

H.C. Starck



Empowering High Tech Materials

Supplier Manual

Vision: To be consistent with H.C. Starck Solutions, Quality Policy “...***committed to exceeding our customer’s expectations,***” our vision is for H.C. Starck Solutions approved suppliers to use world class manufacturing processes and quality systems to provide us with exceptional quality, delivery, cost, and capability. Ultimately this will allow H.C. Starck Solutions to continue to satisfy our customers and shareholders.

Goal: The goal of this manual is to continually improve our ability to satisfy our customer’s requirements by uniformly communicating H.C. Starck Solutions’ requirements to our supplier base. This provides the framework for H.C. Starck Solutions to measure supplier performance, reward outstanding efforts from a supplier and improve supplier performance when warranted.

The performance of key suppliers will be tracked and communicated with a Supplier Report Card.

Scope: This manual is organized into four sections:

Section One: This section defines the quality terms and quality system expectations between H.C. Starck Solutions and our supply base.

Section Two: This section defines the basic business terms and processes under which we may operate with our supply base.

Section Three: H.C. Starck Solutions Certified Supplier Program

Section Four: General Contact information for all sites

Contract: Acceptance of a H.C. Starck Solutions purchase order (PO) constitutes acceptance and understanding of this Supplier Manual. Suppliers are encouraged and expected to understand and as necessary discuss the specific applicability of these requirements with their H.C. Starck Solutions Purchasing or Supplier Quality representative. Unless specifically waived, suppliers must comply with all requirements as stated in the following:

- ✓ The executed H.C. Starck Solutions Purchase Order. (Purchase Orders must be signed by the Buyer to be considered an executed and legal document.)
- ✓ This H.C. Starck Solutions Supplier Manual
- ✓ H.C. Starck Solutions Drawings and Engineering Specifications
- ✓ H.C. Starck Solutions Non-Disclosure Agreement (NDA’s) or Confidentiality Agreements
- ✓ Any written agreement signed by an authorized employee or office.
- ✓ Warranty and replacement provisions
- ✓ Responsible Supply Chain Management (RSCM) questionnaire

Business Ethics/Conflicts of Interest

H.C. Starck Solutions is committed to act in accordance with the highest standards of ethical conduct and integrity and in full compliance with the law. We expect no less commitment from our suppliers. In all business dealings with H.C. Starck Solutions the supplier makes a continuing representation to H.C. Starck Solutions that it shall not hire or solicit for employment any employee of H.C. Starck Solutions while that employee is an employee of H.C. Starck Solutions, nor pay any salaries, commissions, fees, or make any payments or rebates to any employee or officer of H.C. Starck Inc, or to any designee of any such employee or officer, nor favor any employee or officer of H.C. Starck Solutions, or any designee of any such employee or officer, with gifts or entertainment that is or could be reasonably perceived to be in violation of H.C. Starck Solutions' Corporate Compliance Program, which states in part that: Employees and their families may not accept meals, gifts, gratuities, entertainment, or anything of value from customers or suppliers if doing so could compromise or appear to compromise their commitment to act in the best interests of the Company. Specifically, employees may not accept anything of value in exchange for doing or promising to do anything for a supplier or customer. Moreover, employees may not ask suppliers or customers for anything of value. Employees and members of their families may accept unsolicited, non-monetary gifts from the Company's existing or potential suppliers or customers only if: (a) the gift is modest, symbolic, or given to a large group of employees as part of an agreement between the Company and the customer or supplier; or (b) the gift is of a promotional nature (e.g., a logo t-shirt). Before accepting any other type of gift, employees must consult and receive the written approval of their supervisor and/or the Corporate Compliance Officer.

Section #1

1.1 Supplier Selection and H.C. Starck Solutions Approved Supplier List (ASL)

H.C. Starck Solutions selects suppliers based on their ability to provide products and services that meet or exceed stated requirements in order to provide the highest quality and value to our customers. The supplier selection process is outlined as follows:

Phase 1 “Identify & Selection” - The potential new supplier will be expected to:

- Review H.C. Starck Solutions product, delivery, and commercial requirements.
- Participate in a detailed review of H.C. Starck Solutions drawings and specifications, when requested.
- Provide a clear, complete quote based on H.C. Starck Solutions requirements.
- Complete a H.C. Starck Solutions Initial Supplier Evaluation.
- When applicable, complete a RSCM questionnaire

Phase 1 will end with a decision to pursue (or not) the approval of this supplier.

