, parks, parking areas, harbours.
- **Indoor Automatic self cleaning toilets** T-BOX and T WATER series, to be installed inside existing buildings (metro stations, public offices...)
- **Prefabricated toilets** CITY and COMBI series, box-like structure, to be installed in public areas, camping, market areas, parking areas and gipsy camps.
- **Automatic washbasins** –automatic Hand washer with water- soap- drier-dispenser H2air series
- **Multifunction pods** external toilet with showers, urinals, bus shelter, water dispenser.

## Certification

**TÜV – GS** Certification on user security standards

**CE**, certified, with the certification of an external licensed laboratory, to improve customer security.

**Hygienic and disinfection certificate**

**ISO 9001-2000** quality system.

## All PTMatic products are:

- Two years warranty for all kind of troubles and free replacement of imperfect parts.
- Ten years warranty against corrosion perforation.



**Innovative solution for urban comfort**



**02 - PTMaintenance<sup>®</sup>**  
cleaning service  
maintenance service



**PTMatic S.r.l.**



## PTMaintenance ® Concept

PTMatic has a proper own Customer Care Department as the strategy to guarantee the efficiency of the installed toilet units and to assist the Client during all the life long of the units.

The Customer Care consists of the:

- Maintenance program developed and adjusted to the different products operating by skilled operators
- Spare Parts central store with local subsidiaries
- Technical Service to the Client in case of particular problems on the units

The Maintenance is operating friendly by a Diagnostic system with monitored main possible failures on alpha- numeric Display and integrated with Wireless Remote Control of each unit and Spare Parts Availability.

### **PTMatic can offer:**

A ) Maintenance “turn key” contract with agreed efficiency level guarantee with following main activities:

1. Service:
  - 1.1 cleaning of the user room by careful washing of walls and other areas where dirty is visible using the washing hose
  - 1.2 careful flushing and cleaning of the WC bowl, of hand basin and of any visible accessible fittings
  - 1.3 removing of any large or not proper objects including content of waste bin and of waste basket of the hand basin
  - 1.4 removing and drying of any not proper fluid present in the user room
  - 1.5 washing the outside cladding panels, door and INFO plate of the unit
  - 1.6 replacement of consumables like soap, hygienic paper, disinfectant
  - 1.7 general control of efficiency and illumination: replacement of lamps.
  - 1.8 drawing of coins

The cleaner is provided with detailed check list to be adjusted to local request  
The cleaner is operating with all proper cleaning materials and equipments

Other additional frequency of the Service can be adjusted to particular request of the client or to particular conditions depending of local vandalism and education of the users.

2. Maintenance program: this program is developed to prevent lost of efficiency of the unit by check, inspection and readjusting of critical devices, equipment, and





fittings. A proper Maintenance Manual is supplied by PTMatic as basic activity of operators. Copy here attached

3. Repairing and Refurbishing: the maintenance operators are trained to operate out of the program in case of units "out of work" including heavy accident or vandalism on the units
4. Technical Service, under request, to the Client including Supervision of Maintenance or of other technical problems, is available any time

B) Maintenance taken on direct by the Client or by local Maintenance Company:  
PTMatic can offers stage and training to the operators, and general supervision



PTMatic is aware of the importance of maintaining the equipments for urban furnishings and has a special after-sales department for assisting and managing the self-cleaning urban sanitary services.

The after-sales department is part of the commercial policies of P.T. Matic, as it is necessary to maintain the efficiency of the self-cleaning sanitary services.



Together with a remote unit control system with wireless technology, the after-sales department operates all around Italy and also abroad, thanks to the presence of an integrated network of after-sales departments.

PTMatic offers the following after-sales service solutions:

- Managing and maintenance, with service type "keys in hands", which solves every single problem regarding the maintenance of the self-cleaning sanitary service, the inspection and the supply of expendable materials, the check and the examination of the unit.
- Programmed maintenance: this service is limited to the programmed interventions regarding the check and the inspection of the unit.

### **DESCRIPTION SCHEDULE OF ASSISTANCE AND MAINTENANCE SERVICE - PTMaintenance® Concept.**

The basic service includes the follow activities:

- 1. INSPECTION, CLEANING AND CASHING WITHDRAW**
- 2. MATERIALS SUPPLY**
- 3. PLANNED MAINTENANCE**
- 4. EXTRAORDINARY INTERVENTION AND SPARE PARTS.**

The basic service includes the follow activities:

- 1. INSPECTION, CLEANING AND CASHING WITHDRAW**

Operations to effect with daily frequency:

Checking of automatic devices work as: signalling lights, opening and closing of the door, coin, water, soap and toilet paper dispensers, bowl and walls cleaning and disinfection, acoustic emergency signal etc...

