



Hellenic Gas Transmission System Operator S.A.
357-359 Messogion Av., GR 152 31 Halandri
Tel.: 213 088 4000
Fax: 210 674 9504
Email: desfa@desfa.gr

TECHNICAL SPECIFICATION

Doc No: DSF-SPC-QAC-006

Rev. 1

Page 1 of 17

HIGH PRESSURE (HP) TRANSMISSION SYSTEMS

INSPECTION AND TEST INSTRUCTIONS

JUNE 2021

This document is the property of DESFA S.A. and shall not be reproduced, copied or used for any purpose, other than for which it is specially furnished

1	Second Issue	30-06-2021	KD	DK	TPI
0	First Issue	05-04-2011	PQ DPT.		V.G.
REV	DESCRIPTION	DATE	PRPD	CHKD	APVD



Hellenic Gas Transmission System Operator S.A.
357-359 Messogion Av., GR 152 31 Halandri
Tel.: 213 088 4000
Fax: 210 674 9504
Email: desfa@desfa.gr

TECHNICAL SPECIFICATION


Doc No: DSF-SPC-QAC-006

Rev. 1

Page 3 of 17

Table Of Contents

1. SCOPE AND OBJECTIVES.....	4
2. REFERENCES	4
3. ACRONYMS	5
4. GENERAL INSTRUCTIONS	5
INSPECTION PROCEDURES TO BE FOLLOWED DURING MANUFACTURE	8
5. RESPONSIBILITY FOR QUALITY REQUIREMENTS.....	9
6. INSPECTION DATA BOOK / INSTRUCTIONS FOR PREPARATION AND SUBMISSION 10	
7. ATTACHMENTS	11

	Hellenic Gas Transmission System Operator S.A. 357-359 Messogion Av., GR 152 31 Halandri Tel.: 213 088 4000 Fax: 210 674 9504 Email: desfa@desfa.gr	TECHNICAL SPECIFICATION
Doc No: DSF-SPC-QAC-006	Rev. 1	Page 4 of 17

1. SCOPE AND OBJECTIVES

The present document defines the Manufacturer's/Vendor's Scope of Shop Inspection in coordination with Project's Accredited Third Party Inspector and it will be attached to all Material Requisitions of the NGT Projects. It is designed to be used in conjunction with material requisition, project Specifications/Standards, Job Spec. No. DSF-SPC-QAC-005 and all applicable codes and EU Directives which define specific inspection tasks which Manufacturer/Vendor will perform.

2. REFERENCES

2.1 Reference Documents

Job Spec. No DSF-SPC-QAC-005

[Shop Inspection of Equipment and Materials for NGT Project]

2.2 Reference Codes and Standards

EU DIRECTIVE 2014/68/EU PED

[Pressure Equipment Directive]

EU DIRECTIVE 2014/34/EU ATEX

[Equipment Explosive Atmospheres Directive]

EU DIRECTIVE 2006/42/EC


[Machinery]

EU DIRECTIVE 2014/30/EU EMC

[Electromagnetic Compatibility Directive]

EU DIRECTIVE 2014/35/EU LVD

[Low Voltage Directive]

	Hellenic Gas Transmission System Operator S.A. 357-359 Messogion Av., GR 152 31 Halandri Tel.: 213 088 4000 Fax: 210 674 9504 Email: desfa@desfa.gr	TECHNICAL SPECIFICATION
Doc No: DSF-SPC-QAC-006	Rev. 1	Page 5 of 17

3. ACRONYMS

N/A

4. GENERAL INSTRUCTIONS

For the NGT Projects, the Project's Third Party Inspector has the right to perform Inspection and expediting visits at Manufacturer/Vendors and/or Sub-Vendors works for the material purchased for the project.

However, the OWNER / OWNER Representative reserves his right to perform visits at Manufacturer's/Vendor's and/or Sub-Vendors works for material purchased for the project.

At least ten working days prior to the activities to be inspected, the Manufacturer/Vendor and/or Sub-Vendor shall notify (unless otherwise instructed) the following OWNER departments:

a) Projects Quality Department

Attention : Mr.

Phone No.:

Fax No. :

b) Project Manager

Authorized Representative


Attention : Mr.

Phone No.:

Fax No. :

The Projects Quality Manager will act on behalf of the OWNER regarding the management of the inspection services.

