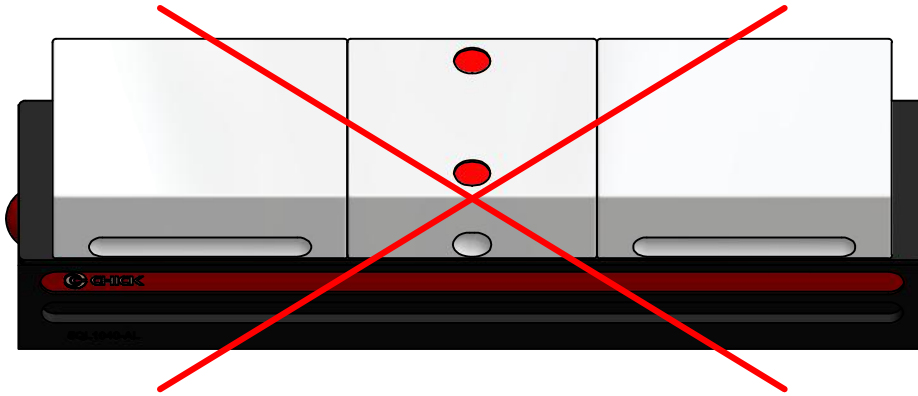
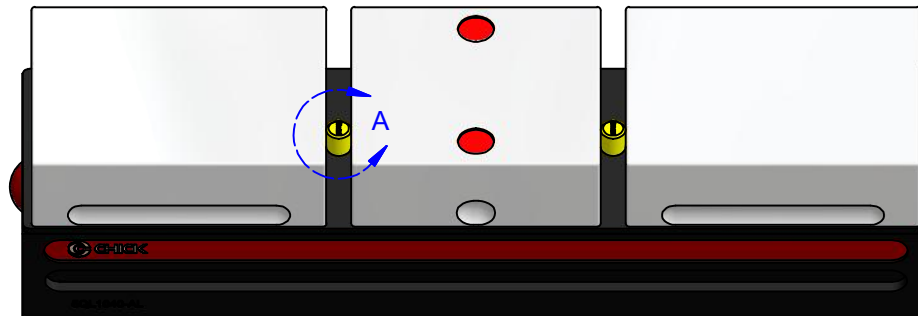


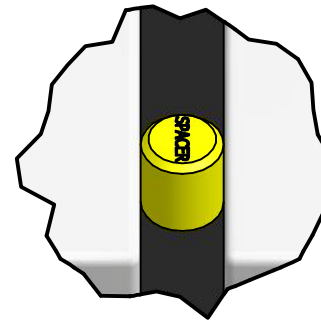
Do **NOT** machine with jaws closed on themselves



WHY: Machining your jaws while they are closed will not allow the jaws to move to tighten on your stock.



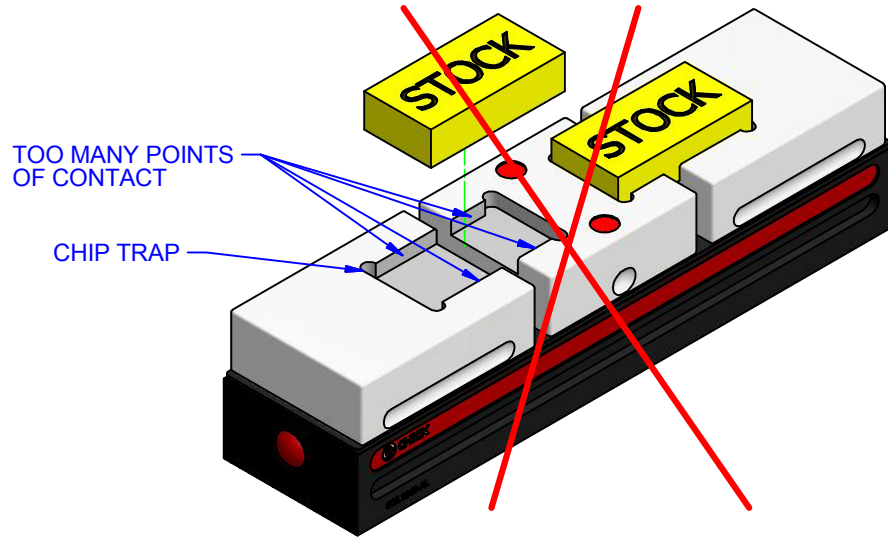
SOLUTION: Close your jaws on a spacer. This allows space for the jaws to move closer together in order to tighten on your stock.



