

Note No. #3

Attachment:1900143882-UPBF.pdf

HPCL VIZAG VRM P

Un-Priced Price Bid Format

Item: GASKETS

Enquiry No:

Sl No	PR No	Material Code	Material Description	PR Qty (No.s)/ sq.m	Technical Specification	Price Weightage Factor	Bidder Confirmation (Quoted)
1	1900143882/10	PY9752078133	MSW GASKET (GRAPH) 12" CL150 B16.5 RF	24	PY52078	0.14493	
2	1900143882/20	PY9752079130	MSW GASKET (GRAPH) 12" CL300 B16.5 RF	24	PY52079	0.20364	
3	1900143882/30	PY9852182056	FLNG INS GASKET KIT 2" CL150 B16.5 RF	58	PY52182	0.30489	
4	1900143882/40	PY9852182064	FLNG INS GASKET KIT 3" CL150 B16.5 RF	9	PY52182	0.05208	
5	1900143882/50	PY9852182072	FLNG INS GASKET KIT 4" CL150 B16.5 RF	4	PY52182	0.04210	
6	1900143882/60	PY9852182080	FLNG INS GASKET KIT 6" CL150 B16.5 RF	4	PY52182	0.05461	
7	1900143882/70	PY9852182099	FLNG INS GASKET KIT 8" CL150 B16.5 RF	2	PY52182	0.03138	
8	1900143882/80	PY9852182110	FLNG INS GASKET KIT 12" CL150 B16.5 RF	2	PY52182	0.06292	
9	1900143882/90	PY9852182137	FLNG INS GASKET KIT 16" CL150 B16.5 RF	2	PY52182	0.09514	
10	1900143882/100	PY9852182145	FLNG INS GASKET KIT 1.5" CL150 B16.5 RF	2	PY52182	0.00832	
Total						1.00000	

NOTES:

- 1) Vendor to Quote Lumpsum Price for the Total Package.
- 2) Line Item Rates of the individual items shall be derived by multiplying the "Price Weightage Factor" with the Lumpsum Price quoted.
Unit Rates of the Individual items shall be further derived by dividing the Line item rates with the Quantities.
Unit Rates of the Individual items thus arrived, shall be binding on the bidder, in case of any repeat order as per BHEL policies.
- 3) Observations / Objections, if any, of the Bidder, to the "Price Weightage Factor" shall be brought to the notice of BHEL, during Pre-Bid Stage.
No Observations / Objections shall be entertained after the Techno-Commercial Bid is opened.
- 4) Bidder to indicate "Quoted" in the column "Bidder's Confirmation" as a confirmation of their bid to the respective item.
- 5) The Bid Evaluation is on Overall L1 Basis. Each and Every item of the Package shall be quoted by the bidder.
Partial offers will not be considered for evaluation and the same are liable for rejection.

Note No. #3

Attachment: 1900143882-PQC FOR GASKETS.pdf
 HPCL VIZAG VRMP
Pre-Qualification Criteria (Technical)

Item : Gasket
PR No : 1900143882

Only manufacturers of Gaskets (documentary evidence to be provided), qualified as per the Pre-qualification criteria laid down below, **are allowed to bid**. Authorised Dealers, Agents, Stockists and Traders are not allowed to bid.

The bid evaluation shall be on Overall L1 basis. Bidder has to quote for all the items. Partial offers will not be considered for evaluation.

Qualification Criteria of the Bidder:

The Bidders shall meet the Pre-Qualification Criteria (listed below). *Non-compliance to any of the criteria listed below will lead to disqualification of bidder for the subject tender.*

