



FOUNDATION and PIT DESIGN GUIDELINES FOR 16W and 24W WEDGE ISOLATORS

Incorporating the following information into your press installation design at the earliest date possible allows you to take full advantage of the productivity and efficiency enhancing capabilities of Vibro/Dynamics Machinery Mounting Systems.

A. DETERMINING PIT OR FOUNDATION DIMENSIONS

- 1) Foundation piers should be poured to support the press at the desired elevation, taking into account the height of the isolator. See Isolator Specification Sheet for dimensions.
 - ▶ To determine the finished elevation of the foundation piers:
 - Calculate that the isolator's target installation height will be its minimum loaded height plus half of its leveling adjustment range.
 - For example, if the Wedge isolator adjustment range is one inches, add one-half inch to the isolator's minimum loaded height to determine its target installation height. (See Figure 1.)

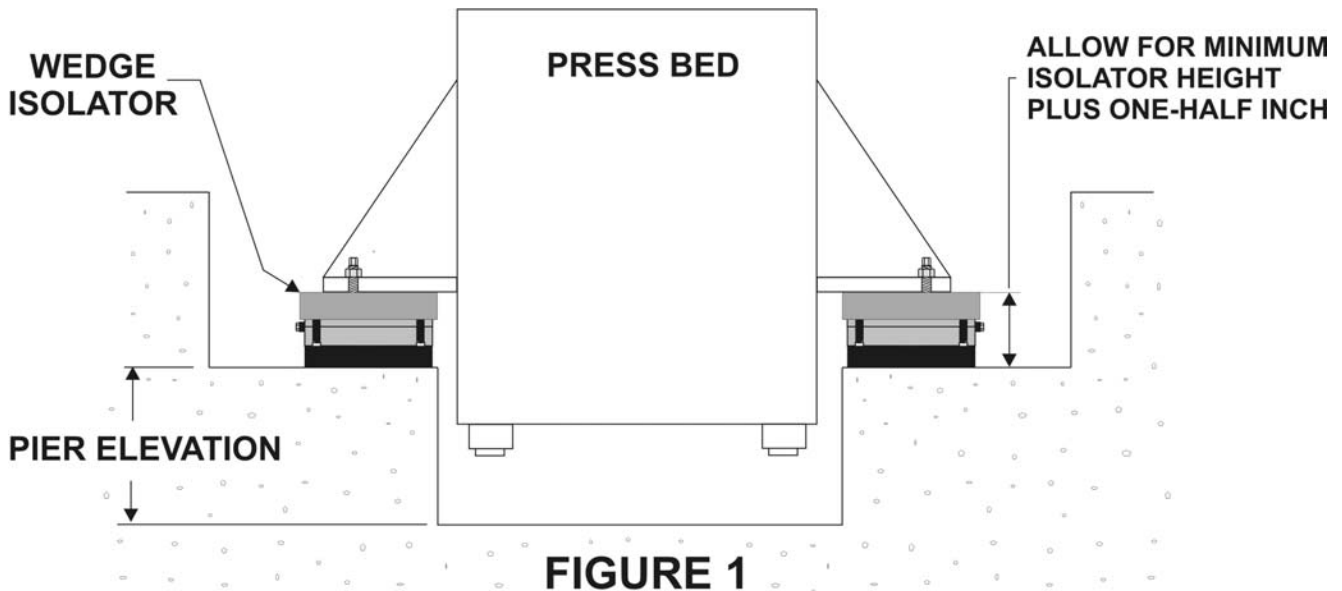


FIGURE 1

- 2) The concrete surface under the isolator should be *level* and have a *trowel* finish. The foundation pier should be large enough so the isolator does not overhang. There should not be any holes, cracks, or lumps in the area directly under the isolator. Remove all loose concrete, grout, chips, oil, grease, and water from the press foot and concrete surface that will support the isolator.
- 3) The difference in elevation between foundation piers should not exceed 0.25 inch (See Figure 2). The leveling feature in Vibro/Dynamics Isolators will compensate for any remaining difference.
- 4) The slope of the foundation pier level under the isolator should not exceed 2° (0.42 inch/foot or 35mm/m).
- 5) The flatness of the foundation pier under the isolator should not exceed $\pm 1/16$ in. ($\pm 1,6$ mm).

