

# Vision Based 3D Wheel Aligner



« Unique "ALIGN+" Software »

## Model : FOX 3D Auto BoomX Smart Mobile

## Model : FOX 3D Auto BoomX



Automatic camera beam movement synchronized with movement of the vehicle on the lift. Can be moved between bays to use in different alignment lifts. Provision for manual height adjustment also available.

Automatic camera beam movement synchronized with movement of the vehicle on the lift by using compensation program. All measurements can be done at floor level and adjustments at any convenient height. Provision for manual height adjustment also available.

## Model : FOX 3D MBX

## Model : FOX 3D VHX



Designed to perform alignment on Scissor lift, Four Post Lift and Pit. Horizontal beam with camera can be fixed at desired height.

This model is designed to suit lift based (Two Post Lift, Four Post Lift & Scissor Lift) wheel alignment. The camera beam can be raised/lowered manually to the required height using handle provided in the beam saddle.

## Model : FOX 3D PTX



Designed to perform Alignment on pit.

# NEO 3D Wheel Aligner



Model : **NEO 3D**

**NEO 3D comes with compact camera pods fitted on the floor at a distance of 1125 mm from the centre of Rotary plates. This set up gives free space of 3375x902 mm (32.7 sq.ft)**

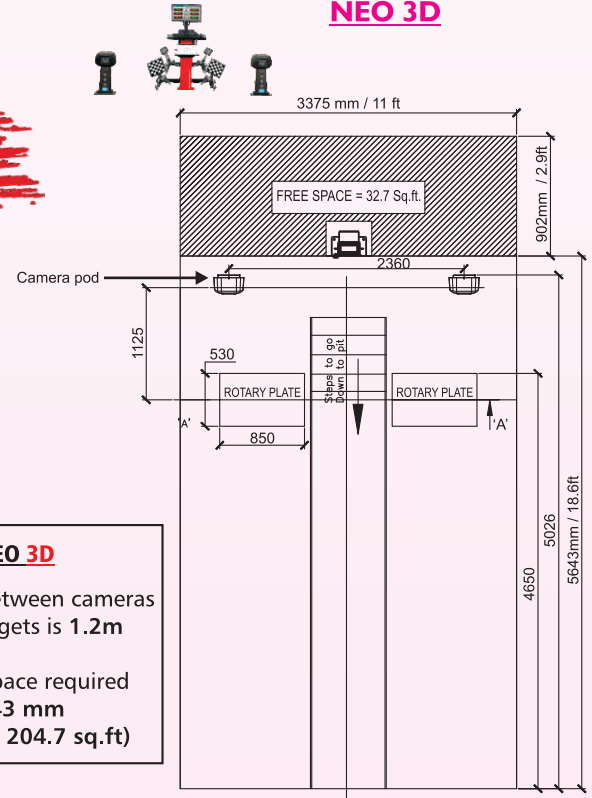
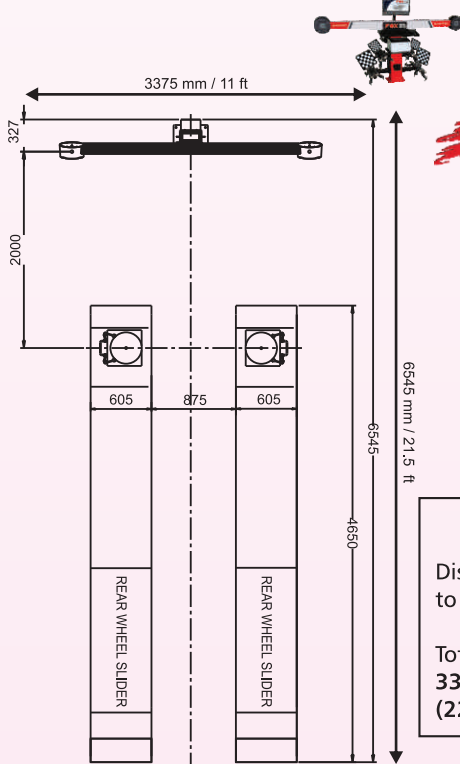


Indigenous design that eliminates the horizontal beam in traditional 3D aligners and reduces minimum mandatory distance between cameras and targets.

