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The six P's of installing new press units



There is an old adage in the architecture construction industry that applies to adding press units, "Measure twice, cut once."

It can also be stated, "an ounce of prevention is worth a pound of cure."

And finally, the Six P's, "Proper Prior Planning Prevents Poor Performance."

These all apply when it comes to installing additional press units or towers.

Installing press units while keeping an existing press or presses up and running is not difficult, as long as you plan properly. Timing, phasing, protective measures, coordination, and backup plans are essential.

Some of the major issues to investigate are listed below.

Plan proper press placement

Be sure to understand all of the special requirements for the new units.

This includes not only the size of the unit, but the space needed to service the unit, operate the press guards, open access panels, and maintain or replace rollers and cylinders. Do not forget the angle bars or rollers if they are needed to support the additional units.

And a final, but significant element is to consider the location. If the units are being added to support more color, what happens if you need even more color after they are installed? This happens much more frequently than people realize.

Pick the proper path

OK, so it fits, but how do you install it?

Quite often facilities are not designed to accommodate the installation of future units. Getting the unit to the proper location can cost more than the unit itself. Units can be brought in through the basement or reel room, through the press deck level, through walls, doors, and windows, and even through the roof. It can be very costly.

The size and weight of the units is

a major factor. There may be enough space to move the units, but the floors may not be able to support the weight. The areas may be big enough for the units, but not the gantry or skates needed to move the units. Shoring under press decks is quite common, but be careful not to hinder the operations in the reel room. Again, proper planning is the key to a successful installation.

Pressure on press pad

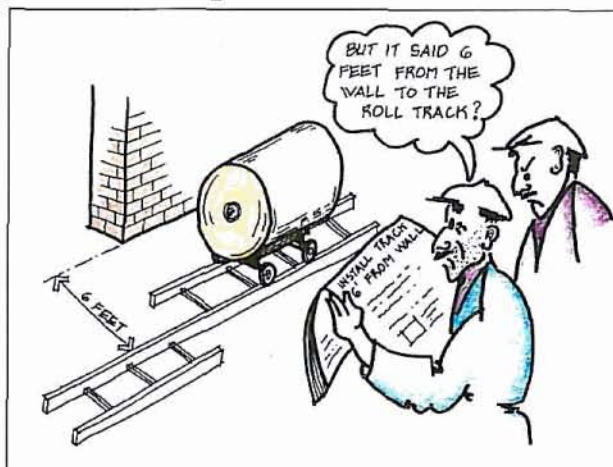
Is there an existing press pad, and if so, can it support the new units, or is a new pad required?

This can have a major impact on the project. Cutting in and constructing a foundation for an extra unit or tower can be a very sensitive undertaking. Undermining the existing pad, vibration, protection of the existing equipment, and maintaining your operations during construction and installation are major factors to consider.

The type of foundation and weight of the press are also important issues. Determining the soils conditions and calculating to prevent differential settlement should be done with the utmost care.

Differential settlement is when one part of the press foundation settles while the other stays in place or settles differently. The result is units out of alignment and continuous problems with web breaks, registration, and tension settings.

When adding a unit on top of an existing unit, the weight is to be considered as well as the change in the center of gravity of the combined units. When a stacked unit is added, the center of gravity is raised to a higher position. This becomes another design issue because it is now a



greater seismic problem.

There have been many changes in seismic zones, usually restrictive measures, thus the codes when the original press was installed can be different than the new codes. There are ways to work around this, but knowing up front is important. Fixators can often be used at the press supports instead of sophisticated and expensive bracing.

Plan procedures and phases

Planning the entire project and testing the procedures for each phase prior to the installation is recommended.

If you have a short and specific time when your press can be down, you should think each aspect of the installation through. Any obstructions should be removed prior to the installation day. All utilities and services should be rerouted and/or tested. All critical connections should be disconnected and reconnected in advance to ensure they can be disconnected during the final installation.

There should also be a backup plan for all critical procedures. Stand-by electricians, machinists, press operators and riggers are a good investment. You don't want to be stuck with the unit half installed and the inability to run your existing press. This is when you will regret not measuring twice or planning properly.

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Plan proper press protection

What happens if the press installer or contractor drops a bolt or pen in a printing cylinder?

It happens, and it is not fun. Special care should be given to protect the existing press. It is equally important to take the time to educate all of the people involved in the project. Not just your people, but the electricians, contractors, sub-contractors, clean-up people, and anyone even remotely likely to be involved with the installation.

There was a press installation on the East Coast where an electrician was actually using the printing couples

to bend his conduit. He simply pushed the small metal pipe in between the nice round plate and blanket cylinders and made pretty bends in his piping.

He thought he was innovative and clever, not the newspaper's worst nightmare.

This example is an extreme, but the damage sheetrock dust or concrete dust could cause can be even worse. It is a material that floats in the air and lands everywhere. When it comes in contact with liquids like ink and water it solidifies and sticks to surfaces. It can clog inkers and ink lines, damage plates, blankets, cylinders, rollers, ink trains, electronics — and your life. Be careful.

Know what you are going to do. Draw up thorough plans for the implementation. Check all applicable codes and procedures. Share your plans with everyone involved, and make sure all of the participants are aware of the safety issues, your operations, and how sensitive a press is to debris and small little pipes in the printing cylinders.

Remember, Proper Prior Planning Prevents Poor Performance.▲

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