

**Figure 11.3** Using flat plates is not the best method for setting and leveling a baseplate. The grout will not support the baseplate.

prevent any contact with oil, water, or other contaminants that would affect the bond of the grout.

The elapsed time between sandblasting the base and the actual grouting should not allow the surface to “bloom” with surface rust. To prevent this, prime the baseplate underside with a Rust Inhibitive Epoxy Primer, or other approved primer that will create a bond to steel of no less than 1,500psi and have a dry film thickness of 3 mils.

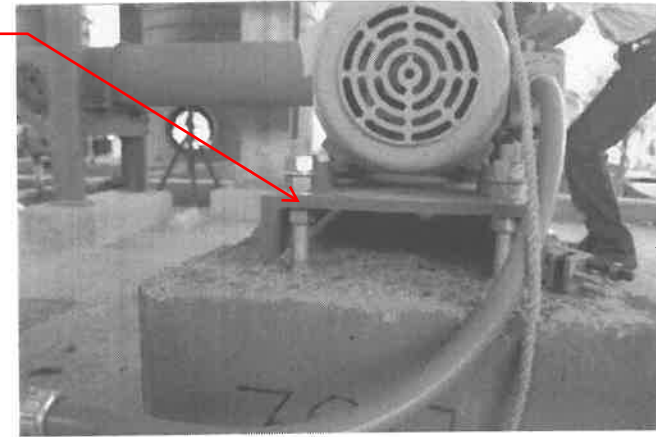
When setting the baseplate onto the foundation, contractors use several methods to support the baseplate while the grout is being poured and during the curing process (Figure 11.3). Most of these methods usually result in improperly installed baseplates and will result in grout cracking. It is recommended that methods 1–4 *not* be employed when setting pump baseplates.

1. Flat plates cut into squares and stacked one on top of the other until the required elevation of the baseplate is obtained. This technique results in trial and error for proper elevation, and designed in stress risers.
2. Using single or parallel wedges to obtain proper elevation.
3. Incorporating a steel shim pack that is pregrouted in place. (This method is extremely labor-intensive and time-consuming.)
4. Using a nut on the underside of the baseplate to achieve proper elevation (Figure 11.4).
5. Utilizing a jackscrew (Figure 11.5) alongside each anchor bolt is the only sure way to properly set and level pump bases. (This is by far the easiest, most accurate, and least time-consuming method.)

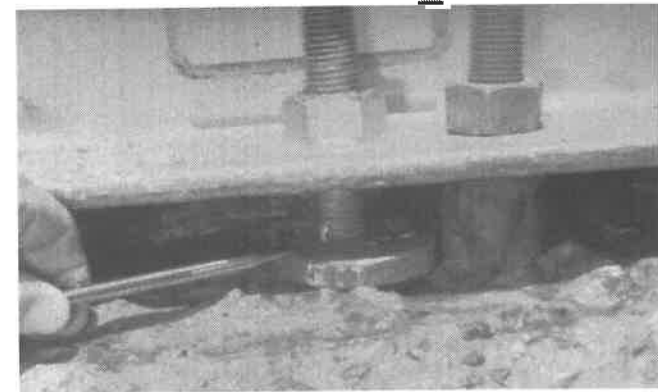
The primary advantage to using a jack bolt is that it can be removed after the grout is cured, therefore allowing the entire pump baseplate to be supported by the grout, not by the leveling devices.

Methods 1–4 do not allow for the grout to accept the load of the baseplate.

minimal tensioned length  
(between the nuts, only)



**Figure 11.4** Mounting pumps this way shows a distinct lack of understanding about machinery installation.



**Figure 11.5** Utilizing jackscrews is the preferred method of baseplate installation.

into the grout. These concentrations points could result in cracking of the epoxy grout at a later time.

Method 4 does not allow for proper tightening of the anchor bolts. Anchor bolts require a minimum of 12-bolt diameters available free length for proper tensioning. This method could result in loose baseplates later, with no way to tighten them short of a regrest.

When using jack bolts, it is recommended that round plate often called a jack pad be used under the jack bolt. This pad can be constructed from ½ in. thick steel plate, old pump shafts or 2 in. diameter rebar. Whichever material is used, it should be a minimum of ½ in. thick and have a minimum diameter of 2 in., or three times the