

HIGH-TS CONCENTRATION

HIGH-TS CONCENTRATION TECHNOLOGY

TEC Square uses Artisan industries' Rototherm-E technology for its finisher applications. The equipment is extremely reliable and requires little maintenance. It provides much

higher concentrations at lower product losses as competing technologies.



The High-TS Concentration process is especially interesting, when product quality matters. Or when the costs of the product is high and efficient operation is required. This process has many advantages:

- ♦ Less Product Losses The main evaporator can work on lower concentrations.
- ♦ More aroma Addition. A higher TS allows for more aroma addition, without compromising the final TS.
- Higher line Capacity. Less water to evaporate in a dryer

HIGH-TS CONCENTRATION PLANT — KEY POINTS

High quality machinery providing unique solutions. Possibilities exist to concentrate up to 60-70% TS with hardly any product losses.

CIP is more simple as for other evaporators.



The largest (20-m2) Rototherm-E® from Artisan Industries

SPECIFICATIONS AND ADVANTAGES

| | TEC Square Technology High-TS Concentration | Advantages |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Concentration technology | TEC Square uses Rototherm-E technology as a finisher. This evaporator gives easily concentrations after aroma addition for spray drying of 60%. | Very high concentrations are possible, 70% TS is no exception. Low temperatures are possible, avoiding damage to heat sensitive products. The fluid stream can contain small solid particles. Almost no product losses at high product concentrations. |
| Total Solids | A final concentration with very high TS is possible. Sometimes, it is even possible to go straight to powder. | High quality end-product. Direct in-line with the evaporation process. Less water in concentrate Less transport costs for liquid products |
| Instantaneous line capacity | High-TS evaporation can increase the overall line output as less water is available for the final drying operation. | Higher capacity Longer run times Less CIP required |
| Product Quality | High-TS Concentration decreases the water contents for the final process step and runs at low temperatures. Both give less quality loss. | Low temperatures Less water for drying gives less aroma losses |
| CIP | A Rototherm-E produces hardly any fouling. CIP is very simple, sometimes, a water run is sufficient. | Short processing times allow for ◆ Long run times ◆ Less CIP chemicals required ◆ Quick CIP ◆ Low product losses ◆ Efficient operation |

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