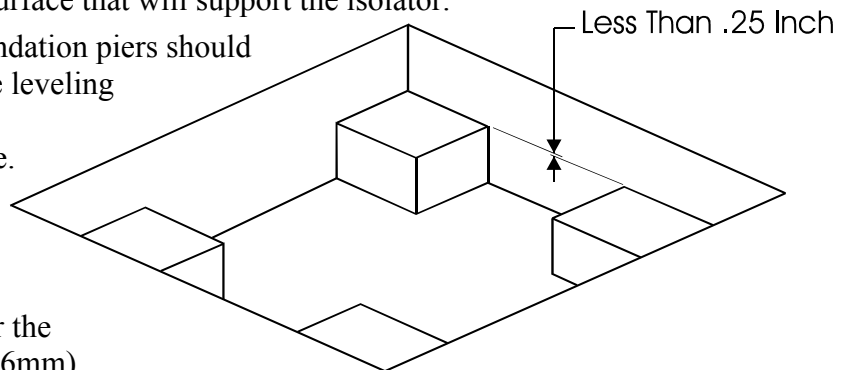


FIGURE 2

- 6) Clearance should be provided in at least one direction (X or Y) to allow for the installation and removal of the isolators. Please note the orientation of the isolators. See Figure 3 and Table 1.
 Note: It may be possible to remove the isolator by moving it toward the center of the press and then into a pit, but providing clearance around the isolator is the preferred method.

