

# Jumbo 3D

3D Wheel Aligner for Multi-Axle Buses, Trucks & Trailers

Model :  **Jumbo 3D**

– 4 cameras & 4 targets

 **Jumbo 3D SUPER**

– 4 cameras & 10 targets



 **MANATEC™**  
*Partners in Progress*

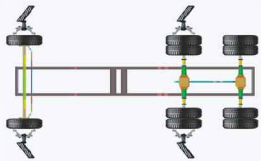
- No electronics on wheels
- One shot Runout compensation of all wheels up to 5 axles in Jumbo 3D Super
- Ideal for all workshops, tyre shops and OEM assembly End of line requirements

# Innovative Image-Processing Technology



Jumbo 3D uses latest, innovative, digital-imaging technology by deploying quad camera system for data-acquisition. High resolution digital cameras, two per side, operate with intelligent software & capture seamless images of targets

## Jumbo 3D



This basic model comes with 4 cameras and 4 targets. Runout of all wheels can be done by shifting the targets sequentially. A perfect substitute for current generation CCD aligners.

## Jumbo 3D SUPER

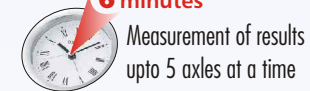
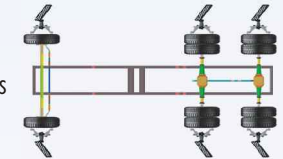


Super model supplied with 10 targets and integrated wheel brackets enables the user to measure results up to 5 axles simultaneously.

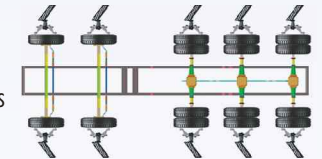
- One shot Runout compensation of all wheels up to 5 axles
- Quick results, high productivity
- Less labour cost



**4 minutes**  
Measurement of results upto 3 axles at a time



**6 minutes**  
Measurement of results upto 5 axles at a time

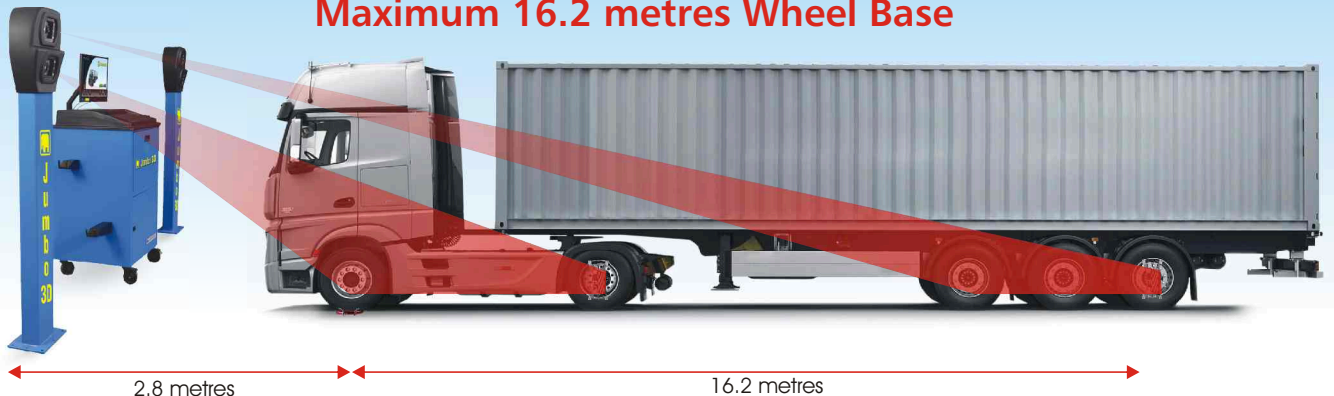


## One Shot Runout Compensation Jumbo 3D Super

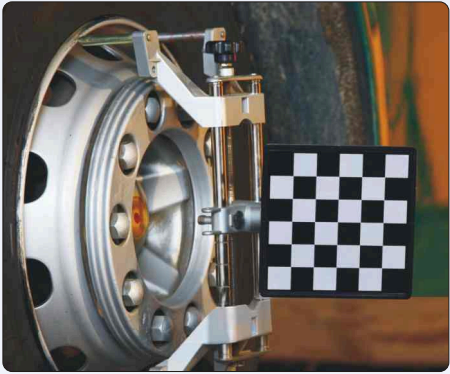


- All 10 targets are mounted on 5 axles at a time and Runout is performed in a single shot
- No need to remove and refix the clamps and targets for each axle
- No Jacking up of wheels
- Enormous time saving and productivity increased

## Maximum 16.2 metres Wheel Base



## No electronics on Wheels

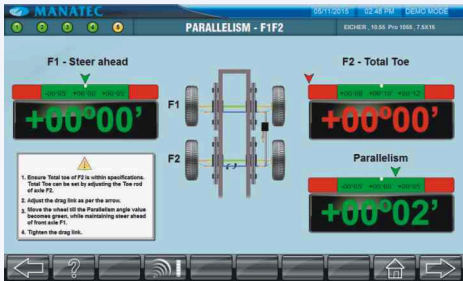


- No expensive service bills due to accidental drop of electronic sensors
- No sensor calibration issues
- No battery discharge issues
- Compact and light weight

