

**Government of India
Bhabha Atomic Research Centre
Nuclear Fuel Group
Radiometallurgy Division**

Ref: NFG/RMD/FD&MS/SM/PK/WO/ 12108

Date: 2/11/2021

Sub: Tender enquiry for Fabrication, supply, testing and warranty / guaranty of "S.S Chair, S.S chair with platform, S.S Trolleys, Pin Casette, S.S Operator Chair and S.S Table with Rack" as per the attached Annexure and Drg. Nos. **Drawing no: BARC/RMD/FDMS/01, BARC/RMD/FDMS/02, BARC/RMD/FDMS/03, BARC/RMD/FDMS/04, BARC/RMD/FDMS/05, BARC/RMD/FDMS/06**

Dear Sir,

We request you to submit your quotation for Fabrication, supply, testing and warranty/guaranty of "S.S Chair, S.S chair with platform, S.S Trolleys, Pin Casette, S.S Operator Chair and S.S Table with Rack" as per the attached Annexure and Drawing. Nos., quantity specified in the table given below

S.No	Drawing No.	Quantity
1	BARC/RMD/FDMS/01	60 Set
2	BARC/RMD/FDMS/02	2 Set
3	BARC/RMD/FDMS/03	2 Set
4	BARC/RMD/FDMS/04	4 Set
5	BARC/RMD/FDMS/05	6 Set
6	BARC/RMD/FDMS/06	2 Set

You are requested to mention the Tax registration number (GST) and PAN number of the firm.
Please note quotations on computer-generated letter heads/form shall be rejected. Quotation on the Printed letterhead shall only be accepted.



Yours Sincerely,

(P.M.Khot)

SO/E, RMD

वैज्ञानिक अधिकारी / Scientist
भारत सरकार / Government of India
विकिरण धातुकी प्रभाग / Radiometallurgy Division
भाभा परमाणु अनुसंधान केंद्र / Bhabha Atomic Research Centre
ट्रॉम्बे, मुंबई - 400 085 / Trombay, Mumbai - 400 085.

ANNEXURE

1.SCOPE:

Fabrication, supply, testing and warranty/guaranty of "S.S Chair, S.S chair with platform, S.S Trolleys, Pin Casette, S.S Operator Chair and S.S Table with Rack " as per the Drawing. No. and quantity as specified in the table given below.

S.No	Drawing No.	Quantity
1	BARC/RMD/FDMS/01	60 Set
2	BARC/RMD/FDMS/02	2 Set
3	BARC/RMD/FDMS/03	2 Set
4	BARC/RMD/FDMS/04	4 Set
5	BARC/RMD/FDMS/05	6 Set
6	BARC/RMD/FDMS/06	2 Set

2.GENERAL:

- You shall send your offer in a sealed envelope indicating the delivery period, price inclusive of all the taxes and other relevant information, to:

Head, Radio Metallurgy Division
Nuclear Fuels Group
Radiological labs.
Bhabha Atomic Research Centre
Trombay, Mumbai- 400 0085
(Kind Attention: P.M.Khot, Radio Metallurgy Division)

Submission of an offer in Single Bid System:

This Envelope superscribing the Tender No & Due date should contain the following:

- The item should be as per the attached drawings (**Drawing no: BARC/RMD/FDMS/01, BARC/RMD/FDMS/02, BARC/RMD/FDMS/03, BARC/RMD/FDMS/04, BARC/RMD/FDMS/05, BARC/RMD/FDMS/06**). Formats duly stamped, signed & filled stating 'Accepted OR Deviation' as applicable for each of the clauses.
 - Deviation Sheet, in case of any deviations from given dimensional tolerance.
 - BID should contain the PRICES of the item and all applicable taxes.
- There should be NO OVERWRITING. The rates must be preferably typed.

The bids may be sent only by **Speed Post** well in advance so as should reach the undersigned at least one day before the tender closing date. Timely submission of the Bids is the responsibility of the bidders and no reasons/excuses in this regard will be entertained by the authority. BARC reserves the right to reject any or all bids and also to accept any tender in part or as a whole without assigning any reason thereof.

Note: Bidders in their own interest are requested to submit their bids well in advance of the tender closing date to avoid the last-minute difficulties.

- The quotation shall reach us on **25-11-2021**, before **11.30 hrs.**
- The supplier shall mention **PAN/TAN/CST/GST**.
- Please send "REGRET" if not quoting.
- On the top left corner of the envelope please indicate
Quotation For – “ Fabrication, supply, testing and warranty/guaranty of “S.S Chair, S.S chair with platform, S.S Trolleys, Pin Casette, S.S Operator Chair and S.S Table with Rack” as per the Drawing. No. BARC/RMD/FDMS/01, BARC/RMD/FDMS/02, BARC/RMD/FDMS/03, BARC/RMD/FDMS/04, BARC/RMD/FDMS/05, BARC/RMD/FDMS/06” and due date.”
- All applicable taxes should be clearly mentioned.
- Overwriting, scratching, etc. must be avoided in the quotation. Rewriting the whole figure shall carry out any alteration in the figure. The authorized person from the firm shall countersign such figure.
- The delivery period mentioned in the quotation shall be strictly adhered to. If the contractor fails to supply and secure extension of delivery date before effecting delivery of the supply against the contract, acceptance of such item by the purchaser will in no way prejudice the right of the purchaser to levy liquidated damage nor will it be entitled to the contractor for payment of statutory levies that comes into force after the expiry of the delivery date.
- Guarantee / Warranty of the material supplied for one year.
- The Early delivery schedule will be given consideration.
- You may contact us for any clarification on or before **27-09-2021**. (Shri P.M. Khot, Ph. No: 022-2559-0719, Shri Sudhir Mishra, Ph. No: 022-2559-5364)

3. SPECIFICATIONS:

Fabrication, supply, testing and warranty/guaranty of "S.S Chair, S.S chair with platform, S.S Trolleys, Pin Casette, S.S Operator Chair and S.S Table with Rack" as per the details given in the drawing No: "BARC/RMD/FDMS/01, BARC/RMD/FDMS/02, BARC/RMD/FDMS/03, BARC/RMD/FDMS/04, BARC/RMD/FDMS/05, BARC/RMD/FDMS/06"

3.1 S.S Chair (Drawing No: BARC/RMD/FDMS/01, Quantity: 60 Set)

It should be S.S Carver Arm Chair. The chair should be stackable for easy storage. The gap between chairs after stacking should be minimum. Seamless tubing of S.S 304 with 5/8" OD & 18 SWG should be used for frame. The back support and seating plate thickness shall be 1.5 mm. The material used must be ASTM SS-304 for all from bar stock/ forged/ rolled material plate/ Sheet. The supplier shall submit the mill test report (for chemical and mechanical properties) in co-relation with the material marking. All the surfaces shall be free from pits, dents, scratches and spatters of metal, etc. Laser cutting shall be performed for all cutting operations of back support and seating plates. Electro-polishing of individual chair components like back support plate, seating plate, frame shall be done before welding. TIG welding with SS 308L filler rod in an Ar inert atmosphere shall be performed for all weld joints. All joints should be grinded and properly finished for the smoothening the structure and all surfaces shall have M3 finish. The premium quality rubber bush should be provided for all legs to prevent scratching the floor surface.

