

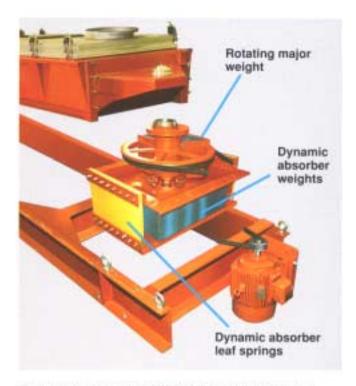
NEW DYNAMIC ABSORBER DRIVE HEAD

Revolutionary <u>Harmonically-Tuned</u> Dual Weight Drive Available for 50, 80 and 70 Series ROTEX[®] Screeners

ROTEX INC. has broken through cost and performance barriers with the introduction of a new drive head that uses a patented dynamic absorber. Previously, users of large gyratory-reciprocating screeners had to choose between ineffective single weight drives and more complex dual weight drives. Now Rotex offers the counterbalancing effect of a dual weight drive with the simplicity of a single weight drive.

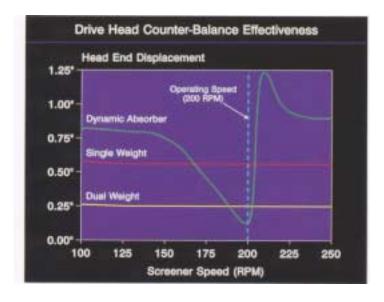
Features/Benefits:

- Available for new <u>and existing</u> 50, 80 and 70 Series ROTEX Screeners
- Uses conventional belt drive major weight Features patented dynamic absorber for unequaled counterbalancing
- Only two bearings (grease lube type)
- No gears or oil bath
- Smooth, quiet operation
- Standard foot-mounted motor
- Longer life less downtime
- Lower maintenance costs



Exploded view shows new ROTEX drive, incorporating a beltdriven rotating major balance weight combined with a Dynamic Absorber. The Absorber, which consists of a set of steel weight plates suspended by leaf springs, provides superior balance even better than a counter-rotating dual weight drive.





The new ROTEX Dynamic Absorber Drive has a resonant frequency tuned to the screener's operating speed. At that speed it provides better balance than even a counter-rotating dual weight drive!

Counterbalance Capability of Various Drives - A Comparison

The counterbalance effect produced by the various types of drives on large gyratory screeners is shown above. The lines represent the base displacement for a cable suspended machine. Note that greater displacement means a loss of screen motion in a cable suspended installation, or higher loads transmitted to supporting structure in a floor-mounted installation.

1. Single Weight Drive

A single weight drive has a simple design, but lacks the ability to provide effective balancing in large Screeners. Its motion cannot counteract the complex forces generated by a screen box moving in a gyratory-reciprocating motion.

2. Dual Counter-Rotating Weights

Rotex introduced the dual weight drive to solve the problem of balancing large Screeners. It uses two weights, a major and a minor, driven by a pinion shaft through spiral bevel gears. While this drive provides effective balancing and reliable operation, its complexity can make overhauls time consuming and expensive when they eventually become necessary.

3. New Dynamic Absorber Drive

The Dynamic Absorber drive is based on the construction of a single weight drive, combined with a dynamic absorber harmonically tuned to the operating frequency of the screener to absorb the excess forces generated by the Screener's motion. The absorber itself is simply a set of weight plates suspended by leaf springs on the sides of the drive. It is not motor driven; rather it absorbs energy when set in motion by the machine's natural base movement.

Note that the absorber is more effective at the designated operating frequency, and in fact, at that point provides better balance than even a counter-rotating dual weight

Retrofit Capability

Rotex Engineers designed the Dynamic Absorber Drive as a replacement for conventional gear drives (used on all model numbers beginning with a "5", "7" or "8"). Now, instead of rebuilding their conventional drive, ROTEX users have the option of replacing it with the new dynamic absorber drive - an investment that can pay for itself many times overs through reduced maintenance and downtime costs.

Converting to a dynamic absorber drive can be as simple as follows:

- Remove the screen box, old drive head and motor.
- 2. Install the new motor bracket at the feed end of the base.
- Drop in the new dynamic absorber drive and replace the screen box.
- 4. Move the motor to the new bracket and install the belts and guard.
- 5. For floor mounted machines, convert to cable suspended installation.

Ask our ROTEX Representative for further details

For further information, contact Rotex Customer Service or your local ROTEX Representative.



Model 54 DA ROTEX Screener equipped with Dynamic Absorber Drive. Machine is cable suspended on cable-support stand, and also features the ROTEX Slider Inlet. (Drive guards removed for clarity. Do not operate any equipment without guards installed.)