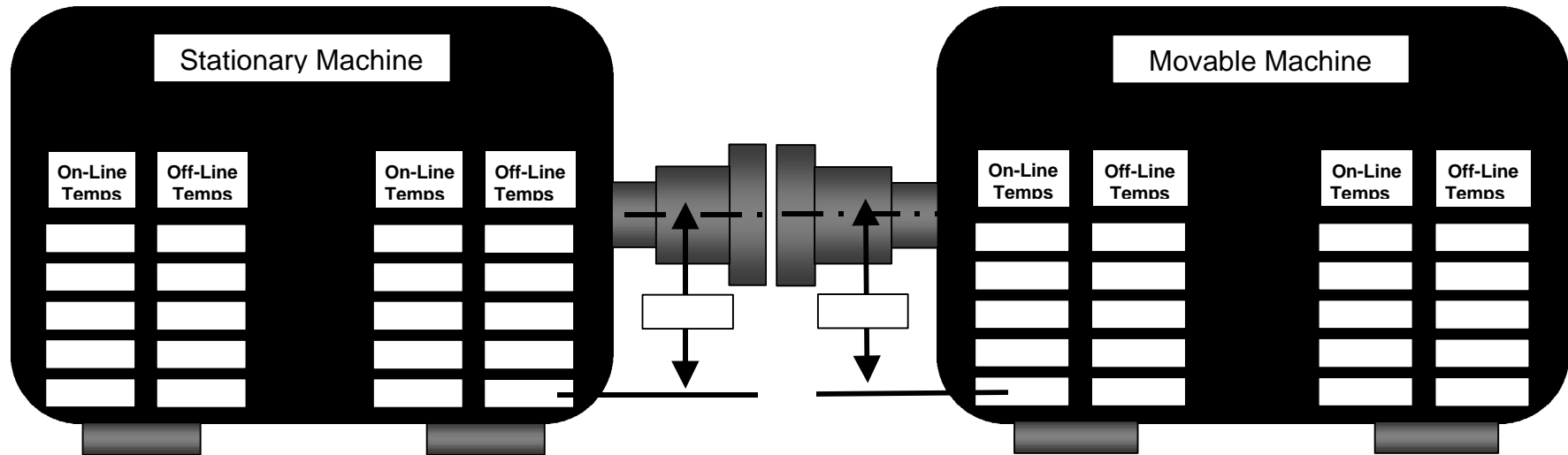


# Thermal Growth Recording and Calculation Form

|                     |  |                  |  |
|---------------------|--|------------------|--|
| Equipment ID:       |  | Location:        |  |
| Stationary Machine: |  | Movable Machine: |  |
| Performed By:       |  | Date:            |  |



|                                |                      |                      |                                |                      |                      |
|--------------------------------|----------------------|----------------------|--------------------------------|----------------------|----------------------|
| Sum                            | <input type="text"/> | <input type="text"/> | Sum                            | <input type="text"/> | <input type="text"/> |
| ÷ # of temps                   | <input type="text"/> | <input type="text"/> | ÷ # of temps                   | <input type="text"/> | <input type="text"/> |
| Avg.                           | <input type="text"/> | <input type="text"/> | Avg.                           | <input type="text"/> | <input type="text"/> |
| Avg. On-Line -<br>Ava Off-Line | <input type="text"/> |                      | Avg. On-Line -<br>Ava Off-Line | <input type="text"/> |                      |
| X Height                       | <input type="text"/> |                      | X Height                       | <input type="text"/> |                      |
| X Coefficient                  | <input type="text"/> |                      | X Coefficient                  | <input type="text"/> |                      |
| Movement =                     | <input type="text"/> |                      | Movement =                     | <input type="text"/> |                      |

|                                |                      |                      |                                |                      |                      |
|--------------------------------|----------------------|----------------------|--------------------------------|----------------------|----------------------|
| Sum                            | <input type="text"/> | <input type="text"/> | Sum                            | <input type="text"/> | <input type="text"/> |
| ÷ # of temps                   | <input type="text"/> | <input type="text"/> | ÷ # of temps                   | <input type="text"/> | <input type="text"/> |
| Avg.                           | <input type="text"/> | <input type="text"/> | Avg.                           | <input type="text"/> | <input type="text"/> |
| Avg. On-Line -<br>Ava Off-Line | <input type="text"/> |                      | Avg. On-Line -<br>Ava Off-Line | <input type="text"/> |                      |
| X Height                       | <input type="text"/> |                      | X Height                       | <input type="text"/> |                      |
| X Coefficient                  | <input type="text"/> |                      | X Coefficient                  | <input type="text"/> |                      |
| Movement =                     | <input type="text"/> |                      | Movement =                     | <input type="text"/> |                      |

| Material        | Coefficient (mils/in /°F) | Coefficient (thou/in/°F) | Coefficient (mils/in/°C) | Coefficient (mm/mm/°C) |
|-----------------|---------------------------|--------------------------|--------------------------|------------------------|
| Carbon Steel    | .0063                     | .0000063"                | .01134                   | .00001134              |
| Stainless Steel | .0095 -.0098              | .0000095" -.0000098"     | .01764                   | .00001764              |
| Aluminum        | .0125                     | .0000125"                | .02255                   | .00002255              |
| Nickel Steel    | .0073                     | .000073"                 | .01314                   | .00001314              |
| Brass           | .0110                     | .0000110"                | .01980                   | .00001980              |
| Cast Iron       | .0059                     | .0000059"                | .01062                   | .00001062              |
| Concrete        | .0065 -.0080              | .0000065" -.0000080"     | .01296                   | .00001296              |