Supplier Manual

Hengst Filtration

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1 Introduction

Hengst Filtration is an internationally recognized development partner and series supplier in the area of filtration and fluid management for the automotive and engine industry as well as for applications in the industrial, consumer goods and health care sector. Hengst is a market leader in the areas of fluid management, crankcase ventilation systems as well as filter systems for oil, fuel, air and cabin filtration. In the fields of industrial and environmental technology, Hengst also develops customized solutions for almost all filtration applications.

Hengst intends to impress customers with defect-free products and services. Meeting the constantly growing expectations of customers is a significant challenge. A further challenge is to prevail in the face of the growing competition of global markets. Confronting both challenges requires close cooperation between Hengst and its suppliers. Quality-conscious and sustainable thinking and acting is the overriding and binding standard for joint collaboration. This is essential for increasing customer satisfaction, exceeding expectations, and continuously improving competitive capabilities.

This manual explains the requirements Hengst SE, including all subsidiaries and other affiliated companies, has on its suppliers and represents a policy for a mutually beneficial partnership. As a binding document, it is a component of all contractual agreements. Suppliers are obliged to proactively download the latest version from the Hengst homepage on a regular basis, check it and apply the adjustments accordingly. The requirements described below may vary depending on the project and the business division and should be defined with the respective Hengst contact person.

Group Director Procurement

(Herr Markus Riegelmeyer)

Group Vice President QM

(Dr. Günter Funk)

2 Procurement and quality policy

We work towards a long-term and mutually beneficial partnership with our suppliers so that we can jointly respond to changing and increasing requirements. The products and services provided by suppliers must therefore fully comply with all agreed to and statutory requirements.

Hengst demands a "Zero Defect Policy" from its suppliers. Pursuing this zero defect policy mandates rigorous advanced quality planning, production implementation, efficient series production monitoring, requalification after restarting, and continuous improvement (CIP) for the supplied products and processes. The focus in this case must be on defect avoidance instead of defect detection. The supplier agrees to manufacture and inspect the contractual deliverables in accordance with the rules of the required quality management system and in accordance with the latest state-of-the-art.

2.1 Requirements for supplier quality management systems

Hengst expects its suppliers to maintain their quality management system based on the requirements of the respective business division and to provide evidence of appropriate certification. The requirements are to be agreed between the respective Hengst business division and the supplier.

Suppliers are expected to continuously improve their QM-System. In the automotive sector, Hengst defines the following development stages for the suppliers QM-System, depending on the supplier category:

Supplier category	Minimum level of QMS development	Target level of QMS development
Development supplier	IATF 16949	IATF 16949
Electronic/Software	IATF 16949	IATF 16949 and ISO/IEC 15504 – SPICE
Build-to-Print	ISO 9001	ISO 9001
DIN parts	ISO 9001	ISO 9001
Packaging	ISO 9001	ISO 9001
Others	ISO 9001	ISO 9001

In addition the supplier needs to ensure that these requirements are transferred to and fulfilled by their suppliers and the supplier is responsible for the effectiveness of their suppliers quality management system.

Moreover, we expect that environmental concerns are addressed, and that a certification pursuant to ISO 14001 is already available or the preparation for certifying facilities has already been completed.

Hengst requires responsible handling of sensitive data. It is therefore expected that suitable IT infrastructure and processes are implemented to ensure information security. Certification in accordance with ISO27001, for example, is considered suitable proof.

A basic condition is an operational quality management system. Internal audits must be conducted in regular intervals to ensure the continuous development of the quality management system.

2.2 AIAG CQI Assessments & Customer-specific Requirements

The Automotive Industry Action Group (AIAG) has published various best practice industry standards as part of their “CQI” series. The IATF requirements (IATF 16949 section 9.2 – Internal Audit) as well as Hengst’s customers require the application of the relevant best practices throughout their supply chain. Therefore, in these cases both Hengst and the Hengst suppliers have to carry out the relevant CQI self-audits.

Hengst will inform their suppliers in case that one or more purchased parts fall under these CQI requirements. In this case, the supplier needs to conduct the relevant CQI audits annually, according to the AIAG requirements. The audit reports and action plans need to be submitted to Hengst upon request. It is the supplier’s responsibility to carry out all relevant audits within the given timeline, with or without explicit request by Hengst.

As of September 2023, the relevant “Special Process” CQI standards that need to be applied to portions of the Hengst supply base are as follows.

CQI-9	Special Process: Heat Treatment
CQI-11	Special Process: Plating
CQI-12	Special Process: Coating
CQI-15	Special Process: Welding
CQI-17	Special Process: Soldering
CQI-23	Special Process: Molding
CQI-27	Special Process: Casting
CQI-30	Special Process: Rubber

Additionally, the following CQI standards need to be applied and the self-audits conducted by each supplier, independent of the nature of the product and the production process, once Hengst informs the supplier about the necessity of such.