With only 2 cameras it measures all alignment parameters in just 3 mins!

**Conventional 3D**

**NEO 3D**

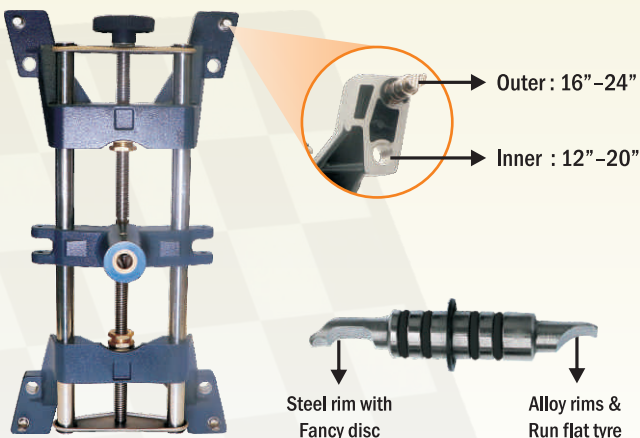


**SPACE SAVER**

<u>Conventional 3D</u>	<u>NEO 3D</u>
Distance between cameras to front targets is 2m	Distance between cameras to front targets is 1.2m
Total bay space required 3375 x 6545 mm (22 sq.mt / 237 sq.ft)	Total bay space required 3375 x 5643 mm (19 sq.mt / 204.7 sq.ft)

**Universal Wheel Bracket**

Suitable for 12" - 24" rim diameter



**[ SMART CONTROL - Optional ]**

**Tablet**



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

## SIMPLE 4 STEP ALIGNMENT : SAVES TIME



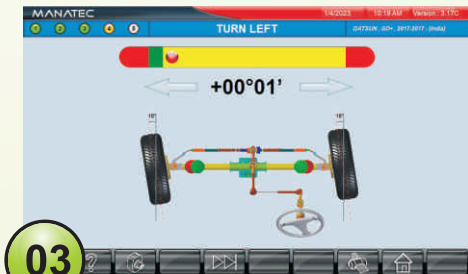
01

**Pre-Alignment Inspection**



02

**Push - Pull Runout**



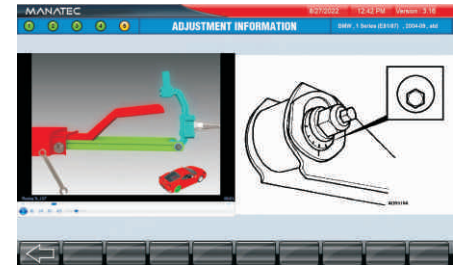
03

**Turn Left / Right**

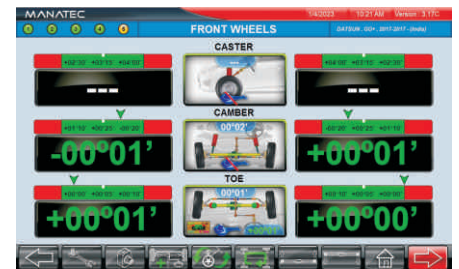


04

**Alignment Results**



**Animation guidance**  
(optional features available in Autodata)



**Live readings to adjust**

## Quick Align Program



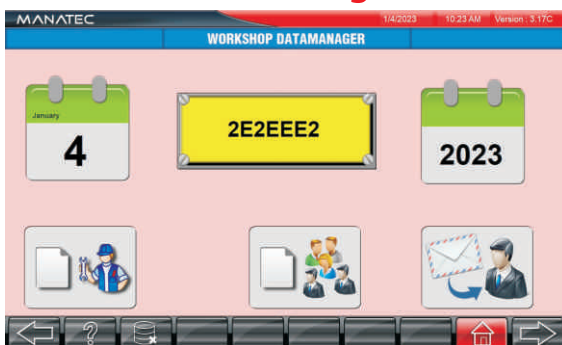
Unique OEM wizard program helps in saving technician time and increases alignment center productivity through customization of the screens himself by selecting and skipping routine inspection screens, attention screens, Caster swing etc.,

## Features Menu



Useful features like vehicle information modification, multi users function, vehicle data updates, unit conversion etc. are available.

