

Technical Data

Dimensions:	Width	Standard: 1270 mm (50 inch)
		XL: 1420 mm (55.9 inch)
	Depth	1140 mm (44.9 inch)
	Height	2450 mm (95.5 inch)
Wheel size:	Diameter	min. 13" (360 mm)
		Standard: max. 20" (555 mm (21.85 inch))
		XL: max. 25" (675 mm (26.57 inch))
	Width	min. 100 mm (2.56 inch) max. 350 mm (13.78 inch) (including sprue)
Inspection time:	< 10 sec	
Recognition rate:	> 97,5 %	
Offset difference with same design:	min. 12 mm	
Connected load:	3N PE 400/230 V; 50 Hz; 10 A; TN-S or TN-C-S three-phase system	
Compressed Air	6 bar	

Delivery Scope

- Cabinet, complete with base frame and safety devices
- Transport conveyor with centering device for the workpiece

The Wheel Recognition Station is designed to meet or exceed domestic and international standards and regulations, including, but not limited to:

- | | | |
|------------|-----------------|---------------------------|
| • ISO 9001 | • CFR 1020.40 | • DIN EN 60204 (VDE 0113) |
| • UVV | • CE Conformity | • DIN EN 954-1 |
| • VBG 4 | • VDE 0100 | • DIN EN 60529 / IEC 529 |

SEIFERT ID Station

Wheel Recognition Station



Application

Generally speaking wheel inspection covers a variety of wheel types. If the inspection process is automated as it is e.g. in conjunction with SABA the wheel recognition process must be automated as well.

The wheel recognition station is designed for the type recognition of un-machined wheels. The use of modern image processing technology enables the recognition of an almost unlimited number of different wheel types.

Inspection is non-contact and largely independent of workpiece fettling.

Features

- Fast recognition
- Non-contact measurement
- Integrated in existing inspection system
- Simple wheel type programming in the teach-in method
- High recognition rate independent from flash between spokes
- Recognition rate independent from surface reflection due to stereo-illumination principle
- Detection of internal wheel features like hub level and weight-saving pocket (optional)
- Designed to meet all pertinent radiation shielding and safety regulations
- Manufactured under ISO 9001 certified quality management system

Description

Lateral loading of the wheel (Figure 2, pos. 4) into the station is facilitated by a roller conveyor (6). A centering device (9) places the wheel in the proper inspection position.

The wheel is illuminated by a light source (1). Two cameras (2) take one exposure each. The exposure position is selected

such that the height can be simultaneously calculated from the exposure data whereby the height equals the width of the wheel (see Technical Data).

As some wheel types differ only in the design of the internal structure an additional measurement is required which is performed from below by using an ultrasonic

measuring device (3) in conjunction with an additional camera (10, optional). The wheel type is clearly recognized from the data collected.

The wheel recognition station is operated via a combination of keyboard and monitor screen of the higher-level system.

