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सत्यमेव जयते

भारत सरकार

Government of India

भाभा परमाणु अनुसंधान केन्द्र

Bhabha Atomic Research Centre

उच्च तापमान रिएक्टर अनुभाग

High Temperature Reactor Section

हाल - 7,
ट्रॉम्बे,
मुंबई - 400 085,
HALL No. 7,
TROMBAY,
MUMBAI - 400 085

Ref. No.: RDDG/HTRS/KKP/MF/ 23872 /2021

12/01/2022
Date: 29/12/2021

Dear Sir(s),

Sub: Fabrication, supply, installation & commissioning of glove port, bung port for glovebox meeting the technical requirements as mentioned in HTRS/KKP/2021/12.

Sealed quotations are invited by Head, HTRS on behalf of the President of India for the execution of the following job:

Fabrication, supply, installation & commissioning of glove port, bung port for glovebox meeting the technical requirements as mentioned in HTRS/KKP/2021/12.

General Notes:

- 1) The bidder shall take all the necessary safety precautions during work and they shall be responsible for any damage or accidents. No compensation in any case will be paid by the Department to the bidder.
- 2) The work shall be subject to inspection by the purchaser or his authorised representative. Work shall be conducted under their supervision and to the full extent of satisfaction.
- 3) The work shall be completed within 60 days from the receipt of work order.
- 4) The quotations must reach Head, HTRS latest by 24/01/2022. Quotations will be opened on 25/01/2022. Address for sending quotations: **Shri I.V. Dulera, Head, HTRS, RED Office, Engg Hall-7, Bhabha Atomic Research Centre, Trombay, Mumbai – 400085.**
- 5) The above mentioned **REFERENCE NUMBER** and **DATE OF OPENING OF BIDS MUST BE CLEARLY MENTIONED ON THE SEALED ENVELOPE** containing the quotation. Offers should be sent by **Registered or Speed Post only**.
- 6) Payment will be made as per rules, after the completion of the work to purchaser's satisfaction against submission of original bill in triplicate and advance stamped receipt.
- 7) Income tax @2% and Educational cess as applicable will be deducted from the bill.
- 8) Any delay which is attributable to the contractor is liable for penalty @ ½ % per week (Max 5%).
- 9) Bidder shall mention their PAN and GST Nos. in the quotation.
- 10) The offer shall be kept open for acceptance for a minimum period of 45 days from the date of opening of the quotation.

- 11) Head, HTRS reserves the right to accept/reject any or all the quotations received without assigning any reason whatsoever.
- 12) The bidder shall furnish the detailed information regarding whether an ex-employee of BARC is working in their organisation or whether any of their relative is working in DAE/BARC or whether he/she is an ex-employee of DAE/BARC. In case of absence of such information, or wrong information the quotation or contract is likely to be rejected or cancelled.

CONFIDENTIALITY CLAUSES:

I. Confidentiality:

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-bidders, consultants, advisers or the employees engaged by the party with equal force.

II. "Restricted information" categories under Section 18 of the Atomic Energy Act, 1962 and "Official Secrets" under Section 5 of the Official Secrets Act, 1923:-

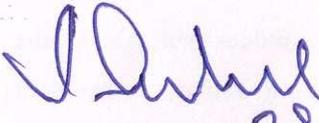
Any contravention of the above-mentioned provisions by any bidder, sub-bidder, consultant, adviser or the employees of a bidder will invite penal consequences under the aforesaid legislation.

III. Prohibition against use of BARC's name without permission for publicity purposes:-

The bidder or sub-bidder, consultant, adviser or the employees engaged by the bidder shall not use BARC's name for any publicity purpose through any public media like Press, Radio, T.V. or Internet without the prior written approval of BARC.

Thanking you,

Yours Sincerely,



29/12/2021

(I.V. Dulera)
Head, HTRS, RDDG

For and on behalf of the President of India
(The Purchaser)

Enclosures:
Specification (3 pages)
Drawings (6 pages)

आई. वी. दुलेरा/I. V. DULERA
अध्यक्ष, उच्च ताप रिएक्टर अनुभाग
HEAD, HIGH TEMPERATURE REACTOR SECTION
रिएक्टर डिजाइन एवं विकास वर्ग
REACTOR DESIGN & DEVELOPMENT GROUP
भावा परमाणु अनुसंधान केंद्र/BHABHA ATOMIC RESEARCH CENTRE

Specification for 6" & 8" Glove port and bung port for glovebox

1.0 SCOPE

Fabrication, supply, installation & commissioning of glove port, bung port for glovebox meeting the technical requirements as mentioned herewith.

