



## SUPERFINISHING ATTACHMENTS type SF

Loeser Tape Superfinishing Attachments offer a fast and effective means to perform superfinishing on a standard engine lathe or other type of turning machine. Units can attach to the tool post holder or carriage with a very simple hook up or can be permanently mounted



### Superfinishing Attachments type SF 104

Belt 100 mm/4 inch  
 Oscillation: 0 -3.000 strokes per minute  
 Stroke of oscillation: 3 mm standard  
 Pressure: 0 - 25 kp with 6 bar/87 psi  
 600 x 280 x 400 mm (length x width x height)  
 Weight: 27,5 kg / 61 p



### Superfinishing Attachments type SF 106 NG

Belt 10-50 mm / 0,4-2 inch  
 Oscillation: 0-3000 strokes per minute  
 Stroke of oscillation: 3 mm standard  
 Pressure: 0 - 25 kp with 6 bar / 87 psi  
 450 x 160 x 260 mm (length x width x height)  
 Weight: 19 kg / 41.8 p



### Superfinishing Attachments type SF 102

Belt 100 mm / 4 inch  
 Oscillation: 0 -2.000 strokes per minute  
 Stroke of oscillation: 5 mm standard  
 Pressure: 0 - 160 kp with 6 bar / 87 psi  
 830 x 320 x 320 mm (length x width x height)  
 Weight: 65 kg/143 p



### Superfinishing Attachments type SF 102 Double

Belt 100 mm / 4 inch  
 Oscillation: 0 -2.000 strokes per minute  
 Stroke of oscillation: 5 mm standard |  
 Pressure: 0 - 160 kp with 6 bar / 87 psi  
 830 x 480 x 320 mm (length x width x height) |  
 Weight: 90 kg /198 p



### Superfinishing Attachments type SF 202

200 mm / 8 inch  
 Oscillation: 0 -750 strokes per minute  
 Stroke of oscillation: 5 mm standard  
 Pressure: 0 - 160 kp with 6 bar / 87 psi  
 860 x 430 x 320 mm (length x width x height)  
 Weight: 86,5 kg

## SUPERFINISH TECHNOLOGY ADVANTAGE

### Surface of work piece

Microscopic view depicts typical peaks and valleys

**Stone grinding** : bonded mediums create a finer finish but generate fishtails, chatter marks and traverse marks.

**Film Microfinish** :A single layer, constantly indexing, abrasive oscillates and rapidly removes peaks, chatter marks, fishtails and traverse marks

### Superfinishing vs. stone grinding

In grinding with bonded wheels or honing stones, small pieces of the stone break loose and are forced between the work piece and the stone causing chatter marks and „tearing“ as they pass through. Because tape superfinishers use a compliant rubber roll to back the tape, this condition is avoided. The Superfinishing process is a very clean process, because coolant or grinding emulsion is used instead of honing oils like stone grinding. Recycling and waste disposal are simplified.

### Superfinishing vs. roller burnishing

Unless compaction of the surface is required for other process reasons, superfinishing has a distinct advantage in improving surface finish. Roller burnishing can only be used in few, clearly defined cases and with special work pieces. For example, if the peak-to-valley-height is too great, the peaks can bend over and create a fish scale pattern. In addition, roller burnishing machines are very heavy, because they have to exert extremely high forces to the work piece causing deformation.

### Operational area

Loeser has accumulated a great deal of superfinishing process experience through years of research and development on a large variety of materials such as: hard chrome and tungsten carbide coatings, high density metals, aluminium, copper, rubber, ceramic, plasma coated materials and many others.

### Many applications

Printing rollers, rubber rollers, rollers for foil rolling, feed rolls, rocker shafts, piston rods, rollers for copying machines, pneumatic pistons, pistons for pneumatic springs, valve slides, control levers, valves, printer axles, diesel engine rocker shafts etc.

### Profit from our experience

Extensive experience is required to answer these questions. Loeser has more than ten years of process development experience. Our technical staff is capable of determining the optimal parameters for Superfinishing applications in a just few minutes.

### Summary

Superfinishing is a state of the art method for surface finishing in the micron range. A consistent, reproducible surface quality up to 0.004 µm can be achieved. It is possible to finish a great variety of materials and work pieces. This is a very efficient method of producing superior quality surface finishes.

