

Fecha: 26 / 01 /2009

Tipo de Venta: Nal

Pedido Cte. OC-GAT-PL-003/09

Agentes 119 - 137

ROCIO PEREZ SANC - VENTAS CASA PRO

Fecha Entrega 27-01-2009

ESTATUS DEL PEDIDO: C Aceptado Credito

Entregar: COMPLEJO PROCESADOR DE GAS CACTUS,
REFORMA CHIAPAS.

Cliente 400000366 GRUPO ATRIUM S.A. DE C.V.
Consignatario CESAR SANDINO
Colonia PRIMERO DE MAYO
Poblacion VILLAHERMOSA , TABASCO , MEXICO
Entrega 5 Transporte Externo

No. 627 Interior 3
C.P. 86190

Cond. Credito: 1 CONTADO

| Clave | Descripción | Cantidad Pedida | Cantidad Surtida | Saldo | Emp | Existencia | Unid. Vta. |
|-----------------------|---|-----------------|------------------|-------|-----|------------|------------|
| 1 | T-REDS-6-4STD T RED AC SOLD STD 6-4 T39049 | 2.000 | 0 | 2.00 | PZ | 10 | 0.00 |
| 2 | T-RECS-6-STD T RECTA AC SOLD STD 6 T42162, T41032 | 3.000 | 0 | 3.00 | PZ | 75 | 0.00 |
| 3 | T-RECS-8-STD T RECTA AC SOLD STD 8 T40196, T41272 | 5.000 | 0 | 5.00 | PZ | 9 | 0.00 |
| 4 | RED-CS/6-4STD RED CONC AC SOLD STD 6-4 T38887 | 4.000 | 0 | 4.00 | PZ | 44 | 0.00 |
| 5 | TAP-CS-10STD TAPON CAPA AC SOLD STD 10 08013. | 1.000 | 0 | 1.00 | PZ | 5 | 0.00 |
| 6 | SEGURO SEGURO | 1.000 | | 1.00 | PZ | | 0.00 |
| 7 | 9999 SERVICIOS | 1.000 | | 1.00 | MAN | | 0.00 |
| Total Cantidad | | 17.000 | | | | | |

* ENVIAR 27-ENE-2009 CON EL PEDIDO No. 96346
 * T.C. 14.10
 * DEPOSITO \$ 35,960.27
 * ENVIAR LOS CERTIFICADOS DE CALIDAD EN UN SOBRE CERRADO Y ENTREGARME A MI ROCIO PEREZ COPIA DEL MISMO.
 * EN ESTE PEDIDO SE COBRO MEDIO FLETE DE UN TORTON AL COMPLEJO PROCESADOR DE GAS CAPTUS, CHIAPAS Y EL RESTO EN EL PEDIDO No. 96346

ALMACEN: PLESA

ROCIO PEREZ SANCHEZ

Autoriza Ventas

Autoriza Crédito

Fecha Rep. Almacén



**CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE**
(DIN EN 10204:2004E - ISO 10474.3.1.B)

Vendido a: **PLESA ANAHUAC Y CIA. S.A. DE C.V.**
 Sold to: **PLESA ANAHUAC Y CIA. S.A. DE C.V.**
 Pedido del Cliente No: **5344**
 Customers Order No: **5344**
 Dimensiones y tolerancias / Dimension and tolerances

Especificaciones y Grados / Standard or Specification and Steel Grade
ASME B 16.9 - 2003 and ASME B 16.28 - 1994
 Seamsless fittings according to ASTM A 234 "W" WPB-47, A234 "W" WPB-05s, NACE MR0103-2003
 Conform to ASME II Ed. 2001 ASME SA-234 "W" Grade WPB, NACE MR0103-2003
 ASME B 16.9 - 2003 and ASME B 16.28 - 1994

Lista de Empaque: **11002** Fecha/Date: **6 de Noviembre de 2008**
 Packing List: **11002** Factura/Invoice: **Bocas / Ends**
Biselado / Bevelled ends

Tubos de Acero de México, S.A.
 Carr. Mty-Laredo Km 242
 Apartado Postal 43
 (65550) C. de Flores, N.L. Méx.
 (52) 81 8305 9600 tel
 (52) 81 8305 9620 fax

| ART. ITEM | COLADA HEAT CODE | CANTIDAD QUANTITY | DESCRIPCION / DESCRIPTION | PRUEBAS MECANICAS / MECHANICAL TEST | | | | PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C | | | | | |
|-----------|------------------|-------------------|-------------------------------|-------------------------------------|-------------------------------------|-----------------------|---------------------|---|----------|----------|----------|-------------------------|--|
| | | | | ESF. CEDENCIA YIELD STRENGTH (Mpa) | ESF. RUPTURA TENSILE STRENGTH (Mpa) | ELONG % ^{2"} | DUREZA HARDNESS HBW | DIMENSIONES SAMPLE DIM mm | 1 Joules | 2 Joules | 3 Joules | PROMEDIO AVERAGE Joules | |
| 1 | T41272 | 7 | TEE 8 CED-STD | 322 | 509 | 42 | 122 | | | | | | |
| 2 | T39854 | 1 | TEE 8 CED-STD | 262 | 480 | 37 | 107 | | | | | | |
| 3 | S28276 | 25 | CODO 6 X 90° R.L. CED-XS | 326 | 482 | 33 | 89 | | | | | | |
| 4 | T41351 | 20 | CODO 10 X 90° R.L. CED-STD | 322 | 490 | 42 | 118 | | | | | | |
| 5 | T41272 | 2 | TEE RED. 8 X 6 CED-STD | 322 | 509 | 42 | 122 | | | | | | |
| 6 | 23229 | 25 | RED. CONC. 4 X 3 CED-STD | 309 | 486 | 34 | 112 | | | | | | |
| 7 | S69900 | 10 | CODO 2 1/2 X 90° R.C. CED-STD | 318 | 485 | 33 | 142 | | | | | | |