1. The bidder should be an established Manufacturer of **Gaskets** and should have successfully completed Manufacture, Testing and Supply of **Gaskets**, according to the design/manufacturing standard **ASME B16.20, ASME 16.21 /AWWA C207**.
 2. The Bidder should have successfully completed supply of
 - a. **Gaskets according to the design/manufacturing standard ASME B 16.20 and according to material standard for Metal Winding: SS AISI-316, External Centering Ring: CS, Inner Ring: SS AISI-316, Filler Material: Flexible Graphite and PTFE, CL150 and CL300 in the size range of 0.5" and up to 12", of cumulative quantity not less than 35 nos** through a single Purchase Order or multiple Purchase Orders in the last 5 years ending on original due date of this tender, with at least one order executed after 01.01.2019.
- AND**
- b. **Insulating gaskets according to the design/manufacturing standard ASME 16.21 /AWWA C207 and Materials of Construction of Insulation Gasket: Neoprene faced Phenolic, Insulating Sleeve: Reinforced Phenolic, Insulating washer: Reinforced Phenolic, Metallic Washer: Electroplated Steel , CL 150, in the size range of 1.5" and up to 16", of cumulative quantity not less than 60 nos** through a single Purchase Order or multiple Purchase Orders in the last 5 years ending on original due date of this tender, with at least one order executed after 01.01.2019.
 3. Detailed BOQ of the **Gaskets** supplied, satisfying the criteria laid down above, shall be provided in the format enclosed as Annexure-1, with details like Project & Customer, Description, Quantity & Weight of Items supplied, PO details etc. as a minimum for assessing pre-qualification. **PO Copies, Inspection Reports and Dispatch documents shall be enclosed for the references provided.**
 4. The bidder should not have been under suspension for business or blacklisted by any of the BHEL units.

Note No. #3

Attachment:1900143882_PQC Annexure-1.pdf

Annexure-1**Supply References for the Last 5 Years (dispatch date) from the Original due date of this tender**

Enquiry Item No & Description: (To be filled by Bidder)

Sl No	Project Name along with name of Customer	Description Item(s) supplied	Quantity [or] Weight (in Kgs)	Purchase Order No & Date (Copy to be enclosed)	Delivery Date as per Order	Value of Order	Inspection Reports / Dispatch Documents (Copy to be enclosed)	Remarks

Note No. #1

इंजीनियर्स
इंडिया लिमिटेड
(भारत सरकार का उपक्रम)ENGINEERS
INDIA LIMITED
(A Govt. of India Undertaking)Attachment TECHNICAL NOTES FOR GASKETS.pdf
TECHNICAL NOTES FOR
GASKETSSTANDARD SPECIFICATION No.
6-44-0056 Rev. 4

Page 1 of 5

गास्केट्स के लिए तकनीकी टिप्पणियाँ

TECHNICAL NOTES FOR GASKETS

4	21.03.13	REVISED & ISSUED AS STANDARD SPECIFICATION	UK	SH	RN	ATD	DM
3	23.07.07	REVISED & ISSUED AS STANDARD SPECIFICATION	RN	ATD	DM	VC	
2	15.06.98	REAFFIRMED & ISSUED AS STANDARD SPECIFICATION	SH	BRB	BN	AS	
1	30.12.92	REVISED & ISSUED AS STANDARD SPECIFICATION	AKG	BPV	GRR	AS	
Rev. No	Date	Purpose	Prepared by	Checked by	Standards Committee Convenor	Standards Bureau Chairman	Approved by

Abbreviations:

AARH :	Average Arithmetic Root Height
BHN :	Brinell Hardness Number
CS :	Carbon Steel
MR :	Material Requisition
PMI :	Positive Material Identification
RTJ :	Ring Type Joint

Piping Standards Committee

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Mr. Amrendra Kumar
Mr. G. Balaji
Mr. K.J. Harinarayanan (HMTD)
Mr. P P Lahiri / Mr. S. Ghoshal (SMMS)
Mr. G.K. Iyer (Construction)
Mr. K.V.K Naidu (Projects)

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1.0 GENERAL

1.1 All gaskets shall conform to the codes/standards and specifications given in the requisition. Supplier shall strictly comply with MR/PR stipulations and no deviations shall be permitted. Post Order Waiver/ Deviation format 5-0000-0180-F1 as mentioned in Cl. 5.18 of Specification for Quality Management System Requirements from Bidders (6-78-0001) is not applicable.

1.2 Process of manufacture, dimensions and tolerances not specified in requisition shall be in accordance with the requirements of the manufacturer's standards.

1.3 Testing

1.3.1 Test reports shall be supplied for all mandatory tests for gaskets as per the standards specified in the requisition.

1.3.2 Chemical composition and hardness of RTJ gaskets shall also be furnished in the form of test reports on samples.

1.3.3 For Spiral wound material following shall be furnished:

a. Manufacturer's test certificate for filler material and spiral material as per the relevant material specifications.

b. Manufacturer's test certificate for raw materials and tests for compressibility/ sealability & recovery as per the relevant material specifications.

1.3.4 PMI shall be performed as per the scope and procedures defined in the Specification for PMI at Supplier's Works (6-81-0001) for ring type joint gaskets.

