



Bystronic



Competence Center Cutting

International Seminar on Forming Technology 2024

Bystronic

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World Class Manufacturing

We take you to the top of the competition



Integrated
automation



Networked
manufacturing



Flexible
system solutions



Smart
services

Next evolution in bending



Manual bending of jobs with small batch sizes ok, but how to bend big batch sizes

Automatic bending of big batch sizes in the night

Short set up time is required

5 minutes to set up of automation

Want to use the machine and automation as much as possible

Offline programming in the office

Existing Xpert 40 or 80 and need for automation

Easy retrofit of automation

Unique automation on demand







Parking



Working



Day time
small batch manual



Night time
big batch automated

Bystronic presents

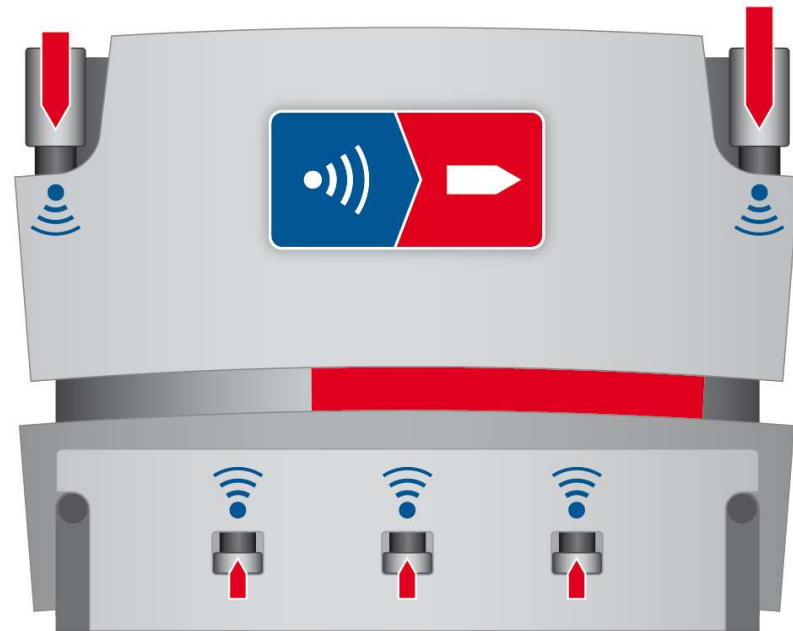


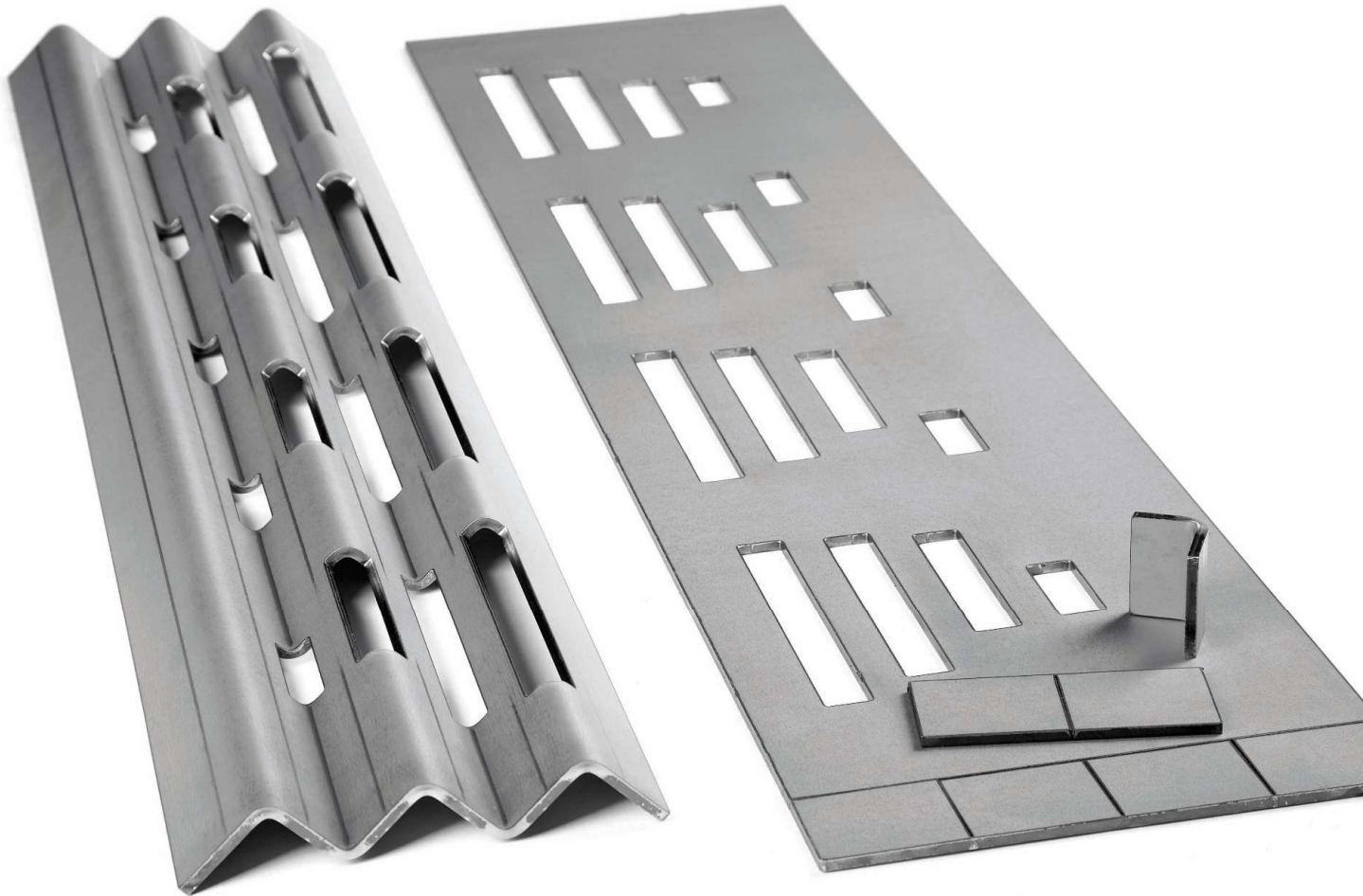
Crowning 5 is the 5th generation of the hydraulic dynamic crowning system respectively the pressure reference technology in the lower beam patented by Bystronic.

