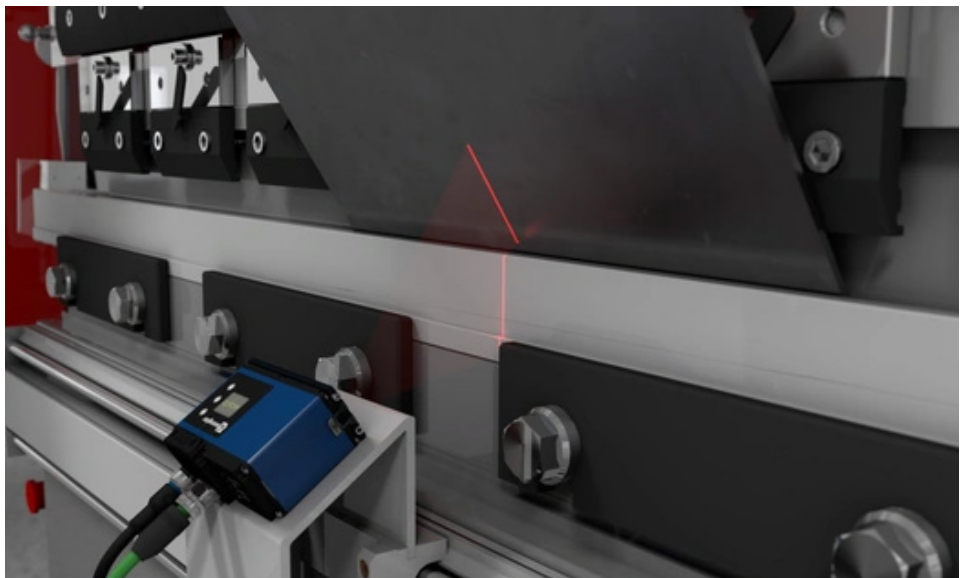


## **Press Brakes - Wenglor Laser Angle Measurement Device**

The latest range of Morgan Rushworth Press Brake models can be fitted with Wenglor Laser Angle Measurement Devices. Ideally, these are paired with either Delem or ESA Controllers for maximum capabilities. The device continuously monitors and measures the bending angles of material, feeding it back to the CNC Control for maximum accuracy while performing bending operations.

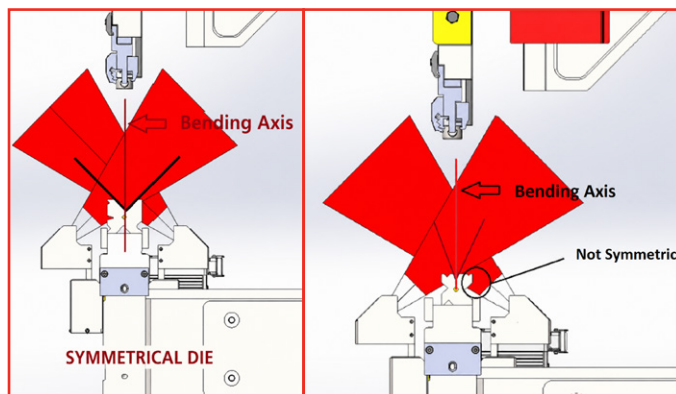
Morgan Rushworth machines utilise the SENS MLSL123 and SENS MLSL124 models from Wenglor. Older models of Press Brakes may have been fitted with DATA M branded products.



## Does this benefit all use cases?

Customers need to consider what they're mainly going to be bending before requesting an Angle Measuring System.

For instance, machines that will be fitted with the usual Multi-V Bottom Tool, or similar bottom tools will be incompatible with the Angle Measuring System, as the bottom tool will block the path of the laser used for angle measurements.



