LIQUID EGGS - VPP*

*VIANDE - POISSON - PETFOOD

Globally, the consumption of processed eggs removed from their shells (egg products) which can be supplied in liquid or powder form are prefered over traditional unprocessed eggs.

APPLICATIONS :

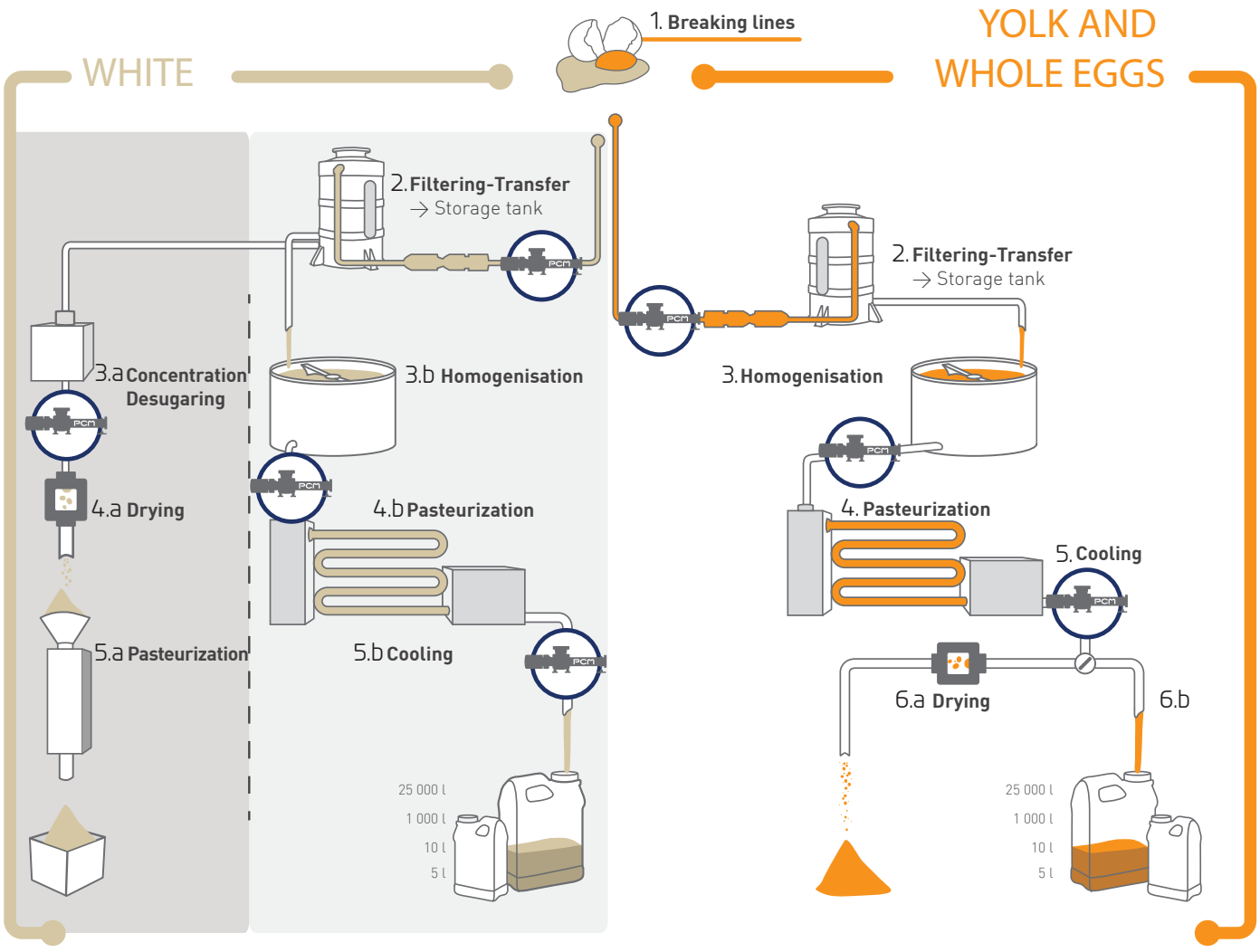
- Transfer of egg products transfer to be sold in a liquid form to food processing industries.
- Transfer of egg products transfer to a drying tower to make powdered eggs.

1 ACTIVITY AND MANUFACTURING PROCESS

Egg products are widely used by the food service industry and the food commercial industry. The term "egg products" refers to eggs that are removed from their shells for processing at facilities called "breaker plants". Egg products includes:

- **Whole eggs**, or **yolk** or **white**
- **Sweet yolk** preparation available for bakery, pastry or dairy products for cream dessert fabrication
- **Salted yolk** preparation available for convenience food (CVF) or prepared sauces

Egg shell pallets



These products are generally supplied as below:

- 25 000 liters food tank,
- Large 200 kg to 1,000 kg bags in folding aluminium containers,
- 1kg Tetra Paks or 5kg and 10kg heat-sealed bags.

