

Ratings Improvement / Standard Lubrication Change FAQs

Question: What is Klübersynth UH1 6-460?

Answer: Klübersynth UH1 6-460 is a fully formulated high temperature/high performance gear oil based on PAG chemistry. This oil has the added benefit of H1 certification. This product is ideal for food processing and pharmaceutical manufacturing.

Question: Why should I change from Mobil SHC 634 to the Klübersynth UH1 6-460 oil?

Answer: Through significant R & D, Boston Gear has determined Klübersynth UH1 6-460 to be the best performing gear oil in regard to reduced wear, increased performance, and lower operating temperature. Lower operating temperatures lead to prolonged seal life while the improved efficiencies will lead to lower annualized operating costs to the end user. Additionally, Klübersynth UH1 6-460 is H1 certified and meets FDA requirements to operate within the food zone in all food processing plants.

Question: What are the other benefits of lower operating temperatures for speed reducers?

Answer: The most important benefit is improved safety. Assuming that the end user is operating the unit at the proper service factor then the speed reducer will produce much less heat when compared to other units. This can possibly eliminate the need for safety heat shields or guarding around the speed reducer. Other benefits include longer oil life and increased wear protection for longer gearbox life.

Question: What is the expected operating temperature under full load when using Klübersynth UH1 6-460 as the lubricating oil?

Answer: Depending upon the service factor and the ratio, it is normal to see the initial oil bath temperatures reach 225° F. This will drop off and stabilize at approximately 160-175°F after break in. The initial break in time usually 4-6 hours for a 10:1 ratio at SF 1 and 24-36 hours for a 60:1 ratio at SF 1.

Question: What will Klübersynth UH1 6-460 look like when it is new?

Answer: It should be light honey gold in color and not have any contaminants or particulates floating in the suspension.

Question: What will Klübersynth UH1 6-460 look like when it is used?

Answer: It will turn darker in color and could have some small bright particles floating in the suspension. These bright particles are most likely bronze gear wear during the break in cycle. This is normal.

Question: How much Klübersynth UH1 6-460 can be mixed with other oils to obtain the published rating benefits?

Answer: The intent is to completely flush the previous oil from the gearbox prior to adding in the Klübersynth UH1 6-460 oil. While it is not always possible to completely drain out the used oil, a good rule of thumb is that up to 5% can be immiscible with Klübersynth UH1 6-460. In the case of food grade applications where H1 is mandated then a complete purging of the oil sump is required.

Question: How do I purge the oil from the sump?

Answer: Prior to changing the oil, operate the unit for a couple of minutes to warm the oil. Stop and drain the oil sump allowing a couple of minutes for oil to drip from the drain plug. Reinstall drain plug and add in the measured amount of fresh Klübersynth UH1 6-460 oil per the oil sump requirements. Again, operate the speed reducer for a few minutes to warm the oil. Stop and drain the oil sump allowing a couple of minutes to drip from the drain plug. Refill with fresh Klübersynth UH1 6-460 oil to the recommended oil level. In short, you can flush out any previous oil using Kluber as the flushing agent.

Question: Will Klübersynth UH1 6-460 harm my oil seals?

Answer: No. Chemical compatibility tests along with seal swell tests were performed without any side effects.

Question: Is it harmful to the speed reducer product if Klübersynth UH1 6-460 is mixed with other oils?

Answer: The mixing of the two oils will not harm the overall product, however, full benefits of the rating improvements will not be realized.

Question: What will the oil look like if Klübersynth UH1 6-460 is added to other oils?

Answer: Since Klübersynth UH1 6-460 is a synthetic Poly Alkaline Glycol (PAG) based product, it will not mix with other petroleum hydrocarbon based oils. If other oil comes in contact with Klübersynth UH 1 6-460 it will try to separate itself, similar to "oil and water". The most common appearance will be small puddles of individual oil pockets.

Question: What are some of the side effects of Klübersynth UH1 6-460 added to other oils?

Answer: Possible foaming can occur if the ratio exceeds 5%. Depending on the chemistries of the other oil, foaming can be a concern. If this occurs, please contact Boston Gear at 888-999-9860.

Question: How do I order units filled with Klübersynth UH1 6-460?

Answer: Use the letter "K" in the catalog nomenclature description for pre-filled units without Posivent® and "Z" for oil filled Posivent® units. K and Z identify the Klübersynth UH1 6-460 oil for our units.