

ANDREW YULE & COMPANY LIMITED
(A Government of India Enterprise)
Chennai Operation, Electrical Division
5/346 OLD MAHABALIPURAM ROAD
PERUNGUDI, CHENNAI: 600 096

TENDER DOCUMENTS FOR SUPPLY OF PRESSED STEEL RADIATORS

ANDREW YULE & CO. LTD. invites e-Tender under single stage two part system (**Part I: Techno-Commercial Bid and Part II: Price Bid**) for finalizing rate contract for supply of Pressed Steel Radiators, "**Scope of Work / Technical Specification**" as specified in this tender document.

Tender document may be downloaded from MSTC website www.mstcecommerce.com/eprochome/aycl. Corrigenda or clarifications, if any, shall be hosted on the above mentioned websites only.

AYCL reserves the right to accept or reject any tender.

We request you to submit your offer for the Pressed Steel Radiators as per our typical drawing & Specification enclosed.

NAs (Center distance) : FROM 1100 MM TO 3000 MM

WIDTH : 520 MM

QUANTITY REQUIRED : 322 Nos.

36 NOS. PER MONTH APPROX. IN DIFFERENT NAs (CENTRE DISTANCE) WITH DIFFERENT NUMBER OF ELEMENTS.

The quantities mentioned are indicative only and the order will be released based on actual requirement.

The quantity mentioned in the Tender is our approximate requirement up to 30.06.2019.

Andrew Yule reserves the right to increase the tender quantity by 30 %.

DELIVERY: To be intimated from time to time as per our requirement, commencing within 4 weeks from the placement of our P/Order and as per our requirement.

The lead time required for the supply of Pressed Steel Radiator should be clearly indicated in your offer.

VALIDITY: Your offer should be valid for acceptance for a minimum period of 90 days from the date of tender opening.

The buyer reserves the right to accept or reject any or all the tenders or to waive any informality, minor deviation or omission without assigning any reasons whatsoever. The company reserves the right to reject any tenderer based on their past performance

Schedule of Tender

1.	TENDER NO.	<u>T-14/2018-19</u>
2.	MODE OF TENDER	e-Procurement System Online submission of Part I - Techno-Commercial Bid and Part II - Price Bid through www.mstcecommerce.com/eprochome/aycl The intending bidders are required to submit their offer electronically through this e-tendering portal. No physical tender is acceptable by AYCL/MSTC
3.	E-Tender No. / Event No.	AYCL/Electrical Division CO/36/18-19/ET/165
4.	Date of publication of e-Tender through publication MSTC/AYCL websites and Central Public Procurement Portal	22.08.2018
5.	Date of availability of NIT to the Vendors for downloading	22.08.2018
6.	Earnest Money Deposit	<ul style="list-style-type: none"> • "Earnest Money Deposit" of Rs.50,000 (Rupees Fifty Thousands only) should be paid by thro'NEFT/RTGS • Other document as described in Annexure II & IIA
7	Date of Starting of e-Tender for submission of Online Techno-Commercial Bid and Price Bid at www.mstcecommerce.com/eprochome/aycl	22.08.2018 -2.30 PM
8	Date of closing of Online e-tender for submission of Techno-Commercial Bid & Price Bid at www.mstcecommerce.com/eprochome/aycl	05.09.2018 -11.00 AM
9	Last date of submission/ uploading details of EMD & other documents at www.mstcecommerce.com/eprochome/aycl	05.09.2018 -11.00 AM
10	Date & time of opening of Part-I (Techno-Commercial Bid)	05.09.2018 -11.10 AM
11	Date & time of opening of Part-II (Price Bid)	To be intimated to the eligible vendor separately by email.

List of Annexure

Important Instructions for E-procurement	Annexure-I
Terms& Conditions	Annexure-II
General Terms& Conditions	Annexure-III
Online Techno commercial terms	Annexure-IV
Price Sheet	Annexure-V
Specification	Annexure -VI

Important Instructions for E-procurement

This is an e-procurement event of ANDREW YULE & COMPANY LTD Ltd.

You are requested to read the Terms & Conditions (Annexure- II,III,IV) of this tender before submitting your online tender. Tenderers who do not comply with the Conditions with documentary proof (wherever required) will not qualify in the Tender for opening of Price Bid.