DETAIL A

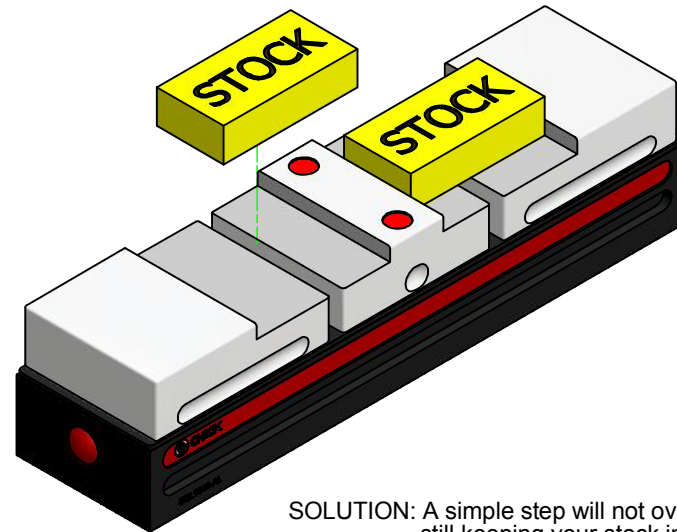
Chick recommends using a dowel pin for a spacer. For best results, place your spacer as close as you can to where the part is going to be. The size of the spacer will be determined by a couple factors; travel limit and travel needed.

Do **NOT** over constrain your stock.

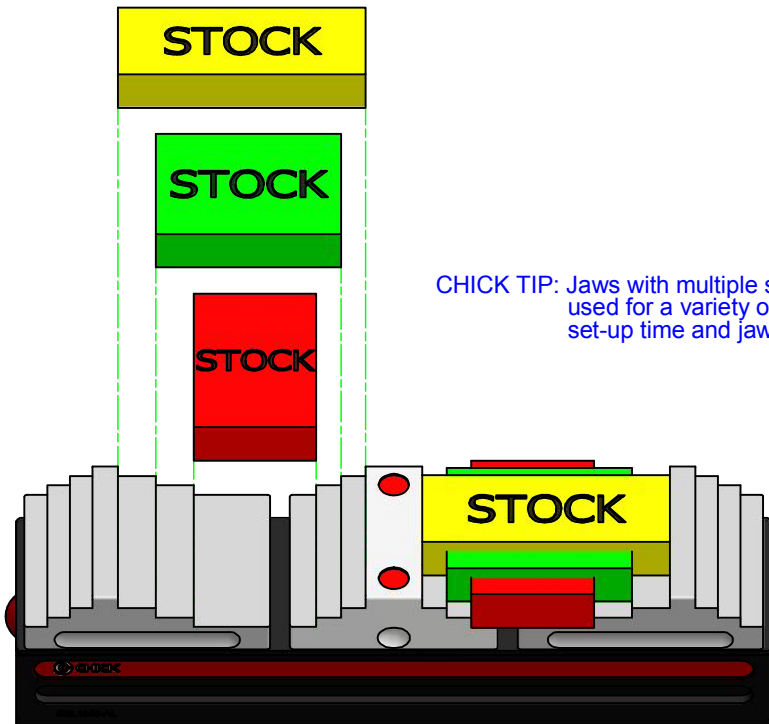


WHY: Too many points of contact will over constrain the stock, not allowing for size variation.

WHY: Chip traps do not allow chips to flow away freely, causing more clean out time between parts.

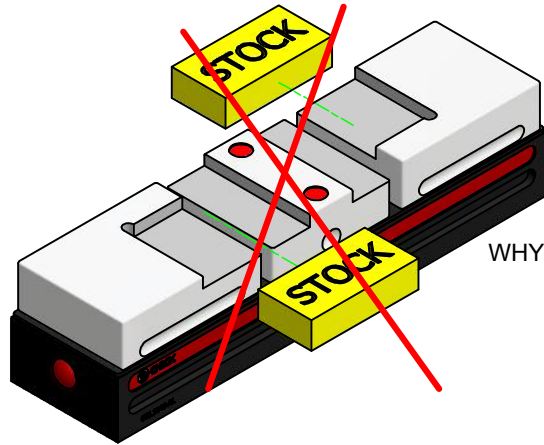


SOLUTION: A simple step will not over constrain while still keeping your stock in place and will eliminate chip traps.



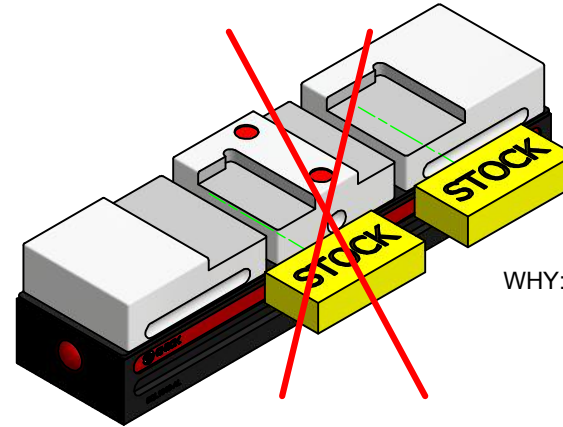
CHICK TIP: Jaws with multiple steps can be used for a variety of sizes, reducing set-up time and jaw storage needs.

