

Technical Specifications

SL. No	Description and Technical Specification of the item	QTY	UNIT	Delivery
1	ER 90S-B91 GTAW ROD DIA 2.4/2.5MM. Length 1000 mm and Diameter 2.4/2.5 mm. GTAW Rod "ER90S-B91" as per WCPI 114 Revision number 11.	3,000.00	KG	90 DAYS
2	GTAW ROD DIA 2.4/2.5 MM for T92/P92. Length 1000 mm and Diameter 2.4/2.5 mm. GTAW rod "ER90S-B92" as per WCPI 513 Revision number 00.	2,000.00	KG	90 DAYS
3	ER90S-B3 GTAW ROD Dia.2.4/2.5 MM. Length 1000 mm and Diameter 2.4/2.5 mm. GTAW rod "ER90S-B3" as per WCPI 103 Revision 10.	3,000.00	KG	90 DAYS
4	ERNiCR-3 GTAW ROD Dia 2.4 /2.5 MM. ASME SEC.II.C, SFA-5.14 ERNiCr-3 BARE SOLID FILLER ROD FOR GTAW as per WCPI-108/05. Diameter - 2.4 mm /2.5 mm. Length - 1000 mm.	1,000.00	KG	90 DAYS
5	E 9015-B91 SMAW ELECTRODE 2.4/ 2.5mm. Diameter - 2.4/2.5 mm Length - 250/300/350 mm LONG. ASME SEC.II.C, SFA-5.5, E9015-B91 SMAW ELECTRODE AS PER WCPI-245 revision 09.	2,000.00	KG	90 DAYS
6	E 9015-B91 SMAW ELECTRODE 3.15/3.2mm. Diameter - 3.15/3.2 mm Length - 350 mm LONG. ASME SEC.II.C, SFA-5.5, E9015-B91 SMAW ELECTRODE AS PER WCPI-245 revision 09.	5,000.00	KG	90 DAYS
7	E 9015-B91 SMAW ELECTRODE 4.0mm. Diameter - 4.0 mm Length - 350 mm LONG. ASME SEC.II.C, SFA-5.5, E9015-B91 SMAW ELECTRODE AS PER WCPI-245 revision 09.	10,000.00	KG	90 DAYS



WELDING CONSUMABLE PURCHASE INSTRUCTION FOR
LOW ALLOY STEEL BARE SOLID FILLER ROD ER90S-B91

1.0 GENERAL:

1.1 The Rod shall comply with requirements specified in the Latest Edition and Addenda (Applicable on the date of Issue of Purchase Order) of ASME Sec.II.C.SFA-5.28, ER90S-B91. All tests, acceptance criteria shall be in accordance with this. Additional requirements specified in this document shall also be complied.

1.2 The Rods shall be supplied in sizes and quantities as specified in the Purchase Order.

1.3 The rods are intended for use as filler for radiographic quality butt welded joints in high pressure boiler tubes and pipes.

2.0 Chemical Composition:

2.1 The chemical composition of the Rods shall conform to ASME SECII.C SFA5.28-ER90S-B91.

3.0 Mechanical Properties:

3.1 The mechanical properties of the Rods shall conform to ASME SECII.C SFA5.28-ER90S-B91.

4.0 USABILITY AND RADIOGRAPHIC SOUNDNESS:

4.1 The Rod when used as filler in GTAW with 100 % Argon shielding shall deposit Weld metal that flows freely, uniformly without sputter or other defects and shall exhibit excellent wetting characteristics. The resultant weld metal shall be smooth and uniform with no visible evidence of cracks/porosity or other defects and shall meet radiographic soundness requirements.

5.0 FORM & SIZE:

5.1 The Rods shall be supplied in straight lengths of 1000 mm +15, -0 mm and as specified in the Purchase Order. The tolerance on diameter shall be as per SFA-5.02.

PREPARED:

aditya kumar

Aditya Kumar
DM / WTC

REVIEWED & APPROVED:

R Arivazhagan

R Arivazhagan
Sr. Manager / WTC



6.0 FINISH & UNIFORMITY:

6.1 The Wires shall meet the requirements of clause 4.2 of SFA-5.02. The rod shall be furnished with a bright finish, chemically cleaned with no copper.

7.0 IDENTIFICATION:

7.1 Each Rod shall have the Classification designation “ER90S-B91”, brand/trade designation marked or embossed on both ends for positive identification.

8.0 MARKING:

8.1 The rods shall meet the requirements of clause 4.6 of SFA-5.02.

9.0 PACKAGING:

9.1 Rods of the same size and batch/lot shall be packed in water resistant plastic tube shaped cartons. Each tube carton shall weigh not more than 10 Kg. The cartons shall be provided with watertight lid to ensure waterproof during transit & storage. Tube Cartons shall be packed in waterproof boxes with crates so as to ensure no damage during shipment and normal storage conditions. Weight of each crate shall not exceed 1000kg.