1. Process of E-tender:

A) **Registration:** The process involves vendor's registration with MSTC e-procurement portal which is free of cost. Only after registration, the vendor(s) can submit his/their bids electronically. Electronic Bidding for submission of Techno-Commercial Bid as well as Price Bid over the internet will be done. The Vendor should possess Class III signing type Digital Signature Certificate. Vendors are to make their own arrangement for bidding from a PC connected with Internet. MSTC is not responsible for making such arrangement. (Bids will not be recorded without Digital Signature).

SPECIAL NOTE: THE PRICE BID AND THE COMMERCIAL BID HAS TO BE SUBMITTED ON-LINE AT www.mstcecommerce.com/eprochome/aycl

1) Vendors are required to register themselves online with www.mstcecommerce.com → e-Procurement → PSU / Govt. depts. → Register as Vendor under AYCL- Filling up details and creating own user id and password → Submit.

2) Vendors will receive a system generated mail confirming their registration in their email which has been provided during filling the registration form.

In case of any clarification, please contact MSTC/AYCL (before the scheduled time of the e-Tender).

Contact person (ANDREW YULE & COMPANY LTD):

1. Mr. A T E Pandian

Manager (Materials)

Ph. No: (044) 2496-0793

Email: atepandian@andrewyule.com

2. Mr Kingsley Rueben

Technical Assistant (EDP)

Mobile No: 91 9884446378

Email: reuben@andrewyule.com

3. Mr. R.Tamilselvan

Engineer (Materials)

Mobile. No: 91 9788520864

Email: tamilselvan@andrewyule.com

Contact person (E-Commerce, MSTC Ltd):

1. Mr. Vikash Kumar Jaiswal

Regional Manager (ERO)

MobileNo:9903042449

Email: vikash@mstcindia.co.in

2) Mr. Pritambiswas

Assistant Manager (ERO)

Mobile- 9903248755

Email: pbiswas@mstcindia.co.in

3) Mr. Mayank Jain

Assistant Manager (ERO)

Mobile- 9721277969

Email: mhjain@mstcindia.co.in

Help Desk No.: 033 22901004, will operate on all working days from 10 AM to 6PM for online support to the vendors

System Requirement:

- i) Windows XP-SP3 or above / Windows 7 Operating System
- ii) IE-7 or above Internet browser.
- iii) Signing & Encryption type digital signature
- iv) JRE 7 update 79 software to be downloaded and installed in the system. Security level should be medium
- v) To enable ALL active X controls and disable 'use pop up blocker' under Tools → Internet Options → custom level (Please run IE settings from the page www.mstcecommerce.com once)

2. Part-I: Uploading of EMD & other Documents:

Within specified Date & time the vendor must submit the documents as per the annexure. (Annexure II & II (A))

Bidding in e-Tender:

- a. No interest will be paid on EMD. EMD of the unsuccessful bidder(s) will be refunded by ANDREW YULE & COMPANY LTD. EMD to be paid along with the Document within the last date as mentioned in SOT.
- b. The process involves Electronic Bidding for submission of Techno Commercial Bid as well as Price Bid.
- c. The bidder(s) should submit their Techno Commercial Bids , upload payment details of tender fee, EMD & other documents and Price Bid through online in MSTC website www.mstcecommerce.com → e-procurement → Psu / Govt depts. → Login under AYCL → My Menu → Auction Floor Manager → live event → Selection of the live event.