Inspectable materials are defined in the Job Spec. No. DSF-SPC-QAC-005

	Hellenic Gas Transmission System Operator S.A. 357-359 Messogion Av., GR 152 31 Halandri Tel.: 213 088 4000 Fax: 210 674 9504 Email: desfa@desfa.gr	TECHNICAL SPECIFICATION
Doc No: DSF-SPC-QAC-006	Rev. 1	Page 6 of 17

Inspector shall have the right to reject unsatisfactory material and/or equipment at inspection either to the Manufacturer's/Vendor's or his Sub-Vendor's works.

Inspector shall have free entry to the Manufacturer's/Vendor's or Sub-Vendor's premises.

Owner and/or Owner's Representative shall have free entry to the Manufacturer's/Vendor's and Sub-Vendor's premises and all necessary assistance will be available to help them performing their inspection, including free use of Manufacturer's/Vendor's tests control equipment and instruments.

All expenses connected with testing, or inspection expenses (inspection fees, travel costs) caused by a testing failure, a "Non-Conformity" or a wrong Inspection notification shall be covered by the Manufacturer/Vendor. Certificates and other inspection documents required by the Material Requisition, Drawings, Job Spec. No. DSF-SPC-QAC-005 and this Job Specification shall also be covered by the Manufacturer/Vendor.

Within 3 weeks after the order placement. Manufacturer/Vendor shall forward a list of buyout items (material or equipment). The list [see Sub-Orders Status form paragraph 7.0 (c)] shall indicate which material has to be supplied by each Sub-Vendor together with the type of material which will be ordered.

The list has to be forwarded to the parties mentioned in paragraph 3.0 and copied to the "Project Manager" with the purpose to establish which material will be inspected at source of supply.


Sub-Orders for inspectable materials shall include the Inspection clause.

The inspection clause must clearly state that materials are to be inspected at the source by the appointed Inspector. Each sub-Order shall be identified with the following information:

- a)** Owner's Contract No.
- b)** Main Purchase Order No.
- c)** Name and location of the place where the material is to be manufactured and inspected, as well as telephone no., fax. No, and Contact person.

Prior to the start of production, the Manufacturer/Vendor is required to submit to the Project Manager the following:

- a)** The list of purchased materials, latest 3 weeks after the Owner's order, including the relevant sub-orders, with all technical attachments.

	Hellenic Gas Transmission System Operator S.A. 357-359 Messogion Av., GR 152 31 Halandri Tel.: 213 088 4000 Fax: 210 674 9504 Email: desfa@desfa.gr	TECHNICAL SPECIFICATION
Doc No: DSF-SPC-QAC-006	Rev. 1	Page 7 of 17

b) The production schedule.

c) The Inspection & Test Plan, containing among other information the following:

- Methods of testing & sampling & relevant documents procedures and Specifications
- Responsibilities of activities for all involved parties, classified as Hold, witness, spot witness, Review Inspection Points.

This Quality Plan will be submitted to the Project Manager for approval. This Quality Plan will be used as a control by Manufacturer/Vendor (sub - Vendor), confirming the completion of the work and ensuring that all required inspection activities have been performed.


d) The Quality Manual of the Company's Quality System.

Manufacturer's/Vendor's and/or Sub-Vendor's WPS, PQR, Welders Qualification Records must meet the requirements of the Material Requisition. The above documents must be submitted for approval by the Inspector before the start of welding.

A Pre-inspection meeting will be arranged with the participation of Manufacturer/Vendor (or Sub-Vendor), Inspector and Owner (if wishes so) at Manufacturer's/Vendor's (or Sub-Vendor's) premises after submission of the Manufacturer's/Vendor's "Inspection & Test Plan".

The purpose of the pre-inspection meeting is to ensure that the Manufacturer/Vendor has full knowledge of the required services in accordance with the applicable codes and specifications with the following agenda:

- a)** Review of the requirements of the Material Requisition.
- b)** Review of the "Fabrication & Inspection Schedule".
- c)** Detailed review & agreement of the "Inspection & Test Plan".
- d)** Quality assurance & control of main sub vendors.
- e)** Inspection communication and reports.