CQI-14	Automotive Warranty Management Guideline
CQI-18	Effective Error-Proofing Guide
CQI-19	Sub-Tier Supplier Management Process Guideline
CQI-20	Effective Problem Solving Practitioner Guide
CQI-28	AIAG Traceability Guideline

Besides the AIAG CQI assessments, there might be additional self-assessments or best practice guidelines published by Hengst's customers which need to be drilled down the supply chain (Customer-specific requirements). In this case, Hengst will require the supplier to apply the according standards as well.

2.3 Continuous improvement CIP

Each supplier must incorporate continuous improvement principles into its quality strategy. Hengst expects suppliers to actively participate in the continuous improvement of procedures, processes and products, with the objective to continuously improve the overall system. CIP projects are supported by Hengst supplier management.

3 Supplier selection

3.1 Supplier approval

Supplier approval: irrespective of a concrete requirement, it is determined whether a supplier fulfills the prescribed requirements so that this supplier can be used for customer projects / series production. The following items should be satisfactorily completed for being approved as a supplier:

- Supplier Registration
- Confidentiality agreement
- Credit bureau information, sanction monitor
- Registration in EcoVadis
- Supplier Potential Analysis
- Contractual procurement package

The requirements may vary depending on the business division and should be defined with the respective Hengst contact person.

3.1.1 Supplier Registration

The basic prerequisite for the selection of qualified suppliers is the completion of the supplier registration via the Hengst Onboarding Platform, as well as the non-disclosure agreement signed by the supplier.

3.1.2 Supplier potential analysis

A potential analysis is a reduced process audit according to VDA 6.3 and is used to assess new, unknown suppliers (applicants), facilities and technologies, including the development and process opportunities of the supplier in preparation of the award decision.

The potential analysis relates to the development and / or production of specific parts and processes. An assessment is made regarding the suppliers capability to manufacture similar products, including its product and process implementation capabilities.

A positive result of the potential analysis does not necessarily result in an award decision. However, a negative result of the opportunity assessment will exclude the supplier from the award. Hengst expects the supplier to provide the best possible support for conducting the opportunity assessments/supplier audits.

3.1.3 Basic contractual framework

The supplier approval is based on a contractual framework that includes usually the following documents:

- Confidentiality agreement
- Framework supply agreement (incl. Quality assurance and Warranty agreement)
- Purchasing terms and conditions
- Supplier Code of Conduct
- Tool loan agreement (if applicable)

The suppliers are required to return these documents to Hengst Procurement as fully executed originals. Hengst Purchasing will only start the "Quotation Process" after having received these documents, therefore creating the basis for a possible order award.

Contrary to Chapter 3.1.3, only the confirmation of the Hengst business conditions is required for the delivery of the plants in North and South America within the scope of the order confirmation. Depending on the project and the product, however, the listed contracts can also be used here and in these cases are sent to the supplier by Hengst.

3.2 Supplier nomination

Without exception, a decision to nominate an approved supplier is always made on the basis of an award recommendation by the competent Hengst committees.

3.3 Supplier contracting

The order is processed after order award. The supplier must ensure that all documents in connection with the order contain the required information.

Invoices

Information required on invoices:

- Statutory components mandated by law
- Hengst purchase order number (PO number, delivery schedule, delivery schedule release, delivery schedule release number)
- Date of the purchase order
- Material number
- Invoiced quantity with quantity unit
- Supplier's delivery note number with delivery date
- If no order reference available: Note contact person stallion or cost center

3.4 Tools

Components produced with tools must correspond to the contractually agreed specifications.

The suppliers shall design the tool in such a manner that the components correspond to the agreed specifications. The suppliers are responsible for the design and are therefore solely responsible for the contractually compliant suitability and workmanship, even when Hengst provided tool design know-how in an advisory role.

A tool loan agreement is concluded when the order to the supplier includes the fabrication of a tool as well as the parts to be produced with said tool. This agreement specifically regulates the conditions for using and surrendering the tool.

3.5 Spare parts supply

Our customers rely heavily on us as a source of supply for spare parts. We impose these same requirements on our suppliers, and require our suppliers to supply Hengst for a contract defined period after series production has ended.

3.6 Reference customer disclosure

The supplier may only advertise the business relationship or disclose the business relationship to others by naming us as a reference customer after having first obtained our written approval.

4 Pre-production quality control

The suppliers shall take adequate steps to ensure the pre-production quality of the components or component parts, which may differ from the subsequent series process. The measures described below may vary depending on the project and the business division and should be defined with the respective Hengst contact person.