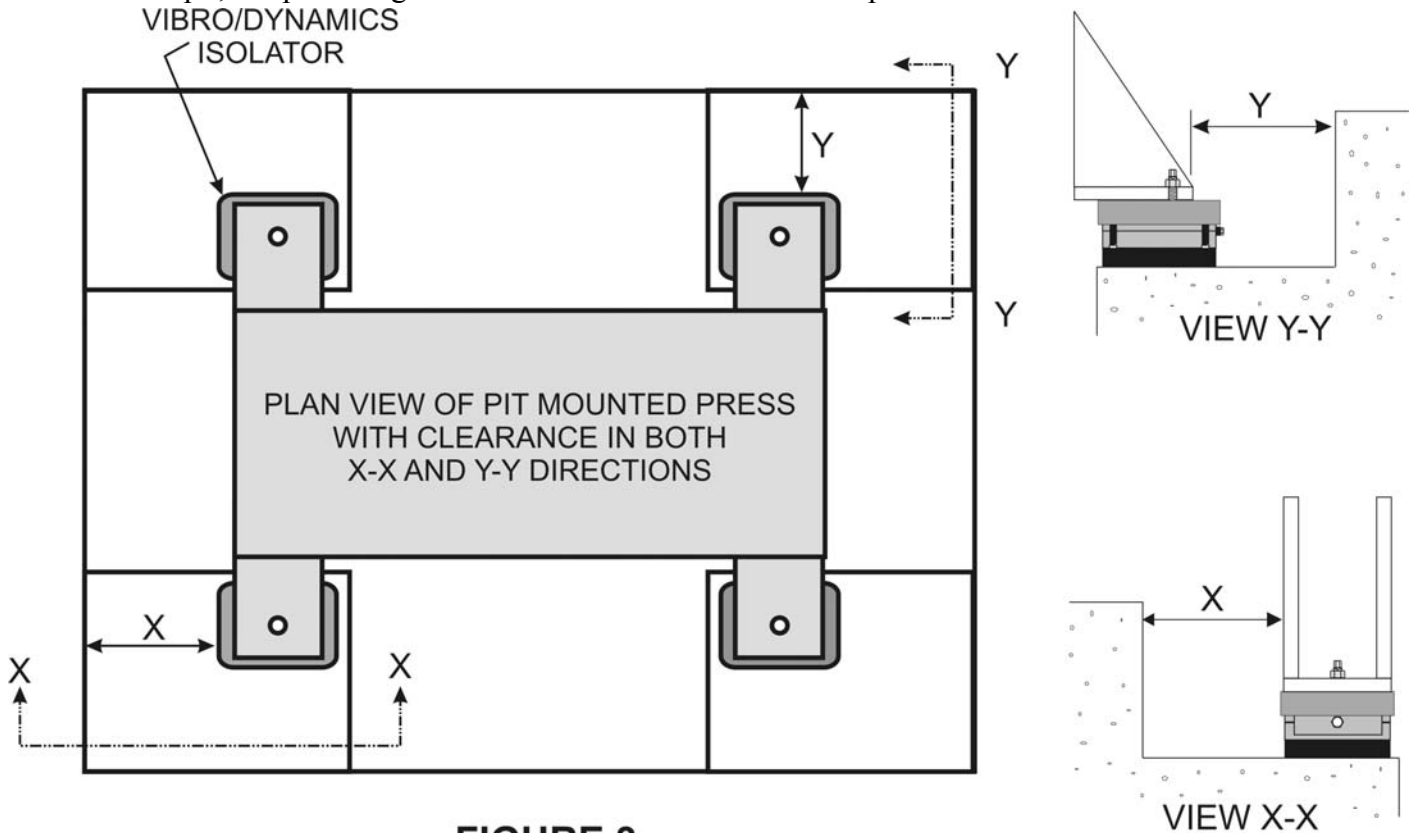


FIGURE 3

TABLE 1

ISOLATOR MODEL*	DIMENSION "X" (Minimum)	DIMENSION "Y" (Minimum)	LIFTING HOLE SIZE
16WN	11" / 280 mm	16" / 410 mm	3/8-16 UNC
16W			
16WH	13" / 330 mm	16" / 410 mm	3/8-16 UNC
24WN	16" / 410 mm	23" / 585 mm	3/4-10 UNC
24W			
24WH	20" / 508 mm	27" / 685 mm	3/4-10 UNC
* For isolator models numbering beginning with the following prefix.			

Note:

All Wedge isolators have lifting holes. The number of holes and location vary depending on the isolator model.

Hoist rings, or eyebolts of sufficient strength, are to be supplied by the customer.

