

AUTOMOTIVE AFTER MARKET EQUIPMENT

for Cars & LCV Workshop

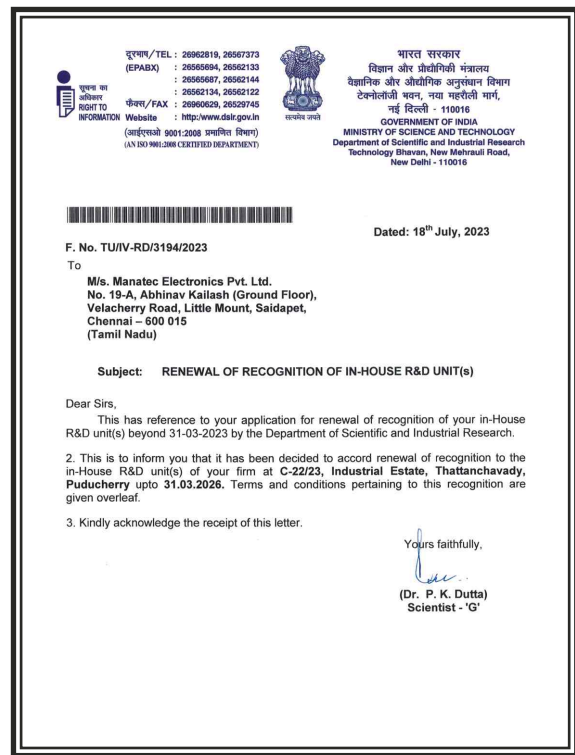
■ *Total Solution*



Exporting to 80+ countries



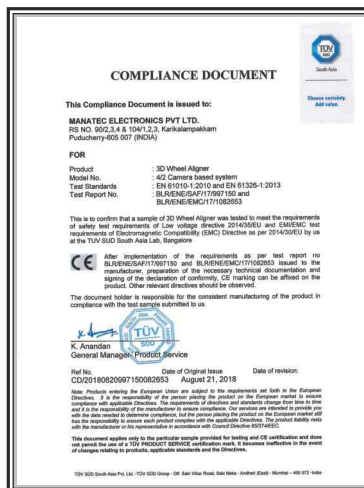
ISO 9001 : 2015 Certificate



In-house R&D Recognition
by Govt. of India



D&B Certificate



CE 3D Wheel Aligner



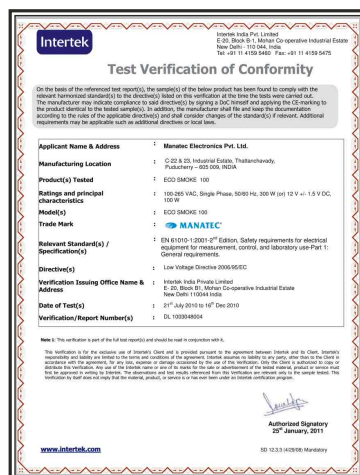
EAC 3D Wheel Aligner



CE Wheel Balancer



CE Gas Analyser



CE Smoke Meter



CE AC Gas Charger

COMPANY PROFILE

Manatec is an ISO 9001 : 2015 certified organisation, located in Puducherry, on the East Coast of South India. Manatec, established in 1987, started with designing and manufacturing of Industrial Shaft Alignment systems and diversified to the Automotive Garage Equipment design and manufacturing, since 1991.

The global automotive industry is ever growing, with constant innovations in technology resulting in a surge of new automobile models launched everyday. It poses equal challenge in after market maintenance and servicing needs. Manatec's Garage Equipment Division works with the objective of meeting the above challenge by designing high quality service station equipment in-line with the emerging trends in the industry. All garage equipment are designed & developed indigenously, and Manatec's in-house R&D division is recognised by the Government of India.

The manufacturing facility incorporates Electronics Hardware and Software processing departments, Tool Room, Machine shop, Quality Assurance & separate Production bays for every product with world class infrastructure.

For the workforce in Manatec, Quality and Technology is not just a requirement, but it is a state of mind!



