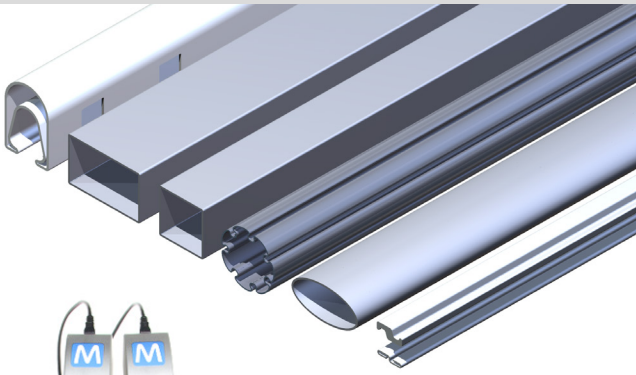
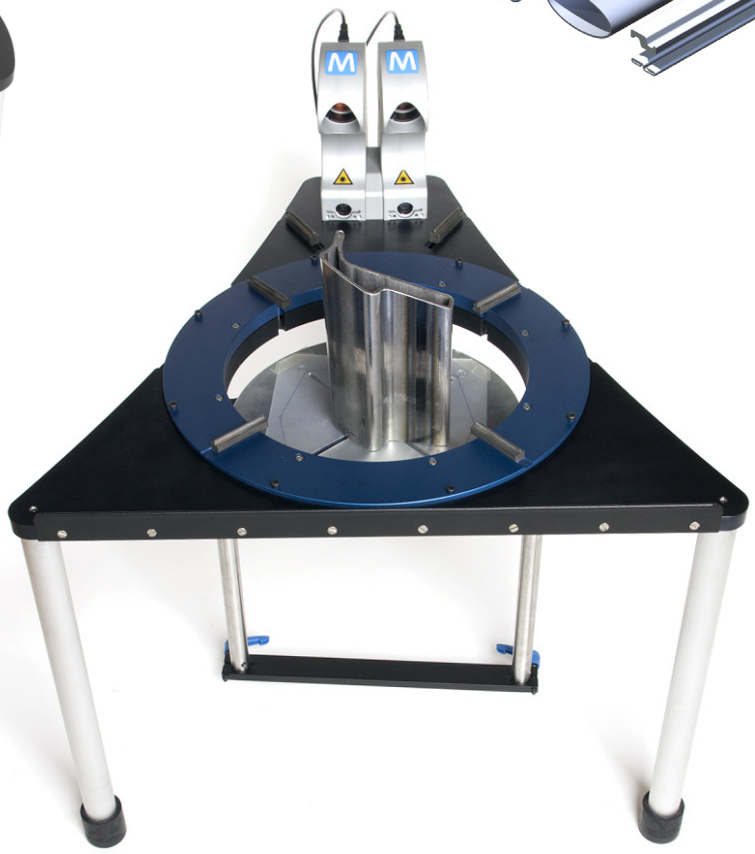


COPRA®
ProfileScan Desktop

To guarantee constant high quality of tubes and profiles for your customers, the products need to be constantly measured. The COPRA® ProfileScan system of data M represents an accurate and particularly cost-effective solution. Additionally, a full external view of the product cross section is possible due to our patented 360° measuring method.





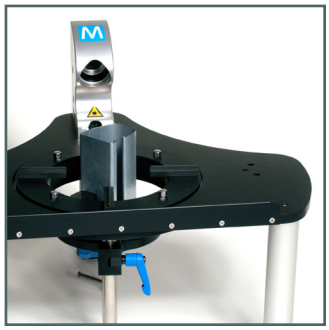


data M
Sheet Metal
Solutions

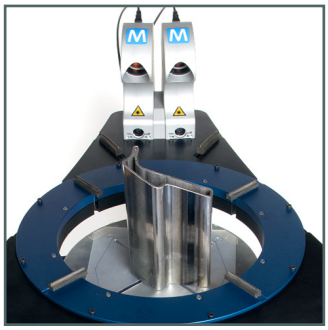
Increase customer satisfaction with constant high quality products

For optimal integration into the production process, we focused particularly on a compact design of our device. COPRA® ProfileScan Desktop with its one (CPS 80) or two (CPS 200) sensors and a turntable is small enough for application on a desk. Optical measuring systems are usually equipped with a ring of multiple sensor modules.

The award winning* COPRA® ProfileScan Desktop achieves accurate measurements while being far cheaper due to the reduced number of sensors.



