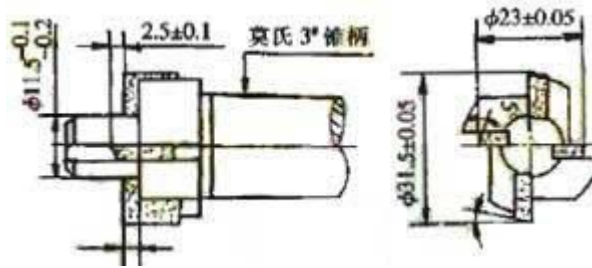




## Different -tooth cutter diameter countersink applications



When machining the parts shown in Figure 1, the Z3032 radial drilling machine processing. Process as follows: ① to  $\phi 14.5 + 0.1$  guiding the guide hole countersink cutter  $\phi 23 \times \phi 14.5$  processing  $\phi 23$  hole: ② to  $\phi 14.5 + 0.1$  guiding the guide hole countersink cutter  $\phi 31.5 \times \phi 14.5$  processing  $\phi 31.5$  Kong . Since the two were working countersink cutter axial dimension 2.5mm requirements is difficult to ensure.

1 countersink tool knife in the original design of our foundation, bold design, different diameter countersink cutter tooth propose a new method, and ultimately solve the above problems, the tool shown in Figure 2, the two blades of teeth arranged  $\phi 31.5 \pm 0.05$ , while the other two blades of teeth configured to generate  $\phi 23 \pm 0.05$ ,  $2.5 \pm 0.1$  by the axial dimension of the tool in the production of the tool grinder to be guaranteed.

$\phi 31.5$  tooth blade selection:  $(31.5-14.5) \div 2 = 8.5$  to take a blade width of 10mm, length not too long, you can choose A112.  $\phi 23$  selection of tooth blade: Because axially extending long  $2 + 2.5 = 4.5$ mm, the length should be at least 12mm, otherwise, easily breaking the blade, small  $\phi 23$  diameter, blade too thick, too thin blade on the obvious, easy to make cutter body force cracking: blade is too thin, when countersink processing, the blade itself is easy to break. Based on the experience to take 3.5mm, select D214 blade can be.

2. Conclusion The three-month trial, the effect is better, save time and ensure that the size and improve the efficiency and reduce consumption, to achieve the desired purpose, is a traditional knife countersink expansion mode.