



Beverage (Carbonated Drinks) - General Introduction

Sugar Dissolving

De-aeration

Blending

Pasteurisation

Carbonation

Filling & Packaging

Utilities

General Introduction provides a summary for this seven step overview of beverage (carbonated drinks)

General Introduction

Carbonation creates bubbles and fizzing in a beverage due to the presence of carbon dioxide gas. Carbonated beverages include soda, cola or “pop” and are also known as soft drinks. A soft drink can also refer to other drinks without alcohol. The manufacture of carbonated beverages can be broadly divided into the following sub-processes:

- Sugar dissolving to produce base syrup (where required)
- Preparation and de-aeration of water
- Preparation and blending of all ingredients
- Thermal product treatment or pasteurisation
- Carbonation
- Filling and packaging

In addition, the provision and control of supporting utilities is essential to ensure that the plant operates continuously, safely and efficiently:

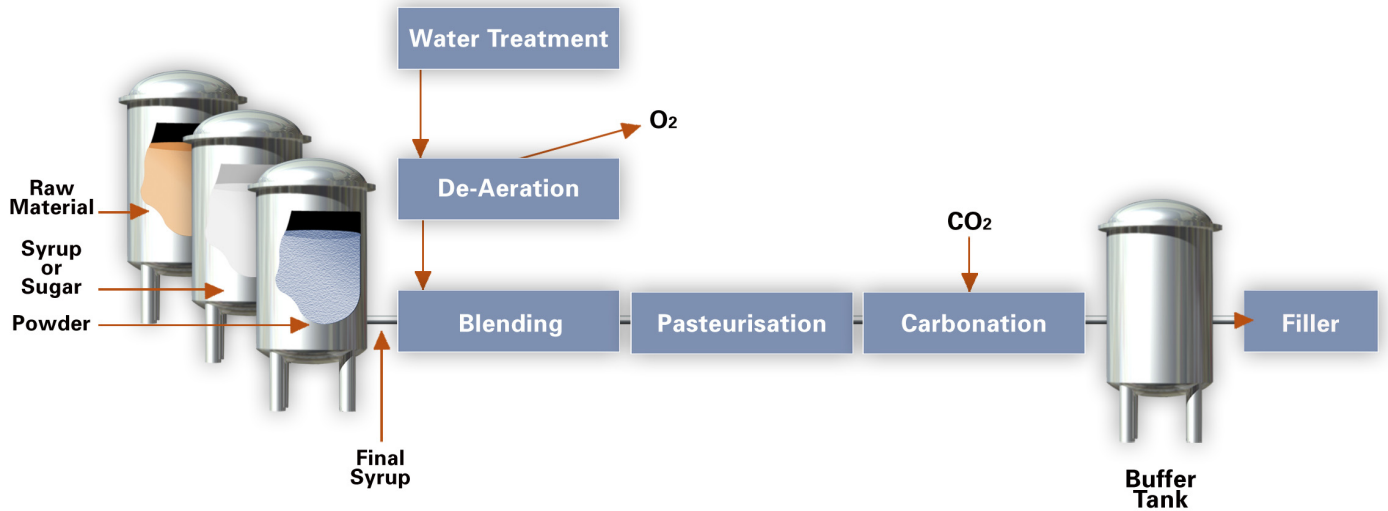
- Raw ingredient water treatment
- Clean-in-place (CIP) systems
- Process boilers/steam generation
- Effluent water treatment
- Automation control and data recording

The design of a specific line depends on a number of factors affecting the detailed specification of the process, including:

- Individual recipe characteristics
- Range and diversity of recipes
- Production volumes and frequency of change-over
- New production facility or plant upgrade

The most common configurations are either batch operation using a series of blending tanks, or continuous operation for higher volume, more complex production requirements. The degree of complexity and automation will vary between individual lines, but the basic principles are similar. Diagrams of both batch and continuous operations are shown on the next page.

Carbonated Beverages - Batch Process



Carbonated Beverages - Continuous Process

