



Management  
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ISO 9001:2015  
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## Certificado de Calidad

IT020305 rev.01

N° NN-21045

Industrias Nelson  
Av. Rivadavia 12140 – Ciudadela – Buenos Aires  
[info@industriasnelson.com.ar](mailto:info@industriasnelson.com.ar) / [www.industriasnelson.com.ar](http://www.industriasnelson.com.ar)  
T.E. 0800-333-4237

| Descripción                             | Código    | Certificado  |
|-----------------------------------------|-----------|--------------|
| CONECTOR CODO 3/8" OD X 1/4" bspt       | 69S0604   | AZ-303 / 322 |
| Componentes                             | Material  | Certificado  |
| CODO FORJADO DE BARRA REDONDA DE 19.5mm | AISI 316I | AZ-303 / 322 |

### Protocolo de ensayo :

| Tipo       |   | Presión de trabajo | Estado | Presión de prueba | Estado | Tiempo      |
|------------|---|--------------------|--------|-------------------|--------|-------------|
| Hidráulico | 1 | 6.000 PSI          | Ok     | 9.000 PSI         | Ok     | 60 segundos |

### Dimensional:

Se controlaron las roscas con el calibre correspondientes dando como resultado satisfactorio. Se controlaron también la rugosidad superficial y las dimensiones generales dando un resultado satisfactorio.

### Visual/Funcional:

Se controlaron la porosidad, rebabas, ensamblado, terminación superficial y su función mecánica dando como resultado: satisfactorio

### Observaciones:

Se certifica que las piezas descriptas fueron construidas de acuerdo a lo indicado en nuestros estándares internos, que se cumplen de acuerdo a un sistema de Gestión de Calidad certificado ISO 9001:2015, manteniendo en archivo los certificados correspondientes a cada material.

Firma: INDUSTRIAS NELSON S.A.



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# CHANDAN STEEL LIMITED

(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2015 CERTIFICATE No. 04 100 011022

Admin Office : 504, Sukh Sagar, N S Patker Marg, Chowpatty, Mumbai  
400 007, India. Tel. : (+91) 22 66290600 Fax : (+91) 22 66290633 / 34.  
Website : <http://chandansteel.net>  
Email : [exports@chandansteel.net](mailto:exports@chandansteel.net)

Works : Plot # 31 to 36, 45 to 49/2, 142 (Exp. Area), G.I.D.C. Umbergaon  
Dist. - Valsad, Gujarat - 396171 India. & Survey No. 102/2 & 102/3,  
Village - Dehri, Taluka - Umbergaon, District - Valsad, Gujarat - 396170,  
India. Tel. : (+91) 260 7128999 Fax : (+91) 260 2560103.  
GSTIN - 24AAACC4713B1ZG

L/c. No.: 688-48  
L/c. Date:

