MV Cables (Lead Sheathed)

We have Quality Assurance System certified to ISO:2000-9001. Well defined and documented procedures cover all the stages of manufacturing, right from procuring of raw materials till dispatch of finished products.

Quality checks have been built into the system. Dimensions and Properties are closely monitored and checked at each processing stage as stipulated vide relevant Quality Assurance Plan. Only those products with "OK" status are taken to subsequent process stage. Product with "NOT OK" status are dealt with as per "non conformity handling system".

1) Incoming Raw Materials:

Cable comprises of diverse raw materials like electrical grade Copper / Aluminium, XLPE & semi-conducting compounds, various tapes, steel wires, PVC Compound ingredients etc.

Based on International specifications, customer stipulations and our long experience in the field of Cable Manufacturing, we have designed "Material Specifications" covering all the raw materials. We observe a stringent "Supplier Evaluation and Approval" procedure. Only approved raw materials are purchased from approved suppliers.

Raw materials thus procured are subjected to incoming inspection / tests and scrutiny of supplier's test certificate in line with Quality Assurance Plan(s).

2) Wire drawing process:

Aluminium rods are purchased from the market while we have our own copper rod manufacturing plant.

Copper / Aluminium rods of standard diameter are drawn down to requisite diameters.

Depending on conductor type, this may be multi stage process viz. rod break down followed by intermediate drawing followed by fine wire drawing.

3) Conductor making process:

Normally for MV Cables, conductor is Circular Stranded (compacted)

Wires thus drawn are stranded together in concentric layers and compacted to form conductor.

4) Insulation:

All XLPE Cables above 3.3 kV grade are provided with both conductor shielding and insulation shielding consisting of extruded semi-conducting compounding.

Conductor shielding, XLPE Insulation and Insulation shielding are all extruded in one operation by special extrusion process to ensure perfect bonding between the layers.

5) Copper Taping:

Metallic part of insulation shielding is provided by helically lapped copper tape.

6) Core Stranding: (multi core cables)

3 such cores are stranded together to form a cable assembly.

If necessary to achieve circularity, fillers are provided in central / peripheral interstices as required.

7) Compounding:

We formulate our own recipes of various types of PVC compounds necessary. The plant is fully computerized and automatically monitors quantities / mixing of necessary Ingredients.

8) Inner Sheathing:

A common covering is applied over stranded cores as above, by extrusion of PVC Sheath.

9) Lead / Lead Alloy Sheathing:

An extruded sheath of Lead / Lead Alloy is provided so as to render the cable impervious to oils / certain chemicals.

10) Separation Sheath:

Bedding of Extruded PVC sheath is applied over Lead Sheath.

11) Armouring:

Mechanical protection is provided by providing Galvanized Round Steel Wires (SWA). Alternatively, steel tapes may be given (optional)

12) Outer Sheathing:

Over the armour, a PVC outer sheath is extruded. This is normally of Red in colour. Alternatively, other colours may be given as necessary.

Outer sheathing with special properties may also be given as per Customer's requirements.

13) Final Testing:

Routine Tests, Type tests, Acceptance Tests and Optional Tests (if any) are carried out so as to ensure integrity of manufactured cables.

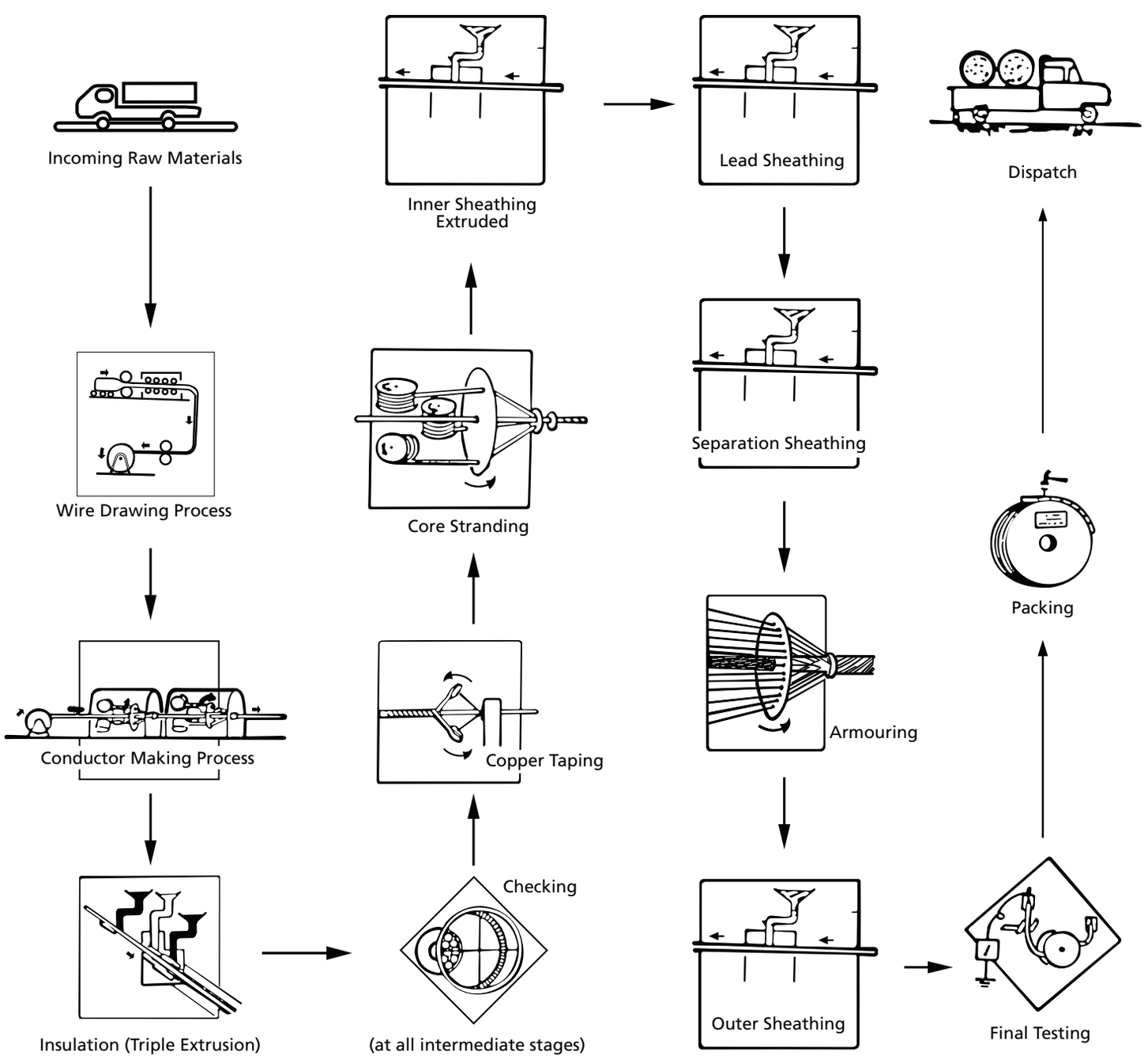
Test certificates are issued as contractually agreed.

14) Packing:

Drums containing cables are packed to obviate possibility of damage during transportation.

15) Dispatch:

Drums duly packed are sent to respective sites as contractually agreed.


Incoming Raw Materials
Wire Drawing Process
Conductor Making Process
Insulation (Triple Extrusion)
Checking
(at all intermediate stages)
Copper Taping
Core Stranding
Inner Sheathing Extruded
Lead Sheathing
Separation Sheathing
Armouring
Outer Sheathing
Final Testing
Packing
Dispatch