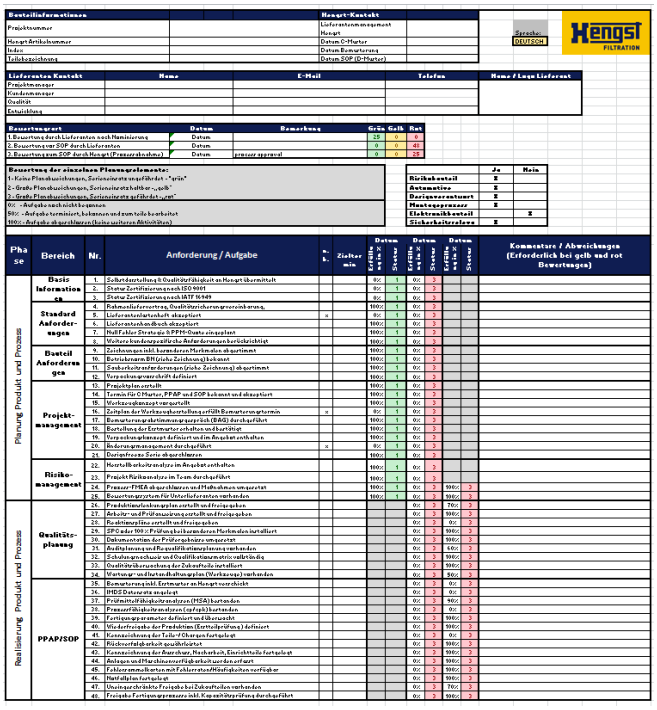
4.1 APQP project planning

APQP is the acronym for **A**dvanced **P**roduct **Q**uality **P**lanning. APQP project planning is the basis for avoiding potential defects and for continuous improvement. Project planning covers the steps from design engineering through series production.

The suppliers must draft a plan for product and process development that includes the individual steps, the corresponding completion date, and the responsibilities for the required actions.

The Application and documentation of the APQP during the product development process is carried out by the form “APQP-Status Buy Parts”, which will be provided by Hengst. The handling will be carried out in cooperation with Hengst. In doing so, the intensity of the cooperation depends on the result of the risk analysis conducted by Hengst.

4.1.1 APQP Status Buy Parts



Contents of the APQP status report:

Planning product and process

- Basic information
- Standard requirements
- Component requirements
- Project Management
- Risk Management

Realization of product and process

- Quality Planning
- PPAP / SOP

Specification document/drawings

The suppliers agree:

- to obtain and comply with statutory regulations, all specifications, specification documents and standards in their respectively valid versions (pursuant to the callouts in the drawing).
- To request specification documents / drawing and to evaluate, coordinate, and comply with the requirements (manufacturability analysis).
- To determine and comply with important characteristics and parameters necessary for process capabilities (when needed, in consultation with Hengst).
- To immediately, call attention to missing information or inconsistencies in the documentation.

Performance agreements/performance metrics (zero defect strategy)

The suppliers are committed to structure the relationship with Hengst based on a zero defect policy. By signing the master supply agreement, the supplier confirms that the zero defect, policy is a component of the quality assurance agreement. When the quality objectives are not attained, Hengst reserves the right to conduct audits at the supplier's expense and to develop action plans toward attaining the quality objectives.

Manufacturing feasibility analysis and risk assessment

Before submitting a quotation, the supplier agrees to conduct a manufacturing feasibility analysis to ensure that the product is sufficiently specified. This involves individually assessing and confirming each feature in the drawing. The Hengst feasibility study must be completed for this purpose and returned to Hengst as a signed original. A binding order can only be awarded after this form has been received.

The suppliers are additionally required to conduct a risk analysis pursuant to the requirements related to the technical complexity of the component and/or when development components are involved. The nature and scope of the risk analysis must be discussed with Hengst.

Schedule

The supplier agrees to prepare and provide to Hengst a written schedule, including quality gates. Hengst can request an up-to-date status from the supplier on demand.

FMEA

When the suppliers are responsible for developing a component, the suppliers agree to prepare a design engineering FMEA. Hengst will prepare the FMEA for Hengst developments, where the suppliers' experience shall be incorporated.

Irrespective of the development responsibility, the suppliers agree to prepare a process FMEA pursuant to VDA 4.2 guidelines as a means to safeguard the production startup, and to update said process FMEA when changes and/or quality claims occur.

FMEAs must be presented for review when demanded by Hengst.

Production control plan

A control plan must be prepared for the prototype, pre-production and series production phases and shall include all quality requirements (including documentation) and test criteria for the components.

The control plan must be derived from the FMEA, and should correspondingly include all characteristics assessed as quality relevant in the FMEA. This includes incoming, in-process, and final inspection, as well as product audit and requalification testing.

Packaging regulations

The packaging requirements can be found in the inquiry (general delivery instructions and, if applicable, specific packaging requirements). The packaging concept is part of the offer. The rough packaging concept has to be coordinated and refined within the framework of the bidding process in cooperation with Hengst. The final packaging concept is to be released by the Hengst project team.

Measurement strategy

The suppliers shall ensure that an appropriate measurement strategy is prepared for all characteristics, and that said strategy is agreed to with Hengst.

Measurement system analysis

The measurement system analysis (MSA) is a procedure for determining the capability of a measurement/test instrument or measurement/test process. The suppliers shall prepare a MSA (Requirements AIAG) for all characteristics tested during series production, where these are conducted to ISO standards (procedure 1, 2, or 3). Testing capabilities must also be determined for automated readings and tests in production plants.