## Data Manager



Data Manager software to retrieve alignment history by month, year and registration number. Useful tool for workshop managers.

## Lift level compensation



This feature will overcome the error in readings due to level unevenness during elevation in a scissor or 4-post wheel alignment lift thus ensures Caster, Camber angles are not affected.

# Vision Based 3D Wheel Aligner



## Salient Features

- Vision based 3D Imaging technology using 2 High Performance SI (Scientific Image) Cameras
- Simultaneous Front and Rear wheel alignment (4x4)
- Push Pull Runout / Setback / Thrust angle compensation
- Lift level compensation at adjustment level
- Unlimited memory for vehicle specifications
- Option for selection of vehicle specification during alignment
- Power failure data protection
- Multi-lingual program & Voice prompt in English
- Automatic tracking of Left & Right turns for Caster/Kingpin measurements
- Adjustment of Camber in wheel Jacked-up position & Toe curve measurement
- Wheel off Camber adjustment
- Rear Setback & Track width difference
- Toe adjustment in single Tie rod vehicle, Vehicle geometry measurements
- Effortless Toe (Easy Toe) adjustment program / Drag link adjustment
- Camber measurement at Zero Toe
- Toe out on Turns & Lock angle measurements \*
- Animated pictorial display of angles during alignment
- Zoom in option for live parameters - like Camber, Caster & Toe in full screen
- Two color bar display for adjustment of all angles to indicate within or out of specification
- Option for Quick Wheel Alignment program
- Data Manager Software for storing & retrieving alignment results
- Customer Address in printout & customer data edit option
- Two wheel Alignment program by fixing only front two target plates









\* Not Applicable for NEO 3D

## 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'
Toe Out on Turns *	± 20° 00'	± 00° 02'
Setback (Front / Rear)	± 25 mm	± 2 mm
Thrust angle	± 05° 00'	± 00° 02'
Runout	± 10° 00'	± 00° 02'
Included angle	± 40° 00'	± 00° 05'
Track width difference	± 300 mm	± 5 mm
Power supply	230V AC, 50Hz / 110V AC, 60Hz	
Power consumption	200W (without Printer)	
Power consumption for Autoboom	400W (without Printer)	
Operating temperature	0° - 50°C	

\* Not Applicable for NEO 3D

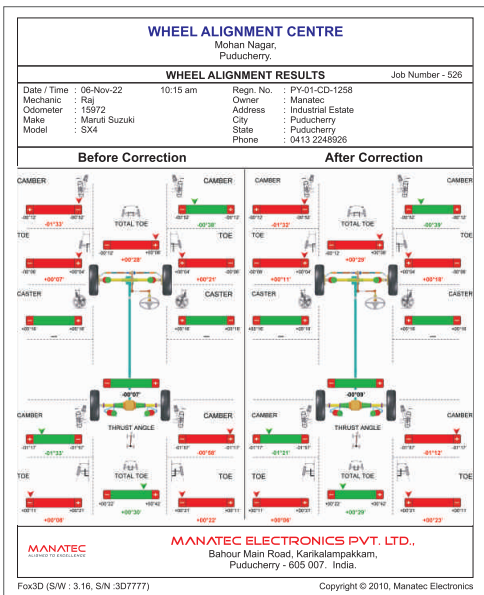
## Standard Accessories

 Target Plates – 4 Nos.	 Wheel brackets (12" - 24") – 4 Nos.	 Rotary Plates - (2 ton) – 2 Nos.	 Steering Lock – 1 No.
 Brake Pedal Lock – 1 No.	 Wheel stoppers – 2 Nos.	 PC with LED Monitor, Keyboard & Mouse	 Align+ & Data Manager Software

## Optional Accessories

 Printer (Inkjet or Laser)–1 No.	 Long Rear wheel sliders – 2 Nos.	 Wheel Bracket adapters (10"-26") – 16 Nos.	 Rim locking pin – 16 Nos.
--	--	--	---

