

**MADRAS FERTILIZERS LIMITED  
(A GOVT. OF INDIA UNDERTAKING)  
MANALI, CHENNAI 600 068**

**NOTICE INVITING TENDER  
ROLLER, TROUGHING, RUBBER LINED  
EPRO/MM/RUBBER LINED/090718/044 DATED 19.06.2018**

**SUMMARY**

Online bids are invited for Procurement of ROLLER, TROUGHING, RUBBER LINED. Bidders, who are interested to submit bids, may visit MFL website [www.madrasfert.nic.in](http://www.madrasfert.nic.in) ["Tenders" – "e-tenders"] or Central Public Procurement web <http://eprocure.gov.in/eprocure/app> Instructions for applying e-Tendering are given in **Annexure-1.**

For any clarification, please communicate to the following: **E-procurement cell**  
email: [epro@madrasfert.co.in](mailto:epro@madrasfert.co.in) / [eprol@madrasfert.co.in](mailto:eprol@madrasfert.co.in)

**Phone:** 044 25945318 / 25945313 / 2594 1261 Mr. A M Sridhar

<b>Description: ROLLER, TROUGHING, RUBBER LINED</b>	
Nature of Bidding	Two Stage Bidding : 1 <sup>st</sup> Part: Techno-Commercial Bid 2 <sup>nd</sup> Part: Price Bid
Commencement of viewing and downloading tender document from e-Tender Website	19.06.2018
Due date & Time for submission	09.07.2018 @ 16.00 HRS
Technical Bid Opening Date& time	10.07.2018,@ 14.30 HRS
Bid Submission (To be uploaded on or before the due date and time)	TWO Separate on-line bids (1) Technical & Commercial Bid (2) Price Bid To be submitted with price break up details as per <b>Annexure-4</b> on or before the date & time meant for submission of bids.
Procedure for opening of Online Bid	Bids will be opened in seriatim Techno-commercial and price bid.
Bid Validity	90 days from date of opening Techno – commercial bid
Price Bid Opening Date	Techno-Commercially qualified Tenderers only will be intimated
Negotiation	Per Clause 18 of Annexure 5
Payment Term	<b>30 days Credit Payment</b> thru RTGS from the date of receipt of material, subject to acceptance.
Delivery Period	30 Days from the date of PO / LOI
Bid Evaluation Basis	Per Clause 6 Annexure 5
Specification Details	Refer <b>Annexure-2</b>
LD Clause	Per Clause 17 of Annexure 5

**DGM –MM  
MADRAS FERTILIZERS LTD,  
MANALI,  
CHENNAI 600 068**

**LIST OF ANNEXURES**

Instructions for applying e-Tender	Annexure 1
Specification Details	Annexure 2
Techno-Commercial Bid	Annexure 3
Model Price Bid	Annexure 4
General Terms and Conditions- (Mandatory inclusion of GTC/STC)	Annexure 5
Tender Undertaking	Annexure 6
Information about Tenderer	Annexure 7
Format for RTGS	Annexure 8

**INSTRUCTIONS TO TENDERERS FOR APPLYING E-TENDER**

- 1.1 **Instructions to the Tenderers / Bidders for the e-submission of the bids online through the e-tender site of M/s National Informatics Center (NIC)**
  - 1.1.1 Bidders should do the registration in the tender site <http://eprocure.gov.in/eprocure/app> using the option available (online bidder enrolment). Then the Digital Signature registration has to be done with the e-token, after logging into the site. The e-token may be obtained from one of the authorised Certifying Authorities such as nCode / eMudhra / safe script.
  - 1.1.2 Bidder then need to login to the site through their user ID / password chosen during registration.
  - 1.1.3 The e-token that is registered should be used by the bidder only and should ensure safety of the same.
  - 1.1.4 The Bidders can update well in advance, the documents such as certificates, purchase order details etc., and these can be selected as per tender requirements and then send along with bid documents during bid submission.
  - 1.1.5 After downloading / getting the tender schedules, the Bidder should go through them carefully and then submit the documents as asked, otherwise, the bid will be rejected.
  - 1.1.6 If there are any clarifications, this may be obtained online through the tender site, or through the contact details. Bidders should take into account the Corrigendum published before submitting the bids online.
  - 1.1.7 Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender schedule and they should be in .pdf / .xls / .jpeg/.rar formats only.
  - 1.1.8 It is construed that the bidder has read all the terms and conditions before submitting their offer including General Terms & Conditions (GTC) and Special Terms & Conditions (STC). GTC & STC can be accessed through Company's website.
  - 1.1.9 The bidder has to submit the tender document online well in advance before the prescribed time to avoid any delay or problem during the submission process.
  - 1.1.10 After the bid submission, (the bid token number) given by the e-tendering system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender.
  - 1.1.11 The Tender Inviting Authority (TIA) will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders.
  - 1.1.12 The tendering system will give a successful bid updation message after unloading all the bid documents submitted and then a bid summary will be shown with the bid number, date and time of submission of the bid with all other relevant

details. The documents submitted by the bidders will be digitally signed using the e-token of the bidder and then submitted.

