



**HELLENIC GAS
TRANSMISSION
SYSTEM OPERATOR**

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**TECHNICAL JOB
SPECIFICATION**

570/2

REVISION 0

DATE 29/06/2011

LNG PLANT

GASKETS

(CRYOGENIC SERVICES INCLUDED)

HELLENIC GAS TRANSMISSION SYSTEM OPERATOR



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QUALITY ASSURANCE PAGE

CHANGES LOG

REVISIONS LOG

Rev. No	Rev. Date	REASON FOR CHANGE	Made By	Approved By
0	29-06-2011	FIRST ISSUE	PQ DPT	V.G.



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REFERENCE DOCUMENTS

DESFA Job Spec. No. 970/2
[Shop inspection of equipment and material for NGT project]

ELOT EN 10204
[Inspection Documents for metallic products]

ELOT EN 12560-1
[Flanges and their joints. Gaskets for Class-designated flanges. Non-metallic flat gaskets with or without inserts]

ELOT EN 12560-2
[Flanges and their joints. Gaskets for Class-designated flanges. Spiral wound gaskets for use with steel flanges]

ELOT EN 12560-3
[Flanges and their joints. Gaskets for Class-designated flanges. Non-metallic PTFE envelope gaskets]

ELOT EN 12560-4
[Flanges and their joints. Gaskets for Class-designated flanges. Corrugated, flat or grooved metallic and filled metallic gaskets for use with steel flanges]

ELOT EN 1591-1 (harmonised with EU Directive 97/23/EC- PED)
[Flanges and their joints - Design rules for gasketed circular flange connections - Part 1: Calculation method]

ELOT EN 1759-1
[Flanges and their joints. Circular flanges for pipes, valves, fittings and accessories, class-designated. Steel flanges, NPS 1/2 to 24]

ELOT EN 10088-3
[Stainless steels - Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes]

ASME B16. 47
[Large Diameter Steel Flanges]

1.0 SCOPE

1.1 ITEM

Gaskets for pipe flanges.

1.2 SERVICE

Process and Utility piping at LNG terminal.

1.3 ADDITIONAL INFORMATION

Additional information may be given in the Material Requisition and should be read in conjunction with this material specification.

Any conflict between requirements of this Material Specification and Material requisition supplementary design data, Standards, or Codes etc, shall be referred to Owner for clarification, before proceeding with the fabrication of the affected part.

Gasket Vendor shall be responsible to design fabricate and supply gaskets in accordance with requirements of applicable documents.

In no event, however, dimensions thicknesses etc., are to be less than those required by standards, unless specific written approval to the contrary is received from Owner.

2.0 GENERAL REQUIREMENTS

2.1 STANDARD

ELOT EN 12560 (parts 1-4) and ELOT EN 1591-1

For Flanges **ELOT EN 1759-1** applies. For flanges with DN>600 not covered by this standard, dimensions given in **ASME B16.47** apply.

2.2 TYPE AND MATERIAL

Spiral Wound, for raised face flange as per **ELOT EN 1759-1** table 3b, asbestos free, graphite, filled X5CrNiMo17-12-2 (stainless steel 1.4401, **ELOT EN 10088-3**) winding and inner ring. Carbon Steel solid ring type centering ring.

2.3 MARKING

As a minimum the marking shall include:

- Vendor's mark.
- Type and Materials.
- **ELOT EN 12560 (parts 1-4)**
- Size and primary pressure rating class.



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2.4 PACKING

Gaskets shall be packed separately by type and size. The packing shall be legibly marked with gasket material, type size, rating and relevant flange standard.

3.0 SUPPLEMENTARY REQUIREMENTS

Further requirements if specifically mentioned in the Material Requisition shall be valid. In case of conflict between such requirements and the requirements herein, the former shall prevail.

4.0 TECHNICAL DOCUMENTATION

4.1 QUANTITY

Four copies of each, inclusive of original for all documents and certificates. Also electronic files of all Documents, Drawings and Certificates must be submitted by Contractor to the Owner.

4.2 DOCUMENT REQUIREMENTS

4.2.1 WITH TENDER

Catalogue/data sheet of product offered.

4.2.2 ON DELIVERY

Certificate as per **ELOT EN 10204**.

5.0 INSPECTION AND CERTIFICATION

Inspection requirements are defined in the following documents.

- a. Material requisition
- b. DESFA Job Specification No. **970/2** "Shop inspection of equipment and material for NGT project"
- c. Relevant project specifications
- d. Inspection clauses of applicable codes

Inspection procedures to be followed are detailed in Owner document "Inspection and Test Instructions".