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Applicable normative references:

| | |
|--------------|--|
| SWN 39001-01 | Requirements for authorization of purchased parts |
| SWN 39001-02 | Application for product / process change by the supplier |
| SWN 39003-01 | Prohibited and restricted substances |
| SWN 13014-01 | APQP for suppliers (Advanced Product Quality Planning) |
| ISO 14405-1 | Geometrical product specifications - Dimensional tolerancing |
| ISO 8015 | Technical drawings; fundamental tolerancing principle |

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1 Foreword

1.1 Purpose of STIHL company standard (SWN)

STIHL products stand for top quality. To achieve this, strong partners in the supply chain are necessary who commit themselves to the Zero-Defect-Strategy and provide the high level of quality, competitiveness, cooperation and reliability STIHL products demand. Consequently, the requirements of STIHL regarding suppliers need to be communicated and understood. The purpose of this SWN is to provide a clear understanding of the STIHL expectations towards the suppliers.

1.2 Scope of SWN

The subject of this SWN are the general STIHL requirements regarding suppliers. Chapter 2 describes the structure of the requirements. Afterwards, they are explicitly outlined in chapter 3. The fulfillment of this SWN is the foundation for the supplier release (new suppliers). Furthermore, the SWN applies in the context of supplier management by STIHL (e.g. with audits, supplier evaluation and supplier development).

This SWN is valid for parts and materials purchased and used in serial production of STIHL products as well as market ready machines and spare parts sold under the STIHL brand. The requirements apply to the project and the serial phase. In the following, the term "supplier" refers to this mentioned scope respectively. Subcontractors of the STIHL suppliers are referred to as sub-suppliers in this SWN.

1.3 Binding nature of SWN

This SWN shall apply in addition to the STIHL's General Purchasing Terms and Conditions for Series Material, any Cooperation Agreements or other individual contracts with the supplier. In case of contradictions, the SWN shall not prevail.

2 Structure of the requirements

This SWN defines **general requirements**, meaning they are equally relevant for every supplier. These general requirements are separated into **mandatory** and **rated** requirements (see following chapters). Further **specific requirements** may be defined and stipulated between the individual supplier and STIHL, based on the related scope of business.

3 Mandatory requirements

Mandatory requirements are the basic principles of the business relationship. For an unrestricted release, STIHL expects the fulfillment of all mandatory requirements.

3.1 Contracts and certificates

The collaboration with the supplier is based on closed contracts. In particular, this includes:

- a signed Non-Disclosure Agreement
- a signed STIHL Code of Conduct (CoC), where the supplier confirms the implementation of the STIHL principles of corporate social responsibility

Furthermore, the supplier has effectively implemented the requirements of the ISO 9001 confirmed by a valid ISO 9001 certification.

3.2 Prohibited and restricted substances and substance management

The supplier adheres to the STIHL specifications concerning prohibited and restricted substances as defined in the SWN 39003-01 by implementing an effective substance management system.

3.3 Application of STIHL processes and tools

The supplier agrees to follow the STIHL processes as described in the STIHL SWNs and to use the tools provided by STIHL for collaboration and exchange of data (e.g. STIHL Collaboration Portal).

3.4 Supply chain management

The supplier takes on the responsibility along the complete supply chain for all areas of business such as procurement, quality, corporate social responsibility etc., unless this is otherwise agreed. The supplier implements effective processes to transfer the STIHL requirements respectively. Sub-suppliers as well as their supplied parts are systematically evaluated and released including all necessary documentation. They are only used after official approval by the supplier.

3.5 Tools and know-how concerning technical drawings released by STIHL

The supplier can read and understand STIHL technical specifications and knows (if necessary) the content of DIN EN ISO 14405-1 Geometrical product specifications (GPS) and DIN EN ISO 8015 Fundamental tolerancing principle (principle of independency). Preferably, these standards are available at the supplier.

3.6 Contact persons and customer service

The supplier provides constant customer service for STIHL, including contact persons and effective substitutes for purchasing, quality and procurement topics with appropriate language skills. In case of a planned business relationship to several STIHL locations, sufficient English skills are necessary.

3.7 Effective quality management system and qualified employees in quality assurance

A quality management system is effectively implemented in the organization and the head of quality is sufficiently qualified. The person of contact for STIHL quality assurance has appropriate technical skills, adequate English language skills (if several STIHL locations are concerned) and enablement within the organization.

