

 Hanwha	SUPPLIER QUALITY ASSURANCE REQUIREMENTS	Doc. No.	Q7000
		Page	1 OF 7
		Revision	3
		Date	2018. 08. 01

1. Purpose

This requirement specifies the quality assurance requirement which is required to supplier who is contracted purchasing order with Hanwha Corporation Aerospace Division(hereinafter called "Hanwha") for outsourcing and purchasing for product of test equipments, inspection devices, gauges, tools, etc. equipment.

2. Scope

2.1 Criteria of Classification

구분	분 류	비 고
Group 7A	Test/Inspection Equipment • Standard Model of Manufacturer • Make to order	• Performance and Test Equipment
Group 7B	Machining/Assembly/Inspection/ Performance Test Equipement	
Group 7C	Measuring Equipment and Gauge for Inspection • Standard Model of Manufacturer • Make to order	• 3CMM, Projector, Micrometer, etc. • Limit gauge, etc.

2.2 Suppliers shall meet all the requirements on the contract and are responsible for providing the relevant products and services to Hanwha. If the requirements on the contract do not conform to the this SQAR the priority shall be given to the requirements of the contract.

2.3 If the requirements on this SQAR cannot be met, the suppliers must notify Hanwha and discuss prior to signing the contracts and receiving the purchase orders.

2.4 Suppliers shall refer to the latest revision of this requirements. When the manufacturing cost increases as a result of revision of the requirements, the suppliers must notify Hanwha's purchasing department for discussion.

3. Applicable Documentations

3.1 International Standards

3.1.1 ISO9001 "Quality Management Systems – Requirement"

☞ Web site address: <http://www.iso.org/iso/home/standards/management-standards.htm>

3.1.2 ISO17025 "General requirements for the competence of testing and calibration laboratories"

3.2 Hanwha corporation's Engineering Documentations

Quality and engineering documentations applied on the drawings and specifications of the items found on the contract or purchase order.

 Hanwha	SUPPLIER QUALITY ASSURANCE REQUIREMENTS	Doc. No.	Q7000
		Page	2 OF 7
		Revision	3
		Date	2018. 08. 01

4. General

4.1 Supplier shall confirm the requirement specified in this requirement(Q7000) prior to providing product and service and shall establish quality management system to ensure compliance of this requirement.

4.2 Supplier shall meet the following quality requirements in addition to the quality assurance system specified in this document.

4.1.1 Quality assurance/inspection requirements specified on the drawing and specification of the product.

4.1.2 Quality assurance/inspection requirements stated on the relevant government policy and contract related documents.

4.1.3 Additional quality requirements(Q0000) stipulated in the purchase order with Q7000.

4.3 Suppliers shall perform inspection on all the products prior to its delivery, and the relevant reports shall be submitted to Hanwha.

4.4 Supplier shall discuss with Quality assurance and Production technical department prior to the beginning of work, about all technical inquiries which are occurred during production process of product.

4.5 Hanwha and its customers are authorized to evaluate suitability of the quality management system and the products on the site in order to approve them according to the requirements of the contract.

4.5.1 Suppliers shall provide quality records, equipments, and personnels required for such evaluation and verification.

4.5.2 Suppliers shall not utilize such verification method used by Hanwha as a means of accepting products.

4.6 Suppliers shall ensure that its employees are aware of all the quality assurance requirements and apply them to production of the relevant items.

4.7 Control of Subcontracting, Outsourcing and Purchasing Product

4.7.1 Suppliers shall not outsource and procure any items on the purchase order from Hanwha without any prior approval, and any violation to this could result in void of the contract and compensation of any incurred financial loss.

4.7.2 Supplier shall confirm and ensure that outsourcing and subcontractor for purchased product is managed for the entire production process(Manufacturing and Quality

 Hanwha	SUPPLIER QUALITY ASSURANCE REQUIREMENTS	Doc. No.	Q7000
		Page	3 OF 7
		Revision	3
		Date	2018. 08. 01

Inspection/Management, etc.). If necessary, basis of relevant contents shall be provided to Hanwha.

4.7.3 Supplier shall establish and apply the procedure to manage traceability for warehousing, storage and the entire production process.

4.7.4 Traceability management for material and product shall be implemented the entire production process and shall manage to not be mixed incorrect product and incorrect Batch/Lot in any circumstance.

If there is any quality cost occurred due to mixing incorrect product or incorrect Bat/Lot, Hanwha has right to charge the compensation of damage.

4.8 Suppliers shall establish proper procedures to control and comply with all technical and engineering data(including digital data) which are provided by Hanwha and generated by suppliers. Unless otherwise requested by Hanwha, suppliers shall only use the latest and validated revision level, and apply them to each production exactly. If any technical and engineering data related to delivery items need to be changed, suppliers shall inform and discuss with Hanwha in advance.

4.9 Supplier shall prepare the proper manufacturing document(Ex. Traveller, Process drawing) to control Production process and to maintain traceability. Manufacturing document shall contain Equipment, excusive tool and software program information.

4.10 Supplier shall conduct inspection for produced product and manage its result with test report and/or inspection report and shall submit it with delivery documents.

5. Additional Quality Assurance Requirements

5.1 Test/Inspection Equipment : GROUP 7A

5.1.1 All test/inspection equipment components which have factors potentially influencing test/inspection result shall be calibrated by an authorized calibration agency, and the calibration report shall be delivered with the products. The completion of measurement equipment calibrations is carried out in accordance with the contract.

EX) Examples of components that could influence test/inspection result: power supply, interface fixture etc.