- Note:** 1. Supplier should fabricate initially two sample chairs and get it approved from the purchase before production of bulk quantities.
2. Supplier should ready to carry out modifications as per ergonomics requirements.

3.2 S.S Chair with platform (Drawing No: BARC/RMD/FDMS/02, Quantity: 2 Set)

It should be S.S Carver Arm Chair with front platform. The front platform provided with rotating movement, clamping, and nut bolt fitting arrangement as per drawing. Seamless tubing of S.S 304 with 5/8" OD & 18 SWG should be used for frame. The back support and seating plate thickness shall be 1.5 mm. The material used must be ASTM SS-304 for all from bar stock/ forged/ rolled material plate/ Sheet. The supplier shall submit the mill test report (for

chemical and mechanical properties) in co-relation with the material marking. All the surfaces shall be free from pits, dents, scratches and spatters of metal, etc. Laser cutting shall be performed for all cutting operations of back support and seating plates. Electro-polishing of individual chair components like back support plate, seating plate, frame shall be done before welding. TIG welding with SS 308L filler rod in an Ar inert atmosphere shall be performed for all weld joints. All joints should be grinded and properly finished for the smoothening the structure and all surfaces shall have M3 finish. The premium quality rubber bush should be provided for all legs to prevent scratching the floor surface.

3.3 S.S Trolley (Drawing No: BARC/RMD/FDMS/03, Quantity: 2 Set)

The material used must be ASTM SS-304 for all from bar stock/ forged/ rolled material plate/ Sheet. The Box used for fabrication should be 25 x 25 mm. The S.S 304 solid rod of 14 mm OD should be used for frame. The plate thickness shall be 1.5 mm. The supplier shall submit the mill test report (for chemical and mechanical properties) in co-relation with the material marking. TIG welding with SS 308L filler rod in an Ar inert atmosphere shall be performed for all weld joints. All joints should be grinded and properly finished for the smoothening the structure and all surfaces shall have M3 finish. The load bearing capacity of trolley should be 50-100 Kg. The reputed make heavy duty wheels (360° rotation) with locking arrangement should be provided as per drawing and load bearing capacity.

3.4 Pin Casette (Drawing No: BARC/RMD/FDMS/04, Quantity: 4 Set)

The holes of side plates and support plates shall be drilled using suitable jig and fixture for matching with other mating parts. These holes are fitted with CNC machined Polypoylene Bush as per drawing. These bush should be easily removable and replacable. The tubes of 5.1 mm diameters should be easily inserted in holes fitted with the Polypoylene Bush. TIG welding with SS 308L filler rod in an Ar inert atmosphere shall be performed for all weld joints. All joints should be grinded and properly finished for the smoothening the structure. Electro-polishing of all pin cassettes along with support plates shall be performed after welding. All surfaces of S.S and Polypropylne bush shall have M3 finish.

3.5 S.S Operator Chair (Drawing No: BARC/RMD/FDMS/05, Quantity: 6 Set)

It should be S.S Operator Arm Chair. EN-19 hardened and tempered alloy steel lead screw of 1.5" (ACME, RH, 4 TPI, 3G Tolerance class) shall fitted with chair profile with nut arrangement for facilitating height adjustment. The lock nut shall be provided with lead screw for fixing the height of chair. The back support and seating plate thickness shall be 2 mm. The material used must be ASTM SS-304 for all from bar stock/ forged/ rolled material plate/ Sheet. The cladding of S.S shall be provided on back support and seating sheet so as to avoid sharp edges and corners. Seamless tubing of S.S 304 with 1" OD & 18 SWG should be used for frame. The supplier shall submit the mill test report (for chemical and mechanical properties) in co-relation with the material marking. All the surfaces shall be free from pits, dents, scratches and spatters of metal, etc. Laser cutting shall be performed for all cutting operations of back support and seating plates. Electro-polishing of individual chair components like back support plate, seating plate, frame shall be done before welding. TIG welding with SS 308L filler rod in an Ar inert atmosphere shall be performed for all weld joints. All joints should be grinded and properly finished for the smoothening the structure and all surfaces shall have M3 finish. The premium quality 6 nos. of heavy duty wheels (360° Rotation) with locking arrangement rubber should be provided for leg as per drawing for ease of movement.

- Note:** 1. Supplier should fabricate initially sample chairs and get it approved from the purchase before production of bulk quantities.
2. Supplier should ready to carry out modifications as per ergonomics requirements.

3.6 S.S Table with Racks (Drawing No: BARC/RMD/FDMS/06, Quantity: 2 Set)

The Box and Angle used for fabrication should be 20 x 20 mm. The material used must be ASTM SS-304 for all from bar stock/ forged/ rolled material plate/ Sheet. The supplier shall submit the mill test report (for chemical and mechanical properties) in co-relation with the material marking. The material thickness shall be 1.5 mm. The reputed make lock arrangement is essential for all drawers. The handles for each door and drawer should be provided as per drawing. TIG welding with SS 308L filler rod in an Ar inert atmosphere shall be performed for all weld joints. All joints should be grinded and properly finished for the smoothening the structure and all surfaces shall have M3 finish. The premium quality 8 nos. of heavy duty

wheels (360° Rotation) with locking arrangement rubber should be provided for leg as per drawing for ease of movement.

3.5 MACHINING & FABRICATION:

Workmanship shall be in accordance with high-grade practice, adequate to achieve the accuracy and Machining finish mentioned in the drawings. All materials shall be of high quality. All the surfaces shall be free from pits, dents, scratches and spatters of metal, etc. and shall have M3 finish.

In addition to the above points the General care is to be taken while machining part wise:

1. All material should be as specified on the Drawings. Mill certificate & Chemical analysis certificate is to be provided.
2. Quality Assurance Plan (QAP) should be submitted and get it approved before fabrication.
3. The material used should be of recent make & free from any defect.
4. The holes should be drilled using suitable Jig & fixture.
5. All sharp corners/ Burrs should be rounded to a suitable radius.
6. The tolerances should be as specified in the drawing.
7. The TIG welding shall be carried out whenever necessary. The DP test shall be carried out as per ASTM E 165 for all the welded joints. The machining shall be done after welding.

4. INSPECTION AND TESTING:

The purchaser shall have access at all reasonable times to all shops and the sub-contractors where the material is being fabricated and assembled and all reasonable facilities for such inspection shall be provided. A certificate shall be issued along with each component including inspection records and test results. Prior to the supply of an item, the manufacturer has to get it approved by the purchaser. The fabrication shop must be equipped with **Hydraulic or CNC press brake, Profile bending machine, swaging machine, pipe bending machine, Punching machine, CNC laser cutting Machine, CNC Lathe machine ,TIG welding etc.**

4.1. INSPECTION OF RAW MATERIALS:

Inspection of raw material: The inspector shall assure himself that all materials used comply with the requirements of respective codes. He shall examine mill test reports (for chemical and

physical properties) in correlation with material markings. Marking shall be done on all the plates/bar stocks and test coupons shall be taken in the presence of the purchaser. The test coupons shall be tested at NABL accredited lab only for chemical and mechanical tests.

