WERKLICHT® Video

Scalable dynamic 3D video projection

WERKLICHT® VIDEO

WERKLICHT® Video 3D-projection systems are recommended at any place where the visualization of complex 3D-information is required within the context of the building component, so that manual tasks and activities are carried out more efficiently. Thanks to Augmented Reality Projection, manual annotations on the workpiece, complex building drawings as well as expensive templates and measuring equipment are things of the past. According to the application, the presentation is either displayed as a stepwise sequence in animated form or simultaneously, but always intuitively and in color.

WERKLICHT® Video is a modular and flexible design in which the resolution and brightness is customizable to the work environment or the component. Particularly, the solution is perfectly scalable for larger work areas.

Entry data encompass the current CAD formats as well as polygon models and punctual information in CSV format. Measuring results are copied directly from GOM Inspect®, PolyWorks® or Geomagic®.

APPLICATIONS

WERKLICHT® Video's compact and modular design provides *the* solution for the projection not only in static but also in dynamic or mobile implementations. Rigorous guidance is provided for work processes, while positioning tasks are performed securely. Furthermore, the solution allows for the intuitive interpretation of even complex contents in a team.

Typical implementations are:
• Measuring data audits in the Cubing-Center or on the Meisterbock
• Assembly support at manual labor sites as well as on the line
• Training of employees
• Positioning of assembly parts
• Cable courses
• Quick identification of individual characteristics
• Completeness test
… and much more!

■ made
■ in
■ Germany

YOUR WORKPLACE

Its modular design makes WERKLICHT® Video a flexible tool for the configuration in a wide range of work environments.

The starting point is marked by off-the-shelf video projectors for mobile operation on the tripod or for static integration in the environment, to be controlled individually or in conjunction with others by the WERKLICHT® 3D software. Each projector is measured precisely by the simple alignment of a few control points in the projected image with regards to pre-configured reference points in the scene or on the component. The solution is thus perfectly scalable for large projection areas or complex building component surfaces and it specifically fits short-cycle processes at manual labor worksites or production lines where the focus lies on all relevant areas simultaneously.

Optionally, the projectors can be provided with a default EXTEND3D calibration, in order to achieve a maximum precision of up to <1px .

But even dynamic movements of the projector and/or component are handled with ease! For this purpose, the system is combined with cameras to allow for dynamic referencing either on the basis of a markerless model or through coded or uncoded measurement targets. This way a highly flexible mobile system is achieved that you can place on a tripod to be oriented dynamically towards the target area, suitable for Cubing Centers, on the Meisterbock, in training rooms or inside an airplane fuselage. Conversely, fixed system mountings use dynamic referencing for the tracking of the moving component on the conveyor, the assembly line, the lifting platform or at the turner.

YOUR WORKPIECE

can have any imaginable shape, thanks to the aid of the innovative 3D visualization process. The CAD measuring/simulation data of the building component are imported in the WERKLICHT® 3D software and viewed at a simple click of the button. WERKLICHT® Video projects directly and simply on the component test data, construction parts, cable courses, etc., all that you have measured/marked/annotated so far manually or through templates. The larger and more complex your component, the higher the savings potential of WERKLICHT®.

According to its working principle, video projection is sensitive both

with regards to the brightness of the environment and the material and color properties of the workpiece surface. Matt and bright surfaces are ideal; also unpainted sheet or even brightly painted surfaces are possible. For dark surfaces and/or surfaces with a strong reflection, you should consider a WERKLICHT® Pro Laser projection system.

We will be happy to advise you!

SAVE TIME
BOOST QUALITY
MAXIMIZE PROFIT

with
WERKLICHT® Video

WERKLICHT® Video Specification*	
Dimensions without/with projector**	600x300x100mm / 600x300x195 (WxDxH)
Weight without/with projector**	3.6 kg / 9.6 kg
IP protection class	IP20
Sensors	Stereo-optical, 2x 18.1 MPix
Marker based tracking	On the basis of 3D reference points (encoded or unencoded)
Markerless tracking	Model based edge recognition (from CAD data)
Working distance**	Depending on the focus setting of the projector
Resolution**	WQXGA 2560x1600
Projection precision**	Up to <1 pixel
Brightness**	5000 ANSI Lumen
Camera/Projector work range**	60°x45° (4:3) / 52°x32° (16:10)
Ambient temperature	10°C - 40°C
Control unit	PC/Notebook Windows 7/10 64 bit
Power supply**	8.4 A ~100-240 V, 50-60 Hz
Interface	USB 3.0, HDMI**/DP**
Connection cable	5m
Data format	G3D, OBJ, POL, CSV, IGES, STEP, DWG, DXF, CATIA V4, V5,V6, JT Open, Parasolid, Pro/E, Rhino, Inventor, NX, Creo, SolidWorks, SolidEdge, ...

* We reserve the right to carry out changes of any kind, especially if they are the result of technical progress without prior notice.
*Information for BARCO F50 projector with wide angle optic EN52, other configurations possible upon request

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