



Contact Tapes and Wire Welding

The contact may be fed as a pre-formed tape incorporating two or more layers of different metals.

The sequence of operation is to first cut the contact billet to a precise length and then weld it to the carrier. This process is very versatile and contacts can be welded back-to-back on both sides of the carrier in a single machine or alternatively, two contacts can be welded in position simultaneously.

Tape welding gives an opportunity to exploit the desirable properties of tapes in a variety of metal combinations. The simplest form is a bimetal tape with the contact material as the facing layer and a readily-weldable base metal as the backing layer that is welded to the carrier. Apart from the saving in precious metal, the backing layer can enhance the integrity of the welded joint and high welding speeds are therefore possible.

Trimetal tapes are a logical development of this concept in which a highly conductive metal, such as copper, is interposed between the contact layer and the welding layer so that the precious metal content may be further reduced with very little effect on overall conductivity characteristics of the contact. Where conductivity is critical, the copper interlayer can be used to reduce the thickness of the welding layer to its lowest limit.

Trimetal tapes can also be coated with platinum / gold alloys for specialist applications, such as military, nautical, aviation and ultra low current switching.