

GMS-S

Straightness

The patented GMS-S enables the inline measurement of the straightness and twist of profiled rod products.



MSG MASCHINENBAU GMBH

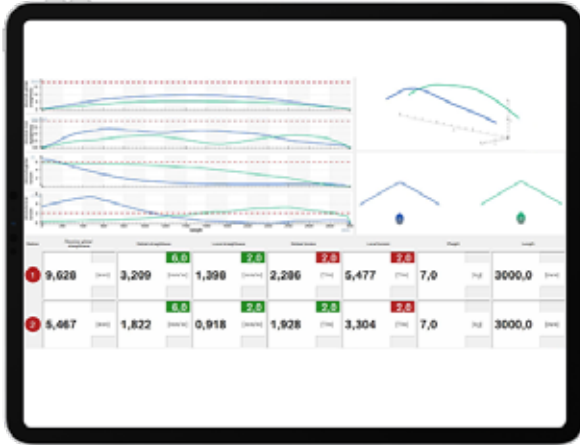
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Measurably precise

It doesn't get more objective than that!

The patented GMS-S allows for a 100% inline measurement of the unambiguous and effective straightness and twist of rod products. The known measurement deviation of conventional test methods, caused by existing constraining and static friction forces in workpiece fixtures, centrifugal forces in rotating test systems or the scatter of the subjective operator assessment, are completely eliminated by the GMS-S. The measuring result is comparable to a survey with zero gravity!

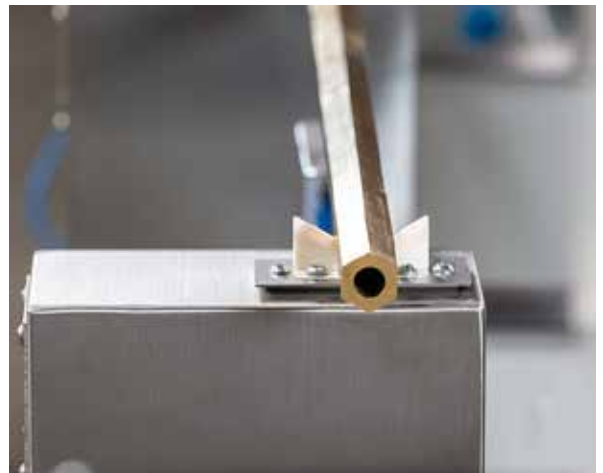


01 Digital benefits of measured data

By digitising the unambiguous product straightness, upstream or downstream manufacturing processes can be evaluated immediately or optimised in the aftermath by machine learning algorithms. The superordinate added value is the reduction of production costs.

02 Implementation for industrial applications

Thanks to our many years of know-how in mechanical engineering, especially for the semi-finished product industry, adverse environmental conditions are not an obstacle for us, but rather lessons learned that are taken into account in the production of the GMS-S. For example, foundation vibrations introduced into the system are absorbed by an intelligent damping system. Be it cross transport or axial feed - the GMS-S can be easily integrated at various points in your production line thanks to its intelligent design.