Do **NOT** locate on the movable jaw.



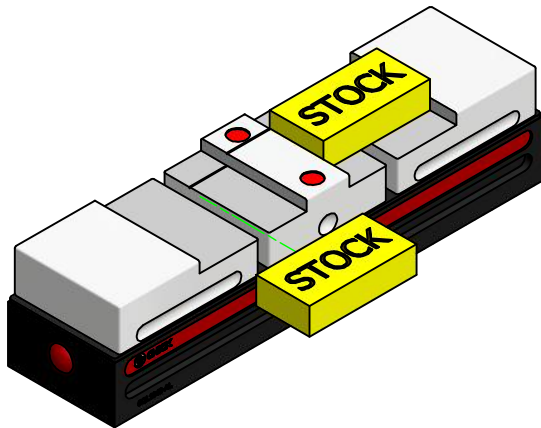
WHY: The rocking movement in the movable jaw will not provide repeatability from part to part.

Do **NOT** just copy/paste your program.

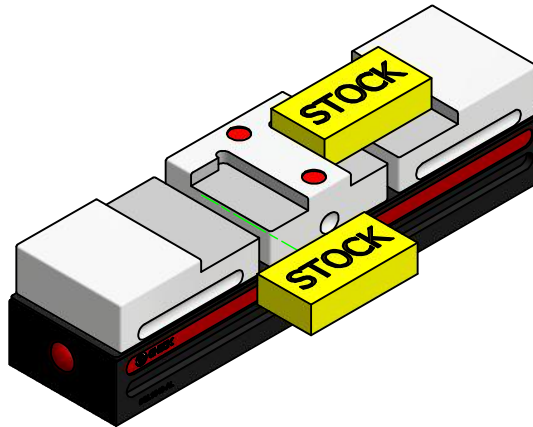


WHY: You will end up with your locating method on a movable jaw in one station or another.

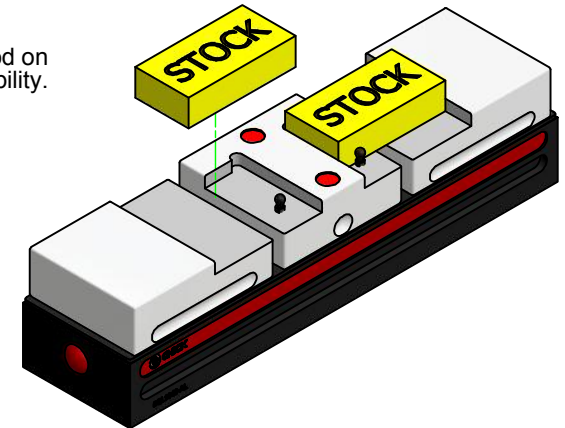
SOLUTION: Mirror or rotate your program to place your locating method on both sides of the fixed jaw. This will provide great repeatability. Below are a few examples.