Sl. No.	Item description	Quantity
I	Glove port for $\phi 6''$ as per sketch A4-4013-M-002-ME	8 Set
II	Glove port for $\phi 8''$ as per sketch A4-4013-M-003-ME	8 Set
III	Bung port for $\phi 6''$ port as per sketch A4-4013-M-004-ME	8 Set
IV	Bung port for $\phi 8''$ port as per sketch A4-4013-M-005-ME	8 Set
V	Glove box window as per sketch A4-4013-M-006-ME	4 Nos.

2.0 TECHNICAL REQUIREMENTS

2.1 Glove port (6" & 8"):

2.1.1 The supplier should ensure the assembly of items as per Sketch: A4-4013-M-002-ME & A4-4013-M-003-ME.

2.1.2 Construction material should be strictly adhered as per Table given below.

SN	Description	MOC	Remarks
1.	Glove port (6" & 8" sizes)	S.S-304	AISI 304, ASTM-A-275-76
2.	Clamping ring	S.S-304	AISI 304, ASTM-A-275-76
3.	Gasket	Neoprene	
4.	`O' ring	Neoprene	
5.	Ring	SS-304	AISI 304, ASTM-A-275-76
6.	M5 x 10 SOC. HD SCREW (16 nos.)	S.S-304	AISI 304, ASTM-A-275-76

2.1.3 The dimensions of the glove port assembly (6" & 8") would be compatible with the dimension of glove box glass given in the sketch A4-4013-M-006-ME.

2.1.4 Surface finish must be $M3$ all over, in every parts except specified.

2.1.5 All accessories are mentioned in the table in drawing for the glove port should be included.

2.2 Bung port for 6" & 8" glove port:

2.2.1 The supplier should ensure the assembly of items as per Sketch: A4-4013-M-003-ME & A4-4013-M-004-ME.

2.2.2 Construction material should be strictly adhered as per Table given below.

SN	Description	MOC	Remarks
1.	Center bolt	SS 304	AISI 304, ASTM-A-275-76
2.	`O' RING	Neoprene	VOR No: 124, Shore a hardness 50-55
3.	BOTTOM DISC	Aluminum	Grade:6061
4.	TOP DISC	Aluminum	Grade:6061
5.	`O' RING	VITON	VOR No: 124, Shore a hardness 50-55
6.	SPRING	Spring Steel	
7.	SPECIAL WASHER	S.S-304 L	AISI 304 L, ASTM-A-275-76
8.	Handle	S.S-304 L	AISI 304 L, ASTM-A-275-76

2.2.3 Surface finish must be $M3$ all over, in every parts except specified.

2.2.4 Concentricity and surface flatness of the dishes should be within the tolerance limit of $\pm 0.05\text{mm}$.

3.0 INSTALLATION & COMMISSIONING:

- 3.1 The supplier's representative is required to install and commission the equipment at CFB, BARC.
- 3.2 Unpacking, installation and commissioning are to be done by an authorized representative of the supplier.
- 3.3 The supplier's representative should have either a valid Police Verification Certificate (PVC) signed by the Commissioner of Police or valid Central Government photo I-card, like PAN card, aadhaar card, passport, etc. Please note that PVC signed by any officer other than Commissioner of Police is unacceptable.
- 3.4 All tools required for unpacking, installation and commissioning of the machine are to be provided by the supplier's representative. Supplier has to install the glove port, bung port, glove box glass to glove box present at CFB, BARC, Trombay.
- 3.5 The supplier shall install the glove port on the glovebox (glovebox will be provided by the purchaser at BARC, Trombay). The supplier will also install the bung ports to all the glove ports and check the leak tightness of the entire assembly as per the code ISO-10648-2 by pressure change method.

4.0 DELIVERY REQUIREMENTS

- 4.1 Item should be delivered to BARC North Gate, Trombay, and Mumbai within 60 days of WO.
- 4.2 Bidder should mention PAN No, GST No. in the quotation.
- 4.3 **Packing and forwarding:** Packing, forwarding, freight & Transport charged shall be restricted to 3% or else original proof payment of the entire charges shall be furnished.
- 4.4 At the time of delivery, the following documents must be sent along with the item:
 - a) Warranty Certificate (for one year)
 - b) Delivery challan
 - c) Tax invoice
 - d) Advance Stamped Receipt
 - e) Annexure-II (An undertaking that GST has been promptly deposited)
 - f) Particulars of bank account of supplier for ECS payment
 - g) Cancelled Check
 - h) Manufacturer certificate (OM) for SS-304 & Aluminum-6061
- 4.5 **Payment:** No payment will be made at the time of delivery, and no advance payment will be acceptable. Payment can be arranged within one month after successful installation & commissioning. Please note that payment cannot proceed if the paperwork is not complete.

5.0 NOTE TO BIDDER

- 5.1 All offers should be sent by **speed post** only, in a properly **sealed** envelope. The bidder should clearly mention the Inquiry number, Inquiry date, Due date on the envelope.
- 5.2 The bidder shall provide item-wise quotation for the items mentioned in Para 1.0. Prices on a per piece basis should also be included. The bids may be rejected if the quotation does not mention the prices of all the items.

