CTI Mechanical Draft Performance Curve Test Report

Owner: New Era Power Company
Project: Big Megawatt Station
Location: Off the Highway
Manufacturer: Cooling Technology Institute
Tower Type: Induced

Cooling Tower Design and Test Data:

Parameters	Design	Test	Units
Water Flow Rate	3583.0	3583.0	l/s
Hot Water Temperature	49.36	49.36	°C
Cold Water Temperature	30.56	30.56	°C
Wet Bulb Temperature	26.00	26.00	°C
Dry Bulb Temperature	30.20	30.20	°C
Fan Driver Power	107.00	107.00	kW
Barometric Pressure	101.3250	101.3250	kPa
Liquid to Gas Ratio	1.3000	1.3000	

Cold Water Temperatures vs. Range
At 26.00 °C Test Wet Bulb Temperature

Range	3225.00 l/s	3583.00 l/s	3942.00 l/s	Units
17.00	29.63	30.36	31.12	°C
18.80	29.83	30.56	31.36	°C
21.00	30.04	30.77	31.59	°C

Cold Water Temperatures vs. Water Flow
At 26.00 °C Test Wet Bulb Temperature and 18.80 °C Test Range

3225.00 l/s	3583.00 l/s	3942.00 l/s
29.83 °C	30.56 °C	31.36 °C

Exit Air Properties

Parameters	Design	Test	Units
Wet Bulb Temperature	41.85	41.85	°C
Density	1.08636	1.08636	kg mixture/m³
Specific Volume	0.9708	0.9708	m³/kg dry air
Enthalpy	182.9082	182.9082	kJ mixture/kg dry air

Test Results

Name	Value	Units
Adjusted Flow	3583.0	l/s
Predicted Flow	3581.9	l/s
Tower Capability	100.0	%
Cold Water Temperature Deviation	0.00	°C