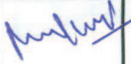
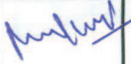
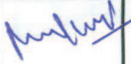
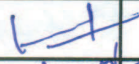
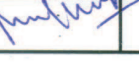


दिनांक एवं हस्ताक्षर SIGN & DATE		संस्थान क्रय विनिर्देश (सी.एफ.एफ.पी. - हरिद्वार) PLANT PURCHASE SPECIFICATION (CFFP - HARDWAR)	FF77599 Rev 05 पृष्ठ का Page 1 of 5
मापदंड सूची संख्या को अधिकृत कर SUPERSEDES INVENTORY NO	WELDING ELECTRODE HOLDER – 600 Amps.		
COPYRIGHT AND CONFIDENTIAL The information on this document is the property of Bharat Heavy Electrical Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company.	1. Application This purchase specification specifies the requirements and tests for welding electrode holder-600 amps, in order to optimize the safety of the welder and to ensure satisfactory condition of use during heavy duty manual electric arc welding on carbon steel and alloy steel castings.		
	2. Compliance with National & International Standard : The welding electrode holder shall be in general as per IS 2641:1989-semiinsulated 'B' type suitable for current rating up-to 600 Amps at 60% duty cycle use with the characteristics as stated under Technical specifications.		
स्वत्वाधिकार एवं गोपनीयता इस प्रलेख में दी गई सूचना भारत हेवी इलेक्ट्रिकल्स की सम्पत्ति है इसका प्रत्यक्ष एवं अप्रत्यक्ष रूप से किसी भी तरह प्रयोग, जो कि कंपनी के हित में हानिकारक हो न किया जाए।	3. General		
	3.1 The welding electrode holder shall be suitable for use on circuits with OCV up to and including 100V(rms). 3.2 The welding electrode holder shall be suitable to hold electrodes up-to 5 mm diameters and it shall be as light as possible (weight less than 750 gms). 3.3 Design of the electrode holder shall be such that under normal condition of service, it shall be possible to weld with electrode in any position of holder until a stub of 40mm remains without damaging the holder. 3.4 The welding electrode holder shall have provisions for alternative positions for gripping Electrodes to avoid the necessity for bending the electrodes when welding in different positions. 3.5 The electrode holder shall be of "Type B-semi insulated design and construction" as per IS :2641. The electrode holder's jaws along with connector which connect jaw to clamping (where input cable clamped) shall be made from a high copper alloy for maximum conductivity. Connector shall be in form of multiple / single strip that can conduct rated current efficiently. 3.6 The jaws of the holder shall be firmly resistance welded / silver brazed with the holder arms and shall not be joined by brass brazing etc to avoid the chances of separation under over heating of jaws during accidental electrode shorting with the job. 3.7 Cable entry to the welding holder shall be so designed that the risk of damage due to continual flexing of cable is kept to minimum. The insulation of the cable shall enter the holder to a depth not less than 50mm and provision shall be made to clamp the cable to avoid any pull to be transmitted to the joint in normal use.		
हस्ताक्षर एवं दिनांक	RMI MPIC CHAIRMAN CPSC	SN GHOSH AK KUSHWAHA VK AGARWAL नाम NAME दिनांक एवं हस्ताक्षर DATE & SIGNATURE	अनुवादक TRANSLATED BY निर्माणकर्ता WORKED BY जांचकर्ता CHECKED BY पर्यवेक्षणकर्ता SUPERVISED BY स्वीकृति APPROVED : संस्थान मानक समिति PLANT STANDARDS COMMITTEE DATE : 02.01.2015
मापदंड सूची संख्या INVENTORY	सहमत विभाग AGREED DEPTT.	PREPARED : WELDING TECH	ISSUED : WELDING TECHNOLOGY