| PROCESO PROCESS | COLADA HEAT CODE | COLADA/HEAT M.P./MOTHER PIPE | ANALISIS QUIMICO / CHEMICAL ANALYSIS | | | | | | | | | | | |
|-----------------|------------------|------------------------------|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | %C.E. | %C | %Mn | %P | %S | %SI | %Cr | %Cu | %Mo | %Ni | %V | %Nb |
| HF | T41272 | | 0.340 | 0.190 | 0.830 | 0.018 | 0.002 | 0.310 | 0.050 | 0.041 | 0.010 | 0.030 | 0.006 | 0.000 |
| HF | T39854 | | 0.300 | 0.170 | 0.680 | 0.011 | 0.002 | 0.270 | 0.030 | 0.052 | 0.005 | 0.020 | 0.000 | 0.000 |
| HF | S28276 | | 0.330 | 0.190 | 0.720 | 0.008 | 0.001 | 0.270 | 0.040 | 0.029 | 0.020 | 0.029 | 0.001 | 0.001 |
| HF | T41351 | | 0.300 | 0.180 | 0.670 | 0.010 | 0.003 | 0.320 | 0.030 | 0.054 | 0.008 | 0.030 | 0.000 | 0.000 |
| HF | T41272 | | 0.340 | 0.190 | 0.830 | 0.018 | 0.002 | 0.310 | 0.050 | 0.041 | 0.010 | 0.030 | 0.000 | 0.000 |
| CF | 23229 | | 0.320 | 0.180 | 0.720 | 0.012 | 0.001 | 0.290 | 0.040 | 0.058 | 0.010 | 0.024 | 0.001 | 0.001 |
| HF | S69900 | | 0.329 | 0.180 | 0.770 | 0.014 | 0.002 | 0.290 | 0.050 | 0.062 | 0.020 | 0.029 | 0.001 | 0.001 |

NOTES:
 Formado en caliente a 620°C-980°C, enfriado al aire.
 Hot formed fittings in a range from 620°C to 980°C, cooled in still air.
 No formado en frío normalizado a 840°C max.
 Cold formed normalized at 840°C max.
 Tiempo de permanencia 10'.
 Holding time 10'.
 Inspección Dimensional, Satisfactoria.
 Visual dimensional check, Satisfactory.
 CF FORMADO EN FRIO/COLD FORMED

ING. WALDO GALLEGOS GALVAN
 Quality Manager/Jefe de Calidad

CC-008



**CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE**

(DIN EN 10204:2004E - ISO 10474.3.1.B)

Vendido a: **PROVEEDORA DE MATERIALES ANGER, S.A.**
 DE C.V.

Pedido del Cliente No: **5318 - 5312**
 Customers Order No: **Dimensiones y tolerancias / Dimension and tolerances**

Lista de Empaque: **11103**
 Packing List: **Bocas / Ends**

Fecha/Date: **9 de Diciembre de 2008**
 Factura/Invoice: **Biselado / Bevelled ends**

Numero: **21753** Pagina/Page: **1 DE 1**

Carr. Mty-Laredo Km 24.2
 Apartado Postal 43
 (65550) C. de Flores, N.L. Mex.
 (52) 81 8305 9600 tel
 (52) 81 8305 9620 fax

Especificaciones y Grados / Standard or Specification and Steel Grade
 Seamless Fittings according to ASTM A 234 WPB-97, A234 WPB-08a, NACE MR0103-2003
 Conform to ASME II Ed. 2001 ASME SA-234 WP, Grade WPB, NACE MR0103-2003

ASME B 16.9 - 2007 and ASME B 16.28 - 1994

| ART. ITEM | COLADA HEAT CODE | CANTIDAD QUANTITY | DESCRIPCION / DESCRIPTION | PRUEBAS MECANICAS / MECHANICAL TEST | | | PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C | | | | |
|-----------|------------------|-------------------|----------------------------|-------------------------------------|-------------------------------------|------------|---|---------------------------|----------|----------|----------|
| | | | | ESF. CEDIENCIA YIELD STRENGTH (Mpa) | ESF. RIFTURA TENSILE STRENGTH (Mpa) | ELONG. %2" | DUREZA HARDNESS HBW | DIMENSIONES SAMPLE DIM mm | 1 Joules | 2 Joules | 3 Joules |
| 12 | T36427 | 1 | RED. CONC. 6 X 4 CED-STD | 313 | 485 | 40 | 90 | | | | |
| 13 | T37363 | 3 | RED. CONC. 6 X 4 CED-STD | 321 | 491 | 40 | 114 | | | | |
| 14 | T38887 | 80 | RED. CONC. 6 X 4 CED-STD | 291 | 460 | 42 | 98 | | | | |
| 15 | T39807 | 6 | RED. CONC. 16 X 12 CED-STD | 321 | 458 | 37 | 105 | | | | |
| 16 | T39452 | 4 | TEE RED. 12 X 10 CED-STD | 323 | 484 | 35 | 113 | | | | |

