

## Stainless Steel Electrode MT-S312



### Description:

MT-S312-16 is stainless steel electrode for welding of alloyed-unalloyed high-strength steels, Cr and Mn steels, tool steels. Joining dissimilar steels, also used for tough buffer layers in hardsurfacing where hot and warm deformation exist and take place. Welding metal is resistant to corrossions, cracks and rust.

**Welding position:** Flat, Horizontal, Vertical, Overhead

**Welding current:** AC, DC

**Redrying temperature:** 300-350°C, 60 minutes

**Classification:** AWS A5.4 E 312-16

### Chemical composition, wt. %

|         | C     | Si   | Mn   | Cr    | Ni   | Mo   | Cu   | P     | S     |
|---------|-------|------|------|-------|------|------|------|-------|-------|
| Min     |       |      | 0.5  | 28.0  | 8.0  |      |      |       |       |
| Typical | 0.065 | 0.70 | 1.07 | 28.67 | 9.43 | 0.18 | 0.10 | 0.031 | 0.017 |
| Max     | 0.15  | 0.90 | 2.5  | 32.0  | 10.5 | 0.75 | 0.75 | 0.04  | 0.03  |

### Typical Mechanical Properties of weld Metal

| Yield Strength             | Tensile Strength          | Elongation (%) | Charpy V Impact Value (+20°C) |
|----------------------------|---------------------------|----------------|-------------------------------|
| min. 490 N/mm <sup>2</sup> | 660-800 N/mm <sup>2</sup> | min. 20        | Min. 24 J                     |

### Operating Data:

| Dia. mm | Length mm | Current A |
|---------|-----------|-----------|
| 2.5mm   | 300mm     | 50-80     |
| 3.2mm   | 350mm     | 80-110    |
| 4.0mm   | 350mm     | 110-160   |