### SMAW WELDING FOR HARD SURFACE WEAR RESISTANCE

#### **DESCRIPTION & APPLICATIONS:**

- SH-95HC is a low-hydrogen electric welder, and the dissolved gold is a primary carbide and eutectic structure.
- ●The content of chromium carbide is high, and the hardness has little downward trend at high temperature, so it has good high temperature wear resistance and excellent corrosion resistance, and is suitable for stirring blades, cutters, sieves, etc.

## **NOTE ON USAGE:**

- Before welding, the weld should be dried at 300 ~ 350°C for 30 ~ 60 minutes. When in use, a small amount should be taken out and put into a drying cylinder at 100 ~ 150°C. The maximum amount of weld carried out should be the same day.
- ●The base metal is preheated at a temperature above 400°C.
- It is preferable that the number of welded layers should not exceed 2 or 3 layers.

## **WELDING POSITION:**





# TYPICAL CHEMICAL COMPOSITION OF WELD METAL (wt%):

| С    | Mn   | Si   | Cr   |
|------|------|------|------|
| 5.13 | 3.00 | 0.20 | 26.5 |

#### TYPICAL MECHANICAL PROPERTIES OF WELD METAL:

| Condition                       |                              | Vicker's<br>(HV) |     | Rockwell's<br>(HRC) |     | Shores's<br>(HS) |     |  |
|---------------------------------|------------------------------|------------------|-----|---------------------|-----|------------------|-----|--|
| Layer tempre                    | Layer temprature 150° Cunder |                  | 700 |                     | 60  |                  | 81  |  |
| pile up welding                 |                              | 680              |     | 59                  |     | 80               |     |  |
| High<br>temperature<br>hardness | Temprarture(°C)              | 200              | 300 | 400                 | 500 | 600              | 700 |  |
|                                 | Vicker's (HV)                | 610              | 440 | 400                 | 310 | 210              | 95  |  |

## SIZE AND RECOMMENDED CURRENT RANGE: AC or DC(+)

| Diameter (mm) | 3.2    | 4.0     | 5.0     |  |
|---------------|--------|---------|---------|--|
| Length (mm)   | 350    | 400     | 400     |  |
| Current (Amp) | 90-140 | 140-180 | 190-220 |  |