

VIPAC D3 (APACHE)

Three-dimensional pallet measuring



VITRONIC
machine vision people

The volume measurement system is the solution for:

- the certified measurement of palletized goods
- regular and irregular pallet loads
- pallet exclusion possible even in certified mode
- simultaneous weighing and measuring in one go
- fast, reliable and precise measurement with the highest possible resolution

Unique features:

- Measuring area of up to 3500mm x 2500mm x 2800mm (L x W x H)
- Fully MID and OIML R129 certified with superior resolution of 20mm x 20mm x 10mm (L x W x H)
- Protrusion detection down to sizes of 40mm (length, width) resp. 10 mm (height)



Multiple mounting options available to fit factory specifications. A mobile version is also available.

Measurement principle

The measurement is performed by two overhead fan scanners which move with constant speed on linear guides along the measurement area. The movement is tracked continuously with an incremental encoder. Because of the large available measurement area, a combination of multiple pallets can be measured.

Features & Software

The system is approved according to OIML R129 and MID with integrated alibi storage and possible data integration from scale and barcode readers. The integrated PC can run additional software for flexible interface adaptations etc. Additional features such as exclusion of fork lifts and electro stackers, combination with weighing fork lifts and weighing electro stackers, damage registration with USB camera and more are possible for non-legal-for-trade systems.

References

The pallet measurement systems are already installed and in use at DHL, Kuehne+Nagel, Schenker, Dachser, Fraport, Air France, KLM, Emirates,.....

Technical Data

Measuring area (L x W x H)	2500mm x 2500mm x 2800mm (Length can be up to 3500mm)
Resolution	20mm for length and width, 10mm for height
Protrusions	Protrusions smaller than 40mm in length and width or 10mm in height are ignored, larger structures are taken into account for measurement. This high precision allows for highly accurate dimensioning of irregularly shaped objects like machine parts.
Measurement speed	Less than 8 seconds for full 2500mm measuring area (20m/min)
Weighing	The optional weighing platform below the measurement system can be fitted with varying platform size, material load, weighing range and resolution. The scale is certified according to OIML R76. An existing certified scale can usually be integrated.
Operating conditions	0°C to 40°C max. humidity 85% non-condensing
Limitations	Non-transparent, i.e. opaque objects only. Dimensionally stable objects only

Interfaces

Integrated industrial grade PC for processing and storage:	TCP/IP 10/100 MBit with RJ45 connector, Serial RS232/422 with D-Sub connector, CAN-Bus, WLAN 802.11a-g optional. Touch panel for visualization and interaction
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Customizable user interface with interactive warning and query system for ambiguous results (e.g., hand fork lift included in measurement, stacking on pallet with unnecessary gaps etc.).