



# PELLERIN MILNOR CORPORATION

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## “TECH NOTE”

March 14, 2001

### WHAT YOU NEED TO KNOW ABOUT MEMBRANE PRESS BELL SHIM KITS

#### 1. DOWN LOCK SHIM KIT

Part No.: 50 kilo – KU50KGSIM; 60 kilo – KU60KGSIM

All MILNOR two station presses utilize shims in order to restrict the upward movement of the dome when the press is under pressure. The maximum gap that we want to see between the dome and the bed of the press, while under pressure, is about .150”.

We have evidence that supports when the gap becomes as large as .250” that the diaphragm tries to extrude out of the gap and tends to abrade and ultimately fail the diaphragm around the edge.

A tremendous amount of force is applied to these shims and downlocks, so, the shims tend to extrude and become thinner. It is necessary to replace or add shims to regain the proper gap between the bottom of the dome and the bed of the press. This is normal maintenance and MILNOR provides a kit which includes assorted sizes of shims to properly shim the dome downward. These shims go between the upper locking ring and the frame of the press.

#### 2. BELL AIR CYLINDER SHIM KIT,

Part No.: 50 kilo – KURSPK0025; 60 kilo – KURSPK0026

This kit is made available to press users who have the following problem:

- The dome hits the press bed causing the press bed to ripple over the zigzags. The solutions are multi-fold and a kit and instructions go into explicit detail about this retrofit. However, the brief version is:
  1. We shim the main bell air cylinder so that the dome is suspended above the press bed when the dome is in its full down position. The approximate gap between the dome and the bed is .100”.  
The shims are applied between the air cylinder bottom flange and the upper frame cross member.
  2. A new diaphragm retaining ring is provided which allows the diaphragm to protrude from the bottom of the dome by .100” (approximate).

3. New uplocks are provided to allow the dome to come up higher into the uplock area. (This may not be needed on every press.)
4. A new dome to air cylinder coupling is provided along with a shim to mount under the coupling. The dome is allowed to swivel slightly on the shaft of the air cylinder, where before the shaft was tightly clamped to the hub.

The clamping action prevented the dome from seeking "level" if a fault caused the dome to become cocked on the air cylinder shaft. This shim is available separately in the event such a problem exists.

In many cases, the air cylinder coupling shim can be applied along with air cylinder shims (which raise the dome off the bed) and the press will operate perfectly without any other changes. This will always be our first attempt at reconciling a dome hitting a bed with enough force to extrude the bed over the zigzags.

A parts kit is available with everything possibly needed to affect a repair. However, the kit is extensive and is probably "overkill", depending on the needs and the age of the press.

We would like to discuss the problem of the press and apply the appropriate parts from this kit to simplify the application.

Any questions should be referred to MILNOR Tech Support at 504-464-0163, FAX 504-469-9777 or E-mail [Service@MILNOR.com](mailto:Service@MILNOR.com).

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