



VALVULAS WORCESTER DE MEXICO, S.A. DE C.V.

RHINO VALVES WORLDWIDE



CERTIFICADO DE CALIDAD/QUALITY CERTIFICATE

EN 10 204 3.1 B

| | | | |
|--|-----------------------------|-----------------------------------|----------------------|
| Factura / Invoice: | Cantidad / Quantity: | Certificado / Certificate: | Fecha / Date: |
| 98914 | 50.00 | EE98914/35 | 13/Feb/04 |
| Descripción / Description: | | | |
| 4211-T 1/2" S.E. NPT | | | |
| Cliente / Customer: | | | |
| 7 TUBOS CONEXIONES Y TANQUES, S. A. DE C. V. | | | |

Numeros de Rastreabilidad / Traceability Number:

**04A06169 A 04A06178,04A05929 A 04A05938,04A05719 A 04A05728
04A06119 A 04A06128,04A05459 A 04A05468**

ORIGINAL



Válvulas Worcester de México, S.A. de C.V., certifica que el material indicado cumple con nuestras especificaciones como se describe en nuestros catálogos, hojas de especificación, dibujos y en otra literatura. Los productos, partes, materiales indicados aquí han sido comprados, fabricados, inspeccionados y probados de acuerdo con estas especificaciones, a nuestro sistema de calidad ISO 9001, y ASME/ANSI B16.34-1998 inciso (7).

Válvulas Worcester de México, S.A. de C.V., hereby certifies that the material supplied is in accordance with our specifications as describe in our catalog, specification sheets, drawings, and other literature. The products, parts and materials identified herein have been purchased, manufactured, inspected and tested in accordance with these specifications, our ISO 9001 quality assurance program, and ASME/ANSI B16.34-1998 part (7).

Elaboro / Elaborated by:

Jose Luis Perez C.
Metrologista

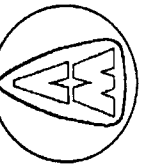
Aprobo / Aproved by:

Ing. Saturnino Padilla Becerra.
Gerente de Aseguramiento de Calidad
Quality Ass. Manager.

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CERTIFICADO / CERTIFICATE: EE98914/35

| NO. | COMPONENTES | MATERIAL |
|-----|-----------------|--------------------|
| 1 | CUERPO / BODY | ASTM B124 C37700 |
| 2 | TAPA / PIPE END | UNS C36000 |
| 3 | VASTAGO / STEM | AISI 416 |
| 4 | ESFERA / SPHERE | UNI EN 12164CW614N |

| No. | C% | Mn% | Si% | P% | S% | Cr% | Mo% | Ni% | Cu% | V% | Fe% | Al% | N% | Zn% | Pb% | Sn% | PROPIEDADES MECANICAS / MECHANICAL PROPERTIES | | | | | |
|-----|-------|-------|-------|-------|-------|--------|-----|-------|--------|----|-------|-------|----|--------|---------|-------|---|--------------------------------------|------------------------------|-------------------------------------|--------------------|--------|
| | | | | | | | | | | | | | | | | | RESISTENCIA A LA TENSION TENSILE STRENGTH | LIMITE DE CEDENCIA YIELD STRENGTH | % ELONGACION % ELONGATION | REDUCCION DE AREA REDUCTION AREA | DUREZA HARDNESS | |
| 1 | X | 0.002 | 0.003 | X | X | 0.002 | X | X | 58.680 | X | 0.234 | 0.001 | X | 39.050 | 2.010 | 0.016 | X | | | 60 RB | | |
| 2 | X | X | X | X | X | X | X | X | 63.000 | X | 0.350 | X | X | X | 3.700 | X | X | 51 Ksi | X | 10 | 60 RB | |
| 3 | 0.130 | 1.080 | 0.480 | 0.020 | 0.310 | 12.160 | X | X | X | X | X | X | X | X | X | X | X | 940 N/mm ² | 874 N/mm ² | 13 | 46 | 260 HB |
| 4 | X | X | X | X | X | X | X | 0.300 | 57-59 | X | 0.300 | 0.050 | X | RESTO | 2.5-3.5 | 0.300 | X | X | X | X | X | |

ORIGINAL

| TIPO DE PRUEBA TYPE OF TEST | RESULTADO RESULT |
|---|--|
| PRUEBA HIDRAULICA DEL CUERPO HYDRAULIC TEST ON BODY | 900 SIN FUGA "OK" NO LEAKAGE FOUND |
| PRUEBA HIDRAULICA EN ASIENOS HYDRAULIC TEST ON SEATS | 700 SIN FUGA "OK" NO LEAKAGE FOUND |
| PRUEBA NEUMATICA EN ASIENOS NEUMATIC TEST ON SEATS | 50-80 SIN FUGA "OK" NO LEAKAGE FOUND |