Twists, trims and cuts up to 70 mini-brushes per minute fully automatically

Shortest set-up time on the market

Can be upgraded to a fully integrated and automated production line

High tech for mascara, medical and interdental brush production
Ideal for perfectly trimmed miniature brushes

Z.SAILFIN is the specialist for mascara and interdental brushes between 16 and 40 mm long, with a wire diameter of approx. 0.18 to 0.75 mm. The machine can be upgraded upon request for brush lengths of up to 80 mm.

Building on the ZAHORANSKY automatic twist-in machines which have proved their worth over decades, the Z.SAILFIN with its intelligent components is a leading-edge system that provides an extremely high production output of up to 70 brushes per minute with constantly high product quality. With camera-controlled quality checks, automatic assembly and trimming machines, the Z.SAILFIN forms a consistent production concept that will allow you to meet the significant demands in terms of quality and output in the mini-brush production field for many years to come. The Z.SAILFIN can also be linked into a Z.IDP system (IDP = Integrated Dental Production) for the fully automatic production including packaging of interdental brushes (see page 7).

Top quality made in Germany.
Z.SAILFIN & Co.
The ZAHORANSKY complete solutions for mascara and interdental brushes

Z.SAILFIN can be upgraded. You may need a different combination of machines to meet your requirements. Here are the options. Give us a call to discuss all possibilities.

Twisting, trimming and cutting the mini-brushes to length (Z.SAILFIN)

- Filament feed
- Nearly all profile shapes possible

Profile / contour trim (MCT/DCT trimming machine)

- Newly-developed profile trimming machine for mascara and interdental brushes
- Output: up to 60 brushes per minute
- Automatic brush feeding from the Z.SAILFIN machine
- 16 stations with up to 10 trimming units
- Up to 5 cutting planes possible, including profile shapes (3D)
- Use of profile cutters possible
- Electronically controlled indexing table for short cycle times
- Brush diameters approx. 3 – 10 mm
- Integrated suction unit
- No operators required

Brush assembly (M6 automatic assembly machine)

- Handles may be assembled using different methods
- Assembly machine for mascara, medical and interdental brushes
- Output: up to 60 brushes per minute
- The wire is fixed to the handle by resistance heating, glueing or ultrasonic methods, depending on the product requirements.
- Automatic brush feeding from the Z.SAILFIN machine, profile trimmer machine or brush feeder
- Handles fed from a vibratory or step feeder (med.)
- 8 double clamping stations for high output
- Carousel version with indexing table
- Minimal labor cost required

Packaging of brushes (Z.PACK or Z.VIPA packaging machine)

- Fully automatic and integrated packaging is possible for maximum productivity
- A ZAHORANSKY packaging machine can be connected for fully automated inline production
- Options include the Z.PACK blister packaging machine and the new Z.VIPA blister unit machine

Overmolding the interdenal brush with handle (Z.IDP unit)
See page 7 for detailed information

It will be our pleasure to support you. Why not give us a call?
Z.SAILFIN: a **safe investment**

True output of up to **70 brushes per minute**.

Set-up times for a complete sample changeover are around **50% faster** compared to the competition.

**Excellent trimming results** as twisting and trimming take place in the same clamping unit.

Roughly **80% lower wear parts** compared to the competition.

**Tiny bending radius** for interdental brushes for perfect interdental passage as per standards (DIN EN ISO 16409).

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Z.IDP: **“No human touch” processing** of brushes into “ready for sale” products

A Z.IDP system (IDP = Integrated Dental Production) is the solution you need for further processing twisted-in brushes to create “ready for sale” interdental products. Fully automated and to the most stringent hygiene standards. Top-class engineering to supplement the Z.SAILFIN.

**Full integrated solution with Z.SAILFIN**

**“No human touch” for best hygiene**

Clinically clean products with no residual odor or taste

Brush and handle are **firmly connected**

**Unlimited possibilities for handle design**

Reduced labor cost with **operator-free production**

100% quality control

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**Technical data:**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brush length</td>
<td>16 – 48 (80) mm</td>
</tr>
<tr>
<td>Wire diameter</td>
<td>0.18 – approx. 0.70 mm (optionally up to 1.0 mm)</td>
</tr>
<tr>
<td>Brush field length</td>
<td>8 – 32 mm</td>
</tr>
<tr>
<td>Brush diameter</td>
<td>1.8 – 11.0 mm</td>
</tr>
<tr>
<td>Material feed</td>
<td>up to 10 spools</td>
</tr>
<tr>
<td>Alternative</td>
<td>Filament box</td>
</tr>
<tr>
<td>Output</td>
<td>up to 70 brushes/minute</td>
</tr>
</tbody>
</table>

**KO32** is our very reliable camera-supported quality control system made by ZAHORANSKY. It can be supplied as an optional addition to the Z.SAILFIN. The system uses computer-aided image analysis to identify faulty products immediately. They are then eliminated from further processing. This camera-based quality control ensures that only perfect brushes leave the process. No further inspections are needed.

**Quality in sight**

Constant camera-controlled quality checks

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Granulate for the handles: 1K or 2K

Transfer to a handling system or direct link to a fully automatic blister packaging machine (e.g., Z.VIPA or Z.PACK)

Packaged product “ready for sale”

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Z.IDP unit for fully automatic handle molding

- Brushes are molded by using the in-mold technology directly from the granulate fed (1K or 2K)
- Image-controlled quality check (placement and finished product)
- Fully automatic brush ejection or transfer for further processing

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Molds for 60 or 100 brushes/minute

100% quality control
German Engineering with Passion & Perfection

More than a century ago, Anton Zahoransky marked the start of a new era in brush production when he developed the first drilling and tufting machine for brushes. The company has grown into an international business offering complete solutions in the field of machine building and automation technology. It now has four divisions: Mold Making, Systems Technology, Packaging Machines and Brush Machines.

The driving force is and always has been more than just solid “German Engineering” and concentrated innovative strength. It is the unbroken spirit of “Passion & Perfection”: lifeblood, persistence and an absolute desire to develop solutions that deliver exactly what they promise.

ZAHORANSKY – PERFECTLY DIFFERENT