- d. The bidder should allow to run an application namely enApple by accepting the risk and clicking on run. This exercise has to be done twice immediately after opening of Bid floor. Then they have to fill up Common terms /Commercial specification and save the same. After that clicking on the Techno-Commercial bid, if this application is not run then the bidder will not be able to save / submit his Techno-Commercial bid.
- e. After filling the Techno-Commercial Bid, bidder should click 'save' for recording their Techno-Commercial bid. Once the same is done, the Price Bid link becomes active and the same has to be filled up and then bidder should click on "**Save**" to record their Price Bid. Then once both the Techno-Commercial bid & Price Bid has been saved, the bidder can click on the "**Submit**" button to register their bid.
- f. Vendors are instructed to use link in **My Menu** to **Upload Documents** in document library. Multiple documents can be uploaded. Maximum size of single document for upload is 5 MB.
- g. Once documents are uploaded in the library, vendors can attach documents through *Attach Document* link against the particular tender. For further assistance please follow instructions of vendor guide.
- h. In all cases, bidder should use their own ID and Password along with Digital Signature at the time of submission of their bid.
- i. During the entire e-tender process, the bidders will remain completely anonymous to one another and also to everybody else.
- j. The e-tender floor shall remain open from the pre-announced date & time and for as much duration as mentioned above.
- k. Techno-Commercial bid will be opened electronically on specified date and time as given in the NIT. Bidder(s) can download Technical Comparative statement.
- l. Price bid will be opened electronically on specified date and time given in the NIT. Bidder(s) can download Price Comparative statement.
- m. All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.
- n. All electronic bids submitted during the e-tender process shall be legally binding on the bidder. Any bid will be considered as the valid bid offered by that bidder and acceptance of the same by the Buyer will form a binding contract between Buyer and the Bidder for execution of supply. Such successful tenderer shall be called hereafter **SUPPLIER**.
- o. It is mandatory that all the bids are submitted with Digital Signature Certificate otherwise the same will not be accepted by the system.
- p. Buyer reserves the right to cancel or reject or accept or withdraw or extend the tender in full or part as the case may be without assigning any reason thereof.

- q. No deviation of the terms and conditions of the tender document is acceptable. Submission of bid in the e-tender floor by any bidder confirms his acceptance of terms & conditions for the tender.
- s. Unit of Measure (UOM) is indicated in the e-tender Floor. Rate to be quoted should be in Indian Rupee as per UOM indicated in the e-tender floor/tender document.

E-tender cannot be accessed after the due date and time mentioned in NIT.

All notices / corrigendum and correspondence to the bidder(s) shall be sent by email only during the process till finalization of tender by ANDREW YULE & COMPANY LTD/MSTC LTD. Hence the bidders are required to ensure that their corporate email I.D. provided is valid and updated at the stage of registration of vendor with MSTC. Bidders are also requested to ensure validity of their DSC (Digital Signature Certificate).

Any order resulting from this open e-tender shall be governed by the terms and conditions mentioned therein.

No deviation to the technical and commercial terms & conditions are allowed.

ANDREW YULE & COMPANY LTD has the right to cancel this e-Tender without assigning any reason thereof.

The online tender should be submitted strictly as per the terms and conditions and procedures laid down in the website www.mstcecommerce.com/eprochome/aycl of MSTC Ltd.

The bidders must upload all the documents required as per terms of NIT. Any other document uploaded which is not required as per the terms of the NIT shall not be considered.

The bid will be evaluated based on the filled-in technical & commercial formats.

Bidders are requested to read the vendor guide and see the video in the page www.mstcecommerce.com/eprochome/mstc of MSTC Ltd. to familiarize them with the system before bidding.

**ANDREW YULE & COMPANY LIMITED
Chennai Operation, Electrical Division**

**General Information
Ref. Tender No.: T-14/18-19
(This document should be uploaded along with EMD)**

The applicants are required to furnish full information to the queries included in this form. In giving the particulars, the supporting documents/certificates as called for per queries at places, must be tagged with the application for evidencing the information furnished in the application.

1. Name of the firm in full :

2. Address, Telephone No.,
Fax No. & E-mail :
a) Address :

b) Telephone No. :

c) Fax No. :

d) E-mail ID :

3. Status of the organization :

4. Trade License No.
**(Please attach a photo
copy of the license) :**

5. Banker's name
(a) Name of the Bank :
(b) Name of the Branch :
(c) Account No. :

Note : A copy of Banker's Certificate to be attached.

6. GST Registration No.

7. I. T. Permanent Account No.:

8. Financial Capacity : Year (2016-17)

(a) Fixed capital :

(b) Working capital :

I/we hereby certify that the particulars furnished by me/us above are true to the best of my / our knowledge and belief and mis-representations of facts will render me/us liable to my/our action as may be deemed fit by Andrew Yule & Co. Ltd. (Chennai Operation) & have the sole discretion to reject or accept my/our candidature.

(Signature of the Applicant)
Office Stamp/Seal.

Place :

Date :

List of attachments:

Annexure-II (A)

The following documents are to be uploaded online at
www.mstcecommerce.com/eprochome/aycl

1. EMD: Rs. 50,000/= *

* Bidders may request for exemption from submitting EMD (Refer details given in General terms & conditions)

2. Tender fee Rs: 200 /= should be paid by way of RGTS/ NEFT *

* Bidders participating in the tender should upload the UTR details towards cost of tender document.

