Leaking Pressure Transducers

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Leaking pressure transducers or melt thermocouples are a common source of housekeeping problems and, in some cases, can create a hazard. In extreme cases, a leaking transducer has been known to completely fill the barrel hoods of an extruder with plastic! Often, the problem is caused by a poor seal in the mounting hole at the 45° seat due to damage or build-up. Transducer manufacturers offer mounting hold cleaning kits that have a special reamer to clean and form the seat and hole.

Care must be taken in this operation, however, if correcting severe damage or excessive reaming results in a mounting hole that is too deep, it will extend the transducer tip beyond the inside barrel wall where it will be wiped out by the screw flight. Inserting a flared copper spacing washer, also available from the transducer manufacturer, onto the sealing surface can compensate for this problem. Also, the soft washers can often be used to solve tough sealing problems if the seat cannot be repaired. Be aware that the washer, which acts as a spacer, can increase the depth of the cavity, or dead spot, at the transducer tip causing a potential source for degradation.

- Bill Kramer, American Kuhne

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