

Wet Milling

Wheat protein (gluten) must be matured early on in the process. The traditional batter process is sensitive to gluten quality and we prefer to mature the gluten safer while still in flour suspension.

Decanters

Decanters are particularly useful due to the nature of gluten:

- 3-phase fractioning
- Water clarification
- A-starch recovery
- B-starch concentration

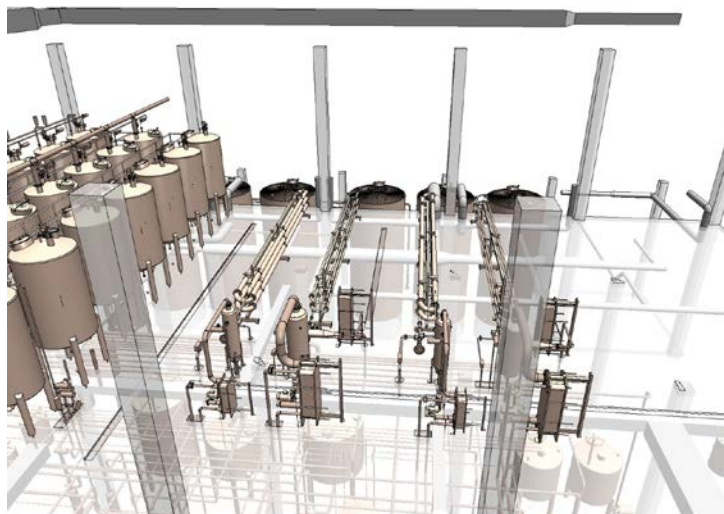
Tricanter

Wheat flour and warm water is fed into a 3-phase decanter where it is separated into three streams:

- A-starch and Fiber
- Gluten and B-starch
- Pentosanes

Gluten

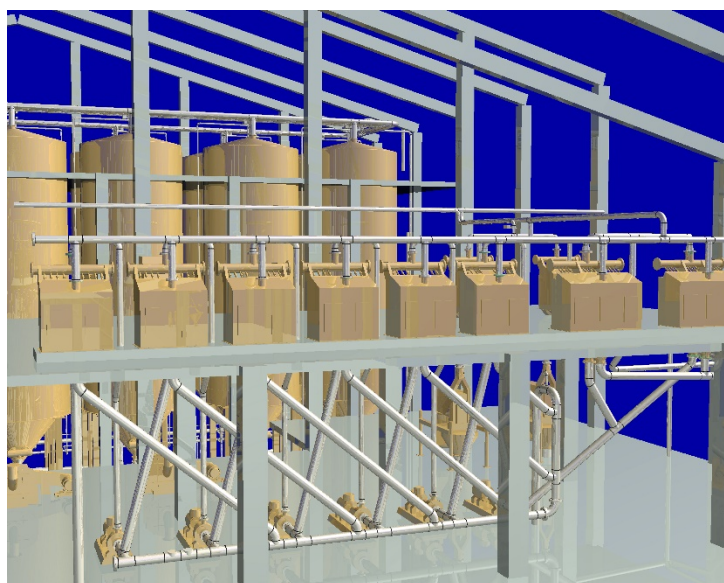
The gluten stream is matured in a holding cell. The gluten is agglomerated, screened off, washed and dried. Dried vital gluten is a most valuable outlet.



Sweetener section with enzyme conversion.



Refining section. Centrifugal screens left. Hydrocyclones right.



Fiber screening

A-starch

The A-starch stream is separated on centrifugal screens and the starch washed on hydrocyclones.

B-starch

The B-starch from the gluten stream is washed and concentrated on decanter.

Animal Feed

Fibers from starch and gluten washings are dewatered and mixed with the pentosanes and various feed fractions, dried in a tube bundle dryer, milled and pelletized.

Applications

Dried Native Starch

Unlike other crops, only a minor amount of wheat starch is dried and used as is.

Sweeteners

The vast majority is hydrolyzed and used as starch sweetener in one form or another.

Modified Starch

Another common outlet is as modified starches for food or technical applications such as cationic starch for the paper industry.