

### Technical Specifications

SL. No	Description and Technical Specification of the item	QTY	UNIT	Delivery
1	E 7018-A1 SMAW DIA 2.4 mm/2.5 mm  ASME SEC.II.C, SFA-5.5 E7018-A1 SMAW ELECTRODE AS PER WCPI-208/08  Diameter -2.4 mm/2.50 mm X 350 mm LONG.	50,000.00	NO	120 DAYS



**WELDING CONSUMABLE PURCHASE INSTRUCTION (WCPI) FOR ASME SEC IIC, SFA-5.5 E7018-A1**

**1.0 SCOPE:**

- 1.1 The electrodes shall comply with requirements specified in the latest edition and addenda (applicable on the date of issue of purchase order) of ASME Sec IIC SFA-5.5, E7018-A1. All tests, acceptance criteria shall be in accordance with this. Additional requirements specified in this document shall also be complied.
- 1.2 The electrodes shall be supplied in quantities as specified in the purchase order. The brand of SMAW electrodes to be supplied shall be approved by the concerned IBR Authorities of the state. Every batch to be supplied should have been manufactured during the period when IBR approval for the brand was valid.

**2.0 CHEMICAL COMPOSITION:**

The chemical composition of the undiluted weld metal shall conform to ASME SECII.C SFA-5.5, E7018-A1 for each size of electrode supplied.

**3.0 MECHANICAL PROPERTIES:**

The mechanical properties of the weld metal deposited using this electrode after stress relieving the test plate assembly at  $620 \pm 15^\circ\text{C}$  for 300 minutes shall meet the requirements as below for each size of electrode supplied.

Yield Strength at 0.2% Offset	410 MPa Minimum
Tensile Strength	515 MPa Minimum
Elongation in 50.8mm	22% Minimum
Charpy V-Notch Impact test at $+20^\circ\text{C}$	27 Joules (Average minimum)

**4.0 RADIOGRAPHIC SOUNDNESS:**

The electrode shall be suitable for radiography quality butt Joint welding of boiler pressure parts of SA204GrA, SA299, SA515Gr70 Plate, SA106GrB, SA106GrC, SA335 P1 pipe material. The radiographic test shall meet the requirements of ASME SECII.C SFA-5.5, E7018-A1 for each size of electrode supplied.

**5.0 FILLET WELD TEST:**

Fillet weld test done using this electrode shall meet the requirements specified in ASME SEC IIC, SFA 5.5, E7018-A1 for each size of electrode supplied. The electrodes shall exhibit smooth running characteristics with soft and stable arc with ease of striking. The spatter level shall be negligible. Weld bead appearance shall be smooth with fine ripples and slag shall be self-peeling.

**6.0 SIZE:**

The electrodes shall be supplied in diameters and lengths as specified in the purchase order. The tolerance on diameter and length shall be as per SFA-5.5 for each size of electrode supplied.

**7.0 CORE WIRE, COVERING, EXPOSED CORE, IDENTIFICATION, METHOD OF MANUFACTURE:**

The electrodes shall meet the requirements of clause 3.2, 3.3, 3.4 of SFA-5.02 and clause 18 of SFA 5.5 for each size of electrode supplied.

Prepared:

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Reviewed and approved:

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SDGM/WTC



## 8.0 MOISTURE CONTENT OF COVERING AND DIFFUSIBLE HYDROGEN CONTENT:

Moisture content of the electrode covering shall not exceed the limit specified in ASME Sec IIC, SFA 5.5, E7018-A1 for each size of electrode supplied. Diffusible hydrogen content of weld metal deposited using the electrode shall be maximum 4ml/100g. Test to be done as per ASME Sec IIC, SFA 5.5 E7018-A1 for each size of electrode supplied.

## 9.0 PACKAGING:

9.1 Electrodes packed in standard quantity shall be wrapped tightly in a corrugated paper with moisture proof packing in polythene bags and sealed. These shall be further packed either in hermetically sealed containers or in cardboard packets and then packed with polythene bags and sealed. The number of electrodes per packet shall be such that the net weight of each packet does not exceed 5Kg. Packets shall be further packed in cardboard cartons each weighing not more than 25kg. The cartons shall be packed in waterproof boxes with crates so as to ensure no damage to electrodes during shipment and normal storage conditions.

