

# Auger Safety Valve

## For more information:

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## What was the challenge you set out to solve?

We came up with a safety valve that disables the hydraulic auger motor on the sander of a plow truck in order for the bottom tailgate of the truck to be able to open. This isolates the motor in the hydraulic system so it is safe for the driver to clean out the auger area without the possibility of the auger being able to turn.

## How did you develop and implement your solution?

We made this with a stainless rod, high pressure quarter turn valve and other stainless flat steel to make a bracket that holds the rod and valve. When the valve is turned, it releases the rod that inhibits the ability of the tailgate being able to open. Thus, allowing the tailgate to open and the auger to be cleaned out.

## What did it take to make this solution a reality?

We spent a good bit of time developing a solution that would be effective and efficient while creating a safe work area for the driver. There were about 10 man-hours of developing the device. It was built with pretty basic shop tools.

## What was the cost of implementation?

Each safety valve assembly has a cost of around \$105 dollars in materials. A valve assembly can be made in roughly 1-2 hours with one person doing the work. It can be done faster with somewhat of an assembly line.

## What was the impact and results of your efforts?

We created a device to help plow truck drivers stay safe when working around the auger with as little inconvenience to the driver as possible. Our goal was to have this device to minimize the possibility of an accident to help insure that everyone goes home safely at the end of their shift.

