



Techno Vector 7 Truck

computer-based **3D** wheel aligners for trucks

Techno Vector 7
is the first in the world
3D wheel aligner
of traditional assembling
for heavy-duty vehicles



Precision in Motion



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Techno Vector 7

Computer-based

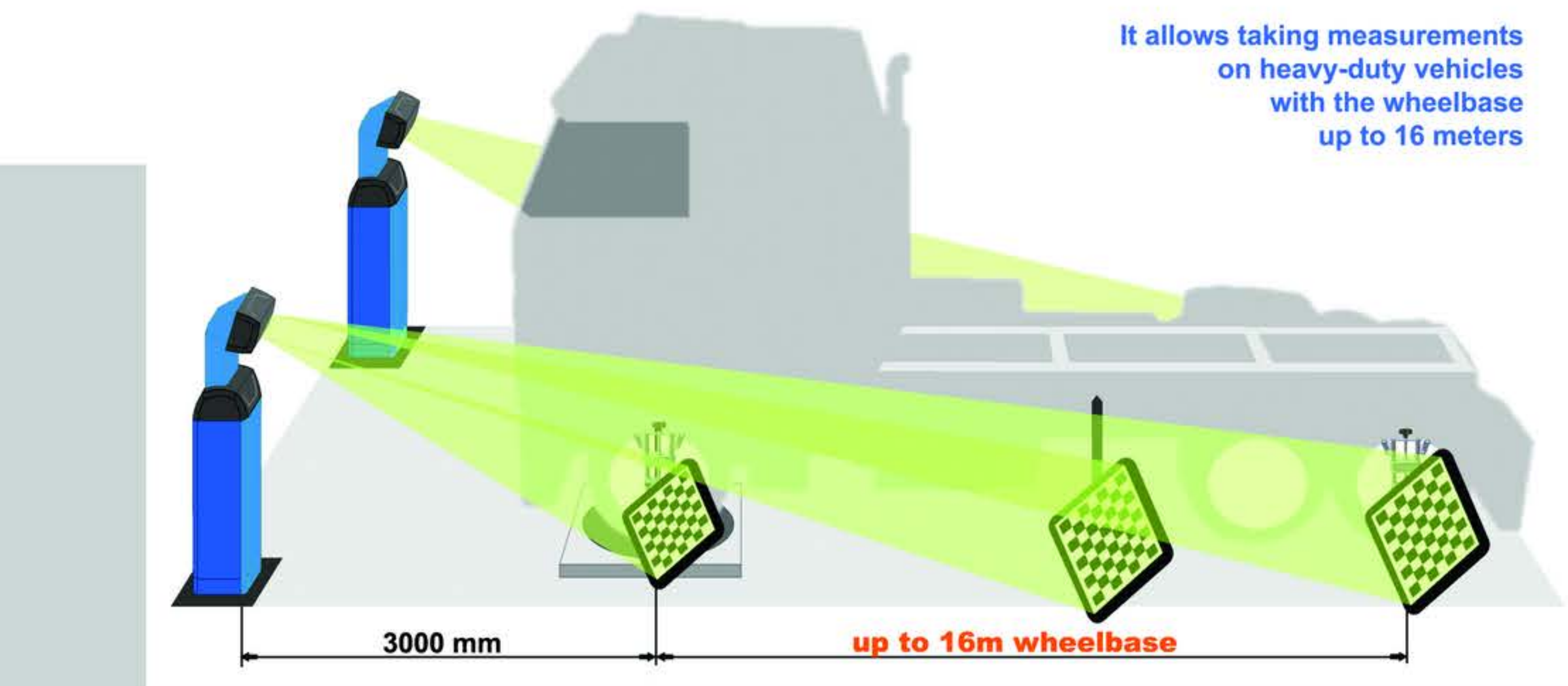
3D wheel aligners

4 digital HD video cameras

- one camera for each wheel
- determine positions of high precision image targets in space



Innovation in Wheel Alignment



It allows taking measurements on heavy-duty vehicles with the wheelbase up to 16 meters

Measurement of truck frame position



Special probe target

allows quick and accurate measurements of truck frame position in order to determine the vehicle centerline



Machine vision system includes 4 video cameras

Self-centering wheel adapters allow operating a wide range of wheel disks – from 12" to 24"

