

## ELECTRODE SELECTION CHART

Recommended electrode sizes for removing common broken studs and taps.

| <b><u>ENGLISH THREAD</u></b> |                 |        |      |        |
|------------------------------|-----------------|--------|------|--------|
| ELECTRODE SIZES FOR:         |                 |        |      |        |
| Thread Size                  | STUDS and BOLTS |        | TAPS |        |
|                              | inch            | mm     | inch | mm     |
| 2                            | .043            | (1.1)  | .044 | (1.1)  |
| 4                            | .060            | (1.5)  | .054 | (1.4)  |
| 6                            | .080            | (2.0)  | .066 | (1.7)  |
| 8                            | .110            | (2.8)  | .084 | (2.1)  |
| 10                           | .122            | (3.1)  | .091 | (2.3)  |
| 1/4                          | .175            | (4.4)  | .123 | (3.1)  |
| 5/16                         | .235            | (6.0)  | .159 | (4.0)  |
| 3/8                          | .286            | (7.3)  | .190 | (4.8)  |
| 7/16                         | .338            | (8.6)  | .221 | (5.6)  |
| 1/2                          | .407            | (10.3) | .262 | (6.7)  |
| 5/8                          | .516            | (13.1) | .328 | (8.3)  |
| 3/4                          | .626            | (15.9) | .394 | (10.0) |
| 7/8                          | .751            | (19.1) | .469 | (11.9) |
| 1                            | .860            | 21.8   | .534 | 13.6   |
|                              |                 |        |      |        |

| <b><u>METRIC THREAD</u></b> |                 |       |       |       |
|-----------------------------|-----------------|-------|-------|-------|
| ELECTRODE SIZES FOR:        |                 |       |       |       |
| Thread Size                 | STUDS and BOLTS |       | TAPS  |       |
|                             | inch            | mm    | inch  | mm    |
| 3mm                         | .070            | (1.8) | 0.044 | (1.5) |
| 4mm                         | .098            | (2.5) | .077  | (2.0) |
| 5mm                         | .136            | (3.5) | .100  | (2.5) |
| 6mm                         | .175            | (4.4) | .123  | (3.1) |
| 7mm                         | .212            | (5.4) | .145  | (3.7) |
| 8mm                         | .242            | (6.1) | .163  | (4.1) |
| 9mm                         | .282            | (7.2) | .187  | (4.8) |
| 10mm                        | .313            | (8.0) | .206  | (5.2) |
| 12mm                        | .383            | (9.7) | .248  | (6.3) |
|                             |                 |       |       |       |

Generally for removing broken **studs** use an electrode **10%** smaller than the tap drill size.  
 For **broken taps**, use an electrode about **40%** smaller than the tap drill size.  
 Graphite electrodes can be easily polished down in a drill press or lathe using sandpaper to achieve the size needed.