Cost Benefit Analysis : Monochlorobenzene & Sulfolene Distillation

EVEREST VACUUM
Innovative Engineering Solutions

GUJARAT FLUOROCHEMICALS
VALUE THROUGH GREEN CHEMISTRY

Process Brief:

1) Product : MonoChlorobenzene and Sulfolene
2) Process : Distillation under Vacuum.
3) Pumping : 1000m3/hr.
4) Vacuum : 5 TORR.
5) Vacuum System : SUPER VAC + POST CONDENSER.
6) Old System : 3 Stage Ejector with Intermediate condenser

Sl.N	Description	WET	DRY
1	Power/Steam (Cost)	19,80,000.00	5,43,312.00
2	Utility (Cost)	7,65,600	2,11,200
3	Solvent Recovery (Saving)	0	5,40,000.00
4	N2/Air Utility (Cost)	0	79,200.00
5	Maintenance (Cost)	1,20,000.00	1,43,100.00
6	Total (Cost+Saving)	28,65,600.00	9,76,812.00
	Total Direct Saving (Wet - Dry)		**18,88,788.00**
	% Utility Cost Spend **(DRY to WET)**		34.09%
	% Saving Utility Cost Spend **(DRY to WET)**		**65.91%**

PRODUCTIVITY:		
TIME SAVING	22 Hrs/Batch	18 Hrs/Batch
QUALITY	98-98.5% Product Purity	99% Product Purity
SOLVENT RECOVERY	0	**5,40,000.00**