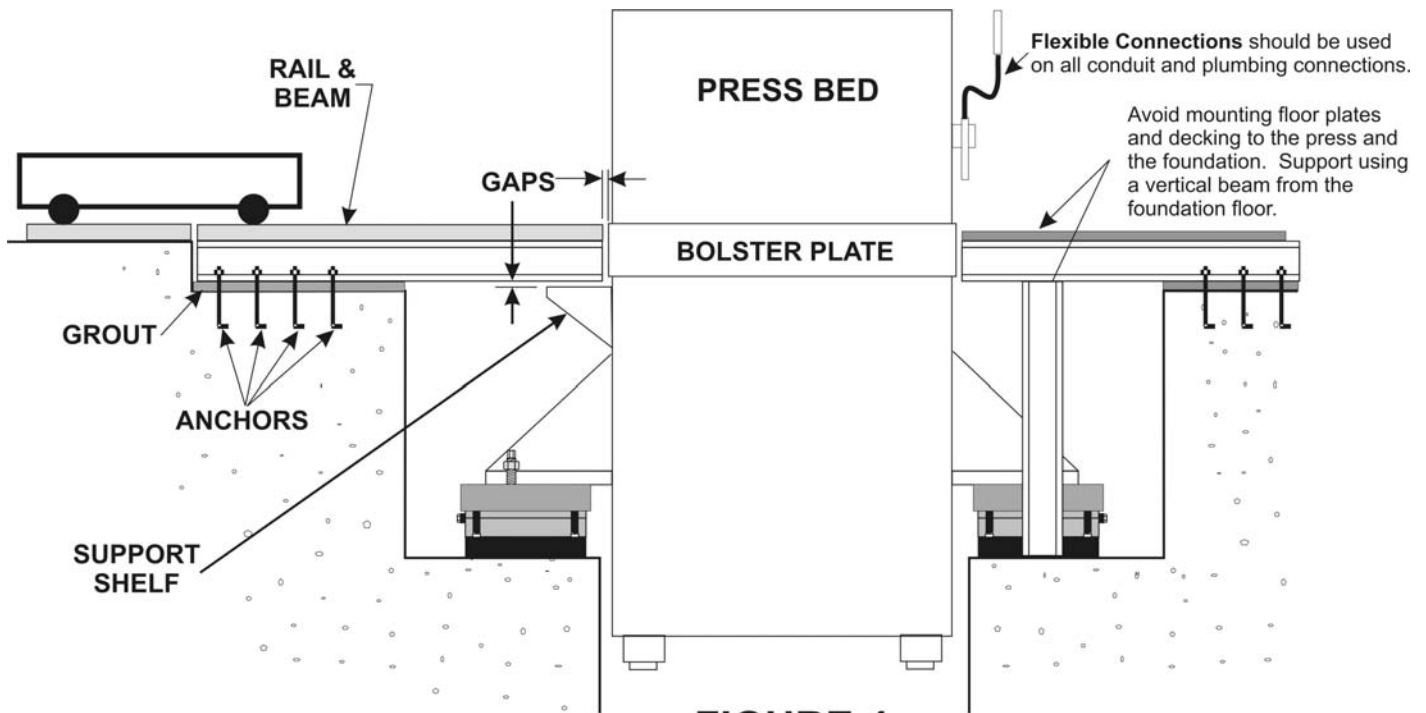
B. ADDITIONAL PREPARATION FOR PRESSES WITH ROLLING BOLSTERS

If the press is going to be equipped with a rolling bolster, special consideration should be given to the installation of the support beams/rail that span between the floor and the press bed. Rigid connections will cause the transfer of vibration and shock into the surrounding area, causing a “short-circuit” in isolator effectiveness. Also, make sure that the foundation floor and *not* the press structure supports all floor plates and decking.

One of the following methods, shown in Figures 4 & 5, should be used. Either method will allow the press to move slightly up and down during operation and not restrict leveling adjustments.

1) METHOD ONE (Figure 4)

- ▶ Cantilevered rolling bolster beams/rails are bolted and grouted into the floor across from the press bed and bolster plate. They span the distance from the edge of the foundation pit to the edge of the press bed. The cantilever length should be as short as possible. There should be a gap (1/16” min.) between the cantilevered beam and the edge of the bed and the cantilevered beam and the supporting shelf to eliminate any rigid contacts.
- ▶ As the rolling bolster rolls over the cantilevered beam, it deflects slightly until the shelf below supports it. The elevation of the beam/rail should be adjusted accordingly.
- ▶ The end of the beam/rail can also be supported by a vertical beam supported by the foundation pit or floor similar to the floor plate and decking recommendation shown in Figure 4.
- ▶ Beams connected to the foundation and *not* the press should be used to support all decking and floor plates.



2) METHOD TWO (Figure 5)

- ▶ In this method, each rolling bolster beam is divided into two. One section is anchored to the floor and the other is designed to float with the press. The ends of the floating sections are supported by pivot points located at the edge of the pit and on the press bed as shown in Figure 5. The beam/rails are restricted from moving horizontally using guide pins and clearance holes or stops welded on the support shelf to contain the sides of the beam/rails.
- ▶ The mating ends of the rails are diagonally cut (see View C-C) to minimize the gap as the rolling bolster wheel travels across the split.
- ▶ All floor plate and decking should be supported as per Method One, Figure 4.

