




# How to Calibrate Your Snowplow Salt Spreader



## Step One: Write down which truck you're calibrating

Each snowplow or spreader can be slightly different. Just calibrating one truck won't give you the right settings for your whole fleet. It's a fact that even if all of your spreaders are the same model, make and year — they'll deliver different results. So, get ready for winter by keeping it organized. Use this calibration card from the Salt Institute for each truck in your shed.





## Step Two: Let's talk about truck gates

Start by setting your truck's gate to approximately 2 inches. Then, grab your measuring tape and walk to the back of your truck to see how high the gate actually is. To measure correctly, measure from the bed of the trailer right up to the bottom of the rubber. Adjust the height until you get it right. Write down the gate opening size in your calibration chart.

Note: The size of a gate opening isn't set in stone — it depends on what deicer material you are using.

### QUICK TIP:

A lot of our Ice Slicer customers share that they typically leave their gate opening 1 -2 inches when using Ice Slicer.






## Step Three:

## It's auger time

Cut out a small square of paper and draw a straight arrow on it. Then tape (or add grease) to the square and stick it on your truck's shaft with the arrow pointing up. This makes it easy to count the auger revolutions — every time the arrow hits 12:00 you know it's rotated once.



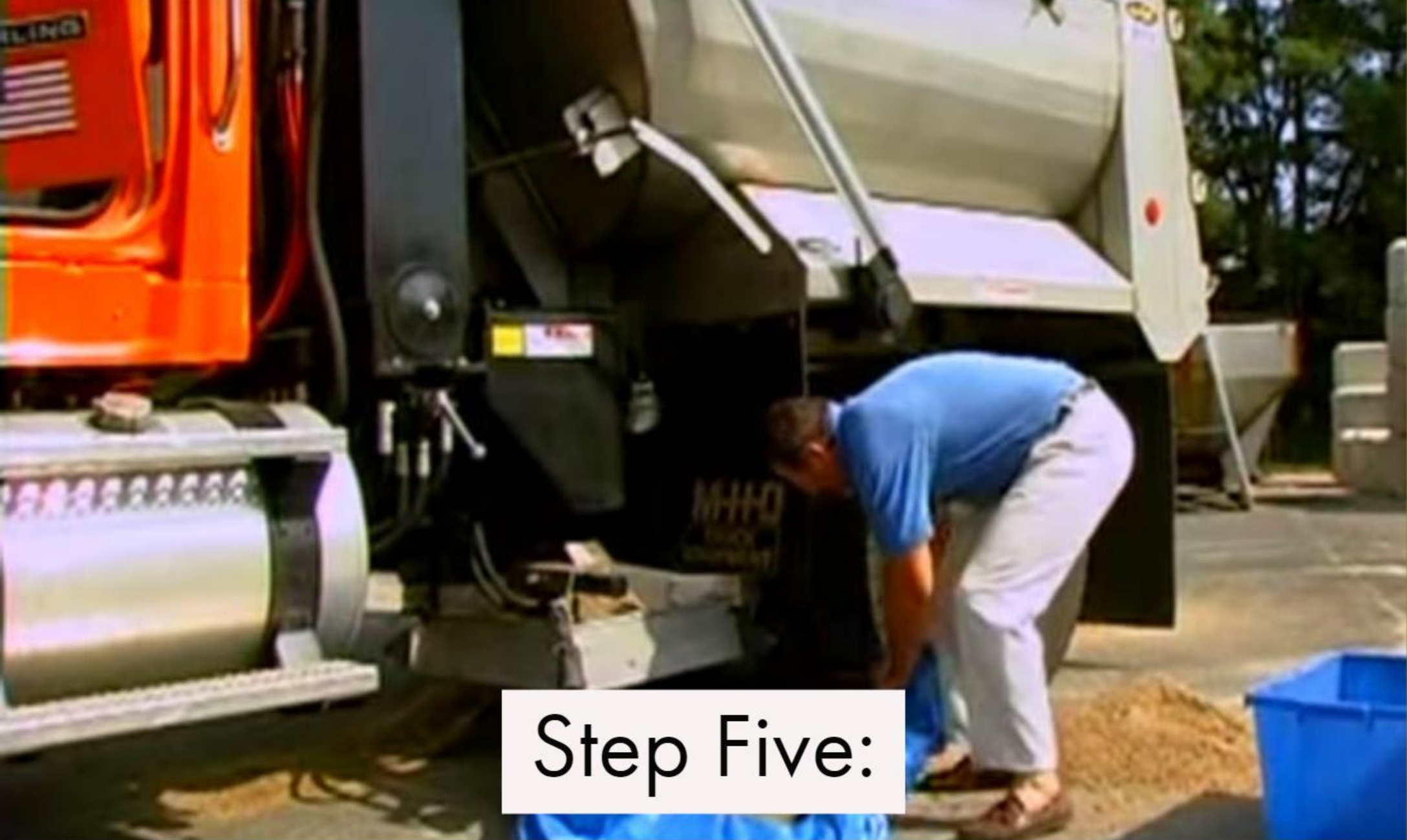


## Step Four: Grab a friend from your shed and have them sit in the cab

Make sure they set the auger to "1" and the Spinner Circuit to "0". Stand next to the shaft while you have your friend (in the cab) rev the engine to 1,500 – 2,000 RPMs consistently. Grab a watch or a timer and count how many times the shaft revolves during the next 60 seconds. Write down how many times it revolved on your calibration chart under "Control setting 1" and column "A" - now do the exact same process for each of your auger settings.

> Note: Remember that column "A" is the Shaft RPM in a loaded plow.





Step Five:

## Gather Your Supplies

Take a look at column "B" on your Calibration Chart — we are just about ready to fill this section out by measuring "discharge". This step is really simple but you are going to need to gather a few supplies:

- > Scale – you don't need anything fancy, the kind you stand on to measure your own weight will work just fine.
- > Bucket – put the bucket on the scale.
- > Tarp – to catch any Ice Slicer





