



**GOVT. OF INDIA.  
MINISTRY OF MSME  
OFFICE OF THE DIRECTOR  
MSME- DEVELOPMENT INSTITUTE INDUSTRIAL ESTATE  
22 GODAM JAIPUR -302006**

**TENDER DOCUMENTS**

**PURCHASE OF OPTICAL EMISSION SPECTROMETER,CCD(CHARGE COUPLLED DEVICE)  
WITH DISC GRINDER  
CONTAINING PAGES 1 TO 14**

TENDER REFERENCE :	G- 2011/1/ACCTTS
PERIOD OF SALE OF TENDER DOCUMENT	From Date of release of the advertisement to 16-11-2011 upto 12.30 p.m.
LAST DATE FOR SALE OF TENDER DOCUMENT	16-11--2011 upto 12.30.p.m.
LAST DATE AND TIME FOR RECEIPT OF TENDERS	17-11--2011 upto 05:00.p.m.
TIME AND DATE OF OPENING OF TENDER (TECHNICAL&COMMERCIAL BID)	23-11-2011 10.30 a m
PLACE OF OPENING OF TENDER	Office of DIRECTOR MSME DI JAIPUR

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**OFFICE OF THE DIRECTOR  
MSME- DEVELOPMENT INSTITUTE, JAIPUR -302006**

S.NO. OF TENDER: \_\_\_\_\_

FILE NO. : G- 2011/1/ACCTTS

Name of the party in whose

Favour the Tender form has

been issued:.....

.....

.....

**The Director,  
MSME- DI JAIPUR**

Dear Sir,

1. I/We hereby submit our tender for the \_\_\_\_\_

2. I/We now enclosing herewith the D.D. No..... dated.....for Rs.1,00,000/-(Rupees one lakh only) drawn in favour of the “DIRECTOR,MSME-DI Jaipur” towards EMD/Bid Security. (TENDERS NOT ACCOMPANIED WITH EMD/BID SECURITY ALONGWITH THE TECHNO-COMMERCIAL BID SHALL BE SUMMARILY REJECTED).

3. I/We have gone through all terms and conditions of the tender documents before submitting the same.

4. I/We hereby agree to all the terms and conditions, stipulated by the MSME-DI, Jaipur including delivery, warranty, penalty etc. Quotations for each items are being submitted in separate envelope, and sheets and shall be considered on their face value.

5. I/We have noted that overwritten entries shall be deleted unless duly cut & re-written and initialed.

6. Tenders are duly signed (No thumb impression should be affixed).

7. I/We undertake to sign the contract/agreement, if required, within 30 (Thirty days) from the date of issue of the letter of acceptance, failing which our/my security money deposited may be forfeited and our/my name may be removed from the list of suppliers at the MSME-DI , Jaipur

**NOTE: ALL TERMS & CONDITIONS SUCH AS TAXES ETC, HAS BEEN INDICATED IN THE QUOTATIONS FAILING WHICH IT WILL BE PRESUMED THAT THE RATES ARE INCLUSIVE OF ALL TAXES AND OTHER TERMS AND CONDITIONS ARE ALSO AS PER YOUR REQUIREMENTS.**

Yours faithfully,

Signature of

Tender(s) full Address.

WITNESS \_\_\_\_\_ WITNESS \_\_\_\_\_

WITNESS \_\_\_\_\_ WITNESS \_\_\_\_\_

## CHECK LIST FOR TERMS AND CONDITIONS

Check list for Terms and Conditions (To be filled by the bidder and submitted alongwith the technical bid)