- 5.3** All the taxes, duties and other government levies shall be clearly mentioned in the offer. The testing, inspection, packing-forwarding-freight and delivery charges if any should be mentioned in the offer.
- 5.4** Proof of ability: The bidder shall provide, along with the quotation, adequate proof of show their capability to execute the job such as copies of the previous purchases orders placed on the executed by the party for the reputed firms (Indian and international). Specific mention should be made of previous supplies made to BARC, along with names and contact details of indenting officers and the purchase order numbers.
- 5.5** As a part of the offer, the bidder shall confirm point by point their acceptance of the various requirements and deviations if any from the specification.
- 5.6** Quotations found incomplete in any respect and also deficient in clarity about technical and commercial terms will be summarily rejected.
- 5.7 Post supply inspection** in respect of supplies made is not permitted. Any offer containing the condition of post supply inspection will be out-rightly rejected. It is therefore; mandatory for the bidders, while quoting, to indicate in clear terms the requirements of post supply inspection by any outside agency.

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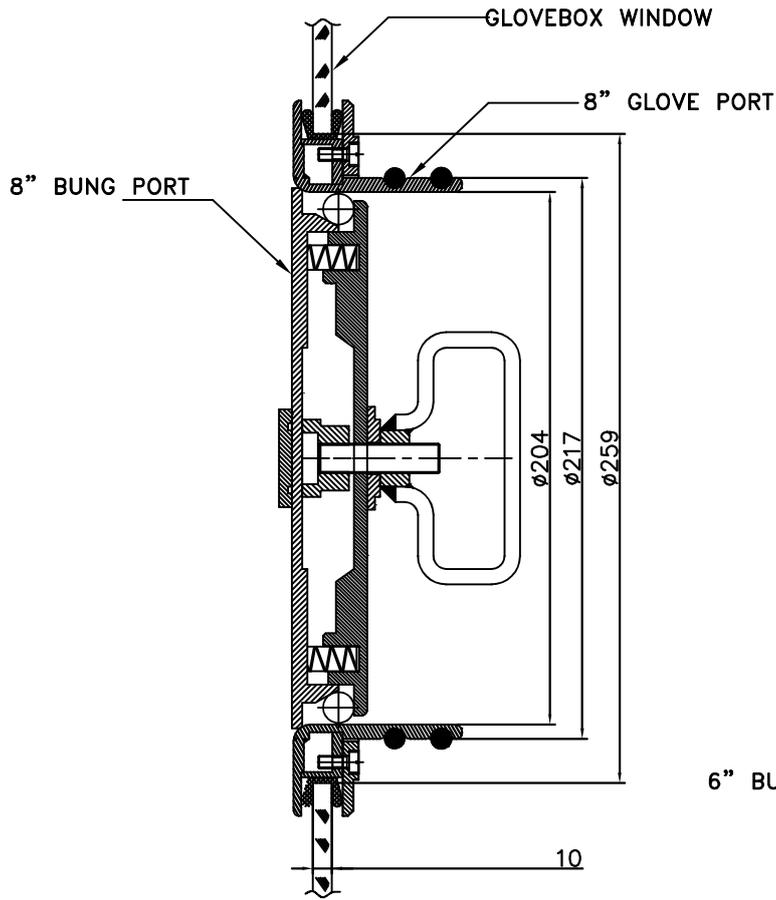
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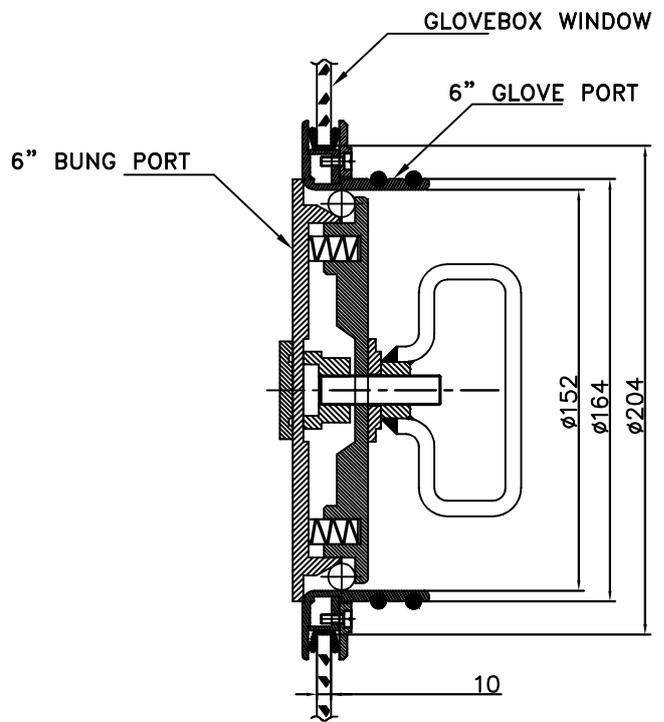
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8" GLOVE PORT ASSEMBLY