Special characteristics / capability certifications

Process capability studies are intended to demonstrate the quality capabilities of processes. The supplier shall provide independently prepared capability studies for all test and function characteristics. Additional capability studies must be discussed with Hengst. If the customer has not specified an alternative, more demanding specification, the following limits apply as evidence for process capability:

Machine capability index	cm/cmk	≥ 1.67
Short-term capability index	cp/cpk	≥ 1.67
Long-term capability index	pp/ppk	≥ 1.33

Process capability studies must be performed at no charge to Hengst, must be submitted on request, and must also be performed for ongoing series production. Please note that when tools with multiple cavities are used, the capability studies must be performed for each cavity. When the above-mentioned process capability performance metrics are not attained, the affected characteristics must be inspected 100%, and the results must be documented.

Special characteristics are marked separately in the Hengst drawing. Statistical process control (SPC) or 100% inspection must be installed for these characteristics. The efficiency of a 100% inspection must be demonstrated.

Using the FMEA, the suppliers shall independently determine the special characteristics for all sub-assemblies and components. Statistical process control (SPC) or 100% inspection must be installed for these characteristics as well. The capabilities of the special characteristics from series production monitoring must be provided to Hengst on demand.

Approval status for purchased components

Unless an alternative has been agreed to with Hengst, the approval procedure for Tier 3 suppliers shall be conducted based on PPAP 3 or VDA Level 2. The suppliers shall ensure that all purchased components have "approved" status at the time the supplier submits the initial samples to Hengst. Hengst must be informed in good time when purchased components have the status "conditionally approved" or "rejected".

Emergency plan

The suppliers shall prepare an emergency strategy to ensure deliveries even when sudden and unforeseeable production disruptions occur. The strategy must include the deliveries, as well as the supplier's plants and staff, therefore maintaining the ability to comply with agreed to lead times. This includes determining potential risks with their significance, including the probability of occurrence and detection, and the definition of corresponding action plans (preventive and reactive).

Process approval, Run@Rate

Suppliers must demonstrate the product and process quality, including the confirmation for attaining the series production run@rate (capacity confirmation), as part of a process production series. Process approval efforts due to quality issues are chargeable; suppliers will be charged actually incurred expenses.

4.2 Sampling, samples

Sampling means checking of parts and components of consistency with given specification. The Planning is carried out in the “Sampling Coordination Meeting” (BAG), in which contacts, reason for sampling and scope of sampling are defined and documented in the corresponding form.

4.2.1 Principles for process and product approvals (PPA)

In principle, sampling means the testing of components or finished products for the fulfillment of specified requirements. Sampling planning takes place in the sampling-document (Sampling coordination meeting (SCM)). Here, the contact person and the type and content of the sampling are documented in the form "Sampling plan”.

4.2.2 Sampling of prototype and pre-series parts / test parts

Prototypes and test parts are according to the VDA volume 2 with the latest edition defined as "report on other samples". Other samples are products and materials that are not fully manufactured under serial conditions. Such parts must be marked on the cover sheet as "Other Sample Report" with the article number and index. Also, the samples are clearly marked. If a supplier is unable to carry out dimensional and material testing, the supplier is responsible for the external implementation by a suitable organization. Additional documents may be requested from the sampling center. To sample are here - if not otherwise agreed - all important product features contained in the drawing and specification, or at least

- Cover sheet
- Dimension report according to drawing (at least 3 pieces, if not agreed otherwise)
- Material certificate (3.1 test certificate)

The documentation for the prototypes will be send to the following e-mail address:
PrototypeDocuments@hengst.de

For deviations that are not mentioned in the offer or the manufacturability analysis, Hengst keeps the prototypes to complain for a fee. During the prototype and pre-production phase, proof of process capability should also be planned for the series from the pre-series supplier.

4.2.3 Initial Sampling

Hengst determines the procedure for first article inspection. Unless alternatively specified by Hengst, initial samplings are conducted pursuant to VDA Volume 2 (PPAP for USA and Asia) Initial samples must be produced under series conditions based on components made using series production tools. When several equivalent tools or dies are used, or parts originate from cavities, at least 3 parts from each tool and from each die or each cavity must be measured and separately submitted as initial samples. The initial sample test report also includes documentation for the inspection regulations and specifications called out in the drawing. The Hengst part number, the quantity, and the technical revision index must be indicated on all documents. The used materials must be documented with a material inspection report and IMDS. IMDS entries must be made 3 weeks before the delivery date of initial samples. If a supplier is not in the position to perform dimensional and/or material inspections, the supplier is responsible to have these performed by an external, demonstrably suitable organization. Unless agreed otherwise, subsequent sampling scope is handled in the same manner as initial samples. Initial Samples and measurement reports must be prepared free of charge and sent to the requesting party labeled as “Initial Samples” and identified with the purchase order number. Hengst is entitled to request additional documentation on demand.

Hengst will provide a complete list of all relevant elements for a product sampling on request.

Before submitting the initial samples, characteristics with deviations from specifications must be disclosed in writing to the Hengst quality officer and must be documented by means of a variance approval request. Initial Sampling is not possible without this form of approval.

Examples for rejected initial samples:

- Documents and certifications are incomplete
- Plan/actual variance has not been approved
- The submitted parts do not correspond to the current design revision
- Missing IMDS data

A deviation approval request for characteristics that deviate from the drawing can be requested from the Hengst quality officer. This procedure is an exception and does not apply to functionally relevant characteristics. It does not exempt the supplier from the responsibility to sample parts that correspond to the drawing specifications. Initial Samples with an approved deviation request limited by time or quantity do not result in an unconditional approval.

