## Cartridge Sensor Installation Manual For IMPAX and IMPAX/SK Process Monitors

Note: Although the diagrams enclosed represent a typical 1D2B die backing plate for a header, it may not follow your particular application verbatim, but will give a general idea on how cartridge sensor installation should be done. If your application is much different than shown, or you are not sure of how to proceed with your specific application, please contact a Field Service Engineer at Process Technologies Group for assistance.

## **Cartridge Sensor Installation:**

Following the diagram included with this manual and observing the top of the die backing plate taken from your machine, mark where the hole should be drilled. Using a 1/4" or 8mm drill bit (depending on the cartridge sensor used), the hole should be approximately 3/16" away from the outer edge of the kick out hole and 5/16" from the front of the die backing plate. Drill the depth of the hole so that the 1" long cartridge sensor is parallel to the center of the kick out hole in the backing plate. So drill about 1/2" lower from the center of the kick out hole.

Once the hole is drilled, clean all grease, metal shavings and debris from inside the hole using an evaporating cleaning solvent such as brake cleaner. A clean hole will create a better bonding surface for the epoxy to hold the sensor in place. Next, check hole size by dry fitting the sensor. Make sure the sensor freely enters the hole all the way till it hits bottom. If the sensor does not fit freely, ream the hole out to accommodate. Then cut a piece of Nalgene tubing to fit over the length of the sensor wire required to go from the die backing plate to the wire junction box. The Nalgene tubing is important as it creates a protection barrier for the exposed sensor wire from debris in the machine. Thoroughly mix the epoxy, and using a common drinking straw, draw epoxy into the entire length of the straw. Insert the straw completely into the hole and squeeze with your thumb and index finger; gently pulling up on the straw will force the epoxy into the hole. This will ensure a good bonding surface for the sensor, by forcing the epoxy up through the open side and surrounding area of the sensor. Using the Nalgene tubing on the sensor wire, press entire sensor and Nalgene tubing down making sure closed side of sensor is facing towards the back of the die backing plate. Insert the sensor all the way down into the hole until it hits bottom. Leaving the length of Nalgene tubing with the sensor, fill the remaining distance in the hole with epoxy. Allow epoxy to stand twenty-four (24) hours. After the epoxy has completely cured, you may now re-insert the die backing plate into the machine.

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