- 1.1.13 The bid summary has to be printed and kept as an acknowledgement as a token of the submission of the bid. The bid summary will act as a proof of bid submission for a tender floated and will also act as an entry point to participate in the bid opening date.
- 1.1.14 Bidder should log into the site well in advance for bid submission so that he submits the bid in time, ie., on or before the bid submission end time. If there is any delay, due to other issues, bidder only is responsible.
- 1.1.15 Each document to be uploaded through online for the tenders should be less than 8 MB. However, if the file size is less than 8 MB, the transaction uploading time will be very fast. The total size of the documents in all the covers put together, should be less than or equal to 8 MB.
- 1.1.16 The bidder should see that the bid documents submitted should be free from virus and if the documents could not be opened, due to virus, during tender opening, the bid is liable to be rejected.
- 1.1.17 The time settings fixed in the server side and displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time during bid submission.
- 1.1.18 All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not be viewable by unauthorized persons during bid submission and not be viewable by any one until the time of bid opening. Overall, the submitted tender documents become readable only after the tender opening by the authorized individual.
- 1.1.19 The confidentiality of the bids is maintained since the secured Socket Layer 128 bit encryption technology is used. Data storage encryption of sensitive fields is done.
- 1.1.20 The bidders are requested to submit the bids through online e-tendering system to the TIA well before the bid submission end date & time (as per Server system clock).
- 1.1.21 The bidder should log out of the tendering system using the normal log out option available at the top right hand corner and not by selecting (X) exit option in the browser.
- 1.1.22 Bidders should ensure that prices should not be indicated anywhere in the un-priced part. The prices should be indicated only in the price bid and nowhere else.
- 1.1.23 Bidders to note that if prices are indicated in their un-priced Techno-Commercial part their offer will be rejected and NO further evaluation or communication will be entertained in this regard.
- 1.1.24 Bidders to note that the very act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read all sections of the pages of the bid document including General Conditions of Contract without any exception and have understood the entire document and are clear about the requirements of the tender requirements.

**TECHNICAL BID Cum SPECIFICATION**

ROLLER, TROUGHING, RUBBER LINED 140 MM DIA X 235 MM LONG AS PER MFL DRG 2-75-265-REV 6	300.00 Nos.	25-0-34150
--	-------------	------------

**COMMERCIAL BID FORMAT**

1	<b><u>Name of the Tenderer</u></b>	
2	<b><u>Technical Specification of the Offered Item</u></b>	Furnished
3	<b><u>Address</u></b>	<u>E-mail</u>  <u>Mobile:</u>  <u>Land Line:</u>
4	<b><u>Payment Term:</u></b> <b>30 days Credit Payment</b> only from the date of receipt of material, subject to acceptance thru RTGS Transfer.	Accepted
5	<b><u>Delivery / Contract Period:</u></b> 30 Days from the date of LOI / PO	Accepted
6	<b><u>Delivery Term – Free Delivery</u></b>	Accepted
7	<b><u>Delivery Place</u></b> Stores, Madras Fertilizers Limited, Manali, Chennai 600 068	Accepted
8	<b><u>Packing &amp; Forwarding charges– Vendor’s Account</u></b>	Accepted
9	<b><u>Freight &amp; Insurance – Vendor’s Account</u></b>	Accepted
10	<b><u>Unloading at MFL</u></b> Tenderer must make arrangements for unloading the material at MFL Stores	Accepted
11	<b><u>Offer Validity:</u></b> 90 days from the date of opening of Tender	Accepted
12	LD clause (Refer Annexure-5)	Accepted
13	All other terms & conditions in Annexure – 5	Accepted

Signature of the authorized person :

Name of the authorized person :

Designation of the authorized person :

Seal of the organization :

**MODEL PRICE BID FORMAT**

Bidder's Ref No..... Dt.....

