



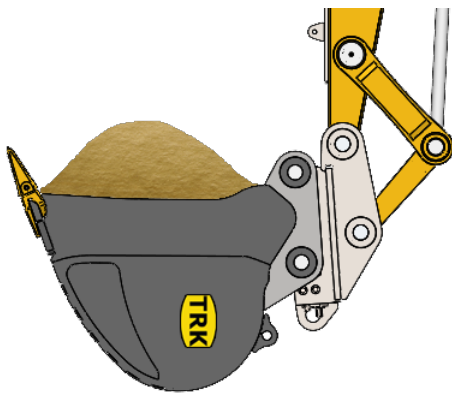
# BUCKET CAPACITY

## HEAPED CAPACITY

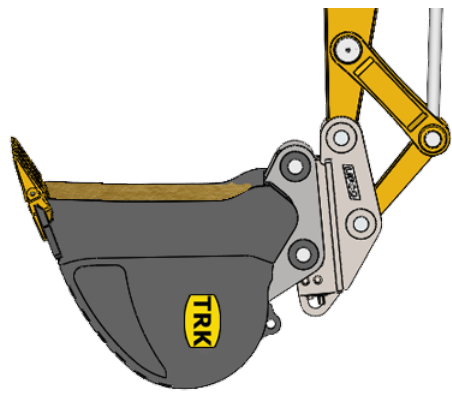
**VS**

## STRUCK CAPACITY

The volume of the bucket plus the amount of material on top when not leveled off.



The bucket's volume upon leveling across the strike plane, or bucket top.



## HOW TO CALCULATE THE REQUIRED BUCKET CAPACITY FOR THE JOB

- 1** Time your digging cycle. When the bucket starts digging in, start the timer, and stop when it starts digging on the next load. Divide 60 by the cycle time. For example, if the digging operation takes 0.75 minutes, you have 80 cycles per hour.
- 2** Divide the hourly production demand by the number of cycles per hour. For example, if 600 tons are required to be moved per hour and the average is 80 cycles per hour, you will need to move 7.5 tons per cycle.
- 3** Using a reliable source, find the standard weight of the material you will need to lift as well as the fill factor for the bucket. Based on material density, these values will indicate how much of a certain material the bucket can hold.
- 4** Divide the per cycle payload by the material density found in the last step. This will give you the nominal capacity of the bucket.
- 5** Divide the nominal bucket capacity by the fill factor for the bucket from Step 3. This will give you the required bucket capacity for whatever material you will be moving.