



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: |
|---|----------------------|----------------------------|---------------|
| 112923                                  | 50.00                | EE112923/13                | 4/Ene/06      |
| Descripción / Description:              |                      |                            |               |
| 411-T 1" S.E. NPT                       |                      |                            |               |
| Cliente / Customer:                     |                      |                            |               |
| 7 PLESA ANAHUACAPULCUIAS., S.A. DE C.V. |                      |                            |               |

Numeros de Rastreabilidad / Traceability Number:

**05L05420 A 05L05429,05L05380 A 05L05389,05L05240 A 05L05249  
05L05600 A 05L05609,05L05260 A 05L05269**

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, NACE MR-01-75 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, NACE MR-01-75 and ASME/ANSI B16.34-1998 part (7).

Elaboro / Elaborated by:

Jose Luis Perez C.  
Metrologista

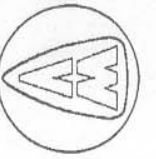
Aprobo / Aproved by:

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Gerente de Aseguramiento de Calidad  
Quality Ass. Manager.

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CERTIFICADO / CERTIFICATE: EE112923/13

| No. | COMPONENTES     | MATERIAL           |
|-----|-----------------|--------------------|
| 1   | CUERPO / BODY   | ASTM B124 C377000  |
| 2   | TAPA / PIPE END | ASTM B124 C377000  |
| 3   | VASTAGO / STEM  | AISI 316           |
| 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<br>TENSILE STRENGTH  | LIMITE DE CEDENCIA<br>YIELD STRENGTH | % ELONGACION<br>% ELONGATION | REDUCCION DE AREA<br>REDUCTION AREA | DUREZA<br>HARDNESS |        |
| 1   | X     | 0.005 | 0.007 | X     | X     | 0.004  | X     | X      | 58.940 | X  | X     | 0.082 | X  | 39.170 | 1.930 | 0.038 | X   | X                                    | X                            | 60 RB                               |                    |        |
| 2   | X     | 0.007 | 0.014 | X     | X     | 0.004  | X     | X      | 58.220 | X  | X     | 0.158 | X  | 39.210 | 1.970 | 0.026 | X   | X                                    | X                            | 60 RB                               |                    |        |
| 3   | 0.030 | 1.640 | 0.410 | 0.039 | 0.028 | 16.590 | 2.170 | 10.770 | X      | X  | X     | X     | X  | X      | X     | X     | X   | 82218 Psi                            | 39192 Psi                    | 57                                  | X                  | 143 HB |
| 4   | X     | X     | X     | X     | X     | X      | X     | 0.300  | 57-59  | X  | 0.300 | 0.050 | X  | 0.000  | 3.500 | 0.300 | X   | X                                    | X                            | X                                   |                    |        |

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