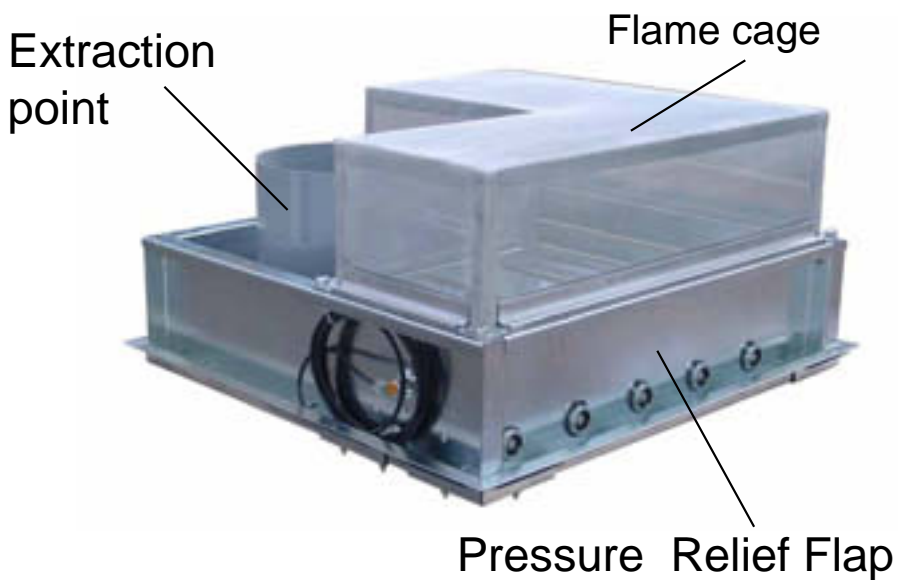


## Pressure Relief Flaps for Machine Tools



EU-prototype as per ATEX-guidelines

Test number:

BVS-05-ATEX-H-047-X

Metal machining with the application of oil as coolant and lubricant has decisive advantages compared to the application of emulsion.

The application of oil requires, however, some precautions in the **safety related area**.

The formation of aerosols can form an inflammable oil-air-mixture. This causes the risk of deflagration or explosion.

In case of deflagration or explosion a pressure wave will arise which has to be discharged by a pressure relief flap.

### Attention:

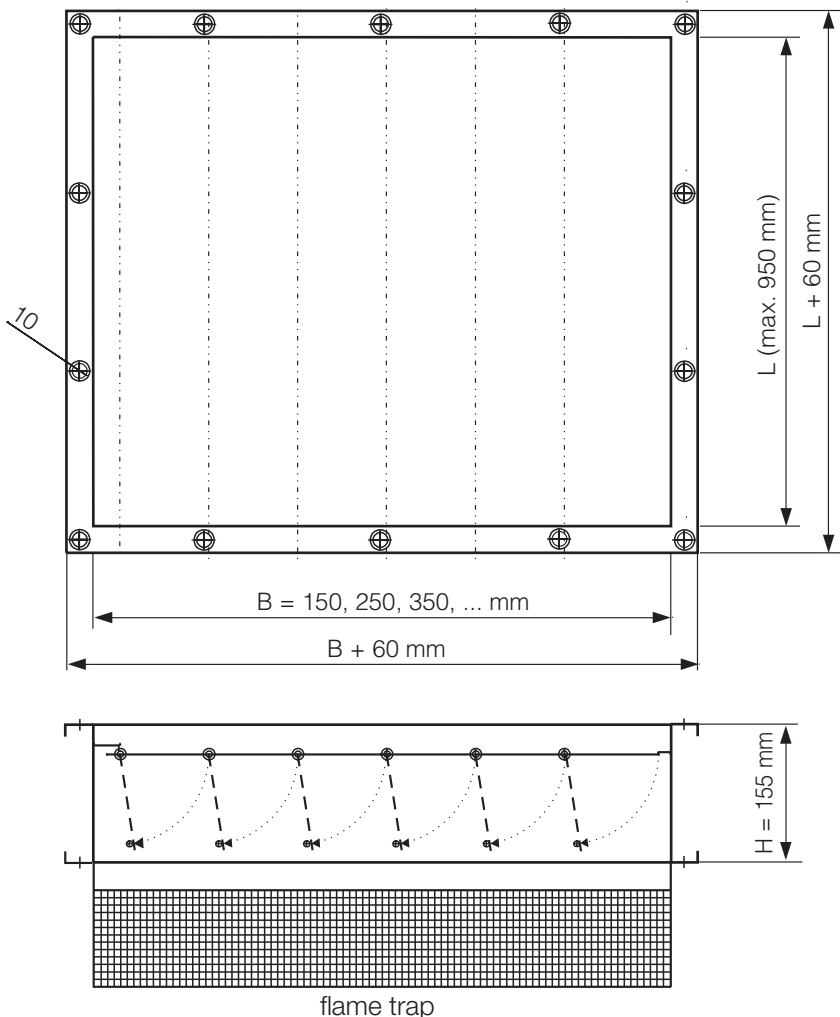
Deflagration or explosion may cause fire.

An effective problem solution can only be guaranteed if the following components are integrated in the machine tool:

- pressure relief flap (patent pending)
- oil-mist suction system
- fire-extinguishing system

All the components must be properly integrated by the machine user, and the equipment vendors.

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of Rerucha GmbH"**



#### Options:

- integrated suction point
- Hexert-nuts for an easy installation
- proximity switch
- MINI-flap with a lamella thickness of 50mm

#### The conception of a pressure relief flap requires the consideration of the following factors:

- During the discharge of the pressure wave the air has to be able to flow out without impediment. Baffles or air deflection extremely impede the air outlet and are not suitable for the use in machine tools.
- The height of the opening flap must be kept as low as possible. The higher the flap is set - the larger becomes the opening radius.

#### Problem Solution:

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- low height of flap (100 mm)
- short opening path
- extremely low opening pressure due to light-weight aluminium lamellas
- stop at 87 degrees thus self-closing

The pressure flap must be positioned **right next** to the suction point. The highest oil-mist concentration and – in case of deflagration – the highest energy point will occur at the suction point. For this reason we also offer the pressure relief flap with an integrated suction point.

**Rerucha**™

technology for  
machine tools

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