




# **DIRECTIONS FOR PROPER USAGE**


## **Dayrod 718, 820, 982, WonderBraze & ZincTech 820, 982**

The Johnson Mfg. Co. / S.A. Day Buffalo Flux Facility BrazeAl Kit is preferred for repairing a wide variety of aluminum alloy heat exchangers and other aluminum alloy components. Of the five (5) repair alloys included in the kit, both the Dayrod 820 flux-coated rod and the ZincTech 820 uncoated rod (used with liquid DayTech flux) begin to melt at 698°F and are completely liquidous at 806°F. Dayrod 982 starts to melt at 732°F and it is completely liquidous at 760°F. Wonderbraze flux-cored rod and the Dayrod 718 flux-coated rod have a melting point of 1080°F. Rod and flux selection for each specific application must be determined by the user based on their experience with a torch, and knowledge of the feasibility of the techniques required for joining or repairing aluminum alloy products. Always read MSDS files thoroughly before you proceed!


 Clean area to be repaired. If the unit is a brazed unit (radiator, heater core, parallel flow condenser, charge air cooler, etc) be sure to abrade the surface with a stainless steel brush to get through the flux coating and/or oxides that are on the surface. On new aluminum surfaces, scotchbrite may be sufficient to prepare the surfaces. **DO NOT GLASS BEAD OR SAND BLAST!** Using these cleaning methods will replace surface oxides with a new surface that will repel (ball up) the flow of the alloy!

 **SLOWLY** preheat the entire area where the repair is to be performed. Air/Acetylene, Oxy/Acetylene, MAPP and Propane will all work. Many technicians have developed the skills necessary to heat the repair area without overheating and melting the parent metal. **DO NOT HEAT THE DAYROD DIRECTLY.** You will however have to keep the flame very close to the repair site to maintain the temperature so that the flux and rod melt and flow properly. After the molten metal has filled the repair site, remove the heat and allow it to air cool. If you elect to quench the part, allow it to air cool long enough for the repair to solidify.

 As you heat the area to be repaired with the flame, many times you can visually see a slight blush color of the aluminum, indicating that it has reached the proper temperature. At this time touch the heated aluminum area of repair with the Dayrod. If the temperature is high enough, the flux will melt, followed by the rod. Do not apply the inner flame cone directly on the rod tip, but the repair rod may be within the outer flame area without charring the flux. When the acceptable temperature has been reached, the repair will only take a few seconds. As soon as the flux flows off the tip of the rod, it should be followed by the silvery flow of the alloy rod itself. Immediately after the alloy flows, remove the heat and allow the area of repair to cool naturally. Performed as indicated by these directions, a permanent repair will be achieved.

 Always follow the torch with the Dayrod. The Dayrod flows from touching the heated aluminum surface, **NOT** from touching the flame of the torch.

 Once flow is observed the repair is nearly complete. Remove all heat and allow it to cool naturally.

 Post cleaning of the repaired area is not required, since these fluxes used in our brazing rods are non-corrosive. Galvanic corrosion should not occur as a result of using these Zinc/Aluminum or Aluminum/Silicon filler metals, which have been used for joining aluminum for many years.