

# Supplier Manual

filed location: QMS



# Supplier Manual for hago Automotive Corp.

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## Abbreviations

Coil	Coil and sheet metal
CSL	Controlled shipping level
hago	Feinwerktechnik hago GmbH (GER) / hago Automotive Corp. (USA)
LB	Subcontracting (German: Lohnbearbeitung)
PPM	Parts per million
ZKTL	Purchased parts (German: Zukaufteile)

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## Introduction

As an IATF 16949 certified company and supplier for the automotive industry, hago holds their suppliers to the highest standards. The company hago strives to meet the requirements of our global customers. As a result, all hago suppliers must know, fulfill, and continuously work on improving all processes of the automotive industry.

This Six-Points Program of our Supplier Management helps to meet individual customer requirements, support consistent verification, and encourages continuous improvement.

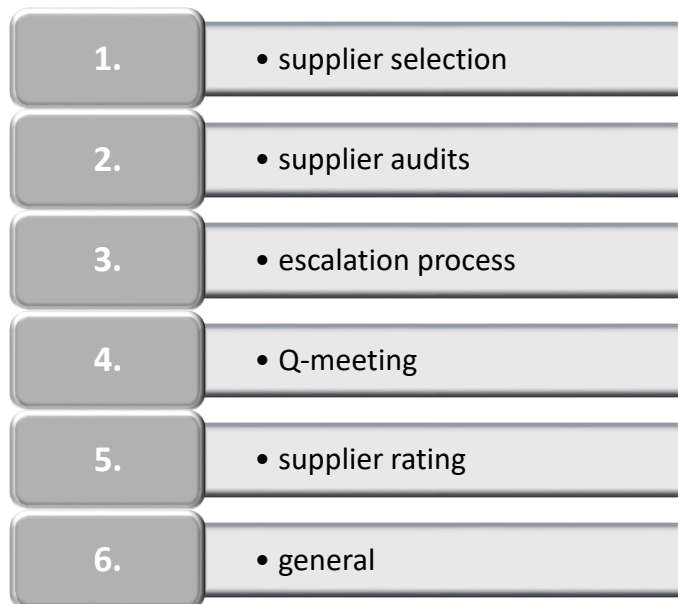


Figure 1: Six-Points Program

The individual points are explained in more detail below.

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## 1 Supplier selection

As a minimum requirement it is mandatory for all suppliers to prof a quality management system according DIN EN ISO 9001. In special cases (e.g. unique selling proposition, directed-buy, etc.) suppliers without a quality management system can be added into the supplier selection process. In such cases the suppliers are released per approval process.

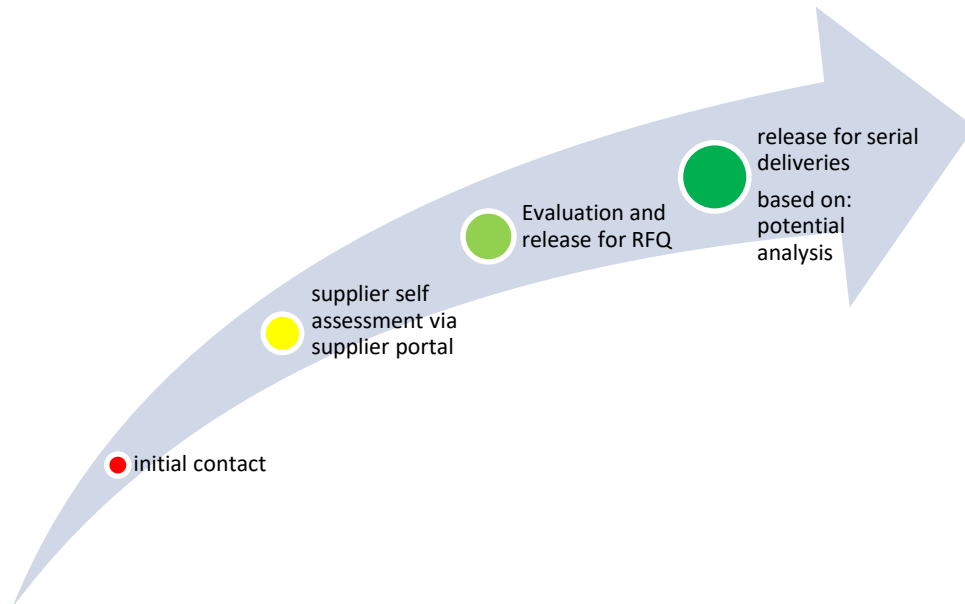


Figure 2: Release Strategy

### 1.1 Initial contact

Initial contact, personal contact, introduction of the company via presentation (visions, etc.).  
Alternative: Online application via supplier portal.