9.2 The cartons shall have product information as per clause 4.6 of SFA-5.02

10.0 TESTING & CERTIFICATION:

10.1 Batch/Lot classification shall be Class S1 as per SFA-5.01 Filler metal procurement guidelines of ASME Sec.II.C. (Latest Edition and Addenda)

10.2 The Level of Testing shall be Schedule J as per SFA-5.01 Filler metal procurement guidelines of ASME Sec.II.C. (Latest Edition and Addenda)

10.3 A copy of valid IBR approval certificate for the brand being supplied. 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-5.28, ER90S-B91 shall be sent.

(OR)

Original certified material test report in English countersigned by Inspecting Authority (Latest) approved by IBR giving details of tests done for compliance to this Purchase instruction and ASME Sec.II.C.SFA-5.28, ER90S-B91, shall be sent along with every consignment.

10.4 The Testing Authority shall certify that supplies made against the batch conform to the requirements of the Latest Edition & Addenda (Applicable on the date of issue of Purchase Order) of ASME Sec.II.C.SFA-5.28 ER90S-B91.

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**WELDING CONSUMABLE PURCHASE INSTRUCTION FOR
LOW ALLOY STEEL BARE SOLID FILLER ROD ER90S-B92**

1.0 GENERAL:

- 1.1 The Rod shall comply with requirements specified in the Latest Edition and Addenda (Applicable on the date of Issue of Purchase Order) of ASME Sec.II.C.SFA-5.28, ER90S-B92. All tests, acceptance criteria shall be in accordance with this. Additional requirements specified in this document shall also be complied.
- 1.2 The Rods shall be supplied in sizes and quantities as specified in the Purchase Order.
- 1.3 The rods are intended for use as filler for radiographic quality butt welded joints in high pressure boiler tubes and pipes.

2.0 Chemical Composition:

- 2.1 The chemical composition of the Rods shall conform to ASME SECII.C SFA5.28-ER90S-B92 and additional requirement specified as below.
- It is preferable to limit Nickel content to 0.20 maximum. However, if manufacturer cannot supply with this limit ,the total Ni+ Mn shall not exceed 1.2%.
 - Ni + Mn = 1.2 % maximum.

3.0 Mechanical Properties:

- 3.1 The mechanical properties of the Rods shall conform to ASME SECII.C SFA5.28-ER90S-B92.

4.0 USABILITY AND RADIOGRAPHIC SOUNDNESS:

- 4.1 The Rod when used as filler in GTAW with 100 % Argon shielding shall deposit Weld metal that flows freely, uniformly without sputter or other defects and shall exhibit excellent wetting characteristics. The resultant weld metal shall be smooth and uniform with no visible evidence of cracks/porosity or other defects and shall meet radiographic soundness requirements.

5.0 FORM & SIZE:

- 5.1 The Rods shall be supplied in straight lengths of 1000 mm +15, -0 mm and as specified in the Purchase Order. The tolerance on diameter shall be as per SFA-5.02.

PREPARED:

Aditya Kumar

Aditya Kumar
DM / WTC

REVIEWED & APPROVED:

R Arivazhagan

R Arivazhagan
Sr. Manager / WTC



6.0 FINISH & UNIFORMITY:

6.1 The Wires shall meet the requirements of clause 4.2 of SFA-5.02. The rod shall be furnished with a bright finish, chemically cleaned with no copper.

7.0 IDENTIFICATION:

7.1 Each Rod shall have the Classification designation “ER90S-B92”, “B92” ,brand/trade designation marked or embossed on both ends for positive identification.

8.0 MARKING:

8.1 The rods shall meet the requirements of clause 4.6 of SFA-5.02.

9.0 PACKAGING:

9.1 Rods of the same size and batch/lot shall be packed in water resistant plastic tube shaped cartons. Each tube carton shall weigh not more than 10 Kg. The cartons shall be provided with watertight lid to ensure waterproof during transit & storage. Tube Cartons shall be packed in waterproof boxes with crates so as to ensure no damage during shipment and normal storage conditions. Weight of each crate shall not exceed 1000kg.

9.2 The cartons shall have product information as per clause 4.6 of SFA-5.02

10.0 TESTING & CERTIFICATION:

10.1 Batch/Lot classification shall be Class S1 as per SFA-5.01 Filler metal procurement guidelines of ASME Sec.II.C. (Latest Edition and Addenda)

10.2 The Level of Testing shall be Schedule J as per SFA-5.01 Filler metal procurement guidelines of ASME Sec.II.C. (Latest Edition and Addenda)

10.3 A copy of valid IBR approval certificate for the brand being supplied. 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-5.28, ER90S-B92 shall be sent.

