Makereadies: 106 ways to make them faster

Makeready is what happens between the printing of the last good product sheet of one job and the first good product sheet of the next on a particular press. A press operator's makeready duties can be loosely categorized as hard or soft. "Hard" makeready refers to mechanical tasks such as washing up and cleaning the press, changing plates, setting the press feeder, inking and dampening systems and, for some jobs, changing coater blankets. "Soft" makeready tasks require an operator to evaluate and adjust variables such as register and color.

Hard makeready chores have gotten much easier, thanks to automatic plate changing and wash-up as well as feeder, inking and delivery system presets. On the soft side, color measurement and control systems help operators quickly achieve and maintain consistent color.

Beyond automation, integration is the other hallmark of makeready on a modern press. Today, digital links from the press to management information system (MIS) and platesetter data automatically generate electronic job tickets, perform hard makeready tasks and preset Ink fountains. Over time, these efficiencies will increase, especially as CIP4 progresses.

1. Create a written standard makeready procedure.
2. Communicate with crew before make-ready if standard procedure does not apply.
3. Standardize press crews; use same crew on same press and same job when possible.

4. Plan meeting with crews for their input on ways to cut down make-ready time.
5. Create incentives (prizes) to reward a good idea.
6. Establish benchmark settings for each type of paper or type of job.
7. Archive a customer profile for each job.
8. Establish a standard ink density target range.
9. Standardize ink sets in press room and single source if possible.
10. Verify that the special colors (PMS) have been proofed for strength and color.
11. Proof special and PMS colors before they are sent to the pressroom; attach draw down samples to bucket or drum.

12. Once your process inks have been approved, save several kits to use for questions about Ink problems. (Save retains for your ink audit.)

13. Deliver special inks to press side eight hours early.
14. Prepare rags (folded) printer towels for washing blankets in advance.
15. Crew must have tools, gloves, etc; ready (at work site) for upcoming makeready.
16. Leave webs in when possible.
17. Leave folder engaged when possible.
18. Load the next paper stock in stand, so it is ready to splice.
19. Splice into the new paper while the press is ramping down from previous job.
20. Restock bundling boards and skids at press before the change over begins.

21. Bend, pack and stage the next plates that to go on press.
22. Cylinder location identification marks should be easy to read. They should be located in the same spot on every plate.
23. Stamp a timing mark on all drivelines to engage all equipment for proper alignment.
24. Design finger guards with quick release applications built in. (no tools required)
25. Leave finger guards on when possible.
26. Run signatures with same color rotation and fold on the same press.
27. Use plates that do not require packing.
28. If possible, use permanent packing sheets on plate cylinder.
29. Run jobs together--stay with double parallel or quarter folds.
30. Run quarter folds on one press and double parallel folds on another press to save time on folder change oversee.
31. Design guides, stops and fans on folder to swing out of the way instead of removal during a change over.
32. Retrofit all bolts to use the same size wrench for faster changeover.
33. Enter next job data in auto-count while running first job.
34. Complete all data entry while press is running, for example, roll cards, time sheets, and load tags.
35. Lift catwalks up (If webs are out) while other crewmembers remove the web.
36. Videotape the process to research ways to reduce internal and external make-ready time frames.
37. Measure make-ready intervals by press and by press crew. Compare presses and crews to find the most effective combination (less waste and lowest time per plate). Research these techniques to a new standard procedure.
38. Purchase automatic blanket washers; this will reduce time spent during the internal shut down. You will be required to do an ROI to purchase equipment.
39. Job orders should be completely filled out when they arrive at press side.
40. Job orders must have clear Instructions and they must be easy to read.
41. The job order should show spoilage allowances and show press and bindery speed allowances. Create a “meet It or beat it” record.
42. All pressroom information should be located in one spot on the job order. 43. Questions should be answered before the makeready begins.
44. If possible, put a printed copy of the last printing in the job bag.
45. Provide clear instructions on customer expectations for a press side color OK.
46. Train customers on your procedures for a color OK before they arrive at press side.
47. Teach pressmen your expectations of the customer/pressmen relationship during the press side color OK process.
48. Develop an automatic system to alert the QC department that your press is starting a new form and that they are needed at press side.
49. Color test all press, QC and ink room personnel.
50. Develop a good preventive maintenance program.

