

PROTECT YOUR GEARBOX

With help from the contamination control experts at Schroeder Industries

Wear is an effect of aging and can never be completely avoided. However, the wear rate of your gearbox and its components can be reduced dramatically by employing proper contamination control measures. Extending the life of your equipment and fluid will provide financial benefits in reduced maintenance and component replacement costs.

While gear box size and design may differ between models, all gear boxes have rotating components that transmit power, and require lubrication. Contaminants in the lubricating fluid interact with the moving surfaces to cause wear and ultimately component failure.

Gear boxes are becoming increasingly smaller and new surface hardening techniques are being employed. This means more aggressive surface loading. Today, gear boxes are highly susceptible to particle-induced rolling wear, which occurs at the pitch line of the gear tooth where the load is transferred. Dents and craters are created, altering the physical properties of the components. These alterations make them more vulnerable to wear and fatigue.

How Contaminants Infiltrate Your System

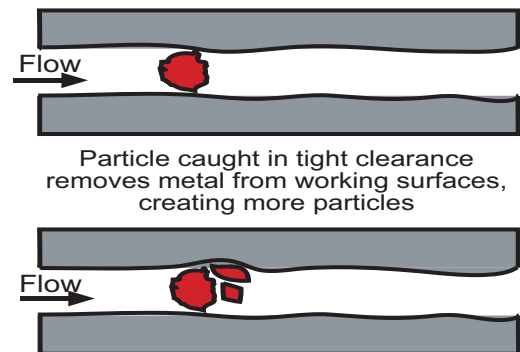
Built-In - Present in system before first use.

Ingression - Enters through seals, fill caps and breathers.

Internally Generated - Abrasive contaminants interact with and corrode components. (See graphic at right)

Introduced during repair or service - From dirty parts on shelves to dust and dirt in the air.

Internally Generated Contamination



How to Control Contamination

Maintain proper filtration - Check condition of caps and breathers, monitor dirt alarms and replace filter elements when necessary.

Monitor fluid cleanliness - Take oil samples and check for particle and water contamination, comparing results with corporate cleanliness guidelines.

Fluid storage and transfer - Store fluid in a closed, clean, and dry container. Deliver clean fluid to the system by prefiltering with a filter cart or other off-line unit before use.

Parts storage and handling - Store parts in a clean area, and make sure all port openings are plugged prior to installation.

Parts installation - Keep work area clean and inspect parts for contamination prior to installation.

Flush gearbox before first use and after any maintenance - Thoroughly clean all components with an off-line filtration system.

GEARBOX PRODUCTS

From the contamination control experts at Schroeder Industries

Schroeder offers many customized products including those for heavy gear oil applications.



The industry's best media for high efficiency, long life and low pressure drop. Designed, tested, and proven to be the best performing elements on the market today. Using **Excellement™ (Z) media** means cleaner fluid, longer element life and less downtime.



The **Kidney Loop System** filters fluid off-line for maximum protection. Dual system available to remove both water and particulate contamination.



Use the **Mobile Filtration System** to filter fluid as it is transferred, and to flush gearboxes prior to use.



In-line mounted filter assemblies, for continuous particulate contamination control during gearbox operation, help control the abrasive particulate generated internally and break the chain reaction of wear.



Desiccant Air Breathers stop dirt and water contaminants before they enter your gearbox.



Use **Schroeder Check® testpoints and hoses** to sample fluids for monitoring particle and water contamination levels.

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