(OR)

Original certified material test report in English countersigned by Inspecting Authority (Latest) approved by IBR giving details of tests done for compliance to this Purchase instruction and ASME Sec.II.C.SFA-5.28, ER90S-B92, shall be sent along with every consignment.

10.4 The Testing Authority shall certify that supplies made against the batch conform to the requirements of the Latest Edition & Addenda (Applicable on the date of issue of Purchase Order) of ASME Sec.II.C.SFA-5.28 ER90S-B92.

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**WELDING CONSUMABLE PURCHASE INSTRUCTION FOR
LOW ALLOY STEEL BARE SOLID GTAW FILLER ROD ER90S-B3**

1.0 GENERAL:

- 1.1 The rod shall comply with requirements specified in the latest edition and addenda (applicable on the date of issue of purchase order) of ASME Sec.II.C.SFA-5.28, ER90S-B3. All tests, acceptance criteria shall be in accordance with this. Additional requirements specified in this document shall also be complied.
- 1.2 The rods shall be supplied in sizes and quantities as specified in the purchase order.
- 1.3 The rods are intended for use as filler for radiographic quality butt welded joints in high pressure boiler tubes and pipes.

2.0 Chemical Composition:

- 2.1 The chemical composition of the rods shall conform to ASME SECII.C SFA5.28-ER90S-B3.

3.0 Mechanical Properties:

- 3.1 The mechanical properties of the rods shall conform to ASME SECII.C SFA5.28-ER90S-B3.

4.0 USABILITY AND RADIOGRAPHIC SOUNDNESS:

- 4.1 The rod when used as filler in GTAW with 100 % Argon shielding shall deposit weld metal that flows freely, uniformly without sputter or other defects and shall exhibit excellent wetting characteristics. The resultant weld metal shall be smooth and uniform with no visible evidence of cracks/porosity or other defects and shall meet radiographic soundness requirements.

5.0 FORM & SIZE:

- 5.1 The rods shall be supplied in straight lengths of 1000 mm +15,-0 mm and as specified in the purchase order. The tolerance on diameter shall be as per SFA-5.02.

PREPARED:

adith

Aditya Kumar
DM / WTC

REVIEWED & APPROVED:

R Arivazhagan
R Arivazhagan
SM/WTC



6.0 FINISH & UNIFORMITY:

6.1 The rods shall meet the requirements of SFA-5.28. The rod shall be furnished with a bright finish and chemically cleaned.

7.0 IDENTIFICATION:

7.1 Each rod shall have the classification designation “ER90S-B3”, brand/trade designation marked or embossed on both ends for positive identification.

8.0 MARKING:

8.1 The rods shall meet the requirements of clause 4.6 of SFA-5.02.

9.0 PACKAGING:

9.1 Rods of the same size and batch/lot shall be packed in water resistant plastic tube shaped cartons. Each tube carton shall weigh not more than 10 Kg. The cartons shall be provided with watertight lid to ensure waterproof during transit & storage. Tube cartons shall be packed in waterproof boxes with crates so as to ensure no damage during shipment and normal storage conditions. Weight of each crate shall not exceed 1000kg.

9.2 The cartons shall have product information as per clause 4.6 of SFA-5.02

10.0 TESTING & CERTIFICATION:

10.1 Batch/lot classification shall be Class S1 as per SFA-5.01 filler metal procurement guidelines of ASME Sec.II.C. (Latest Edition and Addenda)

10.2 The level of testing shall be Schedule J as per SFA-5.01 filler metal procurement guidelines of ASME Sec.II.C. (Latest Edition and Addenda)

10.3A copy of valid IBR approval certificate for the brand being supplied. Original certified material test report in English signed by the manufacturer giving details of the tests done in compliance with this purchase instruction and ASME SECII.C SFA5.28-ER90S-B3 shall be sent. In addition, test certificate shall contain purchase order number, quantity and customer name

(OR)

Original test certificates in English countersigned by inspecting authority (latest) approved by IBR giving details of the tests done in compliance with this purchase instruction and ASME SECII.C SFA5.28-ER90S-B3 shall be sent. In addition, test certificate shall contain purchase order number, quantity and customer name.

10.4 The testing authority shall certify that supplies made against the batch conform to the requirements of the latest edition & addenda (applicable on the date of issue of purchase order) of ASME Sec.II.C.SFA-5.28 ER90S-B3.

adith kumar
26/4/2024

Rajun
25/04/24



WELDING CONSUMABLE PURCHASE INSTRUCTION FOR
STAINLESS STEEL BARE SOLID FILLER ROD ERNiCr-3

1.0 GENERAL:

- 1.1 The rod shall comply with requirements specified in the latest edition and addenda (applicable on the date of issue of purchase order) of ASME Sec.II.C.SFA-5.14, ERNiCr-3. All tests, acceptance criteria shall be in accordance with this. Additional requirements specified in this document shall also be complied.
- 1.2 The rods shall be supplied in sizes and quantities as specified in the purchase order.
- 1.3 The rods are intended for use as filler for radiographic quality butt welded joints in high pressure boiler tubes and pipes.

