

# APPLICATIONS

ALL FROM ONE HAND



## Laser measuring PDS AGV Automatic Guided Vehicle Position detection

**FEAL**  
Industrial Solutions



### Short description::

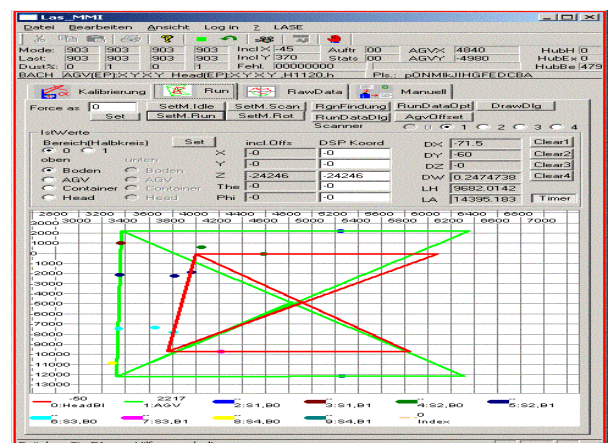
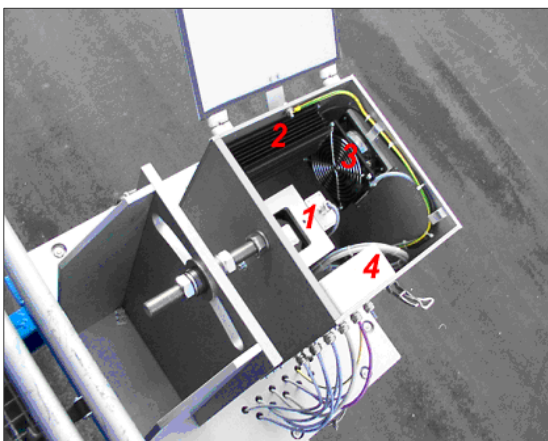
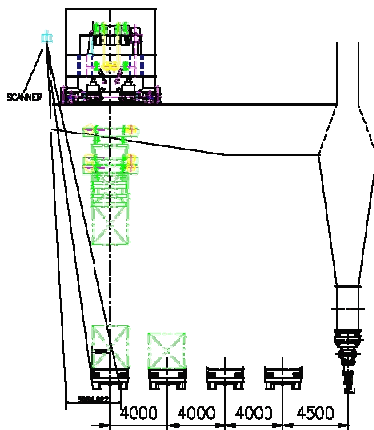
The complete measurement system (laser scanner and evaluation unit) measure on double-trolley crans the alignment of the containers to the header block/spreader when taking up, and/or for the AGV when setting down. The measurement system determines the space between the head block/spreader and container and/or between containers and AGV to each other with an accuracy of +/- for 50 mm. The misalignment of the AGV's is measured at the same time.

### Measurement System Features:

- AGV and container positioning
- Precise measurement of relative situation < 50 mm.
- Assisted start-up support

The PDS AGV laser measurement system consists of four laser scanners of the type ELD Cone scanner installed on to the portal trolley. The measurement systems operate via a rotary head, which is equipped with a 4° wedge prism, so that a conical scan is produced. The edge positions of the header block, container and the AGV are measured with the laser scanners.

The measured values are pre-processed in the scanners application processor (DSP). Each scanner sends its determined edge positions to the supervisory LASE PC. The measured values of the individual scanners are summarized in the LASE PC and compressed to determine the alignment between the container/AGV and/or spreader as well as to identify the number of containers in position.



Technical Data PDS AGV-Laser measurement plant *1)			
		Value	Note
Operational area	STS-Containerbridge		Double-cart-bridge
Container vehicle	AGV		Automatic Guided Vehicle (AGV)
Number of laserscanner		4	
Number of evaluation units		1	
Cultivation place	Portal cart		Along the outgoing turned to the landside
Cultivation height		ca. 20 m	
Accuracy		+/- 50 mm	Relative situation between Head block and AGV
Actualization rate of measured values		7 Hz	
Interface	Profibus-DP		LASE-Measurement is DP-Slave
Container size		20", 40" und 45"	No off centre procedures when handling 20 ft containers
Number of traces		4	In the Backreach-area
Manual interaction		Non	No manual processes. The entire range of the delivery STS - AGV is fully automated
Voltage supply		230 VAC	USV buffered
*1) Typical data of the laser measuring system - Changes to requirement have to be examined			

**Scope of supply laser measuring system PDS AGV:**

Sensor, protection housing (orientation platform), industrial-Pc, operating instruction



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