Special probe target allows quick and accurate measurements of truck frame position

Clamps with targets are mounted onto wheels one after another on measurable axles of a vehicle



Machine vision system



Machine vision system housings are vertical posts equipped with high-precision network cameras with high-quality matrices

Data are transferred from cameras to PC via TCP/IP

Machine vision system automatically recognizes the targets that are installed on the wheels of the vehicle and the position of the probe target. After that it calculates their geometrical position in space to high precision

Such arrangement of the machine vision system allows taking into account individual peculiarities of a certain workplace and provides drive-through

Video Cameras



Targets

Compact and easy targets

One target for each wheel

Easy to handle

The front panel is protected with a rubberized border

No electronic components

No need to calibrate targets

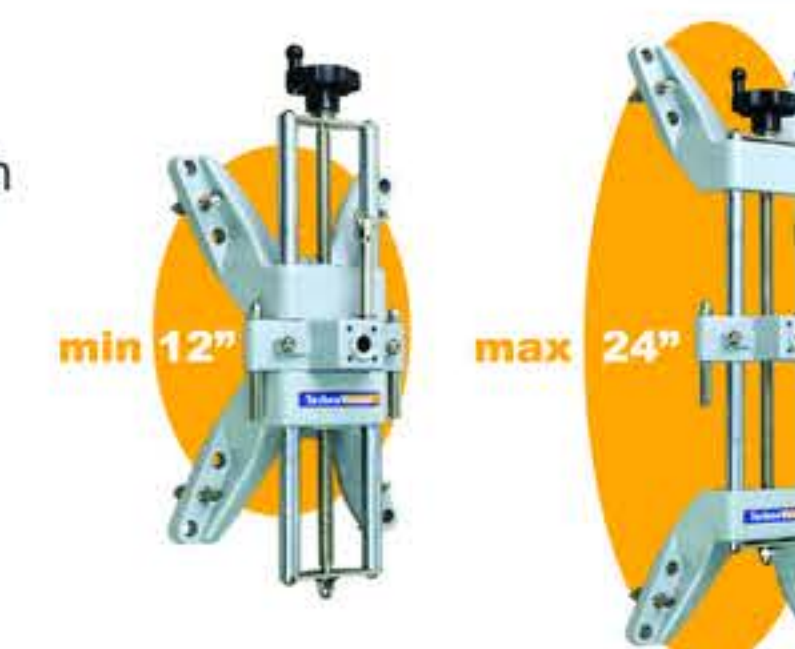


Targets



Wheel Adapters

Self-centering wheel adapters with the mobile central part fit 12" -24" wheel disks and are compatible with motorcars and trucks