2.0 Chemical Composition:

- 2.1 The chemical composition of the rods shall conform to ASME SEC II.C SFA5.14- ERNiCr-3.

3.0 USABILITY AND RADIOGRAPHIC SOUNDNESS:

- 3.1 The rod when used as filler in GTAW with 100 % Argon shielding shall deposit weld metal that flows freely, uniformly without sputter or other defects and shall exhibit excellent wetting characteristics. The resultant weld metal shall be smooth and uniform with no visible evidence of cracks/porosity or other defects and shall meet radiographic soundness requirements.

4.0 FORM & SIZE:

- 4.1 The rods shall be supplied in straight lengths of 1000 mm +15,-0 mm and as specified in the purchase order. The tolerance on diameter shall be as per SFA-5.02.

PREPARED:

Aditya Kumar
Aditya Kumar
DM / WTC

REVIEWED & APPROVED:

R Arivazhagan
R Arivazhagan
SM/WTC



5.0 FINISH & UNIFORMITY:

5.1 The rods shall meet the requirements of SFA-5.14. The rod shall be furnished with a bright finish and chemically cleaned.

6.0 IDENTIFICATION:

6.1 Each rod shall have the classification designation “ERNiCr-3”, “NiCr-3”, brand/trade designation marked or embossed on both ends for positive identification.

7.0 PACKAGING:

7.1 Rods of the same size and batch/lot shall be packed in water resistant plastic tube shaped cartons. Each tube carton shall weight not more than 10 Kg. The cartons shall be provided with watertight lid to ensure waterproof during transit & storage. Tube cartons shall be packed in waterproof boxes with crates so as to ensure no damage during shipment and normal storage conditions. Weight of each crate shall not exceed 1000kg.

7.2 The cartons shall have product information as per clause 4.6 of SFA-5.02

8.0 TESTING & CERTIFICATION:

8.1 Batch/lot classification shall be Class S1 as per SFA-5.01 filler metal procurement guidelines of ASME Sec.II.C. (Latest Edition and Addenda)

8.2 The level of testing shall be Schedule J as per SFA-5.01 filler metal procurement guidelines of ASME Sec.II.C. (Latest Edition and Addenda)

8.3 A copy of valid IBR approval certificate for the brand being supplied. Original certified material test report in English signed by the manufacturer giving details of the tests done in compliance with this purchase instruction and ASME SECII.C SFA 5.14- ERNiCr-3 shall be sent. In addition, test certificate shall contain purchase order number, quantity and customer name

(OR)

Original test certificates in English countersigned by inspecting authority (latest) approved by IBR giving details of the tests done in compliance with this purchase instruction and ASME SECII.C SFA 5.14- ERNiCr-3 shall be sent. In addition, test certificate shall contain purchase order number, quantity and customer name.

8.4 The testing authority shall certify that supplies made against the batch conform to the requirements of the latest edition & addenda (applicable on the date of issue of purchase order) of ASME Sec.II.C.SFA-5.14 ERNiCr-3.

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BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPALLI-620 014
WELDING TECHNOLOGY CENTRE
Welding Consumable Purchase Instruction

Doc. Number:

WCPI – 245

Revision:

09

Date: 26.04.2024

WELDING CONSUMABLE PURCHASE INSTRUCTION FOR
NON-SYNTHETIC SMAW ELECTRODE AS PER ASME SEC.II.C, SFA 5.5, CLASS E9015-B91

1.0 SCOPE:

This purchase instruction prescribes the requirements for non-synthetic Shielded Metal Arc Welding (SMAW) electrode that conforms to ASME SEC II C, SFA- 5.5, E9015-B91.

2.0 GENERAL:

- 2.1 Electrodes shall be supplied in size and quantity as specified in the purchase order.
- 2.2 The electrode shall comply with requirements as specified in the latest edition and addenda (applicable on the date of issue of purchase order) of ASME Sec II C, SFA 5.5, E9015-B91 and all tests, acceptance criteria etc. referred in this document shall be in accordance with this. Additional requirements specified in this document shall also be complied.
- 2.3 The electrode shall be suitable for radiography quality butt joint welding of boiler pressure parts of SA387 Gr91-Plate, SA335 P91-Pipe and SA213 T91-Tube material for high temperature creep resistant service.
- 2.4 Creep Testing Requirement- The weld metal deposited by this electrode shall meet minimum 1000 hours creep rupture test at testing temperature 665°C and minimum Rupture stress 60 MPa without failure. The results of the tests shall be furnished.
- 2.5 The electrode shall be non-synthetic type with alloyed core wire that matches with weld metal chemistry.

