

GMS-P

Outside profile section measurement

The GMS-P generates a digital image (Digital Twin) of the outer contour of profiles and pipes.



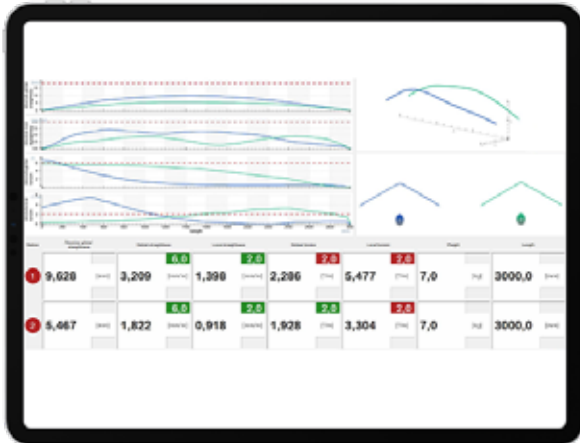
MSG MASCHINENBAU GMBH

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Measurably precise

This is where outer values count

In addition to recording pipes with constant bending radii, free-form bent pipes can also be precisely measured and documented. The measuring system is ideally suited for use in quality assurance and for correcting bending data.



01 Digital benefits of measured data

The final digitisation and dimensional control before delivery is an essential benefit of the GMS-P. In addition, it is also possible to monitor or, if required, regulate adjustment processes and/or calibration processes in earlier production steps.

02 Implementation for industrial applications

The design of the GMS-P is impressive, among other things, due to the use of materials with low temperature expansion. Only in this way can highly accurate and time-stable measurement results be generated in combination with intelligent compensation algorithms, especially for pipes with diameters greater than 1600 mm.

The unique inline calibration system allows the cameras to be calibrated fully automatically during runtime. This way, any corrections can be performed simply by accessing or deleting.

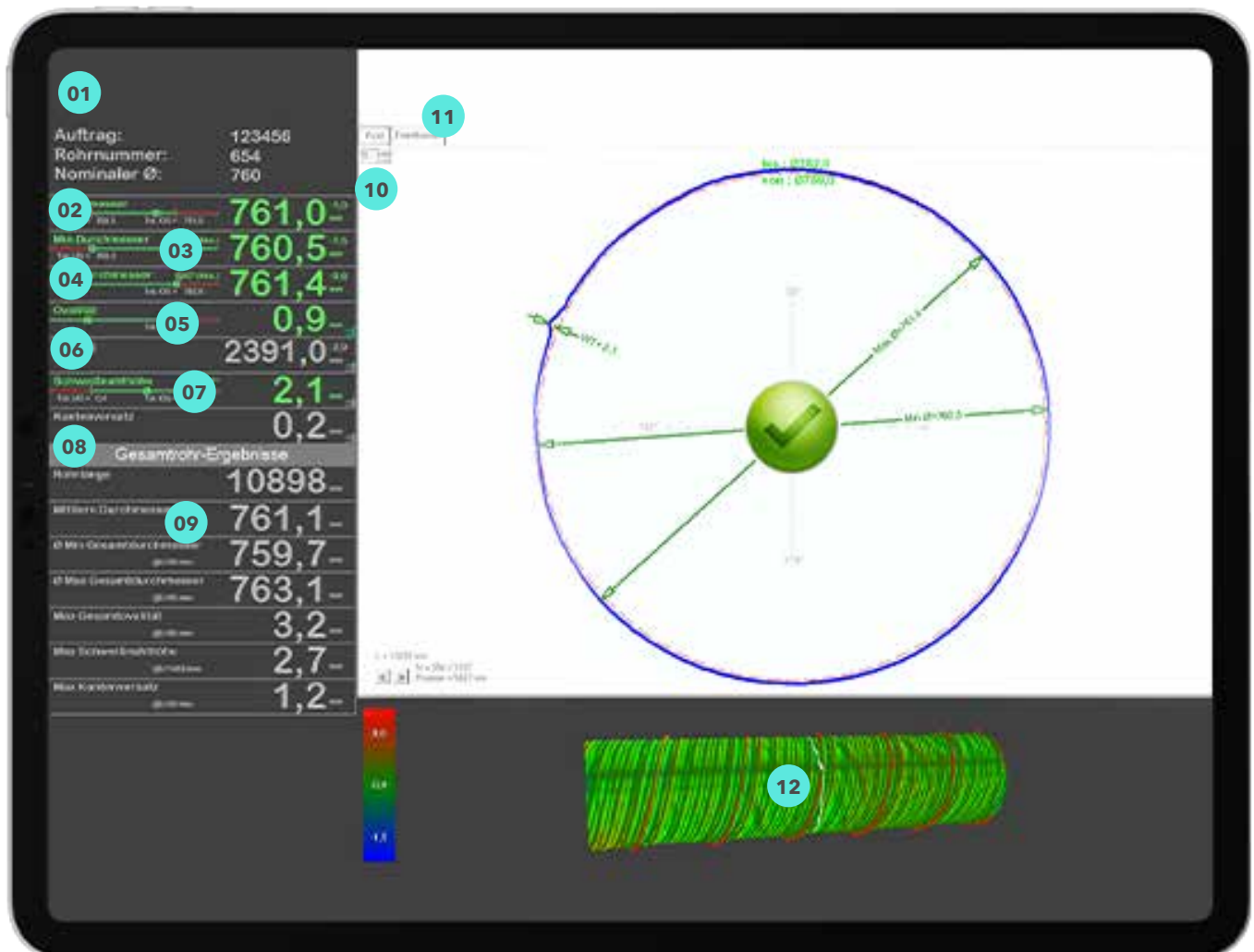


03 Mechanical adaptability

Inline calibration makes it possible: You do not adapt your production to our GMS-P, but the construction method is specially adapted to your circumstances. This saves effort, but above all costs.