F860(824) QC 09/00/11.01.2018

## MILL TEST CERTIFICATE

### INSPECTION CERTIFICATE 3.1 ACCORDING TO EN 10204 : 2005

|                                                                                      |                                |          |                             |                 |                                                          |          |                   |       |          |    |   |
|--------------------------------------------------------------------------------------|--------------------------------|----------|-----------------------------|-----------------|----------------------------------------------------------|----------|-------------------|-------|----------|----|---|
| Consignee                                                                            |                                |          |                             |                 | Test Certificate No. : EXP/22-23/00024-31                |          |                   |       |          |    |   |
| Majdalani Inox S.A.                                                                  |                                |          |                             |                 | Date of Issue : 09.04.2022                               |          |                   |       |          |    |   |
| RUTA PANAMERICANA KM 31,200, COLECTORA OESTE                                         |                                |          |                             |                 | P.O. No. : 30240                                         |          |                   |       |          |    |   |
| (1617) EL TALAR, BUENOS AIRES                                                        |                                |          |                             |                 | SC_No. & Date : 21-22/0373, Dt.29.11.2021                |          |                   |       |          |    |   |
| ARGENTINA                                                                            |                                |          |                             |                 | Invoice No. & Date : EXP/22-23/00024, Dt.09.04.2022      |          |                   |       |          |    |   |
| PRODUCT DESCRIPTION<br>STAINLESS STEEL ROUND BARS                                    |                                |          |                             |                 | LENGTH                                                   |          |                   |       | Net Wt.  |    |   |
| Ordered                                                                              |                                |          |                             | Actual          |                                                          | 314 Kgs. |                   |       |          |    |   |
| 6.0 - 6.1 Mtrs.                                                                      |                                |          |                             | 6.0 - 6.1 Mtrs. |                                                          |          |                   |       |          |    |   |
| Heat No.                                                                             | Grade                          | Size     | Tolerance                   |                 | Process Route                                            |          |                   |       |          |    |   |
| CH-11937                                                                             | 316L                           | 19.05 mm | h9                          |                 | Electric Melting, A.O.D. Refining,<br>Continuous Casting |          |                   |       |          |    |   |
| CHEMICAL COMPOSITION (Weight %)                                                      |                                |          |                             |                 |                                                          |          |                   |       |          |    |   |
|                                                                                      | C                              | Si       | Mn                          | P               | S                                                        | Cr       | Mo                | Ni    | Cu       | Ti | N |
| Min.                                                                                 | -                              | -        | -                           | -               | -                                                        | 16.00    | 2.00              | 10.00 | -        | -  | - |
| Max.                                                                                 | 0.030                          | 1.00     | 2.00                        | 0.045           | 0.030                                                    | 18.00    | 3.00              | 14.00 | -        | -  | - |
| Results                                                                              | 0.019                          | 0.51     | 1.63                        | 0.039           | 0.015                                                    | 16.71    | 2.06              | 10.05 | -        | -  | - |
| MECHANICAL PROPERTIES                                                                |                                |          |                             |                 |                                                          |          |                   |       |          |    |   |
| Specified                                                                            | Yield Strength                 |          | Tensile Strength            |                 | Elongation                                               |          | Reduction of Area |       | Hardness |    |   |
| Value                                                                                | N/mm <sup>2</sup> /MPa (Rp0.2) |          | N/mm <sup>2</sup> /MPa (Rm) |                 | %                                                        |          | %                 |       | (HB)     |    |   |
| Min.                                                                                 | 170                            |          | 485                         |                 | 30                                                       |          | 40                |       | -        |    |   |
| Max.                                                                                 | -                              |          | -                           |                 | -                                                        |          | -                 |       | -        |    |   |
| Results                                                                              | 410                            |          | 695                         |                 | 42                                                       |          | 66                |       | 215-218  |    |   |
| Remarks:                                                                             |                                |          |                             |                 |                                                          |          |                   |       |          |    |   |
| 1. Cold drawn & Centreless Ground.                                                   |                                |          |                             |                 |                                                          |          |                   |       |          |    |   |
| 2. Solution annealed at 1050 °C.                                                     |                                |          |                             |                 |                                                          |          |                   |       |          |    |   |
| 3. PMI test done 100% & found Satisfactory.                                          |                                |          |                             |                 |                                                          |          |                   |       |          |    |   |
| 4. Material is free from radio-active contamination.                                 |                                |          |                             |                 |                                                          |          |                   |       |          |    |   |
| 5. The material conforms to ASTM A276/A276M-17 Specifications.                       |                                |          |                             |                 |                                                          |          |                   |       |          |    |   |
| 6. The material is manufactured /melt in Chandan Steel Mill and is of Indian Origin. |                                |          |                             |                 |                                                          |          |                   |       |          |    |   |
| 7. No welding/weld repairs was performed on this material.                           |                                |          |                             |                 |                                                          |          |                   |       |          |    |   |
| BUNDLE NO.: 17                                                                       |                                |          |                             |                 |                                                          |          |                   |       |          |    |   |
| COLOUR : LIGHT GREEN                                                                 |                                |          |                             |                 |                                                          |          |                   |       |          |    |   |

It is hereby certified that the above results are true and correct in every details and are meeting the requirements of specification & purchase order.

B. S. RAUTELA  
MANAGER - QUALITY ASSURANCE