Internal cleaning of the toilet and removal of wastes.

Picking up and registration of coin, that has to correspond to counter releases.

Clean the outer walls and doors. Remove graffiti and posters, if any.

### **2. MATERIALS SUPPLY**

Operations to effect with weekly frequency:

Checking of products level in disinfectant and soap tank and in the toilet paper dispenser.

When necessary, filling of toilet paper and liquids.

### **3. PLANNED MAINTENANCE**

Aim of this planned frequency activity is to avoid inefficiency caused by damages.

The follow activities will be done:



- 3.1 Checking of mechanical and electrical devices and their regulation if necessary.
- 3.2 Replacing of by wear damaged parties.
- 3.3 Movement devices lubrication.
- 3.4 Washing of all internal and external and paint touching up of damaged parties.

#### **4. EXTRAORDINARY INTERVENTION AND SPARE PARTS.**

Interventions for "Out of order" caused by a normal use of the toilet:

- 4.1. Reparation of mechanic and electric devices.
- 4.2. Substitution of mechanic and electric devices if necessary



## PTMATIC WASHING SYSTEM

### Washing System and Drying of the bowl



When the user is not in the unit, the bowl is washed, sanitationed and dried.

The dispensers of water and disinfectant are positioned in a device (door), that rotates horizontally on the bowl.

Washing and sanitationing are carried out during the forward run; drying during the backward run.

Washing of the bowl is divided in three phases:



- a) A continuous water veil on the internal walls during the use, prevent the bowl from "adhesions". So the next step of washing is easier.
- b) Rinse: is effected using 9 lt of water mixed with disinfectant, delivered under pressure, with discharging in **closet circuit** in sewerage.
- c) Washing and sanitationing of bowl and walls are carried out using jets of water mixed with disinfectant. These jets are delivered from nozzles placed on the rotating device.



- d) The movement of the rotating device, the inclination of jets and the high pressure of the delivery, produce a "chisel effect", in order to obtain the most efficient washing

The drying of the sitting surface is obtained by blowing air under pressure, generated by a tangential electric fan (560 mc/h a 500 Pa), through a diffuser, that conveys and addresses the air flow in such a way, useful to eliminate any residual of water resulting from the cleaning of the sitting surface. The electric fan is "low noise".



## Walls washing

A washing system washes walls up to a height of 0.8 m especially in correspondence of the WC bowl.



This system allows to clean and cleanse walls that can result unclean after the customers use.

## Hand Basin washing

This system consists in right placed wipers that allow to clean effectively the wash basin where waste can settle.



This system allow to clean and cleanse the wash basin after every customers use.

Wipers are placed at wash basin sides and they cleanse both walls and the wash basin sloping plane. This system allows moreover to remove possible objects on the wash basin.





## Washing and Drying of the floor - **Lava;-Tergipavimento<sup>®</sup>** device

It is an advanced and innovative system, useful to sanitize the floor. It makes use of 5 combined different actions, which permit to obtain a good result during the forward and backward movement.

The equipment is located under the lateral wall of the user's room. A vandal resistant door opens automatically, in order to permit the functioning. Another door, that is located on the opposite wall, opens automatically and permits to gather the material, that was removed by the floor in a proper basin.



The floor is realized with corrugated stoves made of aluminium alloy "Anticorodal" anti-footprints. It is constituted by a horizontal bar, having the same wideness of the user's room, that runs along the floor biggest board. The bar is operated by a **pneumatic actuator**.



**Forward run:  
-high pressure.**

High pressure cleaning "chisel effect", characterized by water and disinfecting agent jets; scraping of the floor by means of special brushes; ejection of foreign objects present on the floor.

8 nozzles are mounted on the bar. They spray cleaning jets under high pressure, that graze the floor surface. During its movement the bar touches the whole floor, assuring a perfect cleaning and sanitation.

Some **special brushes** are mounted on the bar too. They are self-levelling and their action is similar to that of the cars' windshield wipers.

**"CHISEL EFFECT"**

The floor is washed using jets of water and disinfectant that remove gravel, mould, ect...

**"PUSHING EFFECT"**

The bar pushes objects and/or wastes, such as cans, bottles (very dangerous if broken), papers, newspapers, napkins, sanitary towels, syringes..