1. Certificate for being in business for more than 2 years \_\_\_\_\_
2. Certificate for sole ownership/partnership \_\_\_\_\_
3. Statement of financial standing from bankers \_\_\_\_\_
4. Performance report/List of organization supplied with the same equipment  
\_\_\_\_\_
5. Whether rates quoted included all taxes \_\_\_\_\_
6. Whether rates are quoted as per tenders specifications \_\_\_\_\_
7. Authority letter from manufacturer/principal enclosed \_\_\_\_\_
8. Affidavit that the firm has not been black listed in the past by any Govt. organization/ Department
9. Affidavit that the firm has no vigilance case/CBI/FEMA case pending against him/ supplier (principal) \_\_\_\_\_
10. Affidavit that the firm is not supplying the same item at the lower rate quoted in the tender to any Govt. organization or any other Institute (Fall clause) \_\_\_\_\_
11. Quotation being submitted directly by the manufacturer or authorized distributor  
\_\_\_\_\_
12. Quality assurance certificate like ISI, ISO-9002, IP/BP or any other, please specify  
\_\_\_\_\_
13. Statement of turnover/annual report for each of the last three years are attached  
\_\_\_\_\_
14. Bid Security amount deposited is enclosed \_\_\_\_\_
15. Literature of original catalogue of the product is attached for reference \_\_\_\_\_
16. Details of Name of beneficiary, Account No. of the beneficiary, IFCS code of the bank /branch enclosed at Page No. \_\_\_\_\_
17. Comprehensive Guarantee/Warranty period for \_\_\_\_\_ and thereafter comprehensive AMC (including all spares & labour) YES/NO. (Tick the option YES/NO) for further years.
18. Compliance Statement with relation to specification
19. List of Govt. Offices to which supply is made including MSME Ministry  
\_\_\_\_\_.

( NAME OF THE BIDDER)  
WITH SIGNATURE & SEAL

Name of the Item: Purchase of **Optical Emission Spectrometer, CCD (Charge Coupled Device) & Disc Grinder for testing of ferrous, copper, aluminum & its alloys with proposed analytical programme**

**SPECIFICATIONS FOR OPTICAL EMISSION SPECTROMETER, CCD (Charge Coupled Device) & DISC GRINDER**

**for testing of ferrous, copper, aluminum & its alloys base with Nitrogen & proposed analytical programme**

The optical emission spectrometer should consist of

- CCD – DETECTORS WITH CLEAR SPECTRUM TECHNOLOGY
- SPARK STAND
- VACUUM SYSTEM / INERT GAS SYSTEM
- 400 M M ROWLAND CIRCLE OPTICS
- 2400 GROVES PER MM GRATING
- PASCHEN RANGE MOUNTING
- EXCITATION SYSTEM, SPECTRO PLASMA GENERATOR
- SPECTROMETER CONTROL
- READOUT SYSTEM
- SPARK ANALYZER SOFTWARE
- PROPOSED ANALYTICAL PROGRAMME – (AS ANNEX - A B C)
- SET OF RECALIBRATION SAMPLES FOR Fe, Al & Cu BASE

**DETAIL DESCRIPTION OF THE COMPONENTS**

**CCD – OPTIC (Charge Coupled Device)**

- High resolution CCD Multi detectors
- Effective wavelength range: 165 – 800 nm
- Drift free and stabilized against fluctuations in temperature
- Automatic profiling
- Analysis Modules-
- Freely selectable analytical modules
- Expansion of additional modules

**Spark Stand**

- Optimized UV – light path
- Sample clamp
- Optimized Argon flow
- Integrated shutter system for optimum plasma viewing
- Easily exchangeable spark stand plate- rapid sample change facility
- Argon save module for minimum consumption of Argon
- Suitable adaptors to hold samples of small size & thickness
- Exhaust system for flushing out of toxic vapors
- Ensure workers safety
- Open spark stand for high sample throughput and various kinds of sample geometrics.

- Excitation System
- Plasma Generator
- Fully digitized plasma generator with digital discharge definition, digital pulse generation and digital offline pulse control
- 32 MHz micro-controller
- Analytical time possibly less than 1 minute

### **Spectrometer control**

- Serial source interface
- 16 inputs for 16 CCDs
- High speed 12 Bit ADC
- DSP-Controller with 66 MHz

### **Spectrometer PC Control**

- External computer system
- INTEL – i 3 processor
- Memory –2GB RAM
- Operating system windows XP professional
- Hard disk drive -120GB
- DVD / CD –RW combo drive
- Second network card for TCP/IP interface
- Set of SUS / recalibration samples for Fe,Al&Cu Base Keyboard and mouse
- LED 19” flat screen
- HP laser jet printer

### **Analytical Software**

- User friendly system surface under Windows
- Function keys for routine operation
- Intelligent calibration – only one sample for standardization
- Concentration unit selectable ( %, ppm)
- Output of results in various concentrations and intensity mode
- Statistical data output- average, relative standard deviation
- Matrix correction
- Automatic programme selection for calibration, calculation of concentration proportions
- Automatic / user controlled storage / printout of analytical results and statistical data
- Quality check and quality identification function
- Software controlled Argon- saver
- Automatic hardware error diagnostic
- Calibration Software-
- Manual or automatic selection of polynomial order of curve fit
- Calculation of spectral interferences and inter element corrections
- Graphic display of calibration curves and calculated correction factors
- Identification of calibration standards by group
- Standards library

