

4T Traditional Chinese Medicine Concentration

■ Project Overview

Client	Dong-E-E-Jiao Co., Ltd.	Location	Shandong China
System Type	MVR Rising Film Evaporator	Industry	Pharmaceutical Industry
Steam Compressor	LEHENG High-speed Direct drive Compressor	Application	Traditional Chinese Medicine Concentration
Raw Liquid	Traditional Chinese Medicine Liquid	System Layout Size	8346*7798 (mm)



■ Process Parameters

Feeding Rate	7.2T/h	Evaporation Rate	4T/h
Concentration of Feeding Stream	7%	Concentration of Concentrate	≥1.050
BPE	2°C	Compressor Temperature Rise	8°C
Evaporation Temperature	70°C	System Liquid Holding Volume	3m ³

■ Energy Consumption Analysis

Operation Hours (H/Y)	7200	Electricity Price (USD/KW.h)	0.12
Steam Price (USD/T)	30	Cooling Water Price (USD/T)	0.015
	Multi-effect Evaporator	MVR Evaporator	
Electricity (KW)	21	136	
Live Steam (T/H)	1.6	0.2	
Cooling Water (T/H)	180	30	
Operation Cost per Hour (USD)	53.2	22.8	
Cost of Evaporating one Ton of Water (USD)	13.3	5.7	
Savings per Hour (USD)	30.5		
Savings per Year (USD)	219,240.0		
Savings Rate per Year	57%		