

VIBRO/DYNAMICS  
vibration and shock isolation systems

Elastomer and Spring Isolators



# Vibration and Shock Isolation Systems for Large Stamping Presses

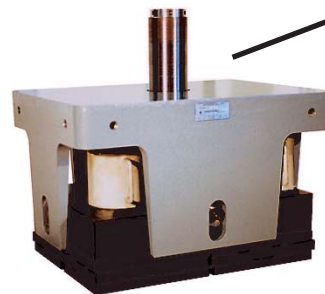
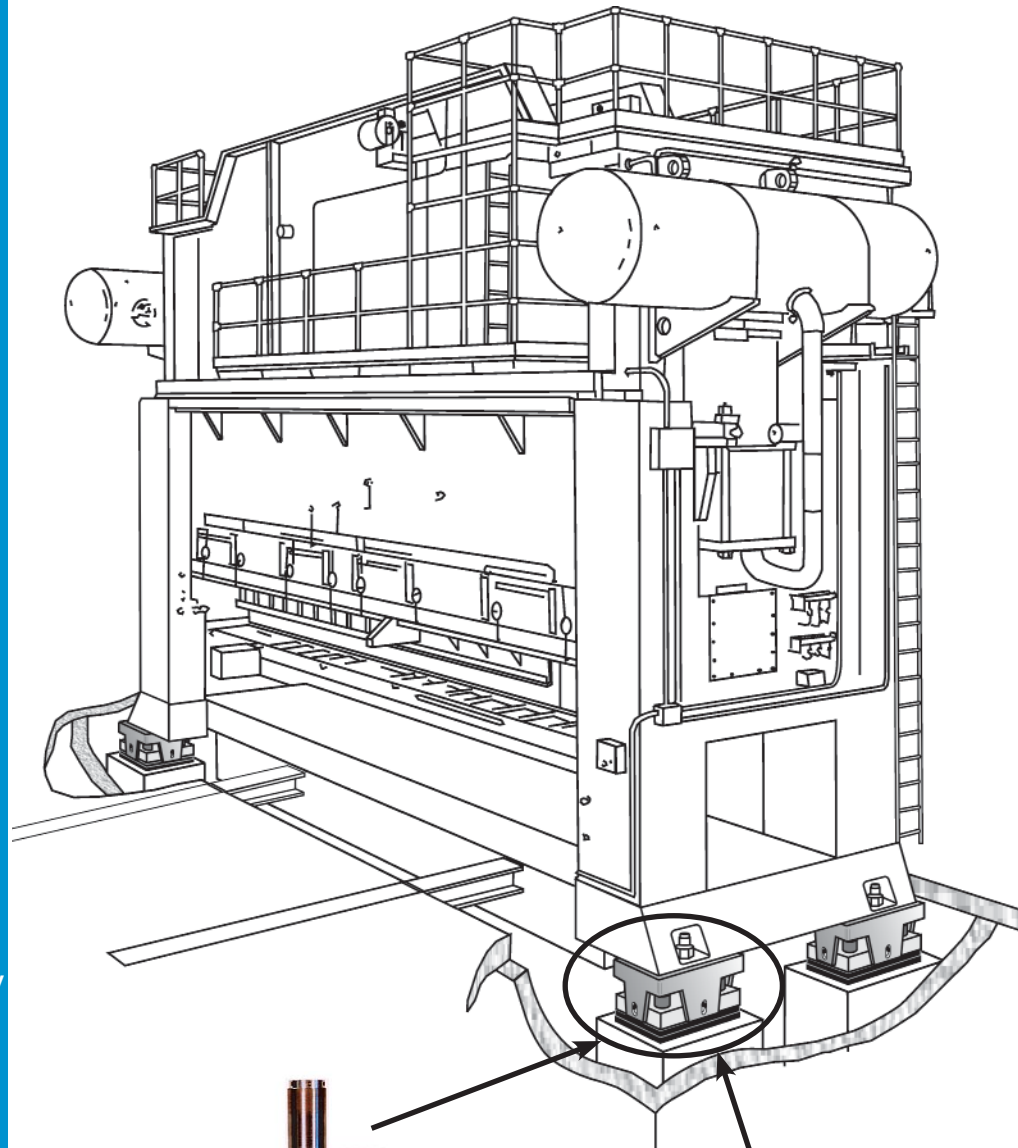
Your Best Way to Install and Level Heavy Presses for Effective Vibration and Noise Control

Vibro/Dynamics specializes in the installation of large stamping presses on anchorless isolation systems that provide faster, easier installations.

Both Elastomeric and Coil Spring type isolation systems are available depending on your vibration and shock isolation requirements.