AWARDS



Innovation Award
in Automechanika Germany - 2018



MSME Award
for Quality Products - 2015



CII Industrial Innovation Award - 2015



Winner of EEPC Award
for 14 Consecutive years Since 2005



Best R&D Efforts Award
from Prof. Murali Manohar Joshi - 1998-99



Award for Excellence
in R&D (Electronics) - 1996



National Award for Best Entrepreneur
and Quality Products in SSI Sector - 1993



Best Productivity Performance
Award - 1990-91

OUR PRESTIGIOUS CORPORATE CUSTOMERS

IVECO

DAIMLER

VOLVO
EICHER

RENAULT

TOYOTA

ISUZU

BHARATBENZ

HYUNDAI

Ford

MARUTI SUZUKI

FIAT

TATA

MG

FORCE
MOTORS

Ashok Leyland

AMW
BUILT TO WIN

POLARIS
EICHER

NISSAN

HONDA

Continental
The Future in Motion

MICHELIN

JK TYRE
TOTAL CONTROL

BRIDGESTONE

GOODYEAR

apollo
TYRES

MRF

CEAT

	Page
WHEEL CARE EQUIPMENT	
01. Vision Based 3D Wheel Aligner	05-08
02. Computerised Wheel Balancer	09-10
03. Tyre Changer	11-11
04. Nitrogen Filling Station, Wall Mounted NFS & Automatic Tyre Inflator	12-12
05. Intelligent Screw Air Compressor & Air Compressor	13-13
POLLUTION CHECKING EQUIPMENT	
06. Petrol Gas Analyser	14-14
07. Diesel Smoke Meter	15-15
LIFTING EQUIPMENT	
08. Two Post Lift (Electro Hydraulic)	16-16
09. Full Rise Scissor Lift & Wheel Alignment Scissor Lift	17-17
10. Four Post Lift & Hydraulic Washing Lift	18-18
11. Electric Vehicle Battery Lifter - Automatic & Manual	19-19
BODY SHOP EQUIPMENT	
12. Paint Spray Booth & Waterborne Paint Booth Retrofit	20-21
13. Mig Mag Welder & Plasma Cutter	22-22
14. Dent Puller & Inverter Spot Welder	23-23
WASHING EQUIPMENT	
15. Automatic Car Washer	24-24
16. High Pressure Car Washer & Vacuum Cleaner	25-25
UTILITY EQUIPMENT	
17. A/C Recycling Equipment	26-26
18. Waste Oil Collection Trolley, Pneumatic Jack with Trolley & Impact Wrench	27-27



« Unique "ALIGN+" Software »

Model : **FOX 3D Auto BoomX Smart Mobile**



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.

Model : **FOX 3D Auto BoomX**



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**



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 VHX**



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

Model : **FOX 3D PTX**



Designed to perform Alignment on pit.

NEO 3D Wheel Aligner



Model : **NEO 3D**

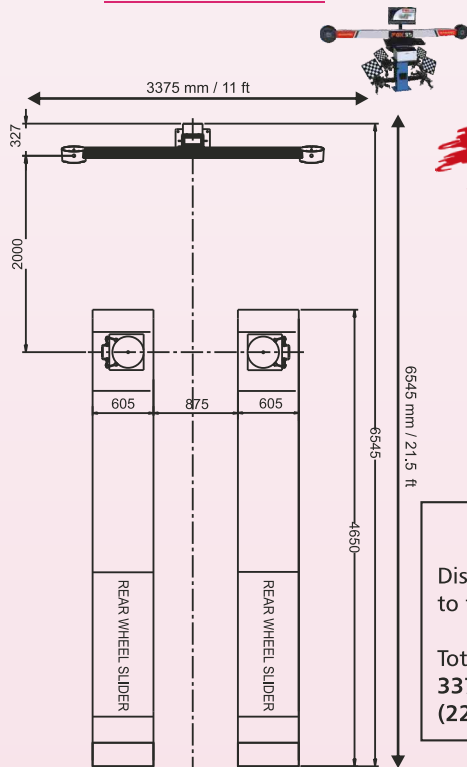


NEO 3D comes with compact camera pods fitted on the floor at a distance of 1125 mm from the centre of Rotary plates. This set up gives free space of 3375x902 mm (32.7 sq.ft)