6" GLOVE PORT ASSEMBLY

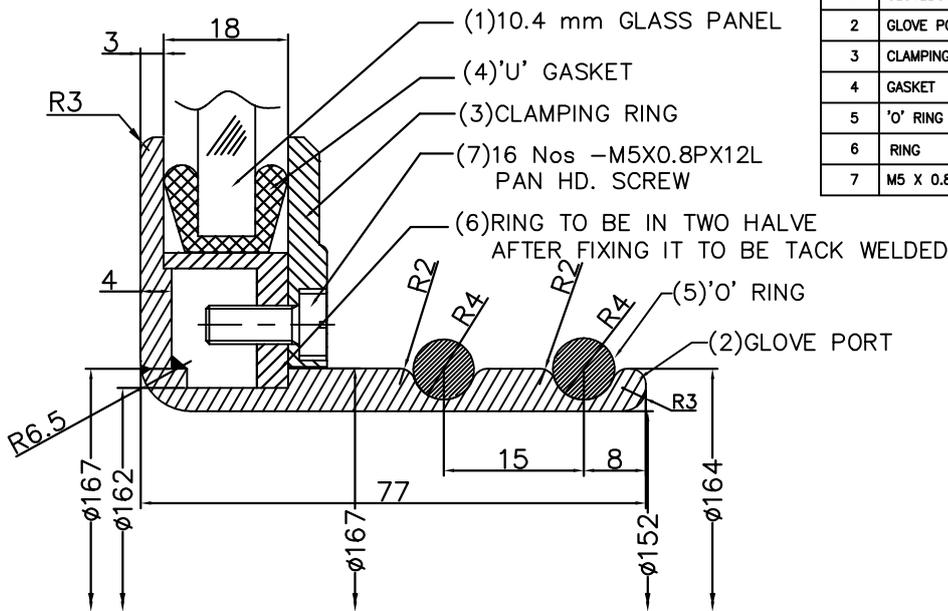
- NOTES**
1. ALL DIMENSIONS ARE IN mm. EXCEPT SPECIFIED.
 2. LEAK TIGHTNESS OF THE ASSEMBLY WILL BE CHECKED BY PRESSURE CHANGE METHOD (ISO 10648-2) AFTER ASSEMBLED TO BARC GLOVE BOX.
 3. IF ANY DOUBT, ASK.

DRG. NO.
A4-4013-M-001-GA

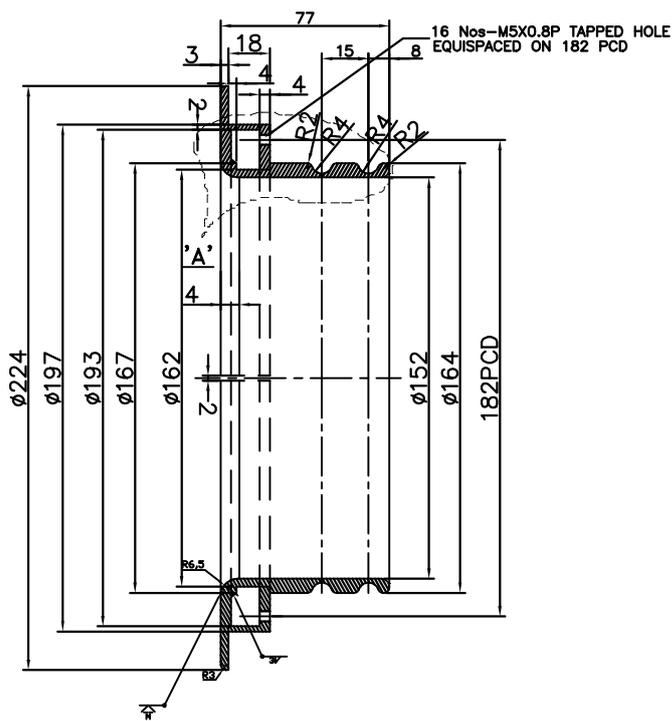
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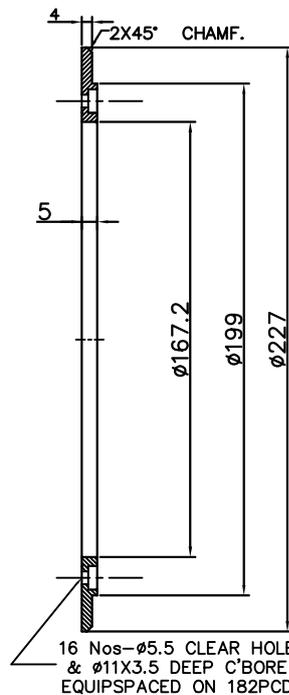