3. Copies of purchase orders & Performance Certificate from at least three reputed transformers manufacturers for having supplied Pressed Steel Radiators for transformers above 10 MVA rating during the year 2017-2018. Offers received without copies of purchase orders & performance certificate for the year 2017-2018 will be rejected.

4. Present customer Profile to be upload.

5. Bidders should have a minimum turnover of Rs.2 Crores per annum in last three financial years (2014-15, 2015-16 & 2016-17). Proof to be uploaded.

OFFERS RECEIVED WITHOUT ANY OF THE ABOVE WILL BE REJECTED

** Those who had participated and qualified in our earlier tender no.T-06/18-19 or bidders in AYCL-Chennai approved vendor list for fabrication of Press Steel Radiators need not submit the documents for sl.no.3, 4 and Annexure II (General Information). Proof of turnover for year 2016-17 alone needs to be submitted.

GENERAL & TERMS AND CONDITIONS

- 1) EMD: Rs. 50,000.00 (Rupees Fifty thousand only), should be paid by way of RGTS/NEFT.

For bidders already enlisted with AYCL- Chennai Operation, having outstanding amount more than the EMD amount or who have already submitted the EMD against our earlier tenders or those who have security deposit with Andrew Yule may apply for adjustment of the same. The total EMD should be Rs: 50,000/=

Bidders who are MSMED units may apply for exemption from furnishing EMD by making a specific request in writing and enclosing the necessary document in support of the same.

Bidders whose turnover is more than Rs: 50 crores may apply for exemption from furnishing EMD by making a specific request in writing and enclosing the necessary document in support of the same

If reason for non-submission of EMD or adjustment against the outstanding balance for EMD is not mentioned in Techno-commercial bid of tender, the tender will be rejected.

- 2) After the finalization of tender, individual rate contract will be issued to all successful bidders and the individual order will be released to all successful bidders based on the distribution of tender quantity as shown below,

Distribution of Tender quantity among all the qualified bidders.

Negotiated L1 price will be offered to other bidders whose price bid was opened. The tender quantity will be split among bidders as follows.

- a) If only one bidder (among L2, L3, L4, L5, L6, etc) agrees to match the negotiated L1 bidders price then tender quantity will be split as follows

L1 bidder will get 70 % of Tender quantity

Other bidder who agreed to match the negotiated L1 landed price will get 30 % of Tender quantity

- b) If two or more bidders (among L2, L3, L4, L5, L6, etc) agree to match the negotiated L1 bidders landed price then Tender quantity will be split as follows

L1 bidder will get 60 % of Tender quantity

Next higher bidder than L1 bidder who agrees to match the negotiated L1 landed price (Bidder 'A') will get 25 % of Tender quantity

Next higher bidder than Bidder 'A' who agrees to match the negotiated L1 landed price will get 15 % of Tender quantity.

- c) If none of the other bidders whose price bid was opened agree to match the negotiated L1 price L1 bidder will get the entire tender quantity

3) **Price Variation Clause:** Price Variation claim shall be allowed over the quoted base price as under.

- a) For every 1 Rupee/Kg. Increase/decrease in JPC Market Price (Retail) basic price (exclusive of GST) of CR coil 1.0 mm thick, the price per section(Fin) will increase / decrease as shown in the table below.
- b) The price per section (Fin) quoted by you shall be based on the JPC Market Price (Retail) of Rs: 53.83/Kg (Chennai base price exclusive of GST) as on 01.08.2018. The JPC circular can be obtained from JPC Kolkata for considering the change in price of 1mm thick CR coil and to raise bills based on PVC. As the displayed price includes the GST therefore the GST shall be subtracted from the rate applicable time to time. The existing rate of GST is 18 % as on 01.08.2018.
- 3) JPC Market Price (Retail) (Chennai base price exclusive of GST) of 1mm thick CR coil applicable for 30 days prior to actual dispatch date or PO dispatch date whichever is lower shall be considered for PVC claim, for example, if radiator is dispatched on 10.10.18 and PO dispatch is 10.09.18, JPC price applicable for 10.08.18 or 10.09.18 whichever is lower shall be taken for PVC claim

INCREASE / DECREASE IN PRICE PER SECTION (FIN) FOR EVERY ONE RUPEE
INCREASE / DECREASE IN JPC BASIC PRICE (EXCLUSIVE OF GST) PER KG.