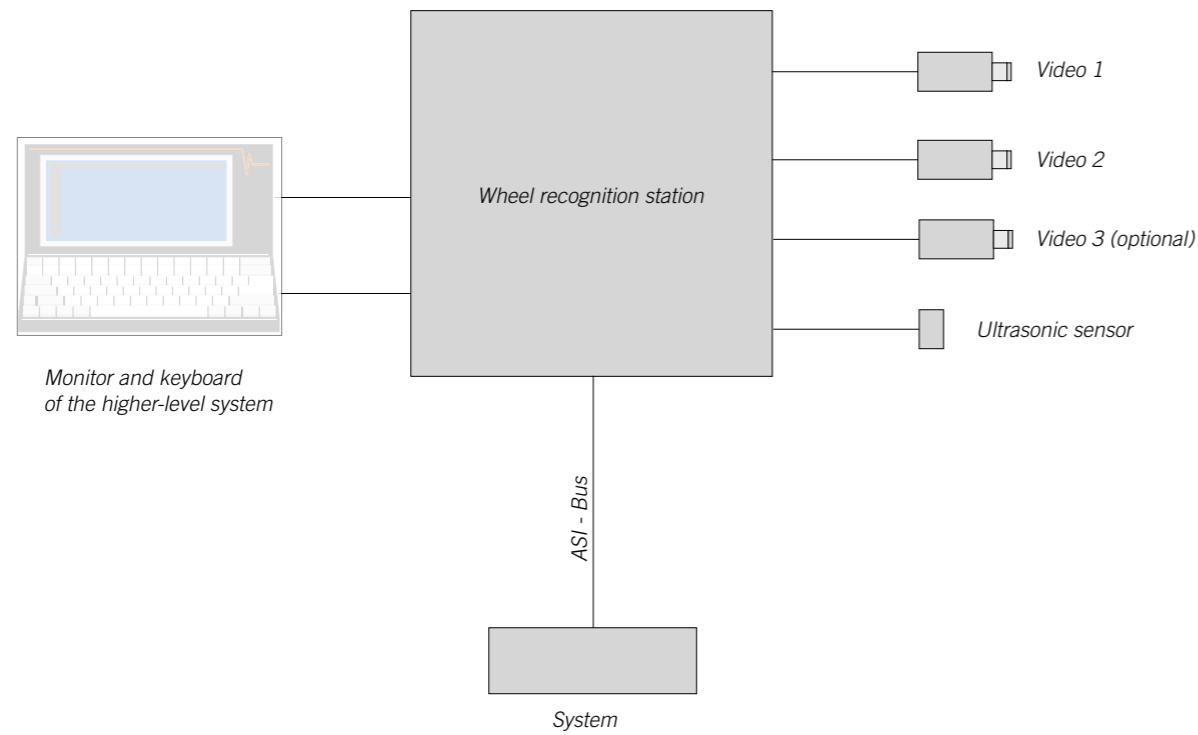


Fig. 1 Block diagram

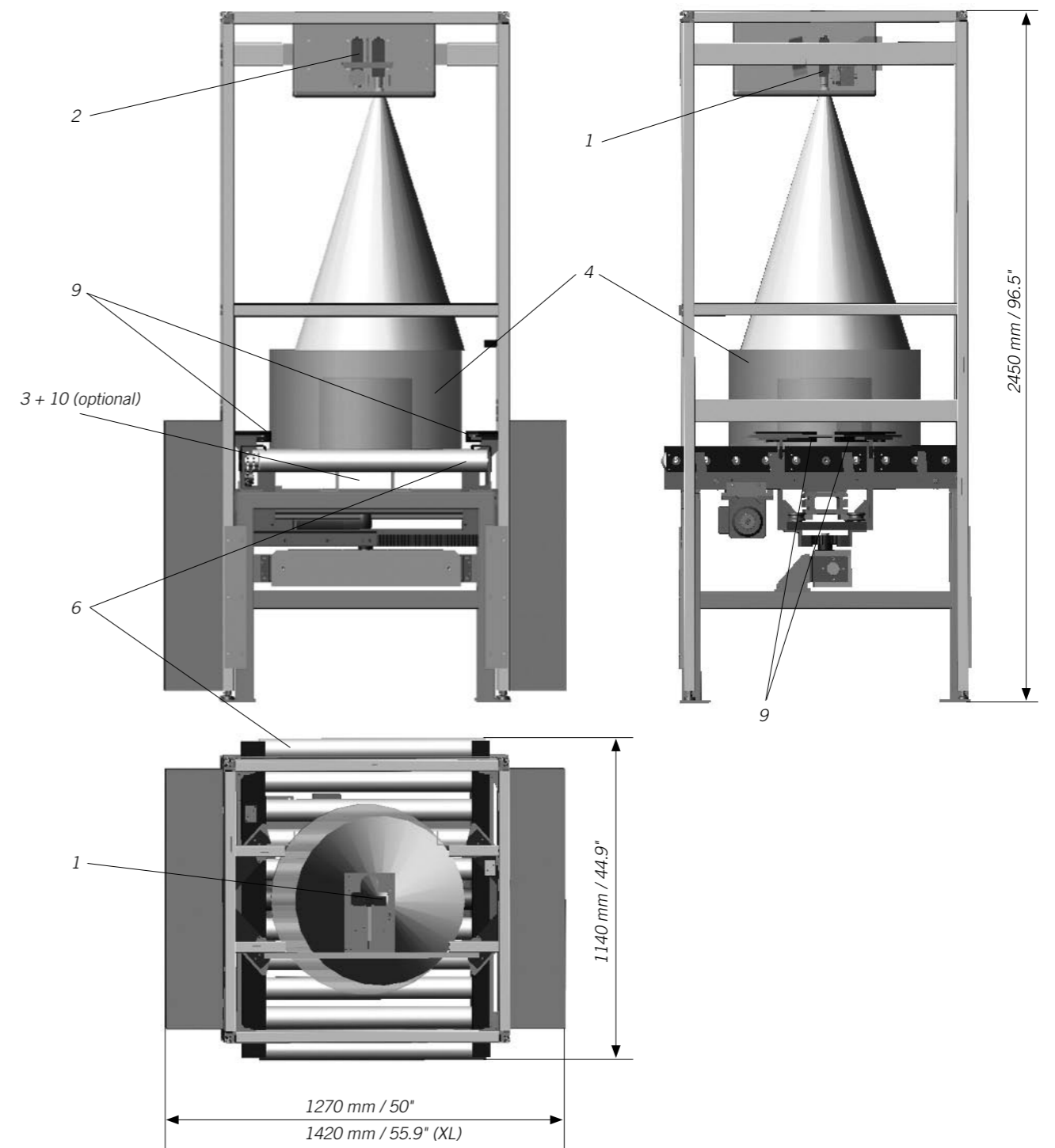


Fig. 2 Wheel recognition station