



WALWORTH
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Industrial de Válvulas, S.A. de C.V.

Industria Ite 16 S/N Fracc. Industrial el Trébol de
Tepozotlán, Estado de México, México C.P. 54610

CERTIFICATE OF MATERIALS & TEST REPORT (CMTR)
(CERTIFICADO DE CALIDAD DE MATERIALES Y REPORTE DE PRUEBAS CMTR)
ACCORDING TO EN 10204 TYPE 3.1

No. código interno (Product Code Nr.): **EC060ADE1MR21BY**

No. Serie (Serial Number): **16C5312**

Fecha (Date): **September 1, 2016**

No. De Tag (Tag Number):

Cientes (Customer): **PLESA ANAHUAC Y CIAS, S.A DE C.V.**

No Pedido del Cliente (Customer PO Nr.): **24165**

Partida (Customer Item): **6** Pedido Interno No (Walworth Sales Nr.): **D000060560**

Partida (Item): **6**

| | | | | | |
|-----------------------------------|------------------|-------------------------|------------------|-----------------------------|------------------|
| Linea de producto (Product line): | Cast Iron | Extremos (Ends): | FF | Operación (Operation): | Handwheel |
| Tipo de válvula (Type of valve): | Gate | Cuerpo (Shell): | GRAY IRON | Otros (Other requirements): | |
| Diámetro (Nominal diameter): | 6 | Interiores (Trim): | #E1 (BCE) | | |
| Presión clase (Pressure class): | 125 | Figura No (Figure Nr.): | FIG W726 | | |

COMPOSICION QUIMICA EN % (CHEMICAL COMPOSITION %)

| Parte (Component) | Material (Material) | Colada (Heat) | % P | % S | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
|-------------------|---------------------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| BONETE (BONNET) | ASTM_A_126_GR_B | C57G | 0.084 | 0.086 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| CUERPO (BODY) | ASTM_A_126_GR_B | C585 | 0.055 | 0.058 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| DISCO 1 (DISC 1) | ASTM_A_126_GR_B | C4XV | 0.028 | 0.067 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

PROPIEDADES MECANICAS (MECHANICAL TESTING)

| Parte (Component) | Colada (Heat) | Condición de TT Normalizado & revenido Heat Treatment condition (Normalized & tempered) | Cedencia (Yield strength) (Kpsi) | Tensión (Tensile strength) (Kpsi) | Alar. En 2" (Elong. In 2") (% min) | Reduccion de area (Reduction of area) (% min) | Dureza (Hardness) (Bhn) | | Prueba Impacto (Impact Test) (Joules) | | | | |
|-------------------|---------------|---|----------------------------------|-----------------------------------|------------------------------------|---|-------------------------|-----|---------------------------------------|-----|-----|-----|---|
| | | | | | | | 1st | 2nd | 1st | 2nd | 3rd | AVG | |
| BONETE (BONNET) | C57G | NO APLICA NOT APPLICABLE | 0.0000 | 37.1200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CUERPO (BODY) | C585 | NO APLICA NOT APPLICABLE | 0.0000 | 36.2500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DISCO 1 (DISC 1) | C4XV | NO APLICA NOT APPLICABLE | 0.0000 | 43.0650 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| TIPO DE PRUEBA (Type of test) | PRESION (Pressure) (Psi) | TIEMPO (Duration) (min) | RESULTADO (Result) | TIPO DE PRUEBA (Type of test) | RESULTADO (Result) |
|--|--------------------------|-------------------------|---------------------|-------------------------------|--------------------|
| HIDROSTATICA DE CASCO (HYDROSTATIC SHELL) | 350 | 0.5 min | ACEPTADO (ACCEPTED) | | |
| PRUEBA HIDROSTATICA SELLO 1 (HIGH PRESSURE CLOSURE SIDE 1) | 200 | 0.5 min | ACEPTADO (ACCEPTED) | | |
| PRUEBA HIDROSTATICA SELLO 2 (HIGH PRESSURE CLOSURE SIDE 2) | 200 | 0.5 min | ACEPTADO (ACCEPTED) | | |



Certificamos que este producto ha sido diseñado, fabricado y probado de acuerdo con nuestro sistema de administración de calidad y con los requisitos establecidos en una o más de las siguientes normas en su última edición. (We hereby certify this product has been designed, manufactured and tested according to our quality management system and requirements stated in one or more of the following standards on their latest edition).

- API 599 METAL PLUG VALVES - FLANGED, THREADED AND WELDING
- API 591 PROCESS VALVE QUALIFICATION PROCEDURE
- API 603 STEEL GLOBE VALVES - FLANGED AND BUTT WELDING ENDS, BOLTED BONNETS
- API 624 TYPE TESTING OF RISING STEM VALVES EQUIPPED WITH GRAPHITE PACKING FOR FUGITIVE EMISSIONS
- ANSI B16-10 FACE TO FACE AND END TO END DIMENSIONS OF VALVES
- ANSI B16-11 FORGED FITTINGS: SOCKET WELDING AND THREADED
- ANSURINACE MR0175/ISO 15156-1 MATERIALS FOR USE IN H₂S-CONTAINING ENVIRONMENTS IN OIL AND GAS PRODUCTION
- NACE MR0103 MATERIAL RESISTANT TO SULFIDE STRESS CRACKING IN CORROSIVE PETROLEUM ENVIRONMENT
- MSS-5961 PRESSURE TESTING OF STEEL VALVES

Quality Assurance Department
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