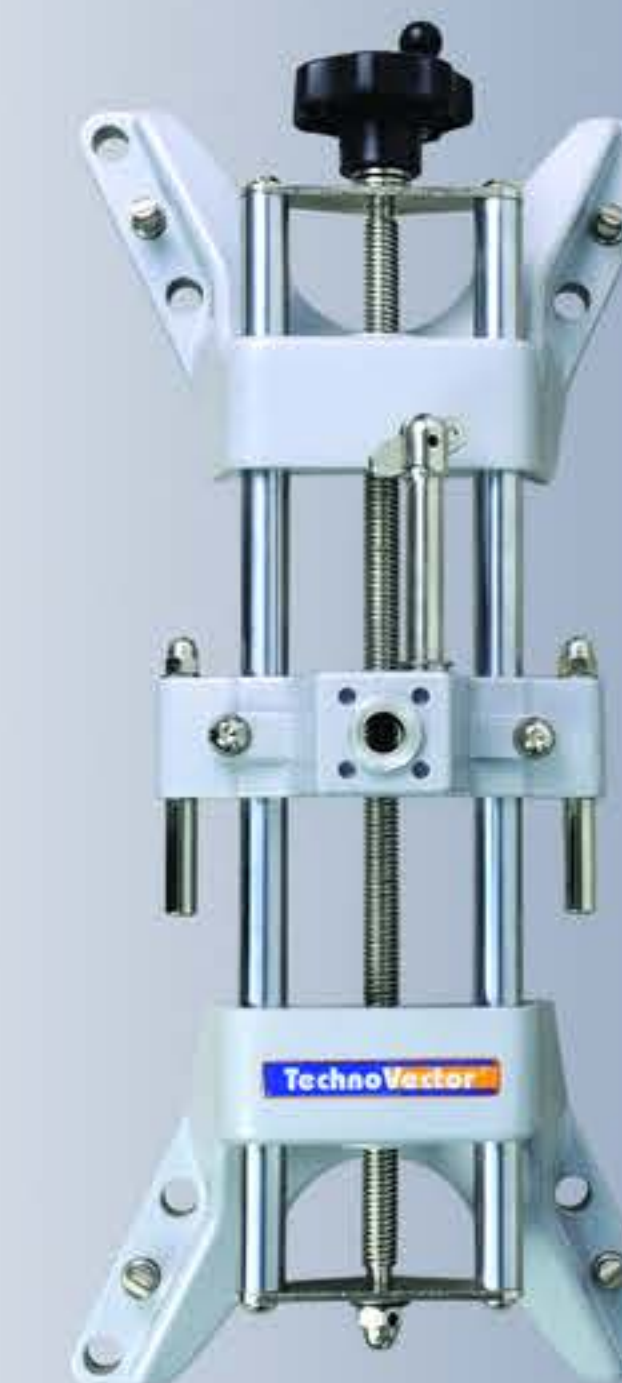
Operation



Clamps can be adjusted easily to various disk diameters with a special handle

Quick and reliable target mounting in wheel adapters with a shaft lock

The change from the minimum disk size to the maximum disk size is made by interchanging "claws"



Double "claws" allow operating steel and light-alloy disks



Adapters

Remote Control



Control

It allows you to control your PC from the distance up to 10 meters

It duplicates the functional keys on the main control panel





Computer Cabinets

Computer cabinet includes:

- electronic unit based on PC with Intel Core I3 processor and up-to-date video card that supports Direct X11,
- 22" and above widescreen LCD monitor,
- special bracket,
- printer,
- wireless remote control,
- brackets for integrated storage of wheel adapters and targets.



Specifications

Parameter	Techno Vector 7 Truck		
	Measurement Range	Maximum Error in Measurement	Average Error in Measurement
Front Wheel Alignment			
Camber	$\pm 8^\circ$	$\pm 3'$	$\pm 2'$
Front Total Toe	$\pm 5^\circ$	$\pm 3'$	$\pm 2'$
Caster	$\pm 19^\circ$	$\pm 8'$	$\pm 5'$
SAI / KPI	$\pm 19^\circ$	$\pm 8'$	$\pm 5'$
Lock Angle	$\pm 45^\circ$	$\pm 10'$	$\pm 5'$
Rear Wheel Alignment			
Camber	$\pm 8^\circ$	$\pm 3'$	$\pm 2'$
Rear Total Toe	$\pm 5^\circ$	$\pm 3'$	$\pm 2'$
Symmetry Angles			
Front Set Back (controllable)	$\pm 2,5^\circ$	$\pm 3'$	$\pm 2'$
Rear Set Back (uncontrollable)	$\pm 2,5^\circ$	$\pm 3'$	$\pm 2'$
Thrust Angle	$\pm 2,5^\circ$	$\pm 3'$	$\pm 2'$
Geometrical Driving Axis	$\pm 2,5^\circ$	$\pm 3'$	$\pm 2'$

Parameter	Value
Voltage, W	$220 \pm 10\%$
Frequency, Hz	50/60
Wheel Adapter (Clamping Arm) Mounting Range, in.	12 ÷ 24
Operating Temperature, C	+10 ÷ +35
Power Consumption	350
Climatic Category of the Device according to GOST (All-Union State Standard)	GOST 15150-69