9.2 Weight of each crate shall not exceed 1000kg.

9.3 Markings of packages shall be as per clause 3.6 of SFA-5.02.

## 10.0 TESTING AND CERTIFICATION:

10.1 Each consignment of electrodes supplied shall preferably be from one batch only.

10.2 Batch or lot classification shall be Class C1 as per SFA-5.01 filler metal procurement guidelines of ASME Sec IIC. (Latest edition).

10.3 The level of testing shall be Schedule K as per SFA-5.01 filler metal procurement guidelines of ASME Sec IIC. (Latest edition).

10.4 Three copies of original certified material test report in English signed by the manufacturer giving details of tests done in compliance with this WCPI and ASME Sec II C, SFA-5.5, E7018-A1 shall be sent.

10.5 The manufacturer shall certify that supplies made against the batch conforms to the requirements of the latest edition (applicable on the date of issue of purchase order) of ASME Sec IIC SFA-5.5, E7018-A1.

10.6 A copy of valid IBR approval certificate for the brand being supplied shall be sent along with every consignment.

10.7 Every packet supplied shall be exhibited with details in the below mentioned format through a seal or securely affixed label.

“Certified by -----

(Mention the concerned IBR authority of the state)

Under periodic check test dated: XX-XX-XXXX.

Brand approval valid till : XX-XX-XXXX.”

Sl. No.	Pre –Qualification Criteria – PR 0141368286	Bidder remark
1	<p>Bidder shall be a manufacturer of the Quoted item or an authorized dealer of the same. If the offer is quoted by agent, letter of authorization or agreement duly signed by the manufacturer is required to consider the offer.</p> <p>(Specify: Manufacturer/Authorised Dealer)</p>	
2	<p>Bidder (Principle Supplier) shall successfully experiences for supplying of welding consumables (SMAW Electrode) to any govt. Organisation/PSUs/Public Ltd./Company/Reputed Industries etc.</p> <p>Purchase order copies or related document to be submitted along with offer to consider the offer.</p> <p>Note: Successful experience means – supplied and accepted.</p>	
3	Quoted Welding Consumables brand name.	
4	Mill address (manufacturing address).	
5	Mill capacity quoted welding shall be provided along with offer.	
6	Manufacturer shall submit manufacturing process flow chart (Raw material to finished product).	

Sl. No.	Pre –Qualification Criteria - PR 0141368286	Bidder remark
7	Manufacturer (Principle Supplier) shall submit a valid ISO 9001 certificate or Quality management system certificate or Written down procedure for SMAW electrode inspection or ISO 45001 certificate or Written procedure for ISO 9001 or Written procedure for SMAW electrode manufacturing.	
8	Shall confirm to Technical specification as per Tender.	
9	Vendor should give confirmation to BHEL's Technical Specification.  Any deviation from the Specification are to be mentioned in the "Bidder remark Space".  If There is no deviation vendor should indicate "No Deviation".	
10	Quoted Diameter and length details.	
11	Kindly arrange to provide seal and sign on WCPI Copy for confirmation.	



### Annexure – A- Special Conditions for GeM Enquiry

The terms and condition mentioned in this document are applicable in addition to the Buyer Added Bid Specific Additional Terms & Conditions and GeM General Terms and Conditions. Bidders shall furnish pointwise confirmation/details.