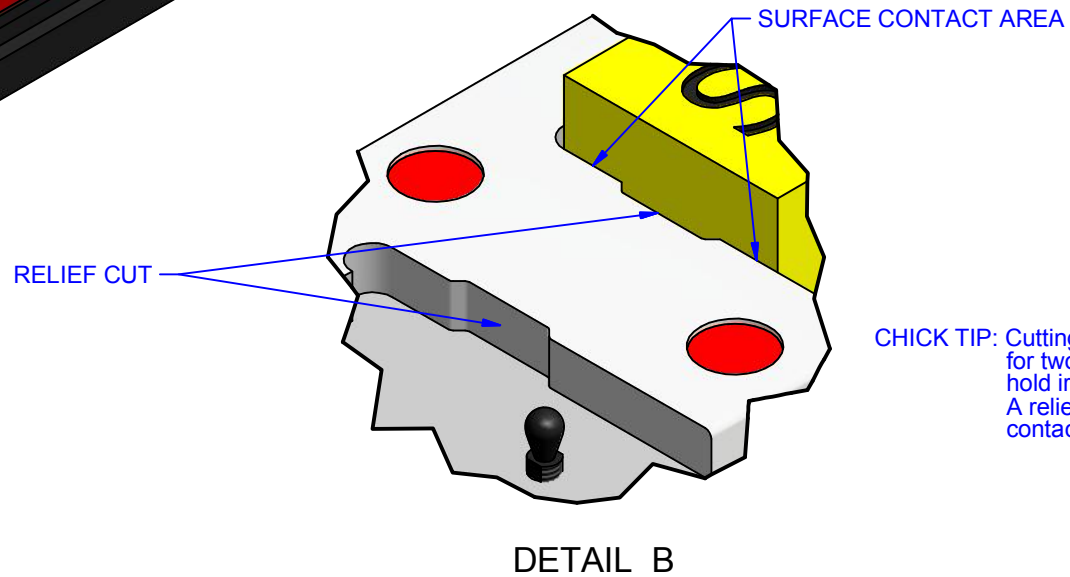
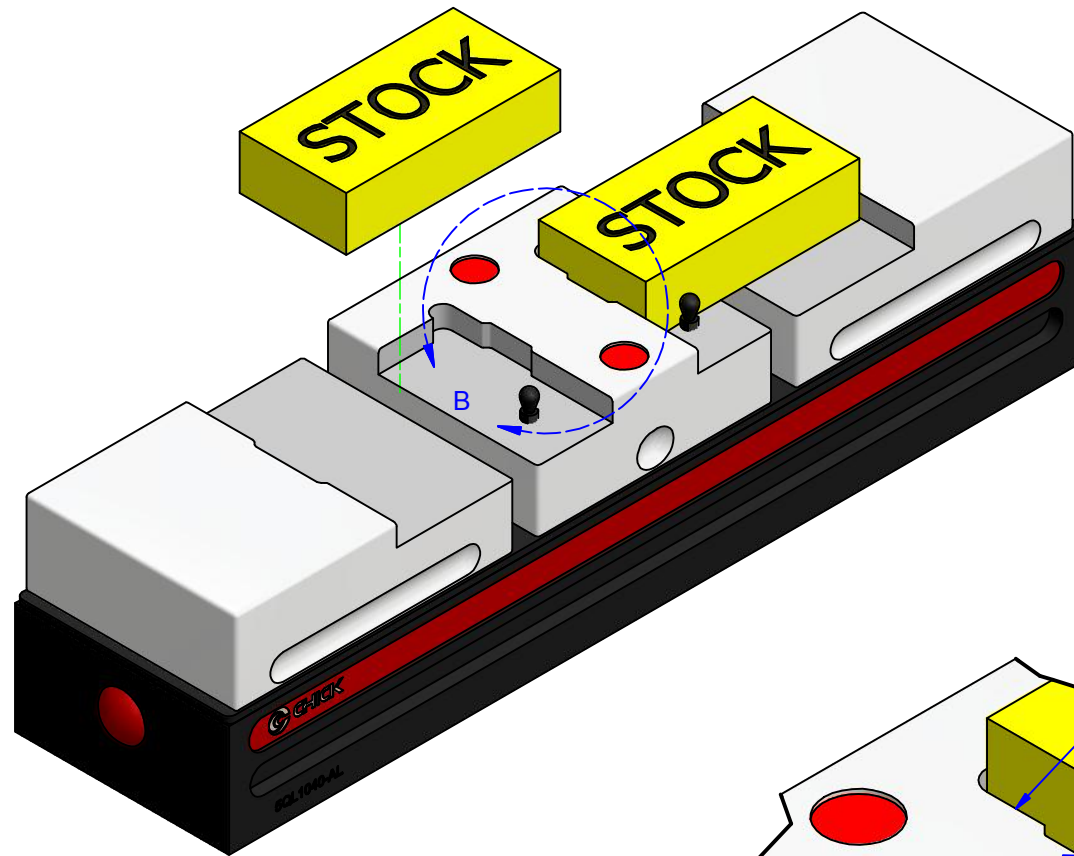
EXAMPLE #1: Scribe a simple line on your fixed jaw to visually locate your stock. This is good for quick jobs that accuracy and repeatability is not important.



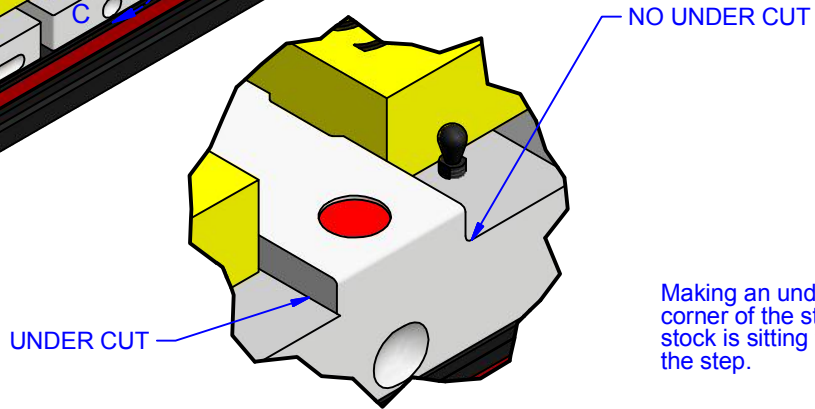
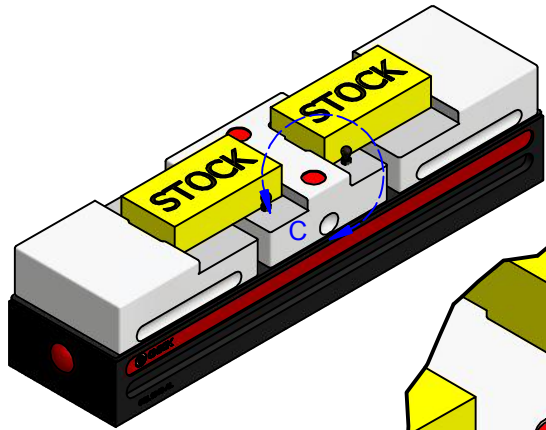
EXAMPLE #2: Machine a hard stop in to the fixed jaw to push your stock up too. This is good for quick, accurate repeatability.



