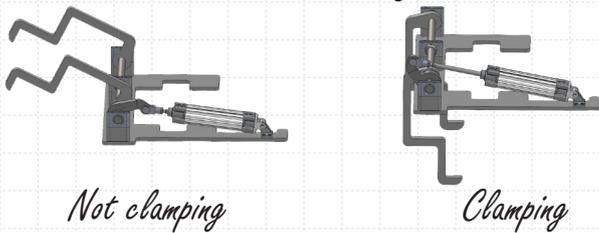


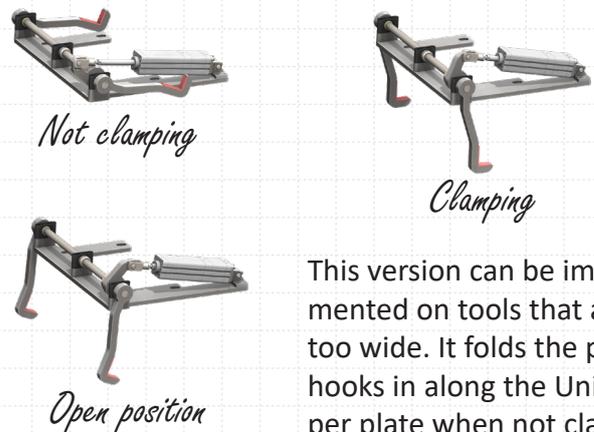
Pallets come in many different sizes, qualities and most importantly, conditions. Splinters, debris, missing beams, nails sticking out of them, all these are potential factors which will damage and shorten the lifespan of the foam. This is why we recommend the use of pallet hooks to guarantee not only the safe and consistent handling of the pallets, but also avoidance of unnecessary maintenance costs of the UniGripper. We have done many versions of pallet handling over the years, which one to use depends on gripper size and also space available in the robot cell.

Version A - 1+1 Cylinders



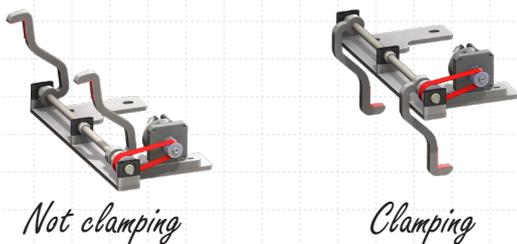
This version folds the pallet hooks outwards approx. 110 degrees, when not clamping. This increases the footprint of the tool but is the most cost effective version of pallet hooks.

Version B - 1+2 Cylinders



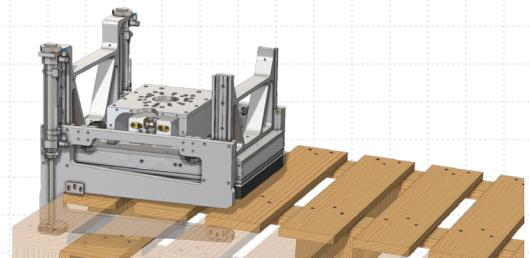
This version can be implemented on tools that are not too wide. It folds the pallet hooks in along the UniGripper plate when not clamping. Tandem cylinders are used on one side to fix the pallet position.

Version C - Rotary Cylinders



Version C operates with rotating cylinders that, via a belt, rotate the pallet hooks. Rotation is normally 180 degrees, but could be more or less. This makes the footprint no larger than the vacuum head and is still possible to use on UniGripper LayerGrippers that are of full pallet size.

Version D - Slide Hooks



For use one very small grippers to still enable pallet handling without increasing foot print too much. This version requires a 6-axis robot as the pallet is kept in place by tilting the gripper.