



Our one of the prestige's project  
 summery Report for 10M (33')  
 for cooling tower application  
 At IPCL Nagothane

Average power saving in 14 fan is  
 28.63% which will save 209.34 kW  
 per hour.

CENTRAL TECHNICAL SERVICES- RIL NMD

18-01-2008

Fan No:	Air Flow rate		Power		
	Before (Pharpur fan)	After Maya(FRP)	Before (Pharpur fan)	After Maya fan)	% Power saving
1	525.25	527.26	48.67	35.83	26.17
2	526.27	540.43	47.50	35.58	25.09
3	570.70	568.50	51.27	38.31	25.28
4	568.83	599.03	48.83	34.94	28.45
5	552.63	582.90	52.90	37.17	29.74
6	485.85	578.40	50.93	38.30	24.80
7	557.86	558.30	53.07	41.13	22.49

Fan No:	Air Flow rate		Power		
	Before (Pharpur fan)	After Maya(FRP)	Before (Pharpur fan)	After Maya fan)	% Power saving
1	593.31	599.88	54.08	38.15	29.40
2	553.85	582.40	58.17	42.63	26.7
3	594.11	572.41	52.5	33.48	36.21
4	555.13	502.86	53.13	36.02	28.43
5	567.63	553.95	53.27	28.3	46.8
6	517.52	526.91	53.47	38.69	28.76
7	581.61	598.08	53.43	41.93	21.52

Flow measurement :

Flow measurement was done by using Anemometer. We divided the fan diameter into 4 equal parts (North, South, West & East). From every side we took the readings of maximum and minimum from 10 different calculated distances from the centre of the fan. Average of all air velocity readings is used for flow measurement.

Power measurement :

Energy meter is used for power measurement. We had taken the power readings of three phases (R, Y, & B). For power saving calculations we took the average value of these readings.

Note: Blade angles of CT-02, Fan-03 and fan-05 are going to change to achieve the existing flow rate.

  
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 CTS