ENLARGED VIEW AT 'A'



6" SS GLOVE PORT

Sr.No.	DESCRIPTION	QTY.	MATL.	REMARKS
1	GLOVEBOX WINDOW	1	ACRYLIC	ACRYLITE FF
2	GLOVE PORT	1	S.S.-304	AISI-304 ASTM-A-275-76
3	CLAMPING RING	1	S.S.-304	
4	GASKET	1	NEOPRENE	
5	'O' RING	2	NEOPRENE	VOR No.124 SHORE A HARDNESS 90-95
6	RING	1	S.S.-304	AISI-304 ASTM-A-275-76
7	M5 X 0.8P X 12L PAN HD. SCREW	16	S.S.-304	

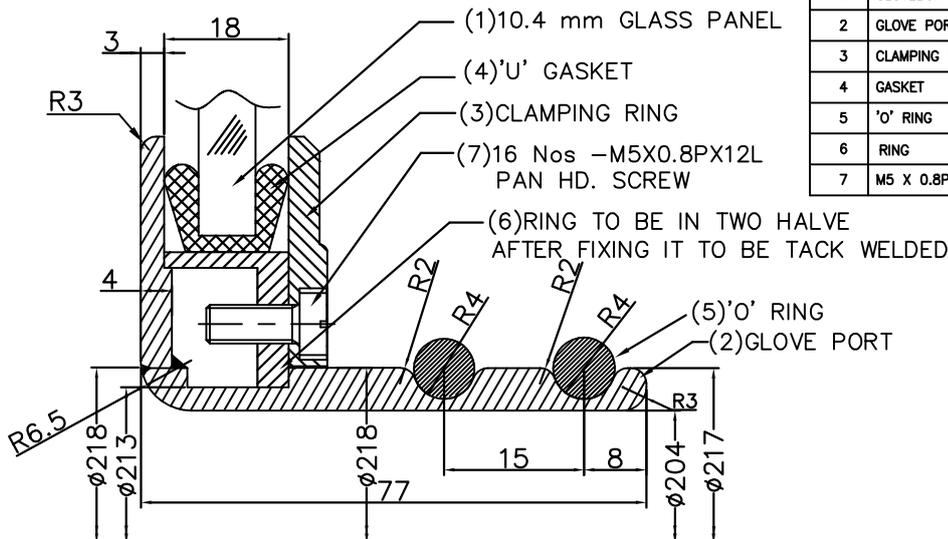


6" SS GLOVE PORT CLAMPING RING

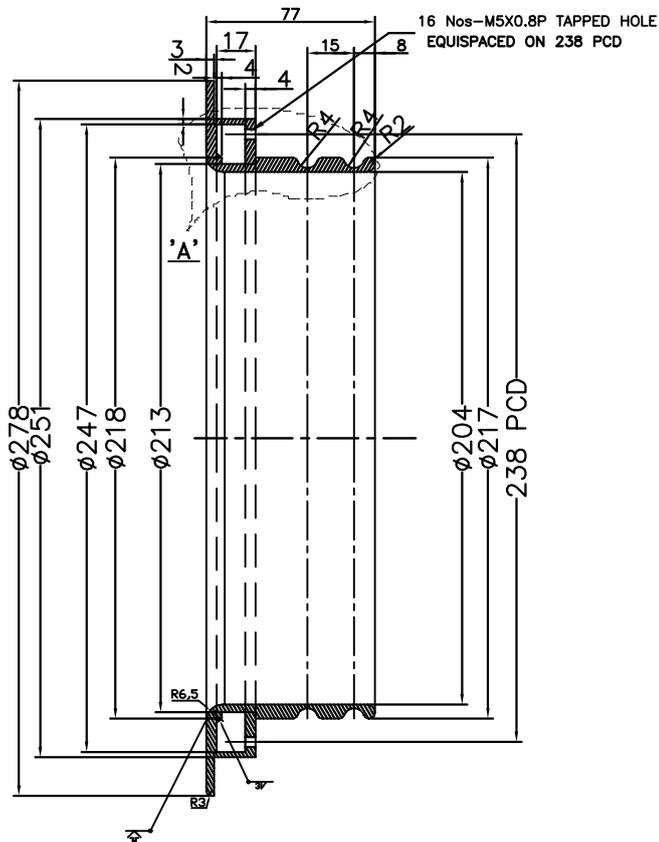
- NOTES**
1. ALL DIMENSIONS ARE IN mm. EXCEPT SPECIFIED.
 2. REMOVE ALL SHARP CORNERS OR BURRS.
 3. TAPPING ON CLAMPING RING MUST BE DONE ON A SUITABLE TEMPLATE OR FIXTURE
 4. GENERAL FINISH M3 ALL OVER IN ALL PARTS
 5. IF ANY DOUBT, ASK.