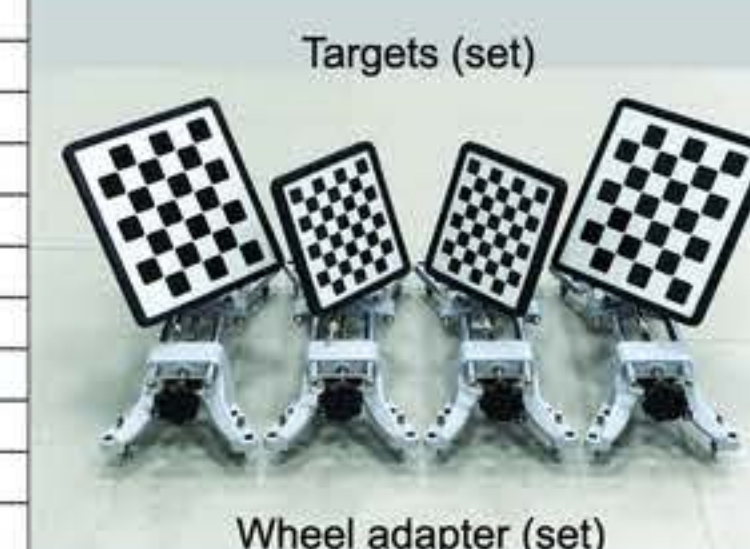


Universal telescopic monitor bracket

It makes it possible to adjust the LCD monitor position (height and inclination angle) to provide maximum visibility and operability

Delivery Set

Techno Vector 7 Truck (Standard accessories)	Quantity, pcs.
1. Machine Vision System	1
2. Computer Console	1
3. Electronic Unit	1
4. Target Set	4
5. Self-Centering Wheel Adapter (Clamp)	4