COPRA® ProfileScan Desktop 80

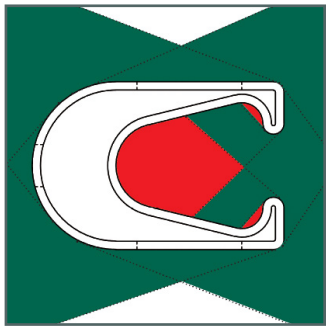


COPRA® ProfileScan Desktop 200

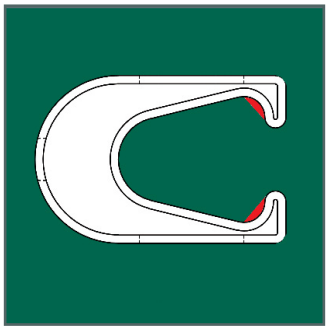
COPRA® ProfileScan Desktop improves your quality management and is cost-effective regarding acquisition and operation

COPRA® ProfileScan Desktop 80 is the first optical measuring device that can measure the whole visible surface with only one sensor module and a turn table. This is achieved by our patented 360° measuring method.

Despite this setup, it is possible to measure large inner areas even with small slots in the profile.



Invisible area with sensoring (4 sensors)



Considerably reduced "dead range" with COPRA® ProfileScan Desktop

Patented 360° measuring method: Mapping of the entire visible cross section with only one sensor module and a turn table

The aforementioned method has its limitation when it comes to larger profiles because measuring fields cannot be scaled at will. To maintain a compact build with almost the same accuracy, COPRA® ProfileScan Desktop 200 was developed with a double sensor. It is able to measure profile cross sections up to a width of 200 mm.

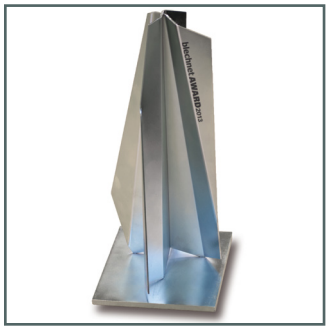
COPRA® ProfileScan Desktop is assembled with minimum effort and can be deployed on multiple production sites due to the included transport suit case. It is connected via USB to a laptop or a desktop computer and doesn't require an external power supply.

Non-destructive and contactless measuring of your profiles

The preparations are fairly simple: short profiles can be measured right away without any reworking. A conventional tactile measurement on sheet metal profiles is mostly unsuitable due to the insufficient number of measuring points.

Additionally, the contactless method facilitates measuring of sensitive and easily deformable material. COPRA® ProfileScan Desktop scans profiles made of Steel, aluminium, wood or plastic. All samples are scanned with the same parameters, so no adjustments of exposure will be needed.





* blechnet Award, Blechexpo 2013

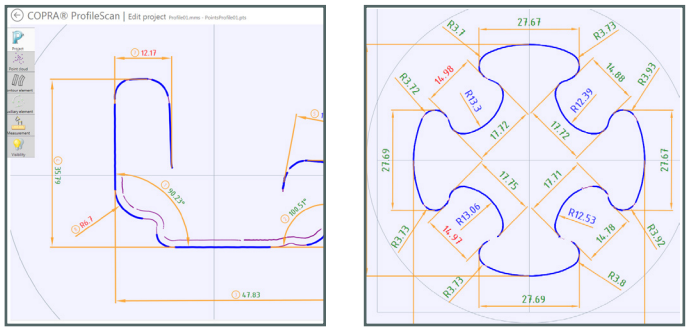
COPRA® ProfileScan Desktop measures profiles made of steel, aluminium and other materials

At the bottom of the sensor module, a laser is projecting a horizontal line onto everything in front of it. The CMOS camera with high dynamic range placed above detects the reflection of the laser line, which the software then transforms into a 2D contour.

Due to the turn table and the reference marks, the sensor can capture a multitude of views which then result in a complete view of the cross section. Afterwards, the software rotates each view by the angle calculated from the positions of the reference marks.

Furthermore, any measuring tasks can be configured individually before the scan. During the development process, the algorithms have been specifically tailored to roll formed profiles.

Lastly, the software compiles a complete profile cross section from all views, which can afterwards be compared to an existing CAD construction. This can be imported as a DXF file after minimal programing. All measurement results in turn can be exported for further processing (e. g. in Microsoft Excel®).