Phase 2 “Qualification & Approval” - The supplier will be expected to:

- Demonstrate systems and processes that are capable of meeting H.C. Starck Solutions requirements.
- Support a H.C. Starck Solutions on site audit of the supplier’s quality systems and manufacturing processes, as requested.
- Accept the Terms and Conditions of the H.C. Starck Solutions purchase order.
- Provide an accurate and complete PPAP or FAI package ahead of the first production delivery, when specified.
- Maintain pricing at the agreed upon quote after launch of becoming new supplier

Phase 2 will end with a decision to add (or not) the supplier to the H.C. Starck Solutions Approved Supplier List. Addition to the ASL will also indicate the approval status of Conditional, Probationary, Approved or Certified.

- Conditional – approved under conditional requirements or waived usage.
- Probationary – approved with additional inspection or corrective action required
- Approved – no restrictions
- Certified – HC Starck Inc. preferred status supplier with no restrictions.

1.2 Supplier Quality System Requirements and Certification Status

All suppliers are encouraged to operate and maintain Quality Management Systems that are certified by an accredited 3rd party Quality System Registrar. This is dependent on products and services provided. Therefore, suppliers are encouraged to adhere to one or more of the following:

- Unless otherwise specified by documented waiver, H.C. Starck Solutions requires members of our supply base to have a quality system that is at least ISO9001 registered through an accredited third-party registrar.
- Suppliers that contribute to our AS9100 scope aerospace customers shall be AS9100 certified or AS9100 compliant unless otherwise permitted by H.C. Starck Solutions and its customers in writing. Compliance to AS9100 may be determined by an audit by H.C. Starck Solutions, our customer or other required regulatory authority.
- All Laboratory or Calibration suppliers must be certified to the ISO17025 standard, and conduct required tests in accordance with the requirements of the standard.
- All suppliers who contribute to our National Aerospace and Defense Accreditation Program scope customers must be appropriately registered with NADCAP if their processes and/or H.C. Starck Solutions processes require accreditation.
- H.C. Starck Solutions reserves the right to audit suppliers. Quality system and process specific audits provide objective evidence to support part approval, compliance to industry standards, process performance and/or commercial requirements. This right extends, as applicable, to H.C. Starck Solutions customers and any other relevant governing authorities as required.

1.3 Supplier Deviation Request

When appropriate, a H.C. Starck Solutions supplier may be required to be released from specification requirements for part and process. The Supplier Deviation Request is used in order to control and document these instances. H.C. Starck Solutions expects to receive any requests, in writing, for deviations in advance of material, product and/or services being shipped to any H.C. Starck Solutions facility.

- Requests for deviation may be made via email request or using suppliers own deviation request format.
- H.C. Starck Solutions will not approve any deviation request until our suppliers build a case to accept the deviation with data submitted at time of request.
- H.C. Starck Solutions may require a formal corrective action as a result of a deviation request to ensure the nonconformance is not repeated.
- When accepting a deviation, H.C. Starck Solutions still reserves the right to pursue cost recovery if costs above normal production are incurred due to the deviation and supplier agrees they will be responsible for such cost.
- Rejection of a deviation request is not an acceptable reason for missed delivery.

1.4 Supplier Corrective Action Request (SCAR)

The SCAR is a formal request for corrective action investigation, implementation, verification, and improvement. H.C. Starck Solutions recommends an 8-D approach.

- H.C. Starck Solutions expects prompt resolutions of rejections and implementation of corrective actions. Containment actions (to keep H.C. Starck Solutions from receiving any more nonconforming product) to be implemented within 24 hours of notification of an issue and includes such steps as stopping inbound product from reaching H.C. Starck Solutions
- Corrective action plans to be submitted, including a comprehensive understanding of the true root cause of the problem, within 10 business days or as otherwise required by H.C. Starck Solutions. If comprehensive testing is required to understand root cause, H.C. Starck Solutions expects routine updates as agreed upon with the supplier, documenting the testing progress and results.
- A SCAR will not be closed out without the appropriate workflow completed and submitted through ETQ.