6. Probe target	1
7. Steering Wheel Holder	1
8. Brake Lock	1
9. Turnplate	2
10. Remote Control Receiver	1
11. Remote Control	1
12. Manual	1
13. Inkjet color printer	1



A high-tech remote control V-series allows a quick access to all Techno Vector program modes

A tip-up panel provides a direct access to system unit ports

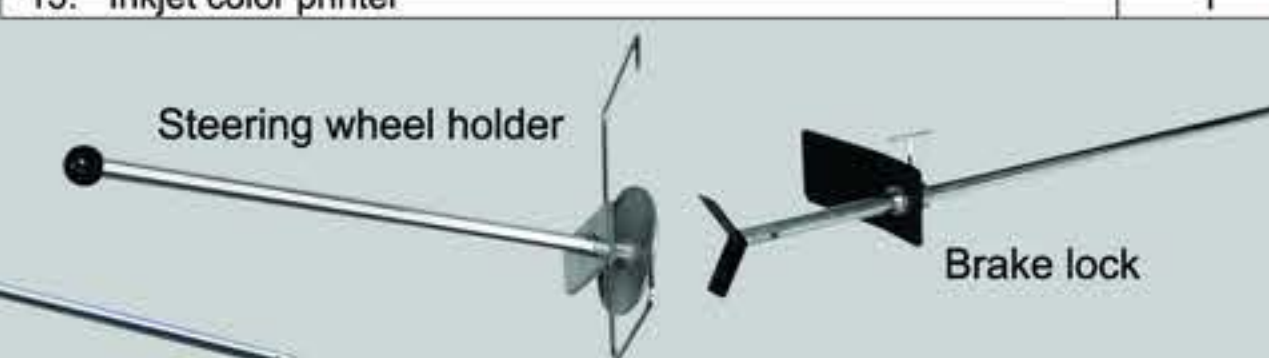
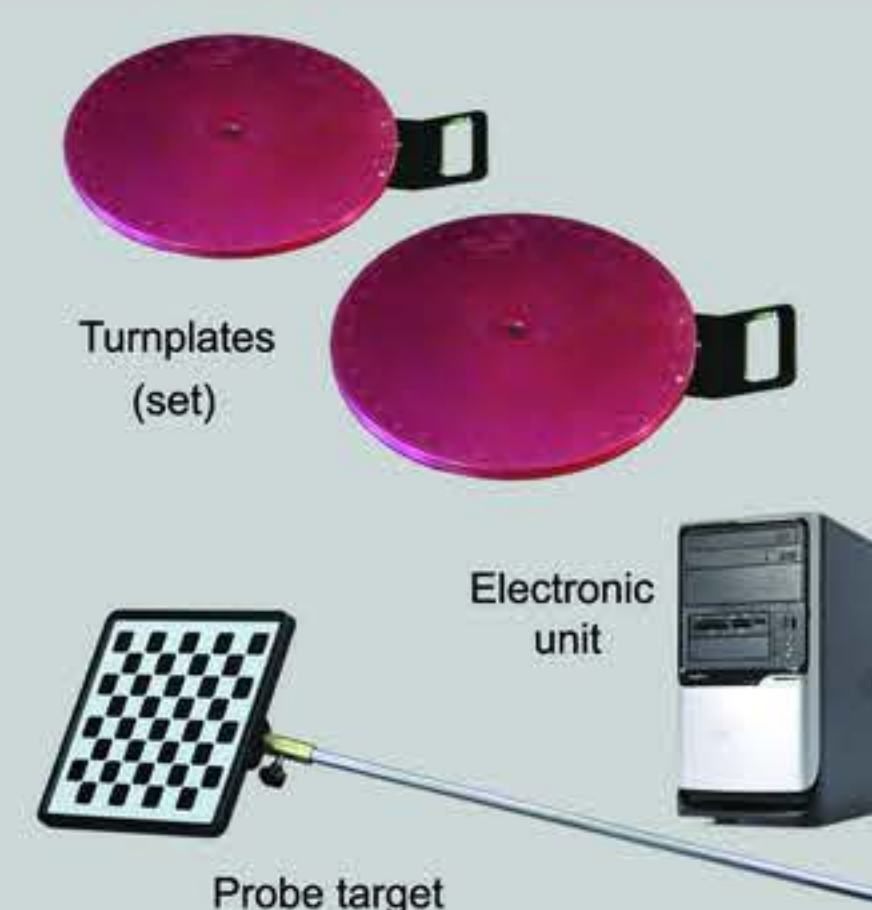


