



Industrial de Valvulas, S.A de C.V.  
 Av. de La Industria Lote 16 Fracc. Industrial El Trebol  
 Tepozotlan, Estado de México C.P. 54600

(Numero) Number **V09CP1300**  
 (Fecha) Date **03/11/2009**

# QUALITY ASSURANCE CERTIFICATE OF COMPLIANCE

(ACCORDING TO EN10204 TYPE 3.1)  
 ASEGURAMIENTO DE CALIDAD CERTIFICADO DE CUMPLIMIENTO

WE CERTIFY THAT THE PRODUCT LISTED BELOW WAS DESIGNED, MANUFACTURED AND TESTED ACCORDING TO OUR QUALITY SYSTEM AND REQUIREMENTS GIVEN IN ONE OR MORE OF THE FOLLOWING STANDARDS LAST EDITION:

(CERTIFICAMOS QUE EL PRODUCTO LISTADO ABAJO FUE DISEÑADO, FABRICADO Y PROBADO DE ACUERDO CON NUESTRO SISTEMA DE CALIDAD Y CON REQUISITOS ESTABLECIDOS EN UNO O MAS DE LOS SIGUIENTES ESTANDARES ULTIMA EDICIÓN.)

- |             |   |             |   |
|-------------|---|-------------|---|
| API 598     | - VALVE INSPECTION AND TESTING                      | API 6D      | - PIPELINE VALVES - GATE, PLUG, BALL AND CHECK                                    |
| API 599     | - METAL PLUG VALVES - FLANGED, THREADED AND WELDING | API 600     | - STEEL GATE VALVES, FLANGED AND WELDING ENDS                                     |
| ANSI B16-10 | - FACE TO FACE AND END TO END DIMENSIONS OF VALVES  | ANSI B16-11 | - FORGED FITTINGS, SOCKET - WELDING AND THREADED                                  |
| ANSI B16-34 | - VALVES - FLANGED, THREADED AND WELDING ENDS       | API 602     | - COMPACT STEEL GATE VALVES - FLANGED, THREADED, WELDING AND EXTENDED - BODY ENDS |
| MSS-SP61    | - PRESSURE TESTING OF STEEL VALVES                  |             |   |

**Part No. FS031A1MABV80000Z**  
 (Código) **3" Fig. 1912 F WCB, V80000Z**  
**Description** CAST STEEL SLAB GATE VALVE (API-6D) 150 PSI  
 Descripción (VALVULA COMPUERTA PLANA DE ACERO FUNDIDO (API-6D) 150 PSI)  
 NACE-MR-01-75, FIRE TEST API 6FA (NORMA NACE-MR-01-75, PRUEBA DE FUEGO API 6FA)

| PRESSURE TEST<br>(PRUEBAS DE PRESION) | SHELL<br>(CASCO) | BACK<br>(SEAT) | SIDE<br>(LADO) |     |
|---------------------------------------|------------------|----------------|----------------|-----|
|                                       |                  |                | 1              | 2   |
| HYDROSTATIC (PSI)<br>(HIDROSTATICA)   | 450              | 450            | N A            | N A |
| PNEUMATIC (PSI)<br>(NEUMATICA)        |                  |                | 80             | 80  |

**MECHANICAL TESTS (PROP. MECANICAS)**

**CHEMICAL COMPOSITION (%) COMPOSICIÓN QUIMICA (%)**

| ITEM<br>(PARTE)  | HEAT No.<br>(COLADA) | MATERIAL<br>(ASTM) | CHEMICAL COMPOSITION (%)             |       |                             |       |                                      |       |       |       |       |       | TENS<br>KPSI<br>CVN@ | YIELD<br>KPSI<br>1ST | ELG<br>%<br>2ND | RED<br>%<br>3RD | BHN<br>AVG |
|------------------|----------------------|--------------------|--------------------------------------|-------|-----------------------------|-------|--------------------------------------|-------|-------|-------|-------|-------|----------------------|----------------------|-----------------|-----------------|------------|
|                  |                      |                    | C                                    | Mn    | P                           | S     | Si                                   | Ni    | Cr    | Mo    | Cu    | V     |                      |                      |                 |                 |            |
| BODY<br>CUERPO   | ZS8008               | ASTM A-216/WCB     | 0.225                                | 0.757 | 0.026                       | 0.025 | 0.431                                | 0.066 | 0.158 | 0.032 | 0.037 | 0.005 | 71.77                | 42.77                | 23              | 37              | 170        |
| BONNET<br>BONETE | 8808                 | ASTM A-216/WCB     | Normalized to (Normalizado a) 930 °C |       | Temper to (Temple a) 650 °C |       | Cooled in air.(Cooled in air. (Enfr) |       |       |       |       |       | 78.44                | 42.05                | 27              | 37              | 155        |
| WEDGE<br>DISCO   | J7219178300          | ASTM A-515 GR 70   | 0.180                                | 0.700 | 0.031                       | 0.024 | 0.340                                | 0.028 | 0.023 | 0.007 | 0.026 | 0.002 | 70.00                | 38.00                | 21              |                 | 178        |
|                  |                      |                    | Normalized to (Normalizado a) 930 °C |       | Temper to (Temple a) 650 °C |       | Cooled in air.(Cooled in air. (Enfr) |       |       |       |       |       |                      |                      |                 |                 |            |
|                  |                      |                    | 0.143                                | 1.300 | 0.012                       | 0.004 | 0.300                                | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |                      |                      |                 |                 |            |

**JESSICA GARCIA**

CERTIFICADO POR: ASEGURAMIENTO DE CALIDAD  
 CERTIFIED BY: QUALITY ASSURANCE