- ✓ System should have calibration programme for following elements in **Fe base alloy** C,Si, Mn,P,S,Cr,Mo,Ni,Al,Co,Cu,Nb,Ti,V,W,Sn,Mg,Sb,Zn Pb, Sn, As,Bi,Ce,B,La,Zr,Se,Ca,N,Ta.
- ✓ System should have calibration programme for following elements in **Al base alloy** Si, Fe, Cu, Mn, Mg, Cr, Ni, Zn, Ti, Ag, B, Ba, Bi, Be, Cd, Ce, Ga, Li, Na, P, Sb, Sr, V, Hg, Ca, Jn, Mo,As,Co,Pb,Sn.
- ✓ System should have calibration programme for following elements in **Cu base alloy** Zn, Pb,Sn,P,Zi,Mn,Fe,Ni,Si,Mg,Cr,Te,As,Sb,Cd,Bi.Ag,Co,Al,S,Be,Zr,Au,C,Se,O,B,Ti,Nb.

### **Important Accessories**

- Ultra high pure Argon gas cylinders 2 No's with explosive certificates along with regulator & Hose Pipe of stainless steel body.
- UPS with 30 min. backup facility
- Supplier should provide Air Conditioner to maintain room temp.  $25 \pm 3$  degree centigrade of room size 12X12 feet
- Supplier should provide standard reference or certified material for each calibration.

### **Important Notes**

- Spares and consumables for six months operation
- Bidder has to declare servicing agents in India.
- The party has to extend the servicing support and availability of spares for a period at least 2years.
- Necessary training is to be given after installation and commissioning at MSME-Testing Station Jaipur on the same machine.
- The bidder has to supply 4 set of operating and service manuals
- Spectrometer should be pre-calibrated and setting of the samples should be provided to standardized the spectrometer

### **SPECIFICATION FOR DISC GRINDER**

- 3H.P. , 2800 RPM, 3Phase motor for rotating disc and suction Blower, Rotating Disc 300 mm Diameter
- Polishing Papers of 60 grit with 350 mm dia and 40 mm bore
- Spare and consumables for 1 year

**MSME-DEVELOPMENT INSTITUTE**  
**22- Godown Industrial Estate, Jaipur- 302006**

**Tender Ref. No. : G- 2011/1/ACCTTS**

**Subject : Optical Emission Spectrometer, CCD(Charge Coupled Device) & Disc Grinder**

Date of Submission : On or before 17-11--2011 upto 05:00.p.m.

Date of Opening : 23.11.2011 at 10.30.a.m.

1. Tender should be addressed to the Director, MSME-DI , Jaipur , and submitted to the Office of the MSME- Testing Station, JAIPUR under sealed cover failing which the tender shall be rejected. Terms and conditions for supply should invariably be indicated otherwise would be taken on its face value. The rates may be quoted on separate sheets failing which the tender(s) will be rejected.

2. Mixed quotations will not be considered for acceptance.

3. In case of the tender documents downloaded from the website :- the bidders may download the tender documents directly from the website available at **www.msmedijaipur.gov.in** such case, the bidders are required to submit the tender cost fee of Rs.500/- (non-refundable) by way of separate demand draft drawn in favour of DIRECTOR MSME DI JAIPUR, and the same should essentially be enclosed alongwith the techno commercial bid. the bidders should specifically superscribe, "downloaded from the website" on the top left corner of the outer envelope containing techno commercial bid & price bid separately. in no case, the tender cost fee should be mixed with emd amount. The tenders not following the above procedure will be summarily rejected.

4. Tender should be submitted in two bid system containing two parts as detailed below:

- Techno-commercial bid in one sealed cover with E.M.D.
- Price bid/financial bid in one sealed cover.

both the sealed envelopes should then be put in one outercover indicating thereon:

i) Reference No. of the Tender \_\_\_\_\_

ii) Tender regarding \_\_\_\_\_

iii) Due date for submission of the tender : \_\_\_\_\_

iv) Due date for opening of the tender \_\_\_\_\_

v) Name of the firm \_\_\_\_\_

**PLEASE NOTE THAT PRICES SHOULD NOT BE INDICATED IN THE TECHNOCOMMERCIAL BID. THE PRE-QUALIFICATION DOCUMENTS INCLUDING E.M.D./BID SECURITY AS REQUIRED IN THE TENDER DOCUMENT SHOULD INVARIABLE BE ACCOMPANIED WITH THE TECHNO-COMMERCIAL BID.**

