



Procedure for application and enrollment of a vendor or equipment producer into the Deposit-Return System

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This document describes the necessary steps to apply for enrollment of an automated collection machine (Reverse Vending Machine or RVM) into the Deposit-Return System administrated by RetuRO SGR. This document is addressed to any potential RVM provider, and for internal use and regulations.

1. Initiation.

RetuRO SGR published on the official web site (<https://returogr.ro/>), under Trader/ Useful Documents rubric the "Specifications and Requirements for Reverse Vending Machines".

All RVMs used within the Romania Deposit-Return System (DRS) must comply with the regulations in this document and in its appendices.

Producer or vendor of RVM must carefully read this comprehensive document before initiating the process. Any questions or comments regarding this document or the any of its attachments can be sent to RetuRO at office@returogr.ro.

2. Self-certification.

Only RVM providers who complete a self-certification process and provide this documented proof to RetuRO SGR will be included in the DRS.

Self-certification must be accomplished based on the requirements from the document "Specifications and Requirements for Reverse Vending Machines".

The self-certification document can be also found on the official web site (<https://returogr.ro/>), under Trader/Useful Documents - "Self-certification document for RVM provider".

"Self-certification document for RVM provider" contains:

- A. Essential Information and Criteria, like Expertise and Experience, Range of Services Offered and Quality Assurance and Support. All these rubrics must be completed by the RVM provider.
- B. Mandatory Technical Requirements, specified in the document "Specifications and Requirements for Reverse Vending Machines". All these rubrics must be completed and signed by the RVM provider.



3. IT Connection testing.

All RVMs should be available online through a standard method of digital electronic communication and be aligned with RetuRO requirements.

RetuRO, through IT Department will provide APIs for communication with RVMs. An RVM must be capable to securely connect to the RetuRO API (using HTTPS). Testing communication capabilities will be done in a UAT environment by the RVM provider under RetuRO IT Department direct supervision. RetuRO will validate the integration by verifying that the new RVM machines function correctly within the UAT environment. This includes ensuring all technical and operational requirements are met.

Before moving to production, RetuRO must validate the integration and provide official sign-off.

3.1. API Documentation and Configuration:

- A) API Documentation: RetuRO will provide the new RVM vendor with the documentation for all required APIs. This includes endpoints and configurations necessary for communication between the RVM machines and the RetuRO system.

- B) API Configuration: To assist with a proof of concept (PoC), RetuRO can configure a test RVM using a different model from another vendor, as the serial number of the machine is the key attribute in API communication. This can serve as a preliminary setup for testing purposes.

API changes are not recommended due to the potential for complications, data inconsistencies, and disruptions to the overall system.

3.2. Machine Setup and Collection Point Configuration:

- A) Machine Configuration (Testing Phase): For the initial setup and testing purposes, RetuRO will create a dummy collection point on the portal. Instead of setting up new machines right away, we will modify the serial number of an existing machine to simulate the new RVM vendor's device. This allows us to test the system's functionality and data flow without affecting production.
- B) Collection Point Setup (Testing Phase): RetuRO will assign this dummy collection point to the vendor's machine during the testing phase, ensuring that data from the modified serial number is correctly mapped in the system for testing purposes. This ensures the communication between the dummy RVM machine, and the system can be validated before moving forward.

3.3. Implementation Phase of physical RVM

- A) Device's configuration will be implemented in DRS UAT system. This integration will be part of the planned release schedule.

RVM Supplier	Model Name	Glass - bin type	Commingled - bag type
		BinHalfPallet	BagQuarterPallet
		BinFullPallet	BagHalfPallet
			BagFullPallet



- B) RetuRO will assign these collection points to the corresponding machines, ensuring accurate and real-time data communication between the new RVM machines and the RetuRO DRS system. This will ensure that the machines are fully operational and integrated into the system after the UAT testing has been completed and validated.

3.4. Production Release

The production release will only proceed after RetuRO provides official sign-off. This confirms that all testing has been successful, and the new machines are ready for deployment in a live environment.

- A) PROD Release and API Keys: will release the integration into the production environment, and production xAPI keys will be issued to the new RVM vendor.
- B) Retailer Notification: RetuRO will notify retailers that the new RVM vendor's machines are fully integrated and can now be registered in the system.

Official Sign-Off by RetuRO: The production release will only proceed after RetuRO provides official sign-off. This confirms that all testing has been successful, and the new machines are ready for deployment in a live environment.

4. Physical inspection

After completing self-certification and passing IT connection testing, a representative from RetuRO Operational Department is physically inspecting onsite the RVMs at RVM provider.

5. Final review and sign-off

RetuRO is compiling results from the tests and inspection: "Self-certification document for RVM provider" signed by the RVM provider sent to RetuRO, passing IT connection tests and equipment was physically inspected. The necessary approvals from relevant stakeholders – Commercial Department, IT Department and Operational Department of RetuRO - will validate the machine for public use.