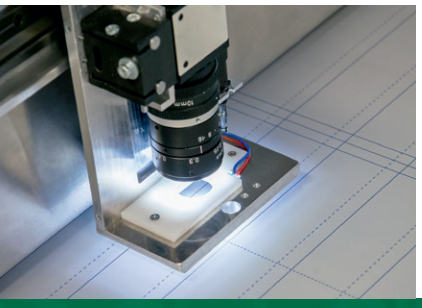
Automatic
Printing Plate Bender
APB

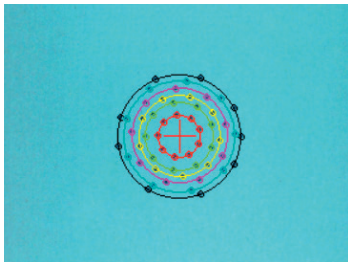
This system makes it possible to precisely bend an offset printing plate using the printing image as a reference and ensures an axially parallel posisition of the printing image on the sleeve or plate cylinder.

PITSID

Polygraphische innovative Technik Leipzig



Scan here for product video.



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Working Principle

After placing the printing plate against the mechanical endstops in the bending unit, the current position of the printing image is determined with micrometer accuracy by means of two, practically invisible measuring elements on the edge of the printing plate. An automatic positioning system iteratively moves each printing plate into a fixed position followed by the automatic bending process.
For offset printing presses, where the bended edges invariably determines the position of the plate on the cylinder, the makeready time is in this way considerably reduced.

Scan here for product video.

PITSID develops, produces and sells measuring systems, supported by the Sächsisches Institut für die Druckindustrie. The measuring systems are used for quality control and to increase efficiency during adjustment and maintenance operations.

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Technical Data

Measurement principle
The position of the printing image is determined by means of two video pictures of the measuring elements imaged on the printing plate.

Measuring elements
- 2 elements on each plate
- Circle-form arrangement of multiple 80 µm dots within an overall diameter of 3 mm

Operation
- TFT monitor with touch screen control
- Motorised format length adjustment
- After insertion of the printing plate and the start of the bending process: Fully automatic position determination and position correction until reaching the preset tolerances as well as the pneumatic bending of the plate
- Emergency operation after power outage using the safety handwheel for format length adjustment, pneumatic switch (clamping) and pneumatic button (bending)

Processable printing plate formats
- Plate length min.: 394 mm
- Plate length max.: 777 mm
- Plate widths: 520 mm, 860 mm or 1,060 mm
  Other formats upon request!

Bending geometry

	Bending length	Bending angle	Bending radius
Front edge	7 mm	60°	0.2 mm
Tail edge	7 mm	120°	0.2 mm

Other bending geometries upon request!

Positional correction of the printing plate
- Positioning range in x/y direction approx. ± 1.5 mm
- Angular adjustment < ± 0.5°
- Positioning accuracy: up to ± 2 µm

Mechanical data
Floor-mounted device, horizontal plate alignment

Device dimensions
Base area approx. 1,350 mm (W) x 1,500 mm (D) x 1,600 mm (H)

Weight
Approx. 220 kg

Connection values
- Power supply voltage 100-240 VAC, 50/60 Hz
- Compressed air supply 6-10 bar oil-free compressed air
- Air consumption 100 Nl/min