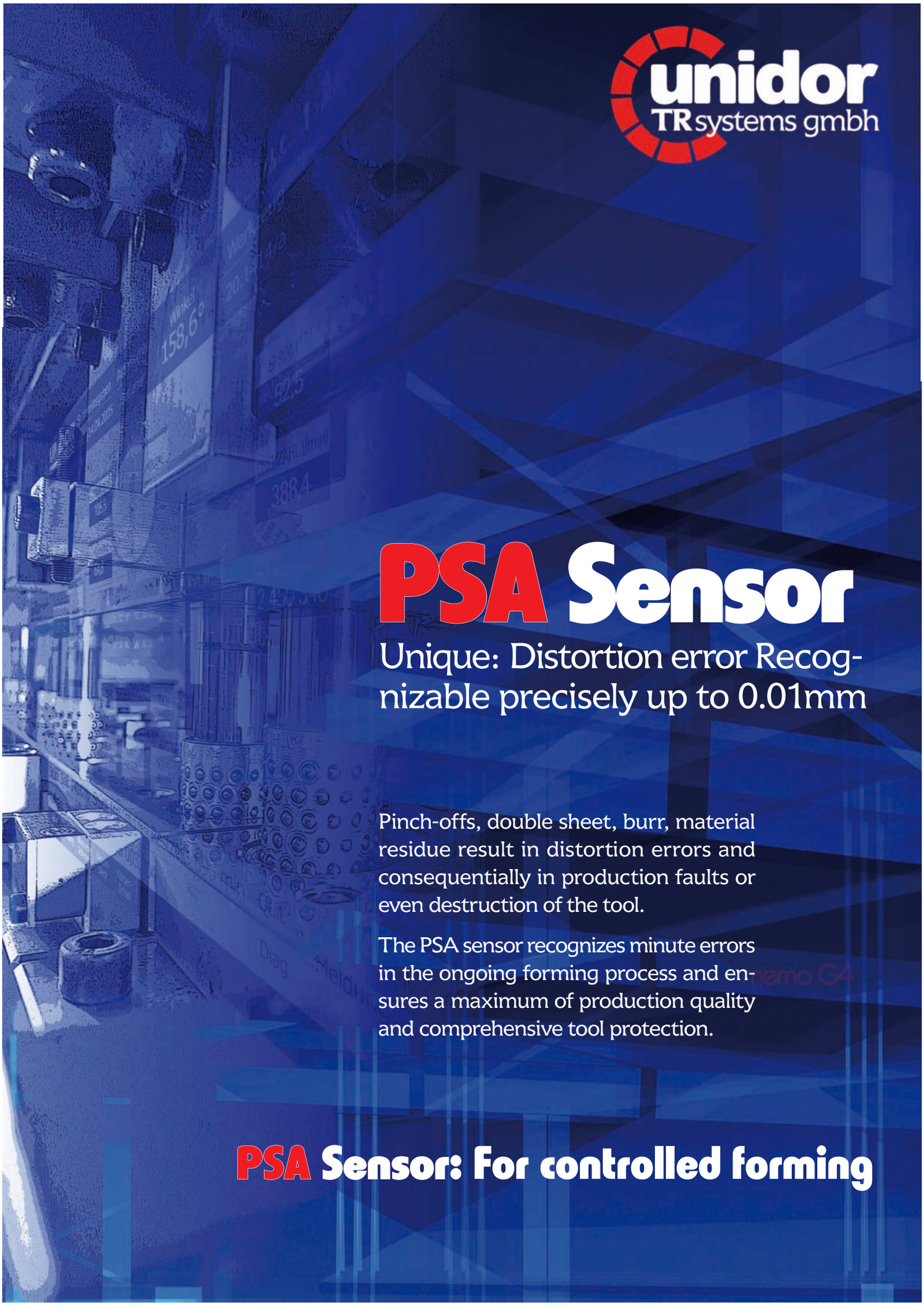

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PSA Sensor

Unique: Distortion error Recognizable precisely up to 0.01mm

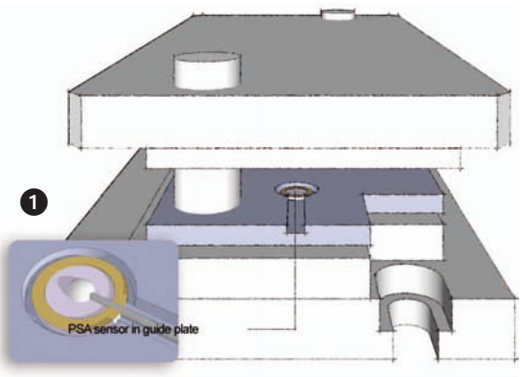
Pinch-offs, double sheet, burr, material residue result in distortion errors and consequentially in production faults or even destruction of the tool.

