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TROUBLESHOOTING

PROBLEM: INK DRYING IN THE DIE / LINES BREAKING

Water-based inks are formulated to adhere to porous surfaces. As the ink adheres most efficiently to a porous surface, anything that reduces the porosity will tend to also reduce the ink's ability to hold on to it. Typically, if the pores of the substrate have been closed or filled, wholly or in part by coatings, foils, ink backgrounds, or even embossing or "flattening", the ink will have less affinity to adhere, which may result in some ink being left behind after striking the impression, which then does begin to dry in the die and results in the phenomenon of "breaking" of lines or images necessitating stopping the press to clean it out each time it occurs. This most often occurs on fine lines where less ink is applied. While this is indeed caused by dry ink, usually the cause of the dry ink is not that the drying speed is too fast, but rather that the paper substrate is not efficiently pulling the ink from the plate on each stroke of the press.

The first course of action should be to increase stamping pressure and see if the problem is alleviated. If this is not possible or desirable, then the best way to deal with this phenomenon is to increase the "tack" of the ink, which makes its affinity toward the substrate somewhat more efficient, while at the same time striking the impression with enough pressure to get all the ink out, either by "patching" a problem area on the counter or in the case of inconsistent breaking, adding more overall pressure. We recommend Plasti-Tone™ Solution for tack-building. Care should be taken, however, not to create excessive tack which may cause the paper to not release from the die and to pull back.

In some cases, the inability to bring up a complete impression is caused by the ink's inability to adhere adequately to the substrate at all, as in situations where the substrate is completely non-porous or coated. This particular phenomenon is observed when the dry ink that appears to adhere to the substrate can be easily scratched off or literally cracks and "pops" off when the substrate is flexed. In this instance, it is necessary to supplement the ink's ability to actually adhere to the substrate. We recommend Plasti-Tone™ Adhesion Promoter for this purpose.

See "Plasti-Tone™ Additives" for a detailed description of Plasti-Tone™ Solution and Plasti-Tone™ Adhesion Promoter and instructions for their use.