**NOTE:- TENDERS SUBMITTED WITHOUT FOLLOWING TWO BID SYSTEM PROCEDURE AS MENTIONED ABOVE WILL BE SUMMARILY REJECTED.**

5. The tenderers should give rates, showing taxes, if any, and levies, packing forwarding and insurance charges in Indian currency(Rupees)with full breakup details.
- 6.The rates should be F.O.R. MSME Testing Station 22 Godam , Jaipur
7. Payment will be made after satisfactory installation of the machines at the MSME-Testing Station Jaipur premises and training to the staff and after results comparison by interlab comparison for accuracy.
8. This tender document is non-transferable.
9. The bid document should be pagged and a certificate may be provided on the covering letter indicating the number of pages submitted alongwith the bid.
10. The compliance report of specification should invariably be provided indicating the fulfillment of each parameter of the specifications failing which the offer will be rejected.
11. The checklist may be furnished properly and page No. may be mentioned against each Serial Number.
12. The Tender forms be clearly filled in ink legibly or type written giving full address of the tenderers. The tenderers should quote in figures as well as in words the rates amount tendered by him/them. Any discrepancy between the figures and words, the amount written in words will prevail. Alterations/overwritings, unless legibly attested by the tenderer, shall disqualify the tenders. The tenders should be signed by the tenderer himself/themselves or his/their authorized agent on his/their behalf (Authorization may be enclosed, if applicable).
13. The forwarding letter/undertaking duly signed should invariably be returned alongwith quotations furnished, failing which the tender shall be rejected.
14. The tenderers should take care that the rates and amounts are written in such a way that interpolation is not possible, no blanks should be left which would otherwise, make the tender redundant.
15. The tender rates should be kept open/valid for a period of one year from the date the tenders are opened.
16. The tenderers shall clarify/state whether he/they are manufacturer, accredited agent or sole representative indicating principals name & address. The offers of firms who are not manufacturer or direct authorized agent will be summarily rejected. Sub-distributors will not be accepted.

17. Delivery prospects with definite date of delivery at destination taking into cognizance transit facilities must be indicated.
18. Each tender should be accompanied with an EMD/BID security amounting to Rs. (*as indicated in the tender notice*)/- by way of demand draft drawn in favour of “**DIRECTOR MSME DI JAIPUR**”, The EMD/BID security deposited against other tenders cannot be adjusted or considered for this tender. no interest is payable on EMD/BID security.
19. If the delivery is not effected on due date, the **DIRECTOR MSME DI JAIPUR** will have the right to impose penalty.
20. In case of non supply of Stores within the due date i.e. within the date of delivery, the **DIRECTOR MSME DI JAIPUR** will have the right to impose penalty, as deemed fit, to resort to risk purchase in full or part thereof at his/her discretion, his/her decision shall be final and binding.
21. Soft ware and Hardware upgradation The selected firm for the supply of tendered item will have to provide free up-gradation of software (all update & upgrades) upto 2 years from the date of satisfactory installation.
22. Rates quoted should be valid for 12 months from the date of opening of tender.
23. The tenderers may be required to demonstrate the quoted model of the equipment during the technical evaluation, if required, failing which their bids/offer shall be rejected. The firms are intimated that they should get ready for demonstration and only one-week time will be provided for arrangement of demonstration and no request for extending time for demonstration will be entertained. Failure to demonstrate, their offer will be summarily rejected.
24. Any other statutory levy imposed by the Govt. of India from time to time will be authorized extra on demand with adequate proof thereof will be paid extra.
25. Force meajure will be accepted on adequate proof thereof.
26. The **DIRECTOR MSME DI JAIPUR** shall be the final authority to reject full or any part of the supply which is not confirming to the specification and other terms and conditions.
27. No payment shall be made for rejected Stores. Rejected items must be removed by the tenderers within two weeks of the date of rejection at their own cost and replace immediately. In case these are not removed, these will be auctioned at the risk and responsibility of the suppliers without any further notice.