Sl.No.	Description	Qty. (Nos.)	Basic Rate per No in Rs in Words & figures
	(a)	(b)	(c)
1	ROLLER, TROUGHING, RUBBER LINED 140 MM DIA X 235 MM LONG AS PER MFL DRG 2-75-265-REV 6  ARTICLE CODE: 25-0-34150	300 Nos.	<b>DO NOT QUOTE PRICE IN THIS FORMAT</b>
2	GST %		
3	GST in RS.		
4	Landed Rate at MFL per No for Sl.No.1(1c+3c)		
5	Landed Value for Sl.No.1(4c x 1b)		

**NOTE:** A separate price bid in excel format is attached. Bidders should quote the prices & statutory levies only in that format.

Bidder should ensure that prices should not be indicated anywhere in the un-priced part.

Bidders to note that if prices are indicated in their un-priced techno-commercial part their offer will be rejected and no further evaluation or communication will be entertained in this regard.

Signature of the authorized person :

Name of the authorized person :

Designation of the authorized person :

Seal of the organization :

**GENERAL TERMS & CONDITIONS****1. CONSTITUTION OF THE TENDER**

The contractor shall not change the constitution of the constitution of the composition during the currency of the contract without the prior approval of MFL. Any change in the composition of contract and happenings like death / resignation of any partner / Director / Member shall be notified within 24 hours of such change / happenings by Registered Letter to DGM- C & MM Madras Fertilizers Ltd, Manali Chennai 600 068. On receipt of such information MFL reserves the right either to terminate or continue the contract.

The tenderer/contractor shall produce the copy of Power of Attorney granted in favour of the Signatory of the Tender and the Partnership Deed.

In the event of any dispute, Legal or other proceedings, by any party or parties concerning the constitution and/or composition and/or change in the tenderer/contractor's organization, MFL reserves the right to itself take such necessary action as it deems fit, including termination of the contract, with holding payments due to the Contractor.

The Contract if any, awarded to the tenderer/contractor shall be on the basis of 'Principal-to-Principal Contract' and the tenderer/contractor shall be deemed to be in an independent tenderer/contractor engaged for the performance of service / work / job in the manner and to the extent provided in these presents.

**2. VOLUME**

The quantity indicated in the tender is only tentative and the same is subject to revision. MFL reserves the right to increase or decrease the quantity.

**3. PRICE & TERMS OF DELIVERY**

In the event of awarding the contract / PO to the tenderer, the ordered rate during the tenure of the contract will be firm. The rate quoted should be for delivery of the goods at our Manali Plant site including transportation and unloading charges.

**4. INSPECTION & TESTING**

**Material** supplied will be inspected and tested per procedure and the material not meeting with our specification will be rejected.



## 5. REJECTION

All supplies should conform to specification as stipulated in **Annexure - 2**. Tenderer should ensure the quality before dispatching the consignment. If the material received is not conforming to our specification, the same shall be rejected. TENDERER must make necessary arrangements for removing the rejected material from our premises, immediately on receipt of intimation at their risk and cost, and arrange to replace the same with fresh supply conforming to our specification.

## 6 EVALUATION BASIS

The price bids of tenderers qualified in the techno-commercial bid alone will be considered for price evaluation and arrival of cost and selection will be on Techno-Commercially qualified "L1" basis.

## 7. UNLOADING

Tenderer should make arrangements to unload the material at MFL Stores.

## 8. MFL SAFETY RULES & REGULATIONS

Tenderer shall adhere to MFL Safety Rules and Regulations during supply of material. Smoking inside the factory premises is strictly prohibited.

## 9. TERMS OF PAYMENT

- ☞ Payment will be made on **30 days Credit Payment** basis from the date of receipt of material, subject to acceptance. **Tenderer to quote only for credit payment offering a credit period of 30 days.**
- ☞ Offers with payment term such as "payment thru Proforma Invoice" or "payment against documents thru bank" or "payment thru letter of credit" etc., **will be summarily rejected.**
- ☞ Bills have to be drawn on JGM-CA, Madras Fertilizers Limited, Manali, Chennai 600 068. Bills submitted should be duly supported by proof of delivery.
- ☞ Bills should be clearly marked with MFL Purchase Order No. and date and the tenderer's DC No. and Date.
- ☞ **Payment will be made only thru RTGS**, after reckoning the credit period from the date of receipt of bills at MFL for the accepted material.
- ☞ RTGS Form (**Annexure 8**) to be filled in, signed & sent along with the offer by the Tenderer to avoid any delay in processing payment

## 10. SUBLETTING & TRANSFER

Tenderer shall be solely responsible for rendering any or all the services. He shall not subject / transfer / assign the contract or any part thereof to others. All their dealing with third parties shall be without reference to MFL.

