MACHINE VISION AND ELECTRONICS TECHNOLOGIES
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Machine Vision and Electronics

Warehouse VolumeMeter

Laser and Sonar Solutions

Warehouse Volume Meter Solutions

IP BASED LASER VOLUME METER FOR WAREHOUSES AND PAVILLIONS

Laser Volume Meter Solutions are a state-of-art electronic system based on pulsed laser beams that measure distances in 10 nanoseconds.

This will provide a 3D volumetry with a precision up to 1 mm in short distances.

This solution is a complete system of hardware and software that provides local and remote access of the measured data.

This solution is only valid for solid materials, for liquids we have a special solution based on sonars.

To provide better precisions we can install redundant sensors to produce a better measurements.

Our system can delivery live measurements up to 10 times per minute depending from the measured area.

Volume calculation is instantly calculated delivered to a Website, SCADA or a IP network.

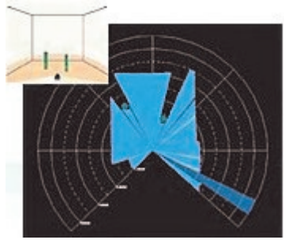
We can also customize this system to special needs.

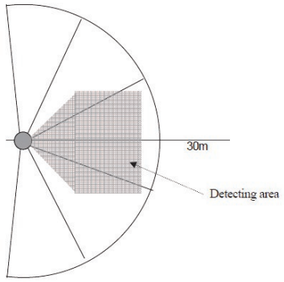
This is a cross-platform system:

Windows, Linux and Mac OS

APPLICATIONS

- WAREHOUSES
- DEPOSIT OF SOLID MATERIALS
- VOLUME AND LOAD CALCULATIONS
- MACHINERY GUIDANCE
- LOGISTIC FACILITIES
- SECURITY FACILITIES





UP TO 30 METERS RANGE

Fast, Reliable and Precise

LASER VOLUME MEASUREMENT

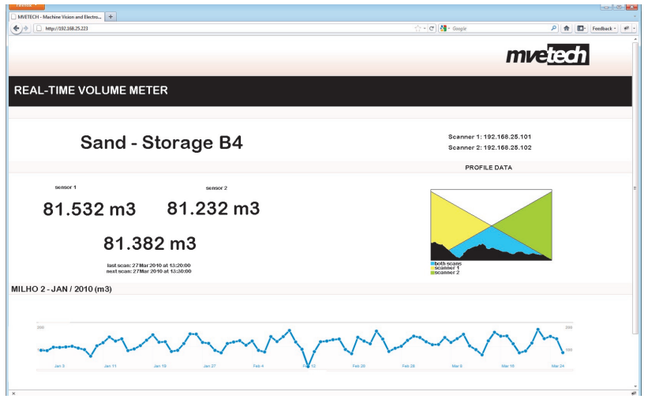
MULTI-BEAM LASER SYSTEM

ONE SENSOR for each 800m^2

For each 800 meter sq we install a Laser Sensor than will make a 3D scan to retrieve the volumetry data and send to the control software.

This software will make all the calculations needed to get precise measurements. We recomend double sensors for 99% precisions.

WEB INTERFACE



With volumetric data you can export to Excel (CSV files) and also have PNG profile images.

SPECIFICATIONS:

Power source: 120-240V or 24VDC ± 10%

Light source: Semiconductor laser, 905nm (Laser safety class 1)

Scanning range: 0.1 to 60m (black objects with 10% reflectance), 190° XY and 90º in Z

Resolution: 6m : 10mm, 10m : 20mm, 30m : 130mm

Scanning accuracy: 0.1 to 10m : ±50mm, 10 to 30m : ± 100mm

Angular resolution: Step angle : 0.25°(360°/1,440 steps)

Noise: 25dB or less

Indications: Power lamp (green), operation lamp (orange): Lights up when detecting, flashes when malfunctioning

Ambient temperature/humidity: -10 to +50 degrees C (-25 to +75 degrees C when storing), 85%RH or less (not icing, not condensing)

Vibration resistance: Double amplitude 1.5mm, 10 to 55Hz, each 2 hour in X, Y and Z directions

Impact resistance: 196m/s2, Each 10 time in X, Y and Z directions

Case material: Front case : polycarbonate, rear case : aluminum

Protective structure: IP64 (IEC standard)

Server Software: Microsoft Windows, Linux or Mac OS

MODULAR DESIGN

This is a modular system, depending from the area we install multiple omnidirectional laser beams and we get them synchronized.

With only one unit we can cover 20 m x 40m = 800 m2

We can add multiple beams to cover areas up to 100.000m2

SOFTWARE

We always delivery customized software to our costumers full configured and ready to work.