Prepared:

Aditya Kumar

Aditya Kumar
DM/WTC

Reviewed and approved:

R Arivazhagan

R Arivazhagan
SM/WTC



3.0 CHEMICAL COMPOSITION:

As per ASME SEC II C, SFA- 5.5, E9015-B91 and the additional requirement specified as below. The chemical composition of the undiluted weld metal deposited using the electrode shall be as follows.

Carbon	0.08-0.13%	Molybdenum	0.85-1.20 %
Manganese	1.20 % Maximum	Vanadium	0.15-0.30 %
Silicon	0.30 % Maximum	Copper	0.25 % Maximum
Sulphur	0.01 % Maximum	Aluminium	0.04 % Maximum
Phosphorus	0.01 % Maximum	Niobium	0.02-0.10 %
Nickel	0.80 % Maximum	Nitrogen*	0.02-0.07 %
Chromium	8.0-10.5 %	Mn+ Ni	1.2 % Maximum
*Minimum=(0.5 x Aluminium content + 0.03) % Elements Sb, Sn and As shall be reported			

4.0 RADIOGRAPHIC SOUNDNESS:

- 4.1 The electrode welded with DCEP shall deposit weld metal that meets radiographic soundness requirements specified in ASME Sec.II C, SFA-5.5, E9015-B91.
- 4.2 The electrodes shall produce acceptable radiographic quality pipe and tube welds in all positions.

5.0 MECHANICAL PROPERTIES:

The mechanical properties of weld metal deposited using the electrode after stress relieving the test plate assembly at $760 \pm 15^\circ\text{C}$ for 120 minutes shall be as follows. (Test to be done as per ASME Sec II C, SFA-5.5, E 9015-B91)

- a) Yield strength at 0.2% offset : 530 MPa (Minimum)
- b) Tensile strength : 620 MPa (Minimum)
- c) Elongation : 17% (Minimum)
- d) Absorbed Energy at $+20^\circ\text{C}$: 27 Joules Average (Minimum)
(Charpy 'V' Notch Impact test) (Single value shall be ≥ 20 Joules)
- e) Hardness : 195 HV to 320 HV

6.0 FILLET WELD TEST:

Fillet weld test done using the electrode shall meet requirements specified in ASME Sec II C, SFA 5.5, E9015-B91.

7.0 MOISTURE CONTENT OF COVERING:

Moisture content of the electrode covering shall not exceed the limit specified in ASME Sec II C, SFA 5.5, E9015-B91.



8.0 DIFFUSIBLE HYDROGEN CONTENT OF WELD METAL:

Diffusible hydrogen content of weld metal deposited using the electrode shall be maximum of 4ml per 100 grams. Test shall be done as per ASME Sec II C, SFA 5.5, E9015-B91.

9.0 SIZE, COVERING, ARC END AND GRIP END AND IDENTIFICATION:

9.1 SIZE:

Electrodes shall be supplied in diameter and length as specified in the purchase order.

9.2 COVERING:

The core wire and covering shall be free of defects and shall ensure uniform deposition of weld metal. The flux coating shall be uniform and concentric around the core wire such that the performance of welding is not affected in any position and no tapered burning of electrode is permitted. Covering shall not exhibit any cracking during welding at maximum current recommended by manufacturer. The electrode shall not become red hot upon continuous welding through the length of electrode.

9.3 ARC END AND GRIP END:

The arc end of each electrode shall be sufficiently bare and flux coating sufficiently tapered permitting easy striking of the Arc. The grip end shall be bare for a length that is sufficient to provide electrical contact with the electrode holder. Clause 21 of ASME SEC IIC, SFA-5.5, E9015-B91 shall be complied.

9.4 IDENTIFICATION:

All electrodes shall be identified by providing at least one imprint of the electrode classification near the grip end. The numbers and letters of the imprint shall be bold block type and size shall be large enough to be legible.

The ink used for imprint shall provide sufficient contrast with the electrode coating such that the imprint shall remain legible even after drying and welding. Clause 22.1 of ASME SEC II C, SFA-5.5, E9015-B91 shall be complied.

10.0 PACKING AND MARKING OF PACKAGES:

10.1 PACKAGING:

A standard quantity of electrodes with the net weight of each package not exceeding 5Kg shall be packed in hermetically sealed containers or moisture proof cardboard with polythene encapsulated packets.

Electrode packets shall be shipped in wooden crates lined with waterproof material. Net weight of each crate shall not exceed 1000Kg.

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BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPALLI-620 014
WELDING TECHNOLOGY CENTRE

Doc. Number: WCPI – 245

Revision:09

10.2 MARKING OF PACKAGES:

The package shall be marked clearly with AWS Specification, brand name, classification, lot number, manufacturer name, size and quantity of electrodes with net weight, health and safety warnings.

11.0 CERTIFICATION AND TESTING:

11.1 Batch or Lot classification shall be Class C1 of SFA-5.01 Filler metal procurement guidelines of ASME Sec.II. Part C.