1.3.5 Refer Specification no 6-81-0008 for 'Inspection & Test Plan for Gaskets'.

1.4 Full face gaskets shall have bolt holes punched out.

1.5 Filler material for spiral wound gaskets shall not have any colour or dye.

1.6 All spiral wound gaskets shall be supplied with Outer ring. Material of the outer ring shall be CS unless otherwise specified in the MR.

1.7 For spiral wound gaskets, material of Inner Compression ring shall be same as Spiral Strip material. In addition to the requirements as per code and as specified in the MR, inner rings shall be provided for the following:

a. Sizes 26" and above.

b. Class 900 and above.

1.8 Hardness of metallic RTJ gaskets shall not exceed the values specified below unless otherwise specified in MR:

Ring Gasket Material	Maximum Hardness (BHN)
Soft Iron	90
Carbon steel	120

5 Cr. ½ Mo 130

Type 304, 316, 321, 347 140

Type 304L, 316L 120


- 1.9** Face finish of metallic RTJ gaskets shall be 32 to 63 AARH.
- 1.10** Gaskets of different types and sizes shall be placed in separate shipping containers and each container clearly marked with the size, rating, material specification and item code.
- 1.11** All items shall be inspected and approved by EIL Inspector or any other agency authorized by EIL.
- 1.12** Any additional requirements specified in the requisition, shall be fully complied with.
- 1.13** Non-metallic ring gaskets as per ASME B16.21 shall match flanges to ASME B16.5 upto 24" (except 22" size) and to ASME B16.47B above 24" unless specified otherwise. For 22" size, the matching flange standard shall be MSS-SP44 unless specified otherwise.
- 1.14** Spiral wound gasket as per ASME B16.20 shall match flanges to ASME B16.5 upto 24" (except 22" size) and to ASME B16.47B above 24" unless specifically mentioned otherwise. For 22" size, the matching flange standard shall be MSS-SP44 unless specified otherwise.
- 1.15** The following abbreviations have been used in the Material Requisition for Spiral Wound Gaskets :

(I) : Inner Ring
(O) : Outer Ring
GRAFIL : Grafoil Filler

2.0 REFERENCES

- 6-81-0001 Specification for Positive Material Identification (PMI) at Supplier's Works
- 6-81-0008 Inspection & Test Plan for Gaskets
- 6-78-0001 Specification for Quality Management System Requirements from Bidders

Note No. #1

b. #1	Form No:	 PE&SD	Attachment: PY52182 - B01 - Flange Insulating Gasket Kit.pdf	
			PY 52 182	
			BHARAT HEAVY ELECTRICALS LIMITED PROJECT ENGINEERING & SYSTEMS DIVISION	
			TECHNICAL SPECIFICATION	
			FLANGE INSULATING GASKET KIT	
				Rev. No. 01
				Page 1 of 3

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1.0 GENERAL

- 1.1 This standard specifies requirements related to supply of "Flange Insulating Gasket Kit" used in piping applications, i.e., Designation, Material, Sizes, Dimensions and other information required for ordering purposes of Flange insulating Gasket Kit for Raised Face/ Flat Face Flanged connections as per B16.5/ B16.47 Series A, B/ AWWA C207.
- 1.2 These Gaskets shall conform to the requirements of latest version of **ASME 16.21 / AWWA C207** and comply with the following additional requirements.
- 1.3 Flange Insulating Gasket Kits are meant to negate the effects of corrosion found in flanged pipe systems. These kits shall be designed to meet the twin purpose of:
- Sealing the flanged joint &
 - Insulating the Metal parts to prevent the flow currents.
- Different applications of these Insulating kits include:
- Prevention of Galvanic corrosion between dissimilar metal flanges
 - Insulation of flanges associated with cathodic protection of underground piping.

2.0 MATERIAL:

- 2.1 Scope of supply of materials under this specification includes the following items:
- One central gasket of suitable thickness as per the relevant standard.
 - One full length insulating sleeve per bolt / Integral Washer Sleeve. Sleeve length shall cover thickness of two flanges (including raised face) plus thickness of gasket plus thickness of 2 insulating washers.
 - Two insulating washers (3 mm thick) per bolt.
 - Two metallic washers (3 mm thick), electro plated, per bolt.
- 2.2 Material of Construction :
- Insulation Gasket : Neoprene faced Phenolic
 - Insulating Sleeve : Reinforced Phenolic
 - Insulating washer : Reinforced Phenolic
 - Metallic Washer : Electroplated Steel

3.0 DIMENSIONS, TOLERANCES AND OTHER REQUIREMENTS:




- Gaskets shall be as per ASME B16.21 (ASME B16.5 / 16.47 Series A, B) / AWWA C207
- Sleeves shall suit to the dimensions of flange bolt holes as per the relevant standard.

