

# 2007 by EURAL



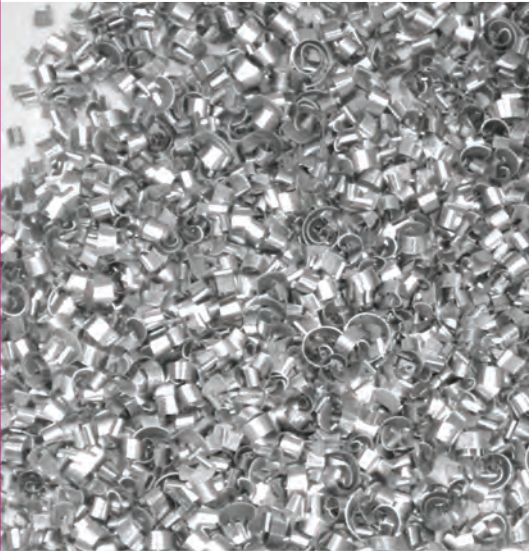
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# EURAL

GNUTTI S.p.A.

## PRODUCTION PROGRAM

| Unit: mm | ●         | ■        | ■               | ◆         |
|----------|-----------|----------|-----------------|-----------|
| Drawn    | 14 ÷ 76,2 | 20 ÷ 65  | Thick. 12 ÷ 55  | 20 ÷ 63,5 |
| Extruded | 30 ÷ 254  | 30 ÷ 165 | Thick. 30 ÷ 127 | -         |



## PRESENTATION

Among aluminium alloys for high speed automatic lathes, 2030 and 2007 have the highest mechanical characteristics.

This alloy is the most often selected when it is required to have a good combination of machinability and high mechanical properties. It has low corrosion resistance.

**Main applications:** screws, bolts, nuts, threaded bars.

Samples of finished products made of Eural bars

| Properties                          | T3/T4 |  |  |  |
|-------------------------------------|-------|--|--|--|
| Machinability                       | ■     |  |  |  |
| Protective anodizing                | ■     |  |  |  |
| Decorative anodizing                | ■     |  |  |  |
| Hard anodizing                      | ■     |  |  |  |
| Resistance to atmospheric corrosion | ■     |  |  |  |
| Resistance to marine corrosion      | ■     |  |  |  |
| MIG-TIG weldability                 | ■     |  |  |  |
| At resistance weldability           | ■     |  |  |  |
| Brazing weldability                 | ■     |  |  |  |
| Plastic formability when cold       | ■     |  |  |  |
| Plastic formability when hot        | ■     |  |  |  |

### Legend



| Chemical composition |                      |
|----------------------|----------------------|
| Si                   | ≤ 0,80               |
| Fe                   | ≤ 0,80               |
| Cu                   | 3,30 ÷ 4,60          |
| Mn                   | 0,50 ÷ 1,00          |
| Mg                   | 0,40 ÷ 1,80          |
| Cr                   | ≤ 0,10               |
| Ni                   | ≤ 0,20               |
| Zn                   | ≤ 0,80               |
| Ti                   | ≤ 0,20               |
| Pb                   | 0,80 ÷ 1,00          |
| Bi                   | ≤ 0,20               |
| Sn                   | ≤ 0,20               |
| Others               | Each 0,10 Total 0,30 |
| Al                   | Remainder            |

| Physical properties                    |  |
|--|--|
| Density                                | $\frac{\text{Kg}}{\text{dm}^3}$ 2,85           |
| Modulus of elasticity                  | MPa 71.000                                     |
| Coefficient of thermal expansion       | $\frac{\times 10^{-6}}{^{\circ}\text{C}}$ 23,5 |
| Thermal conductivity at 20°C           | $\frac{\text{W}}{\text{mk}}$ 140               |
| Typical electrical resistivity at 20°C | $\frac{\Omega \text{ mm}^2}{\text{m}}$ 0,057   |

| Mechanical properties |                  |               |           |        |
|-----------------------|------------------|---------------|-----------|--------|
| Temper                | Diam. mm         | Rm MPa        | Rp0,2 MPa | HBW A% |
| Drawn                 | T3               | ≤ 30          | 370 240   | 7 95   |
|                       | T3               | 30 < D ≤ 80   | 340 220   | 6 95   |
|                       | T351             | ≤ 80          | 370 240   | 5 95   |
| Extruded              | T4, T4510, T4511 | ≤ 80          | 370 250   | 8 95   |
|                       | T4, T4510, T4511 | 80 < D ≤ 200  | 340 220   | 8 95   |
|                       | T4, T4510, T4511 | 200 < D ≤ 250 | 330 210   | 7 95   |

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