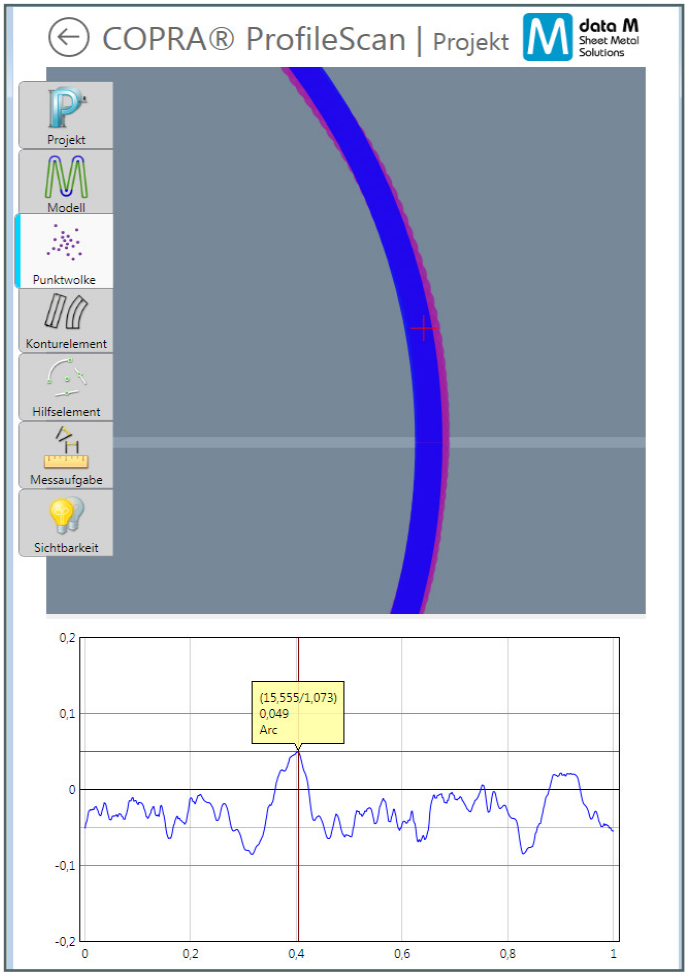
measurement results

CAD Integration and mobility make COPRA® ProfileScan Desktop the ideal measurement solution for Reverse Engineering

The aforementioned features make COPRA® ProfileScan Desktop the ideal solution for Reverse Engineering projects. The full integration into the COPRA® workflow (software COPRA® RF) allows quick return of data as a point cloud, which can then be edited as usual.

Simplified implementation of roll forming tools and roll sets

Furthermore, the implementing of roll forming tools and roll sets will be a lot easier with COPRA® ProfileScan Desktop. With a laptop and the CPS, you can measure the remodeling stations in regard to their dimensional accuracy during the assembling process. This significantly accelerates the startup procedure. Additionally, the entire tool set can regularly be reassessed according to its remodeling qualities.

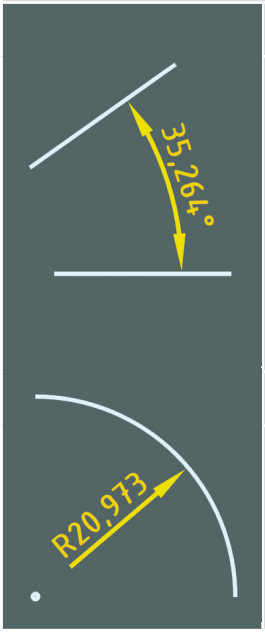


Abweichungsdiagramm

System Requirements:

Processor:	x86 or x64 1 GHz CPU with 2 cores (minimal); 2 GHz CPU with 4 cores (recommended)
RAM:	1 GB (min.); 2 GB (recommended)
Grafics:	DirectX 9.0 support (required)
Operating System:	Windows® 7 SP1 (min.)
USB:	min. USB 2.0 1 (CPS DT 80) resp. 2 (CPS DT 200) free USB 2.0 ports 2 USB 2.0 Host Controller (CPS DT 200) (recommended)

What kind of measuring functions does COPRA® ProfileScan Desktop offer?

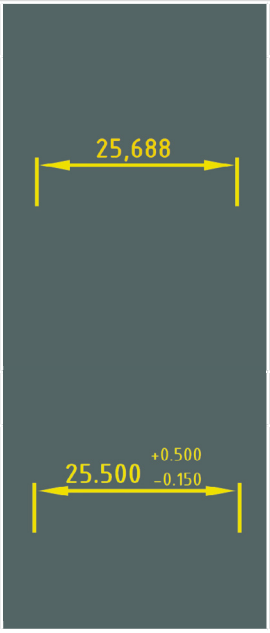


Dimensioning of angles:

- Line to line

Dimensioning of arcs:

- Radius
- Diameter



Dimensioning of distances:

- Point to point
- Point to point, parallel to a line
- Point to line
- Point to arc
- Arc to arc
- Line to line, parallel to another line

Tolerated dimensioning:

- Declaration of tolerances for every dimension
- Monitoring of tolerances

Specifications

	CPS 80	CPS 200
Measuring Principle	Light section (Laser triangulation)	Light section (Laser triangulation)
Profile length max.[1)]	310 mm	760 mm
Profile diameter max.[2)]	70...80 mm	175...200 mm
Profile width min.:	15 mm	15 mm
Repeatability rel. to measuring field	+/-0,013%	+/-0,018%
Accuracy rel. to measuring field	+/-0,03%	+/-0,04%
Number of sensors	1	2
Dimensions	340/465/310 mm	550/570/575 mm
Dimension case L/W/H	430/495/185 mm	630/660/280 mm

[1)] Other dimensions on request
[2)] In dependence of profile cross section

US-Patent: US 9,127,936 B2

data M Sheet Metal Solutions

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