NA (CENTRE DISTANCE) IN mm	WIDTH 520 mm
1100	11.55
1200	12.57
1300	13.60
1400	14.63
1500	15.65
1600	16.68
1700	17.71
1800	18.73
1900	19.76
2000	20.78
2100	21.81
2200	22.84
2300	23.86
2400	24.89
2500	25.82
2600	26.94
2700	27.97
2800	29.00
2900	30.02
3000	31.05

4) THE RIGHTS OF THE COMPANY

Bidders who have quote other payment terms & condition having financial implication will be loaded as per Andrew Yule's norms.

We reserve the right to accept or reject any or all the tenders or to waive any informality, minor deviation or omission without assigning any reasons whatsoever.

Short Closure of Rate Contract: AYCL reserves the right to short close the rate contract at any point of time during validity of the contract with suitable prior notice to the bidders / vendors

Our Bank details for making RTGS payment.

Bank Name and Address	ALLAHABAD BANK CHENNAI ADYAR BRANCH 19,1ST STREET, PADMANABHA NAGAR CHENNAI 600 020
IFSC Code	ALLA0211103
Account No	20276303182
Account Name	ANDREW YULE & COMPANY LIMITED

TECHNICAL SPECIFICATIONS

1. Radiator should be manufactured as per our Drg.TG 11969 Rev.0 and our Specification No.SMF112 R0 and will be inspected as per our inspection plan no.QAP -113 Rev.0 (Third Issue) enclosed

2. Painting:

a) For Enamel painting- (Total film thickness 70 microns)

Radiators shall be sand/grit blasted before paint is applied Two coats of Red oxide primer and one coat of Enamel finish paint with total film thickness of 70 Microns minimum to be applied.

b) For Epoxy primer with Polyurethane finish paint - (Total film thickness 70 microns)

Radiators shall be sand/grit blasted before paint is applied. Two coats of Epoxy primer and two coats of Polyurethane finish paint with total film thickness of 110 Microns minimum to be applied.

c) For Epoxy primer with Polyurethane finish paint - (Total film thickness 110 microns)

Radiators shall be sand/grit blasted before paint is applied. Two coats of Epoxy primer and two coats of Polyurethane finish paint with total film thickness of 110 Microns minimum to be applied

Test certificate should be submitted along with consignment.

3. PACKING

i) Radiators are to be supplied in wooden packing crates as per our enclosed drawing TG-11969. The packing crates should be strong enough for re-dispatch to our customers' destination.

ii) The radiator flange shall be covered with gasket and blind cover of minimum thickness 3 mm and bolted securely to avoid entry of dust/moisture.

iii) Maximum number of radiators to be packed / crate should be 2nos and it should be securely packed to avoid any damage to fins during transit / storage.

Quality of Radiators should be as per IS/IEEMA /as per our specifications.

4. QUALITY CONTROL

The radiators should be pressure tested as per relevant standards and test certificate should be furnished. The radiator should have a serial number punched on the top flange. The radiators should be inspected for dimensions, straightness, and level of both flanges and alignment of flanges. You have to send a Test certificate certifying all critical dimensions, pressure test results. You have to write our job numbers on the Wooden Crates.

5. IDENTIFICATION

Vendor identification should be marked on the crates as well as on the radiator. Our Works Order Number, Purchase order No and date and No. of units should be mentioned on the packing crates.

TECHNO-COMMERCIAL TERMS FOR PRESSED STEEL RADIATORS

(**To be filled online in mstc portal**).

