

FABRICATION PROCEDURE

- a) Designing: Detailed Drawings, G.A., Structural, foundation etc.
- b) Client's approval.
- c) Sheet, angle & channel: specification & quantity calculation.
- d) Material inspection & procurement
- e) Material transport to factory.
- f) Fabrication planning
- g) Actual fabrication work
- h) Periodic inspection
- i) Final inspection
- j) Finishing
- k) Inspection by client
- l) Finish goods transport for painting work,

PAINTING DETAILS

- a) Finalization of painting details from client: Color shade & type of painting
 - i) Plain liquid stoving.
 - ii) Enamel painting after seven tank process.
 - iii) Epoxy painting after seven tank process.
 - iv) Powder coating.
 - v) Weather any other treatment such as Sand Blasting/PU coating required.
- Note:** Our standard colors shades:
- 1) For smaller built panels: Siemens Grey/ Light gray, powder coating mounting plate –as per req.
 - 2) For MCC'S & PCC'S: Light Grey (shade 631)/ Siemens Grey shade 7032
Mounting plates: As per requirement.
Base channel: Black
- b) Appropriate cleaning process.
 - c) Primer application.
 - d) Paint coat application
 - e) Oven drying/Air drying as applicable to panel structure.
 - f) Painted goods transport to factory

ELECTRICAL ITEMS

- a) Designing: Detailed Drawings, Single line diagram, Component layout diagrams, Circuit diagrams, Interlock logic circuits, power & Control Termination, Legend (With material details) etc.
- b) Client's approval.
- c) Detailed material specification & listing.
- d) Material order as per make & specification.
- e) Material inspection, Procurement & Collection of test report.

FITTING PROCEDURE

- a) Mounting plate Drilling & Tapping
- b) Fitting of component as per component layouts of specification.
- c) Inspection of fitted mounting plates before wiring.

WIRING PROCEDURE

- a) Power wiring in Red, Yellow & Blue colour
- b) Control wiring in Grey colour
- c) Wiring inspection as per wiring diagram.

TESTING PROCEDURE

- a) Cold testing:
 - i) Checking components as per Drawings. listing & specs.
 - ii) Checking component mounting
 - iii) Checking wiring.
- b) Connection of supply & step by step no load testing:
 - i) Incomer: Isolator /SFU etc.
 - ii) Outgoing feeders
 - iii) Interlocks if any
 - iv) Manual & Auto cycles if any
 - v) Terminations
- c) Load testing (available resources permitting)
- d) Equipment testing viz.:
 - i) Meggar test
 - ii) HV test

QUALITY ASSURANCE PLAN

S.N.	MATERIALS	CHARACTERISTICS	TYPE OF CHECK	QUANTUM OF CHECK
1)	Sheet Metal	1) Gauge 2) Type 3) Condition	Measurement Visual Visual	100%
2)	Fabrication	1) Structural dimensions As per drawings. 2) Surface finish 3) Final finish	Measurement Visual Visual	
3)	Painting	1) Pretreatment cleaning 2) Appropriate treatment 3) Primer application 4) Finish painting Powder coating	Visual Visual Visual	100%
4)	Electrical Material	1) Specification 2) Rating 3) Functioning 4) Make	Elect. Visual	One sample Per lot
5)	Assembling	1) Location as per G.A. 2) Fitting		
6)	Wiring	1) Wire: Make Specs., Rating color 2) Wiring as per given diagram 3) Ferruling & lugs at each & every termination	Visual Elect. Visual	100% 100%
7)	Copper/Aluminum Bus Bar	1) Grade 2) Specification as per Prepared requirement	As per lab. Test	100 %
8)	Cold testing		Elect.	
9)	Functional testing		Elect.	
10)	On load testing		Elect.	100%
11)	Megger test & HV test		Elect.	
12)	Final check for tightening of electrical components, cover & electrical connections & proper cleaning before packing & dispatch.			

LIST OF MACHINERY AND TOOLS

NAME	QUANTITY
* DIGITAL MULTIMETERS	4NOS.
* CLAMP METER	1NO.
* INSULATION TESTER (1KV)	1NO.
* H. V. TESTER (5KV)	1NO.
* OSCILLOSCOPE	1NO.
* DRILL M/C UPTO 25MM STAND TYPE	1NO.
* HAND DRILL M/C UPTO 8.0MM	4NO.
* HAND DRILL M/C UPTO 12.0MM	1NO.
* WELDING MACHINE (150Amp)	1NO.
* HAND PRESS NO. 10 & 40 TON PRESS BRAKE,M/C	2NO.
* GRINDER 8" & 4" WHEEL	1NO.
* SANDER 7" WHEEL	1NO.
* HAND OPERATED SHEET SHEARING M/C	1NO.
* FIX PANNA SET	1SET
* BOX PANA SET	1SET
* GAS CUTTING SET	1SET
* GAS BRAZING SET	1SET
* VICE MACHINE	1SET
* HACKSAN TOOLS	2NOS.
* CRIMPING TOOLS 16SQ MM TO 400 SQ MM	1NO.
* CRIMPING TOOLS 1.5SQ MM TO 16SQ MM	4NOS.
* HOLE PUNCH DIA 12MM TO 75MM	1NO.
* LOWER DIA 4"	1NO.
* HAND CLEANING BLOWER	1NO.
* WIRE CUTTER	1NO.
* CUTTER PLAYER	4NOS.
* WIRE STRIPER	4NOS.
* SCREW DRIVER SET	4SET

NOTE: Bigger size Cutting & Bending jobs of sheet metal are done on Hydraulic Shearing & Bending