दिनांक एवं हस्ताक्षर SIGN & DATE		संस्थान क्रय विनिर्देश (सी.एफ.एफ.पी - हरिद्वार) PLANT PURCHASE SPECIFICATION (CFFP - HARDWARE)		FF 77599 Rev 05 पृष्ठ का Page 2 of 5									
SUPERSEDES INVENTORY NO सामग्री मूल संख्या को प्रतिस्थापित करने	3.8 The electrode holder shall have arrangement to accommodate and clamp firmly the welding cable core (of minimum diameter 10 mm) with adequate electrical contact without the use of special tools. It shall have provision of tightening the welding cable with min. 3 bolts of Ø8-12 mm hexagonal head. 3.9 The portion of the lever controlling the clamping device required to be operated during normal use shall be encased in a tough heat resisting insulating material. 3.10 Handle of the electrode holder shall be constructed in tough heat resisting insulating material and shall be so constructed that no dirt or foreign particles likely to cause danger by electric shock can lodge in joints, holes & other services and that the live ends of screws, pins etc can not exposed in use. Grip of handle (OD) should be such that welder can grip it easily & comfortably. 3.11 Spring, if used, shall be insulated electrically so that they do not carry welding current unless designed to do so. 3.12 The guard shall be at least 4 mm thick and shall project for less than 19 mm around the handle to give reasonable protection to exposed spring, if any, and hand form radiated heat & spatter band also to allow the holder with cable connected to be laid on a flat surface without any live part of the holder touching surface.												
COPYRIGHT AND CONFIDENTIAL The information on this document is the property of Bharat Heavy Electrical Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company. 4. Test Certificates 4.1 Unless otherwise specified, one original and three copies of original manufacturer's test certificates shall be supplied with each consignment bearing the following information. In order to facilitate quick clearance of material, the supplier shall ensure to send a copy of test certificate along with dispatch document. Supplier shall submit test certificates in line with IS2641:1989) a) BHEL PO No. b) Supplier name/reference c) Identification No., Batch No. d) Temperature rise test (Not to exceed 30°C above ambient temperature, when continuously used with 60% of rated capacity of 600 amps, i.e. 360 Amps for 2 hrs. minimum) e) Insulation resistance Test. f) High voltage Test. g) Impact Test. h) Test for flammability and resistance to heat. i) Certificate to confirming ISI/IS Number 4.2 Suppliers other than the original manufacturer shall ensure providing original manufacturer's test certificates with linkage to supplier's invoice stating the batch No., lot No., etc of the supply.													
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सामग्री मुची संख्या INVENTORY NO	सामग्री मुची संख्या को अधिकृत करवा	5.0 Acceptance 5.1 For technical suitability vendor shall be furnish technical data sheet as per annex-I. 5.2 For established supplier, who has supplied the designated welding electrode holder for 2 years continuously giving trouble free service, the item can be accepted on the basis of TC & GC given by the supplier. 5.3 CFFP reserve the right to check the welding electrode holder on surveillance basis for established supplier. 5.4 For other suppliers, checking as per Cl. No. 3 and shop trial will be required. Final acceptance of welding electrode holder shall be based on satisfactory report/performance on shop floor. 5.5 Inspection at BHEL is final and will be binding on supplier.		
COPYRIGHT AND CONFIDENTIAL The information on this documents is the property of Bharat Heavy Electrical Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company.		6.0 Packing and Marking Packing should be that of the original manufacturer. Packing should be suitable to avoid any damage during handling, transit and storage. Each holder shall be marked with a) Name of manufacturer, Trade mark if any. b) Current Rating at 60% duty cycle, i.e, B 600/60%. 7. Guarantee The supply should be guaranteed for 24 months from the date of receipt.		
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दिनांक एवं हस्ताक्षर SIGN & DATE		9. Inspection, Deviation and Replacement: 9.1 BHEL reserves the right to inspect material at site before dispatch. The supplier shall intimate in advance about readiness of material enclosing a copy of test certificate of the material offered for inspection. However inspection at BHEL shall be final. The supplier shall offer BHEL representative all reasonable test facilities without charge to satisfy the latter that the material being furnished is in accordance with this specification. The supplier shall prepare and provide necessary test specimens for testing to be carried out at his premises. If facilities are not available at his works, the supplier shall make necessary arrangements for carrying out the prescribed tests elsewhere. 9.2 If the material received at CFFP is not found in accordance with the requirements, it shall be liable to be rejected and the supplier will have to replace it free of cost at the earliest. 9.3 For any deviation from the specification sought by the supplier, prior approval of BHEL must be obtained in writing.		
सामग्री मुची संख्या			निर्माणकर्ता WORKED BY SUSHANT	
			जांचकर्ता CHECKED BY ANIL KUMAR	

निर्देशक एवं हस्ताक्षर SIGN & DATE		संस्थान क्रय विनिर्देश (सी.एफ.एफ.पी - हरिद्वार) PLANT PURCHASE SPECIFICATION (CFFP - HARDWAR)	FF 77599 Rev 05																																																																																																										
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		PLANT PURCHASE SPECIFICATION (CFFP - HARDWAR)		पृष्ठ का Page 5 of 5	
SUPERSEDES INVENTORY NO	RECORD OF CHANGES				
सामग्री संख्या					
COPYRIGHT AND CONFIDENTIAL The information on this documents is the property of Bharat Heavy Electrical Limited It must not be used directly or indirectly in any way detrimental to the interest of the company.	REV CODE	NO. OF CHANGES/REMARKS	NATURE OF CHANGE	SIGN	DATE
	01		Sketch of holder parts added		18.1.02
	02		Clause 6 & 7 modified to incorporate original manufacturer's test certificate and packing conditions		14.9.09
	03		Specification is prepared in standard format. Complete specification is rewritten.		03.08.10
	04	06	Clause 2.0 scope, seminsulated 'B' type added Clause 3.5, holder material revised Clause 3.8, design for cable clamping design added Clause 4.1 (d), temp rise test condition elaborated Clause 5.3, revised Clause 6.0 (b & C), ISI mark & rating added		25.08.14
	05		CI 3.0,4.0.5.0,8.0 modified & Annex-I added		02.01.15
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	RMI	✓			
	STANDARD SECTION	✓			
	MPIC	✓			
दिनांक एवं हस्ताक्षर SIGN & DATE				निर्माणकर्ता WORKED BY	SUSHANT 
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