### 1.2 Supplier self-assessment via supplier portal

As a next step our questions must be answered in our supplier portal, and different documents such as confidentially agreement, code of conduct must be signed and added.

### 1.3 Assessment and release for RFQ

After the assessment of your data the supplier can be released for RFQ (state N0).

### 1.4 Potential analysis for serial delivery

Before placing a serial order with a supplier, a potential analysis according VDA 6.3 should be carried out on site.

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### 2 Determination of supplier audits (second party audits)

Based on the yearly audit plan hago is performing second party audits. The need for an audit is derived from the following influencing factors, among others:

- New projects and new suppliers e. g. potential analysis, process release etc.
- Re-qualification of products
- Complaints and escalation procedures
- Supplier rating
- Rolling audits of core products/-suppliers
- Risk analysis or legal requirements

We expect from our suppliers – after reasonable notification – to provide hago associates or its agents and their customers, access to their production facilities, as well as to their sub-suppliers if needed. Confidential information obtained in the course of these audits will be kept strictly confidential (see VDA 6.3 code of conduct for auditors).

### 3 Escalation process

Whenever a supplier-caused problem occurs, hago reacts by using a standard process that ensures that appropriate actions are taken within defined due dates. All scheduled actions are documented during a Q-meeting held at the respective escalation levels. Escalation levels can also be imposed to a supplier in case of a negative supplier rating.

Depending on the severity of the problem, hago reserves the right to skip entire escalation levels. For example, a serious problem can be directly categorized as an E2 / K2 escalation level (see Figure 3: Escalation Procedure). Similar, the introduction of suitable actions can lead to the direct downgrading from step E2 / K2 to E0 / K0. All supporting actions performed by hago or its agents, which are part of the escalation procedure, will be invoiced to the supplier.

If action plans are agreed with the supplier, the responsibility to prepare, update and communicate these to hago on a rolling basis and within the deadlines is within the responsibility of our suppliers and must be carried out without additional request from hago. Should a supplier reach the E2 / K2 escalation level, hago reserves the right to notify the certification agency in charge of the supplier’s certification.

The following escalation process applies to all process suppliers (raw materials, purchased parts, subcontractors, etc.). The escalation process is distinguished between standard supplier (E0-E4) and directed-buy suppliers (K0-K4). The escalation stage at the time of the inquiry (RFQ) is decisive for the later awarding and handling of the project.

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supplier*	escalation level		hago*
	Escalation level E4/K4	discontinuation control	change of supplier
Management	Escalation level E3/K3		new business on hold Q-meeting
Management	Escalation level E2/K2	action and development plan	extended action plan (CSL2) supplier development program Q-meeting
Quality Manager	Escalation level E1/K1		action plan (CSL1) Q-meeting
Quality management employee	Escalation level E0/K0		released for serial deliveries in case of deviations, an action plan is issued (e.g. 8D in case of complaints)
Quality management employee / sales	Release step N0	Bench-marking	released for RFQ new supplier

Figure 3: Escalation Procedure

\*superior management levels can be used for each escalation level if required

## 3.1 Release- and Escalation levels

### 3.1.1 Release level N0

In release stage N0, the initial contact with the supplier was successfully established, his data checked and the supplier entered into our system. The supplier is released for inquiries (RFQ) in connection with benchmarking. The supplier is not approved for serial orders yet. Standard level for new suppliers (without series release).

### 3.1.2 Escalation level E0 / K0

Standard level for each supplier released in series. Escalation level E0 / K0 means that the supplier has a problem (e.g. complaint), which must be resolved with an action plan. For example, a problem is recognized during an incoming goods inspection. As a result, the respective quality department will specify special inspections which must

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be performed for a certain number of shipments through the supplier. These inspections must be documented within inspection reports. The processing and remediation of the problem must be documented in an 8-D report. This report must be submitted to hago within a specified period. If the problem is solved with it lastingly, the supplier remains on escalation level E0 / K0.

### 3.1.3 Escalation level E1 / K1

Escalation level E1 / K1 is assigned if the supplier-caused issues increase in frequency or if the action plans from escalation level E0 / K0 are only implemented partially or not at all within the specified period. In this case, hago may prescribe the CSL 1 Program (see 3.2.1) by notifying the supplier's quality officer in writing.