1.5 Supplier Process and Product Requirements Review

Review sessions may be requested by H.C. Starck Solutions or the supplier with the initial introduction of a new part to a supplier, with major design changes to an existing part or process or with a new supplier. These are formal opportunities to assure all requirements are clearly communicated, understood and obtainable. Once supplier communicates understanding and acceptance of requirements, a request for change may result in corrective action. The following may be jointly reviewed by both H.C. Starck Solutions and the supplier:

- Prints/Drawings
- Engineering Specifications
- Process Requirements
- Quality Requirements
- Capability Assessment
- Dimensional Features
- Identify or evaluate potential cost reduction or value add opportunities
- Deviation Requests

Regardless of whether a formal product requirement review is held, it is the supplier's responsibility to understand and adhere to all H.C. Starck Solutions requirements.

1.6 Production Part Approval Process (PPAP) or First Article Inspection (FAI)

H.C. Starck Solutions may require formal documentation for production part approval to be completed before delivery of any production orders. Suppliers may be required to adhere to the appropriate and applicable elements, as identified by H.C. Starck Solutions

As appropriate, H.C. Starck Solutions may require a level of documentation commensurate with the criticality and complexity of the part and our customer's requirements. A copy of a completed "PPAP Retention/Submission Requirements Checklist" or FAI request may be provided with each new part or design change at the time of quoting or purchase order issue. This documentation will provide a detailed list of the validation requirements which must be completed and approved before shipment of the first production product, unless otherwise documented by H.C. Starck Solutions

PPAP or FAI Requirements may include (but are not limited to) the following:

- Design Records (drawings & specifications)
- Engineering Change Documents if any
- H.C. Starck Solutions Engineering Approval, if required
- Design FMEA
- Process FMEA
- Dimensional Results
- Material or Performance Test Results
- Initial Process Study (Capability Studies on Key Characteristics – See Capability Section 2.4)
- Measurement System Analysis Studies
- Qualified Laboratory Documentation
- Process Control Plan
- Part Submission Warrant
- Appearance Approval Report
- Bulk Material Requirements Checklist
- Sample Product
- Master Sample
- Checking Aids
- Records of Compliance with H.C. Stack Inc. requirements

Request for PPAP or FAI documentation may be required for, but not limited to, one of the following:

- A new part (including part processing value-add) or product/material
- First time supplier of part (including part processing value-add) or product/material
- Correction of a discrepancy and/or corrective action
- Product (including part processing value-add) or product/material modification by supplier or H.C. Starck Solutions
- Any process change where machinery settings, machinery type, machinery location, manufacturing location, process variables or any other change to the process
- Other conditions as specified in the AIAG PPAP Manual or AS9102 Aerospace Standard.

Additional information regarding this requirement may be referenced in the AIAG (Automotive Industry Action Group) Production Part Approval Process Manual. Also reference the AIAG website <http://www.aiag.org>. Additionally, for FAI requirements refer to the AS9102 Aerospace Standard.

1.7 Supplier Performance Rating

H.C. Starck Solutions key suppliers and subcontractors will be evaluated regularly based on their ability to meet performance, as defined below. Key suppliers and subcontractors will be decided upon based on criticality to our business and/or the total percentage of spending dollars.

Category	Rating	Measurement
Quality	Reject Rate (PPM)	(# Parts Rejected / # Parts Delivered) Multiplied by 1,000,000 <ul style="list-style-type: none"> ▪ May be calculated as either pieces or by weight
Logistics	On-Time Delivery	% of Shipments On Time - On time is correct quantity of accepted product delivered with the delivery window of: <ul style="list-style-type: none"> ▪ -3 / +0 days for direct materials. ▪ -15 / +0 days for all other materials including services.

Section #2

Basic business terms, processes, performance measures under which H.C. Starck Solutions operates with our supplier base.

2.1 Cost

H.C. Starck Solutions expects suppliers to provide products at globally competitive pricing. H.C. Starck Solutions expects that by continually reducing the total cost of the products and services supplied we can both remain competitive in the global marketplace.