## Motorised Angle Measurement System

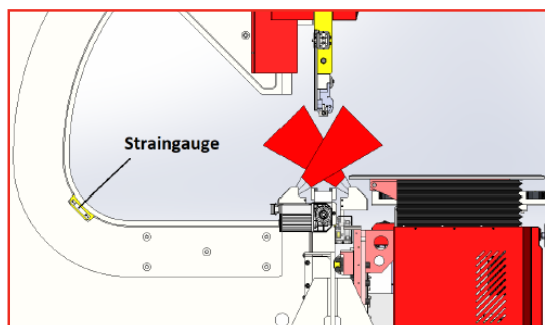
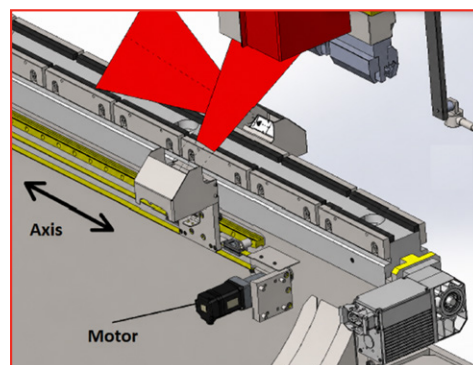
There is only one option for Wenglor angle measuring system in our system under the name "Motorised". However, the term "motorised" means that the angle measuring system in the inner and outer parts of the machine is moved together by a single motor throughout the machine.

In machines with angle measuring system option, hydraulic valves vary compared to standard machines. These valves allow the angle measuring system to calculate how much more pressure the beam will apply by measuring the angle by releasing the upper beam a little bit of the twisted sheet by means of hydraulic valves after the top beam bends.

For instance if Angle measuring system is requested for a machine;

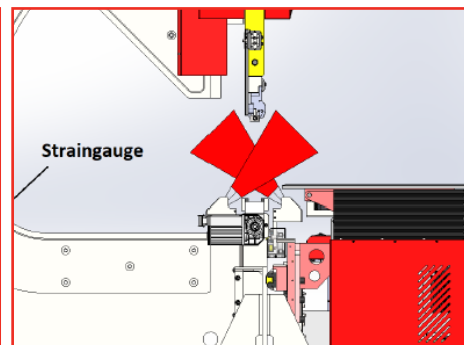
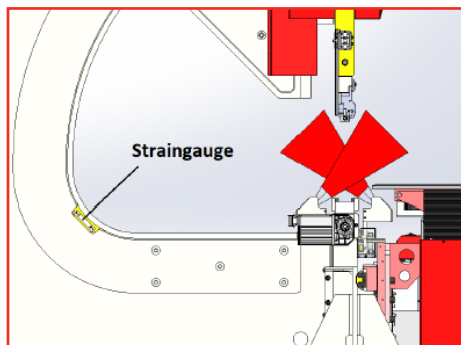
- Block and directional valves for machines between 40-300 tonnes.
- For machines over 400 tonnes, only the directional valve changes.

In addition, in order to calculate this measurement more accurately in machines over 240 tonnes and with a deep throat, equipment called Straingauge is connected to both sides of the throat.



## Front Arms / Sheet Supports

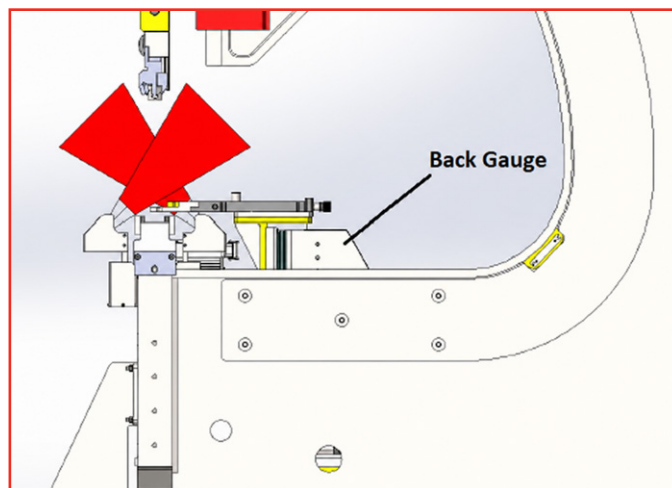
In machines with angle measuring system option, front arms and sheet following arms must be designed in such a way that they can work together with the angle measuring system without collision.



