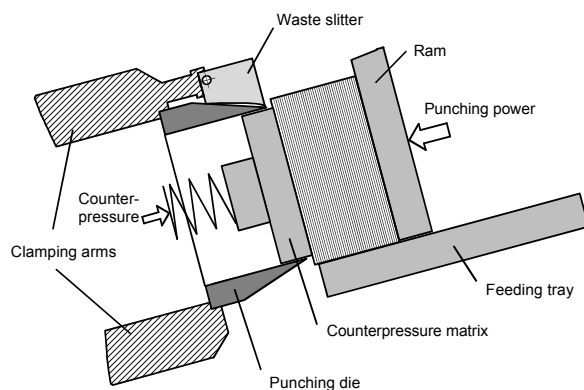


## Counterpressure device GD1 and GD2 for BUSCH punching machines B/B+P and BL/BLS

### Advantages of the counterpressure punching

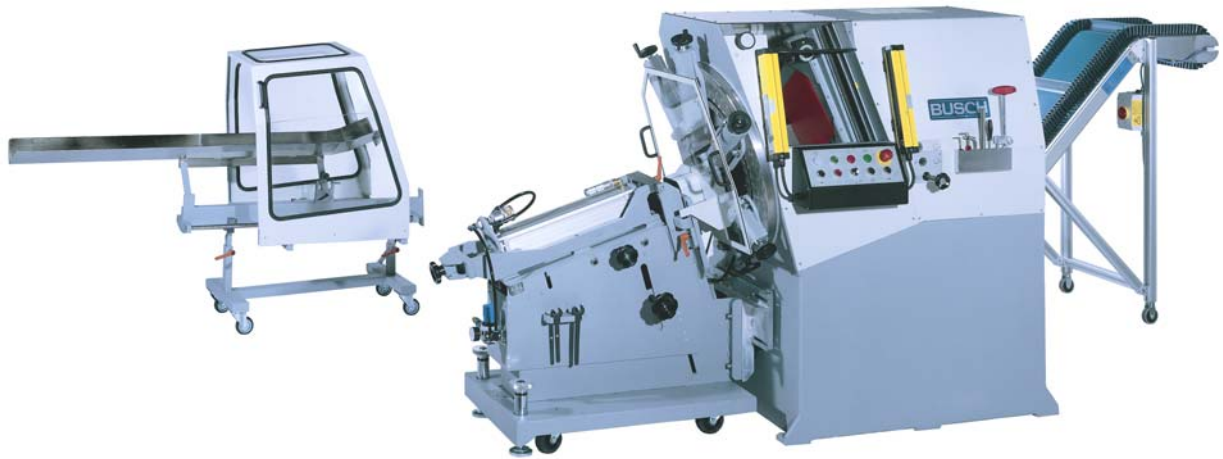
- Minimization of punching tolerances
- Extension of the range of materials and products which can be punched according to the ram-type principle
  - Inmould – labels
  - Plastic foils
  - Large-size products, which might collapse in front of the cutting die due to the nature of the material
  - Stitched and folded brochures which need initial compression



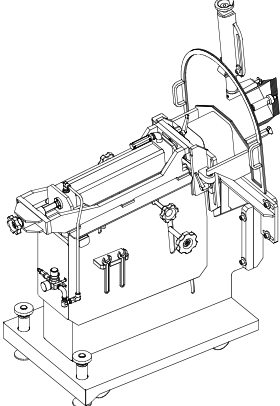
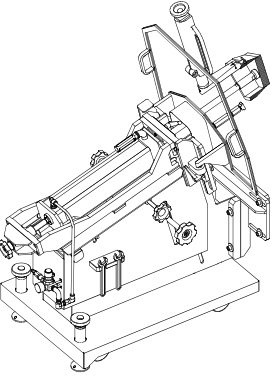
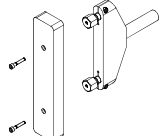
### Punching principle

In this system, rectangular blanks are pressed through the cutting die in piles using hydraulic pressure, and at the same time they are pressed against a pneumatic driven counter pressure matrix, which is located in the cutting die. By providing the counterpressure, the material is straightened and pressed, before the much stronger hydraulic pressure overcomes the pneumatic pressure and presses the blanks through the cutting die.

This yields highly precise punching results, which cannot be achieved with any other system that does not use counterpressure. The performance is slower, but the system is nevertheless used when it comes to extreme accuracy and for products which must otherwise be produced in time-consuming single punch procedures - without the possibility of counterpressure punching.



## Technical Data

<p>The movable pneumatic counterpressure device is mounted to the punching machine instead of the delivery tray and is connected to the central plant for compressed air.</p> <p>The counterpressure device can be retro-fitted for punching machines from 1983 on!</p>		
<p><b>Counterpressure device</b></p>	<p><b>GD 1</b></p>	<p><b>GD 2</b></p>
<p>for BUSCH punching machines</p>	<p>B, B+P</p>	<p>BL, BLS</p>
<p>Max. punching size with counterpressure Min. punching size with counterpressure</p>	<p>See technical data of punching machine 45 x 45 mm with piston rod extension <math>\varnothing</math> 40mm 30 x 30 mm with piston rod extension <math>\varnothing</math> 26mm</p>	
<p>Punching die</p>	<p>with grooves (6 x 4 mm) at outer contour for the location of the retention pins</p>	
<p>Counterpressure matrix</p>	<ul style="list-style-type: none"> <li>- material: aluminium or plastics</li> <li>- (thickness 30 mm)</li> <li>- outer contour (on all sides) 0,1-0,2 mm smaller than the punching line of the label</li> </ul>	
<p>Option</p>		<p>A special piston rod extension is offered with double support of the matrix for elongated shapes, or if matrix tends to bend during the punching process.</p>
<p><b>Pneumatic connection</b> Max. air requirement Max. working pressure Counterpressure adjustable by control valve</p>	<p>55 litre/min. 8 bar 0 - 8 bar (0 – 630 kg)</p>	
<p><b>Dimensions and weight</b> Length / width / height Length including punching machine Net weight</p>	<p>1100/610/1380 mm 2180 mm 305 kg</p>	<p>1114/680/1300 mm 2230 mm 300 kg</p>