| PROCESO PROCESS | COLADA HEAT CODE | COLADA/HEAT M.P./MOTHER PIPE | ANALISIS QUIMICO / CHEMICAL ANALYSIS | | | | | | | | | | | |
|-----------------|------------------|------------------------------|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | %C.E. | %C | %Mn | %P | %S | %Si | %Cr | %Cu | %Mo | %Ni | %V | %Nb |
| CF | T36427 | 36427 | 0.300 | 0.170 | 0.680 | 0.010 | 0.001 | 0.290 | 0.040 | 0.075 | 0.027 | 0.030 | 0.000 | 0.000 |
| CF | T37363 | 37363 | 0.320 | 0.180 | 0.690 | 0.009 | 0.003 | 0.280 | 0.070 | 0.057 | 0.039 | 0.030 | 0.000 | 0.000 |
| CF | T38887 | 38887 | 0.290 | 0.160 | 0.670 | 0.009 | 0.001 | 0.270 | 0.060 | 0.049 | 0.018 | 0.040 | 0.000 | 0.000 |
| CF | T39807 | 39807 | 0.300 | 0.170 | 0.670 | 0.009 | 0.002 | 0.270 | 0.050 | 0.075 | 0.015 | 0.030 | 0.000 | 0.000 |
| HF | T39452 | 39452 | 0.310 | 0.170 | 0.680 | 0.010 | 0.002 | 0.280 | 0.070 | 0.079 | 0.041 | 0.040 | 0.000 | 0.000 |

Notes:
 Formado en caliente a 820°C-840°C, enfriado al aire, Formado en frío normalizado a 840°C max.
 Trabajo de permanente 1/4".
 Inspeccion Dimensional: Satisfactoria.

Notes:
 Hot formed fittings in a range from 820°C to 840°C, cooled in still air.
 Cold formed normalized at 840°C max.
 Holding time 1/4".
 Visual dimensional check: Satisfactory

Quality Manager/Supervisor de Calidad:

ING. WALDO GALLEGOS GALVAN

The Products described herein were produced in accordance with the above referenced specification and are identified with the "R" which is permanently marked on each fitting. The values of hardness for fittings NPS 2 1/2" and smaller ones obtain from the conversion of hardness Rockwell B to hardness Brinell HBW by means of table WILSON DESK CHART 60.
 Los valores de dureza para conexiones de NPS de 2 1/2" y menores, se obtienen de la conversión de dureza Rockwell B a dureza Brinell HBW mediante la tabla WILSON DESK CHART 60.

Certificamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas son veraces o una copia fiel de los certificados enviados por el Fabricante y/o el proveedor de Materia Prima (Tubería Sin Costura) conforme ASTM A106 Grado B con "N".
 We certify that result of chemical analysis and mechanical test are true and correct copy of the test certificate issued by the manufacturer and/or supplier Raw material (Seamless Pipe) conformed to ASTM A106 Grade B "N".
 7048259 8010707 8033813 8044211 8045768

Este material cumple con los requerimientos especificados en la orden.
 The material of this certificate heat number mentioned above is in compliance with the requirements specified in the order.

6600 South Harlem Avenue
 Argo, IL 60501-1930
 Phone: (708) 594-1700
 Fax: (708) 458-0106



**MATERIAL TEST REPORT
 FITTINGS**

To: PLESA ANAHUAC Y CIA S.A DE CV.
 CROSSING OF MEXICOR OF LAREDO
 LAREDO, TX 78041
 Attn: HEIDI

Order No: 5227

| Description | C | Mn | P | S | Heat ID | | | Steel Producer | | | Cb* | V | Tens | Yield | Elong | BHN |
|----------------------------------|---|-------|------|------|---------|-------|------|----------------|------|------|-----|-----|-------|-------|-------|-------|
| | | | | | SI | Cu | NI | Cr | Mo | USA | | | | | | |
| 16" x 8" Std Reducing Tee | | | | | | AW075 | | NKK | | | | | | | | |
| 200 | | 720 | | .016 | .005 | 180 | 020 | .020 | .030 | .010 | 000 | 000 | 73600 | 49600 | 34.80 | 145 |
| 0.331 | | | | | | | | | | | | | | | | |
| 20" Std Cap | | | | | | 08290 | | GALLATIN | | | USA | | | | | |
| 190 | | 900 | .013 | .005 | 210 | 090 | .050 | .050 | .050 | .020 | 001 | 000 | 73600 | 48900 | 33.90 | 158 |
| 0.363 | | | | | | | | | | | | | | | | |
| 18" Std Cap | | | | | | 98102 | | US STEEL | | | USA | | | | | |
| 210 | | 940 | .011 | .006 | 220 | 020 | .020 | .030 | .000 | .001 | 001 | 001 | 71900 | 44400 | 35.80 | 143 |
| 0.376 | | | | | | | | | | | | | | | | |
| 10" Std Cap | | | | | | 08013 | | IPSCO | | | USA | | | | | |
| 160 | | 930 | .011 | .003 | 190 | 270 | .130 | .120 | .040 | .001 | 021 | 021 | 72700 | 46100 | 33.40 | 150 |
| 0.378 | | | | | | | | | | | | | | | | |
| 24" x 18" Std Concentric Reducer | | | | | | 5392 | | US STEEL | | | USA | | | | | |
| 200 | | 1,060 | .009 | .003 | 200 | .060 | .040 | .080 | .020 | .001 | 000 | 000 | 77000 | 51500 | 36.00 | 71.00 |
| 0.403 | | | | | | | | | | | | | | | | |
| 24" XS Cap | | | | | | 99229 | | SALZGITTER | | | | | | | | |
| 150 | | 900 | .017 | .006 | 190 | 030 | .040 | .040 | .010 | .000 | 000 | 000 | 75400 | 41100 | 25.10 | 146 |
| 0.315 | | | | | | | | | | | | | | | | |
| 20" XS Cap | | | | | | 99026 | | US STEEL | | | USA | | | | | |
| 220 | | 870 | .009 | .010 | 200 | .020 | .030 | .020 | .010 | .001 | 001 | 001 | 73400 | 44400 | 28.20 | 146 |
| 0.375 | | | | | | | | | | | | | | | | |

