



Industrial de Válvulas, S.A. de C.V.

Industria Ite 16 S/N Fracc. Industrial el Trébol de Tapotzotlán, 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.): **ER080ADE1MRN1B1Y**

Fecha (Date): **October 18, 2016**

No. de producto (Product line): **Cast Iron**

No. Serie (Serial Number): **16R2744**

Clientes (Customer):

Check Type Swing

No. De Tag (Tag Number):

Partida (Customer Item):

Extremos (Ends):

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

Linea de producto (Product line):

FF

Operación (Operation):

Tipo de válvula (Type of valve):

GRAY IRON

Otros (Other requirements):

Diámetro (Nominal diameter):

#E1 (BCE)

Presión clase (Pressure class):

FIG W928

COMPOSICION QUIMICA EN % (CHEMICAL COMPOSITION %)

Parte (Component)	Material (Material)	Colada (Heat)	% P	% S	%	%	%	%	%	%	%	%	%	%	%	%	%	%
CUERPO (BODY)	ASTM_A_126_GR_B	C66Y	0.088	0.052	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	C437	0.078	0.075	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
TAPA 1 (COVER 1)	ASTM_A_126_GR_B	C66Y	0.088	0.052	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
CUERPO (BODY)	C66Y	NO APLICA NOT APPLICABLE	0.0000	38.4100	0	0	0 0	0 0 0 0
DISCO 1 (DISC 1)	C437	NO APLICA NOT APPLICABLE	0.0000	32.6250	0	0	0 0	0 0 0 0
TAPA 1 (COVER 1)	C66Y	NO APLICA NOT APPLICABLE	0.0000	38.4100	0	0	0 0	0 0 0 0

PRUEBAS DE PRESIÓN DE ACUERDO CON MSS SP 71 (PRESSURE TEST IN ACCORDANCE WITH MSS SP 71)

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)		



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 600 FORGED STEEL VALVES—FLANGED AND BUTT-WELDING ENDS, BOLTED BONNETS
- API 601 PROCESS VALVES—FLANGED AND BUTT-WELDING ENDS, BOLTED BONNETS
- API 603 STEEL GLOBE VALVES—FLANGED AND BUTT-WELDING ENDS, BOLTED BONNETS
- API 604 TYPE TESTING OF RISING STEM VALVES EQUIPPED WITH GRAPHITE PACKING FOR FUGITIVE EMISSIONS
- ANSI B16.10 CAST IRON AND STEEL FLANGES AND FLANGE FITTINGS
- ANSI B16.11 FORGED FITTINGS, SOCKET WELDING AND PIPE WELDING
- ANSI B16.15 CAST IRON AND STEEL VALVES—FLANGED AND BUTT-WELDING ENDS, BOLTED BONNETS
- ANSI B16.34 FLANGES AND FLANGE FITTINGS FOR USE IN H₂S-CONTAINING ENVIRONMENTS IN OIL AND GAS PRODUCTION
- ASME B31.3 PROCESS PIPING—STEEL PIPING
- ASME B31.4 TRANSMISSION AND DISTRIBUTION PIPELINES—STEEL PIPE
- ASME B31.5 STEEL PIPE—STRESS CRACKING IN CORROSIVE PETROLEUM ENVIRONMENT
- MSS-SP81 PRESSURE TESTING OF STEEL VALVES

[Signature]

Quality Assurance Department
 Yolanda Ponciano Montoya

FAC-24 Rev. Original.