2.1.1 Reliable Cost Estimates

Total cost (H.C. Starck Solutions on-dock cost) should always include accurate cost estimates for material, product, and/or service. Any additional costs, fees or surcharges being added on after H.C. Starck Solutions has placed a purchase order will not be paid unless agreed to in advance, and in writing, by H.C. Starck Solutions

2.1.2 Cost Reductions

The supplier should work collaboratively with H.C. Starck Solutions to develop products and services that allow both parties to continually reduce costs each year.

Savings are defined as efforts that result in changes to product design, manufacturing processes, packaging, shipping, inventory management and any and or all direct and indirect costs that ultimately lower our mutual costs.

2.1.3 Approval of Cost Changes is required in advance of implementation.

Cost changes resulting in negative variance will not be considered until formal communication and approvals are completed. Any discussions concerning price will only be held once a year unless otherwise agreed to as part of a long-term agreement in writing signed by both parties. These discussions must coincide with the H.C. Starck Solutions financial planning period.

Typically, costs for the entire next calendar year will need to be discussed and agreed to by June 30th of the current year in order to coincide with H.C. Starck Solutions business planning processes.

We expect sound justification and verifiable, unbiased documentation to support any and/or all cost increases before they will be considered for implementation.

H.C. Starck Solutions is looking to build long term relationships with suppliers who on a yearly basis proactively help both companies secure our mutual futures by offering price reductions and value stream improvements.

2.1.4 Pay Terms

H.C. Starck Solutions standard pay terms by policy are net 60 days. Any deviation must be approved by the Procurement Manager in advance of any orders being placed.

Shipments received prior to any deviation being granted in writing will be subject to H.C. Starck Solutions standard pay terms.

Suppliers deviating from our standard terms may be put on new business hold until such time as standard terms are in place.

2.1.5 Surcharges and any additional/add on fees

Surcharges and any additional fees (Hazmat, Fuel, PPAP / FAI, CoC (Certificate of Conformance) etc.) are a normal part of doing business and are the responsibility of the supplier. H.C. Starck Solutions suppliers own the relationship with their suppliers and are to manage them in a manner so as to not negatively affect H.C. Starck Solutions

The only time a surcharge may be considered is when there is dramatic market volatility and in these events H.C. Starck Solutions expects the surcharge to be for a limited time period. During this time period both the supplier and H.C. Starck Solutions will work on alternatives to mitigate any lost business. H.C. Starck Solutions does not allow rolling surcharges into base pricing in order to mask an issue. No surcharges will be allowed in any event unless approved in writing by H.C. Starck Solutions prior to implementation. Any surcharges approved must be completely verifiable including the supplier providing actual invoices from their suppliers documenting the cost increase. H.C. Starck Solutions shall have the right to request a meeting between an H.C. Starck Solutions supplier and the suppliers' source of product to help negotiate a lower price.

2.1.6 Maintain Marketplace Awareness

Suppliers are expected to work with H.C. Starck Solutions to keep us competitive in our marketplaces. Therefore, in most instances a supplier's understanding of H.C. Starck Solutions markets as well as their own is expected. We expect suppliers to participate in H.C. Starck Solutions improvement activities including Kaizen events, value engineering workshops, value stream analysis, or 6 sigma projects.

2.1.7 Minimize Cost of Non-Quality

Costs associated with supplier's poor-quality performance (CONQ) Cost of Non-Quality will be tracked. The supplier will reimburse H.C. Starck Solutions for CONQ once formal communication and justification has been provided by H.C. Starck Solutions

2.2 Supplier Cost of Non-Quality

CONQ includes any material, labor costs, and costs that H.C. Starck Solutions incurs as a result of supplier nonconformance. This may include, but is not limited to, raw material scrap costs, WIP or finished goods scrap costs, H. C. Starck rework costs, accounting, and engineering costs, as well as other fees that are incurred handling defective material.

H.C. Starck Solutions shares our success by awarding continued and new business to our suppliers. By the same token H.C. Starck Solutions suppliers must be willing to accept responsibility for all quality issues that are directly a result of assignable root cause on their part.

Suppliers will be required to expedite replacement product at their own cost in order to insure uninterrupted flow of material in support of H.C. Starck Solutions operations.

2.2.1 Minimize Cost of Non-Quality

H.C. Starck Solutions suppliers are expected to meet stated quality goals and to have systematic quality improvement activities to drive down CONQ in the supplier's facility and, where appropriate, at key sub-suppliers.