	Hellenic Gas Transmission System Operator S.A. 357-359 Messogion Av., GR 152 31 Halandri Tel.: 213 088 4000 Fax: 210 674 9504 Email: desfa@desfa.gr	TECHNICAL SPECIFICATION
Doc No: DSF-SPC-QAC-006	Rev. 1	Page 8 of 17

No delivery of raw materials or beginning of production will be accepted by the Owner prior to the pre - inspection meeting or in the absence of Inspector.

5. INSPECTION PROCEDURES TO BE FOLLOWED DURING MANUFACTURE

5.1 PROGRESSIVE INSPECTION

Progressive Inspection will be carried out during the shop fabrication.

The Inspector shall be allowed free entry to fabricator shops to carry out inspections at various stages of fabrication in order to monitor Manufacturer/Vendor compliance with the defined quality requirements and to observe the application of production and testing procedures.

The Inspector shall advise the Manufacturer/Vendor regarding the stages of fabrication that will require inspection on the basis of the "Quality Control Plan".


The Manufacturer/Vendor shall submit "inspection notification" for each inspection activity (hold point, witness point and spot witness point) to the parties mentioned in **paragraph 3.0**, in accordance with the instructions of "Notice for Inspection" of **paragraph 7.0 (e)**.

Any mill tests and certificates required by the Material Requisition must be available to the Inspector at the time of the relevant inspection in accordance with the "Inspection & Test Plan" (**see paragraph 4.4**).

Final inspection of the equipment or item shall be performed prior to preparation for shipment as defined in the "Inspection & Test Plan".

The Inspector is entitled to reject any material or activity that is not of acceptable quality and workmanship, or fails to comply with the project specifications and other technical requirements of the Material Requisition. In such cases a Non-Conformity Report shall be issued.

Acceptance or rejection of material and/or workmanship will be given in writing by Inspector after each Interim or Final inspection.

	Hellenic Gas Transmission System Operator S.A. 357-359 Messogion Av., GR 152 31 Halandri Tel.: 213 088 4000 Fax: 210 674 9504 Email: desfa@desfa.gr	TECHNICAL SPECIFICATION
Doc No: DSF-SPC-QAC-006	Rev. 1	Page 9 of 17

Non-Conformity Reports shall describe in detail the cause for rejection of the materials, equipment or services.

Manufacturer/Vendor must take action immediately by eliminating all causes of rejection to the full satisfaction of the inspector. Manufacturer/Vendor shall also obtain Inspector's **permission** before commencing any repairs, which may affect equipment integrity and operation (Resolution of the "Non-Conformity Report").

5.2 INSPECTION NOTIFICATION DATE

Notification of readiness for inspection (or pre-inspection meeting) shall be given at least **ten (10) working days** prior to the inspection date, however in the case of FABRICATED ITEMS notification has to be given at the beginning of the fabrication.

5.3 WAIVER OF INSPECTION

Vendor will be advised of those items for which inspection is waived by Inspector.


In any case, Manufacturer/Vendor and his Sub-Vendor shall release copies of mill test certificates and/or other Inspection documents as required in the Material Requisition.

5.4 TEST CERTIFICATES AND MATERIAL CERTIFICATION (INSPECTION DOCUMENTS)

Manufacturer/Vendor shall release to the Owner and/or Owner's Representative before the time of the relevant inspection, in accordance with the "Quality Control Plan, original copies of any mill and/or other required Inspection documents. The above documents must be included in the "Inspection Data Book" in accordance with the instructions of **paragraph 6.0 & 7.0.**

6. RESPONSIBILITY FOR QUALITY REQUIREMENTS

The presence of the OWNER appointed Inspector does not relinquish the obligation of the Manufacturer/Vendor to perform its Quality Control/ Quality Assurance activities within the scope of its internal Quality Management System as required by the Contract.

	Hellenic Gas Transmission System Operator S.A. 357-359 Messogion Av., GR 152 31 Halandri Tel.: 213 088 4000 Fax: 210 674 9504 Email: desfa@desfa.gr	TECHNICAL SPECIFICATION
Doc No: DSF-SPC-QAC-006	Rev. 1	Page 10 of 17

It is Manufacturer/Vendor responsibility to ensure that all materials used in the manufacture of equipment comply with the requirements of the Material Requisition, Technical Standards and all the applicable EU Directives.

