



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

(Numero) Number
 (Fecha) Date

V102R4602
 16/08/2011

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 599 - METAL PLUG VALVES - FLANGED, THREADED AND WELDING
 ANSI B16-10 - FACE TO FACE AND END TO END DIMENSIONS OF VALVES
 ANSI B16-34 - VALVES - FLANGED, THREADED AND WELDING ENDS
 MSS-SP61 - PRESSURE TESTING OF STEEL VALVES

API 6D
 API 600
 ANSI B16-11
 API 602

- PIPELINE VALVES - GATE, PLUG, BALL AND CHECK
 - STEEL GATE VALVES, FLANGED AND WELDING ENDS
 - FORGED FITTINGS, SOCKET - WELDING AND THREADED
 - COMPACT STEEL GATE VALVES - FLANGED, THREADED, WELDING AND EXTENDED - BODY ENDS

Part No. **AR031A08MAB830000M**
 (Código) **3" Fig. 5341 F UT WCB, API TRIM No.8 830000**
 Description **CAST STEEL SWING CHECK VALVE 150 CLASS**
 Descripción **(VALVULA RETENCIÓN TIPO COLUMPIO DE ACERO FUNDIDO CLASE 150)**

VALVE MANUFACTURED TO MEET LOW FUGITIVE EMISSION (50 PPM'S MAX) & NACE SERVICE MR-01-75 (VALVULA SUMINISTRADA CON CONTROL DE BAJAS EMISIONES FUGITIVAS 50 PPM'S MAX.) Y PARA SERVICIO NACE MR-01-75 / MR0103-2007)

| PRESSURE TEST (PRUEBAS DE PRESION) | SHELL (CASCO) | BACK (SEAT) | SIDE (LADO) | |
|---------------------------------------|------------------|----------------|----------------|----|
| | | | 1 | 2 |
| HYDROSTATIC (PSI) (HIDROSTATICA) | 450 | NA | 315 | NA |
| PNEUMATIC (PSI) (NEUMATICA) | | | NA | NA |

MECHANICAL TESTS (PROP MECANICAS)

| CHEMICAL COMPOSITION (%) | | | COMPOSICIÓN QUIMICA (%) | | | | | | | | | | MECHANICAL TESTS | | | | | | |
|--------------------------|----------------------|--------------------|--------------------------------------|-------|-------|-------|-----------------------------|-------|--------|------------------------------------|-------|-------|------------------|----------------------|----------------------|-----------------|-----------------|------------|--|
| ITEM (PARTE) | HEAT No. (COLADA) | MATERIAL (ASTM) | C | Mn | P | S | Si | Ni | Cr | Mo | Cu | V | Cb | TENS KPSI CVN@ | YIELD KPSI 1ST | ELG % 2ND | RED % 3RD | BHN AVG | |
| BODY CUERPO | WH35409 | ASTM A-216/WCB | 0.195 | 0.979 | 0.024 | 0.015 | 0.470 | 0.013 | 0.059 | 0.001 | 0.025 | 0.003 | | 82.22 | 46.98 | 28 | 57 | 156 | |
| COVER TAPA | WH35371 | ASTM A-216/WCB | Normalized to (Normalizado a) 930 °C | | | | Temper to (Temple a) 650 °C | | | Cooled in air. (Enfriado en aire.) | | | | 75.84 | 46.69 | 31 | 55 | 153 | |
| WEDGE DISCO | WH82050 | ASTM A-217/CA15 | 0.194 | 0.957 | 0.023 | 0.013 | 0.484 | 0.013 | 0.019 | 0.001 | 0.028 | 0.003 | | 106.00 | 74.10 | 24 | 41 | 231 | |
| | | | Normalized to (Normalizado a) 930 °C | | | | Temper to (Temple a) 650 °C | | | Cooled in air. (Enfriado en aire.) | | | | | | | | | |
| | | | 0.124 | 0.817 | 0.020 | 0.010 | 0.562 | 0.104 | 13.230 | 0.001 | 0.017 | 0.039 | | | | | | | |
| | | | Normalized a (Normalizado to) 955 °C | | | | Temper a (Temper to) 630 °C | | | Enfriado en aire. (Cooled in air.) | | | | | | | | | |

FAC10-21 REV "3"

CERTIFICADO POR:
 ASEGURAMIENTO DE CALIDAD

CERTIFIED BY:
 QUALITY ASSURANCE

YOLANDA PONCIANO