SL NO	TERMS & CONDITIONS	VENDOR RESPONSE
1	<p>REQUIREMENT</p> <p><i>E-Tender offers are invited for Entering into Rate Contract for supply of Pressed Radiators as per our drawing & Specification as per the following details.</i></p> <p>Pressed Steel Radiators 322 Nos Approx</p> <p>The quantity mentioned in the Tender is our approximate requirement up to 30.06.2019.</p> <p>Andrew Yule reserves the right to increase the tender quantity by 30 %.</p>	AGREE
2	Radiator should be manufactured as per our Drg.TG-3435 Rev.2 and our Specification No.SMF112 R0 (Third Issue) and will be inspected as per our inspection plan No.QAP -113 Rev.0 and other details as per Annexure VI.	AGREE
3	Validity period of the offer: Your offer should be valid for acceptance for a minimum period of 90 days from the date of tender opening	AGREE
4	The rate quoted by you is F.O.R. Chennai (Inclusive of Packing, Forwarding and Insurance)	AGREE
5	If there is any defects in the radiator at site / our premises, the same should be replaced / rectified at free of cost within guarantee period.	AGREE
6	The rate quoted should be valid for supplies up to June 2019 with PVC	AGREE
7	Security Deposit - The EMD amount of the successful Bidder will be retained as security deposit towards the execution of the order and the same will be released after completion of order	AGREE
8	<p>Guarantee</p> <p>Radiators supplied should be guaranteed for minimum period of 12 months from the date of commissioning or 18 months from the date of dispatch whichever is earlier.</p> <p>During the period if the product is found defective due to any of the above reason you shall undertake to repair the same at FREE OF COST.</p>	AGREE
9	Risk purchase clause: The company reserve the right to impose risk purchase clause as " For delay in execution / supply we shall have every right to do the same through some other agency/s which shall deemed fit and the additional cost of the same (Incidental/Consequential) shall be to your account which with respect to our intimation or observation whatsoever.	AGREE

10	Liquidated damage – If the delivery is delayed beyond the date of scheduled date of dispatch in the purchase order, penalty will be levied @ 1/2% per week subject to a maximum of 5%	AGREE
11	Legal condition: Any contract entered against this tender will be as per the following legal condition It is recorded that this purchase order / contract / agreement is executed and concluded by and between the parties hereto at premises No.5/346, Old Mahabalipuram Road, Perungudi, Chennai 600 096 and in the event any dispute arises out of this agreement between the parties only the appropriate Civil Court in the City of Kolkata shall have the exclusive jurisdiction to entertain, try and determine the said proceedings in exclusion of all other courts.	AGREE
12	Price Variation Clause: Price Variation claim shall be allowed over the quoted base price as under. a) For every 1 Rupee/Kg. Increase/decrease in JPC Market Price (Retail) basic price (exclusive of GST) of CR coil 1.0 mm thick, the price per section(Fin) will increase / decrease as shown in the table below. b) The price per section (Fin) quoted by you shall be based on the JPC Market Price (Retail) of Rs: 53.83/Kg (Chennai base price exclusive of GST) as on 01.08.2018. The JPC circular can be obtained from JPC Kolkata for considering the change in price of 1mm thick CR coil and to raise bills based on PVC. As the displayed price includes the GST therefore the GST shall be subtracted from the rate applicable time to time. The existing rate of GST is 18 % as on 01.08.2018. c) JPC Market Price (Retail) (Chennai base price exclusive of GST) of 1mm thick CR coil applicable for 30 days prior to actual dispatch date or PO dispatch date whichever is lower shall be considered for PVC claim, for example, if radiator is dispatched on 10.10.18 and PO dispatch is 10.09.18, JPC price applicable for 10.08.18 or 10.09.18 whichever is lower shall be taken for PVC claim	AGREE
13	The credit period will start from the date of receipt of material at Andrew Yule, Perungudi, Chennai.	AGREE
14	Your price offered should be inclusive of accessories like air vent plug and flanges and drain plug, with 16 mm flange ,painting (Enamel paint), Packing, Insurance, freight for Delivery at our PERUNGUDI STORES at CHENNAI.	AGREE
15	EMD : Rs. 50,000/= UP LOADED Bidders may request for exemption from submitting EMD (Refer details given in General terms & conditions	Remark field
16	Tender fee Rs: 200 /= should be paid by way of RGTS/ NEFT UP LOADED Bidders participating in the tender should upload the UTR details towards cost of tender document.	Remark field


