



## ASHUTOSH ENGG. CONSULTING

( Manufactures of Producer Gasifier )

Regd. Off: 749 / 2A / 2 , G.I.D.C. ESTATE , MAKARPURA , VADODARA - 390010 .  
GUJARAT ( INDIA )

Phone No:- 0265 - 3047088 ; Fax No:- 0265 - 3047088.

Mobil :- 09825055157, 09909017157.

Ref No. AEC 07 / 12 / 005 ,

Date : 11 / 12 / 07.

To,  
Mr. Satish S.Chitwadgi ,  
C/o, H&R Johanson (I) Ltd ,  
7<sup>th</sup> Floor,Windsor,C.S.T.Road,  
Kalina ,Santakruz (East) ,  
Mumbai - 400098 .  
(Maharastra)

Sub: Heat balance value of Direct - HAG in Spray Dryer .

Dear Sir ,

As per verbal discussion by telephonic and getting E.mail by you for require Heat balance value of Direct - HAG in Spray Dryer .

> Energy consuming	:	35,00,000 K.cal / Hrs ,
> Spray Dryer In-let Temp	:	600 deg C ,
> Spray Dryer Out-let Temp	:	120 deg C ,
> Spray Dryer Final moisture	:	5.5 % moisture .
> Spray Dryer product out-put	:	8.0 MT / Hr .
> Water evaporation per Hrs through Spray Dryer	:	3500 Ltr/Hr.
> Require energy 1Ltr water evaporation	:	1000 Kcal/Ltr water.(at 600°C)
> Actual require energy 1Ltr water evaporation	:	830 Kcal/Ltr water.(at 600°C)
> Flue gas discharge loss energy to stake	:	170 Kcal/Ltr water.(at 120°C)
> Actual Thermal efficiency of Direct fired HAG	:	83 % .
> Actual loss Thermal efficiency of stake Dryer	:	17 % .

Thanking you ,

Your's ,

For : ASHUTOSH ENGG & CONSULTING.

ASHUTOSH ENGG. & CONSULTING

PROPRIETOR

( P.Trivedi.)

WORKS :- 749 / 2A-2 , G.I.D.C.Estate , MAKARPURA ,Vadodara ( GUJARAT ) .  
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Kalina ,Santacruz (East) ,  
Mumbai - 400098 .  
(Maharastra)

**Sub: Heat balance value of In-Direct HAG in Vertical Dryer .**

Dear Sir ,

As per verbal discussion by telephonic and getting E.mail by you for require Heat balance value of In-Direct HAG in Vertical Dryer .

- |  |   |                                 |
|--|---|---------------------------------|
| > Energy consuming                                   | : | 25,00,000 K.cal / Hrs ,         |
| > Vertical Dryer In-let Temp                         | : | 300 deg C ,                     |
| > Vertical Dryer Out-let Temp                        | : | 120 deg C ,                     |
| > Vertical Dryer In-let moisture                     | : | 5.5 % moisture .                |
| > Vertical Dryer Out-let moisture                    | : | 1.0 % moisture .                |
| > Vertical Dryer product out-put                     | : | 4.0 MT / Hr .                   |
| > Water evaporation per Hrs through Vertical Dryer : |   | 240 Ltr/Hr.                     |
| > Require energy 1Ltr water evaporation in-direct    | : | 10000 Kcal/Ltr water.(at 300°C) |
| > Actual require energy 1Ltr water evaporation       | : | 6000 Kcal/Ltr water.(at 300°C)  |
| > Flue gas discharge loss energy to stake            | : | 4000 Kcal/Ltr water.(at 200°C)  |
| > Actual Thermal efficiency of In-Direct fired HAG:  |   | 60 % .                          |
| > Actual loss Thermal efficiency of stake Dryer      | : | 40 % .                          |

Thanking you ,

Your's ,

For : ASHUTOSH ENGG & CONSULTING.

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PROPRIETOR

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