All fittings meet the requirements of ASTM A-234 WPB, (and SA-234) and are seamless except as noted. Standing Material Seamless Pipe for elbows, tees and reducers. Plate for caps and welded fittings. ISO 9001:2000 CERTIFIED MANUFACTURER. All fittings meet NACE MR0-175 - Latest Revision. All fittings meet NACE MR0-103 - Latest Revision.



By: *[Signature]*

October 8, 2008

Quality Assurance Department
 Test Results herein are correct as contained in test records retained by the company.
 In accordance with EN 10 204 Para 3.1.B
 In accordance with PED 97/23/EC, 7/2



**CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE**
(DIN EN 10204:2004E - ISO 10474.3.1.B)

Tubos de Acero de Mexico, S.A.
Carr. Mty-Laredo Km 24.2
Apartado Postal 43
(65550) C. de Flores, N.L. Mex.
(52) 81 8305 9600 tel
(52) 81 8305 9620 fax

Vendido a: **PLESA ANAHUAC Y CIA. S.A. DE C.V.** Pedido del Cliente No: **4864** Lista de Empaque: **10724** Fecha/Date: **12 de Agosto de 2008**
Sold to: **PLESA ANAHUAC Y CIA. S.A. DE C.V.** Customers Order No: **4864** Packing List: **1 DE 1** Facturas/Invoices: **Bocales / Borellid ends**

Especificaciones y Grados / Standard or Specification and Steel Grade **ASME B 16.9 - 2003 and ASME B 16.28 - 1994**
Seamless fittings according to ASTM A 234 W- WPB-87, A234W- WPB-86, A234W- WPB-84, NACE MR 0175-2003
Conform to ASME B Ed. 2001 ASME SA-234 "W" Grade WPB, NACE MR0103-2003
Dimensiones y tolerancias / Dimension and tolerances

| ART. ITEM | COLADA HEAT CODE | CANTIDAD QUANTITY | DESCRIPCION / DESCRIPTION | PRUEBAS MECANICAS / MECHANICAL TEST | | PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C | | | | | | |
|-----------|------------------|-------------------|----------------------------|-------------------------------------|-------------------------------------|---|---------------------|---------------------------|----------|----------|----------|-------------------------|
| | | | | ESF. CEDENCIA YIELD STRENGTH (Mpa) | ESF. RUPTURA TENSILE STRENGTH (Mpa) | ELONG. % ^{2"} | DUREZA HARDNESS HBW | DIMENSIONES SAMPLE DIM mm | 1 Joules | 2 Joules | 3 Joules | PROMEDIO AVERAGE Joules |
| 12 | T40042 | 15 | TEE RED. 10 X 6 CED-STD | 326 | 490 | 44 | 120 | | | | | |
| 13 | T38336 | 1 | RED. CONC. 14 X 12 CED-STD | 323 | 485 | 44 | 124 | | | | | |
| 14 | T37515 | 4 | RED. CONC. 14 X 12 CED-STD | 308 | 476 | 34 | 99 | | | | | |
| 15 | S27721 | 30 | RED. CONC. 4 X 2 CED-STD | 288 | 472 | 33 | 105 | | | | | |
| 16 | T39854 | 30 | TEE RED. 8 X 4 CED-STD | 290 | 470 | 43 | 102 | | | | | |
| 17 | T39049 | 30 | TEE RED. 6 X 4 CED-STD | 310 | 486 | 43 | 105 | | | | | |

ANALISIS QUIMICO / CHEMICAL ANALYSIS

| PROCESO PROCESS | COLADA HEAT CODE | COLADAMENT M.P / MOTHER PIPE | %C | %E | %Mn | %P | %S | %Si | %Cr | %Cu | %Ni | %Nb | %V | %Nb |
|-----------------|------------------|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| BF | T40042 | 40042 | 0.310 | 0.180 | 0.670 | 0.012 | 0.001 | 0.270 | 0.040 | 0.052 | 0.006 | 0.028 | 0.000 | 0.000 |
| CF | T38336 | 38336 | 0.320 | 0.190 | 0.670 | 0.011 | 0.003 | 0.270 | 0.050 | 0.072 | 0.016 | 0.040 | 0.000 | 0.000 |
| CF | T37515 | 37515 | 0.310 | 0.180 | 0.670 | 0.009 | 0.001 | 0.280 | 0.050 | 0.059 | 0.024 | 0.040 | 0.000 | 0.000 |
| CF | S27721 | 27721 | 0.340 | 0.200 | 0.740 | 0.011 | 0.001 | 0.290 | 0.040 | 0.050 | 0.010 | 0.027 | 0.001 | 0.002 |
| BF | T39854 | 39854 | 0.310 | 0.180 | 0.690 | 0.013 | 0.002 | 0.290 | 0.040 | 0.056 | 0.008 | 0.030 | 0.000 | 0.000 |
| BF | T39049 | 39049 | 0.300 | 0.170 | 0.670 | 0.009 | 0.002 | 0.290 | 0.050 | 0.056 | 0.010 | 0.030 | 0.000 | 0.000 |

Confirmando que los resultados de los Analisis Quimicos y Pruebas Mecanicas son verdaderos o una copia fiel de los certificados enviados por el Fabricante y/o el proveedor de Materia Prima (Tubos Sin Costura) conforme ASTM A106 Grado B con N° que certifica que el resultado de analisis quimico y mecanico es verdadero y correcto. We certify that result of chemical analysis and mechanical test are true and correct copy of the test certificate issued by the manufacturer and/or supplier. Raw material (Seamless Pipe) cuts conform to ASTM A106 Grade B N° 8035497 8023203 8007257 434116 8037442 8023199

Este material cumple con los requerimientos especificados en la orden.
The material of this certificate heat number mentioned above is in compliance with the requirements specified in the order.