If shipping dates and/or shipping quantities are frequently no met, hago will impose the E1 / K1 escalation level on the respective supplier. If the supplier-implemented actions are effective, and if there are no further quality or delivery complaints within a predefined period, the supplier is downgraded in writing from step E1 / K1 to E0 / K0.

### 3.1.4 Escalation level E2 / K2

An E2 / K2 escalation level is assigned if the supplier continues to have quality and/or delivery problems while categorized as an E1 / K1 supplier or if deadlines for action plans expire. In this case, hago can impose the CSL 2 Program (see 3.2.2) on the supplier by notifying the supplier's management in writing.

This escalation stage also occurs if the certificate of the quality management system has expired or has become invalid. No written information will be sent to the supplier. If the supplier does not yet have the new certificate, he can compensate this defect with a confirmation letter from the certification body confirming that the recertification has been passed.

In the course of the supplier development, hago will draw up an extended action plan together with the supplier. If the action plans, agreed with the supplier, are effective and there are no further complaints regarding quality and/or delivery reliability over a defined period, the supplier will be downgraded from E2 / K2 to E1 / K1.

### 3.1.5 Escalation level E3 / K3

Persistent quality and/or delivery problems, and a poor forecast due to missed deadlines in the action plan, or ineffective counter measures at escalation level E2 / K2 lead to escalation level E3 / K3. The supplier's management is informed in writing of the new status New Business on Hold (SAP status E3 / K3, blocked for RFQ). The supplier's management must submit a binding and signed concept to hago within one week illustrating actions how to return to level E2 / K2.

In addition, the supplier can be blocked for new orders if there is no active and cooperative behavior in solving problems or if the security of supply is severely endangered.

The suspension of the blocking status shall only take place after hago has verified the effectiveness of the specified measures and will inform the supplier's management in writing.

### 3.1.6 Escalation level E4 / K4

If the entire escalation process does not lead to an improvement of the delivery quality and/or adherence to delivery dates/quantities, the blocking status remains and hago will initiate a change of supplier.

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### 3.2 Controlled Shipping Level (CSL) Program

In line with the escalation levels, the CSL Program can be used to control the quality of the delivered goods over a specified period and/or quantity. The following CSL levels are possible.

#### 3.2.1 CSL 1

In addition to the regular inspections, the supplier must carry out a 100% check for required material numbers and characteristics before delivery and at his own expense. Type and scope of the inspections must be coordinated with hago. The inspected shipments must be marked. The type of marking and documentation (characteristic and quantity of separated parts) must be coordinated with hago as well.

#### 3.2.2 CSL 2

In addition to the regular inspections, prior to shipping, the supplier must have a 100% check carried out on the required material numbers and characteristics by an independent external service provider at his own expense. The supplier must provide suitable inspection stations, and issue appropriate inspection/sorting instructions for the external service provider. These instructions must be approved in advance from hago. The inspected shipments must be marked separately. The type of marking and documentation (characteristic and quantity of separated parts) must be coordinated with hago.

## 4 Q-meeting

Q-meetings with suppliers can be held/scheduled at any time. They not only assist in coordinating and documenting the escalation process, but also serve to document the operative business. Q-meetings may involve rolling meetings to improve cooperation, price negotiations, etc.

## 5 Supplier Assessment

In this case, hago defines the following types of supplier ratings: Assessments for steel suppliers (COIL), for purchased parts (ZKTL) and subcontractors (LB). The PPM is only calculated for ZKTL/LB parts, but not for COIL materials.

### 5.1 Supplier Assessment of Coil, purchased parts, and subcontracting

#### 5.1.1 Purpose, Method, and Assessment Criteria

This method evaluates the ongoing ability, performance, and readiness of the supplier for continuous improvement. The following assessment forms the basis for continuing the cooperation.

criteria	quantifier
5.1.2.1 escalation level	23 %
5.1.2.2 project purchasing	15 %
5.1.2.3 logistics	18 %
5.1.2.4 quality	22 %
5.1.2.5 risk assessment	22 %

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### 5.1.2 Assessment

#### 5.1.2.1 Escalation level

The escalation levels are maintained in the SAP vendor data:

N0 = supplier released for inquiries (benchmarking), blocked for serial orders

E0 / K0 = 0 percentage points deduction (supplier released, standard status)

E1 / K1 = 11 percentage points deduction (supplier released, with actions)

E2 / K2 = 21 percentage points deduction (supplier released, with extended actions)

E3 / K3 = 31 percentage points deduction (supplier blocked for RFQ, with extended actions)

