SMOOTH MACHINE MOVES

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In Gang-Nail Guideline No.52, Andrew Scane discussed conducting a bottleneck approach to truss plant studies. One of the many recommendations that may arise from such a study is the need to modify your truss plant layout.

On the surface at least, re-arranging your plant may seem a daunting task, however closer analysis often reveals great potential for significant productivity increases at low cost and minimal risk.

In order to maximise the potential of your truss plant layout it is necessary to consider as many factors as possible in the planning stage.

Any compromises in the final layout should be based on informed decision making rather than unwelcome surprises afterwards. Careful planning will also minimise disruption to your production, and identify costs that should be included in your budget.

There are many practical aspects to moving machinery that can be overlooked at the planning stage. Here is a checklist of some "do's and don'ts" when developing plant layouts that require relocation of truss plant machinery.

DON'TS

- Don't move any machine to a new location without assessing the suitability of the existing concrete floor. It must have adequate stability, levelness, and load-bearing capability for the equipment in question. For example, an uneven or rough floor can severely disrupt the smooth operation and dimensional stability of a flow-through jig.
- Don't forget that in moving any machine to a new location the circumstances of its operation change and you are obliged to perform a risk assessment on it. Likewise, your standard operating procedures must be updated.
- Don't ever simply say 'we can't move that'. Overhead gantries, presses with special footings, a prohibitive column in the factory structure – they can all be moved at a price. The production gains may far outweigh the initial cost.
- Don't forget to plan for the flow of waste timber and off-cuts. Waste bins consume valuable floor-space and require forklift handling. Where possible, use waste conveyors that transport off-cuts directly to a bin outside the main production area, and don't forget dust extraction.

DO'S

- Your plant study may also have recommended adopting alternative or new methods of production in certain areas. Consider the impact this will have on equipment needs and layout. For example, embracing Turbo-Webs or MATRIX webs will significantly impact timber storage and material flow to jigs.
- Allow for materials handling equipment – eg. both empty and full timber trolleys
- Consider the gross space requirements for each machine, not just physical size. Include clear space for handling materials to and from the machine, access for maintenance activities, room for a guard if a wall no longer provides a barrier to moving parts, etc.
- Consider pedestrian and vehicular traffic requirements. Provide adequate, marked walkways with maximum separation between pedestrian and forklift traffic.
- Respect statutory 'no-go' zones – eg. clearance at emergency exits, fire hose reels, electrical cabinet doors, etc.
- Make sure you allow time for sufficient levelling and re-calibration machines after they are shifted. In general, the older the machine the less likely it will respond well to moving. If in doubt, contact the machine supplier.
- Consider machine noise. Isolate saws, air compressors, and loud tools where possible, and consider their proximity to office space.
- Check for lighting requirements, particularly at workstations. Saws, presses & jigs often require different levels and types of lighting.
- Consider ventilation and operator comfort. Moving your sawyer to a cold and breezy doorway may not be the best way to maximise his productivity!
- You may have been thinking about re-arranging your plant for some time. Make a comprehensive list of things that have been suggested over the years but were always put on the back shelf pending a change in plant layout. This may cement your resolve to re-arrange your plant, and identify further considerations for the new layout.

Last, but certainly not least, consult your plate supplier for an informed appraisal of your layout proposal and moving schedule. They should be more than willing to discuss proposals that, with careful consideration and planning, should see a positive gain for both businesses.