The materials with Porosity and blowholes are not acceptable. The starting material for all the component shall be tested for ultrasonically for any porosity or blowholes. The acceptance shall be as per ASME Section VIII Div 1.

In case of doubt, the purchaser reserves the right to take the random samples from the raw material to be tested for Chemical analysis.

4.2 FINAL INSPECTION & ACCEPTANCE:

All the parts/components will be accepted only after the final inspection. Parts/components will be inspected as per the details below.

1. Visual inspection: finish, scratches, dents, distortions etc.
2. Dimensional inspection: Every part shall be checked as per dimensions using suitable instruments.
3. All the documents/test reports shall be submitted.
4. All rectification and subsequent tests shall be provided at the contractor's expense to the satisfaction of the purchaser

5. Delivery Schedule:

The delivery period mentioned in the quotation shall be strictly adhered to. If the contractor fails to supply and secure extension of delivery date before effecting delivery of the supply against the contract, acceptance of such item by the purchaser will in no way prejudice the right of the purchaser to levy liquidated damage nor will it be entitled to the contractor for payment of statutory levies that comes into force after the expiry of the delivery date. Any delay which is attributable to the contractor is liable for penalty @ $\frac{1}{2}$ % per week (max 5%) to be imposed on the contractor. For any delay, the Party shall submit a request for an extension in the delivery period before the expiry of the work order for consideration.

6. PLACE OF DELIVERY:

The inspected and accepted components shall be delivered to:

Stores Officer
Radiological Zonal Stores.
Bhabha Atomic Research Centre
Mumbai 400 085.

7. PAYMENT TERMS:

Full payment will be made only after the satisfactory completion of the Work order and delivery of "S.S Chair, S.S chair with platform, S.S Trolleys, Pin Casette, S.S Operator Chair and S.S Table with Rack" Please note that income tax @ 2% will be deducted from your bill. *No part payment or advance payment will be made.* For this mode of payment, you are required to draw your invoice in the name of Head, Radiometallurgy Division, Bhabha Atomic Research Centre, Mumbai 400085, in triplicate along with Advance Stamp receipt and to be submitted along with "S.S Tables and Racks".

8. CONFIDENTIALITY CLAUSE :

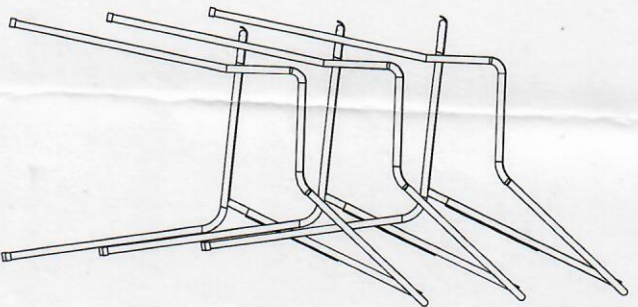
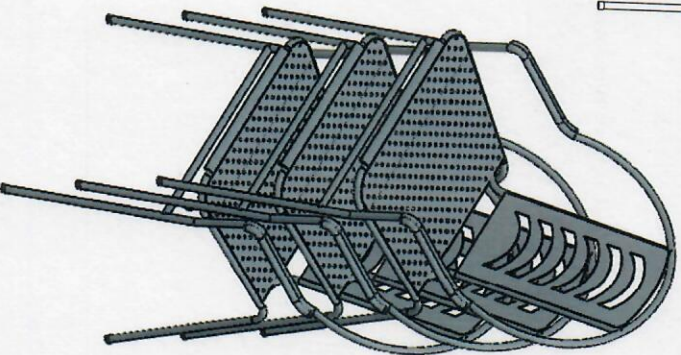
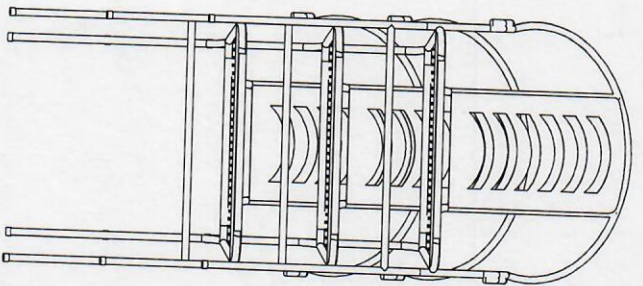
No, party shall disclose any information to any third party, concerning the matters under this contract generally. In particular, any information identified as "Proprietary" in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party.

This clause shall apply to the sub-contractors, consultants, advisers or the employees engaged by a party with equal force.

"Restricted information" categories under section 18 of the Atomic Energy Act, 1962 and "Official Secrets" under section 5 of the official secrets act, 1923;- Any contravention of the above-mentioned provisions by any contractor, sub-contractor, consultant, adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation.

Prohibition against use of BARC's name without permission for publicity purposes:-The contractor or sub-contractor, consultant, adviser or the employees engaged by the contractor shall not use BARC's name for any publicity purpose through any public medial like press, radio, T.V. or Internet without the prior written approval of BARC.

वैज्ञानिक अधिकारी / Scientific Officer
भारत सरकार / Government of India
(P.M. Khot)
विकिरण धातुकी प्रभाग / Radiometallurgy Division
भाभा परमाणु अनुसंधान केंद्र / Bhabha Atomic Research Centre
द्रावे, मुंबई - 400 085 / Trombay, Mumbai - 400 085.



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS				FINISH:	
TOLERANCES:				SURFACE FINISH:	
ANGULAR:				DEBURR AND BREAK SHARP EDGES	
DRAWN				TITLE:	
NAME				DO NOT SCALE DRAWING	
SIGNATURE				REVISION	
DATE					
CHD					
APP'D					
MFG					
QA					