4.0 SIZE, RATING AND FACE:


Flange insulating Gasket Kit Size (NPS in inches), Rating, Face (RF-Raised Face/ FF-Flat Face) and Standard (ASME B16.5/ AWWA) shall be as per BHEL Enquiry/ Order.

5.0 DESIGNATION (EXAMPLE) :

- Flange insulating Gasket Kit for 4" CL 150 dimensional standard as per ASME B 16.5 shall be designated as :
FLNG INSGASKET KIT 4" CL150 B16.5 RF.
- Flange insulating Gasket Kit for 42" CL 150 dimensional standard as per AWWA C 207CL D shall be designated as :
FLNG INSGASKET KIT 42" AWWA C207-D FF.

Refer Doc	LAYOUTS & PIPING ENGINEERING	PREPARED	CHECKED	APPROVED	DATE
		 FARUQUE	 SVN R	 SRIKANTH G	25.04.16

Note No. #1

Form No:	 PE&SD	BHARAT HEAVY ELECTRICALS LIMITED PROJECT ENGINEERING & SYSTEMS DIVISION	Attachment PY 52182 - B01 - Flange Insulating Gasket Kit.pdf PY 52182
			Rev. No. 01
			Page 2 of 3

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- c) Flange insulating Gasket Kit for 28" CL 150 dimensional standard as per ASME B 16.47 Series B shall be designated as :
FLNG INSGASKET KIT 28" CL150 B16.47B RF.

6.0 INSPECTION AND TESTING, TEST CERTIFICATES:

- 6.1 Inspection shall be done on all the items wrt the chemical properties, mechanical properties and three copies of test certificates consisting of mechanical properties and chemical composition of the metals shall be furnished.
- 6.2 Conformity to the dimensions of items as per the referred ASME/ AWWA standard to be checked and dimensional conformity certificated to be submitted.

7.0 MARKING AND PACKING:

- 7.1 Flange insulating Gasket Kit shall be labelled with the following details:
- Gasket Kit identification number specified by BHEL in the order
 - Standard Marking as per clause 5.0 of ASME B16.21
 - Manufacturer's Name or Trade Mark.
- 7.2 The gasket kit shall be enclosed in a moisture resistant wrapping and packed in such a manner as to prevent damage in transit or during storage.

8.0 Documentation

8.1 Along with offer:

One copy each of the following documents shall be submitted along with offer.

- G.A. Drawings / leaflets / catalogues for the offered item binding dimensions, bill of materials with material specification details, weight.
- Any deviation to this standard, separately under a heading of Technical Deviations.

8.2 After placement of order:

Four copies each of the following documents shall be submitted after placement of order:

- G.A. Drawings with binding dimensions, bill of materials with material specification details and weight cross-sectional detail the constructional details and materials of construction.
- Quality plan adopted by the supplier during manufacture and inspection / testing.
- Installation Guidelines.
- All documentations required as applicable and indicated above shall be submitted within 7 days of PO placement.**
- BHEL will furnish their approvals/ comments within 15 days after submission of drawings/ documents.**


8.3 Along with dispatch of the material:

- Five copies of the following test certificates shall be furnished to BHEL along with each consignment attested by authorized inspector:
 - Chemical and Mechanical Test Certificates.





Note: Approval / Review of the documents submitted to BHEL shall not relieve the vendor from its responsibilities of supplying the equipment as per applicable standard.