11.2 The level of testing shall be Schedule K of SFA 5.01 Filler metal procurement guidelines of ASME Sec.II. Part -C.

11.3 Original Certified Material Test Report (CMTR) in English countersigned by Inspecting Authority approved by IBR giving details about tests in compliance with this purchase instruction and ASME Sec IIC, SFA-5.5, E9015-B91 shall be sent. In addition, CMTR shall contain purchase order number with date, quantity and customer name.

(OR)

A copy of valid IBR approval certificate for the brand being supplied. Original Certified Material Test Report (CMTR) in English countersigned by testing Authority giving details about tests in compliance with this purchase instruction and ASME Sec IIC, SFA-5.5, E9015-B91 shall be sent. In addition, CMTR shall contain purchase order number with date, quantity and customer name.

11.4 The testing authority shall certify that the batch supplied conforms to the requirements of the latest edition and addenda (applicable on the date of issue of purchase order) of ASME Sec II C, SFA 5.5, E9015-B91 and this purchase instruction.

RAJAN

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FOR INFORMATION PLEASE

Ref : PR 0135791175

WCPI-245 Revision 09 (Clause 2.4)

2.4 Creep Testing Requirement- The weld metal deposited by this electrode shall meet minimum 1000 hours creep rupture test at testing temperature 665°C and minimum Rupture stress 60 MPa without failure. The results of the tests shall be furnished.

Acceptance criteria for Creep testing result:

Sample tested shall not rupture and shall meet the creep requirements at 1000 hours of testing at indicated temperatures and stress values.

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ADITYA KUMAR
Deputy Engineer
Welding Technology
Welding Technology

Sl. No.	Pre –Qualification Criteria - PR 135791175	Bidder remark
1	If Bidder is a manufacturer, Confirm “Yes or, No” in bidder remark.	
2	<p>Bidder shall be a manufacturer of the Quoted items or an authorized dealer of the same.</p> <p>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>Tender Enquiry details must available on Letter of authorization or agreement to consider the offer.</p>	
3	Quoted Welding Consumables Brand Name/Product Name	
4	Quoted Product Catalogue	
5	Manufacturing Plant Address / Mill Address	

Seal and Sign of Authorized Person

Sl. No.	Pre –Qualification Criteria – PR 135791175	Bidder remark
6	Manufacturer/Bidder shall submit manufacturing process flow chart (Raw material to finished product) along with offer for Quoted Item (SMAW Electrode AND GTAW Rod)	
7	Manufacturer/Bidder shall submit a valid ISO 9001 certificate or Quality management system certificate or Written down procedure for ISO 9001 or A valid ISO 45001 certificate or Written down procedure for Quality inspection of SMAW Electrode AND GTAW Rod.	
8	<p>Manufacturing Plant capacity for GTAW Process.</p> <p>Manufacturing Plant capacity for SMAW Process.</p>	
9	Any deviation from the Specification are to be mentioned in the “Bidder remark Space”. If There is no deviation vendor should indicate “No Deviation”.	

Seal and Sign of Authorized Person

Sl. No.	Pre –Qualification Criteria – PR 135791175	Bidder remark
10	Quoted items - Diameter details	
11	Quoted items – Length details.	
12	Seal and sign on technical specification for acceptance.	
14	<p>Valid IBR certificate status to be provided for Quoted material.</p> <p>Creep data status for E9015-B91 SMAW Electrode (Creep data is required along with supply).</p>	
15	<p>Manufacturer/Bidder shall have successful experience for supplying of ER 70S-A1 or, ER 80S-B2 or, ER 80S-G or, ER 90S-B3 or, ER 90S-G or GMAW Spool or GTAW Spool or GTAW Rod or SMAW Electrode to any govt. Organizations/ PSUs/ Public ltd./ Company/Reputed Industries etc.</p> <p>Purchase orders copies/ related documents to be submitted along with offer to consider the offer.</p> <p>Note: Successful experience means – supplied and accepted.</p>	