TOLERANCE UNLESS OTHERWISE SPECIFIED							
LENGTH MM	≤ 6	≤ 30	≤ 120	≤ 315	≤ 1000	≤ 2000	≤ 4000 > 4000
TOL. ± MM	0.1	0.2	0.3	0.5	0.8	1.2	2.0 3.0
LENGTH MM SHORTER SIDE OF ANGLE	≤ 6	≤ 30	≤ 120	≤ 400			
TOL ON ANGLE ±DEG MIN	1		30'	20'	10'		

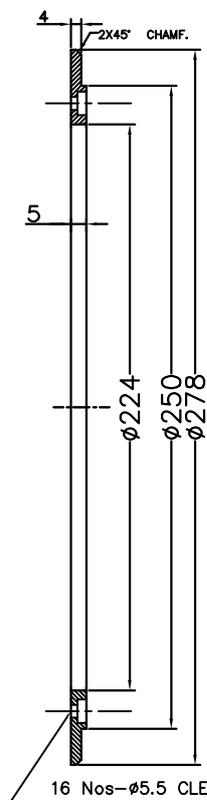
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A4-4013-M-002-ME



ENLARGED VIEW AT 'A'



8" SS GLOVE PORT



8" SS GLOVE PORT CLAMPING RING

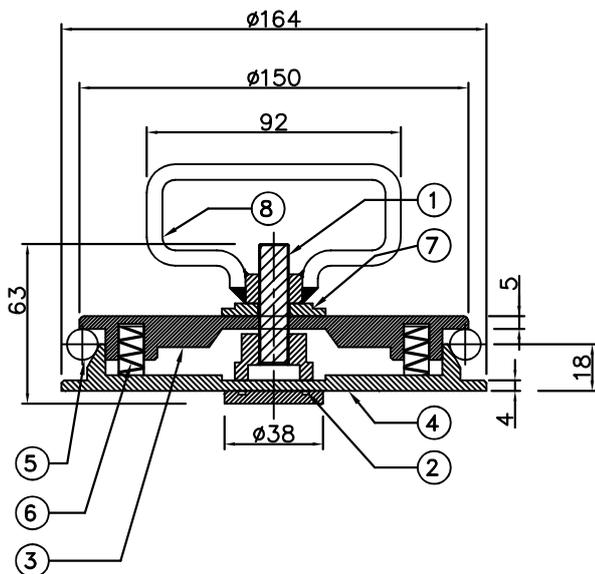
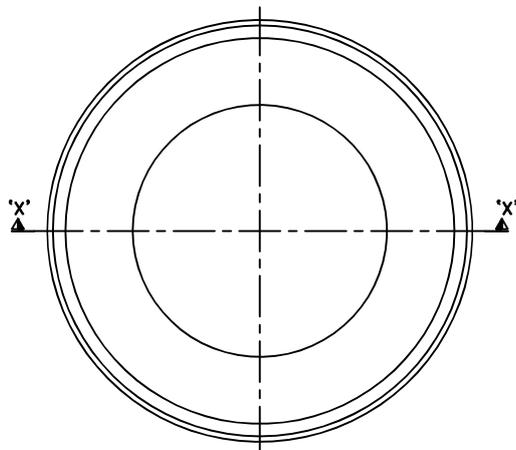
- NOTES**
1. ALL DIMENSIONS ARE IN mm. EXCEPT SPECIFIED.
 2. REMOVE ALL SHARP CORNERS OR BURRS.
 3. TAPPING ON CLAMPING RING MUST BE DONE ON A SUITABLE TEMPLATE OR FIXTURE
 4. GENERAL FINISH M3 ALL OVER IN ALL PARTS
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TOLERANCE UNLESS OTHERWISE SPECIFIED							
LENGTH MM	≤ 6	≤ 30	≤ 120	≤ 315	≤ 1000	≤ 2000	≤ 4000 > 4000
TOL ± MM	0.1	0.2	0.3	0.5	0.8	1.2	2.0 3.0
LENGTH MM SHORTER SIDE OF ANGLE	≤ 6	≤ 30	≤ 120	≤ 400			
TOL ON ANGLE ± DEG MIN	1		30'	20'	10'		

Sr.No.	DESCRIPTION	QTY.	MATL.	REMARKS
1	GLOVEBOX WINDOW	1	ACRYLIC	ACRYLITE FF
2	GLOVE PORT	1	S.S.-304	AISI-304 ASTM-A-275-76
3	CLAMPING RING	1	S.S.-304	
4	GASKET	1	NEOPRENE	
5	'O' RING	2	NEOPRENE	VOR No.124 SHORE A HARDNESS 90-95
6	RING	1	S.S.-304	AISI-304 ASTM-A-275-76
7	M5 X 0.8P X 12L PAN HD. SCREW	16	S.S.-304	