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Note No. #1

Form No:	 PE&SD	Attachment PY52182 - R01 - Flange Insulating Gasket Kit.pdf BHARAT HEAVY ELECTRICALS LIMITED PROJECT ENGINEERING & SYSTEMS DIVISION	PY 52 182	
		TECHNICAL SPECIFICATION		Rev. No. 01
		FLANGE INSULATING GASKET KIT		Page 3 of 3








RECORD OF REVISIONS:

Rev	Date	Revision Detail	Revised by	Approved by
00	25.04.2016	FIRST ISSUE	 RAGHAVENDRA SVN	 SRIKANTH G
01	14.10.2019	GASKET KITS PERTAINING TO FLANGE STD 16.47 SERIES A & B ADDED.	 FARUQUE KHAN	 SVNR / GS









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Note No. #1

Form No:	 PE&SD	Attachment PY 52079 MSW (GRAPH FILLER) GASKETS CL300.pdf PROJECT ENGINEERING & SYSTEMS DIVISION TECHNICAL SPECIFICATION METALLIC SPIRAL WOUND (GRAPHITE FILLER) GASKETS FOR CLASS 300 B16.5 FLANGED CONNECTIONS		Rev. No. 00 Page 1 of 1											
		<p>1.0 GENERAL</p> <p>1.1 This standard specifies requirements related to Designation, Material, Sizes, Dimensions and other information required for ordering purposes of Metallic Spiral Wound (MSW) Gaskets with Graphite Filler for Raised Face/Flat Face Flanged connections of Class 300 as per B16.5.</p> <p>1.2 The MSW Gaskets shall conform to the requirements of latest version of ASME Standard B16.20 "METALLIC GASKETS FOR PIPE FLANGES" and comply with the following additional requirements.</p> <p>1.3 This specification is applicable to MSW Gaskets of Sizes NPS ½" to NPS 24".</p> <p>2.0 MATERIAL:</p> <p>2.1 Metal Winding : Stainless Steel AISI-316</p> <p>2.2 External Centering Ring : Carbon Steel</p> <p>2.3 Inner Ring : Stainless Steel AISI-316</p> <p>2.4 Filler Material : Flexible Graphite</p> <p>3.0 DIMENSIONS, TOLERANCES AND OTHER REQUIREMENTS: Shall be as per ASME B16.20 (Latest edition).</p> <p>4.0 SIZE AND FACE: Gasket Size (NPS in inches) and Face (RF-Raised Face/FF-Flat Face) shall be as per BHEL Enquiry/Order.</p> <p>5.0 DESIGNATION: Metallic Spiral Wound Gasket with Graphite Filler for a 10" Class 300 Raised Face Flanged Connection shall be designated as: <i>MSW GASKET (GRAPH) 10" CL300 B16.5 RF.</i></p> <p>6.0 TEST CERTIFICATES: Three copies of test certificates consisting of mechanical properties and chemical composition of the metals shall be furnished.</p> <p>7.0 MARKING AND PACKING:</p> <p>7.1 The gasket centering ring shall be stamped with the following details:</p> <ol style="list-style-type: none"> BHEL Standard No. PY 52 079 Standard Marking as per clause 3.4 of ASME B16.20 Manufacturer's Name or Trade Mark. Gasket identification number specified by BHEL in the order. <p>7.2 The gasket shall be enclosed in a moisture resistant wrapping and packed in such a manner as to prevent damage in transit or during storage.</p> <p style="text-align: center;">+++</p> <p>RECORD OF REVISIONS:</p> <table border="1"> <thead> <tr> <th>Rev</th> <th>Date</th> <th>Revision Detail</th> <th>Revised by</th> <th>Approved by</th> </tr> </thead> <tbody> <tr> <td>00</td> <td>25.06.2015</td> <td>FIRST ISSUE</td> <td> SRIKANTH G</td> <td> S B RAO</td> </tr> </tbody> </table>				Rev	Date	Revision Detail	Revised by	Approved by	00	25.06.2015	FIRST ISSUE	 SRIKANTH G	 S B RAO
		Rev	Date	Revision Detail	Revised by	Approved by									
00	25.06.2015	FIRST ISSUE	 SRIKANTH G	 S B RAO											
Refer Doc	LAYOUTS & PIPING ENGINEERING PROJECT ENGINEERING & SYSTEMS DIVISION	PREPARED	CHECKED	APPROVED	DATE										
		 CH MANOJ	 SRIKANTH G	 S B RAO	25.06.15										