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

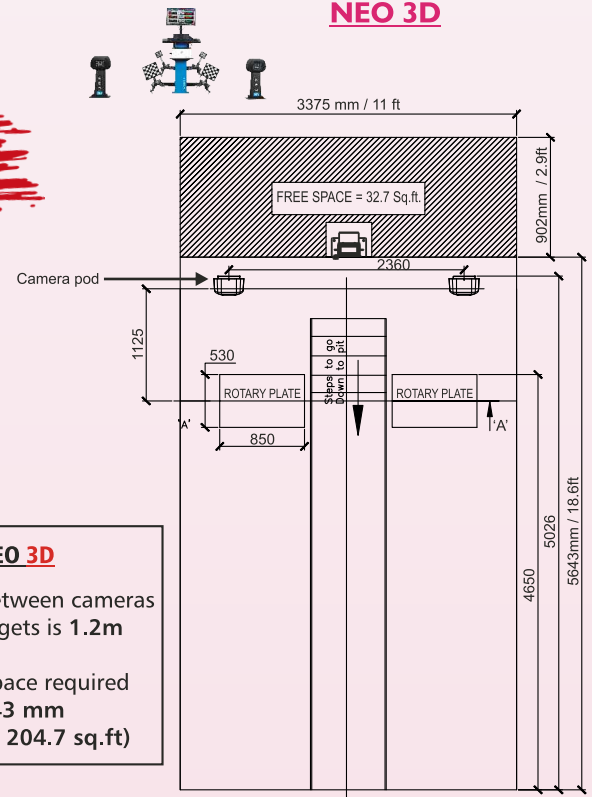


SPACE SAVER

SPACE SAVER

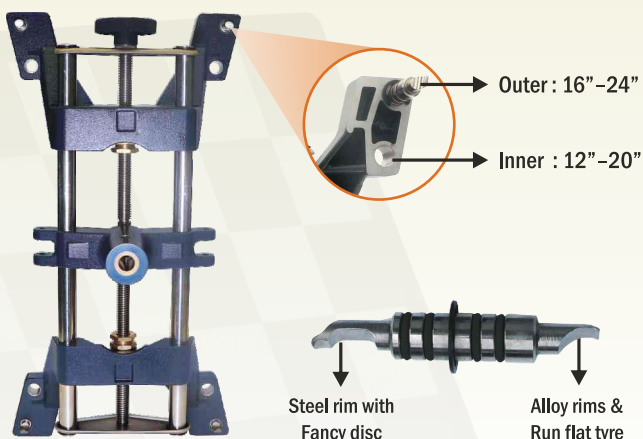
<u>Conventional 3D</u>	<u>NEO 3D</u>
Distance between cameras to front targets is 2m	Distance between cameras to front targets is 1.2m
Total bay space required 3375 x 6545 mm (22 sq.mt / 237 sq.ft)	Total bay space required 3375 x 5643 mm (19 sq.mt / 204.7 sq.ft)

NEO 3D



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).

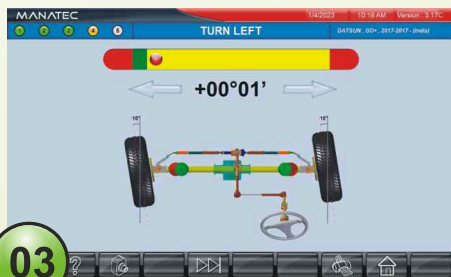
SIMPLE 4 STEP ALIGNMENT : SAVES TIME



01 Pre-Alignment Inspection



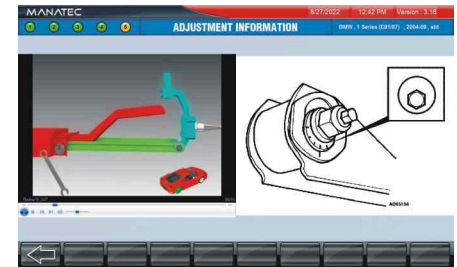
02 Push - Pull Runout



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



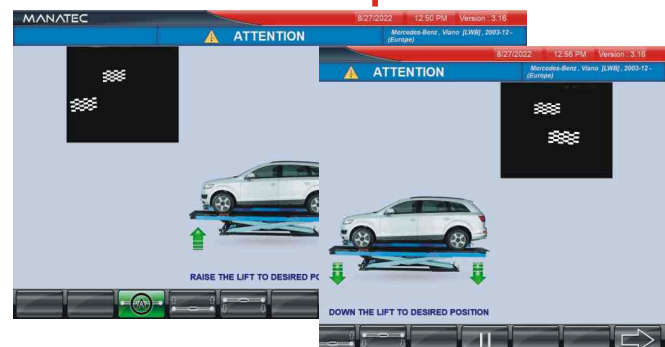
Useful features like vehicle information modification, multi users function, vehicle data updates, unit conversion etc. are available.

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.