17	Customer Profile UP LOADED **Those who had participated and qualified in our earlier tender no.T-06/18-19 or bidders in AYCL-Chennai approved vendor list for fabrication of Press Steel Radiators need not submit the customer profile.	Remark field
18	Copies of purchase orders & Performance Certificate from at least three reputed transformers manufacturers for having supplied Pressed Steel Radiators for transformers above 10 MVA rating during the year 2017-2018. Offers received without copies of purchase orders & performance certificate for the year 2017-2018 will be rejected. UP LOADED **Those who had participated and qualified in our earlier tender no.T-06/18-19 or bidders in AYCL-Chennai approved vendor list for fabrication of Press Steel Radiators need not submit the Performance Certificate	Remark field
19	Bidders should have a minimum turnover of Rs.2 Crores per annum. Please enclose copy of last 3 years P&L Account (2014-15, 2015-16, 2016-17) UP LOADED **Those who had participated and qualified in our earlier tender no.T-06/18-19 or bidders in AYCL-Chennai approved vendor list for fabrication of Press Steel Radiators, balance sheet (P&L A/c) for 2016-17 only needs to be uploaded.	Remark field
20	Reverse Auction (RA): The tender will be finalized by reverse auction. The bidders participating in the tender has to submit their bid online. The L1 price among the qualified bidder will be taken as the starting price for the RA. The starting price and bid decrement will be announced before start of online reverse auction. The qualified bidders can thereupon start bidding in an iterative process wherein the lowest bidder at any given moment can be displaced by an even lower bid of a competing bidder, within a given time frame. The bidding is with reference to the current lowest bid in the reverse auction. All bidders will see only the current lowest quoted price. More than one bidder cannot give an identical price, at a given instant, during the reverse auction (i.e.) there shall never be a tie in the bids. Confirm your acceptance of participating in the reverse auction.	Remarks Filed
21	Please indicate the quantity of Radiators you will be able to supply per month	Remark field
22	PAYMENT TERMS: Direct Credit In case it is agreed fill 23 with number of days of direct credit.	Remarks Filed
23	Please indicate the number of days of direct credit. (Andrew Yule payment terms is minimum 90 days direct credit. If the offered payment terms is less than 90 days, bids will be opened at the sole discretion of Andrew Yule & price will be loaded as per Andrew Yule norms)	Remarks Filed
24	PAYMENT TERMS: - Against L/c Bidders, who wish to quote with L/c, fill AGREE IN 24 and fill 26 with number of days of credit. Bidders, who have filled agreed in 22 and filled credit days in 23 should fill " Disagree " in 24 and fill 26 with 0	Remarks Filed

25	If L/c payment term is selected then the L/c opening charges will be to the bidders account.	AGREE
26	Please indicate the number of days of credit against L/c (Andrew Yule payment term is minimum 90 days direct credit. For bidders offering L/c payment terms , bids will be opened at the sole discretion of Andrew Yule & price will be loaded as per Andrew Yule norms)	Remarks Filed
27	If a bidder select AGREE in both 22 and 24, their offer will not be accepted	AGREE
28	Additional charges for Epoxy primer with Polyurethane finish paint 70 micron DFT (as a % of price per section)	Remark field
29	Additional charges for Epoxy primer with Polyurethane finish paint 110 micron DFT (as a % of price per section)	Remark field

Annexure-V

PRICE FORMAT FOR SUPPLY OF PRESSED STEEL RADIATOR

SI.NO	DESCRIPTION	Quantity	BASIC PRICE PER Fin of width 520 mm(Rs)	IGST (%) (If not applicabl e please enter Zero)	CGST (%) (If not applicable please enter Zero)	SGST (%) (If not applicabl e please enter Zero)	Landed cost perFin (In Rs)
		No	A	B	C	D	Landed Cost =a
1	Rate per 100 mm of centre distance for a fin width of 520 mm	1					

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SPECIFICATION FOR PRESSED STEEL RADIATORS

I. GENERAL REQUIREMENTS

1.	Component	:	Pressed steel radiators.
2.	Application	:	For dissipating the heat generated in the transformers by convection.

