



Management System  
ISO 9001:2015  
www.tuv.com  
ID: 910502711

## Certificado de Calidad

IT020305 rev.01

### N° NN-20906

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    | Cantidad    | Certificado |
|--|-----------------------------|-----------|-------------|-------------|
|  | ENTRERROSCA ½" NPT x ¼" NPT | 122S0804  |             | AA-761      |
|  | Componentes                 | Material  | Certificado |             |
|  | BARRA HEXAGONAL 22.2mm      | AISI 316L | AA-761      |             |

**Protocolo de ensayo :**

| Tipo       | Presión de trabajo | Estado | Presión de prueba | Estado | Tiempo      |
|------------|--------------------|--------|-------------------|--------|-------------|
| Hidráulico | 1                  | Ok     | 8.500 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.



**CHANDAN STEEL LIMITED**  
(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)

ISO 9001 : 2015 CERTIFICATE No. 04 100 011022

**AA-761**

ADM. OFFICE: 504, SUKH SAGAR, N. S. PATKAR MARG, MUMBAI 400 007, INDIA

Tel.: 91-22-66290600. Fax.: 91-22-66290633/34

Website : www.chandansteel.net

Email : csl@chandansteel.net

I/c. No.:

I/c. Date:

WORKS:PLOT NO. 31 TO 36,45,46,48, & 49/2,142

(EXP. AREA)GIDC, UMBERERGAON & SURVEY NO, 102/2 & 3,VILLAGE,

DEHARI, TALUKA:UMBERGAON, DIST:VALSAD, GUJARAT -396171

GSTIN - 24AAAACC713B1ZG

F860(824) QC 09/00/11.01.2018

**MILL TEST CERTIFICATE**  
INSPECTION CERTIFICATE 3.1 ACCORDING TO EN 10204 : 2005

|  |                                |                   |                            |   |            |                                  |                   |          |          |    |   |
|--|--------------------------------|-------------------|----------------------------|---|------------|----------------------------------|-------------------|----------|----------|----|---|
| Consignee<br>Majdalani Inox S.A.<br>RUTA PANAMERICANA KM 31,200, COLECTORA OESTE<br>(1617) EL TALAR, BUENOS AIRES<br>ARGENTINA |                                |                   |                            | Test Certificate No. : EXP/01459 - 07/2019-2020<br>Date of Issue : 31.01.2020<br>P.O. No. : 30131<br>SC_No. & Date : 19-20/0463, Dt.10.12.2019<br>Invoice No. & Date : EXP/01459/2019-20, Dt.31.01.2020 |            |                                  |                   |          |          |    |   |
| PRODUCT DESCRIPTION<br>STAINLESS STEEL HEXAGONAL BARS  |                                |                   |                            | LENGTH  |            |                                  |                   | Net Wt.  |          |    |   |
|  |                                |                   |                            | Ordered   |            | Actual                           |                   | 575 Kgs. |          |    |   |
|  |                                |                   |                            | 6.0 - 6.1 Mtrs.   |            | 6.0 - 6.1 Mtrs.                  |                   |          |          |    |   |
| Heat No.   | Grade<br>AISI                  | Size<br>mm/inches | Tolerance                  | Process Route<br>Electric Melting, A.O.D. Refining,<br>Continuous Casting   |            |                                  |                   |          |          |    |   |
| CH-12114   | 316L                           | 22.22 mm (Hex)    | h11                        |   |            |                                  |                   |          |          |    |   |
| 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  | 0.026                          | 0.45              | 1.72                       | 0.036   | 0.005      | 16.65                            | 2.11              | 10.08    | -        | -  | - |
| 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  | 594                            |                   | 758                        |   | 37         |                                  | 66                |          | 234-237  |    |   |
| Remarks:   |                                |                   |                            |   |            |                                  |                   |          |          |    |   |
| 1. Cold drawn & Polished.  |                                |                   |                            |   |            | 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.  |                                |                   |                            |   |            |                                  |                   |          |          |    |   |
| BUNDLE NO.: 159  |                                |                   |                            | 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

