

# Pellet Transport System

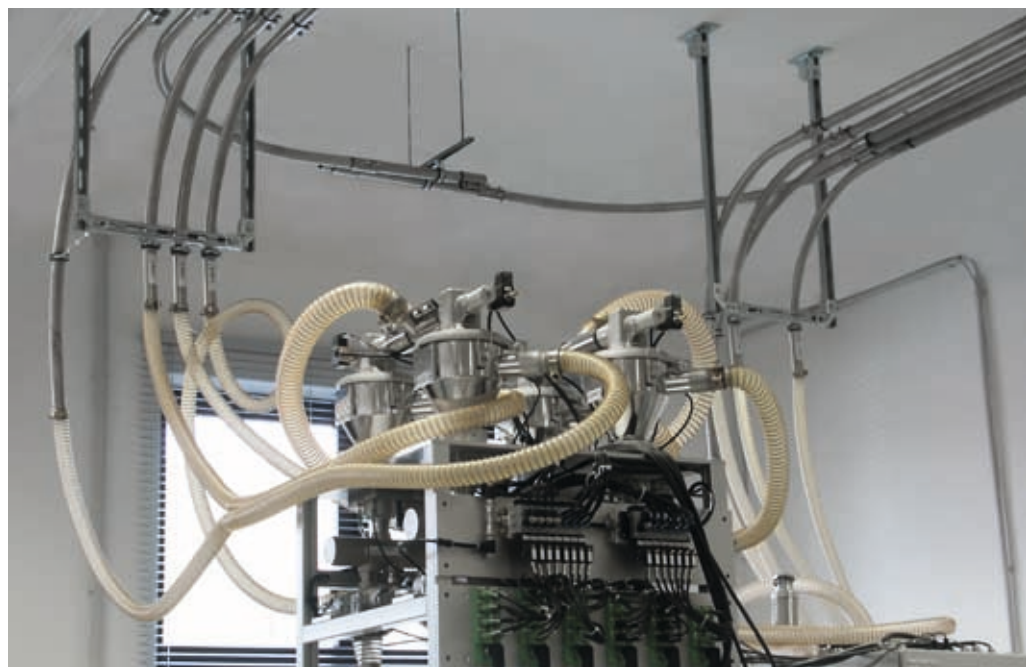
## PTS

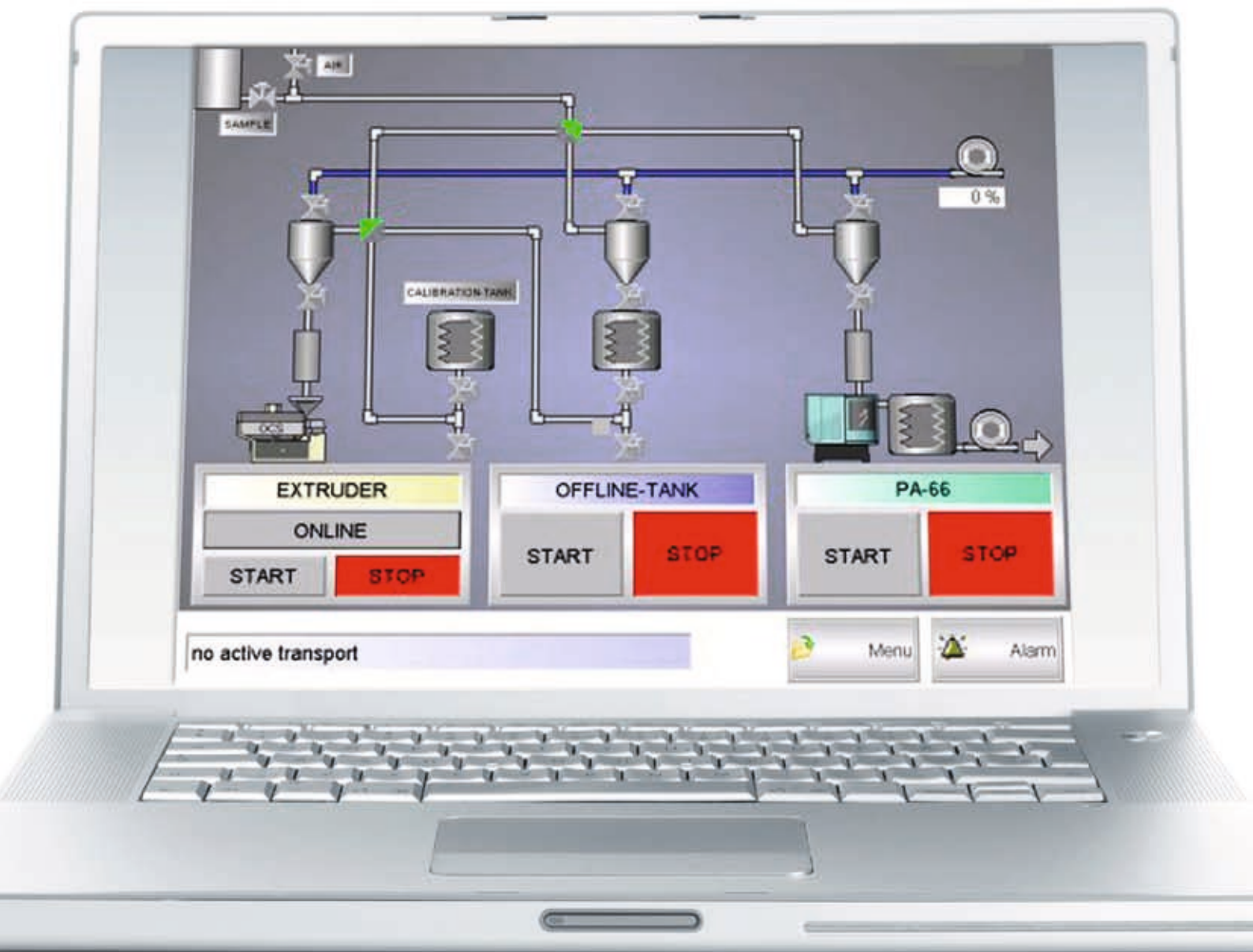
The Pellet Transport System PTS is a continuous and automatic transportation of pellets between the production lines and measuring systems. Samples of pellets from the production line are affected by means of pneumatic sample takers. Samples are sent through aluminium or stainless steel pipes (shot peened option). The PTS consists of hopper loaders (cyclone) with shutter valves for extruder with low and high level sensors for sampling.

Furthermore a stand by tank for purge and calibration material and a 3 way switch for a starvation system is available. The PTS is controlled with a PLC which is driven with a TFT touch panel for

visualisation and control of the sampling system. The system is equipped with a digital I/O interface to the DCS for transferring status and alarms. All pipes and bends (elbows) are specified to avoid dust, angel hairs and streamers. Totally gap-free flange connections (recommended: slip-on collars and loose flanges with projection and recess). A de-dusting device for removing dust and streamers etc. is an option.

Sample taker, 3 way switch and special hopper for extruder consist of:  
Hopper loader (cyclone) with shutter valve for the analyser with low/high level sensors for sampling.





## The following advantages can be achieved:

### Constancy

- All the needed values are available every time
- The plant runs much more stabile
- Plant parameters are in the designated levels

### On time readjusting

- Instantaneous intervention in case of parameter deviations
- Direct switch to "good" or "fail"-production
- Preventing huge amounts of scrap

### Fast reaction

- Real-time reaction on parameter changing
- Short-time switch-over during transitions
- Scrap minimizing by immediate quality results

### Remix/Transition

- Optimised plant flexibility by "remix"
- Conspicuous reduction of transition time
- Enabled to operate "advanced" transitions
- General increase of plant flexibility

