



**DAIRY PROCESSING OPERATORS TRAINING –
UNDERSTANDING MILK & MILK PRODUCTS**

OVERVIEW

The course is targeted at plant operators in milk powder, casein and membrane filtration plants. The aim is to give operators an understanding of the process they control. It includes a summary of the individual parts of the process and its function.

Duration: 1 Day

OBJECTIVES

This course is intended to give all Dairy Processing Personnel:

- A basic understanding of the composition of milk.
- An understanding of the various fractions of milk and the products made from them.

WHO SHOULD ATTEND?

Operators, Frontline managers, Trainee technical managers, Maintenance workers/managers

SUMMARY CONTENT

- Composition of milk
- Casein & Whey Proteins
- Lactose
- Minerals
- Milk terms & Milk products
- Milk processing



Separation
 Butter & Cheese
 Whey & Whey powder
 Skim milk & Skim milk powder & Fat filled milk powder
 Concentrate properties
 Effect of viscosity
 High heat treatment
 Parameters affecting viscosity
 Age thickening
 Co-precipitates
 Caseinates
 Bacteria
 Enzymes
 Pathogenic Bacteria
 Crystallisation
 Whey fractions
 Whey protein concentrate
 Whey protein isolates
 Permeate
 Whey permeate powder
 Lactose Powder
 Delactosed Permeate DLP
 Permeate processing
 Milk protein concentrate (MPC)
 Milk permeate & Milk yields
 pH
 Acid
 Alkali
 Clean-in-Place (CIP) & CIP design
 Detergents
 CIP sequence, temperatures, chemicals, critical issues

TRAINING METHODS

The course is tutor led with use of PowerPoint presentations, flipcharts and on the plants visits where practical. The exact content can be tailor made to suit the needs of the participants.