



MECHANICALLY SEPARATED MEAT - VPP*

*VIANDE - POISSON - PETFOOD

MSM, Mechanically Separated Meat, is defined by European regulations (853/2004) as " the product obtained by removing meat from flesh-bearing bones after boning or from poultry carcasses, using mechanical means resulting in the loss or modification of the muscle fiber structure".

Obtained after boning, MSM may contain residues of bone, cartilage or bone unlike the minced meat.

The production of MSM will generally be from poultry bones (around 90%) and pig (10%). MSM from specified risk material (SRM), and the bones, or bone-in-cuts, of cattle, sheep and goats is prohibited under the Community TSE Regulation (Transmissible Spongiform Encephalopathies).

The sale of MSM as "**meat**" is banned in Europe. If MSM is used as an ingredient in a product, it **must be labeled on the ingredients statement** as "mechanically separated meat".

» APPLICATIONS :

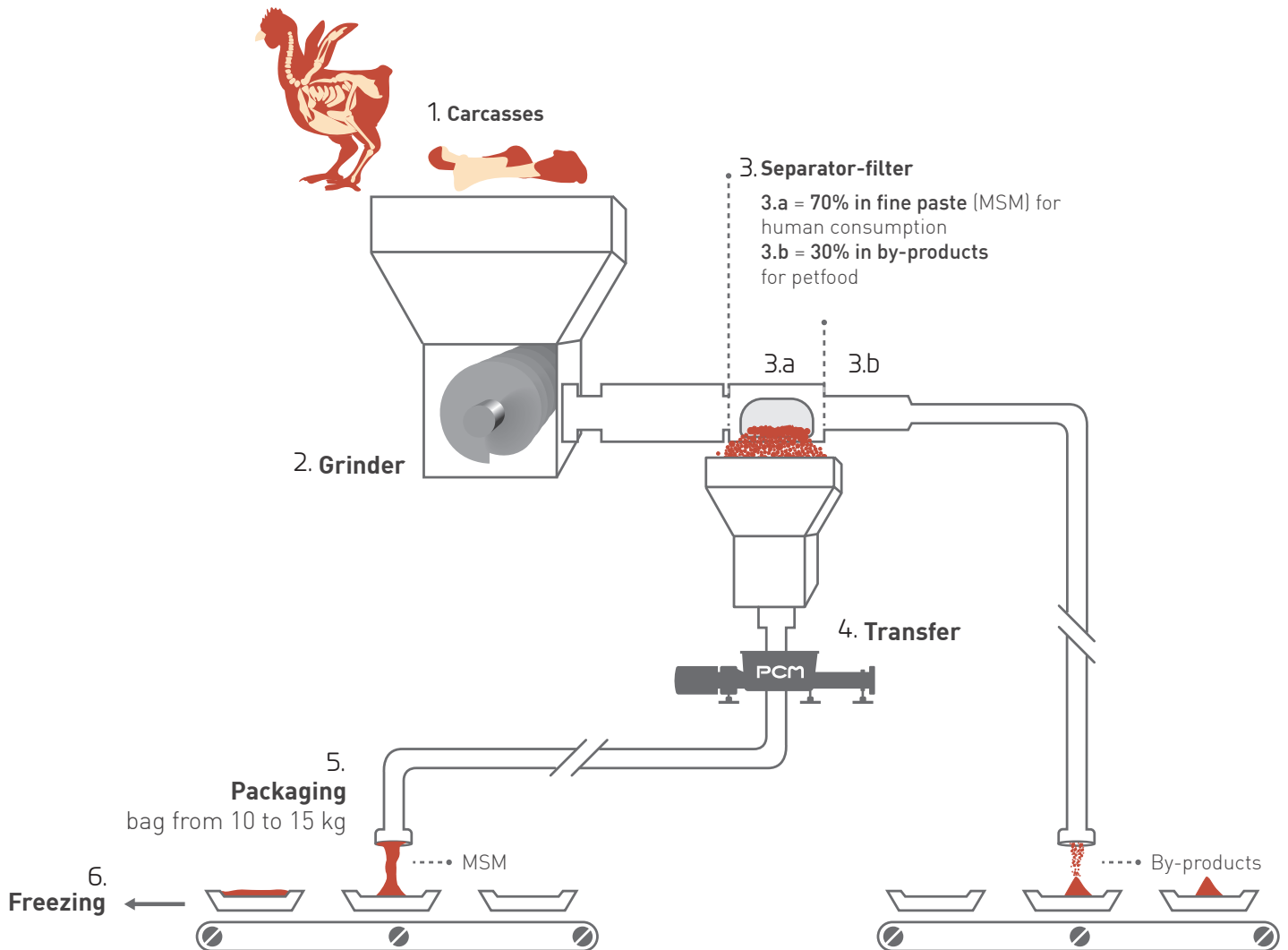
- MSM transfer from grinding and refining to packaging workshop (bag from 10 to 15 kg).