28. The **DIRECTOR MSME DI JAIPUR**, reserves the right to cancel/reject full or any part of the tender which do not fulfill the conditions stipulated in the tender.
29. Tenderers submitting tenders would be considered to have considered and accepted all the terms and conditions. No enquiries, verbal or written, shall be entertained in respect of acceptance or rejection of the tender.
30. Tender may be rejected if the copy of value added tax (vat) registration is not furnished (if applicable).
31. The quantity shown in the tender can be increased or decreased to any extent depending upon the actual requirement.
32. Any action on the part of the tenderer to influence anybody in the said Institute, will be taken as an offence, he will not be allowed to participate in the tender enquiry and their offer will not be considered.
33. Material confirming to the specifications should be quoted. Original Catalogue, Leaflets, literatures with full technical details should invariably be attached along with their offer, failing which their offer will be summarily rejected.
34. The tenderers must quote their model strictly as per tender specifications.
35. Genuine equipments and instruments etc. should be supplied. Tenderers should indicate the source of supply i.e. name & address of the manufacturers from whom the items are to be imported, country of origin, country of Shipment etc.
36. The quoted equipment should preferably be of Indian/International standards.
37. The tenders are required to quote the mode of shipment by Air/Sea/ Airport Parcel and should give separate breakup of freight and Insurance Charges.
38. Supply of equipment means-Installation and Commissioning at site. No separate charges will be paid separately on this account.
39. up time guarantee: The firm should provide uptime guarantee of 95%.
40. Guarantee/warrantee period: The tenderers must quote for 2 years comprehensive warranty (including all spares, accessories and labor) from the date of completion of the satisfactory installation. The warranty charges shall not be quoted separately otherwise the offer shall be summarily rejected. also the bidders are requested to

submit their quote (rates) for subsequent 3 years comprehensive AMC(including all spares, accessories and labor). failure to comply this condition will entail the rejection of the bids. the price comparison shall be made taking into account on basic price and post warranty cmc.

41 Delivery: The successful bidders should strictly adhere to the door delivery at MSMETesting Station Jaipur schedule supply, installation & Commissioning should be effected within 6 to 8 weeks from the date of supply order and this clause should be strictly adhere to failing which administrative action as deemed fit under rules will be taken against the defaulter.

42 SPARE PARTS: The separate price list of all spares and accessories and consumables, if any, (Including minor) required for maintenance and repairs in future after guarantee/warranty period must be attached/enclosed along with the sealed quotation failing which quotation will not be considered. If any spares & accessories other than the price list attached/enclosed by the firm are required for future repair it will be borne by the firm only.

43 The tenderers are required to furnish the list of spares along with their cost in the Financial bid failing which their bids are liable to be rejected.

44 The tenderer shall furnish a non-blacklisting certificate that the firm has not been blacklisted in the past by any government/Private institution. The tenderer/supplier has to give an affidavit on non-judicial stamp paper of Rs.10/- that there is no vigilance/CBI case pending against the firm/supplier and the firm has not been blacklisted in the past by any Govt. or Private Organization.

45 Payment of Agency Commission, if any, payable in rupees must be indicated. If no Agency Commission is admissible from the foreign suppliers must be indicated specifically.

47 Local agents quoting on behalf of their foreign suppliers must attach valid authority letter in their favour. In case of distributor, the firm should be direct distributor from the principal's. Either the Foreign Principals/manufacturers or their authorized Indian Agent should participate in the tender but not both. Also one agent cannot represent two suppliers or quote on their behalf in the same tender. The subdistributor authority by distributor will not be accepted at all. In case the firm is neither manufacturer nor direct authorized dealer of the manufacturer, such offers will be summarily rejected.

49 The rates quoted for the Stores/Equipments, under the reference, by the supplier shall in no event exceed the lowest price at which the suppliers of the Stores/Equipments of identical description are made to any other person/organization/Institution during the period and should attach an undertaking.

50 If, at any time, during the said period, the supplier reduce the said prices of such Stores/Equipment or sales such stores to any other person/organization/Institution at a price lower than the chargeable, he shall forthwith notify such reduction or sale to the Director, M SME D I JAIPUR and the price payable for the Stores supplied after the date of coming into force of such reduction or sale shall stand correspondingly reduced.

53 The supplier shall furnish a list of organizations where the equipment, in question, has/have been supplied with the period during the last one year and performance certificate from such organization may also be provided.

**(B) PAYMENT TERMS**

(A) 100% PAYMENT WILL BE MADE AFTER SUPPLY, installation & satisfactory demonstration of the said equipment and training to the staff on the same instrument.

And certificate/performance report of the user section .