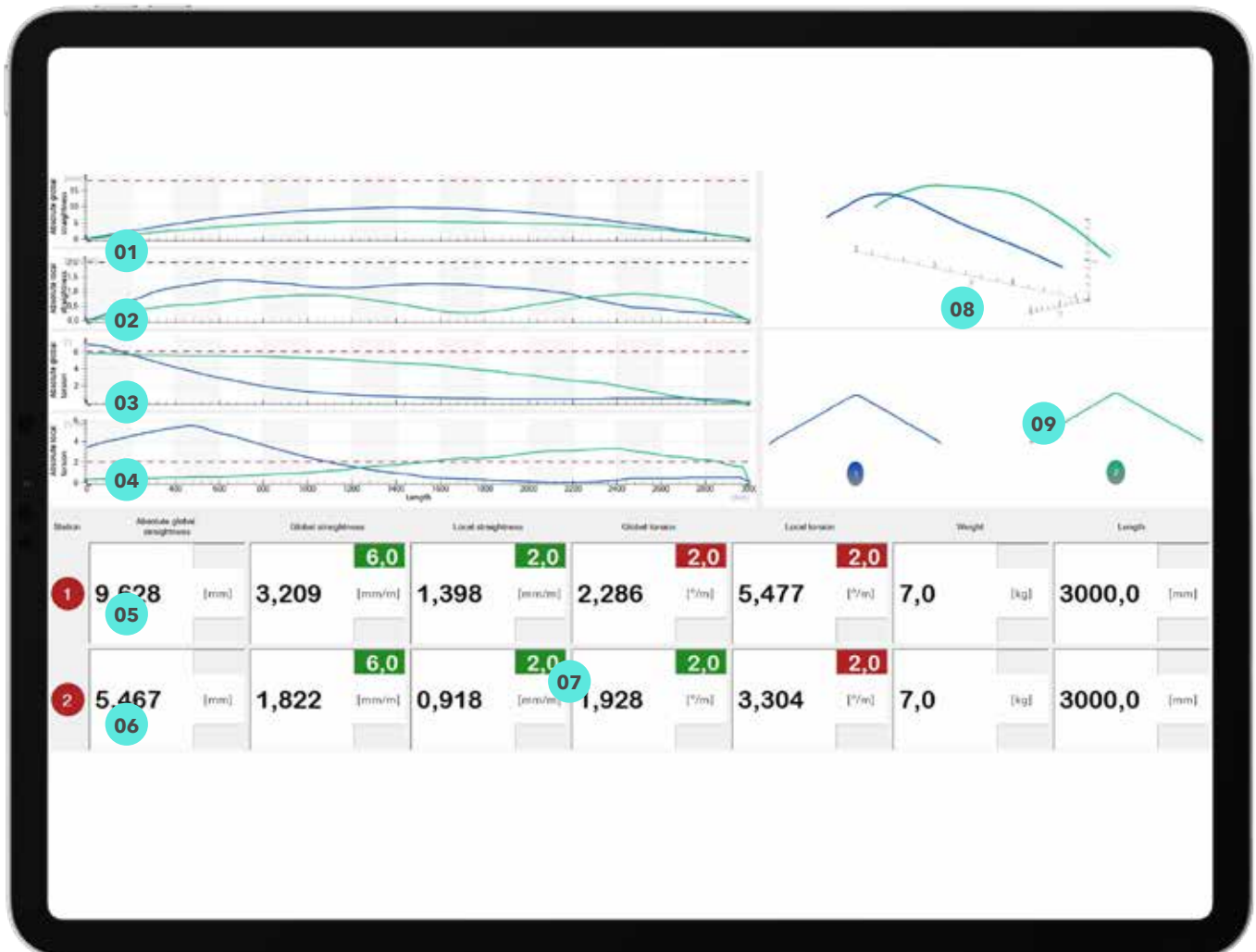


03 Mechanical adaptability

Whether support arm guiding or floor guiding - depending on the application, we adapt the mechanical design to the present marginal conditions of your production. The standardised measurement function is maintained as a matter of fact.

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 Curve Global Degree

Distance progression of the workpiece axis to an ideally straight line drawn from the starting point to the end point.

02 Curve Local Degree

Course of the light gap between workpiece and adjustable reference ruler at each longitudinal workpiece position.

03 Curve Global Twisting

Angle progression of the profile twist angle from the start point to the end point of the workpiece.

The other points can be found on page 4.

Control and software

Digital overview

04 Curve progression Local twisting

Twist angle within an adjustable length section at each longitudinal workpiece position.

05 Measurement place 1

Designation of the measuring station for simultaneous measurement of several workpieces.

06 Measurement place 2

Designation of the measuring station for simultaneous measurement of several workpieces.

