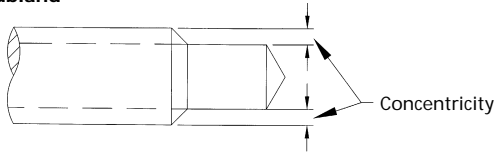


Advantages of Subland Drills

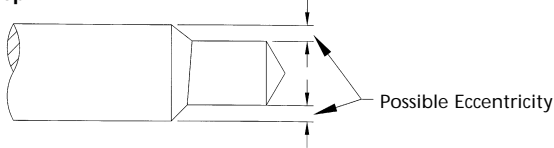
Concentricity

With subland construction, the concentricity from diameter to diameter is guaranteed throughout the life of the tool. This assures you of accurate holes even after repeated sharpenings.

Subland



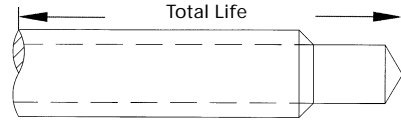
Step



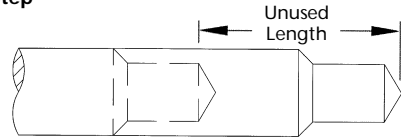
Life

Total usable life is maximised as valuable length is not consumed in establishing new diameter.

Subland



Step

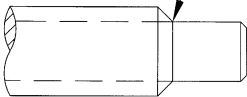


Geometry

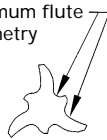
Since each diameter of a subland tool has its own set of flutes the flute form, rake, web etc. for each diameter is independent of the others. This can eliminate undercuts at step angles making the tool stronger and achieving maximum cutting efficiency.

Subland

Stronger Construction

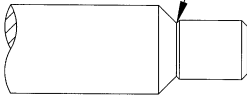


Optimum flute geometry

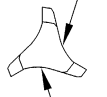


Step

Weakened Condition



Compromise on geometry characteristics



Possible chip interference

Sharpening

Reconditioning of subland tools requires much less time, as only the cutting edges need to be sharpened.

Subland

The only reconditioning ever needed



Step

Reconditioning required here

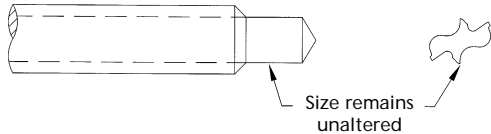


and eventually required here

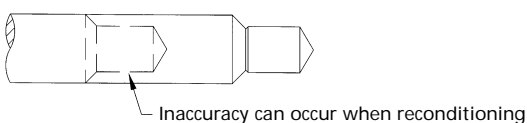
Size

Tool diameters never have to be recreated on subland tools, size is permanently established during initial manufacturing. The highest degree of part consistency is therefore maintained.

Subland

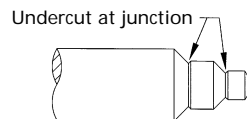
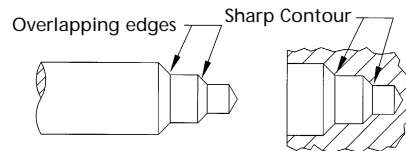


Step



Edges

With subland construction, step angles can be sharpened below the smaller diameter without undercuts or radii.



Possible burr or deformity

