FACTORY OF MILK POWDER FROM SHEEP MILK
WITH SPRAY DRYING PROCESS

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ABSTRACT

With many of consumer needed with milk powder in the
world and low production milk powder. For the purpose of it
build Factory of Milk Powder from Sheep Milk with Spray
Drying.

The first process is standardization when both of the
Skim and butter oil are added to increase the vitamin, protein
glucose etc. The second process is pasteurization to kill the
pathogen bactery that is found in fresh milk. The third is
evaporation process to reduce of water content up to 50%. The
fourth is spray drying process by using hot air up to 5 % of water
content. The next is mixing process by adding sodium ascorbat,
calcium carbonat, vanillin and sucrose. Agglomeration process is
used to make powder perfectly with rewetting process. This
process uses 10% milk solution and then it is continue to drying
process in Vibro-Fluidizer up to 1% of water content. The last
process is screening to separate fine powder and coarse material.

Capacities this milk powder factory is 136.135 kg/day,
136 milk powder ton/year. The materials use to fulfill the
capacities is goat milk 278.190 kg/day, Skim 30.910 kg/day,
Butter oil 27.819 kg/day, CaCO₃ 11.272,13 kg/day, Sodium
Ascorbat 11.272,13 kg/day, Vanilli 1.127,21 kg/day, Sukrosa
11.272,13 kg/day, Total make up water 1.214,69 m³/day, and
electric 2,8 kVA.

Keyword : milk powder, sheep milk, spray drying.