

Grease vs. Oil Lubrication

BBB4 and BBB5 Series are different from previous series in that one of the main design goals was to have a single oil sump. BBB3 Series and earlier had separate lubrication requirements for the Bevel gearing portion and the Cyclo portion. Often the Cyclo was grease lubricated, which would be a different type, grade, and sometimes manufacturer, from the bevel oil lube.

BBB4 and BBB5 Series improved the previous series by allowing a single oil sump to provide lubrication for both the Bevel output and Cyclo or Planetary inputs, for assemblies Y1, Y2, Y3, Y5, and Y6. Refer to Catalog for additional mounting position clarification.

Figure 1. BBB4 Series Oil Sump

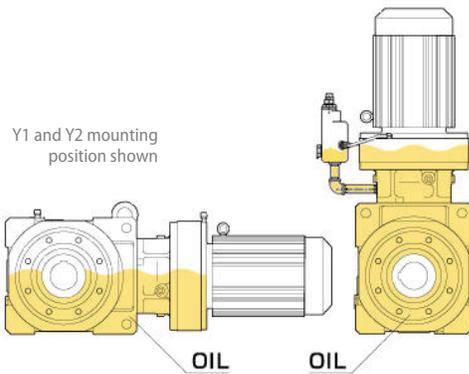
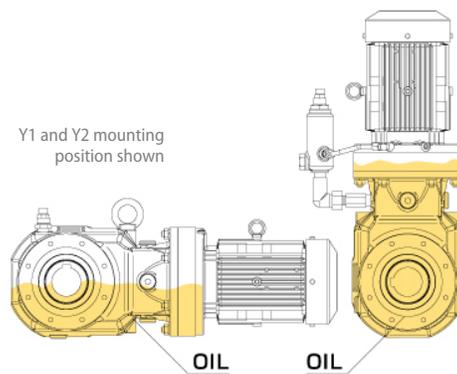


Figure 2. BBB5 Series Oil Sump



Grease and oil each have individual merits as lubricants. Each will perform to the general applications it is intended to satisfy. Each has individual strengths and weaknesses which are evaluated to meet certain requirements.

	Strengths	Weakness
Grease	<ul style="list-style-type: none"> ▪ Stable ▪ Suitable for any housing orientation. ▪ Easy to transport ▪ Supplied as factory filled ▪ Can withstand higher centrifugal (rotational) forces ▪ More effective at slow speeds 	<ul style="list-style-type: none"> ▪ Localized temperature hotspots ▪ Replacement/Replenishment is difficult ▪ Lower Ratings than Oil
Oil	<ul style="list-style-type: none"> ▪ Higher Ratings than Grease Units ▪ Widely available ▪ Excellent flow properties ▪ Even temperature gradients ▪ Provides 'fresh' lube during operation ▪ Allows wear particulates to settle ▪ Benefits of splash allow for low lube quantities 	<ul style="list-style-type: none"> ▪ Foaming ▪ Not available for Cyclo in Y4 (motor shaft up)

Figures 3 and 4 illustrate the Y4 assembly which has separate lube reservoirs. This separate lube reservoir design is maintained to allow for longevity of motor operation.

Figure 3. BBB4 - Y4 Assembly

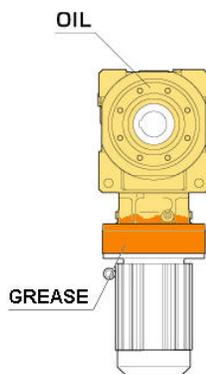


Figure 4. BBB5 - Y4 Assembly

