How-to

Is Your Roll Grinding Wheel Being Used Efficiently?

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It is commonly accepted that “Load” or “Current” grinding, which is when a prescribed amount of wheel pressure is applied to the roll body and is measured by amps or percentage of motor power, is the fastest way to remove stock from the roll with a grinding wheel. But have you ever wondered at what point a grinding wheel reaches its maximum potential of stock removal and how to find that point?

Although there are many factors included, such as wheel speeds and feeds and ***coolant***, there are only a few steps required to find this ideal point and use it.

Follow these easy steps to obtain optimal stock removal, improve wheel life, and minimize wheel changes when roll grinding;

1. Instead of “load or current” grinding, **adjust the grind cycle using Endfeed and Continuous Infeed grinding**. Endfeed is grinding using a prescribed infeed amount at the ends of the roll; a good starting recommendation would be 0.0015” on each end.
2. Most likely a crown will be built towards the center of the roll. This all depends on roll diameter and length as well as how fast the wheel breaks down. To level this crowning and make a fairly level amp draw on the wheel, **implement Continuous Infeed into the machine controller**. This will take a prescribed amount of infeed across the roll body and divide the amount entered into equal movements toward the roll. An example of a Continuous Infeed amount is 0.001” across the roll body. Once the correct amount is reached, the shape of the roll will become more uniform and the amperage on the spindle will become more level as well.
3. **Make fairly short cycles**, for example 6 roughing and 6 semi-finish passes along with 2 spark out passes (dead passes with no feeding of the wheel to the roll). Measure the roll diameter and measure the wheel diameter.

Following these steps can help to figure out the most efficient grinding and stock removal process while also saving the wheel from wasted usage and allow for improved wheel life.

It is always possible to go back to “Load” or “Current grinding” grinding, but now you will know where to set the amperage target on the spindle. Also, you will know the break point of the wheel and how to save it.

There are many more tricks of the trade to Roll Grinding… and Norton is here to help!
Please ***contact*** your local Norton representative to learn more.

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