THE FORERUNNER
IN SPECIALTY METALS

Designing Your Resistance Welding System

If you know the type of Resistance Welding component that you need, simply go to that section of the catalog and, using your major criteria, select the component (Holder, Electrode, Cap, Shank, or Accessory). If you are not certain which components you need for your specific application, the illustrations on the facing page may help. Follow these simple steps for Resistance Welding success:

1. Choose the Resistance Welding configuration that most closely matches your application based on the shape of the metal to be welded.

2. Start with the Holders section for your configuration and obtain a part number from the Tab section of the catalog. You will need to know:
   a. The basic configuration of the Holder
   b. The distance to get from the work surface to the machine
   c. The taper of the RWMA number of the Holder/Electrode system you want to use.
   d. The type of Adapter (required for some Holders) to allow the Holder to accept an Electrode -- Generally this is either a Tapered or Threaded interface.

3. Chose the Electrodes next. Note that there are a large number of options to chose from. Each Electrode has a characteristic shape and welding surface. Choose the electrode that matches the offset required in the shape of the metal to be welded.
   a. For high volume applications, a Cap and Shank option may be the best choice. The low cost replaceable Cap can be removed from the Shank and replaced with little downtime.
   b. For Projection or Nut welding, use the specially designed Electrode.
   c. For Holders that require a Threaded Electrode, choose either a Threaded Electrode or an Adapter that is Threaded for the holder and Tapered for the Electrode.
   d. For high force applications or for quick replacement of the Electrode to reduce downtime, use the “Nu-Twist” system.
   e. For Galvanized metals, use the “GCAP” Caps for longer Electrode life. Note that good alignment between the two Electrodes is required for this system.

4. Choose the Electrode Tip configuration (that portion of the Electrode that comes in contact with the metal being welded)
   a. POINTED for most applications
   b. DOME for applications where weld alignment is difficult to maintain
   c. FLAT NOSE as a backup electrode
   d. OFFSET for applications with limited access to weld surface
   e. TRUNCATED NOSE for Aluminum and general welding
   f. RADIUS NOSE for Aluminum and coated materials

5. Choose the Alloy of the Electrode. Use the material table in the Reference Section of the catalog.