HILLER
separation & process
Member of the ferrum Group

DEKANTIERZENTRIFUGEN
& ANLAGEN ZUR FEST-FLÜSSIGTRENNUNG

CONTINUOUS PRODUCTION OF FRUIT JUICE
WITH HILLER DECANTERS

HILLER PROCESS

The use of a decanter offers many different usage options in the food sector. In addition to naturally cloudy juices or juice concentrate, direct juices can also be produced using this technology. The various fruits can also be processed along with the stones, pips and stalks in this case, saving time-consuming preparation work. It is also easily possible to mash in and juice frozen fruit.

Thanks to the closed, continuous systems, the product is processed gently and hygienically, giving more intense aroma and flavour in the end product. The high cloudiness stability also makes the end product more visually appealing. With certain types of fruit, the HILLER conditioner is used as a preliminary stage and provides the ideal cell breakdown and maximum yield in the mash preparation process.

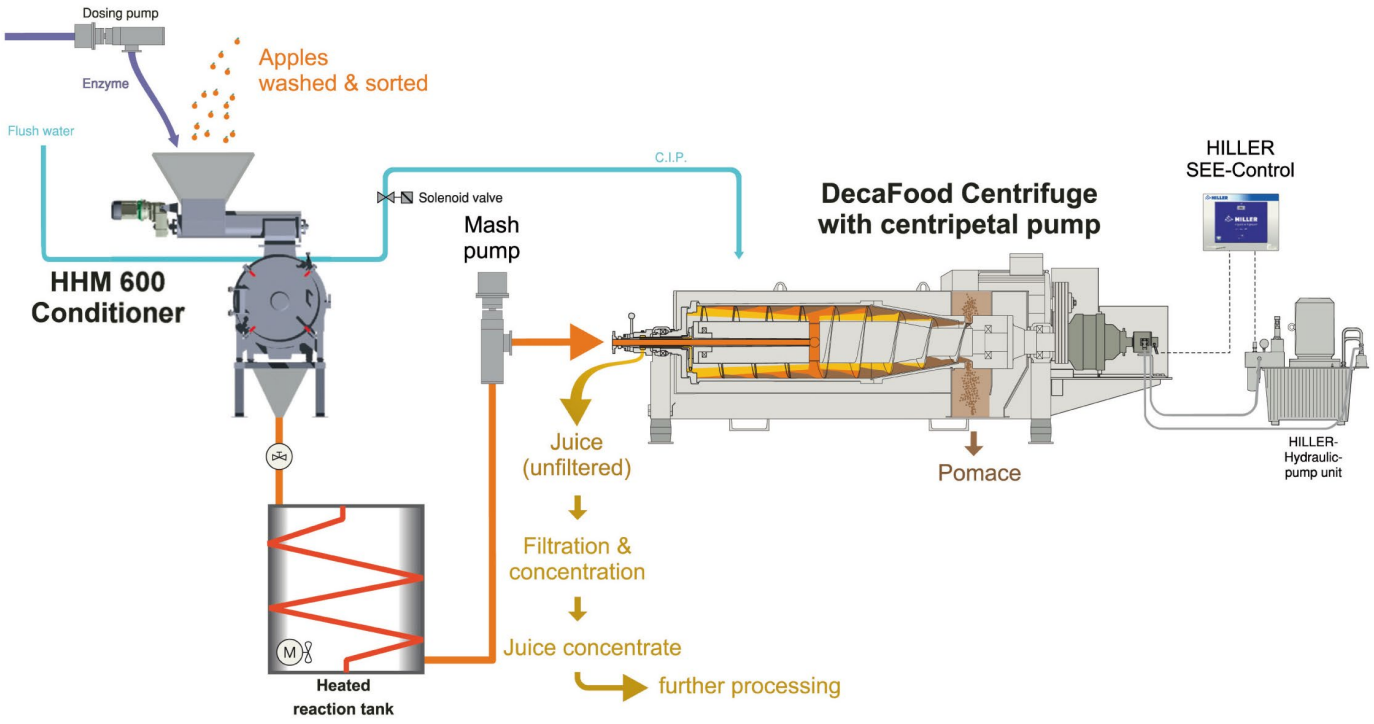
BENEFITS - HILLER technology

- high quality juice with low solids content and high cloudiness stability
- more intensive aroma and improved flavour
- reduction in operating costs thanks to savings on water and personnel
- minimal cleaning required (approx. 2 hours) thanks to automatic CIP cleaning
- simple and rapid product changeover
- closed system for maximum hygiene
- low product load thanks to oxygen exclusion
- lower space requirements
- continuous and rapid processing
- optimum cell breakdown via HILLER conditioner for best yield

Conventional process