#### 11. **CANCELLATION OF ORDER**

Failure to comply with specification, terms & conditions or to perform or deliver as promised shall entitle the Purchaser to cancel all or any part of this order. Nothing herein shall limit the Purchaser's right in the event of the failure to perform by the Seller.

#### 12. **SUMMARY TERMINATION**

MFL reserves the right to terminate the supply contract due to any failure/breach on the part of the tenderer in discharging the services under the contract, or in the event of vendor becoming insolvent or going into liquidation. The decision of Madras Fertilizers Limited about the breach/failure on the part of the tenderer shall be final and binding on the tenderer.

MFL shall also have, without prejudice to any other rights and remedies, the right in the event of breach/failure by the tenderer of any of the terms and conditions of the Supply, or due to the tenderer's inability to perform as agreed for any reason whatsoever, to terminate the supply contract forthwith and get the supplies at the risk and cost of the tenderer and recover the losses, damages, expenses or costs that may be suffered or incurred by MFL. The decision of Madras Fertilizers Limited about the losses, breach/failure on the part of the tenderer shall be final and binding on the tenderer and shall not be called into question.

#### 13. **LAWS GOVERNING THE CONTRACT**

Contract will be governed by Laws of India for the time being in force and as amended from time to time and the Courts within whose jurisdiction the Registered Office of the Company is situated alone will have jurisdiction.

#### 14. **DEFINITION**

The term "Tender" shall mean & include the online bids and other attachments uploaded while submitting the bids online.

"Tenderer" shall mean and include those entering into agreement with MFL, their Heirs, Representatives, Executives, Administrators, Successors and their permitted assignees, as the case may be.

"Services" shall mean and include all items of work duties / responsibilities of the Tenderer and / or any other item of work not specified but consistent with general terms of the contract and entrusted by MFL.

## 15. **FORCE MAJEURE**

The terms and conditions of the orders shall be subject to force majeure. Neither seller nor MFL shall be considered in default of its obligation under this contract, if such performance is prevented or delayed because of war, hostilities, revolution, civil commotion, sabotage, strikes, lock outs, fires, floods, explosions, epidemics, accidents, freight embargoes on export or import to India, Acts of God, Acts of Government, should one or both parties be prevented from fulfilling their actual obligations by the state of force majeure lasting continuously for a period of 3 months the two parties should consult each other regarding future implementation of the contract.

Tenderer shall promptly notify the Purchaser in writing of such conditions and the cause thereof within twenty on days of occurrence of such event. Unless otherwise directed by the Purchaser in writing the Seller shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

## 16. **ARBITRATION**

Any or all disputes arising out of the contract / agreement shall be settled by mutual discussions and in the event of failure to do so, such dispute (s) shall be referred to a sole arbitrator, who will be appointed by mutual consent for settlement of such dispute (s) and whose decision shall be final and binding. In the event of failure to appoint such a sole arbitrator, with mutual consent, then the sole arbitrator will be appointed through the high court of judicature at Madras. Subject as aforesaid, the arbitration and conciliation act 1996 shall apply to the arbitration proceedings under this clause and such arbitration shall be in English and take place in the city of Chennai, Tamil Nadu.

## 17. **LIQUIDATED DAMAGES (LD Clause)**

In the event of placement of order on the successful tenderer, timely execution of the order per purchase order terms and delivery of the items within the delivery period as stipulated in the purchase order is very important. If the items are not delivered on or before the delivery date specified in the purchase order MFL reserves the right either to reject the material if supplied subsequently, or to receive the material subject to imposition of penalty at the rate of 0.5% of the invoice value for every week of delay or part thereof from the specified date of delivery subject to a maximum of 5% of the purchase order value (PO Value includes Basic Order value + applicable Statutory Levies and Freight & Transit Insurance charges (if applicable)). LD Clause is applicable for the part of the quantity, which is delivered late.

