

<h1>PROCESS BULLETIN</h1>	Document Ref.:	
	PB/2-6/001	
	Issued by:	Date:
	SG	31/10/02
Subject: Eggs high pressure homogenisation		



In food production, the incredible edible egg performs a variety of functions and is vital in the success of many products. The roles eggs play in food manufacturing are expanding in several food categories. Food companies increasingly recognize the nutritional and functional values of the egg, which is making a comeback after years of a bad cholesterol stigma. Liquid, refrigerated, frozen, and dried eggs are available in a wide range of forms for food processing. Some egg products have added carbohydrates, gums, starches, sugar and salt in order to meet manufacturers' specifications and to improve functionality and physical characteristics. Liquid eggs have become especially convenient for the fast food industry. Dried egg white is convenient in angel cake mixes and used by the confectionery industry. Salted yolk is used frequently in mayonnaise production.

Typical composition of eggs

Eggs yolk, used as ingredient for various food products (pasta, cakes, ice cream, etc.)

The homogenisation process

HOMOGENIZER FEATURES: Abrasive version; Single stage; homogenizing pressure 70÷150 bar, homogenizing temperature 4÷10 °C; Inlet pressure 4÷5 bar; Suction and delivery valves and seats: Standard.

HOMOGENIZING VALVE: Standard; Material: Tungsten carbide.

HOMOGENIZATION ADVANTAGES: High-pressure homogenisation produces a micronized dispersion; the stability is improved, enhancing the organoleptic properties of the homogeneous product and increasing its digestibility.

The effect of homogenisation on pasteurised, liquid, whole egg can be summarized as follows.

1. Homogenisation eliminates separation in frozen egg products during storage.
2. Homogenisation improves the foaming power and cake volume for baking products made with pasteurised (or unpasteurized), frozen, liquid egg.