



Industrial de Válvulas, S.A. de C.V.

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

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

No. código interno (Product Code Nr.): **AC080GA08MA2A1B+**

No. Serie (Serial Number): **V12EC17271**

Fecha (Date): **August 25, 2016**

No. De Tag (Tag Number):

Clientes (Customer):

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

Partida (Customer Item):

Pedido Interno No (Walworth Sales Nr.):

Partida (Item):

Linea de producto (Product line):	Cast Steel	Extremos (Ends):	RF Series A	Operación(Operation):	Handwheel
Tipo de válvula (Type of valve):	Gate	Cuerpo (Shell):	WCB	Otros (Other requirements):	
Díametro (Nominal diameter):	8	Interiores (Trim):	#08 (UT)		
Presión clase (Pressure class):	300	Figura No (Figure Nr.):	FIG 5206		

COMPOSICION QUIMICA EN % (CHEMICAL COMPOSITION %)

Parte (Component)	Material (Material)	Colada (Heat)	% C	% Mn	% P	% S	% Si	% Ni	% Cr	% Mo	% Cu	% V	%	%	%	%	%	%
BONETE (BONNET)	ASTM_A_216_GR_WCB	WH67811	0.192	0.640	0.026	0.014	0.424	0.050	0.041	0.003	0.036	0.001	0.000	0.000	0.000	0.000	0.000	0.000
CUERPO (BODY)	ASTM_A_216_GR_WCB	WH67761	0.190	0.830	0.026	0.014	0.465	0.053	0.034	0.006	0.032	0.001	0.000	0.000	0.000	0.000	0.000	0.000
DISCO 1 (DISC 1)	ASTM_A_216_GR_WCB	WH42878	0.202	0.977	0.025	0.009	0.470	0.053	0.046	0.007	0.033	0.006	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	0	1st	2nd	3rd	AVG
BONETE (BONNET)	WH67811	(910-940)°C. NORMALIZADO (RECOCIDO) 650°C ENFRIAMIENTO CON AIRE AIR COOL	54.3750	81.4900	29	52	174	0	0	0	0	0	0
CUERPO (BODY)	WH67761	(910-940)°C. NORMALIZADO (RECOCIDO) 550°C ENFRIAMIENTO CON AIRE AIR COOL	56.6950	85.6950	29	54	162	0	0	0	0	0	0
DISCO 1 (DISC 1)	WH42878	(910-940)°C. NORMALIZADO (RECOCIDO) 550°C ENFRIAMIENTO CON AIRE AIR COOL	51.4750	81.6350	28	52	166	0	0	0	0	0	0

PRUEBAS DE PRESIÓN DE ACUERDO CON API 598 (PRESSURE TEST IN ACCORDANCE WITH API 598)

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)	1125	2 min	ACEPTADO (ACCEPTED)		
HIDROSTATICA DE CASQUILLO (HYDROSTATIC BACK SEAT)	1125	2 min	ACEPTADO (ACCEPTED)		
PRUEBA NEUMATICA SELLO 1 (LOW PRESSURE CLOSURE SIDE 1)	80	2 min	ACEPTADO (ACCEPTED)		
PRUEBA NEUMATICA SELLO 2 (LOW PRESSURE CLOSURE SIDE 2)	80	2 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 598 METAL FLUG VALVES - FLANGED, THREADED AND WELDING
- API 607 STEEL GLOBE VALVES - FLANGED AND BUTT-WELDING ENDS. BOLTED BONNETS
- API 609 STEEL GLOBE VALVES - FLANGED AND BUTT-WELDING ENDS. BOLTED BONNETS
- API 624 TYPE TESTING OF RISING STEM VALVES EQUIPPED WITH GRAPHITE PACKING FOR FLUGITIVE EMISSIONS
- ANSI B16.1 FORGED FITTINGS, SOCKET, WELDING AND THREADED
- ANSI B16.11 FORGED FITTINGS, SOCKET, WELDING AND THREADED
- ANSI B16.34 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.37 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.41 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.47 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.51 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.52 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.53 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.54 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.55 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.56 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.57 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.58 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.59 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.60 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.61 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.62 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
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- ANSI B16.67 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.68 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.69 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.70 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.71 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.72 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.73 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.74 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.75 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.76 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
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- ANSI B16.78 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.79 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.80 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.81 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.82 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.83 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.84 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.85 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.86 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.87 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.88 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
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- ANSI B16.90 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.91 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.92 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.93 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.94 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.95 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.96 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.97 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.98 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.99 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS
- ANSI B16.100 VALVES - FLANGED AND WELDING ENDS. BOLTED BONNETS

[Signature]

Quality Assurance Department
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 FAC-24 Rev. Original.