

## Print Run Length

Minimizing Plate Wear

### Press Condition

- Poorly maintained presses achieve short print runs.
- Areas to look at include:
  - Plate to blanket pressure
  - Ink form roller pressure
  - Water form roller pressure
  - Blanket quality and condition
  - Dampener covers and bearings

### Plate to Blanket Condition

- Portrait press; the pressure between the plate and blanket cylinders can be adjusted. This should be set to 3.5mm contact bead.
- Landscape press; packing is used to alter the plate to blanket pressure. Using more than recommended packing is not necessary or advised as it scrubs the plate surface due to altering the circumference of either cylinder.

### Ink Form-Roller Pressure

- Drop the ink rollers onto a clean plate. The rollers should not have any water on them.
- The ink rollers should produce an even bead of ink across the plate.
- The ink bead width should be between 3.2mm and 3.8mm.
- If it varies across the plate then the rollers need adjustment or replacing.

Good



Replace Rollers



## Water Form-Roller Pressure

- Drop the water rollers onto a dry plate.
- It is difficult but try to see the thickness of the water bead on the plate.
- It should measure 2.4mm for an Aqua-flow system and up to 3.5mm for molleton systems.

## Blanket Quality and Condition

- Low priced blankets are low quality!
- Check that the blanket fitted to the press is not abrasive.
- Check the blanket has no flat spots.
- Check that there is no set-off powder sticking to the blanket.

## Dampener Covers and Bearings

- Covers vary in hardness. Higher quality covers are less abrasive to the plate.
- If roller bearings are in poor condition they will cause the roller to scuff the plate surface.

## Morning Start-Up

- Ensure your printer has run up ink and water on his press before commencing printing first thing in the morning.
- This appears to help run length.

## Summary

- Check all of the parts that effect or contact the printing plate.
- In all cases the manufacturers specifications are the best settings for the press to achieve good run lengths.

## Print Run Length Test

- Following is an extract from a print run length test carried out on a GTO52 press in March 2006.
- It shows that the e2 plate can provide good print run lengths.

# KIMOTO

## PRINT RUN LENGTH TESTING WITH KIMOPLATE E2 AND A GTO 52 PRESS

- **Press:** GTO 52 single color 26 million impressions. The press was in very good overall condition. All settings on the press were set to the Heidelberg recommendations. The ink form rollers were set to a 3.5mm ink bead on the plate.

All blanket and plate settings were taken from the Heidelberg instruction manual.

- **Ink:** The ink used was from Dianippon Ink Company. It was Oxford Blue in New Champion F-Gloss.
- **Fountain Solution:** The fountain solution was Fuji etch solution for polyester plates, mixed in accordance with the directions on the bottle.
- **Print Speed:** The print speed for all tests was 5,000 iph.
- **Blanket:** The blanket was an all-purpose blanket supplied by Meiji, product code 9600A. The blanket could be described as a soft blanket. (Blue in color)
- **Print Room conditions:** Temperature between 18 C and 19.9 C. Relative humidity between 34% and 40%.

### TEST 1:

The first test was conducted with new molleton dampeners on the press. (New Mol 6G). A print run of 5,500 was carried out with no visible plate wear.

### TEST 2:

The second test was carried out using Rogers dampener covers. After 1,800 impressions some wear was evident in the solid areas.

### TEST 3:

The third test included the same press conditions as test 2 but an ink conditioner (ink Mate) was added to the ink. After 3,000 impressions there was of sign of plate wear.

## Conclusion

- A well set up press will give good run lengths for the Kimosetter e2 plate.
- Some components are better than others.
- Good blankets are helpful.
- Some dampener covers are better than others.
- An ink conditioner sometimes helps.
- Manufacturer's specifications and recommendations are usually best.