07 Scalar measurement results

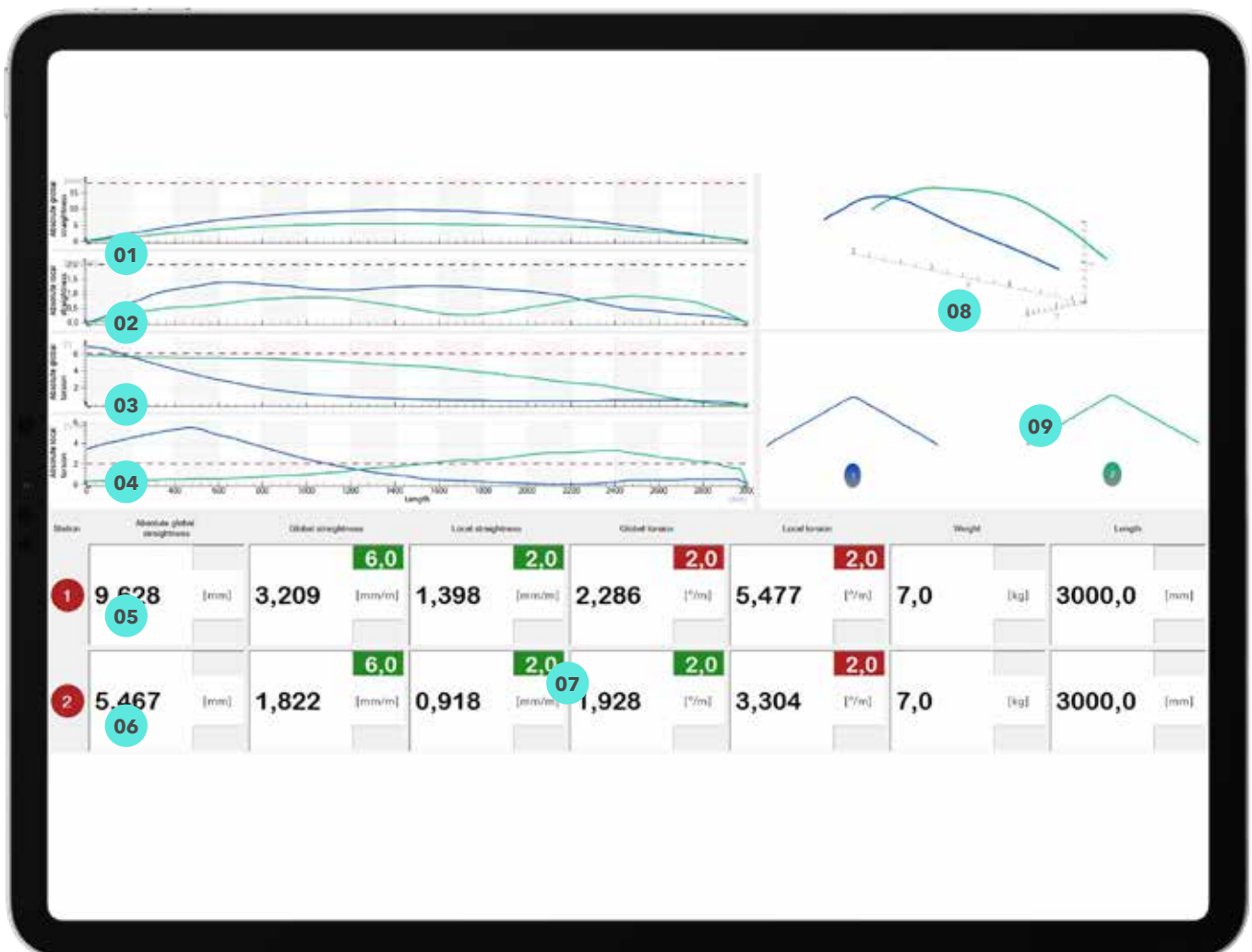
Display of the scalar measurement results together with the set evaluation tolerances.

08 3D display

Effective shape of the workpieces in the heavy-less.

09 2D Display

Laser section display of the profiles on both measuring stations



Technical data

Everything at a glance

Application range

Digitalisation

Product certification

System control

Production optimisation in drawing machines

Production optimisation on straightening machines

Production optimisation on husking machines

Machine Learning

Materials

Steel

Brass

Aluminium

Titanium

a.o.

Inspection criteria

Straightness

Twisting

General shape deviation

Curvature

Weight

Measuring accuracy

Up to 100µm

Product areas

Automotive round pipe

Linepipe (LSAW, HSAW, Seamless)

Construction pipe

Profiled rod products

Steel profiles

Integration possibilities

Longitudinal transport

Cross transport

Standalone

Interface

Process: SPS

Data: SQL

Measuring speed

200Hz

Get in touch.

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