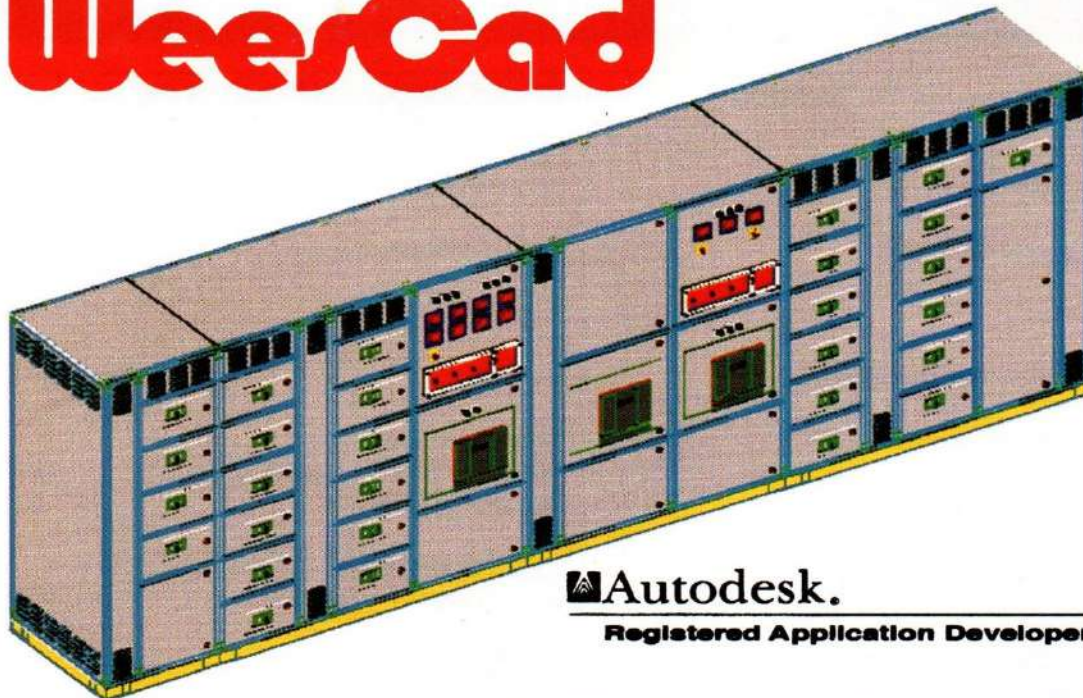


WeesCad



Autodesk.

Registered Application Developer

Sample Data Given : 2 incoming feeders of 1.5 MVA 380/3/50 Hz transformer & 29 nos. outgoing feeders, 1 no coupler, power electrical switchboard built according to IEC 439 to withstand 50 KA, form III, ambient temperature 35°C complete with standard reading and protection equipment.

QUOTATION & ESTIMATION

Conventional Method				VS	We's Technology			
1 st	2 nd	3 rd	Result		1 st		Result	
Design 2D/Estimation/Typing			= Conceptional design		Spec input/Auto generated mfg data 3D drawing format Fully documented presentation			= Detailed design
Accuracy In Estimating The Project					Accuracy In Estimating The Project			
Electrical component			= 90%		Electrical component			= 95%
Switchboard Structure			= 80%		Switchboard Structure			= 100%
Bus-bar (Copper)			= 75%		Bus-bar (Copper)			= 98%
Labour time spent			= 70%		Labour time spent			= 95%
Miscellaneous			= 90%		Miscellaneous			= 90%
% of accuracy			405/500 = 81%		% of accuracy			478/500 = 95.6%
Type of personnel required					Type of personnel required			
*Min. Yrs Experience								
- Designer			3 yrs					
- Estimator			2 yrs					
- Skilled Typist			1 yrs					
*Experience in their field of work								
Labour time spent					Labour time spent			
Design 2D / Estimation / Typing			Total		Specification Input			Total
8hrs	2hrs	0.5hrs	= 10.5hrs		20mins			= 20 mins
Cost of personnel					Cost of personnel			
Technician = S\$50.00/hr x 10			= S\$500.00					Total
Typist = S\$20.00/hr x 0.5			= S\$ 10.00		General Clerk = S\$20.00/hr x 0.33			= S\$6.60
Total			= S\$510.00					

MANUFACTURING PROCESS

Conventional Method

Vs

We's Technology

Detailed Drawing For Manufacturing

Single drawing
2D shop drawing
2D component layout

Type of personnel required

*Min. Yrs Experience

Designer 3 yrs

*Experience in their field of work

Labour time & cost spent

Design 2D (S\$)
40hrs x S\$50.00/hr 2,000.00

Cubicle Fabrication

Main structure (steel sheet) 1,500.00
Internal bracket (steel sheet) 500.00
Powder Spray (material) 600.00
10% Wastage 260.00

Labour time & cost spent

Skilled labour covering
Main-structure & internal bracket
- 4man x 8hrs x 5days x S\$25.00/hr 4,000.00
Assembly of cubicle & elect. Equipment
- 2man x 8hrs x 2days x S\$25.00/hr 800.00

Bus-bar Fabrication

Bus-bar copper + Wastage 3,000.00

Labour time & cost spent

Skilled labour
- 2man x 8hrs x 5days x S\$25.00/hr 2,000.00
Total cost for design, estimating & mfg **15,170.00**
Total time for design, estimating & mfg **242.5 man/hr**

Detailed Drawing For Manufacturing

Single drawing
3D shop drawing
3D component layout

Type of personnel required

General Clerk

Labour time & cost spent

WeesCAD automatic generated drawing (S\$)
20mins x S\$20.00/hr 6.60

Cubicle Fabrication Used WeesMOD CKD

Main structure & internal parts 4,500.00

Labour time & cost spent

Assembly of cubicle & elect. Equipment
- 2man x 8hrs x 2days x S\$25.00/hr 800.00

Bus-bar Fabrication

Bus-bar copper 2,800.00
WeesCAD bus-bar waste mgt system

Labour time & cost spent

Semi-skilled labour
- 2man x 8hrs x 2days x S\$15.00/hr 480.00
Total cost for design, estimating & mfg **8,593.20**
Total time for design, estimating & mfg **64.66 man/hr**

Conclusion

Assuming other manufacturing process stages are the same, a substantial saving are shown.

Conventional Method - We's Technology = Saving

Saving in cost of manufacturing = 15,170.00 - 8,593.20 = **6,576.80**

Saving in time of manufacturing = 242.5 - 64.66 = **177.84 man/hr**

Conventional Method		
We's Technology		
Documentation presentation	***	*
Accuracy estimation	***	*
One stop documentation	***	*
Higher productivity	***	*
Lower in material wastage	***	*
Lower production cost	***	*
Lower inventory/financial cost	***	*
Fully utilisation of floor space	***	*
Better quality/uniform design	***	*
Lower utilization of skilled labour	***	*