## Graphical Printout



## Text Printout

WHEEL ALIGNMENT CENTRE		Mohan Nagar, Puducherry.		Job Number - 526	
<b>WHEEL ALIGNMENT RESULTS</b>					
Date / Time	06-Nov-22 10:15 am	Regh. No.	PY-01-CD-1258	Mechanic	Raj
Odometer	15972	Owner Address	Industrial Estate	City	Puducherry
Make	Maruti Suzuki	State	Puducherry	Model	SK4
Phone	0413 2248926				
<b>DB : India (2014-1)</b>					
	Before correction	Specification			After correction
■ Within limits		Min	Target	Max	
■ Out of limits		<b>FRONT WHEEL ALIGNMENT RESULTS</b>			
CAMBER	Left -01'50'	+00'02'	+00'32'	+01'02'	+00'04'
	Right -00'30'	+00'02'	+00'32'	+01'02'	+00'05'
	Max diff. Left/Right				-00'01'
KINGPIN	Left -12'30'	+12'15'	+12'45'	+13'15'	+12'45'
	Right -11'00'	+12'15'	+12'45'	+13'15'	+13'00'
	Max diff. Left/Right				+00'15'
INCLUDED ANGLE	Left +00'00'	---	+13'17'	---	+10'44'
	Right +00'00'	---	+13'17'	---	+10'25'
	Max diff. Left/Right				+00'09'
CASTER	Left +03'30'	+01'59'	+02'29'	+02'59'	+02'30'
	Right +00'00'	+01'59'	+02'29'	+02'59'	+02'00'
	Max diff. Left/Right				+00'30'
SETBACK	0mm	---	---	---	0mm
TOE	Left +00'30'	-00'20'	+00'42'	+01'44'	+00'01'
	Right +00'00'	-00'20'	+00'42'	+01'44'	+00'08'
	Max diff. Left/Right				+00'07'
TOTAL TOE	+00'30'	-00'40'	+01'24'	+03'28'	+00'09'
<b>REAR WHEEL ALIGNMENT RESULTS</b>					
CAMBER	Left +00'00'	-00'30'	+00'00'	+00'30'	+00'20'
	Right +00'00'	-00'30'	+00'00'	+00'30'	+00'20'
	Max diff. Left/Right				+00'00'
THRUST ANGLE	-00'30'	---	---	---	+00'06'
TOE	Left -00'30'	-01'02'	+00'00'	+01'02'	+00'01'
	Right -00'00'	-01'02'	+00'00'	+01'02'	+00'07'
	Max diff. Left/Right				+00'06'
TOTAL TOE	+01'00'	-02'04'	+00'00'	+02'04'	+00'08'
SETBACK	0mm	---	---	---	0mm

## Pre-Alignment Inspection Report

WHEEL ALIGNMENT CENTRE		Mohan Nagar, Puducherry.		Job Number - 526	
<b>WHEEL ALIGNMENT RESULTS</b>					
Date / Time	06-Nov-22 10:15 am	Regh. No.	PY-01-CD-1258	Mechanic	Raj
Odometer	15972	Owner Address	Industrial Estate	City	Puducherry
Make	Maruti Suzuki	State	Puducherry	Model	SK4
Phone	0413 2248926				
<b>Pre - Alignment Inspection</b>					
Item	Comments	Check	Service	Replace	
Tire Pressure		Yes	No	No	
Wheel Bearings		Yes	No	No	
Wheel Damper		Yes	No	No	
Steering Damper		No	Yes	No	
Steering Gear/Coupler		No	Yes	No	
Rack And Pinion		No	Yes	No	
Ball Joints		No	Yes	No	
Springs/Torsion Bar		No	Yes	No	
Shock/Strut		No	No	Yes	
Idler Arm		No	No	Yes	
Pitman Arm		No	No	Yes	
Center Link		No	Yes	Yes	
Control Arm/Bushings		No	No	No	
Strut Rod/Bushings		No	No	No	
Tie Rod Ends		Yes	No	No	
Tie Rod Adjusting Sleeve		Yes	No	No	
Stabilizer Bushings		Yes	No	No	
Spring Shackles Bushings		Yes	No	No	
Wheels/Fasteners		No	Yes	No	
Spring Shackles Bushings		No	Yes	No	
Spring Shackles Bushings		No	No	Yes	

C-22 & 23, Industrial Estate, Thattanchavady, Pondicherry - 605 009. INDIA.  
Ph : 0413 3502000 ❖ email : sales@manatec.in