(B) Payment shall be made through Electronic Clearing System /DD and the charges shall be deducted from the bill.



### PROPOSED ANALYTICAL PROGRAM FO Fe BASE.

Element	Fe - Global		Fe - Low Alloy Steel		Fe - Cast Iron	
	min %	max %	min %	max %	min %	max %
<b>C</b>	0.0050	4.50	0.0015	1.50	1.7000	4.50
<b>Si</b>	0.0010	6.00	0.0015	1.70	0.0020	5.00
<b>Mn</b>	0.0020	19.00	0.0005	2.50	0.0005	1.50
<b>P</b>	0.0050	1.20	0.0010	0.08	0.0010	1.20
<b>S</b>	0.0015	0.70	0.0005	0.12	0.0010	0.15
<b>Cr</b>	0.0050	35.00	0.0020	5.50	0.0020	1.30
<b>Mo</b>	0.0100	11.00	0.0010	1.40	0.0010	1.40
<b>Ni</b>	0.0050	46.00	0.0015	6.50	0.0015	1.80
<b>Cu</b>	0.0050	8.00	0.0005	0.80	0.0005	1.50
<b>Al</b>	0.0050	3.00	0.0010	1.10	0.0010	0.12
<b>As</b>	0.0020	0.10	0.0010	0.09	0.0010	0.09
<b>B</b>	0.0010	1.10	0.0002	0.01	0.0002	0.10
<b>Bi</b>	0.0010	0.12	0.0070	0.02	0.0070	0.02
<b>Ce</b>	0.0050	0.25	0.0025	0.05	0.0040	0.23
<b>Co</b>	0.0050	10.00	0.0005	0.90	0.0015	0.11
<b>Mg</b>	0.0050	0.12			0.0050	0.12
<b>Nb</b>	0.0010	3.00	0.0010	0.33	0.0010	0.07
<b>Pb</b>	0.0010	0.25	0.0030	0.25	0.0030	0.03
<b>Sb</b>	0.0010	0.15	0.0050	0.11	0.0050	0.15
<b>Sn</b>	0.0050	0.19	0.0005	0.13	0.0005	0.20
<b>Ta</b>	0.0030	0.55	0.0300	0.55		
<b>La</b>	0.0020	0.08	0.0010	0.03	0.0010	0.07
<b>Ti</b>	0.0010	2.50	0.0002	0.35	0.0005	0.30
<b>V</b>	0.0050	11.00	0.0005	0.80	0.0005	0.25
<b>W</b>	0.0010	19.00	0.0050	3.30	0.0050	0.06
<b>Zn</b>	0.0020	0.03			0.0010	0.03
<b>Zr</b>	0.0020	0.10	0.0010	0.10	0.0010	0.04
<b>Se</b>	0.0050	0.40			0.0030	0.03
<b>Ca</b>			0.0001	0.01		
<b>N</b>	0.005	0.65	0.005	0.65	0.005	0.65

**PROPOSED ANALYTICAL PROGRAM FOR Al BASE.**

Element	Al - Global		Al - Low Alloy		Al - Si	
	min %	max %	min %	max %	min %	max %
Si	0.0050	25.00	0.0003	2.00	5.0000	25.00
Fe	0.0020	3.30	0.0020	3.30	0.0020	1.60
Cu	0.0010	22.00	0.0010	0.45	0.0010	5.00
Mn	0.0020	1.30	0.0005	1.10	0.0005	0.70
Mg	0.0010	11.00	0.0001	1.70	0.0001	1.50
Cr	0.0020	0.37	0.0003	0.27	0.0020	0.27
Ni	0.0020	4.50	0.0010	0.30	0.0020	4.50
Zn	0.0020	12.00	0.0010	0.12	0.0020	5.50
Ti	0.0010	0.30	0.0001	0.18	0.0005	0.22
Ag	0.0005	1.10	0.0002	0.02		
B	0.0003	0.03	0.0002	0.03		
Ba	0.0010	0.02	0.0001	0.02		
Be	0.0003	0.08	0.0001	0.00	0.0003	0.07
Bi	0.0030	0.65	0.0020	0.65	0.0020	0.11
Ca	0.0002	0.02	0.0001	0.01	0.0001	0.03
Cd	0.0005	0.35	0.0003	0.13		
Co	0.0010	0.65	0.0010	0.03	0.0010	0.60
Ga	0.0020	0.04	0.0020	0.04	0.0010	0.03
In	0.0020	0.02	0.0020	0.02		
Li	0.0002	0.05	0.0002	0.05		
Mo	0.0050	0.02	0.0050	0.02		
Na	0.0005	0.03	0.0001	0.03	0.0005	0.01
P	0.0020	0.02	0.0010	0.01	0.0010	0.02
Pb	0.0050	1.00	0.0015	1.00	0.0030	0.20
Sn	0.0020	1.00	0.0020	0.02	0.0020	0.33
Sr	0.0010	0.15	0.0001	0.00	0.0002	0.14
V	0.0020	0.12	0.0010	0.06	0.0020	0.06
Zr	0.0020	0.33	0.0002	0.05	0.0010	0.11
Sb	0.0070	0.14	0.0070	0.20	0.0070	0.14
Hg	0.0020	0.08	0.0020	0.01		
As			0.0030	0.01		
Ce			0.0025	0.05		