II. SPECIFICATIONS

1.	Reference Standards	:	IEEMA-9/1990 latest and as per our drg.
2.	Material & construction	:	
	i)		Radiating sections shall be of 1.25 mm thick CRCA sheet conforming to grade D of IS 513.
	ii)		Top & bottom header pipes, end plate shall be of 2 mm thick CRCA sheet.
	iv)		The header pipe extension flanges, air release & drain plugs bracing straps, lifting lugs shall be as per the enclosed drawing.
	iv)		Washers for air release & drain plug shall be of 3 mm thick nitrile rubber or nylon.
3.	Surface preparation		
	A. External surface : The radiator shall be thoroughly cleaned for all weld flux by mechanical means and then followed by chemical treatment and phosphating for enamel paints.		
	The radiator shall be thoroughly sand blasted to grade Sa 2.5 (Near white metal finish) of IS 9954 for epoxy paints.		
	B. Internal surface : Internal surface shall be de-greased using a suitable solvent and flush coated with phenolic varnish conforming to class A of IS 350.		
4.	Painting of external surface		
	External surface of each radiator shall be given one of the following types of painting ,		
	i) Type PP : Painted with a coat/coats of red oxide zinc chromate primer conforming to IS 2074 to a minimum Dry Film Thickness (DFT) of 35 microns.		

				
Revision	Description	Prepared	Approved	Date
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- ii) Type PPF : Same as type PP plus coat/coats of synthetic enamel paint conforming to IS 2932 to a minimum DFT of 35 microns. The combined DFT of both primer and enamel paint shall not be less than 70 microns.
- iii) Type PE : Painted with a coat/coats of epoxy primer to a minimum DFT of 35 microns.
- iv) Type PEF : Same as PE plus coat/coats of epoxy finish paint with a minimum DFT 35 microns, combined DFT of both primer and epoxy paint shall not be less than 70 microns.

5. Extra Spare

Along with each crate of radiators two numbers air vent screw washers should be supplied without any extra cost.

III. TESTS

Following tests shall be performed on the radiators supplied.

a) Routine Tests

Following tests are to be carried out in all the radiators supplied.

- 1) Radiators shall be pressure tested for leak proofness under water at an air pressure of 2 Kg/sq.cm for 30 minutes minimum, without any leak.
- 2) Dimensional check as per our drawing and as mentioned in purchase order.

b) Type Tests

Following tests are to be carried out in one radiator of each size for each consignment.

- 1) Leak proof test with transformer oil conforming to IS-335 at 105°C, 1 Kg/sq.cm for 12 hours without any leaks.
- 2) Vacuum withstand for 5 mm of Hg for one hour. The permanent deflection at the centre of radiator should not exceed 0.5 mm.

IV EXTENT OF CHECK

100% testing of the radiators in each consignment.

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V. PACKING

- a. For detachable type radiators, flange openings should be bolted at all the four holes, blanked with 3 mm SRB cork sheets, 3 mm thick MS plate. Further it should be covered with suitable plastic cap to avoid entry of water particles inside the radiators.
- b. All radiators supplied must be strapped by providing 25 mm thick plates to the entire Length of the radiators between each radiator and necessarily packed inside wooden Crates with the following visible markings:
 1. Purchase order no. and date
 2. No. of sections
 3. Width of the radiators
 4. Centre to centre distance of radiator
 5. No. of radiators in each crate
 6. Weight of each crate
 7. Manufacturer's name and address

VI. DOCUMENTS

1. Test certificate shall accompany each consignment.
2. Installation & Maintenance manual shall be supplied with each consignment.

VII. ACCEPTANCE CRITERIA

As per SPT-134 (for Internal use only).

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SPT 134

**I. ACCEPTANCE CRITERIA FOR PRESSED STEEL RADIATORS FOR
SPEC.NO.SMF 112**

SL. NO	CHARACTERISTICS	UNIT	REQUIRED VALUE	TOLERANCE
01	Surface finish	-	As per PO.	-
02	Pressure test 30 minutes 2 Kg/sq.cm both in air and water		No leak should occur	-
03	Centre to centre distance of flange	mm	< 2000 > 2000	+/- 2 +/- 3
04	Width	mm	226 300 520	+/- 2 +/- 3 +/- 5
05	Gap between elements	mm	50	+/- 0.5
06	No. of elements	-	As per PO.	-



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MADRAS 600 096.

MATERIAL INSPECTION PLAN

QAP 113

PRESSED STEEL RADIATOR

Method of inspection :

1. Verification of manufacturer's test certificate for the following parameter
 - a) Surface finish both internal & external
 - b) Pressure test - Routine & Type
2. Checks on the material at our works.
 - a) Dimensional verification
 - b) Visual inspection

100% Inspection will be carried out

Prepared by : B. Hunkitharan
Designation : A M
Date : 20/8/95

Approved by : A. K.
Designation : D M - QC
Date : 30/8/95

