



## MEASURING INSTRUCTIONS FOR MBG – Equipment Mounted Belt/Chain Guard



### Guard Type: MBG

#### Complete these forms in their entirety:

- “Uniguard Customers Name” is who is purchasing the guard from us.
- “Uniguard Customers Contact” information allows us to contact the correct person if questions arise during production
- “Equipment Mfg. & Model” allows us to capture information for future production.
- “Quantity” needed to quote
- “Equipment Numbers” allows the customer to know where the guard is to be installed within their facility

#### Things to consider:

- Spacers can be added to either side when needed to accommodate offset base.
- Can current guard be removed without removing the sheaves? If yes, design the guard to be installed without removing the sheaves.

#### Options:

- Solid Flanged Back – works best for Z1 shaft configuration but requires sheave removal
- Center Split Flanged Back – works best for Z1 shaft configuration and allows installation without sheave removal.
- Standard Center Split – works best for Z2 & Z3 when there is adequate clearance below the sheave and is installed without sheave removal.
- Removable fronts are a great option to facilitate belt replacement.
- Lifting handles should be added for larger guards.
- Inspection windows can be added for belt inspection.

### Measuring Instructions

1. Determine and record both shaft diameters (include key slots) and sheave diameters as shown.





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2. Measure the shaft centers from the front when possible.



3. When considering the motor adjustment dimensions, remember the motor angle of travel verses, the angle the guard is mounted. In the following photo, the guard will be mounted at an angle, but the motor move at a 90-degree vertical angle. I recommend increasing the shaft hole size to accommodate motor adjustments. Example: If the shaft diameter is 2.0" and the motor adjustment is +/-2.0 make the shaft hole 6.0". Remember, OSHA is concerned with exposed shaft length, not shaft to hole size.





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4. Determine the overall guard width. Measure the current guard width. If there is a Z1 configuration and there are no front obstructions, remember to add additional width to the Uniguard width as our guards are made from polyethylene as noted on our forms. A Z2 or Z3 configuration will be limited to the distance between the equipment and may need special consideration and use of 0.25" HDPE materials.  
1/4" or 9/16" black HDPE split, or solid spacers can be added to the back of the guard to cover any exposed shaft when the equipment faces are not in complete alignment.



5. Calculate the guard height. This is calculated by adding 2.5" to both sides of each sheave.
6. Calculate the overall guard length as follows: 2.5" clearance plus 1/2 of the left sheave diameter plus the distance between the two shafts plus 1/2 the right sheave diameter plus 2.5" clearance plus the positive motor adjustment. Guards can be tapered down to lower height when needed to make lighter or clear obstructions.

Ex: Drive sheave: 6.0"                      Shaft centerline: 8.0"  
Driven sheave: 18.0"                      Shaft centerline: 10.0"  
Shaft centers: 24.0" Motor adj: +/- 2.0"  
Overall length = 2.5" + 6.0/2 + 24.0" + 18.0/2 + 2.0" + 2.5" = 43.0"  
Drive Overall height = 6.0" + 2.5" + 2.5" = 11.0"  
Driven Overall height = 18.0" + 2.5" + 2.5" = 23.0"