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

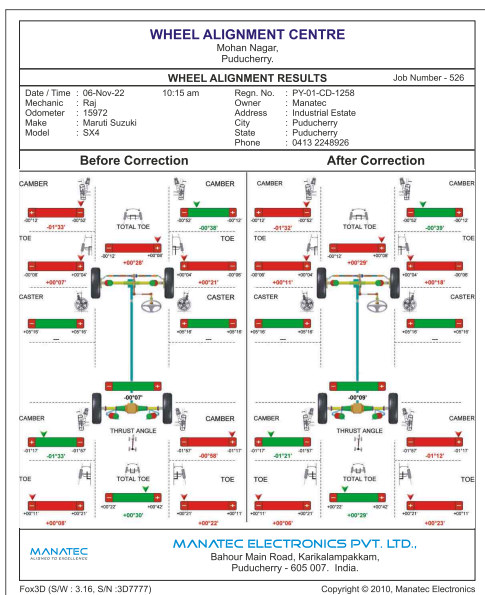
Standard Accessories

	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.						
WHEEL ALIGNMENT RESULTS					Job Number - 526	
Date / Time : 06-Nov-22 10:15 am		Regn. No. : PY-01-CD-1258	Owner : Manatec			
Odometer : 15972		Address : Industrial Estate		City : Puducherry		
Make : Maruti Suzuki		State : Puducherry		Phone : 0413 2248506		
Model : SX4						
DB : India (2014-1)						
<div><div></div> Within limits</div> <div><div></div> Out of limits</div>		Before correction	Specification			After correction
			Min	Target	Max	
FRONT WHEEL ALIGNMENT RESULTS						
CAMBER	Left Right Max diff. Left/Right	+01°50' -00°30' +02°20'	+00°02' +00°32' +00°30'	+00°02' +01°02' +01°02'	+01°02' +01°02' +00°01'	+00°04' +00°05' +00°01'
KINGPIN	Left Right Max diff. Left/Right	+12°30' +11°00' +01°30'	+12°15' +12°45' +00°30'	+12°45' +13°15' +00°15'	+12°45' +13°15' +00°15'	+12°45' +13°00' +00°15'
INCLUDED ANGLE	Left Right Max diff. Left/Right	+00°00' +00°00' +00°00'	---	+13°17' +13°17' +13°17'	---	+10°44' +10°35' +00°09'
CASTER	Left Right Max diff. Left/Right	+03°30' +01°20' +02°10'	+01°59' +01°59' +01°59'	+02°29' +02°29' +00°30'	+02°59' +02°59' +00°30'	+02°30' +02°00' +00°30'
SETBACK	Left Right Max diff. Left/Right	0mm ---	---	---	---	0mm
TOE	Left Right Max diff. Left/Right	+00°30' +00°00' +00°30'	+00°42' +00°42' +01°02'	+00°42' +00°42' +01°02'	+01°44' +01°44' +01°44'	+00°01' +00°08' +00°07'
TOTAL TOE	Left Right Max diff. Left/Right	+00°30' +00°00' +00°30'	+00°40' +00°40' +00°40'	+01°24' +01°24' +00°30'	+03°28' +03°28' +00°30'	+00°09' +00°09' +00°09'
REAR WHEEL ALIGNMENT RESULTS						
CAMBER	Left Right Max diff. Left/Right	+00°00' +00°00' +00°00'	+00°00' +00°00' +00°00'	+00°00' +00°00' +00°00'	+00°30' +00°30' +00°30'	+00°20' +00°20' +00°20'
THRUST ANGLE	Left Right Max diff. Left/Right	-00°30' -00°30' +00°00'	+00°00' +00°00' +00°00'	+00°00' +00°00' +00°00'	+01°02' +01°02' +01°02'	+00°01' +00°07' +00°07'
TOTAL TOE	Left Right Max diff. Left/Right	-00°30' -00°30' +01°00'	+00°00' +00°00' +02°04'	+00°00' +00°00' +00°00'	+02°04' +02°04' +02°04'	+00°08' +00°08' +00°08'
SETBACK	Left Right Max diff. Left/Right	0mm ---	---	---	---	0mm
<div><div>MANATEC</div><div>MANATEC ELECTRONICS PVT. LTD.</div><div>Bahour Main Road, Karkilampakkam, Puducherry - 605 007. India.</div></div>						
Fox3d (S/W : 3.16, S/N :37777)			Copyright © 2010, Manatec Electronics			

Pre-Alignment Inspection Report

WHEEL ALIGNMENT CENTRE					
Mohan Nagar, Puducherry.					
WHEEL ALIGNMENT RESULTS				Job Number - 526	
Date / Time : 06-Nov-22 10:15 am		Regn. No.	PY-01-CD-1258		
Mechanic	Raj	Owner	Manatec		
Odometer	15972	Address	Industrial Estate		
Make	Maruti Suzuki	City	Puducherry		
Model	SX4	State	Puducherry		
		Phone	0413 2248526		
Pre - Alignment Inspection					
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	
Spring/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 Shackle Bushings		Yes	No	No	
Wheels/Fasteners		No	Yes	No	
Spring Shackle Bushings		No	Yes	No	
Spring Shackle Bushings		No	No	Yes	



MANATEC

MANATEC ELECTRONICS PVT. LTD.

Bahour Main Road, Karkilampakkam,
Puducherry - 605 007. India.

Fox3D (S/W : 3.16, S/N : 377777)Copyright © 2010, Manatec Electronics

Models : **VL-65 LX**
VL-65 LX Premium
VL-65 LX Premium+



>> Videographic display <<

Models : **DL-65 Premium**
DL-65 Premium+



>> Elegant Digital display <<

Models : **DL-65 C**
DL-65 C+



- Suitable for Car and LCV wheels
- Two modes of measurement - Normal & Fine
- Seven modes of Alloy wheel functions
- Graphical user interface for live balancing
- Option for "grams" / "ounces" unit conversion
- Automatic distance input (Not available in DL-65 C)
- Rim parameter value entry through wheel rotation
- Universal AC input socket
- Self calibration (when calibration error is displayed)
- Self checking on-line error display
- Adjustable unbalance threshold (weight cut off)
- Mid-centering device with Quick change lock nut to ensure fast mounting & removal of wheels
- Mechanical brake for weight addition and wheel mounting (Not available in DL-65 C)
- Automatically starts when wheel guard is closed
- High resolution (HDMI input) & LED Monitor / LED digital display
- *Wheel seating cones for LCV are supplied as optional*