Notes: **Formado en caliente a 620°C-800°C, enfriado al** Hot formed fittings in a range from 620°C to 800°C, cooled in still air.
Formado en frío en el rango de 180°C a 240°C max. Cold formed material at 180°C max.
Tempo de procesamiento 10' Holding time 10'.
Inspección Dimensional Satisfactoria Visual dimensional check: Satisfactory
FORMADO EN CALIENTE/HEAT FORMED **FORMADO EN FRODO/ COLD FORMED**

Quality Manager/ Jefe de Calidad:
ING. WALDO GALLEGOS GALVAN

The Products described herein were produced in accordance with the above referenced specification and are identified with the "R" which is permanently marked on each fitting. The values of hardness for fittings NPS 2 1/2" and smaller ones obtain from the conversion of hardness Rockwell B to hardness Brinell HBW by means of table WILSON DESK CHART 60. Los valores de dureza para conexiones de NPS de 2 1/2" y menores, se obtienen de la conversión de dureza Rockwell B a dureza Brinell HBW mediante la tabla WILSON DESK CHART 60.

CC-008

**CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE**
(DIN EN 10204:2004E - ISO 10474 3.1.B)

Tubos de Acero de México, S.A.
Carr. Mty-Laredo Km 24.2
Apartado Postal 43
(65550) C. de Flores, N.L. Mex.
(52) 81 8305 9600 tel
(52) 81 8305 9620 fax

| | | | |
|--|--|---|--|
| Vendido a: PLEBSA ANAHUAC Y CIA. S.A. DE C.V. Sold to: | Pedido del Cliente No: 5624 - 5628 Customers Order No: | Numero: 21954 Number: | Pagina/Page: 1 DE 1 |
| Especificaciones y Grados / Standard or Specification and Steel Grade Seamless Fittings according to ASTM A 234 "W" WPB-07, A234 "W" WPB-05a, NACE MR 01:76-2003 Conform to ASME II Eq. 2001 ASME SA-234 "W" Grade WPB, NACE MR0103-2003 | ASME B 16.9 - 2007 and ASME B 16.28 - 1994 Dimensiones y tolerancias / Dimension and tolerances | Lista de Empaque: 11187 Packing List: | Fecha/Date: 16 de Enero de 2009 |
| Factura/Invoices: Bocas / Ends Biselado / Bevelled ends | | | |

| ART. ITEM | COLADA HEAT CODE | CANTIDAD QUANTITY | DESCRIPCION / DESCRIPTION | PRUEBAS MECANICAS / MECHANICAL TEST | | | PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C | | | | |
|-----------|------------------|-------------------|---------------------------|-------------------------------------|-------------------------------------|------------|---|---------------------------|----------|----------|----------|
| | | | | ESF. CEBENCIA YIELD STRENGTH (Mpa) | ESF. RUPTURA TENSILE STRENGTH (Mpa) | ELONG. %2" | DUREZA HARDNESS HBW | DIMENSIONES SAMPLE DIM mm | 1 Joules | 2 Joules | 3 Joules |
| 23 | S32203 | 27 | CODO 6 X 90° R.I. CED-XS | 293 | 480 | 32 | 111 | | | | |
| 24 | T42416 | 13 | CODO 6 X 90° R.I. CED-XS | 306 | 470 | 38 | 116 | | | | |
| 25 | T42417 | 20 | CODO 8 X 45° CED-STD | 307 | 461 | 34 | 103 | | | | |
| 26 | T42417 | 60 | CODO 8 X 90° R.I. CED-STD | 307 | 461 | 34 | 103 | | | | |
| 27 | T40298 | 12 | TEE 10 CED-STD | 305 | 477 | 36 | 119 | | | | |
| 28 | S38904 | 2 | CODO 5 X 90° R.I. CED-XS | 332 | 487 | 39 | 116 | | | | |
| 29 | T22635 | 6 | CODO 5 X 90° R.I. CED-XS | 311 | 455 | 46 | 103 | | | | |
| 30 | S37410 | 12 | CODO 5 X 90° R.I. CED-XS | 335 | 476 | 40 | 139 | | | | |
| 31 | T42162 | 40 | TEE 6 CED-STD | 241 | 443 | 36 | 115 | | | | |
| 32 | T41315 | 4 | CODO 12 X 45° SHC-80 | 266 | 461 | 42 | 127 | | | | |
| 33 | T41644 | 13 | TEE RED. 8 X 4 CED-STD | 297 | 474 | 43 | 118 | | | | |

