## **COMPANY PROFILE**

Enoberg has been producing filling machines since 1984. Over the years we have focused on the design and the production of hi-quality filling machines to meet and satisfy the customers' needs for speeds from 1,000 up to 30,000 bph. The company is located not far from the city of Bergamo (northern Italy), in a facility of 3,500 m<sup>2</sup>. State-of-the-art technology and constant innovation over the years, has enabled us to deliver user-friendly and reliable solutions to the market-place. In 2016 Enoberg became part of SMI Group, one of the world's largest producers of bottling plants and packaging machines. In the same year, Enoberg started a complete refurbishment of its facility.





## THE SMI GROUP IN THE WORLD



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# **Senoberg** filling your dreams

### **GRAVITY LEVEL FILLING SYSTEM**

The gravity level filling system is suitable for filling flat liquid products at low and medium speeds. The level technology applied is by gravity, but in the case of dense products a light vacuum system can be used on the dedicated air discharge external circuit, improving the performance of the machine by increasing the filling speed. This system is available in a "neck handling" configuration (typical for PET bottles) and in a "bottom handling" configuration (typical for GLASS bottles), furthermore, this model is available in the rinsing + filling

+ capping version or in the filling + capping version.



#### **ELECTRO-PNEUMATIC COUNTER-**PRESSURE LEVEL FILLING SYSTEM

The counter pressure filling system is suitable to fill all kinds of carbonated products in PET or GLASS containers. The filling technology applied is the level type by gravity. This system applies the isobaric concept: the same pressure of CO2 is applied in both tank and



bottle, this enables the product to pour from the tank into the bottle by simple gravity avoiding any creation of foam, while the level vent tubes ensure that the same level is reached in each bottle. The valves are driven by an electro-pneumatic system (pneumatic valves controlled by electrovalves) that facilitates automation of all the functions of the filling valve: pre-evacuation, bottle pressurization, product filling, self-leveling. The HMI (human machine interface) of the machine memorizes the settings related to each bottle format to be handled ensuring an easy interface and fast format changeover. This filling system is highly recommended for filling beer (the double pre-evacuation system is suggested and available as an option) and carbonated soft drinks, thanks to its high performance leveling system. The machine is available with "neck handling" configuration (typical for PET bottles) and with "bottom handling" configuration (typical for GLASS bottles). Furthermore, this model is available in the rinsing+filling+capping version or in the filling+capping version.

SUITABLE FOR CARBONATED SOFT DRINK, BEER AND WATER



#### ELECTRONIC VOLUMETRIC FILLING SYSTEM

Our electronic machine provides state-of-the-art technology for volumetric filling. This system is suitable for filling flat liquid products such as water, oil, milk and detergents. A key advantage of this technology is the contactless filling: bottle and valve do



not make contact ensuring low risk of bottle contamination during the filling procedure. Valves can also be fitted with a laminar flow hood around the bottle neck, ensuring an even higher level of hygiene. The electronic volumetric concept uses flow-meter technology with each filling valve, this device gauges the flow of product that is being poured into the bottle; once the correct volume has been detected, the flow-meter signals the valve to close. The flow-meter is available in two versions depending on the products electrical conductivity: mass flow-meter (ideal for products with conductivity lower than 30µS/cm) and magnetic flow-meter (ideal for product with conductivity higher than 30µS/cm). These instruments enable a high filling precision and reliability. The filling parameters of each flow-meter can be adjusted from the HMI (human machine interface), along with the parameters for each bottle format. In addition, the machine is pre-installed for automatic CIP, and can be supplied with dummy bottles with automatic set-up. Both functions can be easily controlled and set from the control panel. This model of machine is available in the rinsing+filling+capping version or in the filling+capping version.

#### **RECIRCULATION FILLING SYSTEM**

**Ourproduct recirculation** filling system is the ideal solution for the hot filling of flat products. The machine is able to fill clear products as well as products with pulps and fibers. The machine can be equipped with

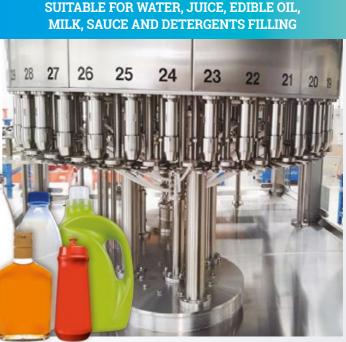


a neck handling system (ideal for PET bottles) or with a bottom handling system (ideal for glass bottles). A manifold installed in the upper part of the machine allows the distribution of the product between the upper tank and the filling valves. The filling technology applied is the gravity type with mechanically driven valves. When product is not being poured into the bottle/container (closed valve, emergency stop, line upstream or downstream micro-stops etc..) the recirculation process is activated. A manifold, installed in the lower part of the filling carousel, collects the recirculated product and sends it to the lower tank. From the lower tank the product is sent back to the upper tank (in case of cold filling) or to the pasteurizer (in case of hot filling). Reliable, user friendly and price competitive, this model is available in the rinsing+filling+capping version or filling+capping version.





#### SUITABLE FOR JUICE, SAUCE, SPIRIT, EDIBLE OIL AND **EVEN FOR HOT-FILLED PRODUCTS**



SUITABLE FOR WATER, JUICE, EDIBLE OIL.

**ENOBERG** COMPANY OVERVIEW