

# HACCP



**Bianchi**  
VENDING GROUP  
THE WORLD OF FRESH THINKING

# System Requirements



Bianchi Vending Group has a certified Quality and Environmental System that establishes and maintains effective control of all business processes that affect the quality of the final product : vending machines for drinks and snacks, coffee machines for professional. To ensure the hygiene requirements of the finished product and deliver to the client machines without **polluting** that may affect the characteristics of foodstuffs distributed, arises the need to design a self-check based on the principles of **HACCP**. For this purpose, the Organization undertook the following activities preliminary necessary to design and implement the system of self-control:

- Choice of team coordinator and allocation of responsibilities.
- Training of personnel involved on and the design of a HACCP system.
- Library documentation and information relating to: quality and internal security Procedures, Rules of practice (GMP) already applied, Reference regulations applicable to processes, manual.
- Setting the Lay-out of production units.
- The description of flows: the entry materials to finished products,
- Verification of warehouse handling and handling entrusted in outsourcing.
- Description of the main equipment and facilities
- Identification and description of products in contact with food.
- Analysis of the possible uses of the products (if any mishandling)
- Verification Flowchart

**Since February 2011, Bianchi is the only Vending Machines Manufacturer who introduce the HACCP method in the production process.**

# 2 Operative units in compliance with Unit-10854:1999



UNI 10854 - 1999



CERT. N° 26/11



## **Bergamo Plant - Company Headquarters**

- Hot Beverage machines production plant
- R & D department
- Customer care
- 30.000 m<sup>2</sup> – 207 employees / workers

CORSO AFRICA 9 - LOC, ZINGONIA - 24040 VERDELLINO (BG)  
(Bergame)

## **Latina plant**

- Metal components production
- Plastic parts moulding
- Production of 80% of the components assembled
- 90.000 m<sup>2</sup> - 110 workers

VIA CIVITONA 6/8 - 04012 CISTERNA DI LATINA (LT)

# Introduction of HACCP in the production process

## HACCP

### Hazard Analysis & Critical Control Points

Scientific and systematic method that ensures security (food) products during all the phases of the production process through the identification, evaluation and control of significant hazards,

UNI 10854-1999



CERT. N° 26/11

## HA

Hazard analysis - the process of collecting and interpreting information which has as its objective the identification of potentially significant hazards

## CCP

Critical Control Points - point, step or procedure at which it is essential for safety (food product) to exercise control action to prevent, eliminate or reduce to an acceptable level requirements that product

**UNI 10854:1999** (Italian standard) – Guidelines to design and apply a system of prevention of hazards based on HACCP method.

The system requirements reflect the principles of "Codex alimentarius" recommended international Code of Practice General Principles of Food Hygiene (CAC PRC a 1969 rev. 4-2003)

# Product description



Vending machines and/or coffee machines contains a series of mechanical, electro-mechanical and electronic systems which allow to dispense drinks or package foods. The external structure is designed to prevent access of rodents and insects inside the machine. Components that come in direct contact with beverages and / or foods are made mainly from plastic raw materials.

Hydraulic systems of the machines use also a series of components with food characteristics.

We can classify the following series of pieces in contact with food :

Class	Description	Example
Hydraulic system components	Components / piece in plastic	Group coffee, mixing bowls and fittings
	Pipes fittings and seals	Pipes and gaskets in silicone, links in plastics and brass, pipes in copper.
	Electromechanical components	Solenoid valves, pumps, safety valves,
	Boiler and resistance	Boiler steel, brass, copper, polysulfone...
Various components in contact with food (solid)	Products canisters	Hopper, boxes for products, funnels, pipes...
	Products pipes	Grinder, cups and pallets distributor
	Components in metal	Container pallets, spirals...



The plastic raw materials are guaranteed by the suppliers for their food characteristics. Certificates attesting to the suitability of raw materials in contact with food. BVG also certify compliance to national legislation and regulations and European regulations. (See: EC Regulation No 1935/04 and DM21/03/73) concerning the suitability of the materials used in contact with food.

# Method and principle of management of Food Safety .



## 1/ Hazard Analysis

Hazards (*biological*, chemical, and physical) are conditions which may pose an unacceptable health risk to the consumer. A flow diagram of the complete process is important in conducting the hazard analysis. The significant hazards associated with each specific step of the manufacturing process are listed. Preventive measures (temperature, cleaning plan, etc.) to control the hazards are also listed.