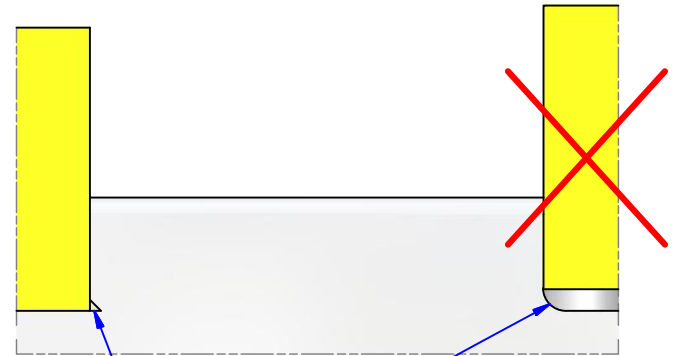
EXAMPLE #3: Install a spring loaded device on your fixed jaw to help keep the stock against your hard stop. This is good for quick, accurate repeatability. This could also be helpful in an automated loading situation.



CHICK TIP: Cutting a relief in the jaws allows for two points of contact. This helps hold irregular material more secure. A relief cut also makes less surface contact area to keep clean.

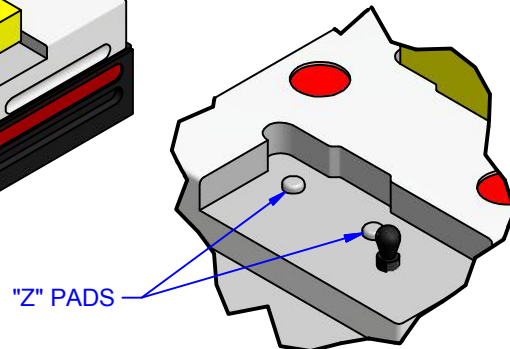
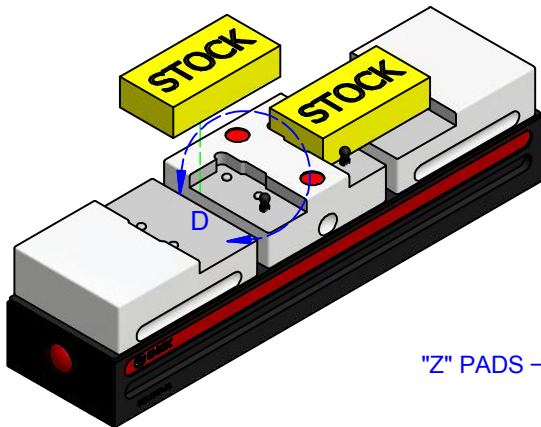


DETAIL C

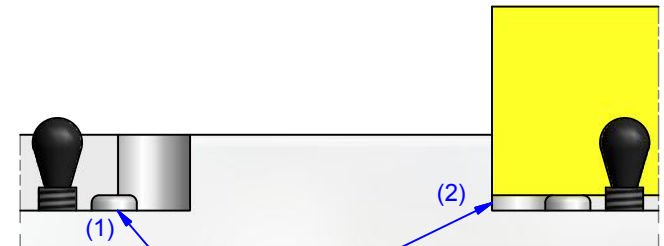


Making an under cut removes the corner of the step and ensures the stock is sitting flat on the bottom of the step.

No under cut allows for the possibility of a corner not being sharp, therefore not allowing the stock to sit flat on the bottom of the step.