51. Do the required preventive maintenance program religiously! 52. Develop a hit list of items that need attention and that can be completed at the next PM period.
53. Develop a hit list of items that can be accomplished during a plate hold or a mechanical breakdown.
54. Follow the factory recommended recalibration time intervals for the register, web guides, ink fountain keys, Tec turn (air turn) and plate bender equipment.
55. Standardize fold lip location on all double parallel fold jobs.
56. Standardize web width size if possible.
57. When changing blankets, leave the folder in, cut blanket off, and the install the new blanket.

58. When installing plates, you need to have a pin or a stop Installed so that the plates go in the same location each time for faster register.
59. Provide ample lighting so crew can align plates on the marks.
60. Remove endplay from all drive motors that move registration mechanisms.
61. Use the split drive (make-ready clutch) on all eight-unit presses.
62. Purchase a closed-loop auto register system (CCR or RGS).
63. Make sure that all jobs have the same common fold marks.
64. Cut-off control marks should be located at the same spot of printed web to prevent eye relocation for every setup.
65. Make sure that all supplies are at the press before the running job finished and before the new job goes to make-ready status.
66. Stage enough paper to complete all scheduled jobs with a twelve hour advanced inventory.
67. Leave auxiliary equipment, like folder, shoetree, and inline-finishing streams with web strung, in position but disengage the line shaft.
68. Take pictures of complicated web ups and benchmark setting.
69. Color code web path and paint direction pointers.
70. Provide a stub roll of paper at complicated reweb points along the press to attach the broken webs and to make up the distance between breaks in the paper.

71. Design a bracket to hold a roll of splicing tape at every station where you will need repaid a break or to make a paste.
72. Wrap unused grater rollers with plastic stretch wrap to keep them clean until they are needed.
73. Wrap all unused travel steels with plastic stretch wrap to keep them clean until they are needed.
74. Weekly, certify that your press is at your target for dot gains.
75. Quarterly, certify that the press is printing at SWOP standards.
76. Certify that you can match the proof you're provided.
77. Check incoming supplies to certify that they meet your standards.
78. Test new innovations or products one at a time to control the variables.
79. Develop a team for continuous improvement.
80. Invite vendor to join your team and to help solve problems.
81. Track plate makeovers by cause and attack largest error first.
82. Reward press personnel if they find errors before mounting plates.
83. Use Web Press Simulator to improve skills.
84. Videotape the crew, show them the tape, and ask to evaluate their process.
85. Standardize paper brands to reduce variables.
86. Locate SPC charts at press side for personnel to see make-ready times.
87. Create a 10-12 week advance schedule at press side, so pressmen can prepare for upcoming work (advance planning.)
88. Standardize fountain solutions in pressroom.
89. Simplify all stacker changes by color coding or painting position marks.
90. Deliver bundle boards and skids to press site while the other form are completing.
91. Develop a training center, store spare equipment there, and use it for hands on training.
92. Schedule weekly meetings with the maintenance department to schedule repairs and PM's for the next week.
93. Invite plate room personnel to spend time in the pressroom to understand the important of our CCR marks, comp marks, and sheeter marks.
94. Require sales staff to be present at press side during a make-ready so they understand the process and understand our equipment capabilities.
95. Send key pressroom personnel on field trips to other printing facility to explore other methods.
96. Plan meetings with other department supervisors; ask them to help brainstorm Ideas.
97. Have common equipment through out pressroom. (I.e.) Folders, Sheeters, Roll Stands, Stackers (reduce learning curve).
98. Store spare parts in one location for easy access and accounting.
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100. Use extra press personnel to help crew make-ready the next job.
101. Prepare any perforation plate as early as possible before actual make-ready.

102. Make bringing the job bag to the press for every a job. A standard operating procedure (SOP).
103. Require the press crew to look through the job bag as early as possible before actual make-ready.
104. Train, all new personnel Packer's, Assistant's, Pressman & MIC's to follow your Sop's.
105. Involve all of the press crew in departmental meetings (Keep everyone on the same page and suggestions will come from the whole press crew).
106. Try to constantly schedule the same press crews together, so they can work as a team.