



Industrial de Válvulas, S.A. de C.V.

Industria Ite 16 SIN Fracc. Industrial el Trébol de Tepetztlán, 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.): **BC020KF08AA2SBA1XC** No. Lote (Batch Number): **AA00066952**
 Fecha (Date): **October 20, 2016** No. De Tag (Tag Number): **N/A**
 Clientes (Customer): **PLESA ANAHUAC Y CIAS, S.A DE C.V.** No Pedido del Cliente (Customer PO Nr.): **24310**
 Partida (Customer Item): **1** Pedido Interno No (Walworth Sales Nr.): **D000060612** Cantidad (Qty): **50** Partida (Item): **1**

Linea de producto (Product line):	Forged Steel	Extremos (Ends):	Socket Weld (SW)	Operación (Operation):	Handwheel
Tipo de válvula (Type of valve):	Gate	Cuerpo (Shell):	A105N	Otros (Other requirements):	
Diámetro (Nominal diameter):	2	Interiores (Trim):	#08 (UT)		
Presión clase (Pressure class):	800	Figura No (Figure Nr.):	FIG 950S		

COMPOSICION QUIMICA EN % (CHEMICAL COMPOSITION %)

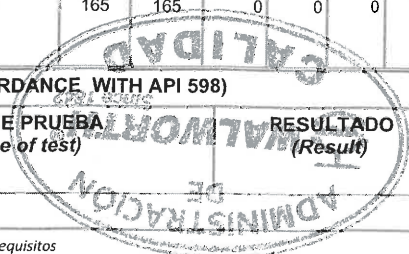
Parte (Component)	Material (Material)	Colada (Heat)	% C	% Mn	% P	% S	% Si	% Ni	% Cr	% Mo	% Cu	% V	%	%	%	%	%	%
CUERPO (BODY)	ASTM_A_105N	BDA	0.210	0.780	0.009	0.011	0.220	0.051	0.071	0.050	0.056	0.008	0.000	0.000	0.000	0.000	0.000	0.000
CUERPO (BODY)	ASTM_A_105N	CCQ	0.180	0.800	0.015	0.008	0.210	0.030	0.070	0.080	0.050	0.030	0.000	0.000	0.000	0.000	0.000	0.000
CUERPO (BODY)	ASTM_A_105N	CCT	0.190	0.880	0.011	0.010	0.210	0.075	0.065	0.050	0.040	0.028	0.000	0.000	0.000	0.000	0.000	0.000
YUGO	ASTM_A_105N	BCD	0.190	0.800	0.021	0.006	0.220	0.010	0.060	0.070	0.040	0.030	0.000	0.000	0.000	0.000	0.000	0.000
YUGO	ASTM_A_105N	CCM	0.210	1.000	0.023	0.014	0.270	0.070	0.080	0.050	0.110	0.020	0.000	0.000	0.000	0.000	0.000	0.000
YUGO	ASTM_A_105N	CCT	0.190	0.880	0.011	0.010	0.210	0.075	0.065	0.050	0.040	0.028	0.000	0.000	0.000	0.000	0.000	0.000

PROPIEDADES MECANICAS (MECHANICAL TESTING)

Parte (Component)	Colada (Heat)	Condición de TT Normalizado y 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)	BDA	NORMALIZADO 927 °C-843 °C ENFRIADO EN AIRE 920 °C, NORMALIZE (ANNEAL) 621 °C FURNACE COOL	57.2750	74.6750	38	59	159	159	0	0	0	0
CUERPO (BODY)	CCQ	NORMALIZADO 927 °C-843 °C ENFRIADO EN AIRE 920 °C, NORMALIZE (ANNEAL) 621 °C FURNACE COOL	51.4750	74.6750	31	72	160	160	0	0	0	0
CUERPO (BODY)	CCT	NORMALIZADO 927 °C-843 °C ENFRIADO EN AIRE 920 °C, NORMALIZE (ANNEAL) 621 °C FURNACE COOL	61.6250	77.5750	29	46	165	165	0	0	0	0
YUGO	BCD	NORMALIZADO 927 °C-843 °C ENFRIADO EN AIRE 920 °C, NORMALIZE (ANNEAL) 621 °C FURNACE COOL	47.1250	73.2250	32	43	153	153	0	0	0	0
YUGO	CCM	NORMALIZADO 927 °C-843 °C ENFRIADO EN AIRE 920 °C, NORMALIZE (ANNEAL) 621 °C FURNACE COOL	42.7750	74.6750	31	67	165	165	0	0	0	0
YUGO	CCT	NORMALIZADO 927 °C-843 °C ENFRIADO EN AIRE 920 °C, NORMALIZE (ANNEAL) 621 °C FURNACE COOL	61.6250	77.5750	29	46	165	165	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)



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 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
- ANSI/NACE 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 PETROLIUM ENVIRONMENT
- MSS-SP61 PRESSURE TESTING OF STEEL VALVES

Quality Assurance Department
 Yolanda Ponciano Montoya

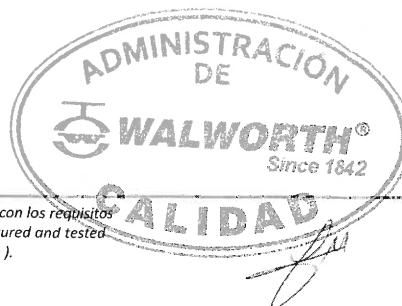


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HIDROSTATICA DE CASCO (HYDROSTATIC SHELL)	2975	0.25 min	ACEPTADO (ACCEPTED)		
HIDROSTATICA DE CASQUILLO (HYDROSTATIC BACK SEAT)	2975	0.25 min	ACEPTADO (ACCEPTED)		
PRUEBA NEUMATICA SELLO1 (LOW PRESSURE CLOSURE SIDE 1)	80	0.25 min	ACEPTADO (ACCEPTED)		
PRUEBA NEUMATICA SELLO2 (LOW PRESSURE CLOSURE SIDE 2)	80	0.25 min	ACEPTADO (ACCEPTED)		



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- 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 B18-10 FACE TO FACE AND END TO END DIMENSIONS OF VALVES
- ANSI B18-11 FORGED FITTINGS, SOCKET - WELDING AND THREADED
- ANSI/NACE 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 PETROLIUM ENVIROMENT
- MSS-SP61 PRESSURE TESTING OF STEEL VALVES

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