## Universal Wheel Bracket

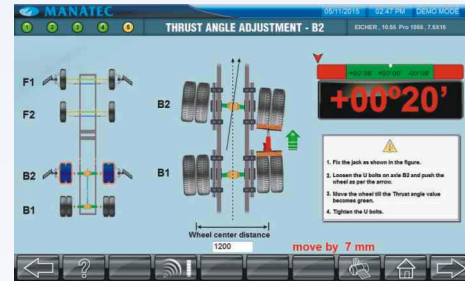


## Parallelism Adjustment



Alignment of Front twin steerable axles to maintain parallel condition

## Thrust / Scrub Angle Adjustment



Alignment of Rear multi axles

## Trailer Alignment



Trailer can be aligned up to 8 Axles

## Caster & Kingpin measurement swing



Screen guidance for Turn Left & Right to measure Caster & Kingpin inclination

## Smart Control (Optional)

### Tablet operation



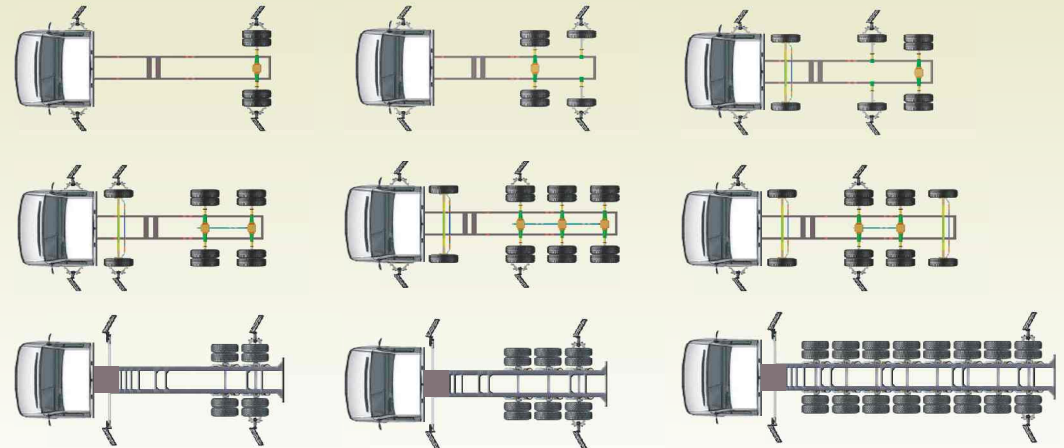
Highly user-friendly Wi-Fi enabled tablet device to display alignment results & to operate the PC from the Alignment bay (Max 10 meters). Avoids unnecessary movement to PC.

### Remote operation



Portable 2.4 GHz Wireless control device to operate the PC from the alignment bay (Max 10 meters). Avoids unnecessary movement to PC.

## Sample Vehicle Configuration



Aligns up to 5 axles in Bus / Truck & 8 axles in Trailer

## Robust Rotary Plates



4 nos rotary plates, each 7 tons capacity, capable of handling multi- axle bus / trucks.



## Technical Specifications

Measurement parameters	Range	Accuracy
Camber (Front / Rear)	± 15° 00'	± 00° 02'
Caster	± 28° 00'	± 00° 05'
Kingpin Inclination	± 25° 00'	± 00° 05'
Toe (Front / Rear)	± 20° 00'	± 00° 02'
Total Toe	± 40° 00'	± 00° 04'
Setback (Front / Rear)	± 25 mm	± 2 mm
Scrub / Thrust angle	± 10° 00'	± 00° 02'
Runout	± 10° 00'	± 00° 02'
Included angle	± 40° 00'	± 00° 05'
Track width difference	± 150 mm	± 2 mm
Toe Out on Turns (Optional)	± 20° 00'	± 00° 20'
Lock angle (Optional)	± 60° 00'	± 00° 20'
Power supply	230V AC, 50Hz.	
Power	250W	
Operating temperature	0° - 50°C	

## Standard Accessories

- Wheel brackets (12"-24")
- Target Plate
- Rotary plate (7 Ton)
- Steering lock
- Brake pedal lock HCV
- Brake pedal lock LCV
- Adapter for Rim locking pin
- PC with LED Monitor, Keyboard & Mouse
- Wheel Alignment & Data Manager Software

Jumbo  
3D

Jumbo  
3D Super

4 Nos  
4 Nos  
4 Nos  
1 No.  
1 No.  
1 No.  
16 Nos.  
1No.  
1No.

10 Nos  
10 Nos  
4 Nos  
1 No.  
1 No.  
1 No.  
40 Nos.  
1No.  
1No.



## Optional Accessories

	Wheel Bracket Extension Adapter		Trailer Kingpin Gauge
	Rim Locking Pin - Double Ended <i>(for Run flat tyre rims &amp; Fancy disc)</i>		Frame Offset Gauge
	Rim Locking Pin - Double Ended <i>(for Standard &amp; Steel rims)</i>		Tyre Dia Gauge
	"Autodata" Software		Single Axle Adjuster
	Printer		Air Mouse Remote

## Other Equipment & Tools

### Air-Hydraulic Jack with Trolley



### Manual Bottle Jack with Trolley



### Impact Wrench (1" short)



### Tools Stand



### Impact Wrench (1" long)



### Wheel Bracket Stand



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