## 18. **NEGOTIATION** Applicable where there is only one techno-commercially qualified bid



**SPECIAL TERMS & CONDITIONS**

1. Conditional offers will not be considered.
2. Rate quoted should be valid for a period of 90 days from the date of opening of Bids. Other commercial terms should be kept firm till the completion of the contract / execution of the purchase order, except statutory levies. Revision, if any, in the statutory levies will be applicable, subject to adherence to other commercial terms like “delivery period”, etc.
3. In the event of placing the order, the tenderer should strictly adhere to the delivery date and should accept to deliver the ordered items on or before the delivery date as mentioned in the purchase order or as advised by MFL
4. Any unsolicited letter / fax / e-mail on price / other terms revision will not be entertained and such tenderers are liable to be disqualified from tender.
5. Any offer received against this tender from sister / associate concern and/or offers received after the due date will be summarily rejected
6. Canvassing in any form is strictly prohibited and the tenderers who resort to canvassing in any form shall be disqualified.
7. MFL will not be bound by any general/printed provisions of Tenderer’s offer.
8. Tenderer should clearly indicate the GST % & HSN code, wherever applicable. In case of any change in the GST, the same will be applicable from the effective date of implementation.
9. MFL shall have the right to inspect and test goods at any time and to reject unacceptable goods. The tenderer shall arrange collection of the rejected materials from MFL at his cost.
10. Notwithstanding purchaser’s acceptance or right to inspection and / or any other terms and conditions provided in the purchase order, tenderer warrants that all goods supplied hereunder are free from any defects in design materials and workmanship and that they fully comply with the specifications. Purchase order will be issued in reliance on the aforementioned warranty of the tenderer.
11. Demurrage, other expenses incurred owing to the tenderers not complying with the purchaser’s instruction will be to the tenderer’s account.
12. The enquiry shall not be assigned to anybody by the tenderer without obtaining the prior written consent of MFL.
13. Tenderer warrants that the goods described herein, and sale or use of them will not infringe any patent and tenderer covenants that he will defend at his own cost and expense every act which may be brought against the purchaser or against those

selling or using the purchaser's products for any alleged infringement of any patent by reason of the sale or use of such articles and tenderer agrees to pay all costs, damages, liens and profits recoverable in any such action.

14. Eligible NSIC registered Micro, Small & Medium Enterprises (MSMEs) participating in this tender and quoting price within L1 + 15% may be considered at the sole discretion of MFL. Such bidders may be allowed to supply up to 20% of the Purchase Order value if they are prepared to bring down the price equal to or less than the L1 price quoted by the Non MSMEs and where it is feasible to place Order on more than one vendor by splitting the quantity.
15. MFL reserves the right to accept or reject any or all the tenders or any part thereof without assigning any reason whatsoever.



**TENDERER UNDERTAKING****THE TENDERER HEREIN**

- Agrees, accepts and abides by all the terms, conditions and covenants of the tender having read and understood the tender documents in full including the specification, scope of work, instructions, forms, annexures, terms & conditions etc.
- Confirms and acknowledges that the bids placed by the tenderer are true, accurate & with the best knowledge of the tenderer
- Confirms that awarding of the contract/purchase order based on the bids of the tenderer is the sole discretion of MFL
- Undertakes to honour the bid(s), which is legally binding on, if the contract/purchase order is awarded to the tenderer.
- Accepts, SD & Liquidated Damages clauses and agrees to invocation of the respective clause(s) in case of non-fulfillment of commitment.
- Declares that M/s NIC provided the training to participate in e-Tender.
- Agrees to accept any changes, if any, to the tender that may be made subsequently after releasing the tender, but before the last date meant for submission of bids, with respect to specification, last date for bid submission and/or any other clauses/terms of the tender.
- Agrees to update any changes made the tenders & subsequent corrigendum from the e-Tendering portal of M/s NIC.

Signature of the authorized person:

Name of the authorized person :

Designation of the authorized person :

**INFORMATION ABOUT TENDERER**

<b>Sl. No.</b>	<b>Information Required</b>	<b>To be Filled in by Tenderer</b>
1	Name of the Tenderer	
2	Address of Registered Office and Branches	
3	Postal Address and Phone Number, Fax Number, Email ID etc.	
4	GST Registration No.	
5	MSME DETAILS GENERAL SC / ST	NUMBER YES / NO YES / NO

**ANNEXURE 8**

**MADRAS FERTILIZERS LIMITED**  
**BANK DETAILS & AUTHORISATION FOR RTGS/NEFT PAYMENT**

REQUIRED DETAILS	TO BE FURNISHED BY THE VENDOR		
VENDOR NAME			
ADDRESS			
TELEPHONE NO.		FAX No.	
EMAIL ID			
CONTACT PERSONS'S NAME		Designation :	
MOBILE NO.			
EMAIL ID			
COMPANY'S PAN NO.			
IMPORT EXPORT CODE			
BANK ACCOUNT NO.			
VENDOR'S BANK NAME			
BANK ADDRESS / PHONE NO.			
VENDOR'S BANK CODE (MICR) NO.		GRPT CODE	
VENDOR'S BANK ACCOUNT NO.		NEFT CODE	
		RTGS CODE	
BANK SWIFT CODE (For foreign vendors)			
	Type of Account	Saving Acct / Current Acct. (Strike out which is not applicable)	
ARE YOU A	Manufacturer YES / NO	Dealer YES / NO	Agent YES / NO
CATEGORY OF THE FIRM	A. Micro	B. Small	C. Medium
REGISTERED WITH NUMBER	GST	SSI No.	OTHERS

