



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 Tepotzotlán, Estado de México, México C.P. 54610

No. código interno (Product Code Nr.): **AC030BA08MA2A1XG**

No. Serie (Serial Number): **V12KC0654**

Fecha (Date): **September 27, 2016**

Clientes (Customer): _____ No. De Tag (Tag Number): _____

Partida (Customer Item): _____ Pedido interno No (Walworth Sales Nr.): _____ Partida (Item): _____

Linea de producto (Product line):	Cast Steel	Extremos (Ends):	RF Series A
Tipo de válvula (Type of valve):	Gate	Cuerpo (Shell):	WCB
Diámetro (Nominal diameter):	3	Interiores (Trim):	#08 (UT)
Presión clase (Pressure class):	150	Figura No (Figure Nr.):	FIG 5202

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	H4874	0.182	0.943	0.021	0.027	0.429	0.039	0.061	0.009	0.037	0.001	0.000	0.000	0.000	0.000	0.000	0.000
CUERPO (BODY)	ASTM_A_216_GR_WCB	H5903	0.222	0.711	0.034	0.027	0.448	0.043	0.082	0.012	0.040	0.001	0.000	0.000	0.000	0.000	0.000	0.000
DISCO 1 (DISC 1)	ASTM_A_216_GR_WCB	5500	0.200	0.920	0.039	0.024	0.490	0.018	0.037	0.001	0.046	0.005	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)	H4874	(910-940) °C, NORMALIZADO (RECOCCIDO) 650 °C ENFRIAMIENTO CON AIRE (910-940) °C, NORMALIZE (ANNEAL) 650 °C AIR COOL	45.5300	72.2100	31	49	162	0	0	0	0	0
CUERPO (BODY)	H5903	(910-940) °C, NORMALIZADO (RECOCCIDO) 650 °C ENFRIAMIENTO CON AIRE (910-940) °C, NORMALIZE (ANNEAL) 650 °C AIR COOL	44.6600	76.5600	41	43	169	0	0	0	0	0
DISCO 1 (DISC 1)	5500	(910-940) °C, NORMALIZADO (RECOCCIDO) 650 °C ENFRIAMIENTO CON AIRE (910-940) °C, NORMALIZE (ANNEAL) 650 °C AIR COOL	45.6700	76.8500	26	48	149	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)	450	1 min	ACEPTADO (ACCEPTED)		
HIDROSTATICA DE CASQUILLO (HYDROSTATIC BACK SEAT)	450	1 min	ACEPTADO (ACCEPTED)		
PRUEBA NEUMATICA SELLO 1 (LOW PRESSURE SIDE 1)	80	1 min	ACEPTADO (ACCEPTED)		
PRUEBA NEUMATICA SELLO 2 (LOW PRESSURE SIDE 2)	80	1 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 600 METAL FLUG VALVES, FLANGED AND WELDING
- API 623 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 B16.11 FORGED STEEL AND END TO END DIMENSIONS OF VALVES
- ANSI B16.15 PRESSURE TESTING OF VALVES
- ANSI B16.34 FLANGED END TO END DIMENSIONS OF VALVES
- ANSI B16.35 FLANGED END TO END DIMENSIONS OF VALVES
- ANSI B16.36 FLANGED END TO END DIMENSIONS OF VALVES
- ANSI B16.37 FLANGED END TO END DIMENSIONS OF VALVES
- ANSI B16.38 FLANGED END TO END DIMENSIONS OF VALVES
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- ANSI B16.40 FLANGED END TO END DIMENSIONS OF VALVES
- ANSI B16.41 FLANGED END TO END DIMENSIONS OF VALVES
- ANSI B16.42 FLANGED END TO END DIMENSIONS OF VALVES
- ANSI B16.43 FLANGED END TO END DIMENSIONS OF VALVES
- ANSI B16.44 FLANGED END TO END DIMENSIONS OF VALVES
- ANSI B16.45 FLANGED END TO END DIMENSIONS OF VALVES
- ANSI B16.46 FLANGED END TO END DIMENSIONS OF VALVES
- ANSI B16.47 FLANGED END TO END DIMENSIONS OF VALVES
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- ANSI B16.97 FLANGED END TO END DIMENSIONS OF VALVES
- ANSI B16.98 FLANGED END TO END DIMENSIONS OF VALVES
- ANSI B16.99 FLANGED END TO END DIMENSIONS OF VALVES
- ANSI B16.100 FLANGED END TO END DIMENSIONS OF VALVES

Quality Assurance Department
 Yolanda Ponciano Montoya
 FAC-24 Rev. Original.