The new crowning generation is characterized by increased crowning speed to support the fast cycle time of the Xpert Pro.

Fully automatically reacting to changes in part properties.

The setting of the Crowning 5 takes place automatically due to the permanently measured force relationship. No pre crowning.





Test of crowning:

To test crowning we use this part with e.g. 5 mm thickness and a bending length of 1 m.

The part has changing material properties (cut outs). The cut outs simulate as well changing bending length. At the cut outs different force and crowning is required.

We bend the part first without angle measuring system.

Safety in accuracy - Crowning test



Xpert Pro
Dynamic Crowning 5.0 ensures
100 % Safety in accuracy

LAMS

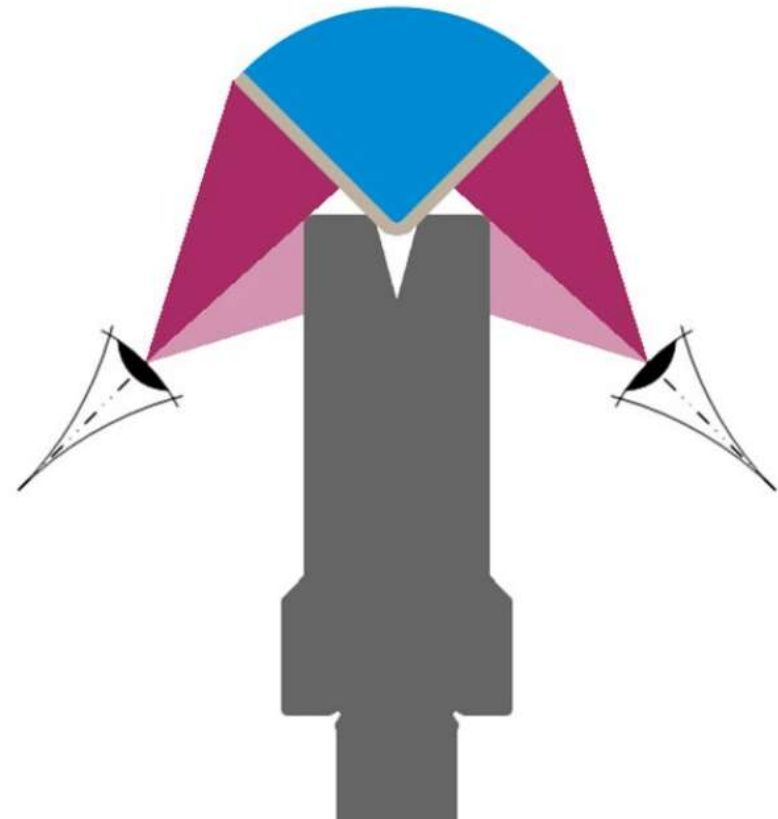
Perfect bends from the first part.



LAMS is a optical laser & camera based angle measuring system which ensures excellent bending accuracy from first bend.

LAMS is measuring from both sides of the die similar to all optical laser & camera based systems on bending machines.

LAMS – Laser Angle Measuring System.



¹ Blue laser color / ² Optionally

LAMS

Perfect bends from the first part.



LAMS on Xpert Pro Laser Angle Measuring System

- *Faster cycle time – New optics & processors*
- *Increased material measuring variety – Blue laser color*
- *Less influence of ambient/sun light - Blue laser color new optics*
- *More table-bottom tool combinations – V 4 – V 300 & various tables**
- *Improved measuring range for large bending angles >160° - new optics*
- *Increased reliability for parts with long flange length - New measuring algorithm for better recognition of the spring back point*
- *Upgradable - New measuring algorithm can be implemented on existing machines*



NEW
2021

**optionally (standard up to V160 with table T5 & T12 and V200 with table T55 & T13)*

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Bystronic presents



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Thank you