2 TECHNICAL DATA & PROCESSING RESTRICTIONS

LIQUID EGGS :

Viscosity : 200 (white) to 2000 cpo (salted yolk)
Discharge pressure : 4 to 6 bars
Suction pressure : flooded (below the tank)

PROCESSING RESTRICTIONS :

- Food safety, microbiologically sensitive product
- Fragile product (shearing risk)
- Continuous industrial processing

After breakage, egg product is safe for up to 5 hours in a storage tank before pasteurization.

Pathogenic bacteria of Salmonella

3 EQUIPMENT & PROCESSING RECOMMENDATIONS

- Equipment that meets hygienic and food grade standards and allows for CIP in order to avoid bacteriological contamination

- A gentle mechanical process such as Moineau technology (non pulsating constant flow) that respects product fragility (in order to avoid proliferation* on white)

- Keep flow rates to a minimum to limit shearing :
  - Recommended speed from 100 to 250 rpm

Proliferation : creation of foam (aeration) when the product is "abused"

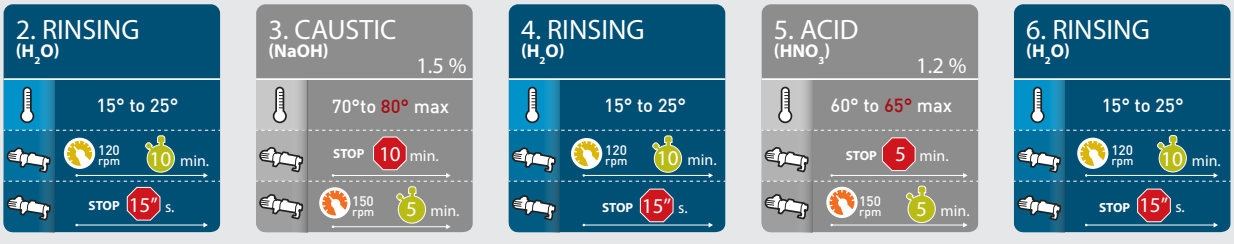
4 PRODUCT RECOMMENDATION

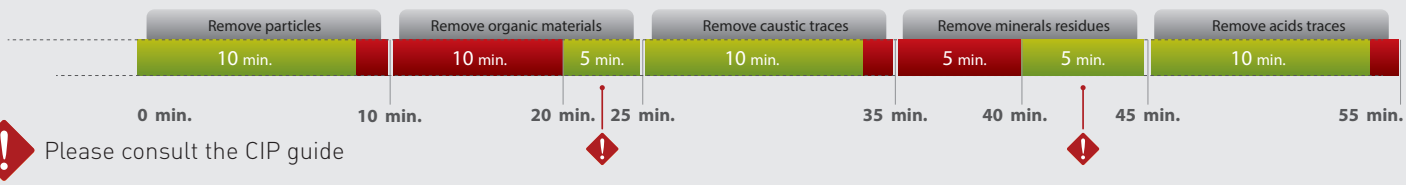
HyCare™ **pump is approved by the most stringent food standards: 3A and EHEDG (according to European or American area) and complied with CE1935/2004 and FDA European and American requirements.**

PROCESSING RESTRICTIONS	HYCARE™ BENEFITS
Food safety, microbiologically sensitive product	The materials in the ***HyCare™*** pump (stator, gaskets, mechanical seal) comply with the following standards: - European Directive EC 1935/2004 - American FDA (Food and Drug Administration) regulations.
	The ***HyCare™*** pump is compliant with the American standard 3A and the EHEDG (European Hygienic Engineering & Design Group). These two standards guarantee an advanced hygienic design and the effectiviness of the CIP system.
	The optimized body design and the Duraflex flexible shaft (one-piece design) prevents any product retention area and guarantees an effective CIP.
	The hygienic mechanical seal in cartridge is free of screws or springs and its position near the CIP inlet allows optimum cleaning.
Fragile product (shearing risk)	The Moineau technology, which consists of a helical rotor turning inside a helical stator, allows a gentle transfer of product without degradation. The internal slip flow, which causes shear in the product, is controlled by tightening the elastomer stator in the rotor.
	The tests show that 67% of the product texture is protected against only 15% with a bi-wing pump.
Continuous industrial processing	Constant non pulsating flow which allows a regular and controlled flow.

CIP* GUIDE FOR PCM MOINEAU PUMPS

*Cleaning In Place





Please consult the CIP guide

Index C - 05/2016

For more information, please find your nearest contact :

www.pcm.eu

PCM keep it moving