<u><i>To be filled by bidder</i></u>		
Description of the item/Equipment:		
GeM Tender No. & Date		
Name of the firm (Bidder)		:
Address		:
<u>Contact person 1</u> Name: Designation: Office Phone: Mobile: e-mail:		<u>Contact person 2</u> Name: Designation: Office Phone: Mobile: e-mail:
Sl	Terms and conditions/Details required	Vendor's confirmation
1.	Indicate the MSME status of the bidder. MICRO/SMALL/MEDIUM/Non-MSME.  <b>Note:</b> Udyam certificate to be uploaded in proof of above. If it is indicated as "For availing benefits of Priority Sector Lending(PSL) ONLY" in Udyam certificate, then no MSME benefit will be considered for this tender.	
2.	Payment terms shall be as per clause 9 of Buyer Added Bid Specific Additional Terms & Conditions for this tender. Confirm your acceptance for the payment terms relevance to your MSME status indicated above.	
3.	Liquidated Damages shall be as per clause 18 of Buyer Added Bid Specific Additional Terms & Conditions. Confirm your acceptance.	
4.	Offers from Indigenous supplier will be considered only if they have a valid GST registration certificate. Please Indicate the GST registration number. If any specific exemption is available, a declaration with due supporting documents need to be furnished for considering the offer.	GST No. _____
5.	<b>Performance Bank Guarantee:</b> Not Applicable	
6.	HSN Code for the quoted items	HSN CODE : _____
7.	Rate quoted in GeM portal should be on FOR destination basis inclusive of all taxes, P&F, freight etc. Transit Insurance is under Supplier scope. <b>Please indicate how much GST percentage is included in quoted price.</b>	GST in %: _____
8.	All the terms and conditions in Buyer Added Bid Specific Additional Terms & Conditions of this tender are read, understood and agreed by the vendor without any deviation. <b>Vendor to confirm.</b>	
9.	Duly filled, signed and stamped copies of the annexures as indicated in clause 31 of Buyer Added Bid Specific Additional Terms & Conditions of the enquiry are to be provided in the letter head of the Supplier. Please fill the annexures with GeM enquiry number, Item description and your company name wherever required. Also please Tick the appropriate option wherever required.	
10.	<b>There will not be any RA (Reverse Auction). Hence suppliers to quote their best price while submitting their offer itself.</b>	

Vendor's Seal & Signature

**CHECK LIST**

**NOTE:** - Suppliers are required to fill in the following details in their Letterhead and no column should be left blank

<b>A</b>	<b>Name and Address of the Supplier</b>		
<b>B</b>	<b>GSTN No. the Supplier (Place of Execution of Contract / Purchase Order)</b>		
<b>C</b>	<b>Details of Contact person for this Tender</b>	Name: Mr./ Ms. Designation: Telephone No: Mobile No: Email ID:	
<b>D</b>	<b>EMD DETAILS</b>	<b>Not applicable</b>	
<b>E</b>	<b>DESCRIPTION</b>	<b>APPLICABILITY (BY BHEL)</b>	<b>ENCLOSED BY BIDDER</b>
i.	Whether <b>Pre - Qualification Criteria</b> is understood and provided proper supporting documents.	<b>Applicable/ Not Applicable</b>	YES / NO
ii.	Whether all pages of the Tender documents including annexures, appendices etc are read and understood	<b>Applicable/ Not Applicable</b>	YES / NO
iii.	Audited Balance Sheet and profit & Loss Account for the last three years	<b>Applicable/ Not Applicable</b>	YES / NO
iv.	Copy of PAN Card & GST registration	<b>Applicable/ Not Applicable</b>	YES / NO
v.	Submission of <b>Udyam certificate</b> as specified in Tender (applicable in case of MSME supplier)	<b>Applicable/ Not Applicable</b>	YES / NO
vi.	<b>Offer forwarding letter</b> / tender submission letter as per Annexure – 2	<b>Applicable/ Not Applicable</b>	YES / NO
vii.	Submission of <b>Certificate of No Deviation</b> as per Annexure – 3	<b>Applicable/ Not Applicable</b>	YES / NO
viii.	Declaration regarding <b>Insolvency/ Liquidation/ Bankruptcy Proceedings</b> as per Annexure – 4	<b>Applicable/ Not Applicable</b>	YES / NO
ix.	Declaration by <b>Authorized Signatory</b> as per Annexure – 5	<b>Applicable/ Not Applicable</b>	YES / NO
x.	Declaration by <b>Authorized Signatory regarding Authenticity</b> of submitted Documents Annexure – 6	<b>Applicable/ Not Applicable</b>	YES / NO
xi.	Submission of <b>Non-Disclosure Certificate</b> as per Annexure – 7	<b>Applicable/ Not Applicable</b>	YES / NO
xii.	Submission of <b>Integrity Pact</b> as specified in Tender as per Annexure – 8	<b>Applicable/ Not Applicable</b>	YES / NO
xiii.	Declaration <b>confirming knowledge about Site Conditions</b> as per Annexure – 9	<b>Applicable/ Not Applicable</b>	YES / NO

