

A newsletter from Vibro/Dynamics giving guidelines on when to install presses on spring isolation systems.



## When Should I Consider Installing my Press on Spring Isolators?

For a majority of stamping press installations, Vibro/Dynamics elastomer isolators provide the best combination of vibration control, machine stability, ease of installation, and precision leveling. However, there are certain situations when installing a press on spring-type isolators would be a good or even the best choice. This article is intended to help you determine whether your press installation might be a good candidate for spring isolators.

**What's the difference?** It's important to understand the basic difference in performance between the spring and elastomer-type isolators. In a nutshell, while elastomer isolators provide excellent vibration control, spring-type isolators provide even greater vibration reduction. The trade-off is that spring isolators allow greater press motion, thus elastomer isolators are typically used to provide stability where maximum vibration reduction is not required. There is also often a difference in the size of isolator used for the same load. Since elastomer isolators generally support a larger load in a smaller area, spring isolators are typically physically larger for the same size press.

**Environmental issues:** Whenever a press is installed in an environment where maximum vibration reduction is important due to an existing or potential vibration problem, then the press should be analyzed to see if it can be installed on spring isolators. Examples

include presses installed near residential or business neighbors, near sensitive machinery, or near office spaces. In most of these cases, installing a press on spring isolators allows the press to run in closer proximity to both people and other machines so it doesn't have to be relocated or limited in its production.

**Press design and operation:** The design of the press and the operation being run also play a key part in determining whether spring isolators are a good option. Large (400 ton capacity or larger) presses with counter-rotating eccentric drives are often good candidates. These larger presses (and their surroundings) generally benefit from the additional vibration control, yet are balanced enough not to move too much on the spring isolators. On the other end of the spectrum, dynamically-balanced high-speed presses (greater than 300 SPM) hum along nicely on spring isolators and you should definitely consider them if you have such an installation.

**Personal preference:** Some metal stampers simply prefer to install presses on spring isolators because they have done so before or want the maximum amount of vibration reduction and are comfortable with a few millimeters of press movement. The use of coil spring isolators is also more common outside the U.S. These users have come to expect the level of vibration isolation provided by spring isolators as well as the press motion they allow.

Whatever type of press you have, Vibro/Dynamics will analyze your specific installation and offer the options which are best for your press, whether that be elastomer and/or spring isolators.

Isolator Feature Matrix				
Feature/Benefit	MXL & MXLP Micro Levels Isolators	MXBP Isolation Elements	MXDN Isolation Elements	SVX/SVXN Viscoous Damped Spring Mounts
Leveling & Alignment	●●●●●	●●●●●	●●●●●	●●●●●
Installation Time	●●●●●	●●●●●	●●●●●	●●●●●
Vibration & Shock Isolation	●●●●●	●●●●●	●●●●●	●●●●●
Preventative Maintenance	●●●●●	●●●●●	●●●●●	●●●●●
Foundation Design	●●●●●	●●●●●	●●●●●	●●●●●
Cost Savings	●●●●●	●●●●●	●●●●●	●●●●●
<b>Hardware Requirements</b>				
Site/Great Pits	None	Recommended	Recommended	Recommended/Required
Grout	None	Recommended	Recommended	Recommended/Required
Anchor Bolts	None	Anchor bolts may be required if great pits must be bolted down to concrete surface		
Installation Time/Labor	Fast - Easy	Fast - Easy	Fast - Easy	Installation of great pits, grouting, and cure requires additional time
Grout Plate Installation	None	Recommended	Recommended	Recommended/Required
Grout Application & Cure	None	Recommended	Recommended	Recommended/Required
Anchor Bolt Layout & Installation	None	Anchor bolts may be required if great pits must be bolted down to concrete surface		
Leveling & Alignment	Use of leveling device makes leveling faster, easier and more accurate	Leveling is accomplished using spirit. The rigidity of the Isolator Plates containing casters that have leveling hydraulic/caster pockets make leveling easier	Yes	No
Hydraulic Level Assist	Yes	No	SVX: Yes / SVXN: No	No
Foundation Design	Architect, planning designs anticipate the need for anchor bolts and grout plates, resulting in a more simple foundation design. Only a finished concrete surface is required	Good or pole plates are recommended, but safety and required since the MXBP and MXDN isolator elements have generous foundation tolerances and lower tolerances		Good Pits are recommended. The plates also distribute the high concentrated load of the hydraulic cylinders on the foundation without

## Isolator Feature Matrix

For a more detailed comparison of elastomer and spring type isolators, search the [isolator feature matrix](#). It provides a side by side comparison on topics including leveling, installation time, vibration isolation, preventative maintenance, foundation design, and cost savings.



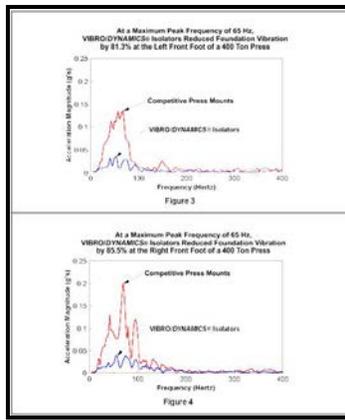
## Spring Isolators on 1500-ton Press

This 1500-ton press with a rolling bolster was installed on Vibro/Dynamics [spring isolators](#). Presses of this size are often candidates for spring isolators due to the vibration they generate.



## Vibro/Dynamics Product Line

This updated [brochure](#) provides an overview of Vibro/Dynamics products at a glance from elastomer type to spring type to wire rope isolators to isolated foundations.



## 400-ton Press Installation

Technical bulletin M/L-681 gives details on the successful installation of a 400-ton press that had been bothering nearby quality equipment as well as neighbors when installed on a competitive product.



## Don't Forget Your Machine Shop

The precision machinery in your machine shop or tool room can be disturbed by the surrounding presses and other machines. This [case history](#) describes the isolation products available that will protect them and help allow efficient operation.

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