

FAMILIARC™ MG-51T

(AWS A5.18 ER70S-6)

FAMILIARC™ MG-51T: No. 1 solid wire for gas metal arc welding in autos, motorcycles, containers and other sheet metal products. FAMILIARC™ MG-51T uses either CO₂ or Ar+CO₂ shielding in all position welding.

Steady Short-Circuiting at Low Currents

Steady short-circuiting at low currents is the most valuable feature of FAMILIARC™ MG-51T. If a general solid wire is used at low currents it may generate much spatter, undercut and irregular bead appearance due to unsteady short-circuiting in the molten metal transfer. In contrast, FAMILIARC™ MG-51T offers low spatter and undercut generation with uniform bead appearance because of consistent short-circuiting transfer of molten droplets between the tip of the wire and the molten pool. This outstanding feature is derived from the sophisticated design of chemical composition and consistent quality surface of FAMILIARC™ MG-51T.

How to Create Steady Short-Circuiting

Selection of proper welding currents and arc voltage is essential for creating a steady short circuiting arc, thereby facilitating all-position welding with FAMILIARC™ MG-51T — Fig. 1

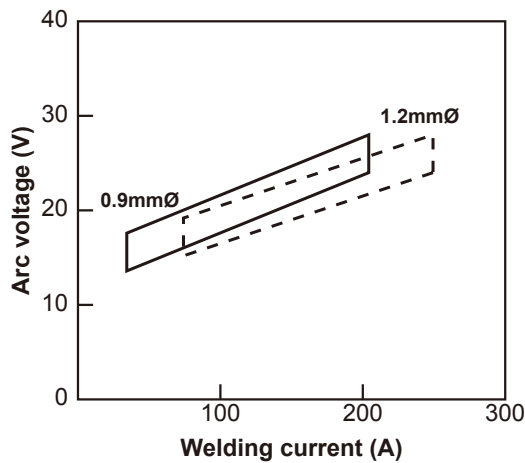
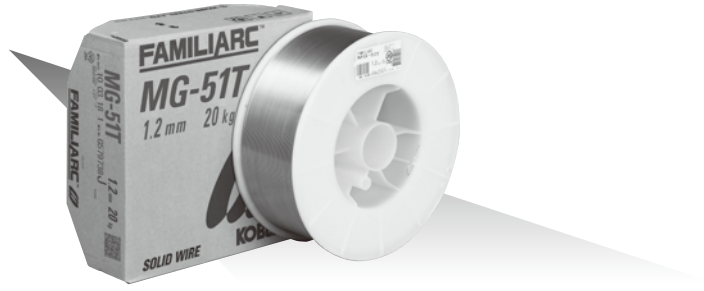


Fig. 1 — Proper ranges of welding currents and arc voltage for FAMILIARC™ MG-51T (0.9 mmØ, 1.2 mmØ)

How to Adjust Weld Penetration

It is important to control weld penetration in welding sheet metals, because burn through (excessive melt-



through) often results in damaged welds. Although an excessive root opening and joint misalignment can also cause burn through, an excessive welding current is more often the case. Figure 2 shows how to control weld penetration in relation to welding currents.

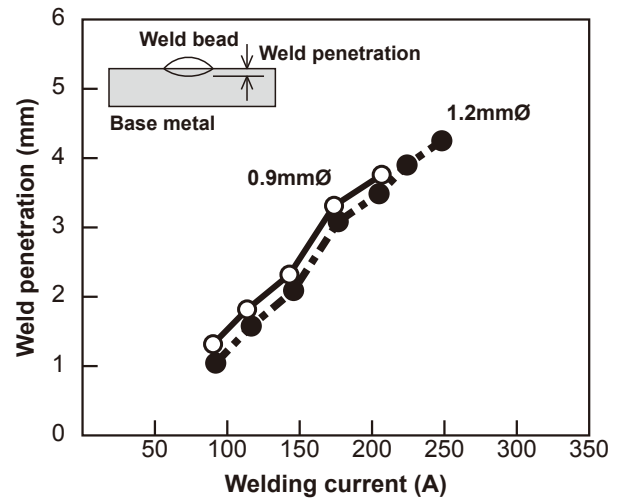


Fig. 2 — Weld penetration of FAMILIARC™ MG-51T as a function of welding currents with a short circuiting arc

Outstanding Wire-Feeding and Seam-Tracking Contribute to an Increase of Welding Efficiency

The smooth surface and consistent cast and helix of FAMILIARC™ MG-51T provides steady wire-feeding through liners and tips and exact seam-tracking along welding lines, which can decrease downtime for higher welding efficiency in semi-automatic and automatic welding. Due to such enefits, FAMILIARC™ MG-51T has seen the market expand in the auto, motorcycle, container and other sheet metal industries.



Fig. 3 — FAMILIARC™ MG-51T is one of the most popular solid wires in the motorcycle industry