E4 / K4 = No evaluation => discontinuation control/relocation

#### 5.1.2.2 Project purchasing

For the project purchasing, the following criteria are evaluated with the following quantifier:

criteria	quantifier
project purchasing	100 %
offer behavior	50 %
- offer behavior deadlines are met	100 %
communication and professional expertise	50 %
- communication and flexibility	50 %
- professional expertise	50 %

#### 5.1.2.3 Project purchasing

For logistic, the following criteria are evaluated with the following quantifier:

criteria	quantifier
logistic	100 %
delivery performance	40 %
- delivery reliability	50 %
- quantity reliability	50 %
communication	30 %
- communication	100 %
logistic complaints	30 %
- hot shot deliveries	50 %
- logistic complaints	50 %

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### 5.1.2.4 Quality

For quality, the following criteria are evaluated with the following quantifier:

criteria	quantifier
quality	100 %
ppm	50 %
- ppm evaluation	100 %
complaints (during evaluated time period)	50 %
- issued customer complaints	50 %
- issued complaints	25 %
- 8D evaluation of closed complaints	25 %

### 5.1.2.5 Risk Assessment

For the risk assessment, the following criteria are evaluated with the following quantifier:

criteria	quantifier
risk assessment	100 %
management system	45 %
- certificates *	100 %
other	10 %
- number of plants	25 %
- signed QSV	75 %
sustainability	35 %
- confirmed Code of Conduct	25 %
- signed confidentially agreement	25 %
- environment cert ISO 14001	25 %
- energy management certificate ISO 50001	25 %
financial standing	10 %
- financial standing	100 %

\* Proof must be provided in the form of a certificate issued by a DAkks, EA, IAF or ELAC-registered certifier. If a valid certificate is not submitted, the supplier is assigned an E2 / K2 escalation level.

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### 5.1.3 Rating and Measures

The supplier is rated based on the assessment of the above-mentioned criteria. The following divisions apply:

$\Sigma$ in %	level	measures
$\geq 90$	A	If one criterion is $< 90\%$ , the supplier must initiate actions. The supplier is not required to notify hago of actions taken. However, hago can review implemented actions during an audit.
$\geq 80$	B	The supplier must develop and implement a concrete action plan within 4 weeks and submit to hago accordingly. If the action plan is not received on time, the supplier is blocked for new orders until the action plan is submitted.
$< 80$	C	As part of the assessment, the supplier will be invited to a Q-meeting in the near future. This Q-meeting is intended to define a concrete action plan as a requirement for re-qualification. During the meeting, it is decided if the supplier is blocked for new orders and whether hago will perform an audit, as a further requirement for the approval process. The audit must have a result of $\geq 90$ points. If an audit is not required, the supplier can be temporarily approved until the next quarterly assessment. The temporary approval must be justified in the Q-meeting journal.

## 6 General

### 6.1 Supplier development

According to IATF 16949, it is an important point to define the necessary supplier development measures for our active suppliers. The company hago feels the need to meet this requirement unconditionally, as we are convinced that only an impeccable delivery performance contributes to the success of the company and the supplier and sets hago apart from the global market.

In the course of the supplier development, the following is checked and carried out:

- certificate status and possible potential for further developments
- rolling supplier meetings
- supplier audits (release through potential analysis; for re-qualification; in case of incidents, e.g. complaints from hago or the customer, process approvals, etc.)
- risk assessment
- APQP during the project phase

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### 6.2 Contingency plan

In order to ensure supplies and customer satisfaction, even in the event of unforeseen events, we expect our suppliers to proactively develop emergency plans. These plans must define which actions are taken during emergency situations (e.g. flooding, power failure, fire, etc.) to ensure that countermeasures are taken as quickly as possible. Furthermore, hago expects that product-specific contingency plans or concepts for alternative manufacturing options (such as machine malfunctions and breakdowns) will be drawn up during the feasibility assessment and can be inspected if necessary.

### 6.3 Change Management

In order to ensure the satisfaction of our customers, we rely on open and effective communication with our suppliers. Therefore, we expect from our suppliers to inform hago immediately and proactively of any problem or changes that may occur.

This includes:

- Potential risks for the supply identified by the supplier
- Delivery issues and postponement of deadlines
- Change notifications for product or process changes (incl. parameter changes)

In order to be able to evaluate the effects of a change as quickly as possible, the supplier must complete and send the form "Change Request Supplier" to hago.

This can be downloaded from <https://www.hagoautomotive.com/automotive/lieferanten/index.php>. The change request is then processed internally by a multidisciplinary team and the decision is sent to the supplier.

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