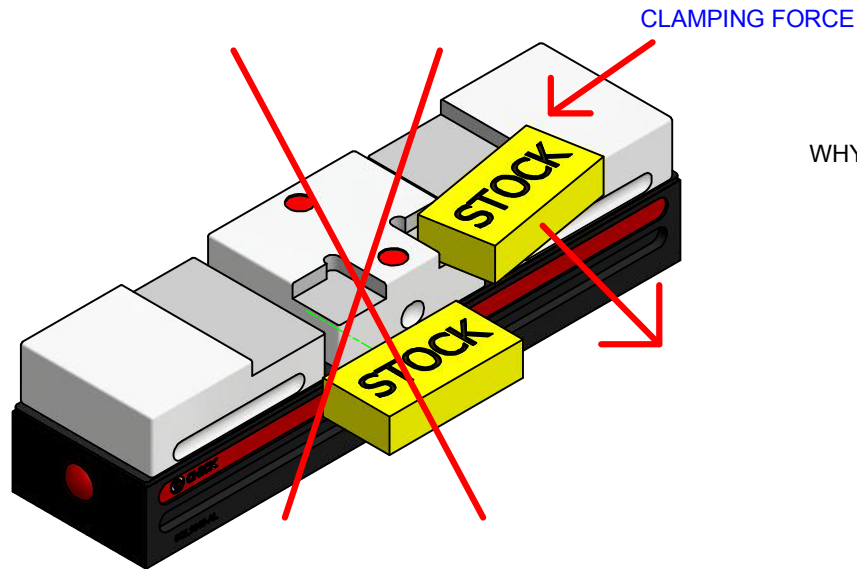


DETAIL D



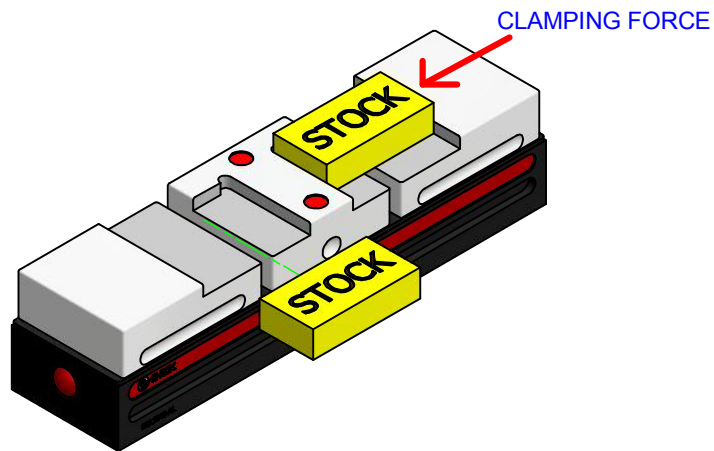
"Z" Pads do a couple things for you. They will (1) provides less contact surface area. It also (2) raises the stock up, ensuring it is square in the corner (like an under cut).

Do **NOT** locate your stock off-center.

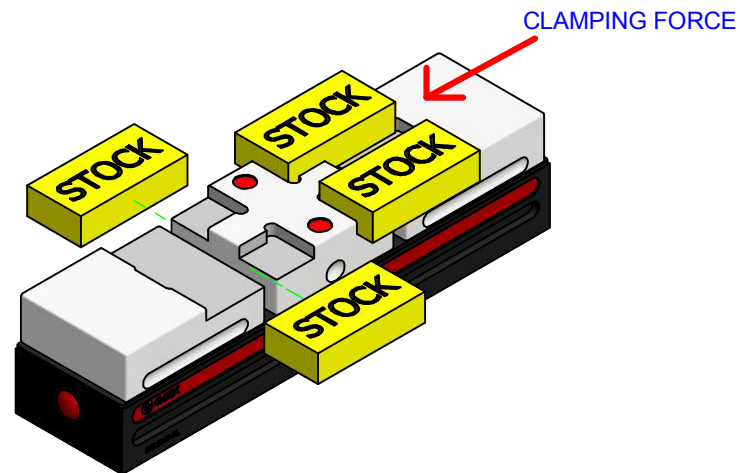


WHY: The offset clamping force hitting the stock could cause your it to fly out.

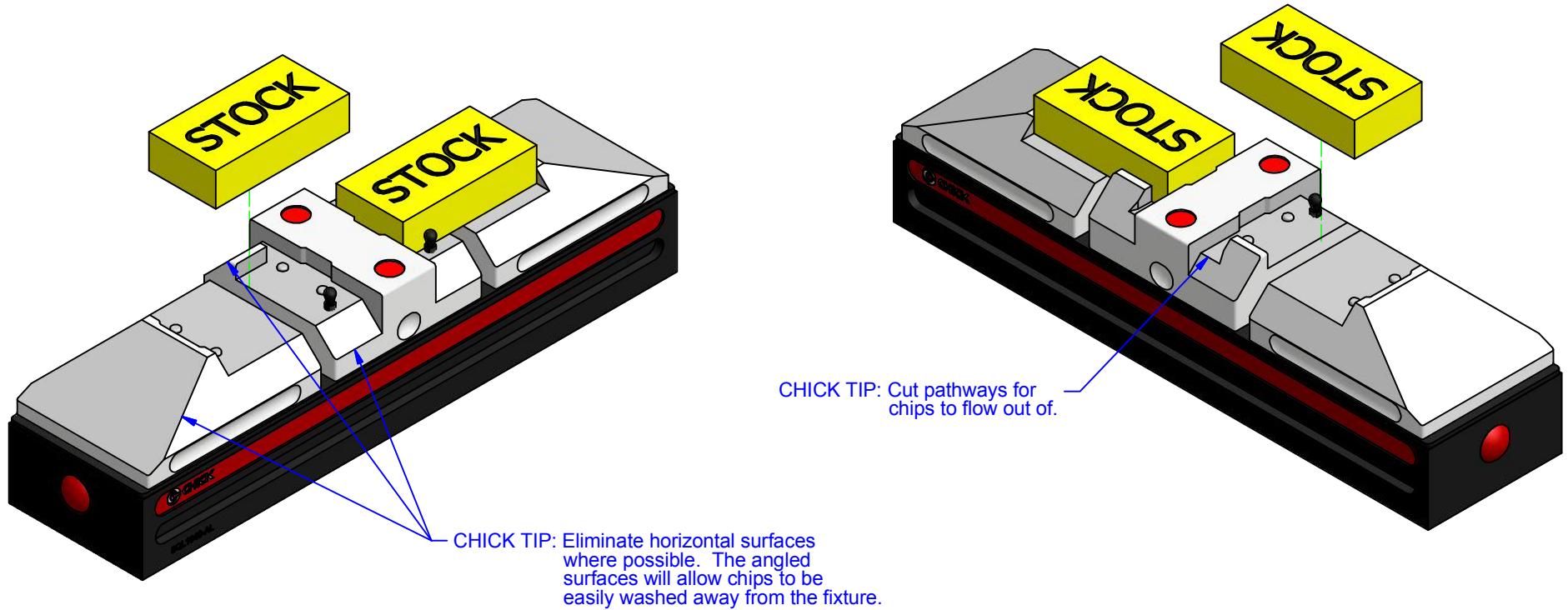
SOLUTION: Evenly distribute the clamping force. The examples below are two ways to do this.