IMDS

IMDS is an acronym for **I**nternational **M**aterial **D**ata **S**ystem. This system facilitates the national and international need for all manufacturers and product distributors to supply information about materials used in products. The intent is to reconstruct material compositions as needed, and to classify these into hazard levels.

The structure of IMDS is based on the previously used paper form of the material safety data sheet (pursuant to VDA Volume 2, attachment 16: ingredients in purchased components), and replaces it. As a change to the previously used approach, the material safety data sheet (MSDS) in IMDS must not only be completed with the declarable substances, but with all ingredients used in all materials with gram accuracy.

The suppliers agree to independently create the technical facilities needed to work with IMDS. Related information and instructions can be found at the IMDS homepage www.mds-system.com.

Reference Samples

The supplier agrees to hold reference samples of the supplied parts. Quantity and duration of the storage has to be clarified with Hengst.

5 Series production quality control

The suppliers shall take adequate steps to ensure the quality of the components or component parts. The measures described below may vary depending on the project and the business division and should be defined with the respective Hengst contact person.

5.1 Series production requirements

The following are series production requirements:

- Ensuring delivered quality
- Control of machine parameters
- Ongoing monitoring of process capability
- Identifying and correcting deviations
- Continuous recording and evaluation of quality data
- Securing machine availability
- Ensuring appropriate packaging
- Clear marking of all packaging units
- Monitoring of the materials used (for example, 3.1 test certificate)

Delivery notes:

- Hengst purchasing voucher number (PO voucher number, delivery schedule, delivery schedule release, delivery schedule release number)
- Date of the purchase order
- Material certificate (eg. 3.1 test certificate if required)
- Material number **with index**
- Batch numbers
- Delivered quantity with quantity unit
- Number and name of the specified charge carriers and loading material
- Delivery weight (gross, net)
- Safety data sheet (if necessary)
    - Prior to the first delivery of hazardous substances, the safety data sheet is to be send to the following e-mail address: Sicherheitsdatenblaetter@hengst.de. This also applies to subsequent content changes and updates.

In case of defects:

- 8D – Report (automotive) or
    - Cause-and-effect analysis
    - Corrective and preventive actions
    - Avoidance of repeated defects
- Proper and defect free handling, storage, and transport
- Documented assurance of delivery capability

5.2 Product quality assurance

As a matter of principle, the following methods must be used to ensure product quality:

- Auditing the production facility (process and product audits)
- Dynamic incoming inspection of deliveries from sub-suppliers based on quality performance

- Evaluation of statistical data related to quality

5.3 Agreement on performance metrics and objectives

Objectives are defined as part of quality assurance agreements (integral part of the master agreement), or as standalone agreements. Objectives are agreed with suppliers by the quality officer, or in consultation with the purchasing department. Irrespective of the agreed to objectives, Hengst requires suppliers to continuously assess manufacturing processes based on meaningful performance metrics (e.g. machine availabilities, reject rates), and to evaluate the efficacy of corrective actions.

5.4 Triggers for new process and product approvals / requalification:

- New components
- Once a year (requalification)
- Product changes, e.g. design-engineering, specification, material changes
- Process and product transfers to other facilities or to suppliers
- Changes in the production process to the extent that product characteristics are affected
- Production interruptions and restart of series production after more than 3 months
- Changes in the process environment
- Using new, modified, or replacement tools
- After reconfiguring and optimizing the production environment
- Changing suppliers of products or services
- Changes in supplied parts or materials

5.5 Procedure for product/process changes and relocations

According to the triggers in the Supplier Manual (chapter 5.4) and the agreements in the framework supply agreement, changes to the product or process or relocation must be notified at least 8 months in advance using the form “Request: Product/Process change/relocation” to the responsible quality management and purchasing department. The request will be evaluated by Hengst and the Supplier will receive an approval or rejection for the request. If the request is approved, the next step is to agree on the documents for the scope of initial sampling.

5.6 Internal processes for controlling non-conforming products

Suppliers must ensure that all non-conforming products are identified, collected, marked whenever they occur, and that said non-conforming products are excluded from further processing/use. Deviations on the part of the suppliers have to be reported immediately.

5.7 Identification and traceability of non-conforming products

Suppliers are required to perform the following actions:

- Detailed description of the non-conformance
- Identification of the affected component (classify defect)
- Quantitative recording of the affected lots and localization
- Qualified risk assessment with the required technical departments
- Clear marking and containment of the non-conforming components in the supplier's warehouse
- Marking of the first three deliveries of defect free components, including all reworked components
- Preparation of an 8D report regarding the incident

The suppliers agree to respond immediately to complaints by Hengst. The supplier shall immediately confirm receipt of the quality claim and shall submit the first report to Hengst within 24 hours (8D report or a statement using the Hengst form), including instant measures, and must supply an immediate defect free replacement delivery (no later than within 24 hours, unless agreed otherwise).