We hereby authorize Madras Fertilizers Limited to make all the payments due to us with respect to above referred Enquiry through RTGS/NEFT Transfer

Place:

Signature of Authorized Signatory:

Date:

Name:

SEAL:

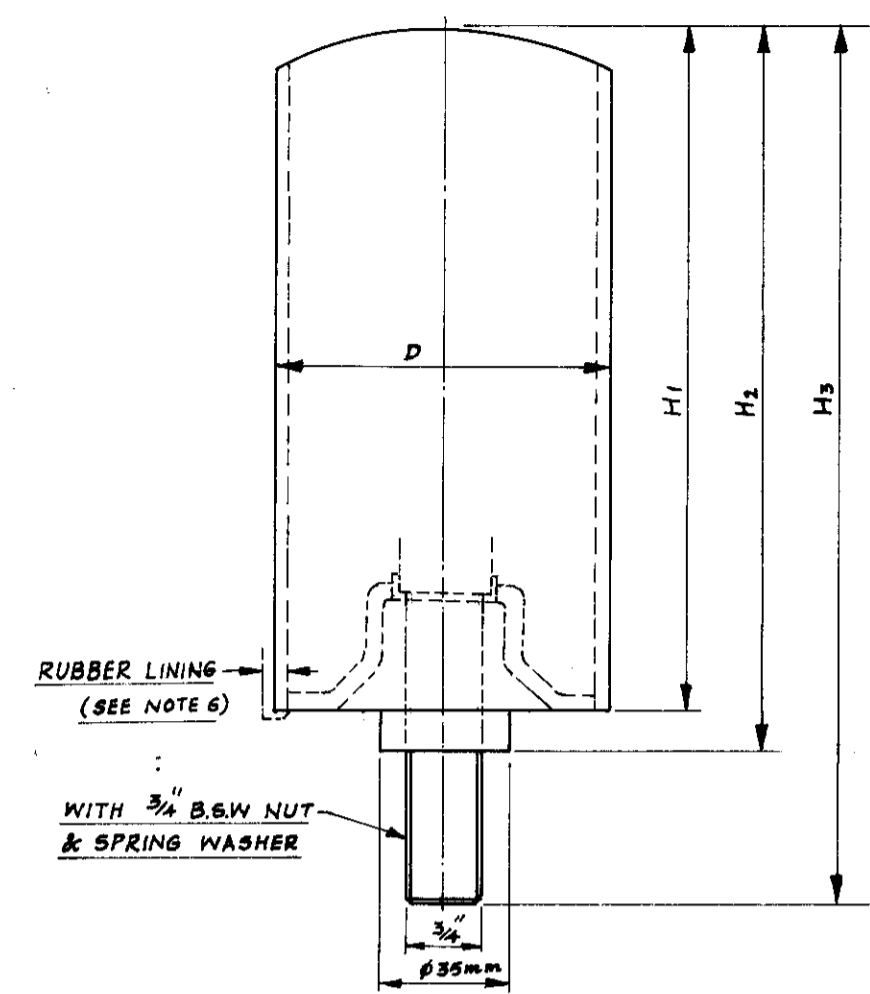
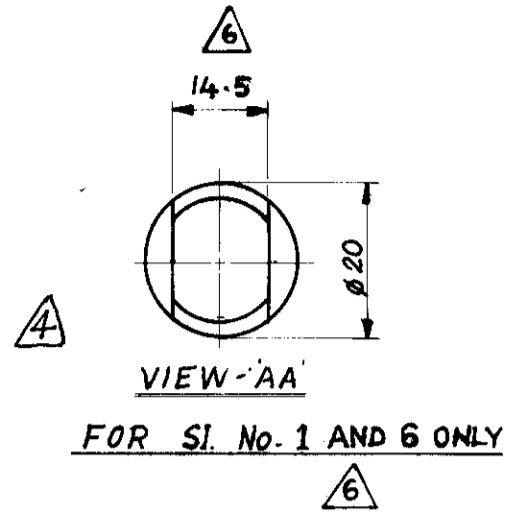
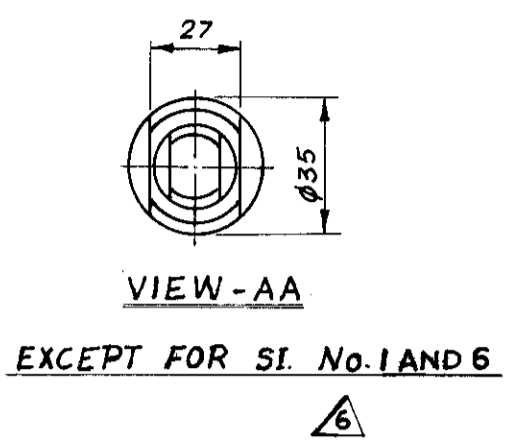
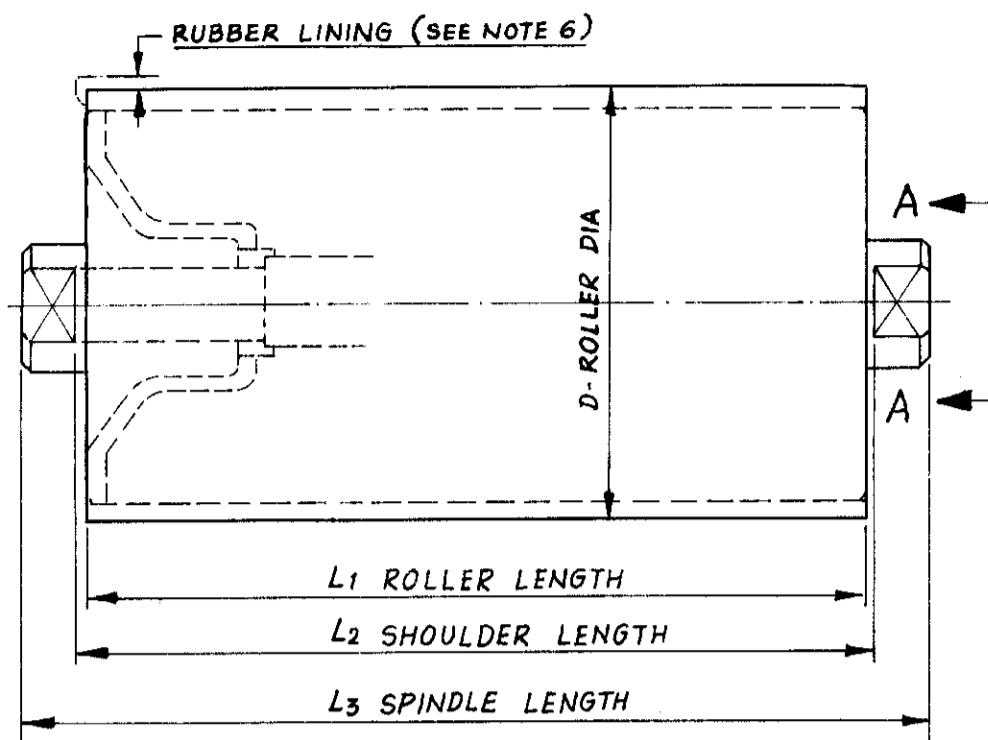
Designation:

