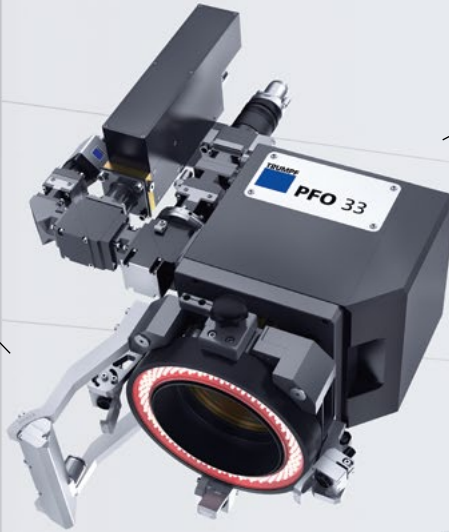


01

**Reliable  
3D information  
using OCT**

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**Tailor-made  
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VisionLine OCT Detect

**3D feature  
detection**

03

**Intuitive operation**



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**Robust and universal  
hardware platform**

**The TRUMPF sensor system VisionLine OCT Detect unites a camera and OCT to form a single unit. Using the optical coherence tomography, the height profile becomes visible. In this way you get the best out of your process and part.**

01

## Reliable 3D information using OCT

VisionLine OCT Detect unites incident light image processing and optical coherence tomography (OCT). The OCT sensor scans the part coaxially to the processing laser and as such is independent of the respective illumination and clamping situation, because there is no effect brought about by shadowing or changes in illumination. What's more, the OCT is barely affected by different surface characteristics and, even with challenging part situations, delivers good image quality. The 3D information created can be used for the positioning of the weld seam geometry and checking of the part characteristics. The height differences and working distances to the part or clamping fixture can be measured.

02

## Tailor-made solutions

You can't find any suitable algorithm in our features library? Then get in touch with us. Our team of experts would be glad to develop a solution tailored to your part.

03

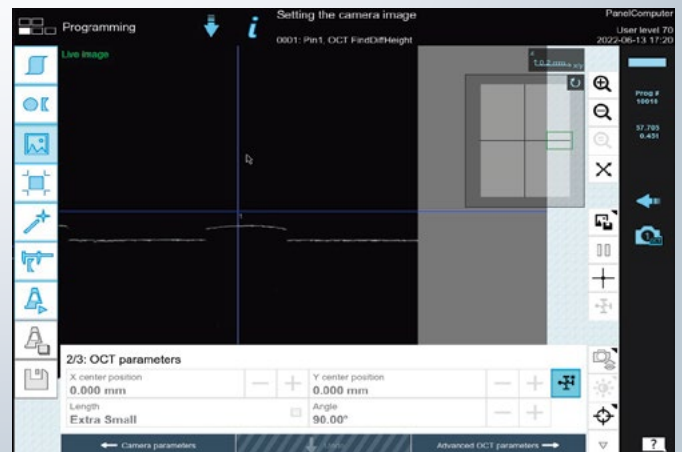
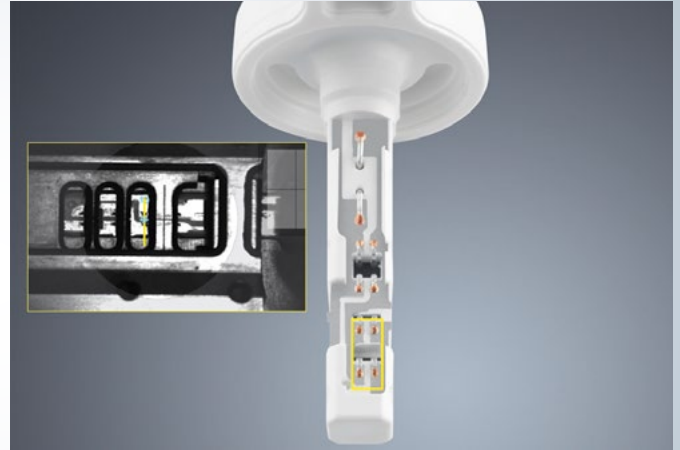
## Intuitive operation

The operation of the OCT system is integrated in the proven VisionLine user interface. The desired OCT line scan is positioned on the part using a camera image. Then the algorithm needed for the evaluation of the 3D data can be selected and the OCT program is ready for operation.

04

## Robust and universal hardware platform

The optimized design of the OCT is hardly affected by ambient temperature fluctuations and can perform measurement frequencies of up to 250 kHz. All VisionLine OCT products are based on a common hardware platform. This makes an upgrade to VisionLine OCT Check possible at any time.



### Technical data

Available lasers	TruDisk, TruFiber	
Available optics and focal lengths	PFO 33 <sup>[1]</sup> , f = 265 mm, 345 mm, 450 mm	BEO D70, f = 200 mm, 300 mm
Camera with vertical illumination	LED, $\lambda = 625$ nm	
Wavelength spectrum of OCT (laser class)	$\lambda = 820-860$ nm (class 3B)	
Measurement rate of OCT	250 kHz	
Typical image processing time	60-80 ms	
Axial/lateral measurement range	$\pm 5$ mm	$\varnothing 15-25$ mm <sup>[2]</sup>
Typical precision of the axial/lateral adjustment (with f345)	$\pm 15$ $\mu$ m	$\pm 15$ $\mu$ m <sup>2</sup>
Axial/lateral resolution	12 $\mu$ m	10 $\mu$ m (with 10 mm scan line)
Typical precision of the relative position recognition (with f345)	Camera (X, Y) $\pm 25$ $\mu$ m <sup>2</sup> OCT (X, Y, Z) $\pm 20$ $\mu$ m <sup>2</sup>	

<sup>[1]</sup> Only available with PFO 33 Generation 3 (KF023). <sup>[2]</sup> Depends on focal length.  
Subject to alteration. Only specifications in our offer and order confirmation are binding.