They are conveyed in a particular tank for trash, just to the dimension of a plastic bottle of 1.5 lt.

**"1° SCARPING-DRYING EFFECT"**

Wastes are expelled thanks to special brushes, that can also remove objects particularly adherent to the surface (i.e. chewing gum, wet toilet paper,...)

First removal of liquid on the floor.





**Backward run:**

**“2° SCRAPING EFFECT ”**

second scraping of the floor and elimination of cleaning liquid residuals.

**“DRYING EFFECT”**

Liquid wastes are removed. The floor is dried, with neither drops nor water puddles. The residual thin film assures the prosecution of the sanitation treatment.



Such retractable equipment assures a high quality level of floor cleaning with final detergent action, even in case of improper use.



## **Complete Disinfection System during the night DCN<sup>®</sup>-ECO**

PT Matic has developed in association with institutions of sanitary control a Complete Disinfection System of the unit during the night.

The system use only pure water for the washings of the toilette, all the liquids of drainage (with the exception of the WC) are absolutely lacking in polluting agents or chemical detergents, and can therefore be discharge in the atmosphere or re use for irrigation.

The disinfection of ALL the inside room of the toilet (even the areas not affected by washing) is obtained by fog atomizer, which spray the disinfectant in the toilet, with the creation of a dry mist of hydrogen peroxide stabilized with Silver Ions. The cycle, checked by a micro processor, consists in the saturation of the environment with disinfectant for enough time to the complete disinfection of the toilet.

The cycle, controlled by a microprocessor, provides the capacity of the disinfectant for a time sufficient to complete disinfection of the compartment and the user complete disposal of disinfectant. The cycle allows the complete elimination of viruses, bacteria, spores, mites and insects.

This device also prevents the normal proliferation of fungus and moulds in a moist environment may particularly in those areas (such as hidden surface of the dome air illuminating angles or more recesses) are not reachable by normal washing or during the cleansing manual, and leaves a light pleasant scent into the enclosure.

The max length of this cycle is guaranteed since it uses the night stop of the toilet.



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**03 – Focus on**  
**About urban facilities**  
**Why PTMatic**



**PTMatic S.r.l.**



## ABOUT URBAN FACILITIES

New cities are a combination of function and management need to answer to this several requirements.

Expanding Cities have to solve many new problems: transport, garden, connection, public area, shopping...but there are other issue as playground, trash bin, bus shelter, lamp.

How can we answer? Like at home? Lamp are the same? People sit on same sofa? Use same trash-bin?

Why we want to solve Toilet problem as at home?

Full automatic public toilet SOLVE CITY PROBLEM IN THE RIGHT WAY, WITH NEW SOLUTION.

WHY APT offer better solution?

### City facilities

- **Design** that harmoniously blends into the urban context, no “standard” solution.
- APT **save space**, more user per toilet means you can have less toilet installed.
- **Everybody access**, tested, good and experienced design offer solution to man, female, old people, disable people, child, baby changing.
- **Multilanguage, Pictogram and voice instruction** for a easy and friendly use.

### Health

- Full **automatic washing system** of walls, wc bowl and floor (**tergi;lavapavimento®**)
- **Removing all object** from floor ( cans, paper...)
- **Floor dried** every use.
- **Full disinfection** (99,9 % bacteria and germ) daily guaranteed and tested DCN®ECO2 system.
- APT guarantee hygienic toilet.



## Budget

- **Cost**, Yes, APT is more expensive but you need less toilets and less maintenance.
- **Durability**, compared to a standard solution APT lifetime is 2/ 3 times longer. APT life time is more than 15 years, after 3/5 years public traditional toilet need to be refurbished.
- **Inspection and cleaning** on standard toilet is every 20 use or less. Frequency of **APT's maintenance routine** is every 200 use with higher "quality" standards.

## Environmental solution

- **Save water**, Each full and complete cycle per use is less than 20 litre, traditional solution use more than 25 litre per use ( cleaning toilet every 20 use). Automatic tap save more than 80% of water each use.
- **DCN@ECO2** contamination on water. Our system DCN@ECO2 is fully environmental friendly.
- **Save paper** with automatic dispenser
- **Save soap** with automatic electronic no touch dispenser.
- **Save power** on automatic light switcher, using LED or Low consuming Lamps.
- **Recyclable part** all the component can be easily recycled after disband toilet.

## Safe

- **SOS button** linked to "emergency team".
- **Pneumatic plant** for all the movement.

All device fitted with **double security level**.