2.2.2 Respond to Nonconformance Notification

The supplier will be formally notified as soon as possible upon discovery of the nonconformance by H.C. Starck Solutions. Prompt actions from a supplier can often reduce the CONQ incurred for both H.C. Starck Solutions and the supplier. Therefore, H.C. Starck Solutions reserves the right to require a 3rd party sort on site within 24 hours of being notified of the issue. In the absence of a third-party sort, H.C. Starck Solutions will implement containment and sorting activities and will charge the supplier an hourly fee commensurate with the resources required for containment and sorting staff on site at the H.C. Starck Solutions plant where the issue resides.

2.2.3 Provide Cost Recovery

H.C. Starck Solutions Procurement Group will pursue cost recovery as appropriate. These costs will include associated costs such as sorting and rework where applicable. H.C. Starck Solutions may negotiate detailed cost recovery agreements with suppliers as part of a long-term agreement or other negotiations which may supersede this section of the H.C. Starck Solutions Supplier Manual.

2.3 Capacity

H.C. Starck Solutions expects the supplier to have sufficient capacity to meet quoted demand at all times. H.C. Starck Solutions may require the supplier to validate this capacity in terms of Man, Machine and Material with objective data. This may be verified during or at any time after the supplier selection process.

2.3.1 Meet Production Schedules

Furthermore, we expect suppliers to notify H.C. Starck Solutions of significant capacity or business changes (see "Management").

2.3.2 Assure Flex Capacity

We expect suppliers to flex their capacity by a minimum of 20% within a reasonable time frame for their industry. We expect suppliers to respond to fluctuations in H.C. Starck Solutions schedules, operating for extended hours as needed.

2.3.3 Provide Effective Maintenance

We expect suppliers to maintain operating equipment and skill sets at the highest level.

2.3.4 Growth

We expect our suppliers to add or source appropriate capacity as H.C. Starck Solutions requirements grow. If subcontracting of a supplier's work is necessary in order to meet demand, H.C. Starck Solutions must be notified and appropriate control of sub-tiered suppliers is expected.

2.4 Capability

H.C. Starck Solutions expects suppliers to quantifiably understand their processes and in turn their process capabilities.

2.4.1 Know H.C. Starck Solutions requirements

H.C. Starck Solutions will provide specifications and assistance to assure all requirements are clearly communicated and understood.

We expect the supplier to ensure their process can consistently produce product that meets H.C. Starck Solutions requirements before accepting an order for production (see "Contract" in the introduction).

2.4.2 Validate New Parts and Process Changes

When requested or applicable, we expect suppliers to complete PPAP or FAI documentation and submit for approval. PPAP's should be performed in accordance with the AIAG PPAP Manual and FAI in accordance with AS9102 Aerospace Standard.

2.4.3 Capabilities

H.C. Starck Solutions expects our suppliers to quantifiably understand the amount and type of variation in key product characteristics produced by their processes. H.C. Starck Solutions expects (upon formal request) to see complete and accurate process capability data on any critical characteristics for a H.C. Starck Solutions material within 5 business days. Key product characteristics, as identified by H.C. Starck Solutions or our customers, must meet a minimum 1.33 PpK (long term goal of 1.67 PpK min.), or minimum 1.67 CpK (long term goal 2.00 CpK min.). Those characteristics identified as "key" and are less than the minimum indices noted above must be inspected 100% with data to accompany the Certificate of Conformance (C of C) for each shipment. These key characteristics will be assessed and evaluated during the PPAP or FAI review process.

2.4.4 Approved Control Plans

H.C. Starck Solutions expects to review objective evidence of process control per the approved

H.C. Starck Solutions control plan upon request within 5 business days. Notification of any changes to H.C. Starck Solutions approved control plans should be provided to H.C. Starck Solutions Quality Representative in advance of their implementation for approval. (See "Supplier Deviation Request")

2.4.5 Technical Support

H.C. Starck Solutions expects our suppliers to contribute to product improvement efforts with technical insight and process knowledge. Suppliers should be able to provide input on H.C. Starck Solutions specifications and drawings for new products.

2.4.6 Prevention of Counterfeit Parts

The supplier shall plan, implement, and control processes, appropriate to the supplier and the product or material, for the prevention of counterfeit or suspect counterfeit product or material. Components must be purchased from OEM or authorized distributors as applicable. Sub-tier suppliers are required to disclose the source of parts if the parts should become the subject of a legal or counterfeit issue.