SS Chair

BARC/RMD/FDMS/01-B

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SHEET 1 OF 1

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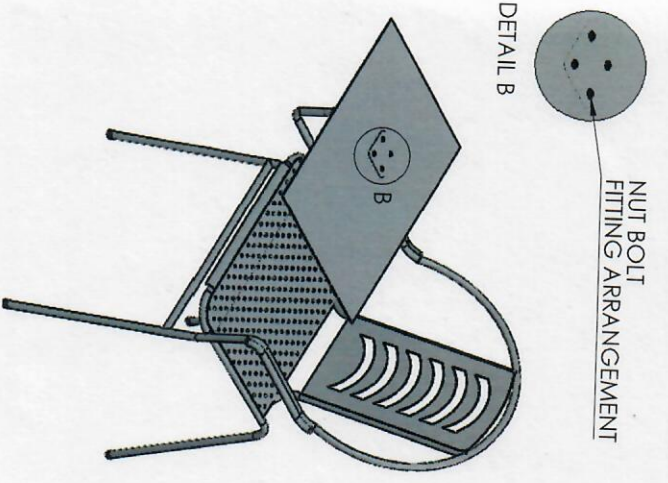
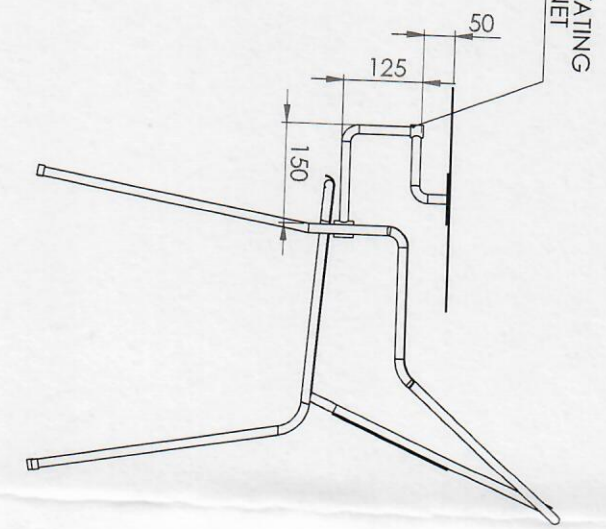
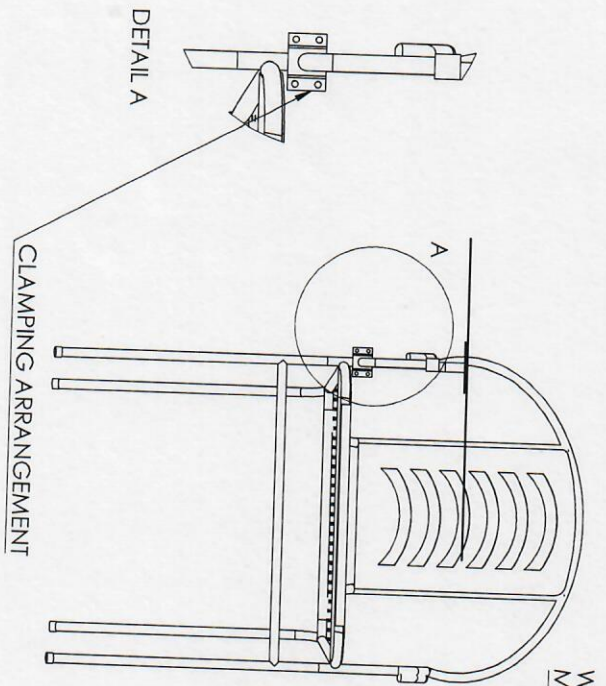
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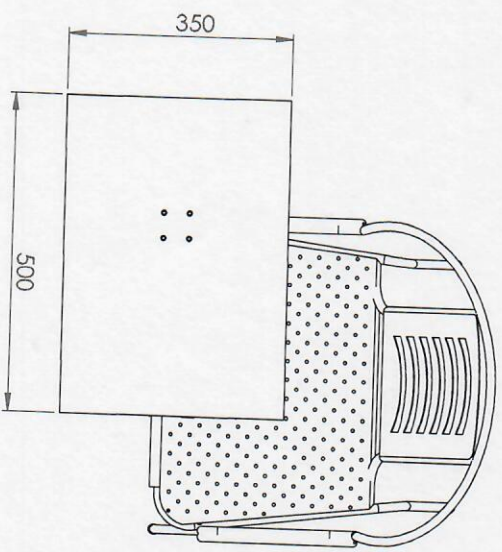
A



ISOMETRIC VIEW

Note :

1. ALL DIMENSIONS ARE IN MM.
2. REMOVE ALL SHARP CORNER AND EDGE.
3. ELECTROPOLISHING OF INDIVIDUAL CHAIR COMPONENTS SHOULD BE DONE BEFORE WELDING.
4. MACHINING SHOULD BE DONE AFTER WELDING.
5. TIG WELDING BE CARRIED OUT.
6. SURFACE FINISH SHALL BE MIRROR FINISH.
7. TUBE DIMENSION : 5/8" OUTER DIAMETER AND 18 SWG (THICKNESS 1.2mm).
8. IF ANY DOUBT ASK.

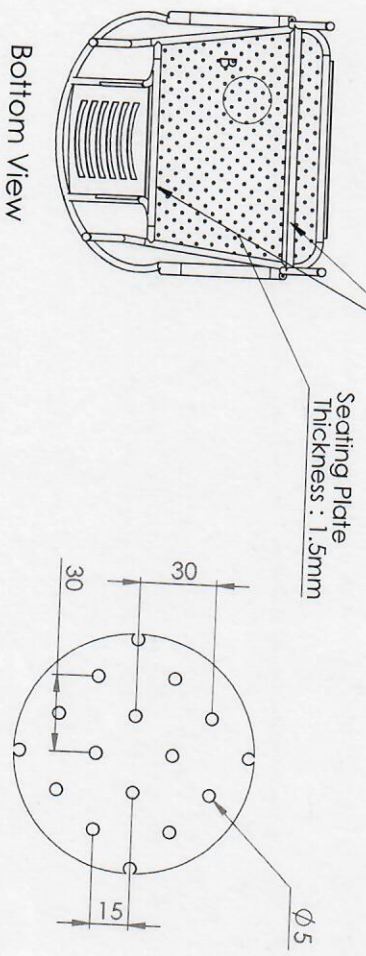
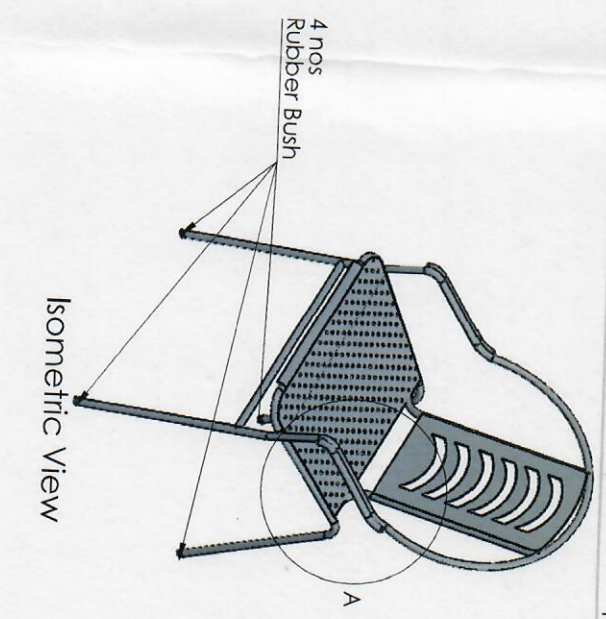
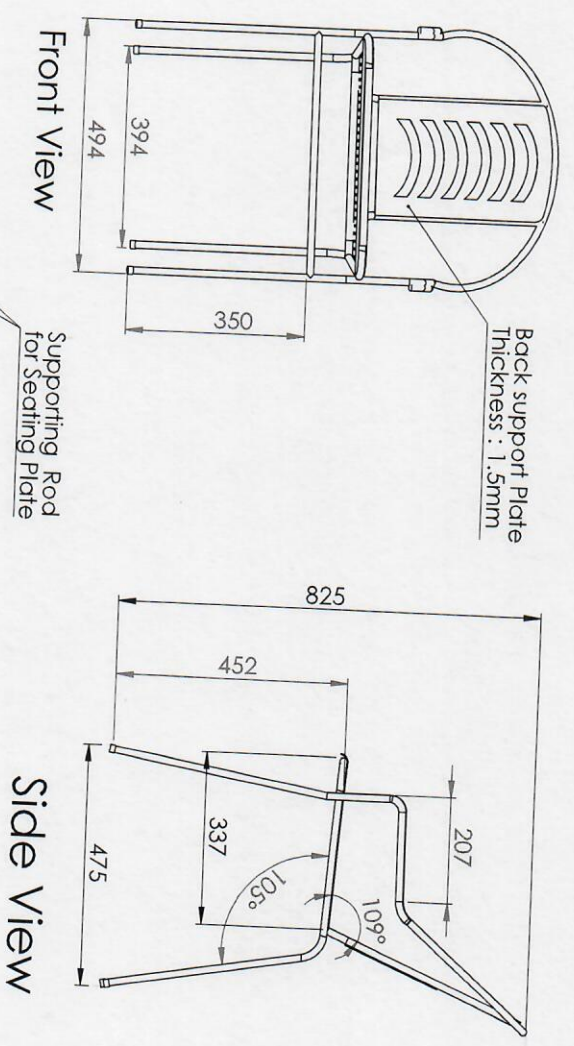


