

Adhunik  
Rourkela

AML

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CLIENT ADHUNIK METALIKS LIMITED

TECHNICAL DATA SHEET FOR STEAM GENERATOR AND AUXILIARIES

Makers Nr W780 01

Document No W780 01 TDS 01

EQPT WH Boiler

	Prepared By	Checked By	Approved By	Date
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Rev.	Revision Details	Rev By		Approved By		Date
		Name	Sign	Name	Sign	
01	Revised as per consultant comments	Prasad	<u>Prasad</u>	BRR	<u>✓</u>	20 10 05

ADHUNIK METALIKS LIMITED  
2 X 15 MW CAPTIVE POWER PLANT

Sheet No		Sheet No		113
1 1		BOILER PREDICTED PERFORMANCE AT MCR		
S.No	Description	Unit		
1	MCR of Boiler at design flue gas temperature and qty	kg/h	10000	
2	Steam generation possible at the max temp of flue gas	kg/h	11500	
3	Steam generation at the min temp of flue gas	kg/h	8150	
4	Steam outlet temperature from superheater at MCR	°C	492 ± 5	
5	Superheated steam control range	%	60 - 100	
6	Steam pressure at boiler / superheater outlet	kg/cm <sup>2</sup> (g)	68.2	
7	Maximum dust content in flue gases at inlet of ESP	gm/nm <sup>3</sup>	50	
8	Minimum stable operating load of the boiler	kg/h	6100	
9	Minimum Continuous Rating of the boiler with automatic Controls	kg/h	3450	
10	Flue Gas Temperature			
	a. Radiant chamber inlet	°C	950	
	b. Entering Superheater	°C	690	
	c. Leaving Superheater	°C	510	
	d. Entering evaporator	°C	510	
	e. Leaving evaporator	°C	357	
	f. Entering Economiser	°C	357	
	g. Leaving Economiser	°C	160	
	h. Entering ESP.	°C	160	
11	Approach point	°C	11	
12	Pinch point	°C	67	
13	Water Temperature			
	a. Economiser Inlet	°C	126	
	b. Economiser Outlet	°C	279	



2.1 Steam Output/Qty :

TSPL guarantees the steam generation rate given below based on heat from flue gases alone, at normal gas conditions:

- For 24000 nm<sup>3</sup> / hr @ 950 ° C    10000 kg/hr

Pre-requisites :

Since the steam generation is dependant upon the heat in kiln exhaust gases, AML shall propose fairly accurate means to establish kiln exhaust gas quantity / volume, temp and composition for mutual acceptance and then Seller shall confirm / qualify his guarantees

2.2 Steam Temp :

TSPL guarantees steam temp of  $485 \pm 5^{\circ} \text{C}$  at CSDH inlet

In case the steam temp goes below 480 C, TSPL shall rectify / modify the WHRSG to achieve the specified steam temp

2.3 Steam Pressure:

TSPL guarantees steam pressure of 65.2 ata at the inlet of CSDH.

In case the steam pressure goes below 65.2 ata TSPL shall rectify/modify the WHRSG to achieve the specified steam pressure