| PROCESO PROCESS | COLADA HEAT CODE | COLADA/HEAT M.P/MOTHER PIPE | ANALISIS QUIMICO / CHEMICAL ANALYSIS | | | | | | | | | | | |
|-----------------|------------------|-----------------------------|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | %C.E. | %C | %Mn | %P | %S | %SI | %Cr | %Cu | %Mo | %Ni | %V | %Nb |
| HF | S32203 | 32203 | 0.330 | 0.180 | 0.790 | 0.010 | 0.001 | 0.290 | 0.050 | 0.039 | 0.010 | 0.016 | 0.001 | 0.001 |
| HF | T42416 | 42416 | 0.310 | 0.170 | 0.700 | 0.012 | 0.001 | 0.280 | 0.040 | 0.060 | 0.023 | 0.040 | 0.000 | 0.000 |
| HF | T42417 | 42417 | 0.290 | 0.160 | 0.670 | 0.012 | 0.001 | 0.280 | 0.040 | 0.046 | 0.018 | 0.030 | 0.000 | 0.000 |
| HF | T42417 | 42417 | 0.290 | 0.160 | 0.670 | 0.012 | 0.001 | 0.280 | 0.040 | 0.046 | 0.018 | 0.030 | 0.000 | 0.000 |
| HF | T40298 | 40298 | 0.320 | 0.190 | 0.670 | 0.007 | 0.003 | 0.280 | 0.050 | 0.079 | 0.023 | 0.040 | 0.000 | 0.000 |
| HF | S38904 | 38904 | 0.313 | 0.170 | 0.780 | 0.009 | 0.002 | 0.280 | 0.030 | 0.024 | 0.020 | 0.021 | 0.001 | 0.001 |
| HF | T22635 | 22635 | 0.310 | 0.170 | 0.680 | 0.008 | 0.000 | 0.270 | 0.050 | 0.070 | 0.044 | 0.030 | 0.000 | 0.000 |
| HF | S37410 | 37410 | 0.308 | 0.170 | 0.720 | 0.014 | 0.001 | 0.290 | 0.040 | 0.038 | 0.030 | 0.018 | 0.001 | 0.001 |
| HF | T42162 | 42162 | 0.300 | 0.170 | 0.670 | 0.012 | 0.002 | 0.280 | 0.040 | 0.046 | 0.008 | 0.020 | 0.000 | 0.000 |
| HF | T41315 | 41315 | 0.340 | 0.190 | 0.830 | 0.011 | 0.003 | 0.280 | 0.040 | 0.055 | 0.007 | 0.030 | 0.000 | 0.000 |
| HF | T41644 | 41644 | 0.320 | 0.180 | 0.710 | 0.010 | 0.003 | 0.280 | 0.050 | 0.057 | 0.006 | 0.030 | 0.000 | 0.000 |

Notes: Hot formed fittings in a range from 620°C to 880°C, cooled in still air. Cold formed normalized at 840°C max. Holding time 10'. Visual dimensional check, satisfactory.

Notes: Hot formed fittings in a range from 620°C to 880°C, cooled in still air. Cold formed normalized at 840°C max. Holding time 10'. Visual dimensional check, satisfactory.

ING. WALDO GALLEGOS GALVAN

Quality Manager

CC-008

The Products described herein were produced in accordance with the above referenced specification and are identified with the "R" which is permanently marked on each fitting. The values of hardness for fittings NPS 2 1/2" and smaller ones obtain from the conversion of hardness Rockwell B to hardness Brinell HBW by means of table WILSON DESK CHART 60. Los valores de dureza para conexiones de NPS de 2 1/2" y menores, se obtienen de la conversión de dureza Rockwell B a dureza Brinell HBW mediante la tabla WILSON DESK CHART 60.



**CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE
(DIN EN 10204:2004E - ISO 10474.3.1.B)**

Tubos de Acero de Mexico, S.A.
Carr. Mty-Laredo Km 24.2
Aparado Postal 43
(65550) C. de Flores, N.L. Mex.
(52) 81 8305 9600 tel
(52) 81 8305 9620 fax

Vendido a: **PIESA ANAHUAC Y CIA. S.A. DE C.V.**
 Pedido del Cliente No: **5086-4884-**
 Customers Order No: **Dimensiones y tolerancias / Dimension and tolerances**
 Especificaciones y Grados / Standard or Specification and Steel Grade
 Seamsless fittings according to ASTM A 234-W* WPB-37, A234-W* WPB-05a, NACE MR 0175-2003
 Conform to ASME B Ed. 2001 ASME SA-234-W* Grade WPB, NACE MR0103-2003
ASME B 16.9 - 2003 and ASME B 16.28 - 1994
 Factura/Invoice: **Bocas / Ends**
 Biselado / Bevelled ends
 Fecha/Date: **9 de Octubre de 2008**

| ART. ITEM | COLADA HEAT CODE | CANTIDAD QUANTITY | DESCRIPCION / DESCRIPTION | PRUEBAS MECANICAS / MECHANICAL TEST | | | PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C | | | | | | |
|-----------|------------------|-------------------|----------------------------|-------------------------------------|------------------------------------|------------|---|---------------------------|----------|----------|----------|-------------------------|--|
| | | | | ESF. CEDENCIA YIELD STRENGTH (Mpa) | ESF. RUPURA TENSILE STRENGTH (Mpa) | ELONG. %2" | DUREZA HARDNESS HBW | DIMENSIONES SAMPLE DIM mm | 1 Joules | 2 Joules | 3 Joules | PRGMEDIO AVERAGE Joules | |
| 23 | T41032 | 16 | TEE 6 CED-STD | 281 | 472 | 40 | 105 | | | | | | |
| 24 | T35698 | 2 | CODO 10 X 90° R. I. CED-80 | 294 | 464 | 46 | 116 | | | | | | |
| 25 | T39958 | 2 | CODO 10 X 90° R. I. CED-80 | 324 | 487 | 38 | 104 | | | | | | |
| 26 | T39645 | 2 | CODO 10 X 90° R. I. CED-80 | 305 | 489 | 44 | 114 | | | | | | |
| 27 | T39855 | 5 | TEE RED. 8 X 3 STD | 314 | 475 | 35 | 111 | | | | | | |

