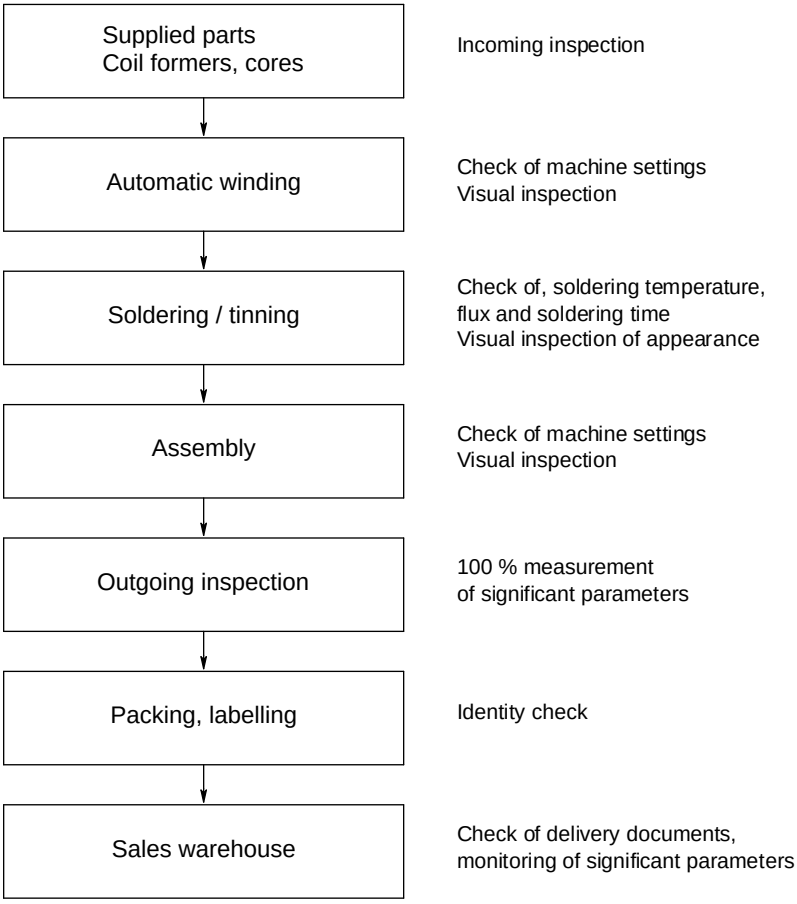
1 Typical production sequence / inspection plan



2 General information

2.1 Quality objectives

Quality plays a central role in the competition for the better and more favorable product. As a guiding principle for the continuous improvement of product and service quality, the Ferrites Business Unit has set quality objectives which are regularly updated and successively extended to all products. These serve as target criteria for new developments and are similarly required of supplied products.

To realize the objectives for existing products, projects involving teams of staff from all areas are working on product and process improvements without regard to departmental boundaries.

2.2 Total quality management and Siemens *top* campaign

The aim of Total Quality Management (TQM) and the Siemens *top* campaign are to gear the entire organization to optimally satisfying customer requirements.

Following the principle of “quality from the very start”, everyone in our company is involved in realizing this objective. Systematic planning, careful selection of our suppliers and mastery of the development and production processes are the most important guarantors for maintaining a high quality level.

Internal measures to promote quality, such as training courses, quality groups, working committees and Q audits, strengthen the sense of responsibility of every employee and help to recognize and avoid errors.

Modern quality instruments such as FMEA[1)] and SPC[2)] supplement and support our quality assurance and enhancement measures.

3 Quality management system

All units involved in the development and production of inductors have quality management systems complying with ISO 9001.

This ensures the following:

- allowance for customer requirements from the very beginning,
- secure processes in the design phase with clean interfaces,
- optimum harmonization of all processes and tests from goods inward through production to final inspection and shipment, using modern quality tools,
- ongoing monitoring and recording of product quality with appropriate traceability,
- rapid handling and effective correction measures in the event of complaints.

4 Delivery quality

The quality level of the products released for delivery is constantly monitored, recorded and evaluated.

5 Classification of defects, AQL values

A product is considered defective if it does not comply with the specifications given in the data sheets or in the agreed technical purchase specification.

Use of the sampling plan according to IEC 410/DIN ISO 2859 (previously DIN 40080, contents identical to MIL STD 105 D) is recommended where incoming inspections are carried out by the user.

A distinction is made between inoperatives and tolerance defectives.

Inoperatives:

– short circuit or open circuit of a winding
– broken core or coil former
– marking wrong or missing
– mixing with other types in one lot.

1) FMEA Failure Mode and Effects Analyses
2) SPC Statistical Process Control

Tolerance defectives:

– limit violation of characteristic data
– limit violation of dimensions.

5.1 Electrical properties

The product data and their tolerances are specified in the data sheets. Measuring conditions require agreement between the customer and the manufacturer. The measuring conditions for RF transformers are given in the general section preceding the data sheets.

5.2 Dimensions

The dimensioned drawings in the data sheets are definitve for the dimensions.

5.3 Solderability

Solderability of the transformer terminals is assessed in accordance with IEC 68-2-20, test Ta, method 1 (aging 3).

5.4 AQL values

The AQL values to be applied for the incoming inspection carried out by the customer are being reduced step by step within the scope of our quality objectives. At present the following AQL values apply:
AQL 0,1 for significant parameters (e.g. inductance, transformation ratio)
AQL min. 0,65 for all other properties.

CERTIFICATE

DQS Deutsche Gesellschaft zur Zertifizierung
von Qualitätsmanagementsystemen mbH
(German Association for the Certification of Quality Systems)

hereby certifies that the company

S + M Siemens Matsushita
Components GmbH & Co. KG
Ferrites Division
Plant Munich
Balanstraße 206

D - 81549 München

Design, Production and Sales
of Ferrite Cores and Inductive Ferrite Components

has implemented and maintains a

quality system.

A quality audit performed by DQS has verified that
this quality system fulfills the requirements of the following standard:

DIN EN ISO 9001

Quality systems
Model for quality assurance in design, development, production,
installation and servicing
(Issue August 1994)

This certificate is valid until	July 15, 1998
Certificate Registration No.:	19 334 - 02
Frankfurt am Main,	July 16, 1995
First Issue (DIN ISO 9001)	July 1992

PRESIDENT
Dr.-Ing. W. Hansen

MANAGING DIRECTOR
Dipl.-Ing. J. Pärsch

Offices: D-60433 Frankfurt am Main, August-Schanz-Straße 21 D-10787 Berlin, Burggrafenstraße 6

EQNet

Deutscher Akkreditierungsrat
DAR
TGA-ZQ-91003