TechnoVector

Sliding shelf for keyboard (to enter personal client's data)

Control panel V-series

Drawer for keyboard and printer





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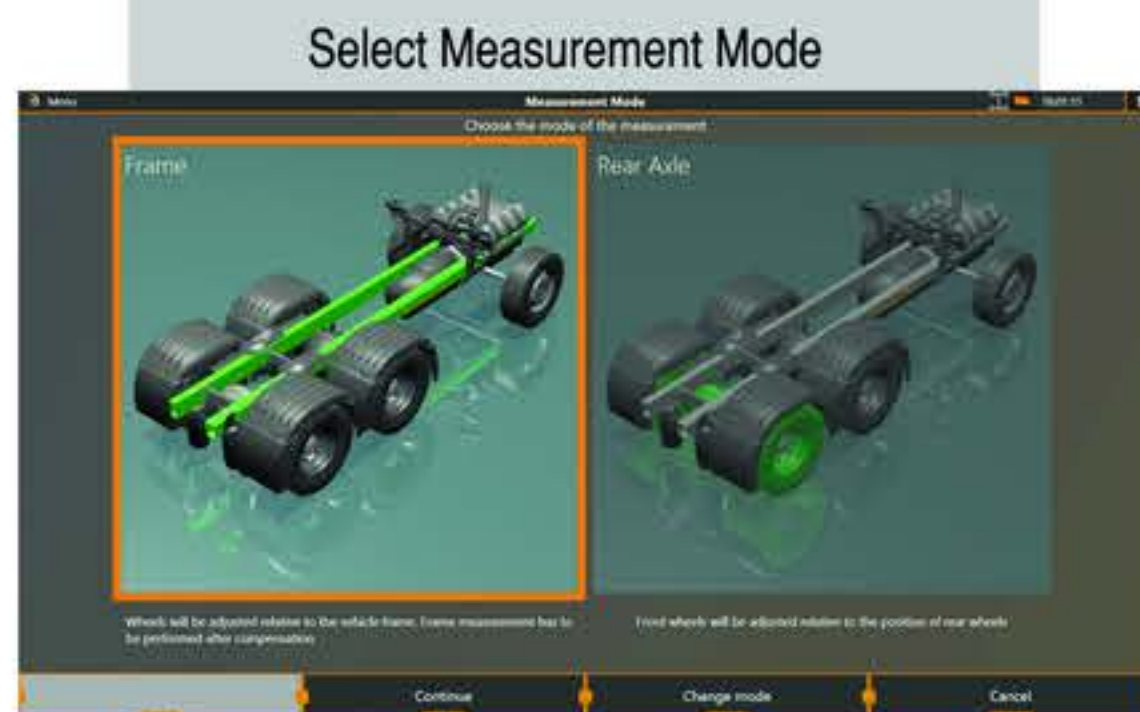
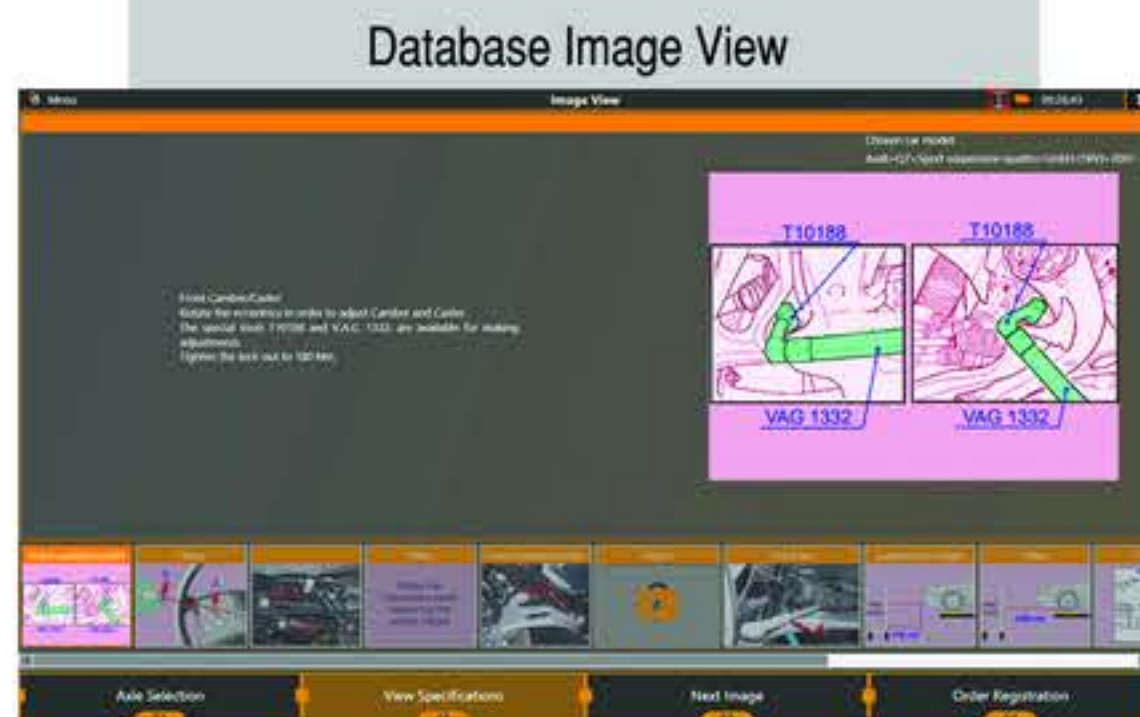
Techno Vector Software

The Techno Vector 7 software is a powerful and modern means for checking and controlling wheel alignment