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DIMENSIONS ARE IN MILLIMETERS		DO NOT SCALE DRAWING
SURFACE FINISH:		REVISION
TOLERANCES:		
FRACTIONAL:		
DECIMAL:		
ANGULAR:		

NAME	SIGNATURE	DATE	TITLE
DRAWN			SS CHAIR
CHECKED			WITH PLATFORM
APPROVED			
MFG			
QA			

DWG NO. BARC/RMD/FDMS/02 - A A3

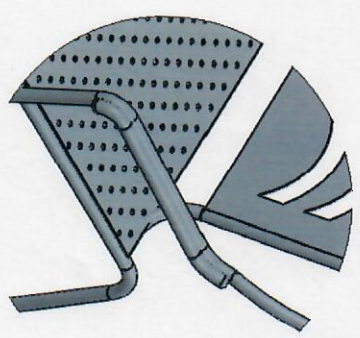
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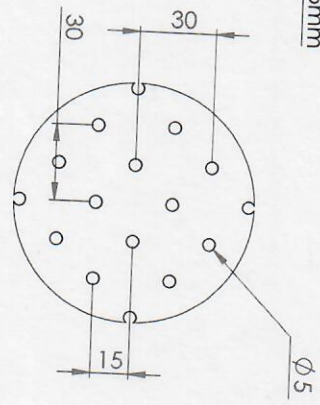
Note :

1. ALL DIMENSIONS ARE IN MM.
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3. ELECTROPOLISHING OF INDIVIDUAL CHAIR COMPONENTS SHOULD BE DONE BEFORE WELDING.
4. MACHINING SHOULD BE DONE AFTER WELDING.
5. TIG WELDING BE CARRIED OUT.
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7. TUBE DIMENSION : 5/8" OUTER DIAMETER AND 18 SWG (THICKNESS 1.2mm).
8. IF ANY DOUBT ASK.

DETAIL A



DETAIL B



Bottom View

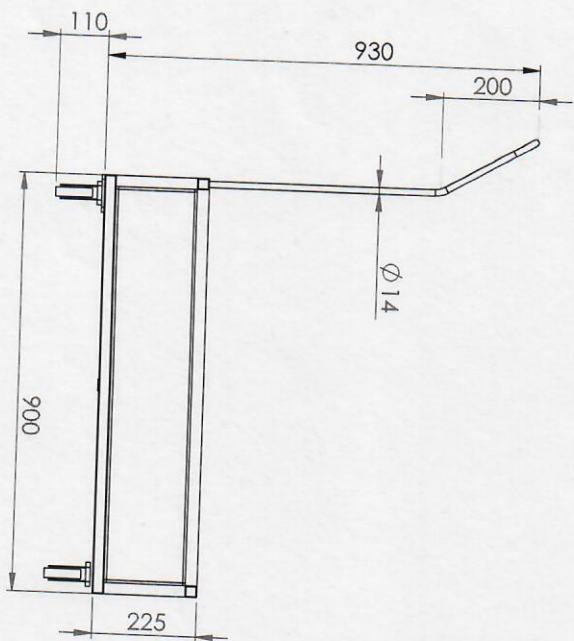
Side View

Isometric View

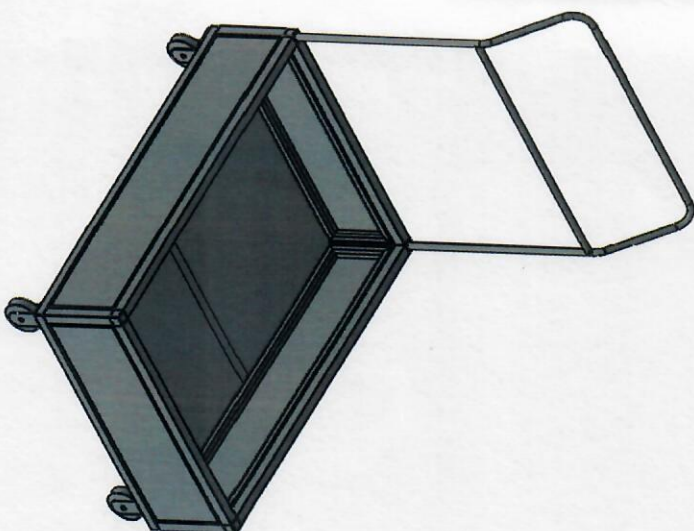
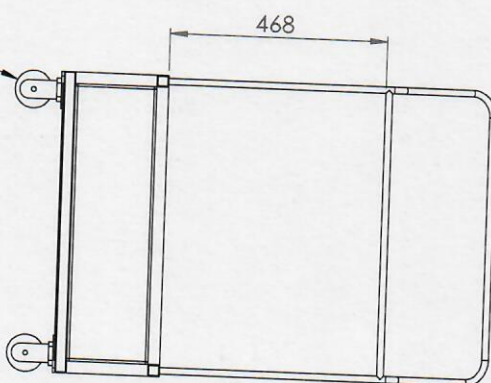
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CHKD	NAME	SIGNATURE	DATE				
APP'D	NAME	SIGNATURE	DATE				
MFG	NAME	SIGNATURE	DATE				
QA	NAME	SIGNATURE	DATE				
MATERIAL:				DWG NO.			
WEIGHT:				SCALE: 1:10			
SHEET 1 OF 1				A3			