### PROPOSED ANALYTICAL PROGRAM FOR Cu BASE.

Element	Cu - Global		Cu - Pure		Cu - Zn	
	min %	max %	min %	max %	min %	max %
Zn	0.0030	46.00	0.0002	0.14	12.0000	46.00
Pb	0.1000	22.00	0.0020	0.40	0.0020	3.30
Sn	0.0010	22.00	0.0002	0.11	0.0010	2.00
P	0.0050	1.10	0.0002	0.07	0.0005	0.25
Mn	0.0100	7.00	0.0001	0.14	0.0005	6.00
Fe	0.0050	6.50	0.0002	0.08	0.0005	5.00
Ni	0.0050	35.00	0.0005	0.45	0.0020	3.30
Si	0.0050	7.50	0.0005	0.04	0.0005	1.50
Mg	0.0050	0.20	0.0001	0.01		
Cr	0.0010	2.50	0.0002	0.90		
Al	0.0050	12.00	0.0005	0.02	0.0005	8.00
S	0.0050	0.13	0.0002	0.01		
As	0.0050	0.50	0.0005	0.03	0.0005	0.25
Be	0.0010	2.80	0.0001	0.01	0.0002	0.01
Ag	0.0010	1.60	0.0003	0.55	0.0005	0.03
Co	0.0050	2.40	0.0005	0.04		
Bi	0.0050	4.50	0.0005	0.08	0.0020	4.50
Cd	0.0020	0.13	0.0003	0.01	0.0020	0.13
Sb	0.0050	1.30	0.0015	0.30	0.0020	0.40
Zr	0.0050	0.40	0.0002	0.11		
Ti	0.0020	0.90	0.0001	0.00		
Au	0.0050	0.05	0.0010	0.06		
C	0.0020	0.04				
Nb	0.0050	1.30				
Se	0.0050	1.40	0.0002	0.03		
Te	0.0050	0.07	0.0030	0.07		
B			0.0002	0.01		
O			0.0070	1.10		



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### TENDER NOTICE

Sealed tenders in duplicate (technical and commercial separate covers)are invited from the reputed suppliers /manufacturers to purchase of following test equipments/machines in respect of the MSME Testing Station Jaipur

01.	Optical Emission Spectrometer,CCD (Charge Coupled Device) (Type & Specification as per tender document)	Qty 01 Set
02.	Disc Grinder (Type & Specification as per tender documents)	Qty 01 No.

The tender documents containing detailed specifications , terms & conditions can be had from the o/o the Director ,MSME DI Jaipur on the payment of Rs.500.00 (Rupees Five Hundred only) ( Non Refundable) either By cash or Demand Draft in favour of Director MSME DI Jaipur payable at Jaipur .The tender documents can also be download from our website [www.msmedi.jaipur.gov.in](http://www.msmedi.jaipur.gov.in) and the party will have to pay Rs.500.00 in the form of Demand Draft and should be submitted along with tender documents. The filled documents must be addressed to **THE DIRECTOR MSME DI JAIPUR** and submitted to the office of the MSME Testing Station Jaipur on or before 17<sup>th</sup> Nov.11 before 05:00 PM .Issue of tender documents will be from the Date of release of the advertisement till 16<sup>th</sup> November 2011 at 12.30 PM The technical & commercial Bids shall be opened on 23<sup>rd</sup> November 2011 at 10.30 AM in the presence of authorized representatives of theTenderers. The Director MSME DI Jaipur reserves the right to cancel the tender without assigning any reason.

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