The subsequent deliveries must be marked clearly. On request, documents such as measurement reports, material certificates, etc. must be transmitted directly to Hengst within 24 hours.

In order to avoid line stoppages, Hengst reserves the right to contract rework/sorting campaigns by themselves or by third parties at the supplier's expense. The cause of the problem and corrective actions must be presented promptly, but no later than within 5 calendar days. The incident will be escalated (see Section 7 Supplier qualification) when the supplier fails to supply Hengst with sufficient information and/or statements regarding defects and corrective actions within the required deadline. The parts are charged back to the supplier as defective when no evaluation results with causes and corrective actions are presented within 5 calendar days.

A final 8D report with validated actions must be presented within 20 working days.

A return delivery will be organized by Hengst at the supplier's expense - when required, the supplier shall organize the pickup of the defective goods.

6 Supplier evaluation

In order to intensify and improve business relations, the optimization of two-way communication is an essential aspect. This includes the exchange of the service provided, which is determined by the half-yearly supplier evaluation. Based on process data provided by the system, operational criteria such as e.g. the quantity and on-time delivery, the product quality (ppm) and the complaint rate are recorded, evaluated and analyzed.

Since some evaluation-relevant aspects cannot be generated as hard facts from system documents, Hengst SE also takes into account so-called soft facts from the purchasing area. The evaluation criteria such as logistics, quality and purchasing are condensed. Based on the overall grade achieved, classification takes place in A, B and C suppliers.

The aim of the supplier evaluation is to identify any gaps and, if necessary, to identify and agree on measures to maintain the delivery capability of defect-free products. Each classification therefore has defined follow-up activities:

rating	degree of fulfillment in %	description of rating
A	≥ 90	quality capable
B	80 - 90	conditionally quality capable
C	< 80	not quality capable

A-suppliers are preferred partners for new customer projects. The high standard of performance should be maintained and improved.

B-suppliers have room for improvement in individual areas that should be shared. Corresponding measures are defined and implemented independently by the supplier.

C-suppliers do not meet the requirements of Hengst SE. A significant improvement in supplier performance is therefore required at short notice. Activities to be taken must be coordinated in a plan of action by the supplier. The Hengst SE reserves the right to include C-Suppliers in a qualification process (SQuaP) and to invite them to a personal coordination meeting.

Evaluation criteria
The three main criteria are composed of the sub criteria shown in the following overview, each with a different weighting:

	Main criteria	Weighting
Purchasing	Softfacts	30%
Logistics	Delivery performance	25%
Quality	Quality performance	45%

	Sub criteria	Gradations	Assessment Guide	%
Purchasing	Payment	100% 85% 50%	Discount available. Payment term ≥60 days. No discount and payment term <60 days.	12%
	Communication	100% 50% 0%	Standard communication. Insufficient communication. No communication.	6%
	Sustainability (EcoVadis)	100% 85% 50% 0%	EcoVadis result ≥50%. EcoVadis result 25-49% or linked to EcoVadis Scorecard of parent company or no EcoVadis Scorecard and not requested by Hengst. EcoVadis result <25%. No EcoVadis Scorecard despite request.	6%
	Contract status	100% 85% 50% 0%	All contracts available. In negotiation. No contracts. Declined.	6%
Logistics	Delivery reliability	100% on time to 0% ≤ 25 days late / ≤ 50 days early	Comparison between date of material receipt to order date	20%
	MCR* (maximum capacity rate)	100% 85% 50% 0%	MCR confirmed. MCR partially confirmed. MCR rejected. No answer.	5%
Quality	PPM	100 ppm≙100% to >1000 ppm = 0%	Defective parts per 1 million	20%
	Complaint rate	0,5 ≙100% to >5 = 1%	Number of complaints to number of material receipts x100	20%
	QM-System	100% 85% 0%	Target level of QMS development fulfilled Minimum level of QMS development fulfilled Minimum level of QMS development not fulfilled	5%

*Maximum Capacity Rate: Maximum delivery quantity required by Hengst per defined period of time, which the supplier can reliably provide.

Grading criteria

To ensure that no sub criterion is neglected despite different weighting, the sub criteria have a grading rule. The same grading rule applies to all sub criteria:

Evaluation of a sub criterion = C :

- ⇨ *no **A** as overall grade possible*
- ⇨ *maximum **B** as a total score depending on the achieved percentage points*
- ⇨ *The supplier is currently in a qualification (SQuaP) or in a "special customer status" by one of our customers. YES [ ] NO [ ] (If YES, the overall rating is graded to **C**).*

Explanation of the rating

In order to determine the complaint rate, justified complaints (with status in progress and completed) that have occurred within a defined evaluation period are evaluated. The basis for this are complaints of defects from the incoming goods inspection and the ongoing production as well as complaints caused by suppliers to Hengst's customers.

The key figure is formed from the ratio of the number of complaints to goods receipts x100.

To determine the ppm number, justified complaints (with status in progress and completed) that have occurred within a defined evaluation period are evaluated. The basis for this are complaints of defects from the incoming goods inspection and the ongoing production as well as complaints caused by suppliers to Hengst's customers.

