

# RTVM Road Ticket Vending Machine

*Paper and magnetic smart ticket issuing machine*

**RTVM (Road Ticket Vending Machine)** is an automatic machine able to be installed on the roadside, created for issuing paper tickets, if necessary with a magnetic strip, upon payment of the corresponding amount.

The RTVM is characterised by an extremely robust construction in stainless steel, with a strongbox type cash window compartment of 8mm thickness and a removable, automatically closing cash box.

**Ticket payment** can be made by means of banknotes, coins or smart cards. The unit is able to give change in coins. The change dispenser fills with the coins inserted. It can also be used to recharge smart cards.

**RTVM is completely programmable** in high-level languages and can thus be used for various tasks, such as the issue of bus tickets or as a parking meter, also ensuring an easy on-site update.

The **GSM module** allows for a totally remote control, with no need for on-site intervention. The remote operator is able to check at any time the machine status (cash amount, change coin situation, temperature etc.) as well as to update fares and even the firmware. In addition the RTVM is itself able to send SMS's in case of some alarms (paper near to end, power failure, burglary attempt etc).

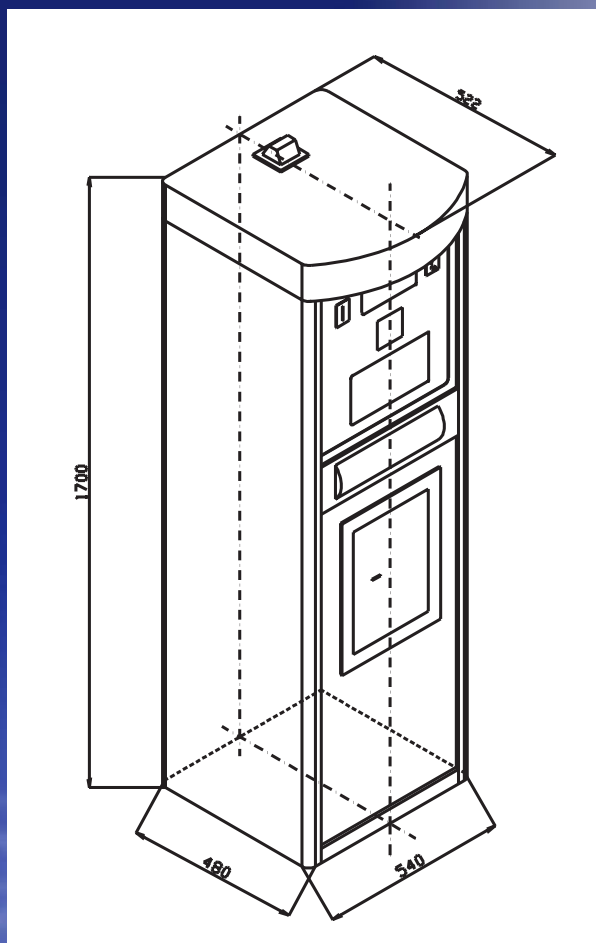
**RTVM has been designed for maximum ease of maintenance.**  
**All main parts are replaceable in a few minutes.**



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# Technical Characteristics



**Construction:** rugged stainless steel cabinet. Separate window compartments for cash and maintenance. Cash compartment window made of 8mm stainless steel.

**Mounting:** fixed to the ground with cement plinth.

**Operating conditions temperature:**  $-20 \div +60^{\circ}\text{C}$ : built-in heater for low temperatures; humidity:  $0 \div 85\%$  non condensed.

**Protection Grade:** IP54, rain resistant.

**Power supply:** 220V a.c. 50Hz or by means of solar cells.

**Processing unit:** CPU: with 32 bit registers; memory: FLASH EPROM 512K, RAM 1024K

**Serial interfaces:** RS-232 for diagnostics and debugging.

**Operating system:** Mxm 4.1 – programmability: with high level languages; application upgradable through serial interface or by means of a GSM communication unit.

**Display:** backlit LCD 4 lines x 20 large characters.

**Keyboard:** 16 vandal-proof die-cast steel keys

**Printing unit:** thermal with fixed head; resolution: 203 dots per inch; printing speed: up to 400 dots per second; paper width:  $40 \div 54\text{mm}$ ; characters: ASCII standard, international; buffer information: 4K bytes; graphic memory: 2 logos  $384 \times 341$  dots; mechanical structure: robust and compact; cutting mechanism: self sharpening, highly reliable; maximum speed: 50mm/sec; safety: anti-paper jamming system; sensors: paper-near-to-end, no paper left in machine, black mark. Other printer models on request.

**Magnetic tickets:** according to ENV-753

**Paper roll:** 300mm diameter

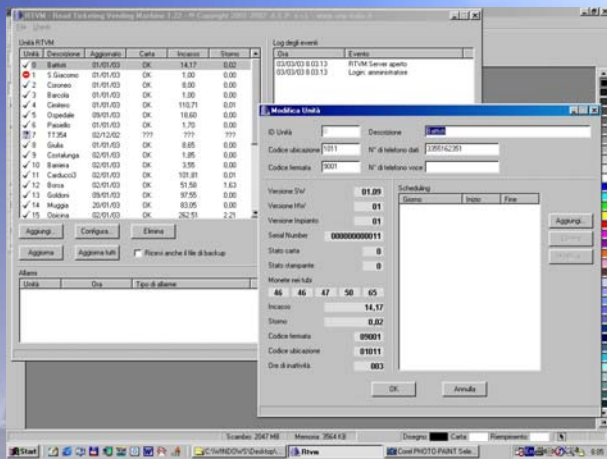
**Paper thickness:**  $80 \div 180$  g per sq meter

**Types of banknote:** 5-10-20-50 euro notes are accepted; acceptance level: more than 90%; recognition time: about 6 seconds; can accept bank notes inserted in either four side.

**Coin validator:** coins accepted: all denomination of euros; method of recognition: high reliability with 4 analysis parameters (diameter, alloy, weight, sonority) ; safety: anti-get back change: 5 143mm high change tubes.

**Smart card:** contact ISO-7816; types accepted: Minipay\*, Toscopass, Praticard, CD-97, GTML-other types on request. SAM module internally housed.

**Communication:** GSM module: with remote state reading capability, automatic request for intervention in case of no paper left, cash deposit full, attempted break-in, tariff update, application update, transaction transfer, SMS messages.



Il software di centrale per la gestione remota delle emettitrici RTVM

Technical specifications subject to change without notice.

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