5.1.2 Test/inspection equipment shall meet the requirements of contract/engineering document(manufacturing specification etc) for the particular product, and the acceptance test report shall be submitted with delivery document so that it can be objectively verified whether the requirements are met.

 Hanwha	SUPPLIER QUALITY ASSURANCE REQUIREMENTS	Doc. No.	Q7000
		Page	4 OF 7
		Revision	3
		Date	2018. 08. 01

[5.1.3 Supplier shall provide operational manual included the list of components and specification for the applicable equipment, if required.](#)

The operational manual shall include the following information.

[5.1.3.1 Method to operate S/W and Trial run of Equipment.](#)

5.1.3.2 Criteria for Calibration of equipments

[5.1.3.3 Various matters to be needed for maintenance of equipment.](#)

[5.1.3.4 Precautions and Warning for operating equipment.](#)

5.1.4 If verification is required prior to delivery of test/inspection equipment, Hanwha is authorized to verify the suitability of the equipment at the supplier's facility prior to delivery. The suppliers shall support the Hanwha inspectors on their verification process.

5.2 Jigs & Fixtures for Machining/Assembly/Inspection/Performance Test : Group 7B

5.2.1 Jigs and fixtures used for inspection/verification shall be manufactured to meet the requirement of the drawings registered by Hanwha. The inspection reports which are included in all the requirements of the drawings shall be delivered along with the jigs and fixtures.

5.3 Inspection Measuring Equipment and Gauge for Inspection : Group 7C

5.3.1 Gauges shall be delivered with their inspection report included in all the requirements, and calibration reports from an authorized calibration agency shall be delivered together with gauges if required by Hanwha.

6. Delivery

6.1 Suppliers shall devise a means of preventing damage and corrosion of products during their delivery by predicting various circumstances that may affect the conditions of the products.

[6.2 Delivery Document](#)

[Supplier preferentially apply the requirement of Product Specification, Production requirement and/or Purchasing order.](#)

 Hanwha	SUPPLIER QUALITY ASSURANCE REQUIREMENTS	Doc. No.	Q7000
		Page	5 OF 7
		Revision	3
		Date	2018. 08. 01

Classification		Test/Inspection Equipment Group 7A	Tools Group 7B	Measuring Equipment for Inspection Group 7C
Document				
Certificate of Conformance(COC)		●	●	●
Manufacturing Document	Hanwha	if applicable	if applicable	if applicable
	Supplier	▲ ^{Note 1)}	N/A	N/A
Test Report for Raw Material/Component		N/A	●	N/A
Traceability Record		▲ ^{Note 1)}	N/A	N/A
Operating Manual		●	N/A	N/A
Inspection Report		N/A	●	▲ ^{Note 3)}
Special Process Test Report		N/A ^{Note 2)}	N/A ^{Note 2)}	N/A
Performance Test Report		●	N/A	▲ ^{Note 3)}

☞ Note 1) Supplier's manufacturing document and traceability record could be replaced to Manufacturing Completion Report.

Note 2) Special process for sub component unit shall be conducted by subcontract approved.

[Note 3\) Performance Test Report and Inspection Report could be replaced to Calibration/Test Report.](#)

[6.3 Any unapproved technical document\(Drawing, Specification, etc.\) and alternate product and counterfeit product is never acceptable.](#)

[7. Responsibility of Supplier](#)

[7.1 If there is any termination or suspension of quality management system certification which is issued by certificate authority, supplier shall notify to Hanwha in written form immediately.](#)

[7.2 Supplier shall submit document including Plan follow up measures for the below mentioned changes, and shall discuss with Hanwha.](#)

 Hanwha	SUPPLIER QUALITY ASSURANCE REQUIREMENTS	Doc. No.	Q7000
		Page	6 OF 7
		Revision	3
		Date	2018. 08. 01

Change Item	Submission Document	Deadline	Hanwha's Action
Business Owner	Quality Influence Review Result	Within 15 days after change	Revaluation /Reapproval depending on the review result
Quality Organization/ Representative	Quality Influence Review Result	Within 15 days after change	
Workplace Relocation	Quality System Influence Review Result	Within 30 days before Change	

 Hanwha	SUPPLIER QUALITY ASSURANCE REQUIREMENTS	Doc. No.	Q7000
		Page	7 OF 7
		Revision	3
		Date	2018. 08. 01

Rev. No.	Date	Description	Prepare	Review	Approval
0	2014.10.27.	Initial Issue	NI Kim	SW Kim	YH Cho
1	2015.07.17.	Add Para 4.1.3 - Additional Q code requirement of SQAR Amend Para 4.4 - Regulatory's authorities Amend Para 4.6 - Control of subcontracting Amend Para 4.7 - Technical data control process of supplier	KH Jung	SW Kim	YH Cho
2	2016.09.01	Amend Para 4.1 - Requirement of QMS establishment Amend Para 5.1.1 - Requirement of test equipment calibration Amend Para 5.1.3 - Requirement of delivery documents of Group 7B Amend Para 5.1.5 - Requirement of quality record of Group 7B	KH Jung	KS Choi	SW Kim
3	2018.08.01	General – Typing errors are amended. Add Para 4.1 – Establishment of quality management system Amend Para 4.2 – Criteria of Classification Add Para 4.7.2 - Responsibility for Process Management of Outsourcing, Purchasing Product. Add Para 4.7.3 - Identification for warehousing and storage of material. Add Para 4.7.4 - Management of traceability and incorrect material. Amend Para 5.1.3 - Providing Operational Manual and related content Amend Para 6.2 – Delivery document Add Para 6.3 – Management of unapproved technical document and alternate product Add Para 7 - Notification for termination or suspension of quality management system	DW Kim	HC Lee	SW Kim