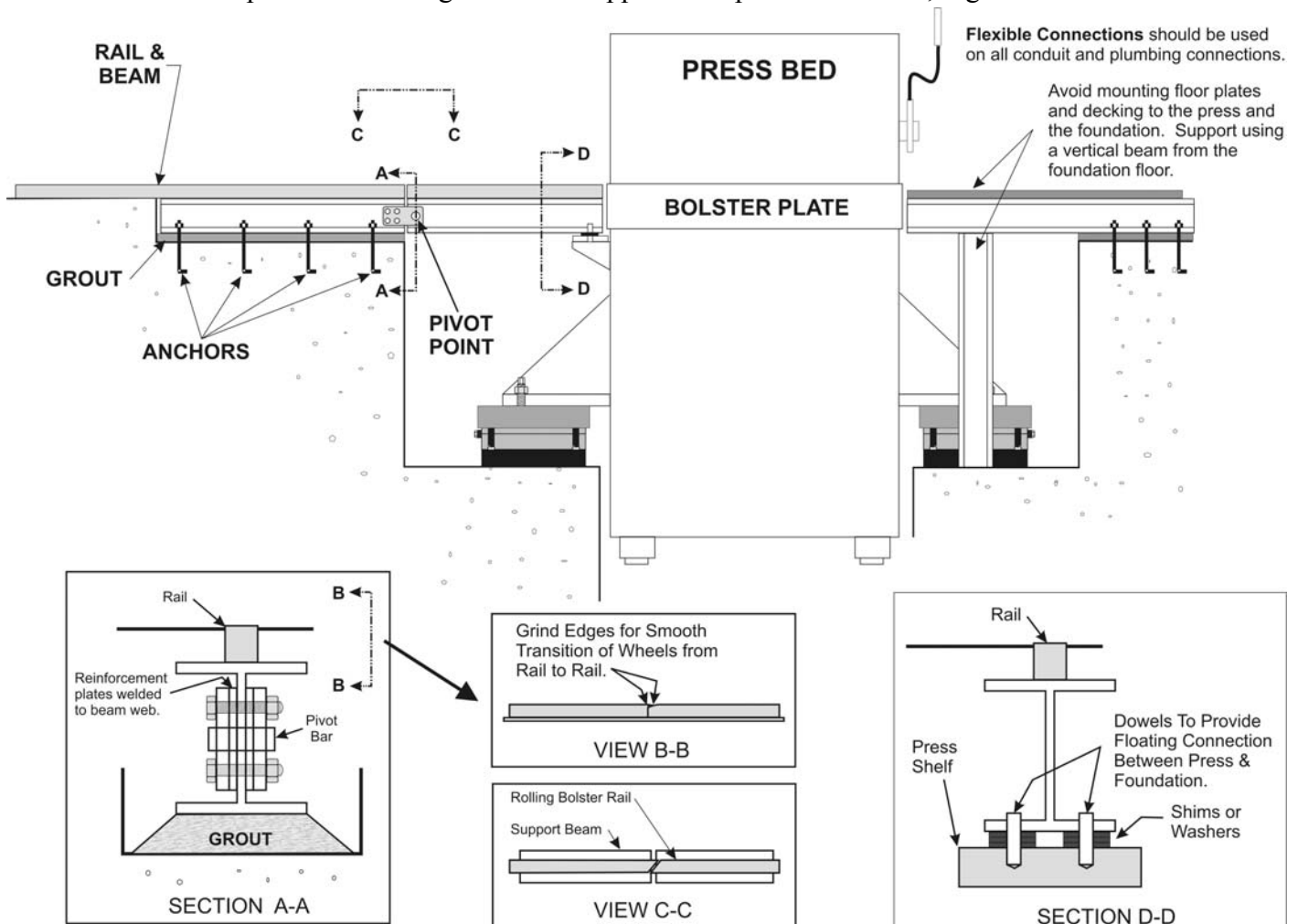


FIGURE 5

C. FINAL NOTES

To achieve maximum noise and vibration reduction, make sure that all plumbing and electrical connections have flexible connections. Also, make sure that the isolator housings are not rubbing against foundation walls.

Call or write for assistance:

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