Note No. #1

Form No:	 PE&SD	Attachment PY 52078 MSW (GRAPH FILLER) GASKETS CL150.pdf PROJECT ENGINEERING & SYSTEMS DIVISION TECHNICAL SPECIFICATION METALLIC SPIRAL WOUND (GRAPHITE FILLER) GASKETS FOR CLASS 150 B16.5 FLANGED CONNECTIONS		PY 52 078 Rev. No. 00 Page 1 of 1												
		<p>1.0 GENERAL</p> <p>1.1 This standard specifies requirements related to Designation, Material, Sizes, Dimensions and other information required for ordering purposes of Metallic Spiral Wound (MSW) Gaskets with Graphite Filler for Raised Face/Flat Face Flanged connections of Class 150 as per B16.5.</p> <p>1.2 The MSW Gaskets shall conform to the requirements of latest version of ASME Standard B16.20 (Metallic Gaskets for Pipe Flanges) and comply with the following additional requirements.</p> <p>1.3 This specification is applicable to MSW Gaskets of Sizes NPS ½" to NPS 24".</p> <p>2.0 MATERIAL:</p> <p>2.1 Metal Winding : Stainless Steel AISI-316</p> <p>2.2 External Centering Ring : Carbon Steel</p> <p>2.3 Inner Ring : Stainless Steel AISI-316</p> <p>2.4 Filler Material : Flexible Graphite</p> <p>3.0 DIMENSIONS, TOLERANCES AND OTHER REQUIREMENTS: Shall be as per ASME B16.20 (Latest edition).</p> <p>4.0 SIZE AND FACE: Gasket Size (NPS in inches) and Face (RF-Raised Face/FF-Flat Face) shall be as per BHEL Enquiry/Order.</p> <p>5.0 DESIGNATION: Metallic Spiral Wound Gasket with Graphite Filler for a 10" Class 150 Raised Face Flanged Connection shall be designated as: <i>MSW GASKET (GRAPH) 10" CL150 B16.5 RF.</i></p> <p>6.0 TEST CERTIFICATES: Three copies of test certificates consisting of mechanical properties and chemical composition of the metals shall be furnished.</p> <p>7.0 MARKING AND PACKING:</p> <p>7.1 The gasket centering ring shall be stamped with the following details:</p> <ol style="list-style-type: none"> BHEL Standard No. PY 52 078 Standard Marking as per clause 3.4 of ASME B16.20 Manufacturer's Name or Trade Mark. Gasket identification number specified by BHEL in the order. <p>7.2 The gasket shall be enclosed in a moisture resistant wrapping and packed in such a manner as to prevent damage in transit or during storage.</p> <p style="text-align: center;">+++</p> <p>RECORD OF REVISIONS:</p> <table border="1"> <thead> <tr> <th>Rev</th> <th>Date</th> <th>Revision Detail</th> <th>Revised by</th> <th>Approved by</th> </tr> </thead> <tbody> <tr> <td>00</td> <td>25.06.2015</td> <td>FIRST ISSUE</td> <td> SRIKANTH G</td> <td> S B RAO</td> </tr> </tbody> </table>					Rev	Date	Revision Detail	Revised by	Approved by	00	25.06.2015	FIRST ISSUE	 SRIKANTH G	 S B RAO
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00	25.06.2015	FIRST ISSUE	 SRIKANTH G	 S B RAO												
Refer Doc	LAYOUTS & PIPING ENGINEERING PROJECT ENGINEERING & SYSTEMS DIVISION	PREPARED	CHECKED	APPROVED	DATE											
		 CH MANOJ	 SRIKANTH G	 S B RAO	25.06.15											

Note No. #2

Attachment:ITP-GASKET-6-81-0008 Rev 4.pdf



INSPECTION AND TEST PLAN FOR GASKETS

STANDARD SPECIFICATION No.

6-81-0008 Rev. 4

Page 1 of 5

गास्केट्स के लिये निरीक्षण व परीक्षण योजना

INSPECTION AND TEST PLAN FOR GASKETS

4	14 11 2018	REVISED AND RE-ISSUED	KC	NM	RKS	RKT
3	17 06 2013	REVISED AND RE-ISSUED	TKK	RKS	SCG	DM
2	15 07 2011	REVISED AND RE-ISSUED	TKK	SCG	AKC	DM
1	02 01 2008	REVISED AND RE-ISSUED	AM	SS	MVKK	VC
Rev. No	Date	Purpose	Prepared By	Checked By	Standards Committee Convenor	Standards Bureau Chairman
					Approved by	

Format No 8-00-0001-F7 Rev 0

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Note No. #2

Attachment:ITP-GASKET-6-81-0008 Rev 4.pdf



INSPECTION AND TEST PLAN FOR GASKETS

STANDARD SPECIFICATION No.