ANALISIS QUIMICO / CHEMICAL ANALYSIS

| PROCESO PROCESS | COLADA HEAT CODE | COLADA/HEAT M.P./MOTHER PIPE | %C.E. | %C | %Mn | %P | %S | %Si | %Cr | %Cu | %Mo | %Ni | %V | %Nb |
|-----------------|------------------|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| HF | T41032 | 41032 | 0.310 | 0.180 | 0.680 | 0.007 | 0.002 | 0.270 | 0.040 | 0.065 | 0.009 | 0.030 | 0.000 | 0.000 |
| HF | T35698 | 35698 | 0.300 | 0.170 | 0.680 | 0.008 | 0.001 | 0.280 | 0.048 | 0.025 | 0.008 | 0.030 | 0.000 | 0.000 |
| HF | T39958 | 39958 | 0.300 | 0.170 | 0.680 | 0.010 | 0.001 | 0.250 | 0.050 | 0.059 | 0.008 | 0.030 | 0.000 | 0.000 |
| HF | T39645 | 39645 | 0.310 | 0.180 | 0.680 | 0.010 | 0.002 | 0.280 | 0.050 | 0.050 | 0.008 | 0.030 | 0.000 | 0.000 |
| HF | T39855 | 39855 | 0.310 | 0.180 | 0.670 | 0.013 | 0.003 | 0.290 | 0.040 | 0.057 | 0.009 | 0.030 | 0.000 | 0.000 |

Notas:
 Formado en caliente a 620°C-880°C, enfriado al
 Formado in the normalized at 840°C max.
 Heat formed ranges in a range from 620°C to 880°C, cooled in air.
 Codo formed normalized at 840°C max.
 Holedging time 10'.
 Visual dimensional check. Satisfactory

ING. WALDO GALLEGOS GALVAN
 Quality Manager Jefe de Calidad:

El producto descrito herein were produced in accordance with the above referenced specification and are identified with the "R" which is permanently marked on each fitting. The values of hardness for fittings NPS 2 1/2" and smaller ones obtain from the conversion of hardness Rockwell B to hardness Brinell HBW by means of table WILSON DESK CHART 60. Los valores de dureza para conexiones de NPS de 2 1/2" y menores, se obtienen de la conversión de dureza Rockwell B a dureza Brinell HBW mediante la tabla WILSON DESK CHART 60.

Este material cumple con los requerimientos especificados en la orden.
 The material of this certificate heat number mentioned above is in compliance with the requirements specified in the order.

Certificamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas son verdaderos o una copia fiel de los certificados enviados por el Fabricante y/o el proveedor de Materia Prima (Tuberia Sin Costura) conforme ASTM A106 Grado B con N° de Materia Prima. We certify that result of chemical analysis and mechanical test are true and correct copy of the test certificate issued by the manufacturer and/or supplier Raw material (Seamless Pipe) certs conform to ASTM A106 Grade B N° 8043485 8041578 8045546 8043880 8031598

CC-008



Tubos de Acero de México, S.A.
Carr. Mty-Laredo Km. 24.2

Página/Page: Apartado postal 43
(85550) C. de Flores, N.L. Méx.
(52) 81 8305 9600 tel
(52) 81 8305 9620 fax

Numero:
Number:
20966

Lista de Empaque:
Packing List:
10792

Fecha/Date:
4 de Septiembre de 2008

CERTIFICADO DE CALIDAD
INSPECTION CERTIFICATE
(DIN EN 10204:2004E - ISO 10474.3.1.B)

Vendido a: PLESA ANAHUAC Y CIA. S.A. DE C.V.
Sold to:
Especificaciones y Grados / Standard or Specification and Steel Grade
Seamless Fittings according to ASTM A 234-M WPB-97, A234-M WPB-98, NACE MR 01.75-2003
Conform to ASME II Ed. 2001 ASME SA-234-M Grade WPB, NACE MR0103-2003