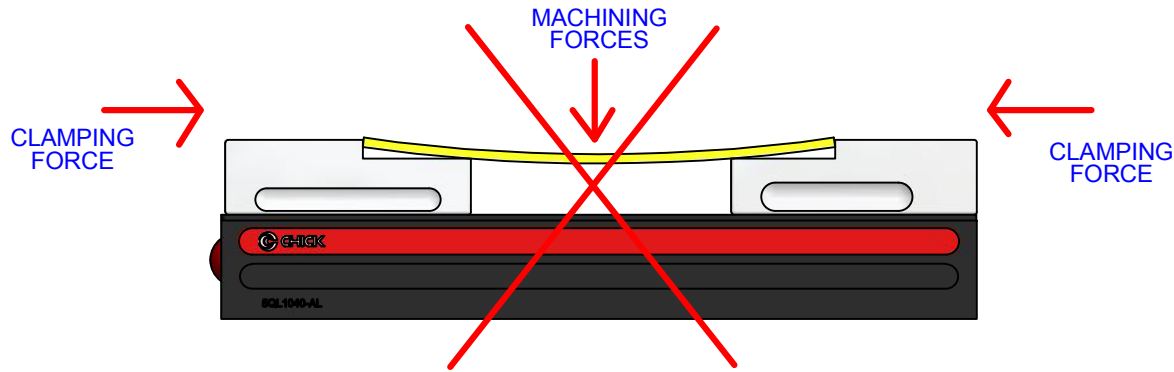
EXAMPLE #1: Place a single piece of stock in the center of the clamping force.



EXAMPLE #2: Place a piece of stock on both sides of the clamping force. The rocking movement of the movable jaw will hold both pieces in place.

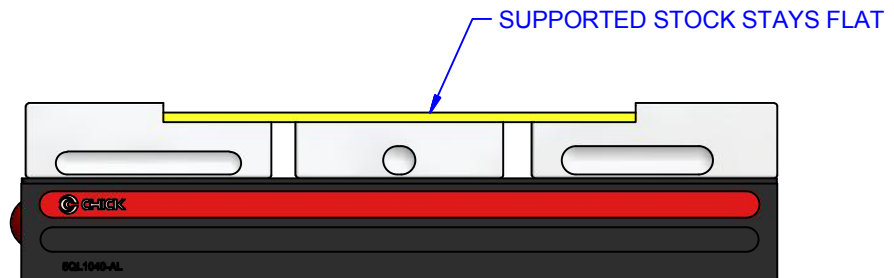
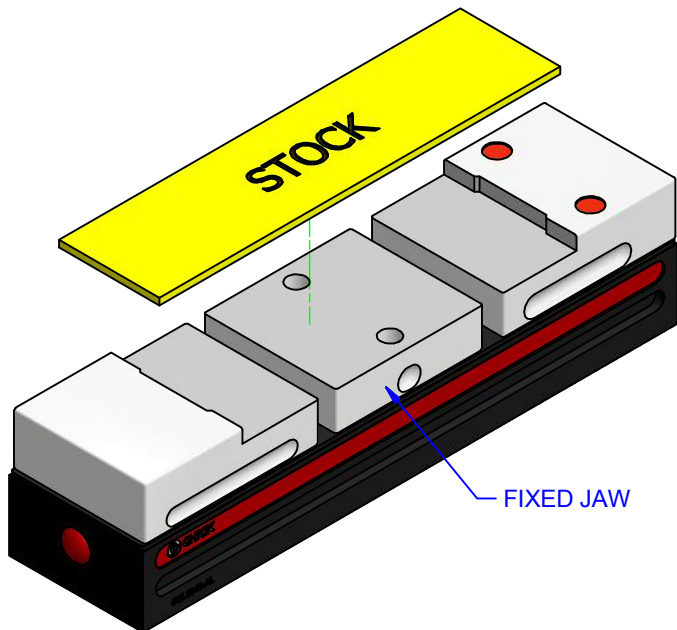


Be **CAREFUL** WITH THINNER PIECES OF STOCK



WHY: Thinner pieces of stock can be bowed pretty easy.