7. INSPECTION DATA BOOK / INSTRUCTIONS FOR PREPARATION AND SUBMISSION

The Manufacturer's "Inspection Data Book" is the complete collection of all certificates, test reports, inspection authority documents and any other document relevant to testing activities performed during the supply, according to the Purchase Order and the relevant technical requirements.


The "Inspection Data Book" constitutes a part of the supply and shall be issued by Manufacturer/Vendor for each equipment item or material ordered. The "Inspection Data Book" shall be prepared per piece of equipment. If the Purchase Order groups several pieces under the same item; one "Inspection Data Book" (containing all required information for individual components) for each package unit and machine can be delivered.

All parts of the "Inspection Data Book" shall be filled-in during fabrication or production by Manufacturer/Vendor in accordance with the instruction contained herein and as per any specific project instructions and completed at the final test. The Inspector, shall on principle, review and stamp documents as they are available after each inspection or testing.

The "Inspection Data Book" contents shall be in accordance with the attached instructions that shall be considered as a guideline **[paragraph 7.0 (a)]**. Final approval of the "Inspection Data Book" contents shall be given by the Inspector.

During the final inspection, the Manufacturer's "Inspection Data Book" will be reviewed for completeness and endorsed by the Inspector. Each "Inspection Data Book" shall have an index and the sheets shall be progressively numbered.

The cover page of the "Inspection Data Book" shall be in accordance with the attached herein form **[paragraph 8.0 (b)]**. Manufacturer/Vendor shall fill-in all the requested information and

	Hellenic Gas Transmission System Operator S.A. 357-359 Messogion Av., GR 152 31 Halandri Tel.: 213 088 4000 Fax: 210 674 9504 Email: desfa@desfa.gr	TECHNICAL SPECIFICATION
Doc No: DSF-SPC-QAC-006	Rev. 1	Page 11 of 17

the Owner and/or Inspector shall sign and stamp the cover sheet. At this point only, the "Inspection Data Book" shall be considered accepted by Owner.

All Material Certificates shall be included in a "Material Certificates" Index completed in accordance with the attached "Sample" as per **paragraph 7.0 (d)**.

Manufacturer/Vendor shall forward to the Purchaser, **six (6) copies** of the "Inspection Data Book" as defined in this Job Specification.

Any delay in the supply of the "Inspection Data Book" by Manufacturer/Vendor shall be considered as **non-compliance** with the purchase order requirements and reason for no final payment approval.

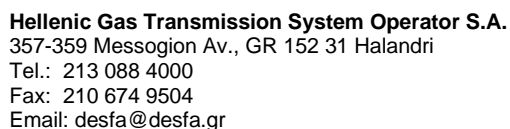
Originally signed/stamped Inspection Data Book (Reviewed during final inspection) shall be incorporated into the Project's Final Documentation Package.

8. ATTACHMENTS

The following documents are attached to the present Job specification "Inspection and Test Instructions" and shall be submitted to the Purchaser during the relevant inspection activities:

- a) "Contents of Inspection Data Book".
- b) Cover page of "Inspection Data Book".
- c) "Form SUB-ORDER STATUS".
- d) Sample of "Materials Certificates" Index.
- e) Sample of "Notice for Inspection".

Note: The above mentioned documents will be finally reviewed by the Owner / Owner's representative, after the contract award.



Doc No: DSF-SPC-QAC-006

Rev. 1

Page 12 of 17

[illegible]



Hellenic Gas Transmission System Operator S.A.
357-359 Messogion Av., GR 152 31 Halandri
Tel.: 213 088 4000
Fax: 210 674 9504
Email: desfa@desfa.gr

TECHNICAL SPECIFICATION

Doc No: DSF-SPC-QAC-006

Rev. 1

Page 13 of 17

34. CE Mark Copy	X	X	X	X	X	X	X	X	X	X	X	X	X
35. Release Notice	X	X	X	X	X	X	X	X	X	X	X	X	X

Remarks:

- A) P. V. & H.E., HEATERS, etc., TANK etc.
- B) PUMPS, COMPRESSORS, TURBINES, DRIVERS,
etc.
 - b1. Main Equipment
 - b2. Auxiliary Pressure Equipment
 - b3. Auxiliary Machinery
 - b4. Instrumentation
- C) PIPING, FITTINGS, VALVES, STRUCTURES, etc.
- D) ELECTRICAL
- E) INSTRUMENTATION
 - Including Safety and Control Valves
- F) PACKAGES
 - f1. p.v., h.e. Twers
 - f2. Machinery
 - f3. Connecting Piping
 - f4. Electrical & Instrumentation
 - f5. Assembled Unit