Seal and Sign of Authorized Person

Annexure – A- Additional Terms and Conditions for GeM Enquiry

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

<i>To be filled by bidder</i>		
Description of the Equipment:		
GeM Tender No. & Date		
Name of the firm (Bidder)		:
Address		:
Contact person 1		Contact person 2
Name:		Name:
Designation:		Designation:
Office Phone:		Office Phone:
Mobile:		Mobile:
e-mail:		e-mail:
Offer/Quotation reference with date		:
SI	Terms and conditions	Vendor's confirmation
1.	Inspection by BHEL/as per Technical specification(if any).	
2.	<p>Payment terms:</p> <ol style="list-style-type: none"> 1. Payment terms for Non MSME Suppliers: 90 days from the Vehicle entry date (Against submission of GST invoice, GeM invoice, LR copy, Last Movement e-Way Bill, UD). 2. Payment terms for Micro & Small Enterprises (MSEs): 45 days from the Vehicle entry date (Against submission of GST invoice, GeM invoice, LR copy, Last Movement e-Way Bill, UD). The supplier should upload UDYAM Registration Certificate in proof of MSE. 3. Payment terms for Medium Enterprises: 60 days from the Vehicle entry date (Against submission of GST invoice, GeM invoice, LR copy, Last Movement e-Way Bill, UD). The supplier should upload UDYAM Registration Certificate in proof of Medium Enterprises. <p>Note: Deviation in above payment terms is not acceptable.</p>	
3.	Response to Tenders for Indigenous supplier will be entertained only if the vendor has a valid GST registration number which should clearly mentioned in the offer. 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 Registration No. _____
4.	Performance Bank Guarantee: Not Applicable	
5.	Kindly Indicate the HSN Code for all items	HSN CODE : _____
6.	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. Please indicate how much GST percentage is included in quoted price.	GST in %: _____

Vendor's Seal & Signature

/ On Bidder's office letter pad /

Self-Declaration

Enquiry No.	
Enquiry Date	

In line with Government public procurement order Number P-45021/2/2017-B.E-II dated 15.06.2017, and further modified order dt. 28.05.2018, 29.05.2019 & order 04.06.2020 issued by DPIIT

I / We hereby declare that I / We are a "Local Supplier" meeting the requirement of minimum local content (..... %) defined in the above government notification for the goods against above mentioned enquiry Number.

Details of location at which local value addition will be made is as follows:

Door No.	
Street / Address 1	
Street / Address 2	
District	
State	
Country	
PIN Code	

We also understand that the false declarations will be in breach of the code of Integrity under rule 175(1)(i)(h) of the General financial rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

For Company Name:

Seal:

Signature:

Date:

Place:

Note:

" Local Content "means the amount of value added in India which shall ,unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured(excluding net domestic indirect taxes) minus the value of imported content in the item(including all customs duties) as a proportion of the total value, in percent. "Local Supplier "means a supplier or service provider whose product or service offered for procurement meets the minimum local content.

The above declaration shall be submitted mandatorily along with the offer in company letter head with seal & signature.

(Please fill all the yellow color field)

Integrity Pact (IP)

(a) IP is a tool to ensure that activities and transactions between the Company and its Bidders / Contractors are handled in a fair, transparent and corruption free manner. Following Independent External Monitors (IEMs) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.

SL	IEM	Email
1.	Shri Otem Dai, IAS (Retd.)	iem1@bhel.in
2.	Shri Bishwamitra Pandey, IRAS (Retd.)	iem2@bhel.in
3.	Shri Mukesh Mittal, IRS (Retd.)	Iem3@bhel.in

(b) The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with techno-commercial bid (Part-I, in case of two/three part bid). Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.

(c) Please refer Section-8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to any of the above IEM(s). All correspondence with the IEMs shall be done through email only.

Note:

No routine correspondence shall be addressed to the IEM (phone/post/ email) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) departments officials whose contact details are provided below.

Details of contact person(s): -

(1)

Name: M Kurinjarasi

Deptt: MM/WC & CPSP

Address: 24 Building, BHEL, Trichy

Phone: 0431-2577597

Email: kurinji@bhel.in

(2)

Name: Sonu Majhi

Deptt: MM/ WC & CPSP

Address: 24 Building, BHEL, Trichy

Phone: 0431-2575636

Email: sonu@bhel.in

Annexure-1

INTEGRITY PACT**Between**

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi - 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

_____, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for _____

_____ (hereinafter referred to as "Contract"). The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint panel of Independent External Monitor(s) (IEMs), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1- Commitments of the Principal

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles: -
 - 1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - 1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - 1.1.3 The Principal will exclude from the process all known prejudiced persons.
- 1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder(s)/ Contractor(s)

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. The Bidder(s)/ Contractor(s) commits himself to observe the following principles during participation in the tender process and during the contract execution.

- 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and shall await their decision in the matter.

Section 3 - Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process, terminate the contract, if already awarded, exclude from future business dealings and/ or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 4 - Compensation for Damages

- 4.1 If the Principal has disqualified the Bidder (s) from the tender process before award / order acceptance according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal is entitled to terminate the Contract according to Section 3, or terminates the Contract in application of Section 3 above, the Bidder(s)/ Contractor (s) transgression through a violation of Section 2 above shall be construed breach of contract and the Principal shall be entitled to demand and recover from the Contractor an amount equal to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee, whichever is higher, as damages, in addition to and without prejudice to its right to demand and recover compensation for any other loss or damages specified elsewhere in the contract.