Control and software

Digital overview



With the visualization of your digital data you always keep the overview and can use the information for further processing.

01 Normal data / Recipe data

02 Average outer diameter

Best fit outer diameter

03 Minimum outer diameter

Is equivalent to a real caliper measurement

04 Maximum outer diameter

Is equivalent to a real caliper measurement

05 Ovality

Difference between minimum and maximal diameter

06 Scope

Is equivalent to a real tape measure

The other points can be found on page 4.

Control and software

Digital overview

07 Weld height

Weld height

08 Edge offset

Corresponds to the sheet edge offset at the location of the weld seam

09 Averaged measurement results

All characteristics are represented as an average value over the entire pipe length here

10 2D profile display

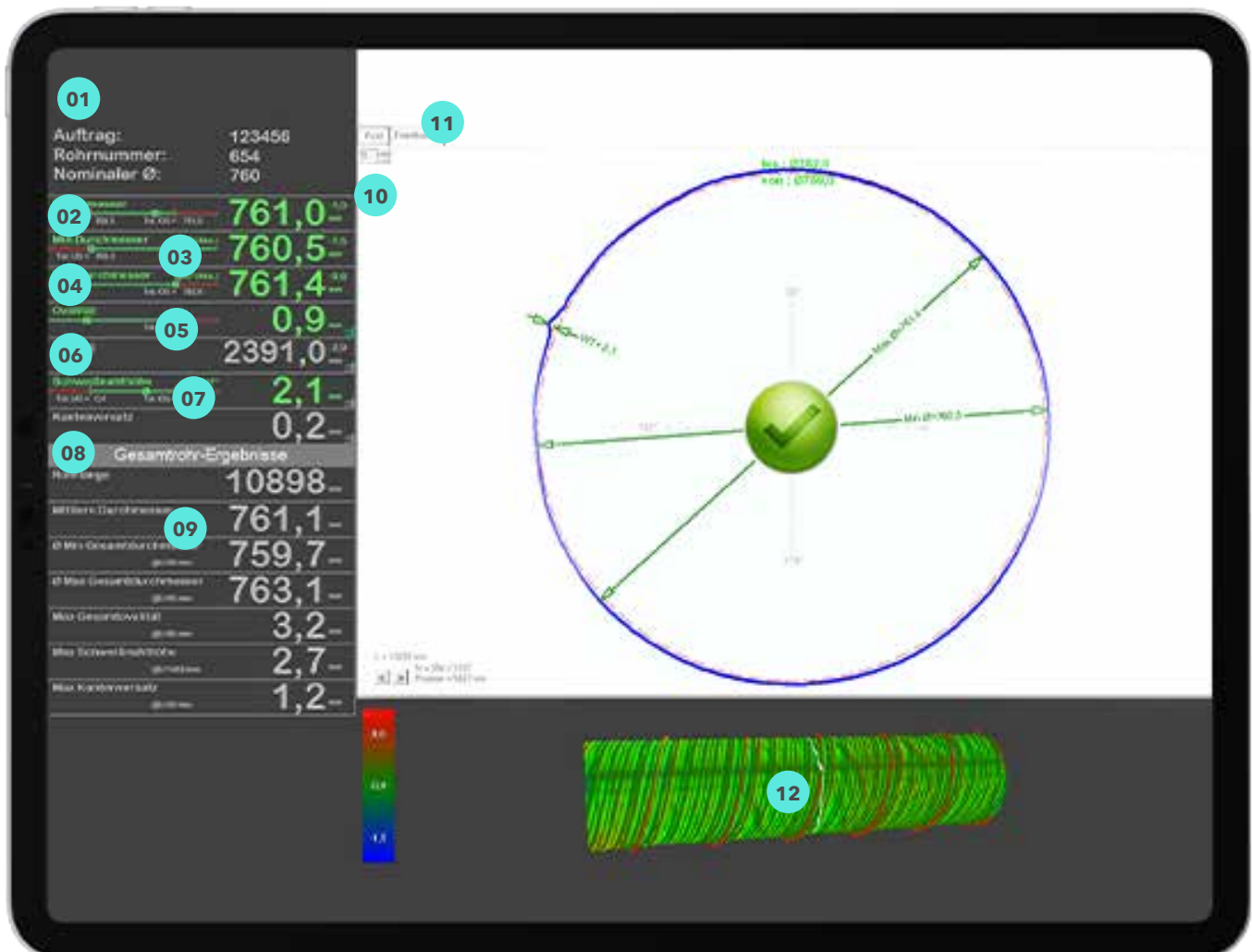
Display of the cutting profile selected in the 3D Display selected cutting profile by mouse click

11 Rider selection

It is possible to switch between the 2D-display and a trend curve display

12 3D display

Representation of the scanned tube surface. The deviations from the nominal diameter are displayed in color



Technical data

Everything at a glance

Application range

Digitalisation

Product certification

System control

Production optimisation on bending machines

Production optimisation on welding lines

Production optimisation on roll forming machines

Production optimisation on Konti lines

Machine Learning

Materials

Steel

Brass

Aluminium

Titanium

a.o.

Inspection criterions

Outer diameter/radius

Inner diameter/radius

Circumference

Ovality

Local eccentricity

Weld seam height

Weld seam width

Seam edge offset

Peaking vs. Flattening

Product areas

Automotive round pipe

Linepipe (LSAW, HSAW, Seamless)

Construction pipe

Profiled rod products

Integration possibilities

Longitudinal transport

Interface

Process: SPS

Data: SQL

Measuring speed

Up to 1000Hz

Measuring accuracy

Up to 50µm

Get in touch.

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