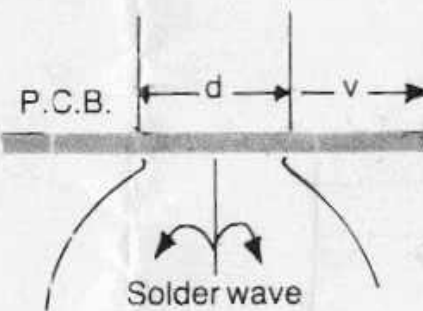


# OPTIMUM CONTACT TIME

| CONVEYOR SPEED<br>cm/min.      ft/min. |     | CONTACT BAND WIDTH BETWEEN P.C. BOARD AND SOLDER ("d") |                 |                |             |                |                 |                |                 | GEOMETRICAL DWELL TIME                                                                                                                                                                                                                                                                                    |
|----------------------------------------|-----|--------------------------------------------------------|-----------------|----------------|-------------|----------------|-----------------|----------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                        |     | 2 CM<br>0.8in                                          | 2.5 CM<br>1.0in | 4 CM<br>1.57in | 5 CM<br>2in | 6 CM<br>2.35in | 7.5 CM<br>3.0in | 8 CM<br>3.15in | 10 CM<br>3.95in |                                                                                                                                                                                                                                                                                                           |
| 15                                     | 1/2 | 8                                                      | 10              | 16             | 20          | 24             | 30              | 32             | 40              |  <p>t = Dwell time of PCB in solder wave</p> <p>t = <math>\frac{d \times 5}{V}</math> where</p> <p>d = Geometrical length of contact between P.C.B. &amp; Solder Wave (inches).</p> <p>V = Conveyor Speed (ft/min)</p> |
| 30                                     | 1   | 4                                                      | 5               | 8              | 10          | 12             | 15              | 16             | 20              |                                                                                                                                                                                                                                                                                                           |
| 60                                     | 2   | 2                                                      | 2.5             | 4              | 5           | 6              | 7.5             | 8              | 10              |                                                                                                                                                                                                                                                                                                           |
| 90                                     | 3   | 1.32                                                   | 1.64            | 2.64           | 3.28        | 3.96           | 4.92            | 5.28           | 6.60            |                                                                                                                                                                                                                                                                                                           |
| 120                                    | 4   | 1                                                      | 1.75            | 2              | 2.5         | 3              | 3.75            | 4              | 5               |                                                                                                                                                                                                                                                                                                           |
| 150                                    | 5   | 0.8                                                    | 1.00            | 1.60           | 2.00        | 2.40           | 3.00            | 3.20           | 4.00            |                                                                                                                                                                                                                                                                                                           |
| 180                                    | 6   | 0.80                                                   | 0.82            | 1.32           | 1.33        | 1.98           | 2.46            | 2.64           | 3.20            |                                                                                                                                                                                                                                                                                                           |
| 2.10                                   | 7   | 0.57                                                   | 0.71            | 1.14           | 1.43        | 1.71           | 2.14            | 2.79           | 2.36            |                                                                                                                                                                                                                                                                                                           |
| 2.40                                   | 8   | 0.50                                                   | 0.63            | 1.00           | 1.26        | 1.50           | 1.89            | 2.00           | 2.50            |                                                                                                                                                                                                                                                                                                           |
| 2.70                                   | 9   | 0.455                                                  | 0.55            | 0.89           | 1.10        | 1.36           | 1.67            | 1.78           | 2.22            |                                                                                                                                                                                                                                                                                                           |
|                                        |     | SEC                                                    | SEC             | SEC            | SEC         | SEC            | SEC             | SEC            | SEC             |                                                                                                                                                                                                                                                                                                           |

Acknowledgments Electrovert R & D Canada.  
Process invented by Sandia Laboratories, USA.