

CLIENTE / Customer / Client

FORGINGS FLANGES & FITTINGS LLC.  
8900 RAILWOOD DRIVE,  
SUITE B  
HOUSTON, TX 77078  
USA

**CERTIFICADO DE INSPECCION**  
Inspection Certificate - Certificat de Réception

DIN EN 10204 / 3.1  
ISO 10474 / 3.1



ULMA FORJA, S.COOP.

FECHA: 30/11/2011 N.º 143574

HOJA: Page: 1

PRODUCTO FLANGES  
Article - Produit

SU PEDIDO N.º 172764 / HOUSTON  
Your Order No.  
Votre Cde. N.º

DE of. - de 31/10/2011

Certified acc. PED 97/23/EC+AD2000-W  
by TÜV Rheinland  
N.º 01 202 E/Q 02 7443

Bº Zubillaga, 3 - Apdo. 1º  
20560 OÑATI (Gipuzkoa) SPAIN  
Tel.: 34 - 943 780552  
Fax: 34 - 943 78180E  
E-mail: ulma@ulmaplping.com

NORMAS APLICABLES ASME B16.5-09  
Requirements - Normes Applicables:

MATERIAL CORRESPONDIENTE ASTMA105N-10  
Material Correspondent - Qualité ASTMA SA105N-10

MODO DE FUSION (\*) NACE MR-01-75/ISO15156-2-05 & MR-01-03/03  
Steel Making - Elaboration de l'acier  
E = Elec. Y = Oxígeno básico

MARCA DEL FABRICANTE  
Mark of factory  
Marque du fabricant



88669

DEPARTAMENTO QUALITY ASSURANCE  
Section  
Département

38931

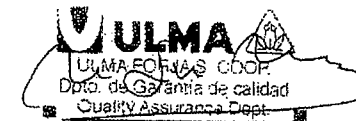
| PARTIDA<br>Item<br>Poste | CANTIDAD<br>Quantity<br>Quantité | DESCRIPCION<br>Description<br>Description | OBSERVACIONES<br>Remarks<br>Observations (*) | COLADA N.º<br>Heat No<br>N.º Coulée | RESISTENCIA<br>T.Strength<br>Resist Rupt<br>N/mm2 | LIMITE ELAST.<br>Y.Strength<br>0.2 %<br>N/mm2 | ALARGAM.<br>Elongation<br>Allongement<br>Lo: 4 d<br>% | ESTRICCION<br>Red. Area<br>Striction<br>% | RESILIENCIA<br>Impact test<br>Résilience<br>Joules | PROBETA - SPECIMEN          |    | DUREZA<br>Hardness<br>Dureté<br>HB |
|--------------------------|----------------------------------|---|--|-------------------------------------|---|---|---|---|--|-----------------------------|----|------------------------------------|
|                          |                                  |   |  |                                     |   |   |   |   |  | MEDIA<br>Average<br>Moyenne | °C |                                    |
| 72 F68WA020              | 900                              | WN 2 600LB S80 RF A105N                   | NE   | 660A1                               | 518   | 317   | 30,20   | 57,40                                     |  |                             |    | 149 157                            |
| 78 F68WA040              | 144                              | WN 4 600LB XS/80 RF A105N                 | NE   | 654T1                               | 514   | 302   | 28,80   | 54,70                                     |  |                             |    | 148 156                            |
| 85 F68WA100              | 168                              | WN 10 600LB XS/60 RF A105N                | NE   | 670A1                               | 517   | 321   | 30,70   | 58,20                                     |  |                             |    | 149 157                            |

| COLADA N.º<br>Heat No<br>N.º Coulée | COMPOSICION QUIMICA - STEEL MAKER'S LADLE ANALYSIS - ANALYSE CHIMIQUE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-------------------------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                     | C %   | Si %  | Mn %  | P %   | S %   | Cr %  | Ni %  | Mo %  | Nb %  | V %   | Cu %  | Al %  | Ti %  | N %   | CEq % |
| 654T1                               | 0,200   | 0,160 | 0,830 | 0,015 | 0,014 | 0,040 | 0,080 | 0,010 | 0,001 | 0,001 | 0,300 | 0,000 | 0,000 | 0,000 | 0,374 |
| 660A1                               | 0,200   | 0,280 | 0,830 | 0,009 | 0,003 | 0,130 | 0,080 | 0,040 | 0,001 | 0,002 | 0,210 | 0,034 | 0,000 | 0,000 | 0,392 |
| 670A1                               | 0,200   | 0,300 | 0,830 | 0,010 | 0,003 | 0,120 | 0,080 | 0,030 | 0,001 | 0,002 | 0,230 | 0,030 | 0,000 | 0,000 | 0,389 |

- Las dimensiones y la condición superficial se hallaron satisfactoria  
- Dimension and surface condition were found acceptable  
- Les dimensions et états de surface sont satisfaisants

- Los materiales citados cumplen las normas aplicables  
- Manufacturing requirements are satisfied  
- Les normes applicables sont respectées

EL INSPECTOR  
Works Inspector - L'Inspecteur



(\*) OBSERVACIONES: N\_NORMALIZED AT 900 C AND ALLOWED TO COOL IN STILL AIR  
Remarks  
Observations

Ord# 553075-1 · PO# 12195 · HT# 660A1 · 2.600 RE WN XH A105N