Additional features for Premium models

- Automatic Rim diameter and Rim width input
- Split weight program (spokes program)
- Optimization program
- Automatic Rim type detection

Additional features for Premium+ models

- Laser line indication to indicate weight fixing position (for Sticker weights)
- Torch light for illumination of the Inner plane during weight fixing



Laser line indication



Torch light indication

Automatic distance & diameter measurement



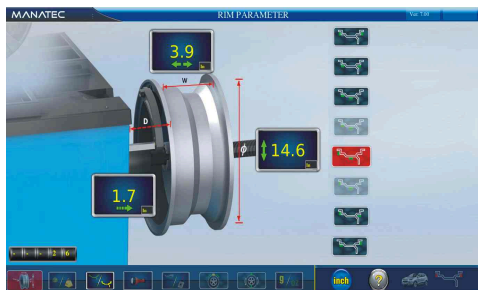
Automatic distance & rim diameter input through distance measuring rod.

Automatic width measurement



Automatic rim width measurement.

Alloy Wheel Functions



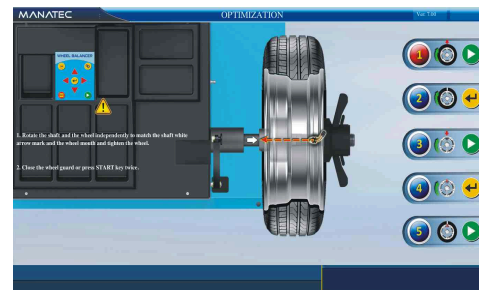
7 Alloy wheel (ALU) functions.

Auto Start



Automatically starts when wheel guard is closed

Optimization Program

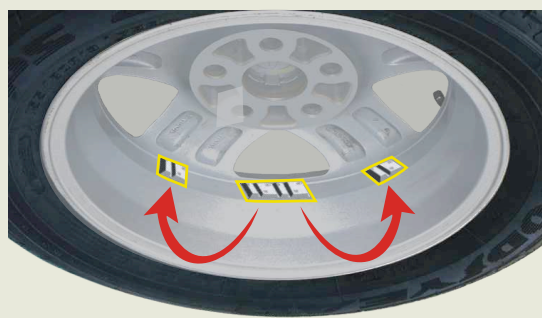


Optimization program helps in reducing wheel weight consumption.

Split Weight Program



Split weight program (spokes program) helps to split the weight to be hidden behind the spokes of the alloy wheels.



Mid Centering Device



Mid centering device for positioning of wheels accurately at center of the rotor assembly. Quick Change Lock Nut (QCLN) to ensure fast mounting and removal of wheel.

Technical Specifications

Maximum wheel weight	65 kg
Maximum wheel diameter	39" (990 mm)
Maximum wheel width	21" (533 mm)
Rim diameter	10" to 24" (254 mm to 610 mm)
Rim width	1.5" to 20" (38 mm to 508 mm)
Rim distance	
By distance measuring rod (for C & C+ models)	4 mm to 250 mm
By distance measuring rod (for other models)	4 mm to 300 mm
By keypad entry	4 mm to 550 mm
Resolution	
Fine mode	1 gm
Normal mode	5 gm
Maximum unbalance measurement	300 gm
Accuracy	1 gm
Position accuracy	± 1°
Balancing speed	175 RPM
Power supply	230V AC ±10%, Single Phase, 50 Hz
Power	0.35 HP

Standard Accessories

	Wheel Guard
	Width Caliper
	Weight Plier
	Mid centering device kit with QCLN assembly, Hub, Hub cover & pressure ring
	Wheel seating dual cone, Medium taper ■ Dia 44 to 60 mm* ■ Dia 52.5 to 70 mm ■ Dia 66 to 83.5 mm ■ Dia 80 to 97.5 mm ■ Dia 94 to 111.5 mm ■ Dia 113.2 to 125.9 mm*

* Not Applicable for DL 65 C & DL 65 C+

Model :

Tyremate 200 TL
Tyremate 200 TL - RFT



» Fully Automatic «
Run Flat Tyre

- Suitable for Car and LCV tyres
- Capable of handling stiff, wide and low-profile tyres using RFT helper arm
- Pneumatically operated tilting type vertical column
- Pneumatically operated twin cylinders for firm clamping
- Individual pedal for vertical column tilting
- Alloy wheel plastic protector for jaws

Model :

Tyremate 200 TL 26
Tyremate 200 TL 26 - RFT



» Fully Automatic «
Tubeless

- Suitable for Car and LCV tyres
- Pneumatically operated tilting type vertical column
- Pneumatically operated twin cylinders for firm clamping
- Individual pedal for vertical column tilting
- Four Jaw self centering chuck
- Alloy wheel plastic protector for jaws

Model :

TC - XL - 40
TC - XL - 40+



» Semi Automatic «

- Suitable for Car and LCV tyres
- Pneumatically operated twin cylinders for firm clamping
- Four Jaw self centering chuck
- Horizontal moving arm
- Alloy wheel plastic protector for jaws