### General plant overview

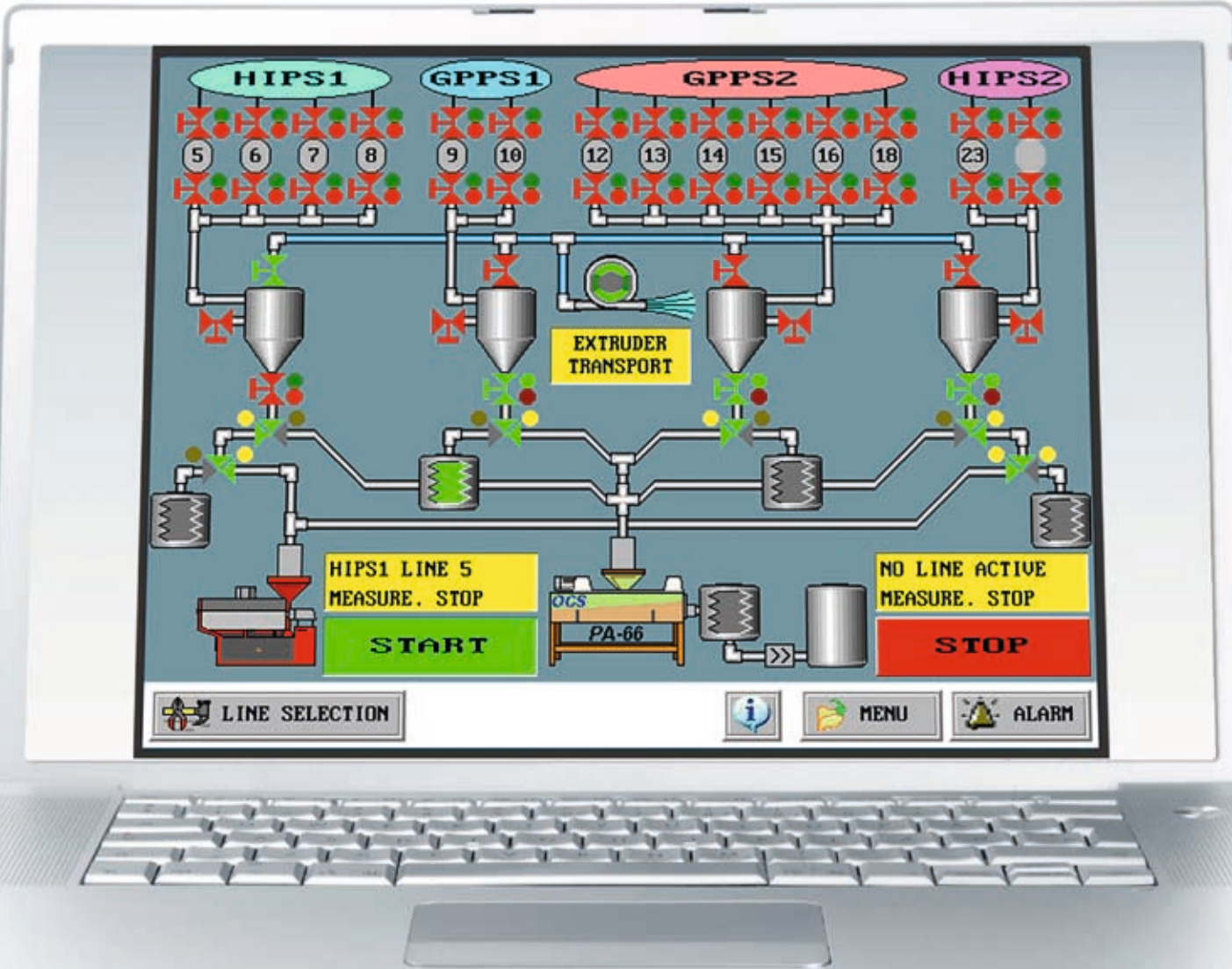
- Continuous data collection
- Statistics
- Process capability
- Increase of process CpK-values

### Error prevention

- Preventing human errors
- Preventing miss-sampling
- Preventing analytical data transfer errors

# Scrap minimising

By using OCS on-line equipment, scrap or substandard product can be minimised. Because of direct insertion of influence, the plant performance is increased significantly. Stable operation conditions are obtained and boost product quality tremendous. The overall increased efficiency brings forward the plants absolute economics. Parts of scrap or substandard can be reused or remixed because all parameters are under control permanently. That also will support the plants efficiency.





### Direct results

- To get lab results can take up to 4 h time
- Plant operation values directly available
- Direct overview of plant situation

### Direct handling

- All major analytical values are available anytime
- Cases of plant malfunctions are minimised
- Deviations from "normal" are observed directly and can be limited

### Smooth operation

- Exceeding of analytical values are recognised soon and can be managed
- Overview on all parameters allow smooth operation at all times
- Direct parameter corrections keep the plant in stabile conditions

### Optimised product mix

- Well known values allow flexible product changes
- Exact results are used for optimised product mix
- Campaigns of definated products easily can be prolonged or shortened

### Perfect additive control

- Perfect control of stabiliser, slip agent, anti-block, antioxidant and other additives
- Additive limit settings or alarms
- Optimised additive consumption

### Laboratory independency

- Reduced man power in lab
- Plant orientated operation
- Quality increase, because of preventing human errors



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