Continuous data processing and measurement displaying

Easy operating away from the monitor with color indicators

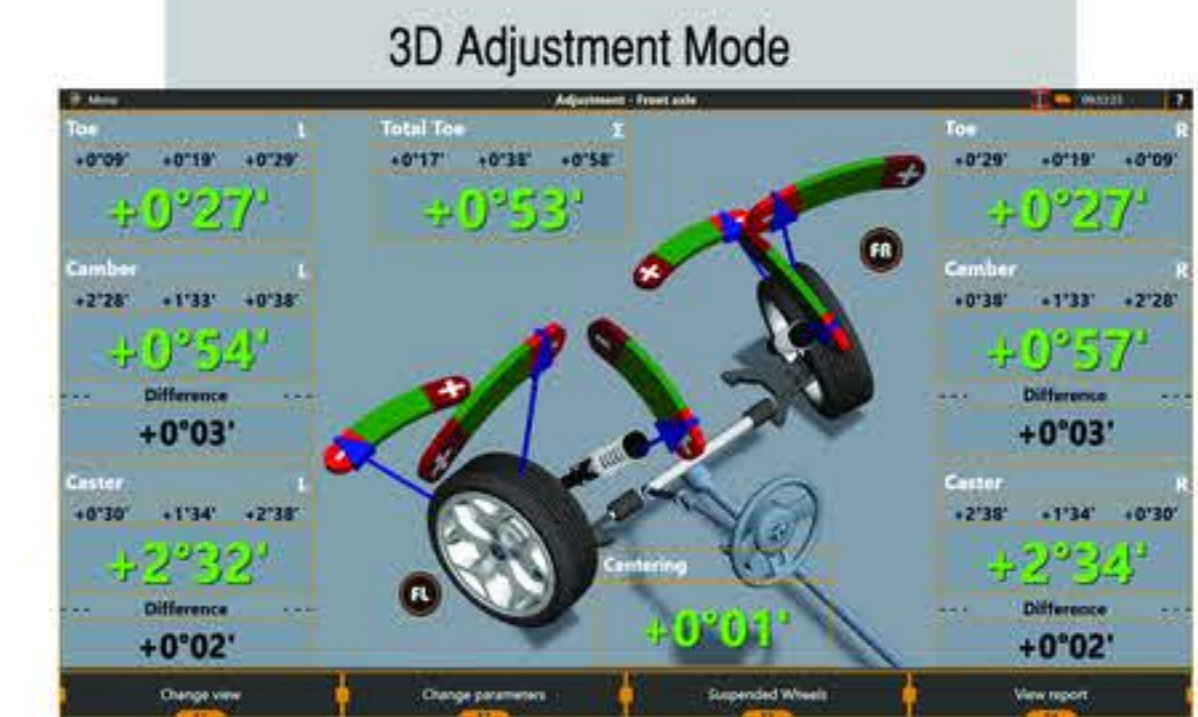


Automatic parameter assessment of compliance with specifications

Quick access to other program modes



The Techno Vector 7 software based on PC works with **Windows 8**



3D visualization, 7 modes



2D visualization, 2 modes



Database

The database that contains thorough information about wheel alignment is integrated in the software

You can create a user's database

Help System

The electronic Help system contains thorough information on working with the wheel alignment machine and software

- video for working with the equipment
- video lectures on working with the software
- information on adjustments – diagrams, images, video, 3D animation



The wheel aligner software supports **ASA Network** (communication standard for service centers and dealer centers). It allows taking orders centrally and sending measurements to vehicle receiving centers.