6-81-0008 Rev. 4

Page 2 of 5

Abbreviations:

CEIL	: Certification Engineers International Limited	MRT	: Mechanical Run Test
CIMFR	: Central Institute of Mining & Fuel Research	NDT	: Non Destructive Testing
CE	: Carbon Equivalent	NPSH	: Net Positive Suction Head
DFT	: Dry Film Thickness	PO	: Purchase Order
DPT	: Dye Penetrant Testing	PESO	: Petroleum Explosive Safety Organization
DHT	: De-hydrogen Heat Treatment	PQR	: Procedure Qualification Record
ERTL	: Electronics Regional Test Laboratory	PR	: Purchase Requisition
FCRI	: Fluid Control Research Institute	PMI	: Positive Material Identification
HT	: Heat Treatment	RT	: Radiography Testing
HIC	: Hydrogen Induced Cracking	SSCC	: Sulphide Stress Corrosion Cracking
ITP	: Inspection and Test Plan	TC	: Test Certificate
IP	: Ingress Protection	TPI or TPIA	: Third Party Inspection Agency
IHT	: Intermediate Heat Treatment	UT	: Ultrasonic Testing
IC	: Inspection Certificate	VDR	: Vendor Data Requirement
IGC	: Inter Granular Corrosion	WPS	: Welding Procedure Specification
MPT/MT	: Magnetic Particle Testing	WPQ	: Welders Performance Qualification
MTC	: Material Test Certificate		

Inspection Standards Committee

Convenor : Mr. R.K. Singh

Members:

Mr. Rajeev Kumar	Mr. Neeraj Mathur	Mr. Himangshu Pal	Mr. R Muthu Ramalingam (RPO Rep.)
Mr. T Kamalakannan	Mr. Mahendra Mittal	Mr Deepak Gupta (Projects)	

Note No. #2

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INSPECTION AND TEST PLAN FOR GASKETS

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1.0 SCOPE

This Inspection and Test Plan covers the minimum testing requirements of Gaskets.

2.0 REFERENCE DOCUMENTS

PO/PR/ Standards referred there in/ Job specifications /Approved documents.

3.0 INSPECTION AND TEST REQUIREMENTS

SL NO.	STAGE / ACTIVITY	CHARACTERISTICS	QUANTUM OF CHECK	RECORD	SCOPE OF INSPECTION		
					SUB SUPPLIER	SUPPLIER	EIL/TPIA
1.0	Procedure						
1.1	HT & Test Procedure	Documented Procedures	100%	Procedure Documents	-	H	R
2.0	Material Inspection						
2.1	Raw Material Inspection	Chemical, Physical and other properties as per applicable material specification	100%	Test Certificates	H	H	-
3.0	In Process Inspection						
3.1	Punching & Finishing	Finish & Dimension	100%	Inspection Report	-	H	-

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SL NO.	STAGE / ACTIVITY	CHARACTERISTICS	QUANTUM OF CHECK	RECORD	SCOPE OF INSPECTION		
					SUB SUPPLIER	SUPPLIER	EIL/TPIA
3.2	Heat Treatment for RTJ Gaskets (As applicable)	Time & Temperature	100%	HT Chart		H	R
4.0	Final Inspection						
4.1	Final Visual, Dimension & Testing	Compressibility, Recovery, Seal ability, Groove Hardness for Ring & Tongue Joint etc as applicable and Visual / Dimension	100%	Inspection Report	-	H	R
4.2	Final Stamping	Stamping of Accepted Gaskets	100%	Inspection Report	-	H	-
4.3	PMI Check (as applicable)	Chemical Check	As per EIL Spec: 6-81-001	Inspection Report	-	H	R
5.0	Painting						
5.1	Rust Preventive & Color Coding as applicable	Visual & Color Coding as applicable	100%	Inspection Report	-	H	-
6.0	Documentation & IC						
6.1	Documentation & IC	Review of test reports, Inspection documents & Issue of IC	100%	Supplier Records / IC	-	H	H

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Legend: H- Hold (Do not proceed without approval), P-Perform, RW - Random Witness (As specified or 10% (min.1 no. of each size and type of Bulk item)), R- Review, W-Witness (Give due notice, work may proceed after scheduled date).

Notes (as applicable):

1. This document describes the generic test requirements. Any additional test or Inspection scope if specified in contract documents shall also be applicable. (unless otherwise agreed upon)
2. Acceptance Norms for all the activities shall be as per PO/PR/STANDARDS referred therein /Job Specification /Approved Documents.