

# Routing module

Designed specifically to meet increasing demands for 24/7 production of signage and displays, the G3 routing module is the recommended tool for cutting rigid plastics, non-ferrous metals, composite panels, etc. It is the perfect complement to the highly versatile Zünd cutter, guaranteeing quick and easy changeovers between knife-cutting and routing/engraving.

### Solid platform for higher routing speeds and edge quality

The rock-solid construction of G3 minimizes spindle vibration, making it possible to route at higher speeds without sacrificing edge quality. This maximizes the productivity of the machine for cutting acrylics, wood, and plastics, and expands the range of materials that can be processed.

### Powerful 1kW high-frequency spindle

The powerful 1kW spindle is designed specifically for continuous operation. The speed of the spindle (rpms) can be controlled automatically from the front-end software and/or

manually from the control panel, even while routing operations are in progress.

### Routing of aluminum

With the MQL option (Minimal Quantity Lubrication), even soft metal alloys (e.g. PERALUMAN®), such as Signicolor® EN AQ 5754 and 3005, can be routed perfectly.

### 3D routing

G3 is capable of simultaneous, high-speed 3-axis (X,Y,Z) movement. With compatible 3D data, G3 can create amazing 3-dimensional signage, etc.



Minimal Quantity Lubrication



Perfect routing even for very small objects.



Active air-cooling

#### Applications

- Routing of all plastics and most nonferrous metals
- Suitable for routing of very small parts (800mm²/1 1/4in²)
- Up to 50mm/2" material thicknesses

#### Customer's benefit

- Superior edge quality
- Minimal cleaning required
- Low maintenance
- Fast set-up, quick changeovers between cutting and routing

### Active air-cooling

The routing module's integral heat sink contains air passages that channel airflow from the dust extraction unit. This effectively dissipates the heat generated by the routing spindle and bit, maximizing performance and bit longevity.

### Material surface compensation for relative depth control

A unique surface-mapping system guarantees proper depth setting for precise engraving, hatching, v-grooving, and drilling, even with variations in material thickness.

### Revolutionary vacuum hold-down system, mindful of environment

With the combination of Sealgrip™ underlayment and a turbine-based vacuum genera-

tor, even very small parts can be cut without movement or loss of accuracy. Sealgrip™ is a highly porous, sacrificial underlay material with a high coefficient of friction that laterally grips the material and keeps it from moving. The powerful vacuum turbine automatically senses vacuum pressure and dynamically increases or decreases turbine speed to maintain the pressure level set by the operator. Conventional routing systems using MDF underlayment and standard vacuum pumps typically consume 6 times more electricity than a G3 with Sealgrip™ underlayment.

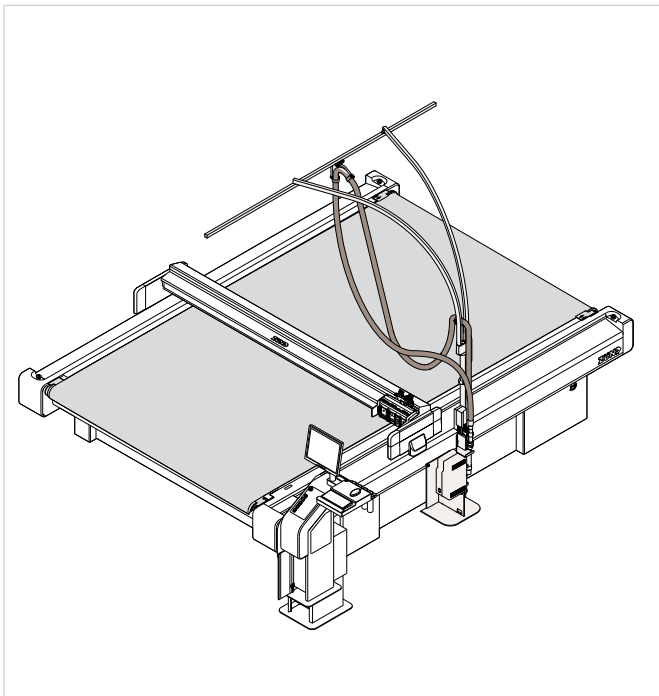
### Powerful dust and chip removal

Proper dust extraction and chip removal assures that little to no hand cleaning is required on cut parts after the job is routed. It also keeps the cutting surface clear of debris, al-

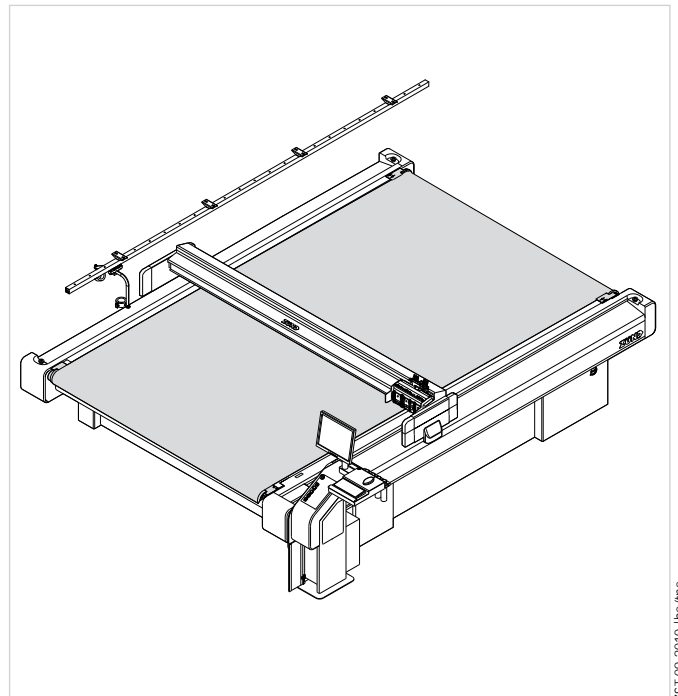
lowing for faster changeovers between routing and cutting jobs. Operator-adjustable vacuum power prevents small parts from being lifted or getting sucked up into the dust collector.

### Self-standing dust collection system

A self-standing gantry supports the dust-collection hose above the cutter surface. Any industrial-strength vacuum cleaner may be used for dust extraction. The vacuum cleaner is turned on/off automatically by the cutting system. For installation sites with insufficient ceiling height, a guiderail system mounted directly to the ceiling is available as alternative to the standard self-standing gantry.



Standard self standing tube guidance gantry. Minimum ceiling height 3.2m/10ft. Dust collection systems can be mounted on the left or right\* side of the machine.



Optional tube guidance for ceiling mounting. Minimum ceiling height 2.5m/8ft. Require additional site preparation.

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#### Technical details

1kW high-frequency spindle with active air cooling.
Up to 50.000rpm
6mm collet (1/4"/1/8" collets also available).
Lubrication usage = 0.5ml/hour (0.5 l included).
Data in Zünd HPGL format required for 3D.

\* except M, XL, 2XL and 3XL-1600

#### Requirements

Compressed air supply 0.6-1.0MPa.
Airflow 40l/min, 10gal/min and Air purity (ISO 8573-1) class 4.
Industrial vacuum cleaner, min. flowrate 3800l/min.

**Note** Dust generated in the routing process may be toxic, flammable, and potentially explosive. Seek expert advice for proper filter options and safety measures. Routing applications can cause noise level in excess of 82dBA.

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