The key figure is formed from the ratio of the number of defective delivered parts to the total delivery quantity of a certain period x 1,000,000.

In the case of complaints with material returns, the supplier is requested to determine the actual incorrect quantity and, in the event of deviations from the quantity complained of by Hengst, to report back to the claiming Hengst location. If the feedback is received until the conclusion of the complaint, e.g. the ppm values can be adjusted by the processing quality department of the Hengst location on the system side. Otherwise, the total amount complained of is considered incorrect in the calculation of the ppm.

The QM-System is evaluated on the basis of the criteria described in section 2.1:

- Automotive:

Supplier category	Minimum level of QMS development	Target level of QMS development
Development supplier	IATF 16949	IATF 16949
Electronic/Software	IATF 16949	IATF 16949 and ISO/IEC 15504 – SPICE
Build-to-Print	ISO 9001	ISO 9001
DIN parts	ISO 9001	ISO 9001
Packaging	ISO 9001	ISO 9001
Others	ISO 9001	ISO 9001

- Non-Automotive:
  Requirement for the QM-System:
  ISO 9001 (unless otherwise agreed between Hengst and the supplier).

Soft facts are evaluated by the respective purchasing department in regular cycles in each case for the upcoming supplier evaluation.

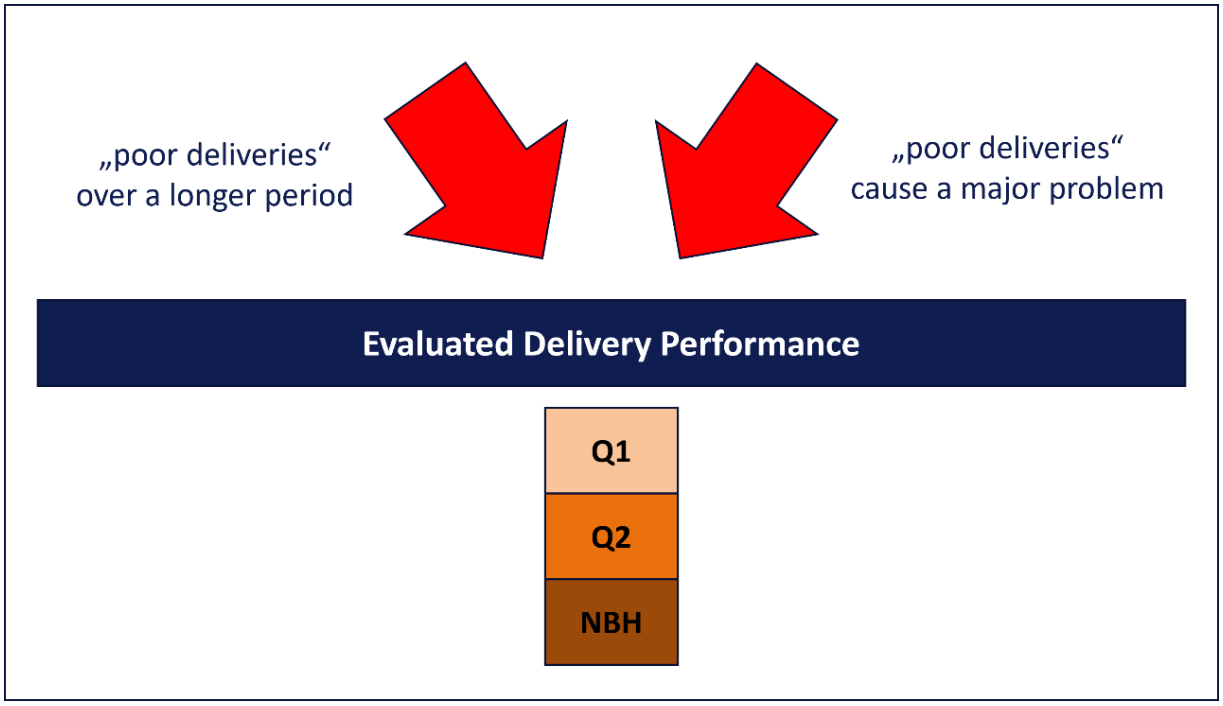
Depending on the business division and area the supplier evaluation may differ in terms of the evaluation period and the criteria applied.

7 Supplier Qualification

Supplier qualifications are addressed to a systematic delivery performance improvement. This includes quality analysis over a longer period as well as event-oriented and short-term solutions while processing not, or not sufficiently solved complaints. The process is designed to increase the supplier's awareness and engagement to cooperate depending on the different qualification levels in order to achieve the required delivery performance.

The need for supplier qualification can usually be derived from two initial situations. On the one hand "poor deliveries" over a longer period for example shown by the supplier evaluation respective the rolling monitoring about the amount of complaints. On the other hand "poor deliveries" causing a major problem for example complaints which are leading to problems regarding the delivery reliability or production downtime at Hengst or Hengst's customer.

The principles for supplier qualification are based on a step model, whose steps are associated with increasingly high levels of effort for suppliers and the organization.