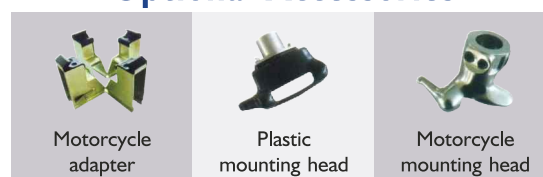
Technical Specification

Technical Specification	Tyremate 200 TL Tyremate 200 TL - RFT	Tyremate 200 TL 26 Tyremate 200 TL 26 - RFT	TC - XL - 40	TC - XL - 40+
Rim clamping from inside	12" – 24" (305 – 610 mm)	14" – 26" (356 – 660 mm)	12" – 21" (305 – 533 mm)	12" – 24" (305 – 610 mm)
Rim clamping from outside	10" – 21" (254 – 533 mm)	12" – 24" (305 – 610 mm)	10" – 18" (254 – 457 mm)	14" – 26" (356 – 660 mm)
Max. wheel diameter	38" (965 mm)	43" (1092 mm)	37" (940 mm)	41" (1041 mm)
Max. wheel width	3" – 12" (76 – 305 mm)	15" (381 mm)	3" – 12" (76 – 305 mm)	16" (406 mm)
Operating pressure	8 – 10 bar	6 – 8 bar	6 – 8 bar	6 – 8 bar
Bead breaker force	2500 kg	2500 kg	2500 kg	2500 kg
Power supply	220V AC, Single Phase, 50 Hz	220V AC, Single Phase, 50 Hz	220V AC, Single Phase, 50 Hz	220V AC, Single Phase, 50 Hz
Power	1.5 HP	1.5 HP	1.0 HP	1.0 HP

Standard Accessories



Optional Accessories



Nitrogen Filling Station

Model : **NFS 308 A/MO-E**



Salient Features

- Suitable for 2 Wheelers, Cars & LCVs
- Compact design with 50L NFS tank inside
- Provided with heavy caster wheels for portability
- Automatic Nitrogen generator shut-off after Nitrogen generation
- Two sets of large capacity CMS filter
- Automatic alarm for any error and work finish
- Record of last time set-data
- Audio and visual indication during nitrogen generation
- Accumulated working hours display for the filter replacement
- Large backlight LED for indicating pressure & time

Technical Specification

Nitrogen generated	PSA technology
Nitrogen purity	95 - 99%
Air Inlet pressure	8 -10 Kg/cm ² , 115 -145 PSI
Air compressor required	5.5-7.5 kW, 10 Kg/cm ² , Exhaust volume, 0.6-1.5 M ³ /min
Nitrogen outlet pressure	1 - 6 Kg/cm ²
N ₂ output capacity	30 - 50 LPM 2.1 - 2.5 CFM
N ₂ Tank capacity	50 ltrs. In-built
Measure unit	Bar & PSI
Operating temperature	0 - 50°C, 0 - 122°F
Power supply	220V AC, Single Phase, 50 Hz
Power	60 W

Wall Mounted NFS

Model : **WM NFS**



Salient Features

- Suitable for 2W, Cars & Van
- Wall mount type, compact in size
- Live N₂ generation to inflate tyres
- In-built with manual Tyre pressure gauge in inflator hose saves time
- Ergonomic design to reduce space and cost
- Ideal for puncture shops, fuel station and garages

Technical Specification

Nitrogen generation	PSA technology
Nitrogen purity	95 - 99%
Air Inlet pressure	8 -10 Kg/cm ²
Nitrogen outlet pressure	6-7 Kg/cm ²
Power supply	220V AC, Single Phase, 50 Hz
Power	25 W

Automatic Tyre Inflator

Model : **Air D150**



Salient Features

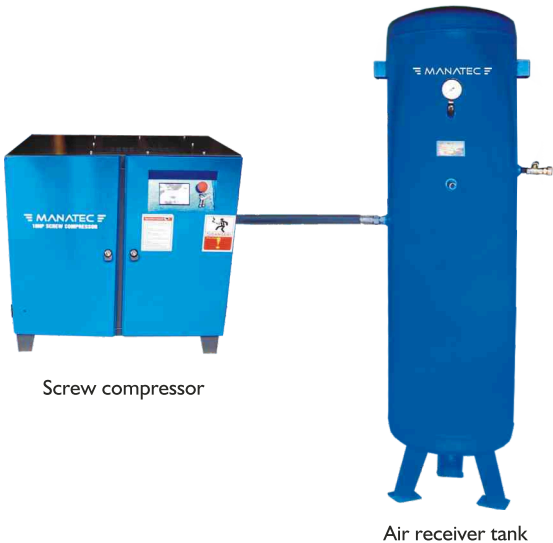
- Solid - state high precision pressure sensor
- A specially developed software to carry out all functions -filling /releasing, measuring and controlling
- An advanced closed loop control & monitoring circuit
- No possibility of over inflation ensures safety to the operator and to the tyres