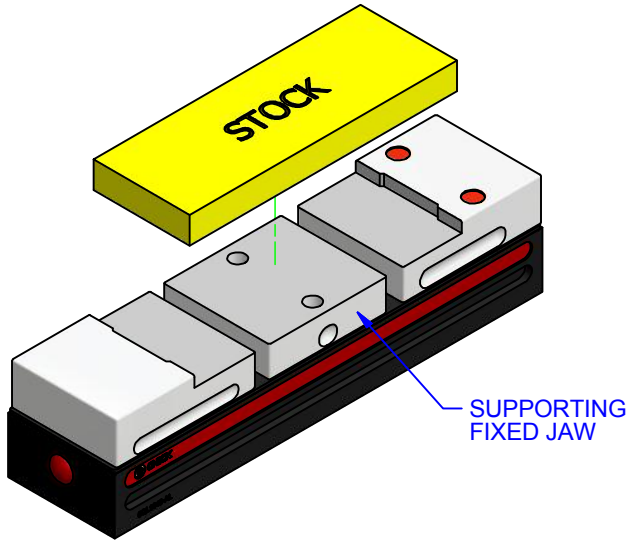
SOLUTION: Add a fixed jaw for support.





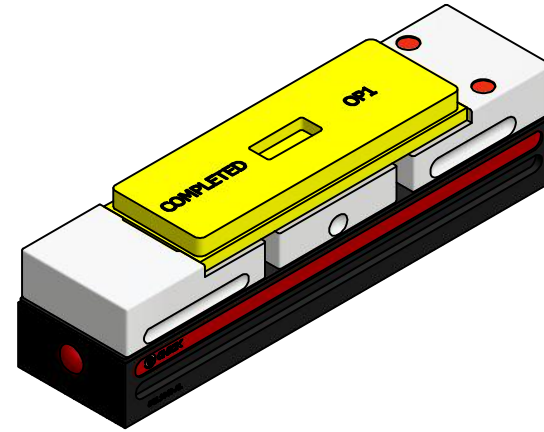
## STEP 1

Loading raw material



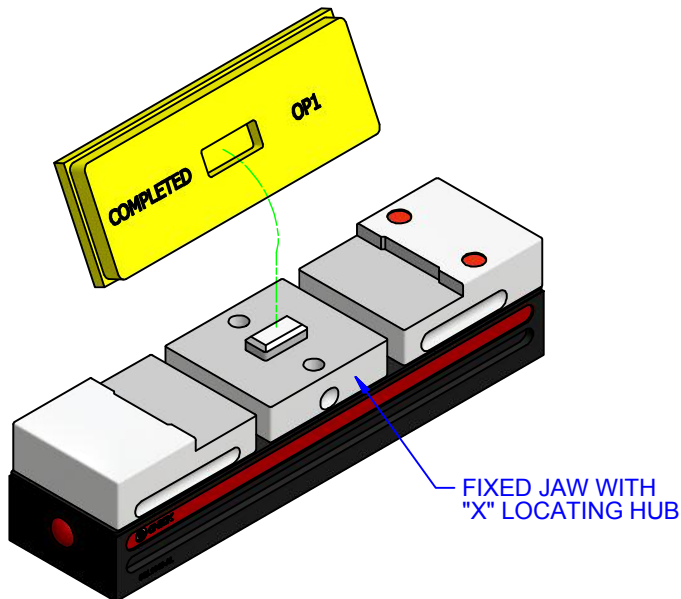
## STEP 2

Completed Op1



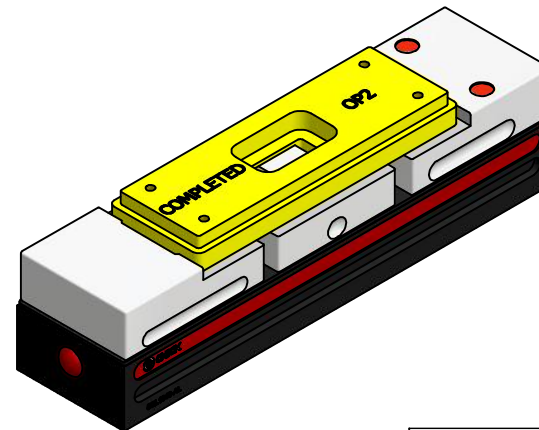
## STEP 3

Loading op2



## STEP 4

COMPLETED PART



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ChickWorkholding.com  
724.772.1644

February 2012

REV  
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