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## **B.2.6. Evolution des accessoires** MT

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## Summary

The era of impregnated paper-insulated cables has led to the use of casting and then injection wrapping techniques for the layout of all connection devices.

The advent of synthetic material insulated cables has brought about a fundamental innovation in the layout of connecting devices. This innovation has resulted in the use of techniques with no wrapping and no casting materials.

It was a real upheaval in the trade and in the installers' habits as well.

Of course, it is illusory to say that the past and the present do not dwell side by side. The networks are made in such a way that sometimes, due to the force of habit, to the jobsites, to the people as well, etc. ... the old techniques are still in use, but to a lesser extent.

These new techniques can be divided into two large groups:

- the heat-shrinkable group

- the prefabricated group.

Heat-shrinkable group :

Characterized by the fact that a single model enables to connect a wide range of cables at the terminations and at the joints.

Although preferably in use for joints, it can also operate with dry and PI cables (transition joint).

Let us bear in mind that this is the only modern technique that enables to make branched joints and thus to give up the casting or wrapping techniques.

## Résumé

L'ère des câbles isolés au papier imprégné a conduit à l'utilisation des techniques coulées puis rubanées injectées pour la conception de tous les matériels de raccordement.

L'avénement des câbles isolés aux matières synthétiques a amené une profonde innovation dans la conception des matériels de raccordement, innovation matérialisée par l'emploi de techniques n'utilisant plus ni les rubanages, ni les matériels coulés.

At the beginning, the execution of connecting devices in the time of impregnated-paper insulated cables required comprehensive technical skills and a considerable amount of know-how from the installers, in the domain of:

- core connection by means of wiped solder joints, for instance,
- the reinforcement of the insulation by the cross-linking of a impregnated paper taper,
- the build-up of the outer metallic screen by means of a tin tape, among others,
- the creation of a lead sleeve and its weld beads, which was subsequently filled with hot-castable material and mechanically protected either by polyester-glass composite wrapping or by a tube filled with hot-castable material.

The technical development with the emerging of synthetic tapes and injectable materials has provided the installers with a certain ease of use due to a new generation of connecting materials called "injection wrapping".

About twenty years ago, the advent of synthetic material insulated cables (EPR, polyethylene, XLPE, etc.) has brought about a fundamental innovation in the layout of connecting materials.

No more wiped solder joints, no more wrapping, no more hot-cast materials, etc...but time has come for crimped joints, built-up prefabricated insulation, ready-made mechanical protections ...