

## TECHLINK | VALVES

# Better Valves Improve Pulp and Paper Mill Safety

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**Pulp and paper mill** owners and workers understand the importance of safety. Working with high temperatures, high pressures, chemicals, and extreme pH levels takes its toll on equipment. A good valve — one that's built to last and closes completely without pressure loss or leakage — improves worker safety in a mill.

"One of the most notable near misses happens when you close a valve, and it looks

like it's closed, but due to a blockage in the line or a plugged or leaking valve seat, it does not close properly," says Tony Baratta, a former paper industry professional who now works for Jasper Engineering, a Hibbing, MN, company that represents DSS Valves throughout the Upper Midwest. "A lot of times when you're working you may not know until you take the last bolt out that there's still pressure in a pipe that was supposed to be valved out."

Baratta has worked with many valves, but says he is impressed with the safety features of the DSS Knife Gate Valve. The positive lockout feature in the DSS valve means that, to lock the valve out, it must be fully closed or fully open. A pin moves through a plate, ensuring it is completely open or closed. "If the pin doesn't go through the plate, you know with certainty that the valve is not completely open or closed," says Baratta.

With other valves he's worked with, he says he relied on feel: if it felt tight, the valve was "probably" closed. "But it might not be," he adds. "And if the valve is not closed completely, pressure can force hot or caustic liquid out in a spray."

Workers can be certain the DSS valve is completely open or closed. "You can actually see the pin," Baratta says. "You have the assurance that the valve is completely locked."

Jack Schreiber is maintenance supervisor for Packaging Corporation of America's Wallula, WA, mill, a pulp mill manufacturing brown paper. Schreiber also believes that many features of the DSS valve make it valuable for mill safety. He is responsible for repair and maintenance of the equipment throughout the plant; to conduct repairs or maintenance tasks, he must isolate the equipment undergoing work.





PCA Wallula is a safety-conscious mill that follows industry best practices and safety standards. "We have a lockout/tagout protocol within the Operations Group," says Schreiber. "We know which valve isolates which section of the process. We have them labeled and documented and shut off the appropriate valves."

Even following the typical system of checks and balances may not offer 100 percent protection from leakage, however. Therefore, Schreiber prefers the DSS Knife Gate Valve and believes it offers exceptional quality for the price.

"It may cost a little more, but DSS makes sure you get value from the valve you pay for," Schreiber says. "The added safety we get from using the DSS Knife Gate Valve outweighs the cost 100 percent."

DSS valves are made from sturdier materials than many other valves, says Schreiber. "The valves stand up over time. I'd rather have a DSS valve that needs to be changed once every five years and spend the money on it than have valves I need to change every two years."

Changing valves is also easier with the DSS Knife Gate Valve. Large diameter valves can be heavy and difficult to change. "The bodies of the DSS Knife Gate Valves are smaller and more compact, so it's easier to get them in and out," Schreiber says.

Knife gate valves are not new to the pulp and paper industry, but the design enhancements and improvements made to DSS valves set them apart. Baratta and Schreiber agree that the safety features, sturdy construction, and long life cycle of

the valves make them an excellent investment.

"Our mill was very proactive on safety and very in touch with safety procedures," Baratta says. "Many mills make continuous improvements to safety; changing to a DSS Valve would be an excellent step."

Adds Schrieber, "If I could, I'd have these valves everywhere."

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*Jeanne Grunert is a VA-based writer. Visit Jasper Engineering at <https://www.jaspereng.com>, or DSS Valves at <https://www.dssvalves.com>, for more information.*

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