(To be filled by MFL in case of ordering)

MFL Purchase Order No.	
------------------------	--

RTGS-Real Time Gross Settlement Code NEFT-National Electronic Funds Transfer  
 IFSC- Indian Financial System Code.





**TROUGHING & CARRYING ROLLERS**

SL.NO.	DESCRIPTION	ART. CODE NO	D mm	L <sub>1</sub> mm	L <sub>2</sub> mm	L <sub>3</sub> mm	RUBBER LINING YES / NO
1	TROUGHING ROLLER	25.0.34052	114.3	280	288	314	YES
2	CARRYING ROLLER	25.0.34070	88.9	850	860	884	YES
3	RETURN ROLLER	25.0.34130	140	700	710	734	NO
4	TROUGHING ROLLER	25.0.34150	140	235	238	264	YES
5	TROUGHING ROLLER	25.2.16050	114.3	280	290	314	YES
6	CARRYING ROLLER	25.0.34108	88.9	700	710	734	YES
7	RETURN ROLLER	25-2-34200	140	825	835	860	NO

**GUIDE ROLLER**

SL.NO.	DESCRIPTION	ART. CODE NO	D	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	RUBBER LINING YES/NO	SHORE HARDNESS
1	GUIDE ROLLER	25.0.34060	89 mm	180 mm	190 mm	250 mm	YES	A SCALE-65