- significant manual cleaning required with high water consumption and waste water production (e.g. belt press)
- strong product load due to the open system
- high space requirements (e.g. belt press)
- long pressing times and complicated product changeover (e.g. hydraulic press)
- frequent batch operation (e.g. tank press)
- high personnel costs

SCHEMATIC DIAGRAM of a juice concentration production line with HILLER conditioner and HILLER DecaFood centrifuge as the central process



PROCESS DESCRIPTION
Direct juice

Example: Naturally cloudy apple juice

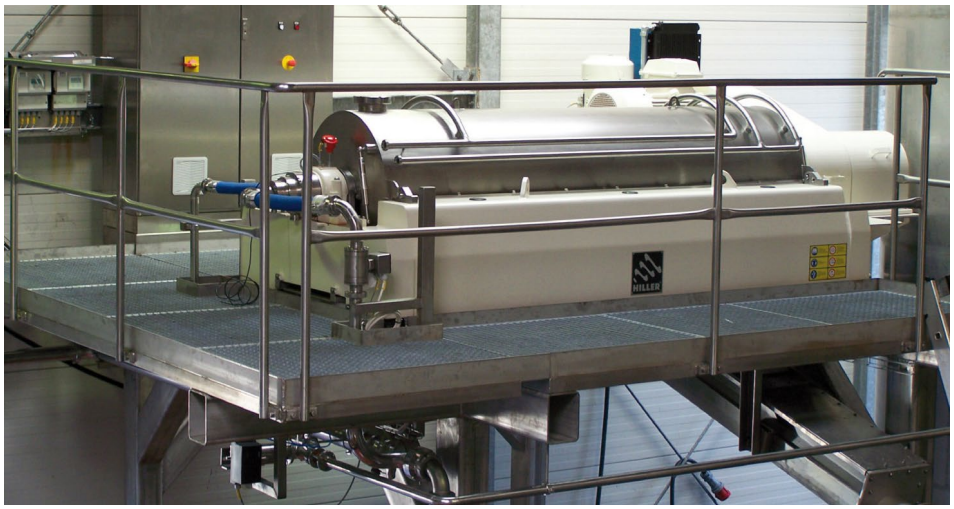
1. Inward delivery of apples
2. Raw material preparation (washing and sorting)
3. Comminution in the HILLER conditioner to produce mash
4. Pump the mash to the decanter
5. Juice production in the HILLER decanter by separating solids (pomace)
6. Outward transport of the pomace and further processing of the naturally cloudy apple juice
7. Preservation of the juice pasteurisation)
8. Storage or immediate filling

EXAMPLE APPLICATIONS

- **Fruit with pips**: apple, pear, quince
- **Fruit with stones**: plum, apricot, cherry
- **Berries**: raspberry, blackcurrant, cranberry, sea buckthorn, elderberry
- **Citrus fruits**: orange, lime, lemon
- **Exotic fruits**: passionfruit, mango, pineapple, coconut, lychee

Other APPLICATIONS in the field of juice production

- **Pulp reduction** (e.g. in orange juice)
- **Cloudiness preparation** (e.g. fermentation cloudiness)
- **Separation of oil** (e.g. from buckthorn juice)



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