xiv.	Declaration reg. <b>Related Firms &amp; their areas of Activities</b> as per Annexure – 10	<b>Applicable/</b> <del>Not Applicable</del>	YES / NO
xv.	Declaration for <b>relation in BHEL</b> as per Annexure – 11	<b>Applicable/</b> <del>Not Applicable</del>	YES / NO
xvi.	Declaration reg. <b>minimum local content</b> in line with revised public procurement as per Annexure – 12	<del>Applicable/</del> <b>Not Applicable</b>	YES / NO
xvii.	Declaration regarding <b>compliance to Restrictions under Rule 144 (xi) of GFR 2017</b> as per Annexure – 13	<b>Applicable/</b> <del>Not Applicable</del>	YES / NO
xviii.	<b>Bank Account Details</b> for E-Payment as per Annexure – 14	<del>Applicable/</del> <b>Not Applicable</b>	YES / NO
xix.	<b>Power of Attorney</b> for submission of tender as per Annexure – 15	<del>Applicable/</del> <b>Not Applicable</b>	YES / NO
xx.	<b>Proforma of Bank Guarantee for Earnest Money</b> as per Annexure – 16	<del>Applicable/</del> <b>Not Applicable</b>	YES / NO

**NOTE:** Strike off 'YES' or 'NO', as applicable. Tender not accompanied by the prescribed **above applicable documents** are liable to be summarily rejected.

**DATE:**

**Sign. of the AUTHORISED SIGNATORY  
(With Name, Designation and Company seal)**



**CERTIFICATE OF NO DEVIATION**

(To be Typed & submitted in the Letter Head of the Company/Firm of Bidder)

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To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Subject: **No Deviation Certificate**

Ref: 1) GeM Bid No: .....

2) All other pertinent issues till date

We hereby confirm that we have not changed/ modified/materially altered any of the tender documents as downloaded from the website/ issued by BHEL and in case of such observance at any stage, it shall be treated as null and void.

We also hereby confirm that we have neither set any Terms and Conditions and nor have we taken any deviation from the Tender conditions together with other references applicable for the above referred GeM Bid.

We further confirm our unqualified acceptance to all Terms and Conditions, unqualified compliance to Tender Conditions.

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

**(Signature, date & seal of  
authorized representative of the  
bidder)**

Date:

Place:

**UNDERTAKING**

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

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**To,**

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir/Madam,

**Sub: DECLARATION REGARDING INSOLVENCY/ LIQUIDATION/ BANKRUPTCY PROCEEDINGS**

**Ref:** GeM Bid Specification No:

I/We, \_\_\_\_\_ declare that, I/We am/are not admitted under insolvency resolution process or liquidation under Insolvency and Bankruptcy Code, 2016, as amended from time to time or under any other law as on date, by NCLT or any adjudicating authority/authorities

**Sign. of the AUTHORISED SIGNATORY  
(With Name, Designation and Company seal)**

Place:

Date:

**DECLARATION BY AUTHORISED SIGNATORY OF BIDDER**

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

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To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub: **Declaration by Authorised Signatory regarding Authenticity of submitted documents.**

Ref: 1) GeM Bid No. & Date: .....

2) All other pertinent issues till date

I/We, hereby certify that all the documents submitted by us in support of possession of "Qualifying Requirements" are true copies of the original and are fully compliant required for qualifying / applying in the bid and shall produce the original of same as and when required by Bharat Heavy Electricals Limited.