Remote control V-series



Free annual software updates

3D Animation





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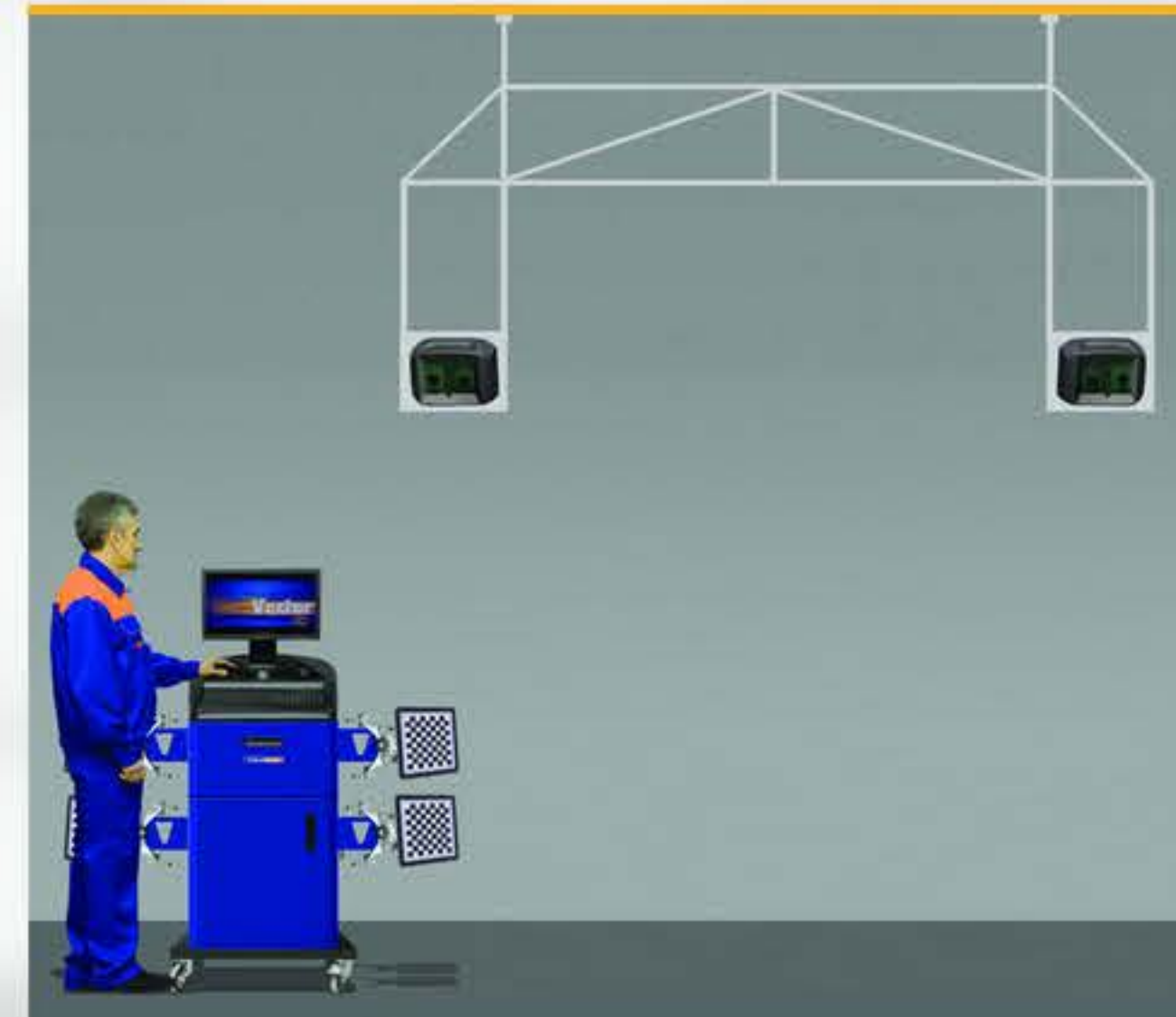
Configuration

Machine vision system housings are two vertical posts with video cameras installed on them



Floor-mount installation of the wheel aligner
Measurements and adjustments are performed on the pit.
Drive-through is possible.

The initial installation of the equipment is performed by the manufacturer's service technicians.
The device works with a 4 post wheel alignment lift or a repair pit, compliance with the horizontality requirements is strongly recommended.



Wall-mount (or ceiling-mount) installation of the wheel aligner*
Measurements and adjustments are performed on the pit.
Drive-through is possible.

* design is calculated individually



Integrated storage for targets and wheel adapters on the computer cabinet



Moving wheel adapter with target easily at the same time



Mounting wheel adapter and target easily at the same time



Measuring truck frame position

Certificates



Pattern Approval
Certificate of Measuring Instruments
RU.C.28.001.A № 51081



Pattern Approval
Certificate of Measuring Instruments
RU.C.27.001.A № 38858



Pattern Approval
Certificate of Measuring Instruments
№ 6651



Certificate
of Conformance
№ C-RU.AF83.B.09992



Certificate
of Conformance
№ C-RU.AF83.B.09993

The awarding ceremony of the contest
100 Best Commodities of Russia 2010
took place in 2010 as a part of activities
devoted to European Quality Week and
World Quality Day.



As a result of the contest
the **Techno Vector 7**
wheel alignment gauge
got the Gold Award
and the Novelty of
2010 Certificate.



The **Gold Award**
is given to the winner of the
contest for manufacturing
high-quality Russian
products.



The **Certificate**
is given to the participant
of the contest for manufacturing
new high-quality products.

Marking

V 7 2 0 4 H T

1 2 3 4 5 6 7

- 1 Letter symbol of a computer console series: T, V
- 2 Numeric symbol of a device series according to the type of measuring: 7-measuring by video cameras and high-precision image targets (3D)
- 3 Numeric symbol of axis number measured simultaneously
- 4 Numeric symbol of a video camera type: 0 - stationary
- 5 Numeric symbol of the total number of video camera units in the modification: 4
- 6 Letter symbol of a video camera housing type: H
- 8 Letter symbol of video camera housing: Truck



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