MXL, MXLP and BFM models are elastomer type isolators that provide an excellent level of vibration isolation. Isolator natural frequencies as low as 8 Hz are possible with the MXL and MXLP models due to their unique multiple-layer elastomer design. Integral precision leveling combined with Hydra/Level® lift-assist capability makes leveling and alignment of even the heaviest presses accurate, fast and safe.

SVX and SVS Hy/Tuned™ Spring isolators offer the highest degree of vibration and shock isolation available. These isolators are the perfect solution for high impact presses located in vibration sensitive or unstable soil areas.



MXL Micro/Level® Isolator with portable hydraulic system shown.



SVS Hy/Tuned™ Isolator with viscous damping system.

## Features and Benefits

### MXL(P) and BFM Model Micro/Level® Elastomer Isolators

- **Precision Leveling and Alignment**

Ultra precise leveling system ensures precise machine geometry, resulting in reduced wear, increased tool and die life and improved part accuracy and repeatability.

- **Stable Machine Support**

Custom molded elastomers are engineered and applied so that your installation maintains its precise geometry and elevation for the life of the installation.

- **Anchorless Installation**

Since the isolators do not bolt to the floor, installation times and costs are greatly reduced. Anchor bolts, shims, and grout plates are not required and can be eliminated.

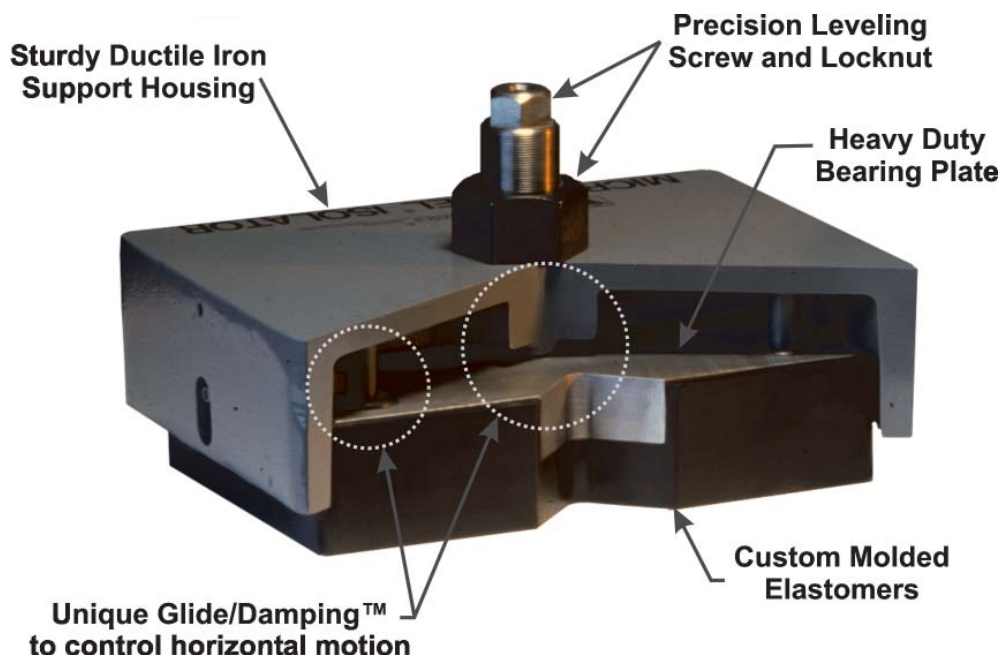
- **Vibration Control**

Actual field tests have shown that our isolators can reduce vibration in a press structure by 82% and in the foundation by 98%, and reduce noise levels by up to 6.5 dB!

## BFM Series Isolators

The BFM Series Isolators are designed for stamping presses weighing from 34 to 136 tons. These vertical leveling screw, elastomer type machinery mounts are designed to effectively isolate impact forces between the press and the foundation.

Among the features are a high-strength support housing and bearing plate, a heat-treated leveling adjustment screw, and a custom molded elastomer that effectively isolates vibration. Our elastomers are specifically designed and compounded for machinery mounting applications and are applied to prevent creep or packing down so your press stays level and aligned for the life of the installation.



## The MXL and MXLP Series Design

MXL and MXLP Series Micro/Level® Isolators are designed for large mechanical presses weighing from 90 to 2300 tons and over. These anchorless isolators have a built-in leveling system and can swivel up to 2 degrees, eliminating the need for shims and grout plates.

