

Vacuum hold-down is a critical factor in achieving the best-possible cut quality. Zünd offers several vacuum solutions for perfect hold-down with different materials and applications.

Vacuum plates

The efficiency of the material hold-down depends largely on the design of the vacuum plate. Besides the universally applicable standard plate, two alternate versions are available for cutting vinyl and for processing leather. The plates differ in terms of shape and size of the vacuum holes as well as in such de-

tails as an adjustable vacuum area, or cut-off strip and end-of-roll sensor for vinyl-cutting. Pressure-sensitive vinyl and similar materials with liners are non-porous. For such materials, very little vacuum power (airflow) is sufficient for proper hold-down; for this reason, vacuum plates for vinyl-cutting have smaller

vacuum holes, which considerably reduces the required amount of vacuum.

By contrast, leather and similar materials require plenty of airflow for optimal hold-down; for this application, the vacuum holes are larger in size and shaped differently.

| Vacuum plate | Standard | Vinyl | Leather |
|------------------------|----------|---------|-----------|
| | Standard | Reduced | Graduated |
| Hole design | | | |
| Adjustable vacuum area | ✓ | ✓ | ✗ |
| Cut-off strip | ✗ | ✓ | ✗ |
| Roll-end sensor | ✗ | ✓ | ✗ |

Vacuum pumps

The vacuum pump is a significant factor in the energy consumption of the cutting system. Since money can be saved with every KW spared, it is important to choose the right vacuum pump for your application. The need for vacuum power increases with the size of the cutter. Other factors to consider are the

type of vacuum plate and the characteristics of the materials that need to be processed. Every vacuum pump can be configured in different ways. The optional reverse valve instantaneously reverses the vacuum and creates an air cushion. This helps release the material quickly and facilitates advancing.

Zünd also offers two effective solutions for reducing operating noise: the remote installation kit makes it possible to install the vacuum pump away from the machine, where the noise level can be minimized; if a remote installation is not possible or desirable, a sound absorber box can be supplied instead.

| | 1.1/1.3 kW pump | 2.2/2.55 kW pump | 4.4/4.6 kW pump |
|-------------------------------------|-----------------|------------------|-----------------|
| Sound absorber box | ✗ | ✓* | ✓* |
| Reverse valve | ✓* | ✓* | ✓* |
| Remote installation kit (5m/16.4ft) | ✓* | ✓* | ✓* |

Legend:

✓ yes

✗ no

* available as option