3.8 Clear identification, continuous marking and systematic handling of material, parts and equipment to prevent the use of incorrect material, parts or equipment

Material, parts, components and software in the warehouse and production as well as equipment used for the production, testing and measuring of the material/ parts/ products for STIHL are clearly marked and can be identified on the spot (type, production and release status etc.). The identification and marking is ensured during all process steps. The supplier provides effective processes for the identification and handling of not released or non-conforming material/ parts/ products to ensure that these cannot be delivered to STIHL.

4 Rated Requirements

The following requirements are part of the overall assessment of the supplier by STIHL. These requirements are evaluated by means of defined criteria and the risk involved.

4.1 Organization and management

The rated requirements regarding organization and management are:

- Effective project management organization (e.g. responsibilities, resources, project plan, monitoring, change management, escalation process) including multi-project management
- Effective risk management process
- Execution of an active capacity management for the production (e.g. ability to cope with fluctuations in volume)
- Manage the sub-supplier structure effectively and efficiently to assure timely supply and traceability of material
- Advanced product quality planning (APQP) according to SWN 13014-01 covering in-house and external process steps respectively sub-suppliers
- Initiation and implementation of measures based on the STIHL supplier evaluation if necessary
- Transparency in cost structure and continuous cost improvements
- Continuous improvement process e.g. shopfloor management
- A quality and logistics agreement is concluded between the supplier and STIHL
- Product liability insurance or further insurances for damages (e.g. due to interruption of operation or recall)

4.2 Product and process development

The rated requirements regarding product and process development are:

- Availability of production-related tools and know-how to process drawings and CAD-data
- Translation of the STIHL specifications into stable manufacturing processes for the series production by effective planning of product and process development including the check on manufacturability, measurability and functional testability of the STIHL specifications leading to a reliable feasibility commitment
- Effective measures to assess and minimize the quality risk in process development such as process FMEA
- Controlled handover from development to serial production including all required approvals and releases in accordance with SWN 39001-01
- Timely implementation of series processes as required by STIHL to enable performance tests of product and process
- Capability to create drawings according to STIHL requirements including the possibility to exchange associated data

4.3 Production, order processing and supply chain management

The rated requirements regarding production, order processing and procurement of materials, parts, components, software and equipment from other business partners (referred to as sub-suppliers) are:

- Suitable workplace conditions including cleanliness and orderliness in the production
- Responsibilities, tasks and consequences are described and implemented (e.g. qualification matrix, training/ instructions, work and testing procedures)
- Effective implementation of Control Plans for the process management

STIHL requirements regarding suppliers
Cooperation with suppliers

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- Suitable product and process inspections in the production process with confirmed capability (measurement system analysis) and appropriate incoming inspection on purchased parts and outsourced processes
- Effective failure management with 8D method including lessons learned from failures
- Provide evidence of product conformity including traceability (labelling/ marking of units and batches, relation between finished product and used parts/ materials, relation between recorded data and product/ process, necessary records retention)
- Appropriate management and control of production processes based on collected data and set targets
- Integrated change management process to track, document, evaluate and inform about changes according to SWN 39001-02
- Effective processing of engineering changes including transmission of all necessary information to all affected areas and sub-suppliers, clarification of stock levels and pre-production, updating of all necessary documents (e.g. Control Plan), evaluation of possible risks and impacts and implementation of necessary measures to ensure product conformity (e.g. enhanced inspection in production, APQP with sub-supplier, adjusted incoming inspection)
- Proactive communication and information flow in case of any potential impact on the supply situation towards STIHL (e.g. capacity constraints, delays or quantity deviations, quality issues etc.)
- Ability to deliver to all STIHL production locations if required
- Demand-driven production planning system
- Operate a suitable inventory management system (e.g. first-in-first-out principle for raw material, components and finished goods, traceability from goods receipt through production until shipment)
- Suitable storage condition for material, parts and tools and first-in-first-out principle
- Receiving and further processing of the delivery schedules (e.g. bill explosion, availability check and adopting measures)
- Ability to use Electronic Data Interchange (EDI) for automatic and secure 2-way data transmission
- Regular strategic price negotiation with sub-suppliers (parts as well as raw material)
- Target of quality and logistic agreements and regular performance evaluations of sub-suppliers

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