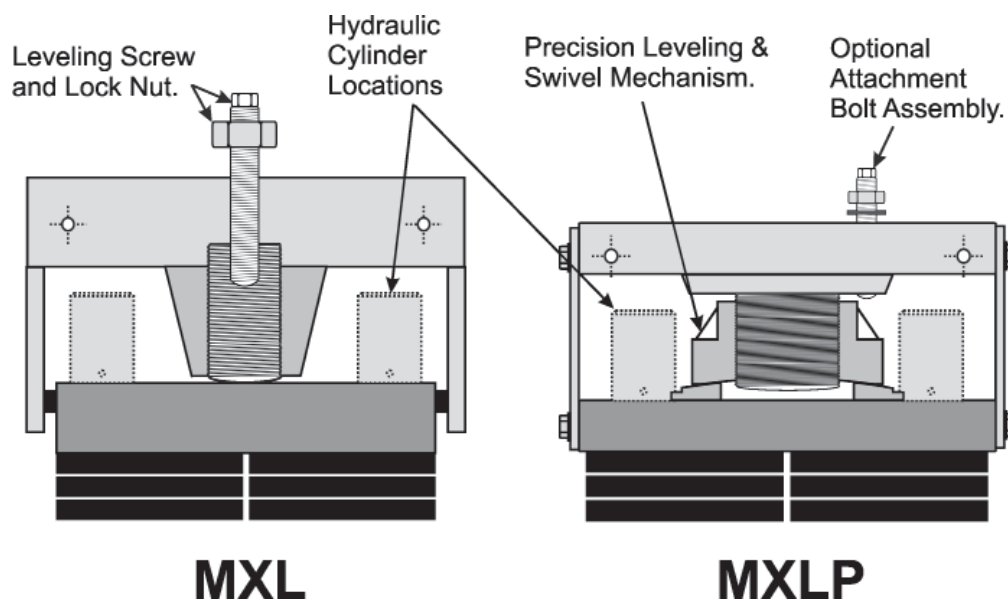
This innovative *patented* design combines multiple-layer elastomer isolation technology combined with our popular Hydra/Level® hydraulic lift-assist feature.

Using multiple layers of elastomers, isolator natural frequencies as low as 8 Hz can be obtained, resulting in very effective vibration and shock isolation.

All MXL and MXLP Isolators are Hydra/Level® capable. During leveling and alignment, hydraulic cylinders can be temporarily installed in the isolators, making leveling and elevation adjustments faster, safer and more precise. No cribbing or additional jacks are required!

If your foundation should settle due to unstable soil conditions, the hydraulic cylinders can be quickly reinstalled in the isolators and the press leveled in a matter of hours.

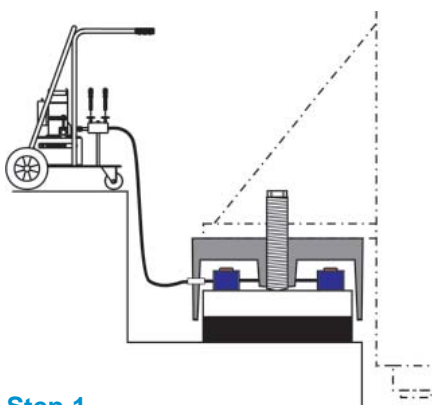
The MXL isolators with permanently built-in hydraulic cylinders are also available. The advantage is added convenience and speed during and after the initial installation.



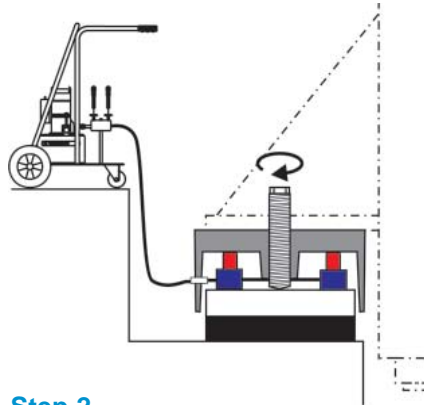
**MXL**

**MXLP**

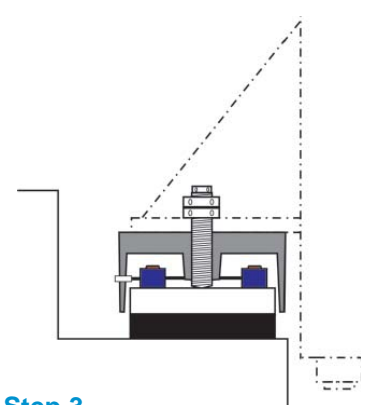
## The MXL Hydra/Level® Process



**Step 1**  
MXL Isolators are installed under each foot. The hydraulic pump is then connected to the hydraulic cylinders.



**Step 2**  
The internal hydraulic cylinders raise the isolator housing, while maintaining load on the elastomers, until the isolator leveling screw can be turned by hand.



**Step 3**  
After the press is perfectly leveled and the lock nuts tightened, the hydraulic cylinders are retracted and the pump disconnected.



## Typical MXL Installation



An isolator being lifted into place under a press foot.



The isolators are attached to the press feet.

