

Company: **Rifle Scopes Online**

Industry: **Weapons/Hobby**

Application: **Rifle Sighting Systems**

Component: **Scope/Reticle Focus**

Background

Rifle Scopes Online offer a wide variety of high quality rifle scopes, rifle sights and ACOG scopes - riflescopesuk.com. The proprietor of the business is very experienced and considered improving the scope mechanisms of some products, helping with motion control and tactile feel of the focus and reticle threaded designs.



Challenges

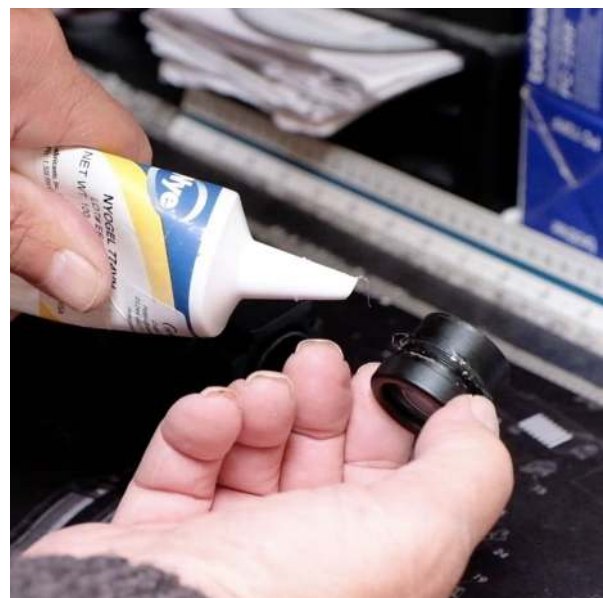
Any grease used to dampen the motion and improve the user operation of the reticle/focus design must give a quality feel, help resist water penetration, withstand sub zero temperatures and hot climates, all with minimum change in damping characteristics. Also, the damping grease should have no compatibility issues with any plastic/rubber materials (e.g. O rings) coming into contact with the grease.

Proposed Solution

- A **damping grease** with a Polyalphaolefin (PAO) base oil, resulting in very good **thermal stability**.
- A **high viscosity** damping grease giving the mechanism a high quality tactile feel.
- Damping grease based on a PAO oil is generally considered '**plastic friendly**'.
- Silica thickener chosen to give the damping grease a **translucent** colour, so the grease is hard to see if over applied.
- Good level of **water resistance** needed.

Product Selection

- **Nyogel 774VH** (Very Heavy)



Applying The Grease

Nyogel 774VH is applied to the thread of the focus mechanism/reticle thread. Dimensions vary across different scope designs, the amount of grease required