## Pattern Reference: Section 2, Linear Waves, cut parallel.

Simple Wavy Lines, Linear with 1.875 Deep Wave Pattern Bar. These patterns are in work surface geometry group 1.

Scalability: Not directly scalable, but by changing the size of the pattern bar, scalability can be achieved, provided different sized bars are available or it is economical to make them to order.



Segment from 1 875 wave Pattern Bar, scanned at 200dpi, illustrated here approx 2 x actual size on a 100 dpi screen

Example Geometries of the numerous Applications:

Tubes and cylindrical shapes with diameters larger than about 1 inch (25mm) cut along the axial direction, flat surfaces, slightly domed surfaces - such as brush backs, hip flasks cut vertically.

N.B. because of the way that an engine turning machine works, with the depth of cut controlled by the guide immediately to the right of the tool as the cut progresses, large deep waves of high amplitude can only be cut on gently curving surfaces because the left part of the wave will be shallower than the right, if you consider just a single cut as it is made.

All pattern images on this page are illustrated at approx twice life size on a standard 100 dpi screen.  $\cdot$ 



1 The basic wave, but in this

instance, cut with a rib tool about 2mm wide instead of the usual fine cutting with a vee tool



2 As fig 1, cut with a rib tool

about 2mm wide but with every other cut missed out



3 A zig zag with just 3 moves in

the sequence that texturises what would have been a simple wave



4 A Zig Zag with about 10 vertical positions in the sequence



5 Another Zig Zag, and what happens when you stop the zig zag and cut a series of lines with no crossing (vertical movement of the pattern bar between cuts)



6 By varying the distance the pattern bar is moved vertically each cut in a zig zag sequence, the profile of the sequence can be turned into a drape effect



7 By changing the touch to be larger, we can alter the shape of the wave profile This is another drape usingg the same bar but a bigger touch The result is explained in more detail <a href="here">here</a> in the Tech Reference



8 The basic wave, recut several times, moving the pattern bar vertically, but with no horizontal increment of the tool position until the sequence is complete, then moving the tool about 2½ mm to the right for a repeat



9 The basic wave recut over the first cutting at an aggle of about 20 degrees to create a moiré pattern from the interference