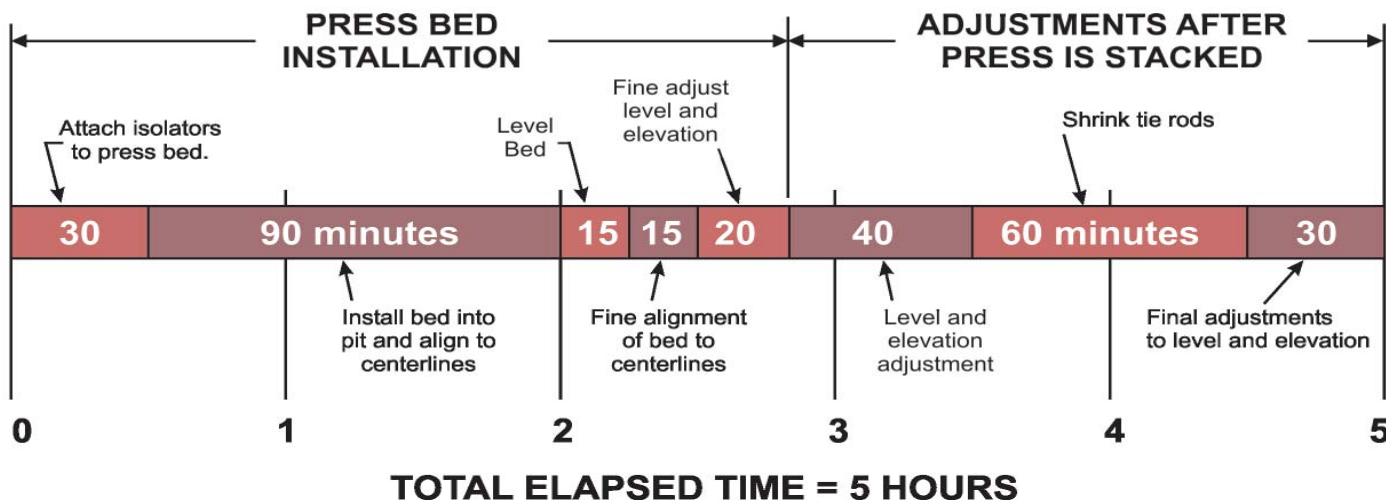


The press bed is ready to be installed into the pit.



Isolators installed, press leveled, and aligned in five hours!

## Press Installation Timeline





## Hy/Tuned™ Spring Isolators

Vibro/Dynamics SVS and SVX HyTuned Spring Isolators are recommended for presses installed in areas that are extremely sensitive to vibration and shock transmission or in areas with poor soil support conditions.

These isolators have vertical natural frequencies as low as 2 Hz and feature viscous damping to control machine motion. Hydraulic cylinder pockets make shimmiing easier and safer.

Optional features include built-in leveling and our Lift/Lock™ Hydraulic System. This system is designed for presses using die carts or rolling bolsters. The Lift/Lock System keeps the press from tilting during die changes by hydraulically locking the press elevation.



Installation of an 800 ton press on SVS Viscous Damped Spring Isolators.



## Reference List

Aida  
AG Simpson  
A.J. Rose  
A.O. Smith  
American Axle  
Benteler Industries  
Bosch Braking Systems  
Brown Boggs Foundry & Machine Co.  
Budd-Tallent Company  
Burr Oak Tool & Gauge  
CalsonicKansei Corporation  
Carrier Corporation  
Case Corporation  
Caterpillar Inc.  
Chin Fong Machine Industrial  
Dana Corporation  
Dayton Rogers  
Delphi  
Deluxe Stamping  
Dennen Steel  
Eagle Press & Equipment Co. Ltd.  
Eaton Corporation  
Elkay Manufacturing  
Enprotech Mechanical Services  
Federal Mogul  
Flex-N-Gate  
Ford Motor Co.  
Freightliner  
General Motors  
Gestamp  
The Gillette Co.  
Greenerd Press  
Harley-Davidson  
The Heim Group  
Hundai WIA Press  
ITW  
Jenn-Air  
John Deere  
Johnson Controls  
Klein Tools  
Knaack Manufacturing  
Komatsu Press  
KTH Parts Industries Inc.  
Lear Corporation  
Magna International  
Maytag  
Metalsa  
Midway Products  
The Minster Machine Co.  
Oak Products  
Orchid International  
Oxford Automotive  
Pacific Press Technologies  
PATEC Press  
PH Group  
Polynorm Automotive  
Press Technology Corporation  
Pridgeon & Clay  
QMC Die Technology  
Raybestos Products Company  
Schuler-Weingarten Press  
Seastrom Manufacturing Company  
SET Enterprises  
Seyi-America  
Shiloh Corporation  
Sigma Stamping  
Simpac Press  
Spartanburg Steel Products  
Square D  
Steelcase  
Sutherland Presses  
Tempel Steel  
Tower Automotive  
Visteon  
Vulcan Metal Products  
Walker Manufacturing  
Whirlpool  
Williams, White & Co.  
Worthington Industries  
York International

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