

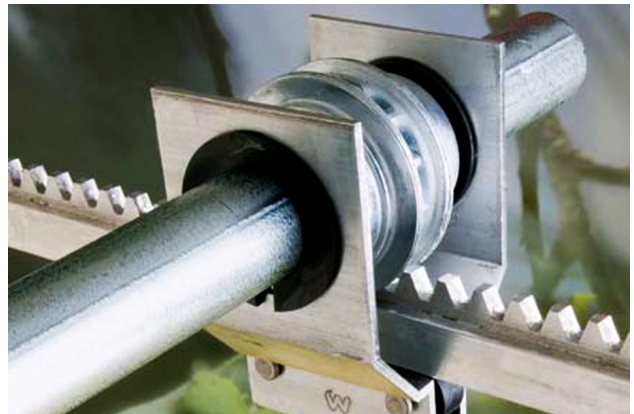


CASE STUDY

“We have used Magnalube for the same applications since 1985.”

- Wadsworth Control Systems’ Purchasing Manager, Greg Williams

Wadsworth Control Systems, Inc. is the oldest and most reliable environmental greenhouse control company in North America. There are more of Wadsworth’s systems in greenhouses than any other system on the market. Since the company’s inception in 1952, Wadsworth’s mission has been to constantly innovate in order to provide the best possible products for growers and their greenhouses. In fact, George Dean Jr., the founder’s son and former president, is in the Society of American Florists Horticultural Hall of Fame for his contributions in automation advancements.



Two of the main product lines that Wadsworth manufactures are energy curtains and vent automation systems. Their Powerpull Energy Curtains provide easy, automatic shading to greenhouses that allow growers to control the internal temperatures by reducing the amount of sunlight and humidity. Their vent automation systems regulate the amount of heat and condensation present in greenhouses by automatically opening and closing vents.

An integral part of both systems consists of a rack and pinion setup. In addition to the rack and pinion setup in Wadsworth’s energy curtains systems, plastic rollers need to be properly lubricated in order to slide on steel rails without causing friction and wear. When designing both systems, the engineers searched for a lubricant that could withstand extremely humid and wet conditions with temperatures up to 130 degrees Fahrenheit. According to their purchasing manager, Greg Williams, “we needed a lubricant that was resilient enough to hold up to high temperatures and humidity without dissipating.”

Variable temperatures, moisture, extended service life and compatibility with plastic parts are all key design challenges that Wadsworth faced when selecting a proper lubricant. Oils and lower quality greases tend to evaporate and migrate when used in applications that are exposed to elevated temperatures and high humidity. Conventional lithium greases, especially in the presence of moisture, will soften and bleed, causing the grease to break down and migrate away from critical areas. In addition, solvent refined base oils are common in cheaper greases and can cause damage to plastic parts over time. With all of these challenges to balance, Wadsworth was required to look comprehensively at lubrication options for optimal design performance. The lubrication criteria to maximize equipment reliability were: excellent adhesion, corrosion protection, high quality base oils and the longevity of the product.

*Magnalube® is a registered trademark of Magnalube, Inc., the exclusive manufacturer of Magnalube greases.

“We needed a lubricant that was resilient enough to hold up to high temperatures and humidity...”



Magnalube-G is the perfect solution because it performs well over time, and is not affected by high temperature, high humidity environments, such as those present in greenhouses. One reason for this is that there are no metals present in Magnalube-G, so rust and corrosion will not occur on the lubricated components as quickly as when using conventional soap-based greases. In addition, the PTFE base will effectively block the electro-chemical reaction necessary for corrosion to occur while further extending the operating life of the parts by reducing wear. Magnalube-G also contains high-quality paraffinic oil that will not react with sensitive plastic parts.

Special thanks:

Wadsworth Control Systems, Inc.
5541 Marshall Street
Arvada, CO 80002
www.wadsworthcontrols.com
1-800-821-5829
sales@wadsworthcontrols.com

In the end, Wadsworth Control’s comprehensive approach to product design paid off because they found a lubricant that stood the test of time. “We have used Magnalube for the same applications since 1985,” attests Williams. “We send a can with every shade system, and then the various greenhouses can reapply it if needed.” Williams continued, “they very seldom need another can, so it lasts a very long time.”



For more information on Magnalube:
Visit our website: www.magnalube.com
Email us: info@magnalube.com
Call us: 718-729-1000