Supplier qualification (**SQuaP S**upplier **Qua**lification **P**rocess)

The classification of a supplier regarding the different SQuaP level (Q1, Q2, NBH) is based on the available data respectively the specific issues and is in the responsibility of the Supplier Management of Hengst. Starting conditions, actions and exit-criteria will be coordinated in detail between Hengst and the supplier.

The Exit-criteria will be documented on a SQuaP Letter and must be signed by both Hengst and the supplier.

After successful fulfilment of the exit criteria the supplier qualification is revoked. Otherwise an escalation to the next level can be done.

The following are examples of classifications. This serves as a guide but changes are possible and dependent on the specific case.

Level	Description	Start	Actions	Exit criteria
Q1 (Qualification)	Supplier is conspicuous based on not satisfying deliveries / cooperation over a longer period, or based on the complaint seriousness.	For example: - Serious issue results in production disturbances at Hengst (e.g. line stop). - Disturbances at a customer site of Hengst. - High amount of issues over a longer period. - Continuous C-supplier evaluation. - High volume of extra tours. - Serious time delays towards the project plan.	For example: - Invitation of the supplier for review and definition of next steps. - Action plan of supplier to achieve defined targets. - Perform a process audit at supplier.	Depending on the defined actions. For example: - Action plan completed. - Non-conformance has been eliminated and no repetition of complaint within a specific timeframe. - Milestones regarding project plan reached.

Level	Description	Start	Actions	Exit criteria
Q2 (Endangerment)	Supplier is not successful in remedying the issues and/or recurrent complaints raising up. An escalation / “special customer status” was initiated by customer of Hengst.	For example: - Defined exit-criteria of Q1 could not been fulfilled. - Recurrent complaint with the same cause of failure or the current complaint is not successfully remedied. - Supplier is not capable to solve issues independently. - An escalation / “special customer status” was initiated by customer of Hengst. - Serious time delay persists / could not be fixed by the applied actions. - Milestones at Hengst were not complied or serious impact for the customer’s project timetable are likely. - Supplier has issues with his certification.	For example: - Invitation of the suppliers management for review and definition of next steps. - The supplier needs to work out an action plan to achieve defined targets. - Perform a process audit at supplier. - Additional actions like a firewall to protect Hengst and/or Hengst’s customer has to be installed by the supplier on Hengst request.	Depending on the defined actions. For example: - Audit and milestones have been achieved successfully. - Non-conformance has been eliminated and no repetition of complaint within a specific timeframe. - Action plan is successfully processed.

Level	Description	Start	Actions	Exit criteria
NBH (New Business Hold)	Supplier is currently not suitable.	For example: - Defined exit-criteria of Q2 could not been fulfilled. - No signs of improvement for more than 6 months, or if after starting qualification Q2 the complaints persist at Hengst and could not been solved. - Supplier is unsuitable for successful project / shows no willingness for further cooperation.	Disqualification of the supplier for new businesses.	Depending on the specific case. For example: - Milestones have been achieved successfully. - Provision of evidence about the improvements due to a process- or system-audit.

8 Logistics

8.1 Delivery schedules / release and ordering process

Hengst SE transmits delivery releases via remote data transfer (RDT). Data is transmitted based on the VDA or the EDIFACT standard. The supplier's ability to process data based on one of the standards is an underlying condition. Data transmission via an e-mail, fax, or regular mail is only possible in special cases after approval.

8.2 Due date and quantity compliance

The delivery dates and quantities stated in delivery releases must be met. The indicated due dates are receiving dates at the corresponding Hengst receiving facility. Hengst supplier quality ratings also incorporate actual delivery compliance performance metrics (measurement methods based on VDA 5001).

When a delivery due date or a delivery quantity cannot be met, the material planning department of the affected Hengst facility must be immediately informed by telephone or email. The supplier must also take into account its internal lead time as well as the transportation time. This requirement is independent of whether an early or delayed delivery and/or an over/under quantity is expected, and whether this delivery is paid by the trucking company or the supplier.

8.3 Estimated variances from due dates or quantities

The suppliers monitor incoming delivery releases, including their plausibility and the ability to comply. When conflicts arise that could result in a missed delivery due date or the supplied quantity, the suppliers are required to report this to the Hengst receiving facility within 2 business days after having received the delivery release. The suppliers shall indicate the cause for the delivery delay and specify a new delivery due date. When more than one scheduled delivery of the delivery release are not met, the suppliers shall submit a daily updated makeup schedule to restore on-time delivery, and shall discuss this schedule with the planner. Claims for compensation in connection with the delivery delay are not affected by this.

II Abbreviation

APQP	Advanced Product Quality Planning
PPAP	Production Part Approval Process
MSA	Measurement System Analysis
MCR	Maximum capacity rate
FMEA	Failure Mode Effects Analysis
CIP	Continuous Improvement Process
IMDS	International Material Data System
PPA	Process and Product Approval
MSA	Measurement System Analysis
SPC	Statistical Process Control
NBH	New Business Hold
RDT	Remote Data Transmission

III Forms attachment

The following documents/forms can be provided by Hengst on request:

- Hengst feasibility study
- APQP status purchased parts
- Sampling requirements
- Qualification/SQuaP letter