Technical Specification

Pressure setting range	3 - 150 PSI
Resolution	1 PSI
Accuracy	± 1 PSI
Display	1" Dual LCD display
Maximum Input Pressure	150 PSI
Inlet Air Pressure	7 - 10 Kg/cm ²
Temperature Range	-20° C to 70° C
Power supply	230V AC ±10%, Single Phase, 50 Hz
Power consumption	60 W

Intelligent Screw Air Compressor

Model : **ISAC**



Screw compressor

Air receiver tank

Salient Features

- Oil cooler is designed to maintain ambient temperature
- Operating cost is low up to 35 % as compare to others
- Thermostatically operated Fan

Technical Specification

Model	SC - 7.5	SC - 10
Air flow	17 CFM	23 - 40 CFM
Pressure	8 Kg/cm ²	8 - 13 Kg/cm ²
Noise level	<64 db(A)	<64 db(A)
Outlet connection	1/2"	1/2"
Tank capacity	300 liters	500 liters
Power	7.5 HP / 5.5 kW	10 HP / 7.5 kW
Power supply	380V AC, 3 Phase, 50 Hz	

Air Compressor

Model : **AC**



<< Reciprocating type
air cooled Compressor >>

Salient Features

- Cast iron block
- Industrial duty rating
- Slow running speed
- Pressure switch with unloader
- Totally enclosed belt guard
- Inter stage pressure relief valve
- Air receiver
- Testing as per IS 5456 standards
- Leak proof fittings

Benefits

- Outperforms and outlasts aluminum block compressor
- No stand-by compressor required
- Less wear & tear
- Easy starting and increased motor life
- Full protection against accidents
- Provides extra safety
- Totally safe, as per international standards
- Guaranteed output
- No compressed air leakage

Technical Specification

Motor Power (HP)	3	5	7.5	10	15
Compressor (RPM)	1050	925	1050	750	1150
Maximum pressure (Bar)	12	12	12	12	12
Piston displacement (LPM/CFM)	397 / 14	501 / 17.7	700 / 24.8	997 / 35.4	1535 / 54.3
Free air delivery (LPM/CFM)	167 / 5.9	410 / 14.5	580 / 20.7	850 / 30.1	1250 / 44.1
Air receiver (LTR)	250	250	300	500	500
No of cylinders	2	2	2	3	3
Power supply	220V AC, Single Phase, 50 Hz / 415V AC, 3 Phase, 50 Hz				

Single Phase applicable for 2 & 3 HP only.

Petrol Gas Analyser



Model : Eco Gas 200 I
Eco Gas 200 IBA



DC Operation

PC Interface

Leak Check

Petrol / CNG / LPG Selection

PC Interface (Optional)



Test Report (PC Printout)

TRANSPORT DEPARTMENT		FORM EMISSION UNDER CONTROL TESTING STATION (Reg. 2003-10/7)	
S/N No. : TRANSPORT DEPARTMENT		High Tech Wheel Care 100 Feet Road, Noida, Uttar Pradesh - 201304 Ph : 91 43 2249006	
Seal of Testing Station		Registering Authority / License No. - 3630	
EMISSION TEST CERTIFICATE			
Job No. : 25006	Vehicle Model : Honda	Fuel : Petrol	
Serial No. : 0206321	Vehicle Model : Honda Civic	Catalyst : NO	
Test Name : Roadrunner	Vehicle Type : Four Wheeler	Test Date : 08/07/2014	
Vehicle No. : TN-07-54-4655	Engine Type : 4 Stroke	Test Time : 11:42:08 AM	
Km Run : 3300	Engine No. : 3404021	Chassis No. : 73401544	
Reg. Date : 16/06/2010	Transit : NO	Shunt Switch : Yes	
Test Result : IDLING			
Parameter	Regulation	Actual Reading	
CO (%)	0.50	0.45	
CO ₂ (%)	14.00	14.00	
HC (ppm)	100	80	
NOx (ppm)	500	400	
AFR	14.7	14.7	
Lambda	1.00	1.00	
Engine RPM	400-9990	400	
Engine Oil Temp	0-150°C	25	
Operating Temp	+5°C to +45°C	25	
Measuring Gas Intake	3 litres / minute	3.0	
Response Time	< 15 Sec. (for sample probe length of 3m)	10	
Warm-up Time @ 25°C & above	< 3 minutes	3	
Power Supply	12V DC ± 2V battery 100-265V AC, Single Phase, 50-60 Hz		
Power	25W		
RESULT : PASS			
Thank you for keeping your Vehicle clean and Environment Green			
Certified that this Vehicle's CO Emission level conforms to the standards prescribed under Rule 115(2) of CVC, Rules 1988.			
Seal of Testing Station	Name of Testing Person	Authorized Signature	
Thank you for using MANATEC Gas Analyser			