1 ACTIVITY AND MANUFACTURING PROCESS

There are two types of mechanically separated meat (MSM), depending on the manufacturing process.

- **Conventional methods** produce a fine paste (80% of the production). The separation takes place under the action of pressure on raw material previously crushed through a filter with small holes dimension (generally much less than 1 mm). This process allows the recovery of 70% of the matter.
- **Low-pressure processes** (20% of the production) give a product which can sometimes look like minced meat but has higher production costs.





2 TECHNICAL DATA & PROCESSING RESTRICTIONS

› MSM OR LEAN FINELY TEXTURED MEAT :

Viscosity: from 80 000 to 100 000 cPo
Particules size: 1 mm
Discharge pressure: from 5 to 10 bars
Suction pressure: flooded (below tank)
Flow rate: 5m³
Temperature: 4°C (European regulation)



› PROCESSING RESTRICTIONS :

- **Important product viscosity**
- **Average abrasion:** possibility of very small pieces of bones
- **Lean manufacturing process:** use of machinery 6 days/7 & 24h/24. This is due to the continuous arrival of truckloads from slaughterhouses and butcheries and should be treated quickly to prevent the growth of pathogenic bacteria and odor problem.



3 EQUIPMENT & PROCESSING RECOMMENDATIONS

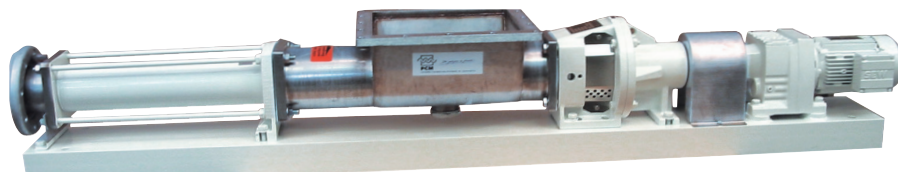
- The high viscosity and sticky texture of the "pink slime" requires the installation of a pump with hopper and feed screw.
- Choosing a chrome rotor is necessary to deal with the potential abrasion and systematic use under pressure.
- The Lean process requires the installation of a continuous flow technology as the Moineau technology.





4 PRODUCT RECOMMENDATIONS

25IVA10 / 40IVA10 / 60IVA10



IVA pumps have a suction hopper and a feed screw. The hopper allows the fluid to flow freely, while the screw pushes the fluid in the rotor/stator.

Pump construction:

- 1935/2004 food grade compliant stator for human food applications
- Black NBR stator (164) for animal feeding applications
- Chromed rotor
- Carbure/carbure single mechanical seal

Flow rate recorded at 8 bars:

- 25IVA10: 4m³/h
- 40IVA10: 7m³/h
- 60IVA10: 15m³/h

Maximum pressure:

- 10 bars

Recommended speed:

- Between 100 and 150 rpm for an effective feeding (and to avoid the phenomenon of arching or bridge on the screw).



A Dosityfill system for filling bags or Euro buggies is detailed in the Food catalog page 65.