Pedido del Cliente No:
Customers Order No:
5022-4848

Factura/Invoice:
Bocas / Ends
Biselado / Bevelled ends

| DESCRIPCION DE MATERIAL / MATERIAL DESCRIPTION | | PRUEBAS MECANICAS / MECHANICAL TEST | | PRUEBA DE IMPACTO 0°C / IMPACT TEST 0°C | | | | | | | | |
|--|------------------|-------------------------------------|-----------------------------|---|-------------------------------------|-----------|---------------------|---------------------------|----------|----------|----------|-------------------------|
| ART. ITEM | COLADA HEAT CODE | CANTIDAD QUANTITY | DESCRIPCION / DESCRIPTION | ESF. CEDENCIA YIELD STRENGTH (Mpa) | ESF. RUPTURA TENSILE STRENGTH (Mpa) | ELONG %2" | DUREZA HARDNESS HBW | DIMENSIONES SAMPLE DIM mm | 1 Joules | 2 Joules | 3 Joules | PROMEDIO AVERAGE Joules |
| 1 | T36018 | 1 | CODO 14 X 90° R. I. CED-STD | 354 | 499 | 35 | 90 | | | | | |
| 2 | T40516 | 6 | CODO 14 X 90° R. I. CED-STD | 322 | 503 | 33 | 99 | | | | | |
| 3 | T40156 | 10 | TEE 8 CED-STD | 325 | 524 | 42 | 122 | | | | | |
| 4 | T29863 | 1 | CODO 6 X 45° CED-STD | 342 | 476 | 36 | 99 | | | | | |
| 5 | T40745 | 69 | CODO 6 X 45° CED-STD | 316 | 469 | 40 | 124 | | | | | |
| 6 | T39958 | 10 | RED. CONC. 8 X 4 CED-STD | 319 | 487 | 43 | 117 | | | | | |
| 7 | S26550 | 25 | CODO 4 X 45° CED-STD | 341 | 475 | 34 | 95 | | | | | |
| 8 | T36285 | 3 | RED. CONC. 8 X 6 CED-STD | 348 | 490 | 30 | 94 | | | | | |
| 9 | T37092 | 2 | RED. CONC. 8 X 6 CED-STD | 303 | 463 | 33 | 93 | | | | | |
| 10 | T38264 | 2 | RED. CONC. 8 X 6 CED-STD | 314 | 486 | 43 | 97 | | | | | |
| 11 | T38887 | 1 | CODO 8 X 45° CED-STD | 324 | 461 | 35 | 97 | | | | | |

| ANALISIS QUIMICO / CHEMICAL ANALYSIS | | | | | | | | | | | | | |
|--------------------------------------|------------------|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| PROCESO PROCESS | COLADA HEAT CODE | COLADA/M.P. ANOTHER PIPE | %C | %Mn | %P | %S | %Si | %Cr | %Cu | %Mo | %Ni | %V | %Nb |
| BF | T36018 | 36018 | 0.320 | 0.180 | 0.012 | 0.002 | 0.270 | 0.050 | 0.096 | 0.028 | 0.040 | 0.000 | 0.000 |
| BF | T40516 | 40516 | 0.310 | 0.180 | 0.009 | 0.001 | 0.280 | 0.050 | 0.066 | 0.008 | 0.030 | 0.000 | 0.000 |
| BF | T40156 | 40156 | 0.300 | 0.170 | 0.011 | 0.001 | 0.290 | 0.040 | 0.049 | 0.006 | 0.030 | 0.000 | 0.000 |
| BF | T29863 | 29863 | 0.320 | 0.180 | 0.007 | 0.002 | 0.280 | 0.050 | 0.067 | 0.030 | 0.030 | 0.000 | 0.000 |
| BF | T40745 | 40745 | 0.300 | 0.170 | 0.009 | 0.002 | 0.280 | 0.040 | 0.044 | 0.006 | 0.020 | 0.000 | 0.000 |
| CF | T39958 | 39958 | 0.310 | 0.180 | 0.009 | 0.002 | 0.270 | 0.050 | 0.058 | 0.007 | 0.030 | 0.000 | 0.000 |
| BF | S26550 | 26550 | 0.320 | 0.190 | 0.010 | 0.002 | 0.270 | 0.040 | 0.018 | 0.010 | 0.013 | 0.001 | 0.001 |
| CF | T36285 | 36285 | 0.300 | 0.170 | 0.011 | 0.002 | 0.270 | 0.050 | 0.066 | 0.030 | 0.030 | 0.000 | 0.000 |
| CF | T37092 | 37092 | 0.320 | 0.180 | 0.010 | 0.001 | 0.280 | 0.060 | 0.053 | 0.018 | 0.030 | 0.000 | 0.000 |
| CF | T38264 | 38264 | 0.300 | 0.180 | 0.010 | 0.001 | 0.260 | 0.040 | 0.047 | 0.007 | 0.030 | 0.000 | 0.000 |
| BF | T38887 | 38887 | 0.300 | 0.160 | 0.009 | 0.001 | 0.280 | 0.060 | 0.065 | 0.023 | 0.040 | 0.000 | 0.000 |

Certificamos que los resultados de los Analisis Quimicos y Pruebas Mecanicas son verdaderos o una copia fiel de los certificados enviados por el Fabricante y/o el proveedor de Materia Prima (Tuberia Sin Costura) conforme ASTM A106 Grado B con N°
We certify that result of chemical analysis and mechanical test are true and correct copy of the test certificate issued by the manufacturer and/or supplier Raw material (Seamless Pipe) certs conform to ASTM A106 Grade B N°
7045980 8039152 8041366 7033023 8045575 8040184 420901
7048654 8014046 8017024 8033347
Este material cumple con los requerimientos especificados en la orden
The material of this certificate heat number mentioned above is in compliance with the requirements specified in the order

The Products described herein were produced in accordance with the above referenced specification and are identified with the "R" which is permanently marked on each fitting. The values of hardness for fittings NPS 2 1/2" and smaller ones obtain from the conversion of hardness Rockwell B to hardness Brinell HBW by means of table WILSON DESK CHART 60.
Los valores de dureza para conexiones de NPS de 2 1/2" y menores, se obtienen de la conversión de dureza Rockwell B a dureza Brinell HBW mediante la tabla WILSON DESK CHART 60.

Notes:
Hot formed fittings in a range from 620°C to 980°C, cooled in still air.
Cold formed normalized at 940°C max.
Holding time: 10'.
Visual dimensional check: Satisfactory.
CF: FORMADO EN CALIENTE/HOT FORMED
BF: FORMADO EN FRODO/COLD FORMED

Quality Manager/Jefe de Calidad:
ING. WALDO GALLEGOS GALVAN

CC-008