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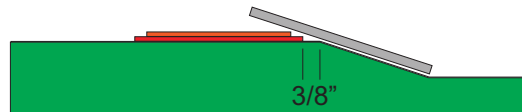
Web Site: [www.hardbandingsolutions.com](http://www.hardbandingsolutions.com)



### TWO LAYER HARDBANDING

Both Duraband® NC and Tuffband® NC can easily accommodate double layer deposits. It is important to understand that the two layers must be applied in succession. Specifically, the first layer and tool joint should not be removed from the chuck, but remain in the chuck and allowed to cool to 500°F (260°C). If the first layer is allowed to cool to less than 500°F (260°C), the second layer should not be applied. The reason for this procedure is to ensure that both layers transform to the proper microstructure and hardness together. This procedure will also promote the least amount of stress in the hardbanding. The resulting hardband should be sound, and without any cracking and will perform as expected downhole.

Another consideration is the hardbanding width and placement. The second layer should be 3" or whatever the specification calls for, and the first layer should be about 3-½". Placing the second layer in the middle of the first will ensure a solid deposit. By applying these dimensions the taper angle clearance for elevator lifts will be preserved. See the Figure below.



#### Procedure:

1. Follow Postle NS-1 Application Hardbanding Manual to apply initial hardbanding. Layer should be 3/32" thick.
2. Allow the tool joint and hardbanding to cool to 500°F (260°C). Do not allow the first layer to go below this temperature.
3. Grind the 1st layer hardbanding to expose bare metal.
4. Apply 2nd layer and center over the first layer. This layer should be 3/32" thick, totaling 6/32" proud of tool joint surface.
5. Slow cool by wrapping in blankets or insulation cans.
6. Machine as required, and ensure elevator lift clearance.

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