2.4.7 Employee Awareness

Suppliers must ensure their employees are aware of their contribution to product conformity and product safety and the importance of ethical behavior.

2.4.8 Competency

Suppliers must qualify their employees against the required competencies to ensure product and process conformity. Records of this qualification or training must be maintained.

2.4.9 FOD

Suppliers will implement and maintain processes and controls for Foreign Object Detection as applicable.

2.4.10 Special Processes

Suppliers must use customer-approved special processes.

2.4.11 Nonconforming Product Notification

As applicable, suppliers must notify H.C. Starck Solutions of nonconforming product and arrange for approval of supplier nonconforming material disposition. If authorization is given for a supplier to scrap nonconforming product, it must be rendered unusable if the end user is an aerospace company.

2.5 Logistics

H.C. Starck Solutions expects suppliers to deliver the right product at the right time in the right packaging using the right carrier as specified by the purchase order.

2.5.1 On Time Delivery

We expect 100% on time delivery of correct quantities with correct shipping documentation. A rejected deviation (see "Supplier Deviation Request"), or volume change within a reasonable time frame (see "Capacity") are not acceptable reasons for missing delivery windows.

2.5.2 OTD

On time delivery (OTD) is defined as three days early to zero days late. With the days ending at 12:00 midnight on the day the shipment is due.

2.5.3 Continuous Improvement

We expect suppliers to be proactive in lead time reduction activities. We expect participation when applicable in JIT, KANBAN, Pull Systems or other inventory reduction programs.

2.5.4 Delivery Methods

We expect H.C. Starck Solutions carriers to be utilized when H.C. Starck Solutions pays for freight (as defined in the H.C. Starck Solutions written POs). Failure to do so will result in supplier being responsible for any and all freight cost. Any exceptions need prior written approval.

2.5.5 Packaging Requirements

We expect suppliers to correctly follow all packaging specifications.

2.6 Development

Suppliers are expected to provide us with exceptional quality, delivery, cost and capability to enable H.C. Starck Solutions to meet its business goals and those of its customers and stakeholders. Action will be taken to improve or remove poor performers and to better utilize suppliers that excel.

2.6.1 Corrective Action

As a result of quality performance issues and cost of non-quality, we expect suppliers to implement improvements within their quality system. H.C. Starck Solutions recommends an eight discipline (8-D) problem solving approach.

2.6.2 Continuous Improvement

As a result of maintaining a certified quality system, we expect suppliers to continually improve their products, services and processes to keep pace with the global demands/requirements in the markets H.C. Starck Solutions serves.

When appropriate, we expect suppliers to be proactively involved with product development which enables H.C. Starck Solutions to reduce cost and improve quality.

2.6.3 Industry Knowledge

We expect suppliers to participate in continuing education within their industry to provide H.C. Starck Solutions with latest technology and to notify H.C. Starck Solutions of industry related continuing education opportunities that may be of benefit.

2.6.4 Development

Where applicable, we expect suppliers to continually strive to develop new, lower cost, higher quality methods of processing. If applicable, we expect suppliers to bring fresh material innovations to H.C. Starck Solutions to assist us in developing the best products in

the market.

2.6.5 Document Retention

We expect suppliers to retain all documents connected with H.C. Starck Solutions purchases for a minimum of 10 years.

2.7 Confidentiality

We expect suppliers to treat all confidential and/or proprietary information of H.C. Starck Solutions with the utmost confidentiality at all times.

Suppliers doing business with H.C. Starck Solutions must have a valid and current Non-Disclosure Agreement (“NDA”) in place at all times. Failure to comply will result in supplier being removed from the Approved Supplier List until such time as an NDA is in place.

2.8 Management

We expect suppliers to effectively manage their businesses such that they can become a valued partner.

2.8.1 Work Safely

We expect suppliers to manage their facilities providing a safe and environmentally compliant workplace.

2.8.2 Communicate Effectively

We expect a formal business exchange with management as appropriate. The supplier shall promptly update H.C. Starck Solutions Sourcing on business changes including plans for acquisitions, sales, facilities, and investments.