I / We hereby further confirm that no tampering is done with documents submitted in support of our qualification as bidder. I / We understand that at any stage (during bidding process or while executing the awarded contract) if it is found that fake / false / forged bid qualifying / supporting documents / certificates were submitted, it would lead to summarily rejection of our bid / termination of contract. BHEL shall be at liberty to initiate other appropriate actions as per the terms of the Bid / Contract and other extant policies of Bharat Heavy Electricals Limited.

Yours faithfully,

**(Signature, Date & Seal of Authorized  
Signatory of the Bidder)**

**Date:**

**NON-DISCLOSURE CERTIFICATE**

(To be Typed & submitted in the Letter Head of the Company/Firm of Bidder)

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I/We understand that BHEL, Trichy is committed to Information Security Management System as per their Information Security Policy.

Hence, I/We M/s ..... who are submitting offer for providing Supply/services to BHEL, Trichy against GeM Bid No..... hereby undertake to comply with the following in line with Information Security Policy of BHEL, Trichy.

- To maintain confidentiality of documents & information which shall be used during the execution of the Contract.
- The documents & information shall not be revealed to or shared with third party which shall not be in the business interest of BHEL, Trichy.

**(Signature, date & seal of Authorized Signatory of the bidder)**

**Date:**

**DECLARATION**

Date: \_\_\_\_\_

To,

(Write Name &amp; Address of Officer of BHEL inviting the Tender)

Dear Sir/ Madam,

**Sub: Details of related firms and their area of activities**

Please find below details of firms owned by our family members that are doing business/ registered for same item with BHEL, \_\_\_\_\_ (NA, if not applicable)

1	Material Category/ Work Description	
	Name of Firm	
	Address of Firm	
	Nature of Business	
	Name of Family Member	
	Relationship	
2	Material Category/ Work Description	
	Name of Firm	
	Address of Firm	
	Nature of Business	
	Name of Family Member	
	Relationship	
...		

**Note: I certify that the above information is true and I agree for penal action from BHEL in case any of the above information furnished is found to be false.**

Regards,

(\_\_\_\_\_)

From: M/s

Supplier  
Code:

Address:

**DECLARATION FOR RELATION IN BHEL**

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder failing which the offer of Bidder is liable to be summarily rejected)

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To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

**Sub: Declaration for relation in BHEL**

**Ref:** 1) GeM Bid Specification No: .....

I/We hereby submit the following information pertaining to relation/relatives of Proprietor/Partner(s)/ Director(s) employed in BHEL

**Tick (✓) any one as applicable:**

1. The Proprietor, Partner(s), Director(s) of our Company/Firm DO NOT have any relation or relatives employed in BHEL

OR

2. The Proprietor, Partner(s), or Director(s) of our Company/Firm HAVE relation/relatives employed in BHEL and their particulars are as below:

i.

ii.

**(Signature, Date & Seal of  
Authorized Signatory of the Bidder)**

Note:

1. Attach separate sheet, if necessary.
2. If BHEL Management comes to know at a later date that the information furnished by the Bidder is false, BHEL reserves the right to take suitable against the Bidder/Contractor.

**DECLARATION REGARDING COMPLIANCE TO RESTRICTIONS UNDER RULE 144 (xi) OF GFR 2017**

(To be typed and submitted in the Letter Head of the Entity/ Firm providing certificate as applicable)

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To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

**Sub:** Declaration regarding compliance to Restrictions under Rule 144 (xi) of GFR 2017

**Ref:** 1) GeM Bid Specification No: .....  
2) All other pertinent issues till date

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I certify that \_\_\_\_\_ (**SPECIFY THE NAME OF THE ORGANIZATION HERE**), is not from such a country/ has been registered with the Competent Authority (*attach valid registration by the Competent Authority, i.e., the Registration Committee constituted by the Dept. for Promotion of Industry and Internal Trade (DPIIT).*

I hereby certify that we fulfil all requirements in this regard and is eligible to be considered.

Thanking you,

Yours faithfully,

**(Signature, Date & Seal of  
Authorized Signatory of the Bidder)**

**Note:** Bidders to note that in case above certification given by a bidder, whose bid is accepted, is found to be false, then this would be a ground for immediate termination and for taking further action in accordance with law and as per BHEL guidelines.