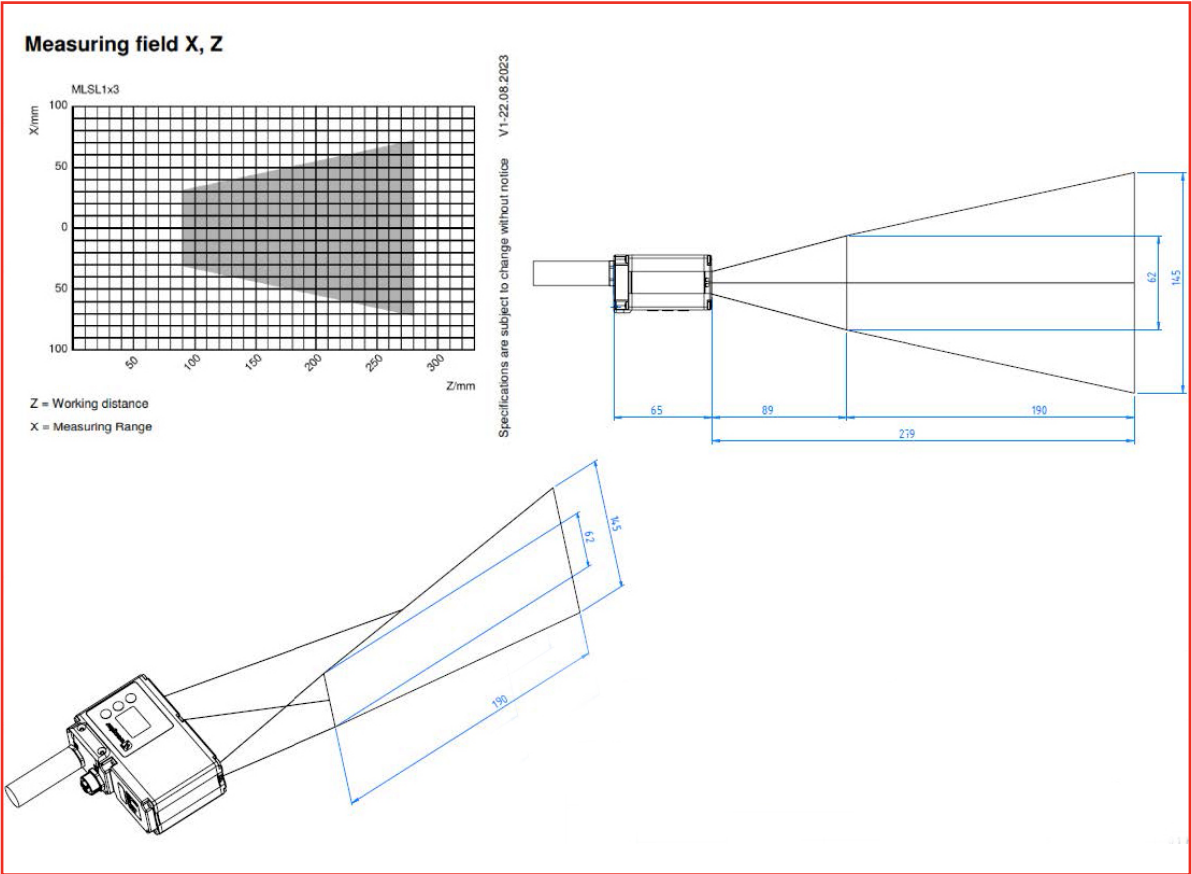
## Back Gauge

In machines with angle measuring system option, the back gauge must be designed to work together with the measuring system without collision.

It must be mounted on the machine in accordance with this criterion.



The measurement constraint of the Wenglor product with stock code SENS MLSL123 is shown in the graph below.



The measurement constraint of the Wenglor product with stock code SENS MLSL124 is shown in the graph below.