Hellenic Gas Transmission System Operator S.A.
357-359 Messogion Av., GR 152 31 Halandri
Tel.: 213 088 4000
Fax: 210 674 9504
Email: desfa@desfa.gr

TECHNICAL SPECIFICATION

Doc No: DSF-SPC-QAC-006

Rev. 1

Page 14 of 17

INSPECTION DATA BOOK

No..... Rev.....

MANUFACTURER/VENDOR:

EQUIPMENT / MATERIAL DESCRIPTION - ITEM No. :

SUPPLIER JOB NUMBER : _____

SUPPLIER Q.C. SIGNATURE :

SUPPLIER STAMP

PROJECT :

OWNER :

CONTRACT :

MATERIAL REQUISITION : Rev. :

PURCHASE ORDER : Rev. :

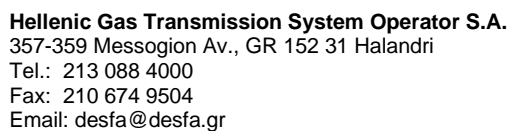
C H E C K E D O N

By : _____

I N S P E C T O R :
I.O. :

I N S P E C T O R S T A M P :

THE PRESENT BOOK IS COMPOSED BY..... SHEETS NUMBERED FROM..... TO



Doc No: DSF-SPC-QAC-006

Rev. 1

Page 15 of 17

MAIN ORDER No: PURCHASER'S CONTRACT No: MANUFACTURER/VENDOR:

■ ■

[illegible]
$$(*)$$

(*)

(*)

(*)

(*)

(*) To filled - In by Inspector



Hellenic Gas Transmission System Operator S.A.
357-359 Messogion Av., GR 152 31 Halandri
Tel.: 213 088 4000
Fax: 210 674 9504
Email: desfa@desfa.gr

TECHNICAL SPECIFICATION

Doc No: DSF-SPC-QAC-006

Rev. 1

Page 16 of 17

SAMPLE "MATERIALS CERTIFICATES INDEX"

MATERIAL REQUISITION No ITEM No	DESCRIPTION OF MATERIAL TAG / CODE	TYPE OF MATERIAL	SIZE DIMENSIONS	COMPANY OF CERTIFICATE ISSUE	CERTIFICATE No TEST No	HEAT No HEAT CODE	PAGE No
Remarks							
MANUFACTURER'S INSPECTOR (Q.C. DEPARTMENT)				INSPECTOR Q.C. DEPARTMENT)			
STAMP / SIGNATURE				STAMP / SIGNATURE			



Hellenic Gas Transmission System Operator S.A.
357-359 Messogion Av., GR 152 31 Halandri
Tel.: 213 088 4000
Fax: 210 674 9504
Email: desfa@desfa.gr

TECHNICAL SPECIFICATION

Doc No: DSF-SPC-QAC-006

Rev. 1

Page 17 of 17

"SAMPLE" NOTICE FOR INSPECTION

From : COMPANY'S NAME
Person's Name (Project or Q.C.) Date
Fax No / e-mail

To : INSPECTOR

Attention

Fax No

c.c. : 1) PURCHASER'S NAME : -----
Attention -----
Fax No -----

2) OWNER

Attention
Inspection
Fax No

Coordinator

PROJECT : _

CONTRACT No : _

MANUFACTURER/VENDOR (Name & Job No): _

P.O. No./M.R. No. : _

EQUIPMENT DESCRIPTION / ITEM No.

We hereby confirm that Witness Inspection can be performed as follows:

- ☐ INSPECTION DATE / DURATION -----
- ☐ INSPECTION PLACE/ADDRESS -----
- ☐ PERSON TO BE CONTACTED -----
- ☐ TELEPHONE / FAX / e-mail -----
- ☐ INSPECTION ACTIVITIES -----
- ☐ TYPE / PART OF EQUIPMENT -----
- ☐ QUALITY PLAN Step No: -----

PROJECT or Q.C. MANAGER