Improving Gang Rip Saw Efficiency

There are three primary means to improve efficiencies on your gang rip saw; keep the saw(s) running at peak performance, reduce down time associated with set-up/changeovers, and getting the highest yield from your raw materials.

Keeping Your Saw Running At Peak Performance

Daily maintenance should be performed to keep your equipment running at its best and avoid down time. This task can be given to non-production staff during non-production hours. Just the simple task of daily cleaning can reduce defects and down time.

Machines covered in saw dust can recycle chips through the cutting chamber with a negative effect on saw cut quality. Saw dust can also build in areas such as the feed bed and hold downs, effecting performance and increasing the potential for defects. Make sure you have not only the proper dust collection volume capacity, but that all dust hoods are connected. Most late model Mereen-Johnson gang rip saws have dust pick-ups on the anti-kickback protection and feed system in addition to the cutting chamber.

It seems as though machines always fail when you are busiest. Having a small inventory of critical replacement parts can drastically reduce the potential for down time. Manufacturers have a long history and knowledge of average component service life and can identify these critical components for you.

Reducing Set-up/Changeover Time

Fixed arbor saw owners should have at least one spare sleeve and spacer sets. Saw sleeves and spacers can get damaged with use. Having two spare sleeves and tooling sets will allow for one prepared set-up and one in process for maintenance. You should never have to hold up production waiting for tooling to be sharpened or items to be serviced. In some cases, it might be more efficient to change only the outside rip pocket(s) of saw sleeve set-up rather than fully disassembling the entire saw sleeve.

Dual swing arm and tip-up cart accessories can facilitate quicker changeovers, reduce operator fatigue, and increase operator safety.

Many shops have common stock rip requirements. Some shops leave a dedicated saw sleeve for these high use rips built up and ready for production. Planning production can also have a big effect on productivity, efficiency, as well as attaining the highest yield from your stock.

An example might be to assemble a wide capacity saw sleeve with rip pockets to accommodate the next two rip work orders.

And of course, it’s important that you have the right equipment. If you are spending more time changing arbor arrangements than ripping material, you might not have the correct saw for your application. If this is the case, you should investigate other saw options such as a machine equipped with TwistLock saw collars or a shifting saw machine.

Consider making a dedicated tooling station near the machine for the staging and building of saw sleeves. Stack or hang like sized spacers in an orderly manner to reduce potential handling damage and make finding the right spacer quick and easy.

High production shops with long production runs might consider upgrading to tooling mist lubrication systems or diamond tooling for extended run times. These options are typically better suited for engineered material applications.

Moulding companies know the value of having a good tool room to execute preparation of molding heads. The same concept applies to the gang rip saw. Even though gang rip saw changeovers are typically quicker than moulders, considerable time can be saved by having the tool room prepare the next cut set-up for the gang rip saw.

Select saw owners should consider having spare hubs for mounting saw blades for the next changeover. Hubs are not typically low cost items, but are very inexpensive accessories when compared to your cost of your production time. Having a spare set, tooled up with sharp tooling can significantly reduce down time.

Getting the highest yield from your materials

There is more to increasing rip operation efficiencies than productivity. Getting the most from your raw material is critical in today's competitive market. There are several means for getting the highest yield from your material.

You can pre-sort your material prior to ripping to maximize yield. Or train your operators to recognize when certain boards are not suitable for ripping on an arbor arrangement. Your operators should have specified and recognizable parameters for pulling a board out of production prior to ripping. Parameters such as maximum allowable crook, wane, wide clears, and wide edgings are a few examples that can have a significant effect on your yield.

There is, however, a cost associated with this sorting, pulling of stock, and re-ripping. And that is labor and material handling which can increase the potential for damaging good stock. Today's rip optimizing systems, coupled with the correct saw for your application, can significantly improve yield and productivity.

When first introduced, Rip Optimizing was expensive, required a large amount of floor space, and could only be justified by large, high production shops. This has changed significantly in recent years. Now smaller shops can take advantage of today's lower cost, smaller footprint optimizing systems.