DRG. NO.
A4-4013-M-003-ME

Sr.No.	DESCRIPTION	QTY.	MATL.	REMARKS
1	CENTER BOLT	1	S.S 304	
2	O RING	4	NEOPRENE	
3	BOTTOM DISC	1	ALUMINUM	
4	TOP DISC	1	ALUMINUM	
5	O RING	1	VITON	
6	SPRING	4	SPRING STEEL	
7	WASHER	2	S.S 304	
8	HANDLE	1	S.S 304L	



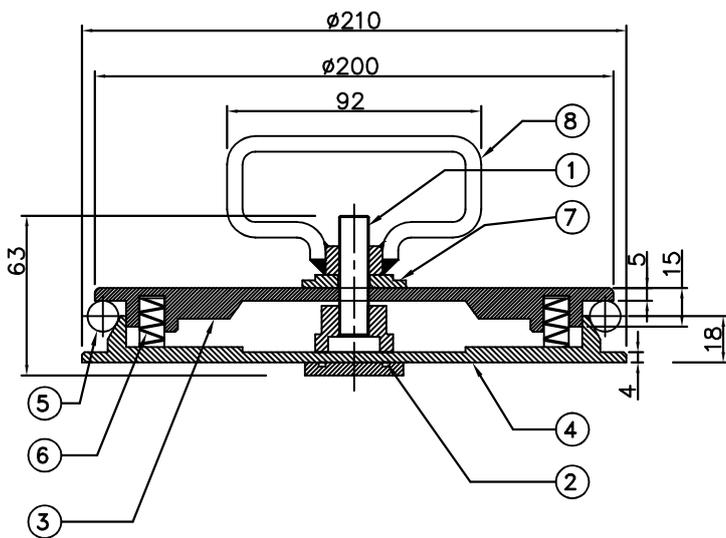
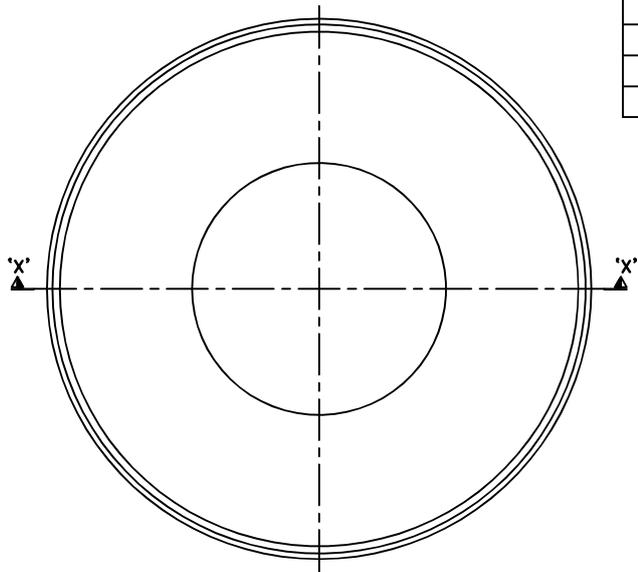
6" SS BUNG PORT

- NOTES**
1. ALL DIMENSIONS ARE IN mm. EXCEPT SPECIFIED.
 2. REMOVE ALL SHARP CORNERS OR BURRS.
 3. GENERAL FINISH M3 ALL OVER IN ALL PARTS
 4. IF ANY DOUBT, ASK.

TOLERANCE UNLESS OTHERWISE SPECIFIED							
LENGTH MM	≤ 6	≤ 30	≤ 120	≤ 315	≤ 1000	≤ 2000	≤ 4000 > 4000
TOL ± MM	0.1	0.2	0.3	0.5	0.8	1.2	2.0 3.0
LENGTH MM SHORTER SIDE OF ANGLE	≤ 6		≤ 30	≤ 120	≤ 400		
TOL ON ANGLE ±DEG MIN	1		30'	20'	10'		

DRG. NO.
A4-4013-M-004-ME

Sr.No.	DESCRIPTION	QTY.	MATL.	REMARKS
1	CENTER BOLT	1	S.S 304	
2	O RING	4	NEOPRENE	
3	BOTTOM DISC	1	ALUMINUM	
4	TOP DISC	1	ALUMINUM	
5	O RING	1	VITON	
6	SPRING	4	SPRING STEEL	
7	WASHER	2	S.S 304	
8	HANDLE	1	S.S 304L	