SS Chair

BARC/RMD/FDMS/ 02 - B



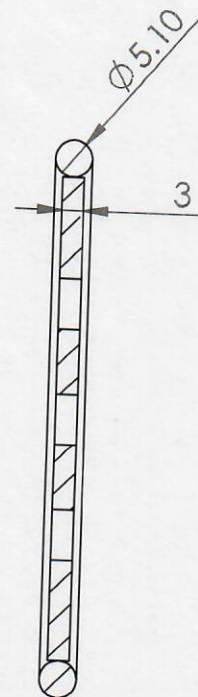
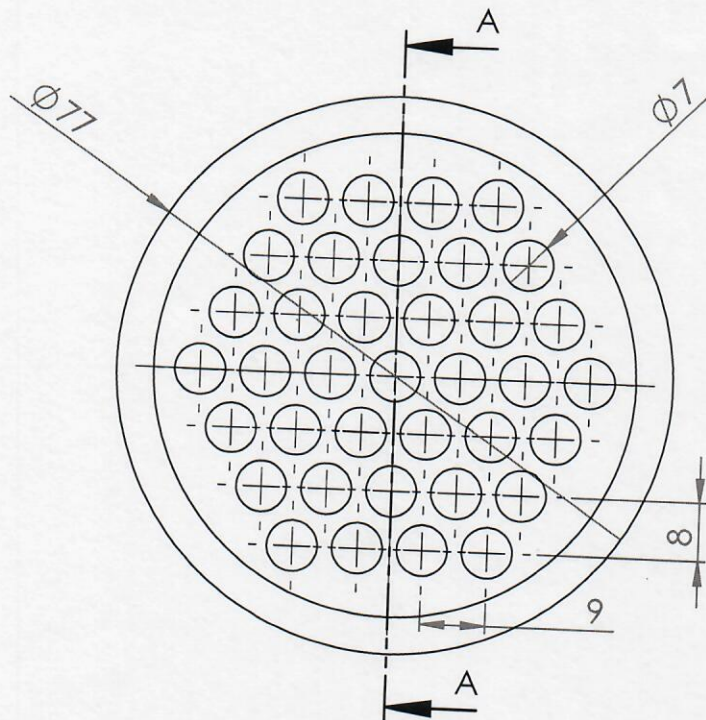
4 NOS OF HEAVY DUTY WHEEL
(360 ° ROTATION) WITH
LOCKING ARRANGEMENT



Note:

1. ALL DIMENSIONS ARE IN MM.
2. REMOVE ALL SHARP CORNER AND EDGE.
3. MACHINING SHOULD BE DONE AFTER WELDING.
4. TIG WELDING BE CARRIED OUT.
5. SS 304 ROD DIMENSION : 14MM OUTER DIAMETER
6. BOX DIMENSION ARE 25 X 25
7. IF ANY DOUBT ASK.

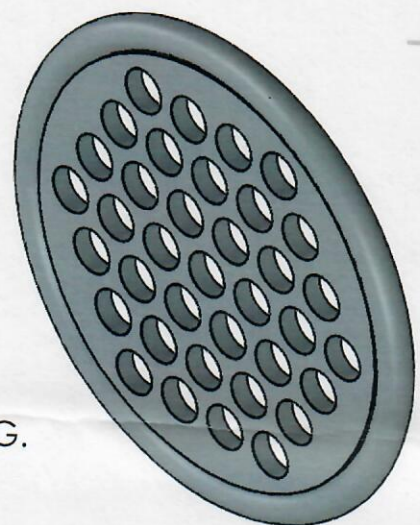
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TOLERANCES:		FRACTIONS:	
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NAME		SIGNATURE	
DATE		TITLE	
DRAWN		CHECKED	
CHD		BREA/ SHAP	
APP/D		ED/IS	
MFG		ED/IS	
C/A		ED/IS	
MATERIAL:		DWG NO.	
WEIGHT:		BARC/RMD/FDMS/03	
SS TROLLEY		A3	



SECTION A-A

NOTE :

1. ALL DIMENSIONS ARE IN MM.
2. REMOVE ALL SHARP CORNERS AND EDGE.
3. ELECTROPOLISHING SHOULD BE DONE AFTER WELDING AND MACHINING.
4. TIG WELDING SHALL BE CARRIED OUT.
5. MACHINING SHOULD BE DONE AFTER WELDING.
6. SURFACE FINISH SHALL BE MIRROR FINISH.
7. IF ANY DOUBT ASK.



ISOMETRIC VIEW

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH:
TOLERANCES:
LINEAR:
ANGULAR:

FINISH:

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

NAME	SIGNATURE	DATE
DRAWN		
CHK'D	P. M. Khat	
APP'D		
MFG		
Q.A		

TITLE:

PIN CASSETTE
(Side Plate)

DWG NO.

BARC/RMD/FDMS/ 04 B

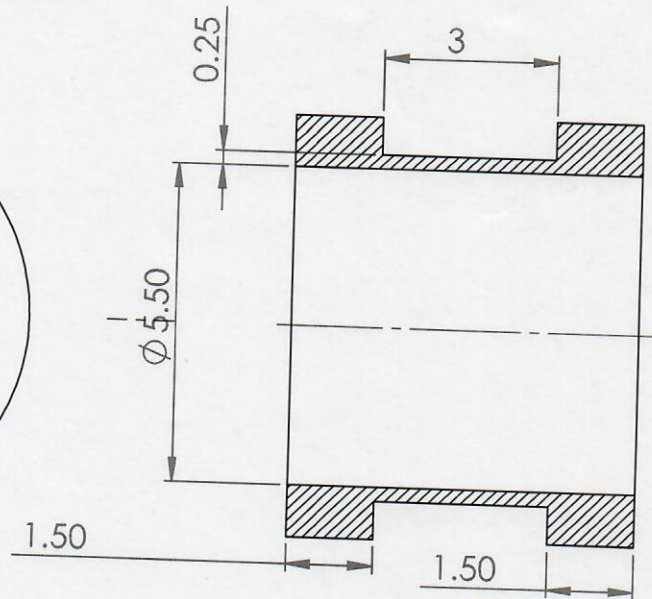
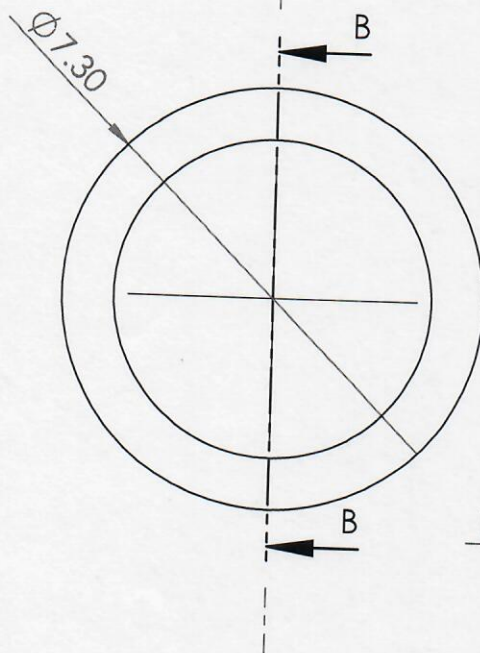
A4

