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Management Systems  
Certified by  
IRQA  
ISO 9001 / SGI 6000360  
ISO 14001 / SGI 1870678

ACEROS INOXIDABLES

OLARRA

OLARRA U.K. LTD.  
FOREST PARK - CLEOBURY MORTIMER  
NR KIDDERMINSTER - DY 14 9BD - ENGLAND

Trade Mark - Zeichen des Lieferwerkes  
Anagrama del suministrador



Works Inspector Stamp - Werkssachverständiger  
Sello del Inspector

3

|   |  |                                 |  |   |  |  |  |  |  |                          |  |   |  |                          |  |   |  |        |  |        |  |      |  |
|---|--|---------------------------------|--|---|--|--|--|--|--|--------------------------|--|---|--|--------------------------|--|---|--|--------|--|--------|--|------|--|
| Certificate type - APZ Nach<br>Certificado tipo   |  | EN 10204/3.1                    |  | Certificate n° - Prüf.Nr<br>Certificado n°  |  | 279702   |  | Date - Datum - Fecha   |  | 06 - 07 - 2016           |  |   |  |                          |  |   |  |        |  |        |  |      |  |
| Our order N°<br>Werks - Nr<br>N° de Referencia  |  | 596389                          |  | Heat<br>Schmelze<br>Colada  |  | 411298   |  | Your order N°<br>Bestell - Nr<br>Pedido N°                   |  | OL7136                   |  |   |  |                          |  |   |  |        |  |        |  |      |  |
| Steel Grade<br>Werkstoff<br>Calidad   |  |                                 |  | 316-S-11 AV   |  |  |  | According to<br>Entsprechend<br>Corresponde                  |  |                          |  | BS 970:PART 3:1991.   |  |                          |  |   |  |        |  |        |  |      |  |
| Shape and Size - Gegenstad<br>Perfil y dimensión<br>HEXAGON 22,23 mm  |  |                                 |  | Tolerance - Toleranz<br>Tolerancia<br>h 11 /DIN 176                               |  |  |  | Bundles<br>Bunde<br>Bultos                                   |  | 2                        |  | Bars<br>Stäbe<br>Barras   |  | 92                       |  | Weight<br>Gewicht<br>Peso                               |  | 973 Kg |  |        |  |      |  |
| Requirements - Anforderungen - Exigencias   |  |                                 |  |   |  |  |  |  |  |                          |  | Anhang I Absatz 4.3 Certificate/Zertifikat Nr. 348/2008/MUC   |  |                          |  |   |  |        |  |        |  |      |  |
| EN 10.088-3.2014.<br>EN 10.272-2007.<br>ASTM A 182 / A 182M-15.<br>ASTM A 479 / A 479M-15.<br>ASTM A 276-16a.<br>ASME SA 479 / SA 479M-15<br>SAE AMS 5653H-12.<br>NACE MR-0175/ISO 15156-3 2009.<br>316S31AV-1.4404-1.4401-Type 316-Type 316L.<br>PED 97/23/EC, Annex I, Parag.4.3/DGR 97/23/EG |  |                                 |  |   |  |  |  |  |  |                          |  |   |  |                          |  |   |  |        |  |        |  |      |  |
| Melting process / Erschmelzungsart / Proceso de Fusión  |  |                                 |  |   |  | Heat treatment / Wärmebehandlung / Tratamiento térmico |  |  |  |                          |  |   |  |                          |  |   |  |        |  |        |  |      |  |
| E.A.F. / A.O.D.   |  |                                 |  |   |  | 1060C 4H/Std WATER/WASSER/AGUA                         |  |  |  |                          |  |   |  |                          |  |   |  |        |  |        |  |      |  |
| Solution annealed/Abgeschreckt/Hipertemple-Cold drawn/Gezogen/Estirado-   |  |                                 |  |   |  |  |  |  |  |                          |  |   |  |                          |  |   |  |        |  |        |  |      |  |
| Test results - Ergebnis der Prüfungen - Resultados de los ensayos   |  |                                 |  |   |  |  |  |  |  |                          |  |   |  |                          |  |   |  |        |  |        |  |      |  |
| Dimension of Specimen<br>Abmessungen des Probestabes<br>Medida de las probetas  |  | Rp0.2%<br>N/mm2<br>MPA          |  | Rp 1%<br>N/mm2<br>MPA   |  | Rm<br>N/mm2<br>MPA                                     |  | A<br>%L 5D   |  | A <sub>50</sub><br>%L 4D |  | Z<br>%  |  | Hardness<br>Härte<br>HBw |  | Impact test / Kerschschlag / Resiliencia<br>ISO V Jules |  |        |  |        |  |      |  |
| RD. 10,00 mm.   |  | Min. 325                        |  | 375   |  | 550  |  | 20   |  |                          |  |   |  |                          |  |   |  |        |  |        |  |      |  |
| Temperature °C<br>20  |  | Spec. N°<br>Probe Nr.<br>Pro N° |  | 1   |  | 513  |  | 598  |  | 657                      |  | 34  |  | 37                       |  | 72  |  | 217    |  |        |  |      |  |
| Min.  |  | C                               |  | Si  |  | Mn   |  | P  |  | S                        |  | Cr  |  | Mo                       |  | Ni  |  | Cu     |  | N      |  | Co   |  |
| Max.  |  | 0,030                           |  | 1,00  |  | 2,00   |  | 0,045  |  | 0,030                    |  | 18,50   |  | 2,50                     |  | 14,00   |  | 0,70   |  |        |  |      |  |
|   |  | 0,022                           |  | 0,38  |  | 1,65   |  | 0,033  |  | 0,028                    |  | 16,95   |  | 2,01                     |  | 11,10   |  | 0,47   |  | 0,0295 |  | 0,17 |  |
| Visual and dimensional inspection<br>Besichtigung und Ausmessung<br>Control visual y dimensional  |  |                                 |  | Radioactivity inspection<br>Radioaktivitätskontrolle<br>Control de Radioactividad |  |  |  | Antimixing test<br>Spektroskop Verwechslungspr<br>Antimezcla |  |                          |  | Grain Size<br>Korngröße<br>Tamaño de grano  |  |                          |  |   |  |        |  |        |  |      |  |
| O.K.  |  |                                 |  | O.K.  |  |  |  | O.K.   |  |                          |  |   |  |                          |  |   |  |        |  |        |  |      |  |
| Remarks - Bemerkungen - Observaciones   |  |                                 |  |   |  |  |  |  |  |                          |  | EDV / EDP<br>Acc. EN 10.204<br>Marian Tejedo<br>Quality Mng.<br><br>Works Inspector<br>Der Werkssachverständige<br>Inspector de fábrica |  |                          |  |   |  |        |  |        |  |      |  |
| IC test acc./IK prüfung nach ASTM A 262 E.13. OK<br>Crack control/Rissgeprüft acc. EN 10277-1 class 2. OK   |  |                                 |  |   |  |  |  |  |  |                          |  |   |  |                          |  |   |  |        |  |        |  |      |  |
| F12520<br>1/2" NPT Hex Nipple x 3" Long 10K   |  |                                 |  |   |  |  |  |  |  |                          |  |   |  |                          |  |   |  |        |  |        |  |      |  |