## Step Six:

# Measuring the Discharge

Make sure your plow's truck bed has the deicing material you plan on using while you plow. Then place your tarp under the spinner. Turn the spinner off on your truck and keep the auger on a low setting. Release the salt onto the tarp until your shaft does on full revolution. Gather all the salt that your truck released onto the tarp and put it into a bucket. Place the bucket on a scale to measure the weight of the salt. Enter the weight in column "B" of the Calibration Chart.

> Note: When you are filling out column "B" remember to record the weight on your scale in pounds not kilograms.



## GATE OPENING (HOPPER TYPE SPREADERS)

	A	$\times$	B	$=$	C $\times$	
Control Setting	1 MIN Shaft RPM (Loaded)		Discharge Per Revolution (Pounds)		Discharge Rate (Lbs/Min)	5 mph $\times 12.00$ 10 mph $\times 6.00$
1	6.50		22		143	1716
2	16.50		3		49.5	4356
3	26.50		3		79.5	8178

Step Seven:

## Calculations

Let's do some calculations. Grab a calculator, or just use the one on your phone. Take a look at your Calibration Chart's three columns: A, B, & C. So far, we've filled out A & B. To find "C" a.k.a the "Discharge per Minute" all you have to do is multiply A by B. Find "C" for all the controls settings 1 -10.



# Calibration Chart

Agency: \_\_\_\_\_

Location: \_\_\_\_\_

Truck No.: \_\_\_\_\_

Spreader No.: \_\_\_\_\_

Date: \_\_\_\_\_

By: \_\_\_\_\_

Gate Opening (Hopper Type Spreaders)				Pounds Discharged Per Mile									
	A	B	C	Minutes to Travel One Mile									
Control Setting	Shaft RPM (Loaded)	Discharge Per Revolution (Pounds)	Discharge Rate (lb./min)	5 mph x 12.00	10 mph x 6.00	15 mph x. 4.00	20 mph x 3.00	25 mph x 2.40	30 mph x 2.00	35 mph x 1.71	40 mph x 1.50	45 mph x 1.33	
1		This weight remains constant											
2													
3													
4													
5													
6													
7													
8													
9													
10													

-- Chart courtesy of The Salt Institute ([www.saltinstitute.org](http://www.saltinstitute.org))



# Snowplow Salt Spreader Calibration Checklist

- ☐ Print Calibration Chart for each truck in fleet
- ☐ Measure actual gate opening
- ☐ Arrow on truck shaft
- ☐ Time shaft revolutions
- ☐ Gather supplies
- ☐ Measure the discharge
- ☐ Calculate results





Thank You

Stay Warm & Stay Safe!

We hope that this guide has been beneficial for you.  
For all of your ice melt needs, call the experts at  
Desert Mountain Corporation at 877-718-3878  
or visit us at [www.desertmtncorp.com](http://www.desertmtncorp.com).

