

DIE-TO-DIE SYNC REGISTRATION

Die-to-Die Sync is a registration process that allows two sets of die tooling to synchronize. Die-to-Die Sync is typically used on a process with no registration marks and two die cuts that need to be aligned. To setup Die-to-Die Registration, follow these steps:

Note: For Die-to-Die Sync to operate correctly, the die tooling must have equal circumferences.

1. Put the machine into a controlled stop.
2. The first, usually leftmost, die is the Sync/Secondary axis (Figure 1). The second die or Primary axis is then used to adjust to the Sync axis.
3. Connect the Primary sensor cable located on Primary axis (Figure 2) to the Primary registration plug of that axis (Figure 3).
4. Connect the secondary sensor cable, located on the Sync axis, to the Secondary registration plug of the Primary axis.
5. Select the axis module button for the die that will be the Primary Axis, on the Main Screen. This will display the Axis Setup Screen Figure 4. Enable Die-to-Die Sync by pressing the Die-to-Die Sync button.

Note: The registration process will not operate correctly if re-registration or Die-to-Die Sync is enabled for the Secondary axis.

6. Enter a Gear Ratio of 1, circumference of the die tooling for the Repeat Length, set the Offset to 0, and the Max Correction to 0.

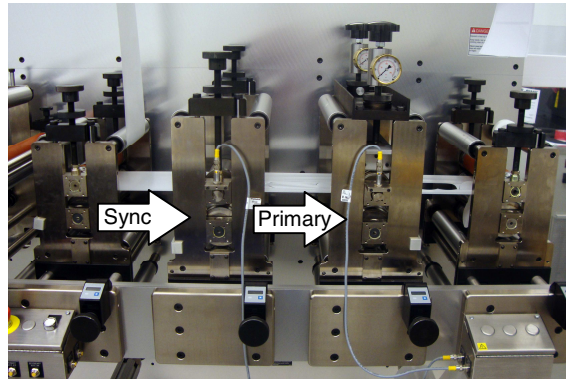


Figure 1

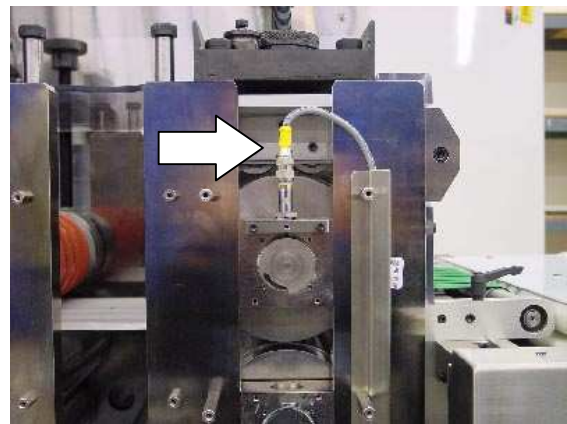


Figure 2



Figure 3

DELTA MOD-TECH® ROTARY CONVERTER

Die-to-Die Sync Registration Setup

7. On the Axis Setup Screen for the Secondary/Sync, set the Gear Ratio to the same value as used on the Primary axis.
8. Navigate back to the Axis Setup Screen Primary axis. Jog the machine and allow the die to home. The die is homed once the *Gear Size* and *Die Repeats* are displayed. Check these numbers for accuracy.
10. Use the Offset parameter to adjust the die cuts in relation to one another. For quick fine adjustments, use the buttons below the Offset button to change the values in increments of +/- 0.05 or +/- 0.10.

Note: The number of gear teeth x 1/8" should equal the circumference of the die. Example: A 10-inch circumference die with a 5-inch repeat length, should have a *Gear Size* of 80.

9. Enter a value for Max Correction ex: 0.2000. Jog the machine and allow the dies to sync. Once the Correction displays a value of 0, the dies are synchronized.

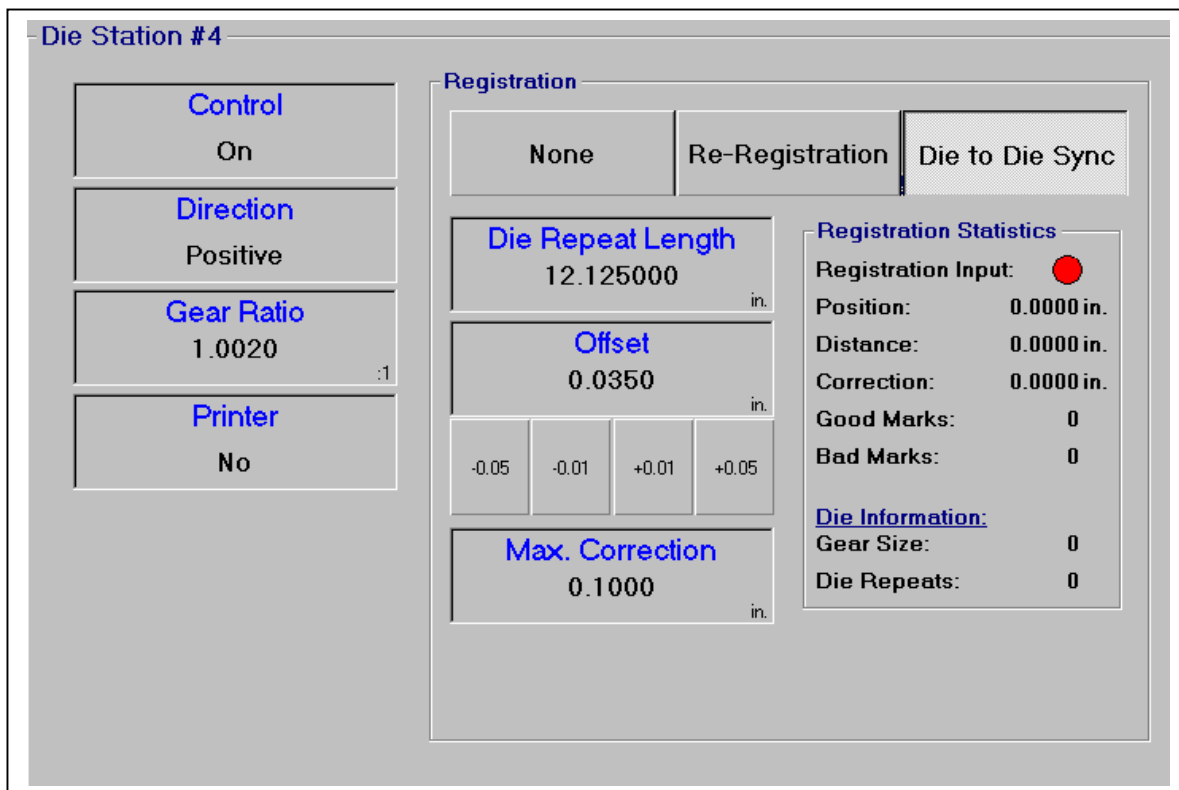


Figure 4 – Axis Setup Screen (Die to Die Sync)