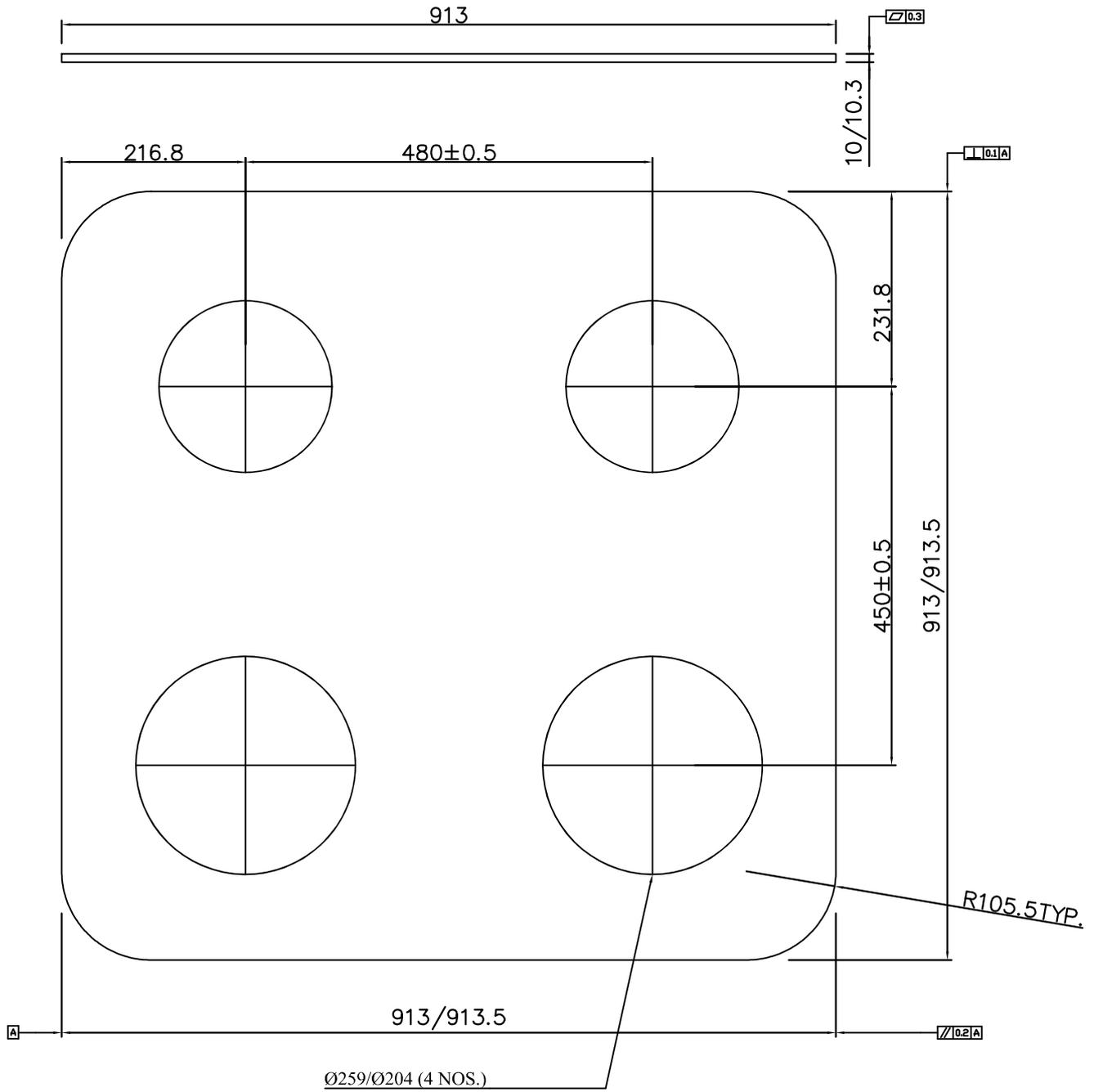
8" SS BUNG PORT

- NOTES**
1. ALL DIMENSIONS ARE IN mm. EXCEPT SPECIFIED.
 2. REMOVE ALL SHARP CORNERS OR BURRS.
 3. GENERAL FINISH M3 ALL OVER IN ALL PARTS
 4. IF ANY DOUBT, ASK.

TOLERANCE UNLESS OTHERWISE SPECIFIED							
LENGTH MM	≤ 6	≤ 30	≤ 120	≤ 315	≤ 1000	≤ 2000	≤ 4000 > 4000
TOL ± MM	0.1	0.2	0.3	0.5	0.8	1.2	2.0 3.0
LENGTH MM SHORTER SIDE OF ANGLE	≤ 6		≤ 30	≤ 120	≤ 400		
TOL ON ANGLE ±DEG MIN	1		30'	20'	10'		

DRG. NO.
A4-4013-M-005-ME

Sr.No.	DESCRIPTION	QTY.	MATL.	REMARKS
1	GLOVEBOX WINDOW	4	ACRYLIC	ACRYLITE FF



GLOVE BOX WINDOW (ACRYLIC)

- NOTES**
1. ALL DIMENSIONS ARE IN mm. EXCEPT SPECIFIED.
 2. ALL SHARP CORNERS TO BE ROUNDED OFF TO 0.25R
 3. IF ANY DOUBT, ASK.

DRG. NO.
A4-4013-M-006-ME