

10-28-2021 (Rev 0)

Topic: Grease Sampling

**Technical Data Sheet for  
 “Grease Thief Sampling Kits”**

**Background**

Grease analysis has become an important aspect of condition assessment.<sup>1</sup> Because of the inherent design of greases that imparts properties that help them stay in place, it is difficult to obtain representative samples by traditional oil sampling methods and with readily available tools. Therefore, a design has been invented (Patent US7984661) and kits created and manufactured to achieve the sampling methods outlined in ASTM D7718, the “Grease Thief”.

The Grease Thief is manufactured from several injection-molded plastics, including a clear filled nylon material. The piston is a precise fit to the body bore which allows a coring action to obtain a sample from within the machine being analyzed. The device does not function as a syringe in most cases, as greases generally do not freely flow when subjected to vacuum forces. The two types of Grease Thief designs are Type I and Type II. They are identical except for a “stinger probe” feature in Type II that allows for “blind” sampling through the contact of the sampled surface before actuating the coring action. Type I and Type II Grease Thiefs are shown in Figure 1. Upon assembly, a tiny amount of particle-free mineral oil is applied to the piston for frictional uniformity.



Figure 1-Grease Thief Type I and II drawings

**Materials: Injection molded plastics, nylon, mineral oil coating**



Figure 2-Grease Thief with plastic cap

**Additional items added to the Grease Thief Sampling Kits to enable sampling per ASTM D7718 include:**

**10ml fully plastic syringe, plastic spatula, sealing plastic bags, instruction cards, paper labels, plastic caps, plastic shipping tubes and return padded mailers.**

With these tools, the user can collect a sample consistent with the approach outlined in ASTM D7718-11 ensuring the sample will be representative of current equipment and grease condition and allow for condition-based maintenance decisions.

Any further information on the nature or use of these kits can be directed to York Laboratories, LLC, 410 Kings Mill Rd, York, PA 17401 USA, [info@mrghcorp.com](mailto:info@mrghcorp.com), +1 717 843 8884

This bulletin is for informational purposes only and does not replace specifications. This bulletin is meant to serve only as a guide to approach the sampling of equipment in a method consistent with the principles of the Theory of Sampling, and the methods outlined in ASTM D7718. Decisions regarding equipment operation and maintenance should be made based on sound engineering judgement and all available information sources.



Pillow Block



Electric Motor



Grease Thief Slim



MOV Gearbox



Robot Kit



Wind Turbine

Figure 3-Available kits for Grease Thief with additional components

### Keywords

*Grease Sampling*

### Other Resources

<sup>1</sup>ASTM D7718-11, Standard Practice for Obtaining In-Service Samples of Lubricating Grease, ASTM International, West Conshohocken, PA, 2011, [www.astm.org](http://www.astm.org)

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