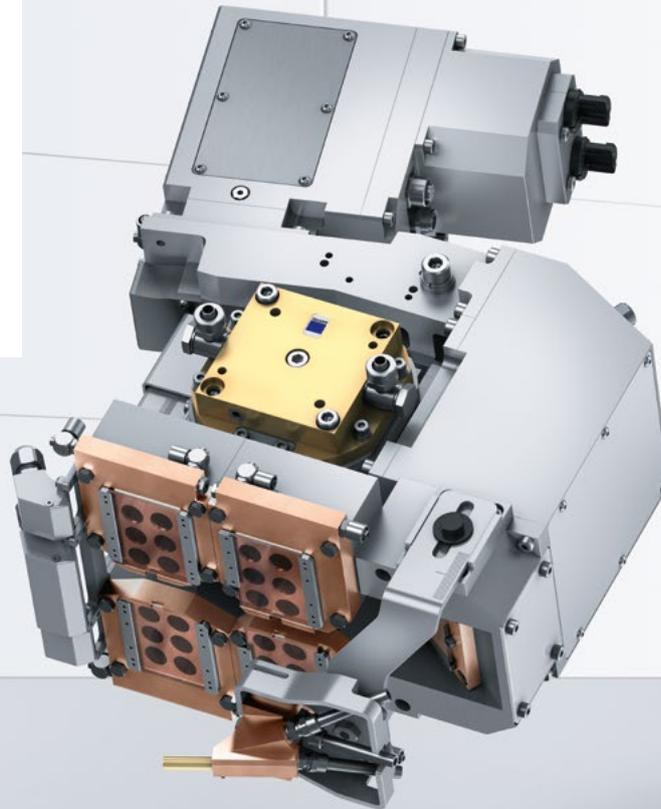


SeamLine Pro
seam position control
and monitoring

For tube
and profile



01

**Optimal process
reliability**

03

**Integrated
quality control**

02

**Usable for any
tube shape**

04

**Setup
made easy**

01

Optimal process reliability

Flawed parts are now a thing of the past with the seam position control and monitoring option SeamLine Pro. When doing the continuous linear welding of a tube seam, this system measures the entire welding process. Its high-speed camera is positioned almost coaxial to the laser beam, and records the seam welding position, beam focal spot, and the welding seam. The adapted integrated illumination with incident light and light section ensures reliable measurement results. In this way, SeamLine Pro integrates three measurements in one single measurement system.

02

Usable for any tube shape

SeamLine Pro can be flexibly adapted to different tube shapes. If the tube is pressed together at the seam point with too great a force making the joint gap barely visible, the measurement window can very easily be shifted further ahead on the tube where the gap is wider.

03

Integrated quality control

SeamLine Pro determines the quality of the seam during the ongoing welding process. The seam height and width as well as the edge offset are measured using a light section measuring procedure and are monitored in relation to the preset limit values. The operator has different intervention possibilities available, for example, the actuation of a warning light if certain warning limits are exceeded, or the putting of paint spatter on flawed parts of the tube.

04

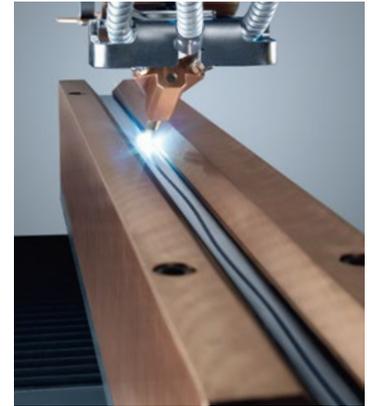
Setup made easy

The system can be set up for a new tube much more quickly using the live image of the camera. The simultaneous measurement of the focal spot and the butt joint position ensures a reliable control of their relationship to each other. The measurement of the gap shows you if the tube shape has been correctly adjusted.



**Perfect welding seams
using the SeamLine Pro
seam position control**

The second generation of the SeamLine Pro now offers a flexibly adjustable premeasurement position. This can be placed between 2 to 10 mm or 30 to 50 mm on a tube with an open gap. The most diverse of tube shapes can be covered using this.



TRUMPF SeamLine Pro

Available systems	TruLaser Cell 1100
Available lasers	TruFlow up to 15 kW
Available optics	TRUMPF linear welding optics
Available focal lengths	f = 200 mm
Vertical light illumination	Light emitting diodes, $\lambda = 660 \text{ nm}$, area of application: seam position control
Line projectors	Class 3B, $\lambda = 660 \text{ nm}$, $P_0 = 120 \text{ mW}$, area of application: seam monitoring
Measurement rate	333 Hz
Lateral measurement range	$\pm 1.5 \text{ mm}$ at a gap width of $\leq 0.5 \text{ mm}$
Lateral tracking range	$\pm 25 \text{ mm}$
Measuring accuracy of seam position control	20 μm

Subject to alteration. Only specifications in our offer and order confirmation are binding.