H.C. Starck Solutions expects updates on any significant industry news and key market drivers that could affect the business relationship or H.C. Starck Solutions profitability in its market segments.

2.8.3 Fulfill Agreements

We expect any jointly executed agreements to be fully honored. We expect suppliers to maintain risk mitigation / contingency plans to ensure fulfillment of all agreements and orders.

2.8.4 Trade Compliance, US Government Agencies

H.C. Starck Solutions' policy on both domestic and international shipments is to be in full compliance with US government agency regulations including but not limited to the International Traffic in Arms Regulations (ITAR), Export Administration Regulations (EAR), U.S. Customs Regulations and the Uniform Commercial Code (UCC). We expect key “Strategic” suppliers to be fully compliant with these regulations where applicable and to provide demonstrable proof of compliance when requested by H.C. Starck Solutions.

2.8.5 Build for the Future

We expect key “Strategic” suppliers to grow their business with H.C. Starck Solutions and encourage “Continuous Improvement” in all facets of the business relationship.

Section #3

Section Three - Define the requirements of the H.C. Starck Solutions Certified Supplier Program

3.1 Certified Supplier Program

H.C. Starck Solutions defines a certified supplier as one who is found to supply material of such quality that it is not necessary to perform routine testing on each lot received. Material or services may be received directly into stock, with only the agreed upon supplier prepared certification documents, accompanying each shipment and reviewed by appropriate H.C. Starck Solutions personnel. Certified suppliers will be viewed as strategic to the continued growth and success of H.C. Starck Solutions

Key Points:

H.C. Starck Solutions seeks to certify suppliers on the basis of sound business and quality practices that are consistent with our own.

- The supplier shall have a management philosophy which shares our goals and even shares risk promoting long term relationships.
- The supplier knows their own quality and seeks to improve in order to achieve zero defects.
- The supplier consistently ranks high on our supplier rating system. High is defined as green in all categories for 12 consecutive months.
- The supplier has quality systems that assure that products and services are delivered as expected and can contribute technical expertise, even at the design phase.
- The supplier is a good business associate and provides product which arrives in good condition, on-time and with no extreme price fluctuations.
- RSCM program compliance

3.2 Minimum Certification Requirements:

H.C. Starck Solutions will regularly review supplier performance. Those suppliers who consistently meet specific minimum targets will be considered as candidates for inclusion in this program. The following minimum criteria will be used to establish initial candidacy and/or continuance.

1. Supplier must be in good standing on the H.C. Starck Solutions Approved Supplier List.
2. No significant product related rejections for a minimum of 1 year.
3. No significant non-product related rejections for a minimum of 6 months. Significant in this case is defined as part marking, clerical, packaging errors or similar.

4. No significant production related negative incidents for a minimum of 6 months. Significant in this case would be defined as issues discovered on the production floor that are not associated with pre-defined product specifications (i.e. ease of use or manufacturability of product or service provided).
5. Supplier shall pass a recent on site quality and process evaluation.
6. Supplier shall maintain a 3rd party quality system registration to at least ISO9001 or AS9100, by an accredited registration body. Others may be requested depending on H.C. Starck Solutions customer or industry requirements (i.e. NADCAP, ISO14001, ISO17025 or similar).
7. Supplier shall have an approved PPAP / FAI on file for each item that is under the certification scope.
8. Supplier shall maintain the ability to furnish timely copies of all necessary material certifications, inspection data or test reports required with each shipment.

3.3 Steps toward Supplier Certification:

1. H.C. Starck Solutions preliminary evaluation and selection
 - a. Multifunctional review with Purchasing, Engineering, Quality, or Production (others as necessary).
 - b. Notify appropriate user plants that certification activities are beginning.
2. Initial supplier contact, orientation and commitment
 - a. Forward invitation to participate in the Supplier Certification Program.
 - b. Identify all parts/services within scope in the certified supplier agreement.
 - c. Obtain signed certified supplier agreement document (letter of commitment).
3. Supplier Self Survey
 - a. Forward the H.C. Starck Solutions Initial Supplier Quality Survey.
 - b. Obtain agreement on completion date for self-survey.
 - c. Supplier shall forward a copy of their quality manual.
4. Production Part Approval Process (PPAP) – Level 5 or FAI Documentation
 - a. H.C. Starck Solutions will forward all relevant specifications and drawings.
 - b. Supplier will acknowledge understanding of all applicable requirements.
 - c. Supplier will submit appropriate PPAP or FAI package for all agreed upon parts within scope.
 - d. On-site PPAP / FAI validation and system/process assessment.
5. Post PPAP Verification Activities
 - a. Close out any open issues from previous steps or on-site assessments.
 - b. H.C. Starck Solutions verifies that all systems are suitable, system weaknesses were corrected, capability on critical characteristics is adequate and the control plan yields defect free lots. If so, the supplier certification agreement is approved and signed. Certification is awarded.
 - c. Notify affected user plants of supplier certification approval.

