



Management System
ISO 9001:2015
www.tuv.com
ID: 910502371

Certificado de Calidad

IT020305 rev.01

N° NN-20727

Industrias Nelson
Av. Rivadavia 12140 – Ciudadela – Buenos Aires
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T.E. 0800-333-4237

| Descripción | Código | Cantidad | Certificado |
|-------------------------------|-----------|-------------|-------------|
| CONECTOR TEE 20mm OD X3 LADOS | 64SM20-DV | | AZ-290 |
| Componentes | Material | Certificado | |
| TEE FORJADA (REDONDO 41.2mm) | AISI 316L | AZ-290 | |

Protocolo de ensayo :

| Tipo | | Presión de trabajo | Estado | Presión de prueba | Estado | Tiempo |
|------------|---|------------------------|--------|------------------------|--------|-------------|
| Hidráulico | 1 | 400 Kg/cm ² | Ok | 582 kg/cm ² | 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.

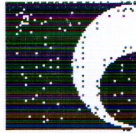
Visual/Funcional:

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

Observaciones : los conectores comprendidos dentro del certificados, son probados con tuercas, virolas y caño de nuestra propia comercialización

Se certifica que las piezas descritas 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 9001:2000, 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 : 2008 CERTIFICATE No. 04100 011023-E3

ADM. OFFICE: 504, SURJI BAGAR, N. S. PATIL MARG, MUMBAI 400 037, INDIA

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

Website : www.chandansteel.net

Email : cs@chandansteel.net

L/c. No.:

L/c. Date:

WORKS: Plot No. 35, G. I. D. C., Umbergaon

Dist Valsad, Gujarat - 396 171.

Tel: 91-260-308 9999 Fax: 91-260 308 9872

E-mail : exports@chandansteel.net

A2-290

34924

F824 QC 09 / 02 / 10.12.2012

MILL TEST CERTIFICATE

| | | | | | | | | | | | |
|---|--------------------------------|-------------------|----------------------------|---|------------|----------------------|-------------------|----------------|----------|----|---|
| APERAM AV DESCARTES 4200 B1667 AYP PQE. IND. TORTUGUITAS ARGENTINA | | | | Test Certificate No. : EXP/00445 - 17/2014-2015 Date of Issue : 13.08.2014 P.O. No. : - SC_No. & Date : 14-15/00158, Dt.15.05.2014 Invoice No. & Date : EXP/00445/2014-15 Dt.13.08.2014 | | | | | | | |
| PRODUCT DESCRIPTION STAINLESS STEEL ROUND BARS | | | | LENGTH | | | | Net Wt. | | | |
| | | | | Ordered | | Actual | | 322 Kgs. | | | |
| | | | | 6.0 - 6.1 Mtrs. | | 6.0 - 6.1 Mtrs. | | | | | |
| Heat No. | Grade AISI | Size mm | Tolerance | Process Route Electric Melting, A.O.D. Refining, Continuous Casting | | | | | | | |
| CH-866 | 316L | 41.20 mm | h9 | | | | | | | | |
| 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 | 0.021 | 0.39 | 1.73 | 0.037 | 0.020 | 17.05 | 2.03 | 10.12 | - | - | - |
| MECHANICAL PROPERTIES | | | | | | | | | | | |
| Specified | Yield Strength | | Tensile Strength | | Elongation | | Reduction of area | | Hardness | | |
| Value | N/mm ² /MPa (Rp0.2) | | N/mm ² /MPa(Rm) | | % | | % | | (HB) | | |
| Min. | 170 | | 485 | | 30 | | 40 | | - | | |
| Max. | - | | - | | - | | - | | - | | |
| Results | 330 | | 638 | | 53 | | 73 | | 195-198 | | |
| Remarks: | | | | | | | | | | | |
| 1. Smooth Turned and Polished. | | | | | | | | | | | |
| 2. Solution annealed at 1050 °C. | | | | | | | | | | | |
| 3. PMI test done 100% & found Satisfactory. | | | | | | | | | | | |
| 4. The material is fully killed and calcium treated. | | | | | | | | | | | |
| 5. Material is free from radio-active contamination. | | | | | | | | | | | |
| 6. The material conforms to ASTM A276 - 13 specifications. | | | | | | | | | | | |
| 7. The material is manufactured /melt in Chandan Steel Mill and is of Indian Origin. | | | | | | | | | | | |
| BUNDLE NO.: 37 | | | | | | COLOUR : GREY | | | | | |

[Signature]