Section 5 - Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 (three) years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason or action can be taken as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 6 - Equal treatment of all Bidder (s)/ Contractor (s) / Sub-contractor (s)

- 6.1 The Principal will enter into Integrity Pacts with identical conditions as this Integrity Pact with all Bidders and Contractors.
- 6.2 In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor(s) and ensure that all Sub-contractors also sign the Integrity Pact.
- 6.3 The Principal will disqualify from the tender process all Bidders who do not sign this Integrity Pact or violate its provisions.

Section 7 - Criminal Charges against violating Bidders/ Contractors /Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section 8 -Independent External Monitor(s)

- 8.1 The Principal appoints competent and credible panel of Independent External Monitor (s) (IEMs) for this Integrity Pact. The task of the IEMs is to review independently and objectively, whether and to what extent the parties comply with the obligations under this Integrity Pact.
- 8.2 The IEMs are not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The IEMs shall be provided access to all documents/ records pertaining to the Contract, for which a complaint or issue is raised before them as and when warranted. However, the documents/records/information having National Security implications and those documents which have been classified as Secret/Top Secret are not to be disclosed.
- 8.4 The Principal will provide to the IEMs sufficient information about all meetings among the parties related to the Contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the IEMs the option to participate in such meetings.

- 8.5 The advisory role of IEMs is envisaged as that of a friend, philosopher and guide. The advice of IEMs would not be legally binding and it is restricted to resolving issues raised by a Bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some Bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.
- 8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process or during execution of Contract, the matter should be examined by the full panel of IEMs jointly, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- 8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to the CMD, BHEL at the earliest. They may also send their report directly to the CVO, in case of suspicion of serious irregularities requiring legal/ administrative action. Only in case of very serious issue having a specific, verifiable Vigilance angle, the matter should be reported directly to the Commission. IEMs will tender their advice on the complaints within 30 days.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the IEMs and its terms and conditions.
- 8.9 IEMs should examine the process integrity, they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the Principal should be looked into by the CVO of the Principal.
- 8.10 If the IEMs have reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code / Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the IEMs may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 After award of work, the IEMs shall look into any issue relating to execution of Contract, if specifically raised before them. As an illustrative example, if a Contractor who has been awarded the Contract, during the execution of Contract, raises issue of delayed payment etc. before the IEMs, the same shall be examined by the panel of IEMs. Issues like warranty/ guarantee etc. shall be outside the purview of IEMs.
- 8.12 However, the IEMs may suggest systemic improvements to the management of the Principal, if considered necessary, to bring about transparency, equity and fairness in the system of procurement.
- 8.13 The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

- 9.1 This Integrity Pact shall be operative from the date this Integrity Pact is signed by both the parties till the final completion of contract for successful Bidder, and for all other Bidders 6 months after the Contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.
- 9.2 If any claim is made/ lodged during currency of this Integrity Pact, the same shall be binding and continue to be valid despite the lapse of this Pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 - Other Provisions

- 10.1 This Integrity Pact is subject to Indian Laws and exclusive jurisdiction shall be of the competent Courts as indicated in the Tender or Contract, as the case may be.
- 10.2 Changes and supplements as well as termination notices need to be made in writing.
- 10.3 If the Bidder(s)/ Contractor(s) is a partnership or a consortium or a joint venture, this Integrity Pact shall be signed by all partners of the partnership or joint venture or all consortium members.
- 10.4 Should one or several provisions of this Integrity Pact turn out to be invalid, the remainder of this Integrity Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 10.5 Only those bidders / contractors who have entered into this Integrity Pact with the Principal would be competent to participate in the bidding. In other words, entering into this Integrity Pact would be a preliminary qualification.
- 10.6 In the event of any dispute between the Principal and Bidder(s)/ Contractor(s) relating to the Contract, in case, both the parties are agreeable, they may try to settle dispute through Mediation before the panel of IEMs in a time bound manner. In case, the dispute remains unresolved even after mediation by the panel of IEMs, either party may take further action as the terms & conditions of the Contract. The fees/expenses on dispute resolution through mediation shall be shared by both the parties. Further, the mediation proceedings shall be confidential in nature and the parties shall keep confidential all matters relating to the mediation proceedings including any settlement agreement arrived at between the parties as outcome of mediation. Any views expressed, suggestions, admissions or proposals etc. made by either party in the course of mediation shall not be relied upon or introduced as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of mediation proceedings. Neither of the parties shall present IEMs as witness in any Alternative Dispute Resolution or judicial proceedings in respect of the dispute that was subject of mediation.

M KURINJIARAS Digitally signed by M KURINJIARAS
Date: 2023.06.12 12:27:53 +05'30'

For & On behalf of the Principal
(Office Seal)

Place _____

Date _____

Witness: SONU MAJH Digitally signed by SONU MAJH
Date: 2023.06.12 12:35:42 +05'30'
(Name & Address) _____

For & On behalf of the Bidder/ Contractor
(Office Seal)

Witness: _____
(Name & Address) _____