6. Supplier begins ship to use activity
 - a. Supplier will be given special shipping labels to indicate “dock to stock” status.
 - b. H.C. Starck Solutions will assure that routine receiving inspection activities are eliminated.
 - c. H.C. Starck Solutions will implement a regular lot audit plan.

3.4 Certification Maintenance Requirements:

In the spirit of continuous improvement and partnership, H.C. Starck Solutions will regularly monitor our certified supplier’s adherence to the agreed upon requirements.

- H.C. Starck Solutions will perform regular lot auditing of critical product characteristics.
- H.C. Starck Solutions will complete a regular supplier performance review.
- H.C. Starck Solutions will perform a financial review for critical suppliers only.
- H.C. Starck Solutions may conduct on site process-based audits.
- H.C. Starck Solutions may require supplier to complete a self-audit between on-site visits.
- Supplier shall forward copies of all 3rd party quality system registration certificates whenever they are updated. H.C. Starck Solutions may request copies of 3rd party quality system audit results, in lieu of the self-audit.
- H.C. Starck Solutions has the right to verify the validity of Supplier Certifications and the effectiveness of the certification process.
- RSCM audits

3.5 Decertification Criteria:

A supplier’s certification status may be revoked whenever the minimum standards described above are not maintained or as other conditions described below may occur. H.C. Starck Solutions will reserve the right to restore certification status after corrective actions have been verified or whenever performance against minimum standards are once again verifiable and demonstrated to be sustainable.

- Repetitive product related rejections (severity considered).
- Repetitive non-product related rejections (severity considered).
- Poor responsiveness to root cause / corrective action requests.
- Chronic production related negative issues.
- Poor quality management system review, either by H.C. Starck Solutions or 3rd party audit.
- Commodity related supply issues that put H.C. Starck Solutions at risk.
- Commercial issues that put H.C. Starck Solutions at risk.
- Other H.C. Starck Solutions risk management issues.

3.6 Benefits to the certified supplier:

Those suppliers obtaining certification will be the first to be considered for:

- Quotes for any new business relevant to the supplier
- Joint development work on future programs

Section #4

H.C. Starck Solutions - General Contact

Information MFG FACILITIES in North America

H.C. Starck Solutions Euclid, LLC
21801 Tungsten Road
Cleveland OH 44117
216.692.3990

H.C. Starck Solutions Coldwater, LLC
460 Jay Street
Coldwater MI 49036
517.279.9511

For more information on H.C. Starck Solutions see our websites at:

www.hcstarcksolutions.com

Capacity, Development or Management Related Issues:

Site Purchasing Representative (Euclid and Coldwater)

For Daily Order, or Delivery Related Issues: Site Purchasing Representative (Euclid and Coldwater)

For Quality Related Issues: Site Quality or Purchasing Representative (Euclid and Coldwater)

Revision History:

08/23/15: Procurement Review, document was accurate

06/09/15: During the periodic review of the document the issue date was inadvertently changed and as a result it became out of alignment with the footer. It is being corrected to bring it back to the original date issue date as there have been no changes made to this document.

06/12/2017: Added sections 2.4.6 thru 2.4.11; needed to align with AS9100D. Adjusted formatting.

04/01/2022: Name change to H.C. Starck Solutions. Removal of Newton plant. Adjusted formatting.

06/10/2022: Addition of text for financial review on critical suppliers, section 3.4

4/17/2023: Addition of text for requirement of signature on POs, page 2. Addition of text for callout of right to validate quality certificate, section 3.4

8/21/23: Update sections 1.2 & 1.4 for clarification