



# ETS DELCORTE S.A.

## RACCORDS ACIER

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CERTIFICAT DE RECEPTION (NFA 49.000 5.2.2.1)  
ACCEPTANCE CERTIFICATE (DIN 50.049 3.1 B)

Client/Customer:  
FERRETERA ANAHUAC SA  
VALLE DE LAS ALANEDAS N.º 1  
54940 TULATLAN EDO NEXICO MEXIQUE

Nº CERTIFICAT: 11287/91/2 DATE: 26 JUILLET 1991  
Commande/Order: P 0 91/023  
Bordereau/Dispatch note: 023204 date: 19/07/91

Spec. matière: A105 / 87A Spec. dimensionnelle: ANSI B16.11/NFE29600 Traitement thermique: NORMALIZED Divers:

### COMPOSITION CHIMIQUE / CHEMICAL ANALYSIS

| ITEM | QTE/ QTY | DÉSIGNATION                 | Nº COULÉE HEAT NR | IDENTIFICATION | C %   | Si %  | Mn %  | P %   | S %   | Ni %  | Cr %  | Mo %  | Ti % | V %   | Cu %  | C.I.         |
|------|----------|-----------------------------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|--------------|
|      |          |                             |                   |                | 0.25  | 0.35  | 0.60  | 0.040 | 0.050 | -     | -     | -     | -    | -     | -     | mini<br>maxi |
| 05   | 100      | ELBOW 90 SW 3000 A105 1 1/2 | 020245            | 020245         | 0.219 | 0.232 | 0.999 | 0.023 | 0.004 | 0.015 | 0.155 | 0.012 | -    | 0.010 | 0.023 | 0.421        |
| 06   | 100      | ELBOW 90 SW 3000 A105 2"    | 020270            | 020270         | 0.200 | 0.218 | 0.976 | 0.021 | 0.017 | 0.020 | 0.129 | 0.011 | -    | 0.002 | 0.019 | 0.393        |
| 07   | 100      | TEE SW 3000 A105 1/2"       | 79339             | 0              | 0.11  | 0.19  | 0.95  | 0.023 | 0.024 | 0.122 | 0.113 | 0.025 | -    | 0.002 | 0.306 | 0.384        |
| 08   | 100      | TEE SW 3000 A105 3/4"       | 40801             | M3             | 0.186 | 0.300 | 0.872 | 0.012 | 0.005 | 0.145 | 0.247 | 0.022 | -    | 0.004 | 0.196 | 0.410        |
| 09   | 100      | TEE SW 3000 A105 1"         | 56198             | FMG            | 0.25  | 0.33  | 0.84  | 0.011 | 0.014 | 0.08  | 0.08  | 0.02  | -    | 0     | 0.13  | 0.360        |
| 10   | 50       | TEE SW 3000 A105 1 1/4"     | 026369            | 026369         | 0.186 | 0.165 | 0.981 | 0.021 | 0.020 | 0.009 | 0.130 | 0.006 | -    | 0.002 | 0.016 | 0.328        |
| 11   | 100      | TEE SW 3000 A105 1 1/2"     | 027649            | 027649         | 0.21  | 0.214 | 0.98  | 0.029 | 0.016 | 0.024 | 0.127 | 0.005 | -    | 0.002 | 0.037 | 0.404        |
| 12   | 100      | TEE SW 3000 A105 2"         | 74108             | 74108          | 0.190 | 0.206 | 0.910 | 0.033 | 0.025 | 0.080 | 0.140 | 0.020 | -    | 0.000 | 0.240 | 0.541        |

### ESSAIS MECANQUES / MECHANICAL TESTS

| ITEM | QTE/ QTY | Nº COULÉE HEAT NR | IDENTIFICATION | Re N/mm² | Rm N/mm² | A %  | Z R de A% | DURETÉ HARDNESS HB | RESILIENCE IMPACT TEST TYPE | T° °C | Val ep 1 J | Val ep 2 J | Val ep 3 J | Val moy J | Localisation |
|------|----------|-------------------|----------------|----------|----------|------|-----------|--------------------|-----------------------------|-------|------------|------------|------------|-----------|--------------|
|      |          |                   |                | 250      | 485      | 22   | 30        | 187                | -                           | -     | -          | -          | -          | -         | mini<br>maxi |
| 05   | 100      | 020245            | 020245         | 328      | 520      | 30   | 55        | 164                | -                           | -     | -          | -          | -          | -         | 0591/212     |
| 06   | 100      | 020270            | 020270         | 320      | 532      | 29   | 48        | 166                | -                           | -     | -          | -          | -          | -         | 0391/80      |
| 07   | 100      | 79339             | 0              | 310      | 498      | 33.4 | 40        | 165                | -                           | -     | -          | -          | -          | -         | -            |
| 08   | 100      | 40801             | M3             | 385      | 542      | 30   | 67        | 165                | -                           | -     | -          | -          | -          | -         | -            |
| 09   | 100      | 56198             | FMG            | 325      | 525      | 31.8 | 56.1      | 165                | -                           | -     | -          | -          | -          | -         | -            |
| 10   | 50       | 026369            | 026369         | 351      | 513      | 30   | 50        | 158                | -                           | -     | -          | -          | -          | -         | -            |
| 11   | 100      | 027649            | 027649         | 326      | 531      | 35   | 48        | 167                | -                           | -     | -          | -          | -          | -         | -            |
| 12   | 100      | 74108             | 74108          | 335      | 520      | 31   | 34        | 162                | -                           | -     | -          | -          | -          | -         | 0691/302     |

Nous certifions que les produits énumérés ci-dessus sont conformes aux prescriptions de la commande et des spécifications et ont subi, sans objection, les contrôles d'aspect et de dimensions.  
 We hereby certify that above mentioned products are in accordance with the requirements of the order and specifications and have been checked without objection for surface and dimensionnel control.

Notre société garantit que les produits objets du certificat respectent en leur totalité les spécifications suivantes (pour les aciers carbonés):  
 C ≤ 0.25% P ≤ 0.05% S ≤ 0.05% Rm ≥ 700N/mm² A% > 16%  
 Rm (A - 2) ≥ 10500 Rb ≤ 0.9 Rm (Lo sur 5.85 √SO)

Le service qualité