Corrugated Tubing as a Grout Form

Some machine installation manuals will indicate the need for a large grout pocket. Accurately locating grout pockets is critical to the success of an installation. Rigidly attaching the grout forms to the reinforcing steel cage is critical to prevent the grout forms from shifting during concrete placement.

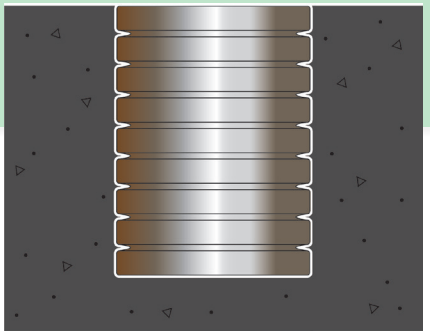
The very worst type of grout form to use in these applications is corrugated tubing.

Rigidly attaching the machine to the supporting foundation is crucial to the ultimate objective of achieving a precision machine alignment. A rigid connection maximizes the alignment precision and the benefit of mass damping to help constrain vibration related issues. Corrugated tubing undermines these objectives.

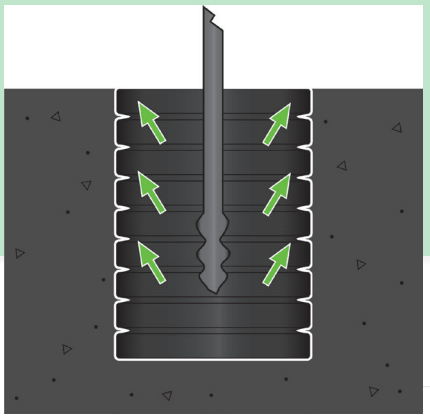
Why to avoid using corrugated forms:

The top of the forms must be well above the targeted grout pour elevation of the baseplate and sealed to prevent leaks and ultimately grout loss.

First, concrete shrinks as it cures — Where thousandths of an inch matter, any relative looseness between the foundation and the form will impact machine alignment. Forms to create large grout pockets should be fully removable after the concrete has cured.



Second, corrugated tubing of all types tends to introduce flexibility to the installation — People using plastic corrugated tubing immediately discover that the anchoring loads are sufficient to deform that plastic tubing. While galvanized corrugated steel tubing may sound good, the fact is that even galvanized steel tubing will eventually corrode. This corrosion coupled with normal concrete shrinkage undermines the machine installation. Flexibility between the tubing and the foundation will compromise the ultimate precision of the initial installation, and re-alignments will be more frequent.



Removable forms for creating grout pockets are preferable. Always plan to remove corrugated tubing before grouting any anchoring or leveling hardware in place.

The simplest approach is to design the reinforcing steel layout so that it will not be present at the anchoring locations. A qualified technician can easily core-drill anchor holes at the correct locations in a properly cured foundation.