



Certificado de Calidad

IT020305 rev.01

N° NN-20808

Industrias Nelson
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| | Descripción | Código | Certificado |
|--|------------------------------------|-----------|-------------|
| | BUJE REDUCCION 1/2" NPT X 3/8" NPT | 110S0806 | AA-777 |
| | Componentes | Material | Certificado |
| | BARRA HEXAGONAL 31.7 MM | AISI 316L | AA-777 |

Protocolo de ensayo :

| Tipo | Presión de trabajo | Estado | Presión de prueba | Estado | Tiempo |
|------------|--------------------|--------|-------------------|--------|-------------|
| Hidráulico | 1 | Ok | 17.500 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 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 9001:2015, manteniendo en archivo los certificados correspondientes a cada material.


Firma: **INDUSTRIAS NELSON S.A.**



VIRAJ PROFILES LIMITED (SRM Division)

Works: SURVEY NO.- 25/1, 25/2, 26 & 34, Village- MAAN, Taluka- PALGHAR, Dist.- PALGHAR, MAHARASHTRA -401 506, INDIA.
e-mail- virajqc@viraj.com

(A02) INSPECTION CERTIFICATE & MILL TEST REPORT (DIN EN 10204-3.1)

| | | | | |
|---|---|-------------------|-------------|--|
| (A06)CUSTOMER : APERAM STAINLESS SERVICES & SOLUTIONS ARGENTINA S A AVDA.DESCARTES 4200,B1667AYP BUENOS AIRES, ARGENTINA, Argentina | Manufacturer's | (A03)MTR NO. | 910004776/1 | |
| | Symbol (A04) | (Z02) DATE | 11.03.2022 | |
| |  | MATERIAL SPEC. | | |
| | | (B02) GRADE | AISI 316 | |
| | | DIMENSIONAL SPEC. | h11 | |

| | |
|------------------------------------|---------------------------------------|
| (B01): STAINLESS STEEL BRIGHT BARS | (B04) DELIVERY CONDITION : COLD DRAWN |
|------------------------------------|---------------------------------------|

Approved acc. To AD 2000-Merkblatt W0 and
certified acc. To PED (2014/68/EU) by Certification
Body for Pressure Equipment of TUVNORD System (Notified body.reg.no:0045)

| | |
|-----------------------------|------------------|
| (A07)ORDER NO: APERAM-02/22 | (A09)Article No: |
|-----------------------------|------------------|

| (B09-B11)ITEM DESCRIPTION | LENGTH | (B08) PIECES(Nos) | NET WEIGHT(TO) | (B07) HEAT NO |
|---------------------------|-------------|-------------------|----------------|---------------|
| HEXAGON 31.750 MM | 6.00 - 6.20 | 17 | 0.704 | 63968 |

| | |
|-----------|-------------|
| Bundle No | 14000081318 |
|-----------|-------------|

(C71-C92) CHEMICAL ANALYSIS

| ELEMENT | %C | %Mn | %Si | %S | %P | %Cr | %Ni | %Cu | %Mo | %Ti | %Co | %N | | | | |
|---------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|--------|--|--|--|--|
| HEAT | 0.0180 | 1.6400 | 0.3800 | 0.0250 | 0.0380 | 16.6800 | 10.0600 | 0.4700 | 2.0400 | 0.0030 | 0.1800 | 0.0700 | | | | |

MECHANICAL PROPERTIES

| INSPECTION NO. | TEST SPECIFICATION (ISO 6892-1) | | | | | | | | | | | | | | | |
|----------------|---------------------------------|----------------|---------|-------------------|--------------------|----------|--|--|--|--|--|--|--|--|--|--|
| | (C12) Tensile Strength | Proof Strength | | (C13) Elongation% | Reduction of Area% | Hardness | | | | | | | | | | |
| 890000344953 | | Rp=0.2% | Rp = 1% | | | | | | | | | | | | | |
| | MPA | MPA | MPA | Lo=4D | | HBW | | | | | | | | | | |
| | 662.00 | 508.00 | | 44.00 | 67.00 | 196 | | | | | | | | | | |

METALLURGICAL PROPERTIES

| (B03)COROSION TEST | MICRO OBSERVATION |
|---|---|
| PASSED IGC TEST PER ASTM-A262 & DIN EN ISO 3651-2 | NO CARBIDE PRECIPITATION OBSERVED ON GRAIN BOUNDARIES |

(B06)PRODUCT MARKING : SIZE, GRADE, HEAT NO., LOGO & INSPECTOR STAMP

MATERIAL CONFIRMS TO ASTM A276/A276M-17 COND A,
INTERGRANULAR CORROSION TEST SATISFACTORY AS PER ASTM A262-15 PRACTICE E,
CERTIFIED AS PER EN 10204-3.1.

REMARKS : MINIMUM SOLUTION ANNEALING TEMPERATURE 1050 C, SOAKING TIME 01 HR/INCH WATER QUENCHED..
MATERIAL IS FREE FROM MERCURY CONTAMINATION, FREE FROM WELD OR WELD REPAIRS.
WE CONFIRM THAT THE MATERIAL HAS BEEN TESTED AND FOUND TO BE FREE FROM RADIOACTIVE CONTAMINATION.

we certify that the above material has been inspected and tested and complies with the order/contract and is of Indian origin

VI


 AUTHORIZED WORKS INSPECTOR