MATERIAL:

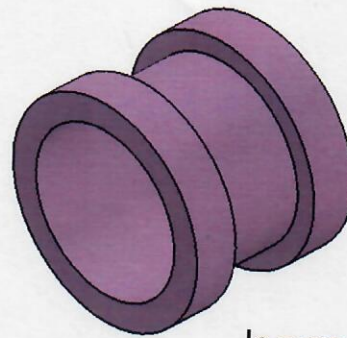
WEIGHT:

SCALE: 1:2

SHEET 1 OF 1



SECTION B-B



Isometric View

NOTE :

1. ALL DIMENSIONS ARE IN MM.
2. REMOVE ALL SHARP CORNERS AND EDGE.
3. MACHINING SHOULD BE DONE BY CNC.
4. ALL SURFACES OF BUSH SHALL HAVE M3 FINISH.
5. IF ANY DOUBT ASK.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH:
TOLERANCES:
LINEAR:
ANGULAR:

FINISH:

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

	NAME	SIGNATURE	DATE
DRAWN			
CHK'D	P.M. Khot	<i>[Signature]</i>	
APPVD			
MFG			
Q.A			

MATERIAL:

WEIGHT:

TITLE:

PIN CASSETTE
(BUSH)

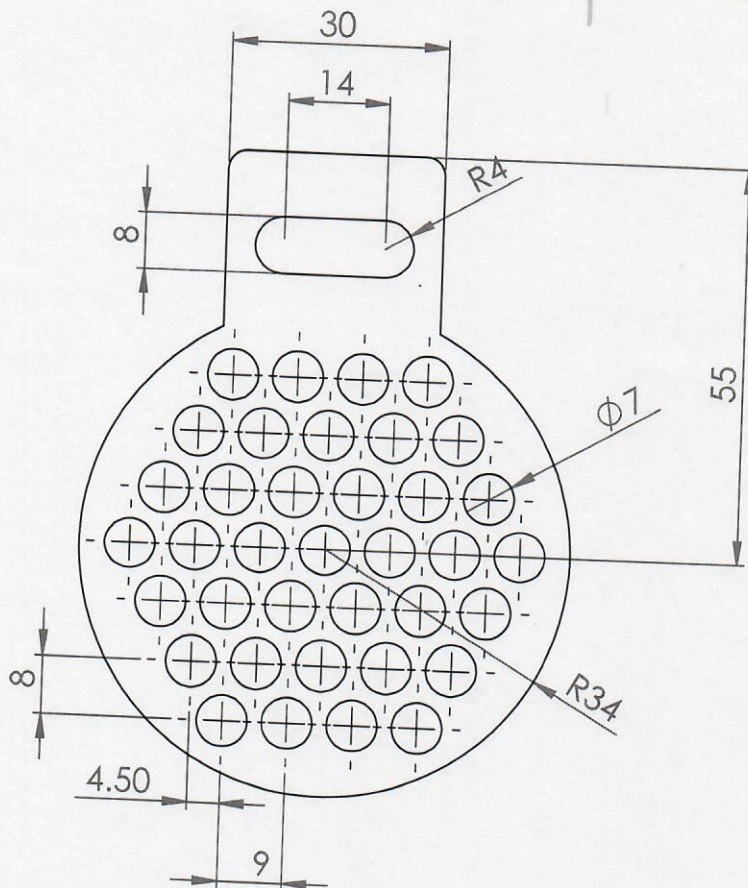
DWG NO.

BARC/RMD/FDMS/04 C

A4

SCALE:10:1

SHEET 1 OF 1



Isometric View

NOTE :

1. ALL DIMENSIONS ARE IN MM.
2. REMOVE ALL SHARP CORNERS AND EDGE.
3. ELCTROPOLISHING SHOULD BE DONE AFTER MACHINING.
4. MACHINING SHOULD BE DONE AFTER WELDING.
5. SURFACE FINISH SHALL BE MIRROR FINISH.
6. IF ANY DOUBT ASK.

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH:
TOLERANCES:
LINEAR:
ANGULAR:

FINISH:

DEBURR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION

	NAME	SIGNATURE	DATE
DRAWN			
CHK'D	P.M. Khot	[Signature]	
APPVD			
MFG			
Q.A			

MATERIAL:

WEIGHT:

TITLE:

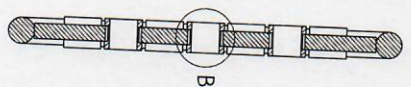
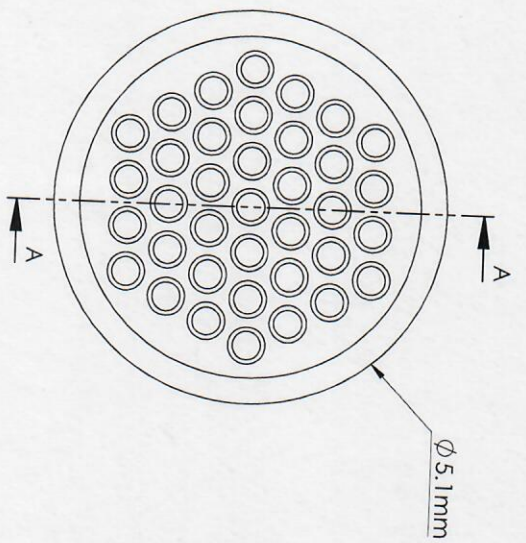
**PIN CASSETTE
(SUPPORT PLATE)**

DWG NO.