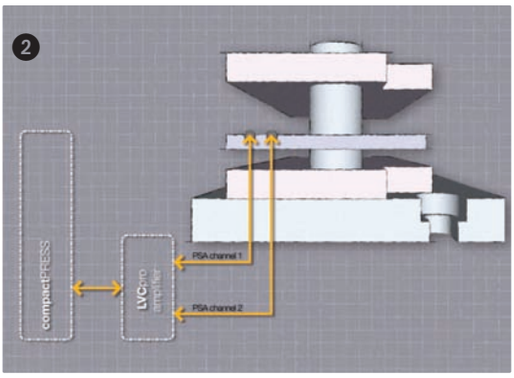
The PSA sensor recognizes minute errors in the ongoing forming process and ensures a maximum of production quality and comprehensive tool protection.

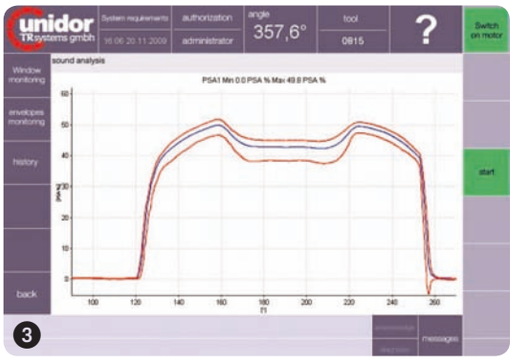
PSA Sensor: For controlled forming

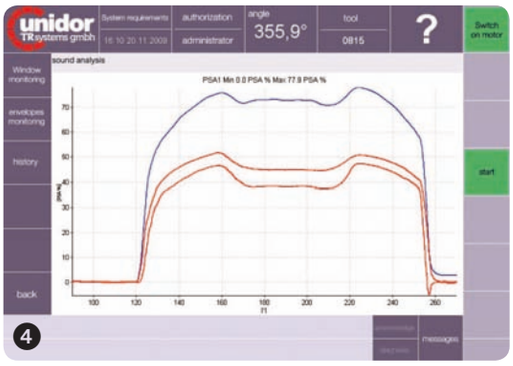
Controlled forming at last

Good for the products, good for the tools









When punching and re-forming, shaves, pinch-offs, punching residues or different material thicknesses may cause distortion errors and therefore quality faults of the produced parts or to overloading the tool.

Even at the highest reciprocating speed, the PSA sensor recognises smallest material residue or debris up to 0.01mm.

The PSA sensor is based on the piezoelectric process, generating a complex sound and pressure signal. In compact PRESS, the signals are comfortably processed and precisely evaluated. Envelopes around the sensor signal automatically ensure a dynamic and minimal tolerance range. Violation of the envelopes may result in sorting out the punched and formed part and/or stopping the machine.

Installation of the PSA sensor is carried out in the down-holder or guide plate of the tool. The Piezo disks of the sensor, the connection cable and the plug are glued into a gap designed for this purpose. Depending on the tool and the monitoring requirement, at least one sensor, even better two PSA sensors are useful. Via LVCpro amplifier, the sensors are connected with the signal input of the compactPRESS. Each PSA sensor is delivered with installation set 1 in a blister pack.

❶ *The Piezo disc of the PSA sensor is glued to the tool down-holder plate in a suitable position. Two disc diameters are available.*

❷ *The connection between to the tool is a plug-in by means of one cable per sensor. This is important for fast tool change. Signal processing is carried out comfortably in compactPRESS; here, various analyzing procedures can be combined for optimal measuring results.*

❸ *The diagram shows the example of a processed PSA measuring curve with its two dynamic envelopes. There is no distortion problem.*

❹ *The diagram shows the example of a processed PSA measuring curve with its two dynamic envelopes. The violation of the envelope is clearly recognizable. This is a clear indication of a distortion problem.*

1) Installation set consisting of: PSA sensor, cord, plug, gluing material

PSA Sensor and compactPRESS. An ingenious measuring idea.

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