

By Ronald Ditmer

ENERGY SAVINGS AT ENAMELING PLANTS

Why to save energy ?

- ⦿ The global energy sources are limited.
- ⦿ Energy prices are expected to increase continuously in the (near) future.
- ⦿ Depending upon the level of automation and local labor cost, energy may be the third biggest cost driver at an industrial enameling plant.

How to save energy ?

1. Review typical energy demand during enameling process selection.
2. Select “energy friendly” equipment with the appropriate production capacity.
3. Ensure equipment operation at appropriate settings, optimum utilization and minimize energy consumption during non-production time.
4. Maintain equipment in perfect condition
5. Consider investments in secondary energy recovery solutions

Examples of energy savings

- ① So-called two coats / one fire enamel processes require a smaller furnace.
- ① Powder enameling eliminate the need of drying processes.
- ① Install heat-exchangers at air compressors and/or gas-fired furnaces.
- ① Close furnace opening and/or put lids on pickling tanks during non-production periods.

Identifying more savings

- ① There are many more possible initiatives to reduce the overall energy consumption of an industrial enameling plant, which may be identified by applying Lean Six Sigma's DMAIC approach.**

** Define / Measure / Analyze / Implement / Control

Consultancy services by DTC

DTC is specialized in providing process & equipment know-how during all lifecycle stages of an industrial enameling plant.

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