## 2/ Identify Critical Control Points

Critical Control Points (CCP) are steps at which control can be applied and a food safety hazard can be prevented, eliminated or reduced to acceptable levels. Examples : visual control, bagging, cleaning, special product for food use .

## 3/ Establish Critical Limits

All CCP's must have preventive measures which are measurable! Critical limits are the operational boundaries of the CCPs which control the food safety hazard(s). Examples : Time limits, for stationing, AQL and incoming inspection, minimum stock.

## 4/ Monitor the CCP's

Monitoring is a planned sequence of measurements or observations to ensure the product or process is in control (critical limits are being met). It allows processors to assess trends before a loss of control occurs. Adjustments can be made while continuing the process.

## 5/ Establish Corrective Action

HACCP is intended to prevent product or process deviations. However, should loss of control occur, there must be definite steps in place for disposition of the product and for correction of the process.

## 6/ Verification

Verification has several steps. The scientific or technical validity of the hazard analysis and the adequacy of the CCP's should be documented. Verification of the effectiveness of the HACCP plan is also necessary. The system should be subject to periodic revalidation using independent audits or other verification procedures – resumed in The HACCP Manual.

## 7/ Record Keeping

The HACCP system requires the preparation and maintenance of a written HACCP Control Plan together with other documentation. This must include all records generated during the monitoring of each CCP and notations of corrective actions taken.

# Hazard analysis

## Risk assesment



**P= Probability** that an event will occur.

PROBABILITY FACTOR = P	=	DESCRIPTION
UNLIKELY	1	Processes: Usually can occur only once in a year For the product: It has been identified at least danger
LIKELY	2	Processes: Usually can occur once every 3 months approx For the product: 2 generic hazards have been identified
VERY LIKELY	3	Processes: Usually occurs at least once a month. For the product: more than 2 were identified hazards.

**D=** extent of the **Damage** expected

DAMAGE FACTOR = D	=	DANNO PREVEDIBILE PER LA SALUTE
SLIGHT	1	Just felt from the end user
MODERATE	2	Alteration of the organoleptic qualities of the product
SERIOUS	3	Disorder or irritation, temporary discomfort of the subject

a consequent **Risk** is so graduated: **R = P x D**

		DAMAGE		
		SLIGHT DAMAGE(1)	MODERATE DAMAGE (2)	SERIOUS DAMAGE (3)
Probability	UNLIKELY (improbable) 1	Low Risk (1)	Low Risk (2)	Medium Risk (3)
	LIKELY (probable) 2	Low Risk (2)	Medium Risk (4)	High Risk (6)
	VERY LIKELY (very probable) 3	Medium Risk (3)	High Risk (6)	High Risk (9)

The scale of priority measures of the critical control points given by the code: **HA9** a **HA4** e **HA1**.  
that indicate the priority and the decreasing hazard.



# Examples of Hazards in food industry

Examples of risks that may contaminate the parts in contact with food products in an industry:

## Physical Hazards:

- The dust, the micro particles moved during the transport and / or storage,
- Shavings, filings and the buckles of usage.-
- Burr and the fragments of transformation and / or molding.
- Accidental intrusion of parts such as screws, nuts etc., wooden shavings, paper, etc.

## Chemical Hazards :

Some chemicals products are used in the production process :

- Products for cleaning and maintenance of molds.
- Products for lubrication of the electromechanical : bearing, bushing , mobile joints. The grease used is compatible with foods products
- Products for cleaning inside and outside of the machine (mainly with denatured alcohol)

All chemical products are in compliance with food products.

**Packaging, protection, entry control, cleanup plan, use of food standards are all preventive actions implemented in the HACCP**





# FAQ - HACCP



**Why HACCP?** Recently there is renewed interest in consumer-related safety and food quality. HACCP offers continuous and systematic approaches to assure food safety. The industry also, will do well to adopt HACCP approaches to food safety whether even if it is not required.

**Why the UNI 10845:1999 standard?** The system fits in well with quality and management techniques. **It is especially compatible with the ISO 9001:2008 quality assurance system.**

In this environment, manufacturers are assured of receiving quality products matching their specifications. There is little need for special receiving tests and usually time does not allow for extensive quality tests.

**What is the EN ISO 22000:2005 standard?** ( European standard ) **Requirements for any company working in the food chain.** Is recommended and apply when the companies are inside in a food chain.

**HACCP** – Is a System Certification, does not concern the product.



Download the certificate on our Website : [www.bianchivending.com](http://www.bianchivending.com)