

# 4 Diecutting Pre-Makeready

Title: Diecutting Pre-Makeready: A PMR Team can Help You Race Towards Success!



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by John Maddox

The best equipment and limitless resources to improve efficiency are not at the reach of all companies. There are cost effective ways to improve efficiency like a Pre-Makeready (PMR) department. PMR teams can catch delay-causing mistakes before they go to press. But what exactly does PMR include? PMR means different things to different people. Some may feel they are doing PMR simply because they have the job ticket for the next job at their workstation. The other extreme is a PMR team supplying complete sets of tooling via easy transfer systems to the diecutter and assisting the operator with the changeover and makeready. The goal of the PMR department should be to provide the diecutting department with tooling that will allow them to run the press at optimum operating speed with a minimum of downtime for changeover and makeready.

**Makeready = Downtime.** When does a makeready begin and when does it end?

Makeready is the time between the last good production sheet of one job and the first good production sheet of the next job. It is the time period we need to focus on reducing to improve productivity.

The nature of diecutting has changed a lot over the past few years. It used to be common for a single job to run over the course of several days. Today, several jobs will run in a single day, requiring several makereadies. Therefore, whatever we can do to reduce makeready times will help us improve production and satisfy the demands for shorter lead times.

### Assembling a Winning Crew

A NASCAR pit crew is an example of teamwork at its finest. When the car pulls into the pits, work begins immediately. Each crew member has his tools and work instructions, they know what they have to do. These guys are ready! This is the same kind of teamwork that can be developed in your diecutting and PMR departments.

The first meeting with your team is usually nothing more than a "whining session". This is normal – it gives everyone a chance to vent. The second meeting will be more constructive. Definite goals, clear objectives, and ground rules will be established. Encourage the team to bring examples of their problems to the meetings so that together you can analyze and offer solutions. Utilize these meetings to dis-

cuss new products and their applications. The goal is to develop a proactive team environment committed to continuous improvement.

When I was involved in the creation of a PMR team, our company was fortunate to have over 150 years of collective diemaking and diecutting experience. The downside was that we all had different ways of doing things, and we each thought we knew the best way to do it. Sound familiar? The challenge for any team is to listen to everyone's input, then collectively develop written work instructions. This means change for a lot of people whose natural reaction is to resist. Change requires people to step out of their established "comfort zones" and expand to develop new ones.

### Developing Teamwork

A team is a group of individuals working towards a common goal. People work better in groups. Each team member contributes specific talents to the overall team effort. Individuals want to be empowered to make a contribution. One way to achieve this, is to encourage team members to participate-in and contribute-to the decision-making process. In the development of our PMR department we used Pareto charts and cause/effect diagrams. The Pareto principle is the 80/20 rule: 20% of the customers submit 80% of the complaints; 20% of the equipment accounts for 80% of the breakdowns. Cause/effect diagrams give a graphic representation of the various factors that influence a problem. Videotaping makereadies, with an elapsed time display, and reviewing them as a team, also helped us determine what could be done differently on and off press to improve overall performance. Using these methods allows the team to develop strategies and track successes, building team spirit and maximizing performance.

### All in the timing.

It is not until you measure the process that you can realize the opportunities you have to improve your operation. **If you don't measure it, you can't manage it.** Downtime due to information gathering, problems with dies, ejection, scoring, stripping and the diecutting press itself were recorded and itemized using a spreadsheet, like MS Excel. This data along with makeready times and run speeds can be reviewed at team meetings.

### Tips for a Successful PMR Department - The Winner's Circle Information

Information, both internal and external, is an important resource. The information you receive from internal planning meetings, production personnel, design departments, etc. can be gathered and maintained in a database. Current tooling locations and tooling status, problems during the production run and changeover and makeready procedures should all be documented so that action can be taken before the next run. External information, from suppliers, associations, publications, seminars and events can give you information on new products and techniques.

### Communication

Good communication, from management throughout all levels of personnel is paramount to a successful job run and a successful business. Run details should be communicated from shift to shift, not only within the PMR team, but also between die makers, PMR and diecutters.

### Training

PMR personnel must understand the press and what is expected of the tooling they are preparing. Ejection placement and type, nicking techniques and how to understand /execute work instructions, are all essential areas that PMR team members must be trained in.

### PMR Layout

A well planned PMR department should feature good workflow, good lighting, and should ideally be located near the die making and diecutting departments.

### Commitment to Continuous Improvement

Continued improvement requires an integrated approach that involves a philosophy as well as tools and techniques. It is not a quick fix. **"If you always do what you always did, you'll always get what you always got."**

### Teamwork

Good teamwork is critical. Good teamwork is exemplified by mutual respect, good listening, willingness to learn, adapting to change, and creativity.

For more information on developing a PMR department, contact John Maddox at the Wagner Supply Group via telephone or e-mail at [jmaddox@wagnergroup.com](mailto:jmaddox@wagnergroup.com)

**For more information, please contact us at:**  
**(800) 423-4478 toll free**  
**or visit our website at [www.wagnerdiesupply.com](http://www.wagnerdiesupply.com)**



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2041 Elm Court, Ontario, California 91761