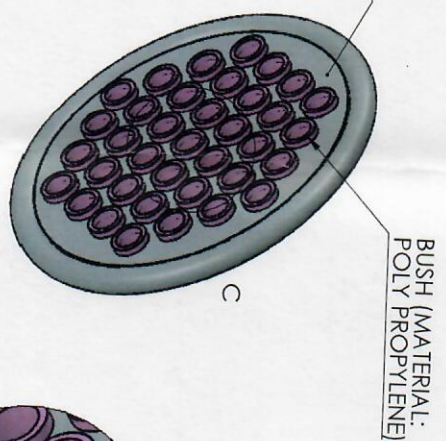
BARC/RMD/FDMS/04 D

SCALE: 1:1

SHEET 1 OF 1



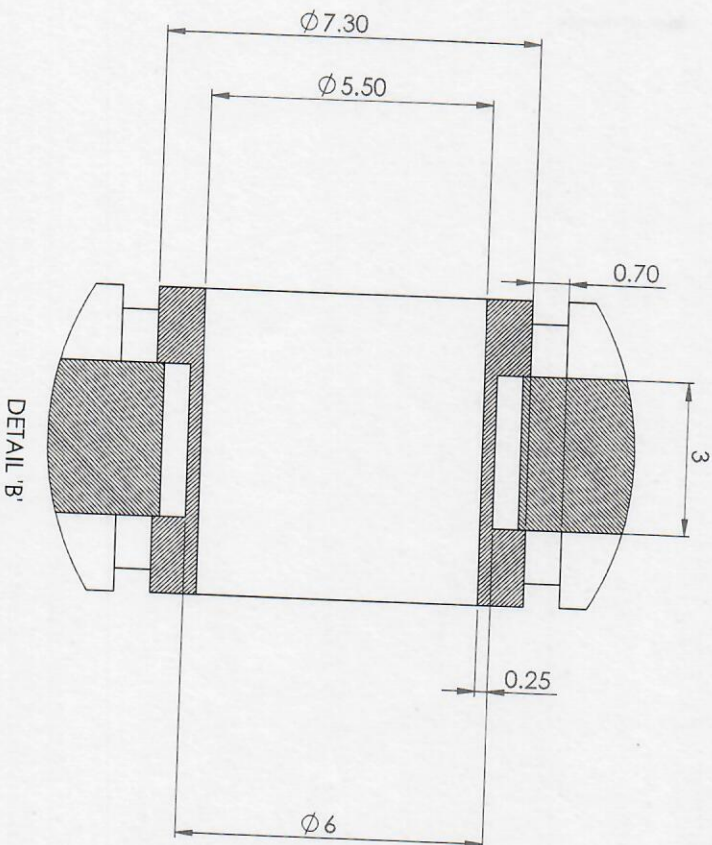
SECTION A-A



Isometric View



DETAIL VIEW 'C'

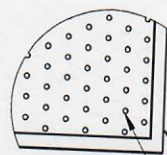
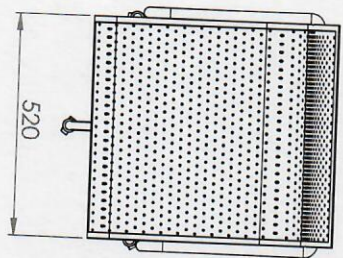


DETAIL 'B'

NOTE:

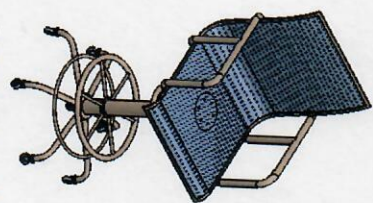
1. ALL DIMENSIONS ARE IN MM.
2. REMOVE ALL SHARP CORNERS AND EDGE.
3. ELECTROPOLISHING SHOULD BE DONE AFTER WELDING AND MACHINING.
4. TIG WELDING SHALL BE CARRIED OUT.
5. MACHINING SHOULD BE DONE AFTER WELDING.
6. SURFACE FINISH SHALL BE MIRROR FINISH.
7. IF ANY DOUBT ASK.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		FINISH:	
SURFACE FINISH:		DEBURR AND BREAK SHARP EDGES	
TOLERANCES:		DO NOT SCALE DRAWING	
ANGULAR:		REVISION	
DRAWN:	NAME	SIGNATURE	DATE
CHD:			
APVD:			
MFG:			
QA:			
MATERIAL:		TITLE:	
BARC/RMD/FDMS/04 E		PIN CASSETTE (SIDE PLATE WITH BUSH)	
DWG NO.		SHEET 1 OF 1	
A3		1	



CLADDING FOR AVOIDING SHARP EDGES AND CORNERS
 $\phi 5$ mm

DETAIL A

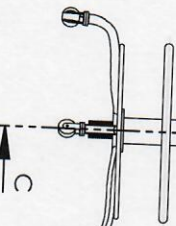


ISOMETRIC VIEW

MATERIAL EN19, HARDENED & TEMPERED
 ACME LEAD SCREW 1.5", 4 TPI (TURNS PER INCH)
 RH, TOLERANCE CLASS : 3G,
 MAJOR DIA : 1.5" (MAX) , 1.4875" (MIN.)
 MINOR DIA : 1.2300" (MAX), 1.2144" (MIN)

LOCK NUT
 ARRANGEMENT

6 NOS. HEAVY DUTY WHEEL
 (360° ROTATION)
 WITH LOCKING ARRANGEMENT

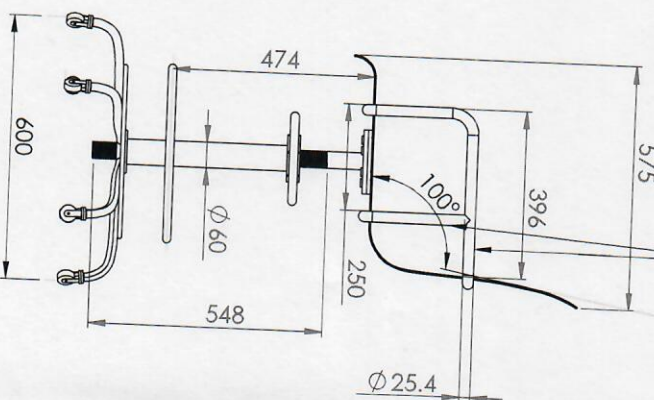


Note :

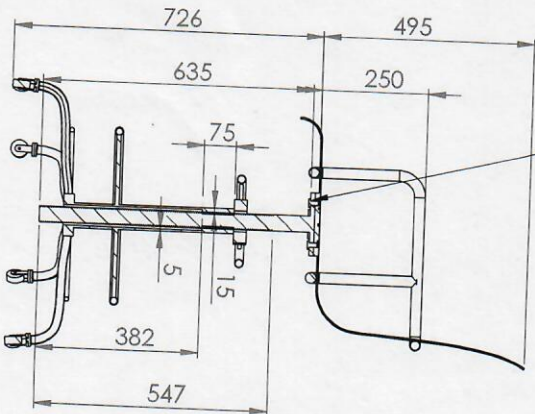
1. ALL DIMENSIONS ARE IN MM.
2. MATERIAL SHALL BE SS 304 FOR ALL COMPONENTS OF CHAIR.
3. REMOVE ALL SHARP CORNER AND EDGE.
4. ELECTROPOISHING OF INDIVIDUAL CHAIR COMPONENTS SHOULD BE DONE BEFORE WELDING.
5. MACHINING SHOULD BE DONE AFTER WELDING.
6. TIG WELDING BE CARRIED OUT.
7. SURFACE FINISH SHALL BE MIRROR FINISH.
8. MATERIAL IS PLATE THICKNESS 2MM.
9. IF ANY DOUBT ASK.

1" Hollow Bar
 (18SWG : 1.2mm thickness)

ASSEMBLED WITH
 NUT (6nos.) ARRANGEMENT



SECTION C-C



UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETERS
 SURFACE FINISH:
 UNLESS SPECIFIED:
 FINISH:

DEBURR AND
 BREAK SHARP
 EDGES

DO NOT SCALE DRAWING

REVISION

TITLE:

BARC/RMD/FDMS/5

SS OPERATOR CHAIR

A3

DRAWN: P. M. RMD
 APP'D: P. M. RMD
 MFG: P. M. RMD
 Q.A: P. M. RMD

MATERIAL:

DWG NO.:

WEIGHT:

SCALE: 1:20

SHEET OF 1

