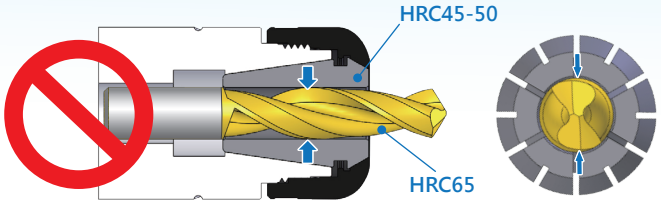
The Common Mistakes of Using Collet Chucks

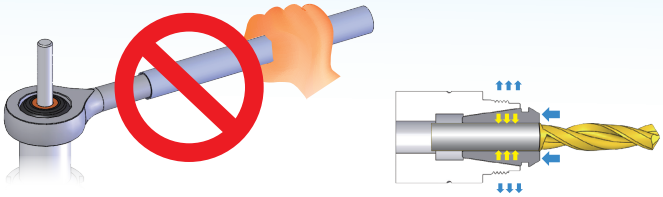
Insert cutting edges in collets

When fastening the nuts, the cutting edges will disable the collets from contracting evenly. The hardness of ordinary cutting tools is higher than collets; hence, the cutting edges would give big force to collets, causing damage, breakage or bad accuracy to collets.



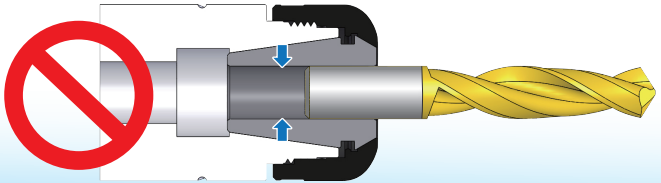
Tighten the nut with extended steel pipe

The adequate fastening torque is varied from different sizes of tool holders, collets and nuts. The excessive torque will make collet and nut, even tool holders broken. It is recommended to use the torque wrench to tighten the nuts with corresponding torque value in catalogue to achieve the best accuracy and working efficiency.



Insufficient clamping length

Installing cutting tools as the photo below leaves much unoccupied space inside the collets. When tightening, the contracts inside the collet front and collet back are different, leading to stepped scratches to collet inner walls or collet breakage, impacting collet accuracy. Moreover, the gripping area is small, clamping force is low, vibrations or tool slipping might take place during machining. The loss caused by bad surface finish and shortened use life of collets and cutting tools are unpredictable.



Using flatted shank cutting tools

Collet chucks are suitable for round shank cutting tools. If collet chucks mistakenly clamp flatted shank cutting tools, which are exclusive for side lock end mill holders, the collets can't contract evenly, and collet accuracy as well as machining efficiency would decline badly.