**NOTES:-**

- ROLLER BODY TO BE FROM QUALITY ERW - CLASS C PIPE.
- BEARING HOUSING TO BE FROM DEEP DRAWN CRCA. STEEL WITH CLOSE TOLERANCES TO ENSURE PROPER ASSEMBLY OF BEARING, SEALS ETC.
- PROVEN MULTY-LABYRINTH SEALING ARRANGEMENT TO KEEP MOISTURE & VERY FINE DUST AWAY (NOTE THE SERVICE CONDITIONS IN OUR PLANT ARE HIGHLY DUSTY AND CORROSIVE), A RAIN CAP ON THE EXTREME OUTSIDE OF THE ROLLER TO ARREST WATER ENTERING ALONG SIDE OF THE SHAFT AND A BACK SEAL TO PREVENT GREASE ESCAPING TO THE ROLLER ARE REQUIRED.
- ROLLER SHAFT TO BE MADE FROM M.S. ROD PREFERABLY BRIGHT DRAWN STEEL
- BEARINGS, LABYRINTH AND SEAL CHAMBERS ARE TO BE FACTORY GREASED WITH HIGH GRADE GREASE SO THAT SUBSEQUENT GREASING IN THE FIELD NEED NOT BE DONE. SEIZE RESISTANT BALL BEARINGS (NO: 420204) MUST BE FITTED
- SEAMLESS NATURAL RUBBER LINING WHEREVER MARKED TO BE DONE TO A THICKNESS OF 6mm ± 1mm TO SHORE HARDNESS A 60 TO 65 EMPLOYING THE BEST MATERIALS & METHODS.
- ALL PARTS EXPOSED TO ATMOSPHERE SHOULD BE COATED TWICE WITH EPOXY PAINT TO ARREST CORROSION.
- THE MINIMUM SERVICE OFFERED SHOULD BE 12 MONTHS FROM THE DATE OF PUTTING INTO SERVICE OR 18 MONTHS FROM THE DATE OF SUPPLY.
- A SKETCH/CATALOGUE SHOWING THE ABOVE FEATURES SHOULD BE ENCLOSED ALONG WITH THE OFFER.

THIS SUPERSEDES DRG NO 3-30-339

PART NO.	DESCRIPTION	NO REQD.	MATERIAL	SPEC.	REMARKS

REV. NO.	REVISIONS	DATE	REVISED BY	CHECKED BY
6	DIMENSIONS OF L <sub>1</sub> , L <sub>2</sub> , L <sub>3</sub> CHANGED FROM 235, 238 & 264, IN VIEW AA DIMENSION CHANGED FROM 13 AND REVISIONS MARKED DONE.	07-03-01	J. SATHESH.	<i>[Signature]</i>
5	SEIZE RESISTANT BALL BEARINGS ADDED	15-12-92	S. Anandan	<i>[Signature]</i>
4	SHORE HARDNESS DETAIL ADDED AND VIEW-AA FOR SI. No. 6 DRAWN	17-1-89	P. JUDE	<i>[Signature]</i>
3	SHORE HARDNESS A 60 TO 65 WAS D 60 TO 65	29-6-88	K. VIVANATHAN	<i>[Signature]</i>
2	ADDED COLUMN NO: 7	3.12.82	P. M. RAO	<i>[Signature]</i>
1	NATURAL RUBBER WAS NEOPRENE RUBBER REF: KMR/SR250/81.	22-7-81	<i>[Signature]</i>	<i>[Signature]</i>

DEPT.	SIGNATURE	DATE

**CONCURRENCE**

UNSPECIFIED TOLERANCES AS PER IS 696-1972. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.  
 SMOOTH UNMACHINED SURFACE.  
 SMOOTH UNMACHINED OR ROUGH MACHINED SURFACE  
 ROUGH MACHINED TO RMS 6.3 MICRONS.  
 FINE MACHINED TO RMS 3.2 MICRONS.  
 VERY FINE MACHINED TO RMS 1.6 MICRONS.

**MADRAS FERTILIZERS LTD. MADRAS-68**

PLANT: \_\_\_\_\_ EQPT.: \_\_\_\_\_

DRAWN DATE: S. Sathish 25-7-80

CHECKED DATE: *[Signature]*

APPROVED DATE: *[Signature]*

PROJ. ROLLERS FOR BELT CONVEYORS

SCALE: -

REF. DRG. DRG. No. 2-75-265