Cross-platform:

Microsoft Windows

Linux

MacOS

INSTALATION PROJECT

For a small fee we can design the perfect system for your needs, we travel to your facilities and produce a full project of Hardware and Software before any type of commitment.

We can train third-party companies to install and integrate this system.

We can also configure the system via internet.

Contact us: sales@mvetech.com

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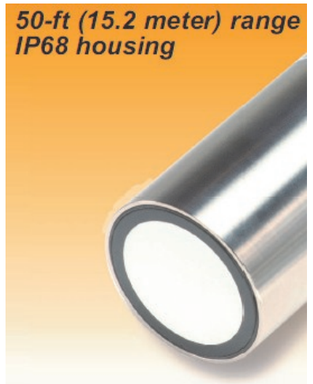
Warehouse Volume Meter Solutions

IP BASED SONAR VOLUME METER FOR WAREHOUSES AND PAVILLIONS



Laser Volume Meter Solutions are a state-of-art electronic system based on ip sonars that measure distances.

This solution is a complete system of hardware and software that provides local and remote access of the measured data.

This solution works for liquids and solids, we have also special sensors for chemical or dangerous materials.

To provide better precisions we can install redundant sensors to produce a better measurements.

Our system can delivery live measurements up to 10 times per minute depending from the measured area.

Volume calculation is instantly calculated delivered to a Website, SCADA or a IP network.

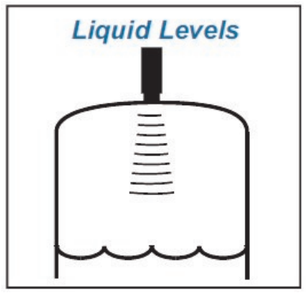
We can also customize this system to special needs.

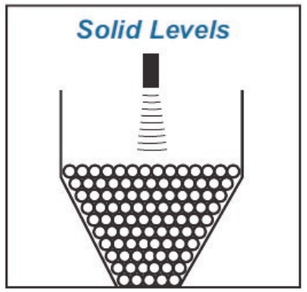
This is a cross-platform system:

Windows, Linux and Mac OS

APPLICATIONS

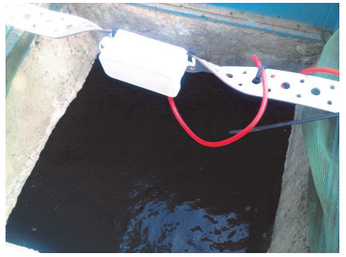
- WAREHOUSES
- DEPOSIT OF SOLID MATERIALS
- VOLUME AND LOAD CALCULATIONS
- DEPOSIT OF LIQUID MATERIALS
- LOGISTIC FACILITIES
- SECURITY FACILITIES





Fast, Reliable and Precise

SONAR VOLUME MEASUREMENT



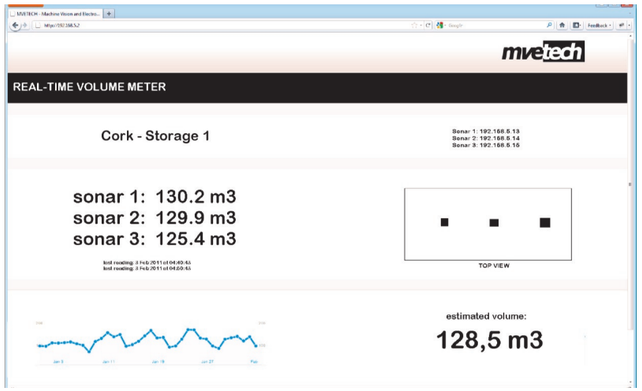
SENSOR

We install a Sonar array that will make a distance measurement to retrieve the volumetry data and send to the control software.

This software will make all the calculations needed to get precise measurements.

This sonar systems work as a measurement array that control each sensor independently.

WEB INTERFACE



With volumetric data you can export to Excel (CSV files)

SONAR-ARRAY SYSTEM

SPECIFICATIONS:

Power source: 120-240V or 24VDC ± 10%

Technology: Ultrasound

Range: 15 meters

Minimal distance: 30.5 cm

Ambient temperature/humidity: Temperature -40 to 70C, humidity 0-100% operating

Max Sample Rate: 4 measurements per second

Case material: Stainless steel, potted and sealed, liquid tight

Protective structure: IP68, NEMA-4x, NEMA-6P

Connectivity: TCP/IP

Server Software: Microsoft Windows, Linux or Mac OS

MODULAR DESIGN

This is a modular system, depending from the area we install multiple sonar modules and we get them synchronized.

This modular system can add up to 255 sonar sensors.

SOFTWARE

We always delivery customized software to our costumers full configured and ready to work.

Cross-platform:

Microsoft Windows

Linux

MacOS

INSTALATION PROJECT

For a small fee we can design the perfect system for your needs, we travel to your facilities and produce a full project of Hardware and Software before any type of commitment.

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