Salient Features

- Petrol / CNG / LPG selection
- 7 Segment LED display
- Non dispersive Infrared (NDIR) technology
- Automatic condensate discharge
- Automatic zero calibration
- Digital span calibration
- Easy update of software in the field through USB port
- DC operation facility available for "mobile road tests" using vehicle battery
- Display of Lambda / AFR / PEF
- Separate Indication for battery Low / High voltage
- Electronic leak check facility
- Gas scrubber for cleaning of impure particles
- Conforms to ISO 3930
- NOx measurement (**Optional**)

Eco Gas 200 I	Eco Gas 200 IBA
Inductive pickup based RPM measurement	Inductive pickup, Battery & Accelerometer based RPM measurements

Standard Accessories

Sampling probe assembly	Battery cable (for DC operation)
Inductive pickup & cable assembly	Gas scrubber kit
Gas test software & USB cable	

Optional Accessories

NOx sensor*	Oil temperature probe
Thermal printer*	
Battery based* RPM measurement	Universal probe adapter kit for 2/3 wheelers

* To be ordered along with machine. Field implementation not possible.

Technical Specification

Measurement Parameters	Range	Resolution
CO (Carbon Monoxide)	0 - 15%	0.01%
CO ₂ (Carbon Dioxide)	0 - 19.9%	0.1%
HC (Hydro Carbon)	0 - 20000 PPM	1 PPM
O ₂ (Oxygen)	0 - 25%	0.01%
NOx (Oxides of Nitrogen)	0 - 5000 PPM	1 PPM
AFR	0 - 30%	0.01%
Lambda	0.20 - 2.00	0.001
Engine RPM (Battery based)	400 - 9990 RPM	10 RPM
Engine oil temperature	0 - 150°C	1°C
Operating temperature	+ 5°C to + 45° C	
Measuring gas intake	3 litres / minute	
Response time	< 15 Sec. (for sample probe length of 3m)	
Warm-up time @ 25°C & above	< 3 minutes	
Power supply	12V DC ± 2V battery 100-265V AC, Single Phase, 50-60 Hz	
Power	25W	

ENGINE RPM METER (Optional) for Eco Gas 200 I

Salient Features :

- Accelerometer based RPM measurement
- Compatible for Diesel & Petrol vehicles
- The Engine RPM meter allows easy measurement of RPM
- Use of multiple acquisition systems

Technical Specification :

- RPM measurement range : 400 - 9990 RPM
- Resolution : 10 RPM
- Display : Four digit LED display





Model : Eco Smoke 100 A
Eco Smoke 100 B
Eco Smoke 100 BA



- ⚙️ **DC Operation**
- ⚙️ **PC Interface**
- ⚙️ **Free Acceleration Test**

PC Interface (Optional)

Test Report (PC Printout)



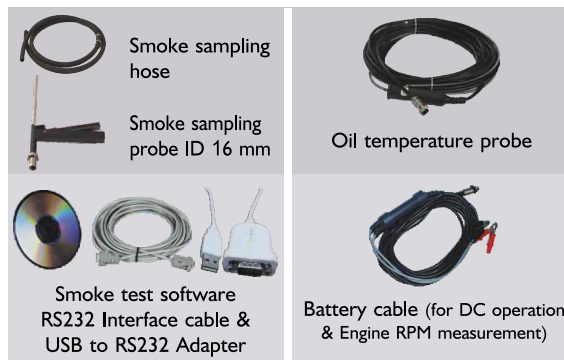
SI No. : _____		FORM (EMISSION ENGINE CONTROL TESTING STATION) (SIAI-100-100-2)	
TRANSPORT IDENTIFICATION SEAL		High Tech Wheel Care 100 Feet Road, Mumbai, Gujarat. Pincode: 400 004. Ph : 011 43 2248054	
Registering Authority / License No. : 3638			
EMISSION TEST CERTIFICATE			
Job ID : 24053	Make : Maruti	Year : Diesel	
Serial No. : 4006	Model : Logan	Y of Regn : 2008	
Cont. Name : Anil Kumar	Vehicle Type : Four Wheeler	Test Date : 06/08/2014	
Vehicle No. : TN-01-M-2561	Kms Run : 85753	Test Time : 03:23:25 AM	
Vehicle Target Data			
Idle RPM : 500	Max. RPM : 4000	Oil Temperature : 75°C	
Test Data			
Smoke Opacity K-value	Idle	Max	Time (Oil Temp)
1	35.5	1.81	750
2	35.5	1.81	2500
3	35.5	1.81	3500
4	35.5	1.81	3600
Avg. 35.5 1.81			
RESULT PASS			
Thank you for keeping your Vehicle clean and Environment Green			
Certified that this vehicle's Smoke Emission level conforms to the standard prescribed under Rule 155(2) of C.V. Rules 1989.			
Permissible limit of K-Value is 2.45 l/m (Opacity : 45%)			
Valid Till : 05 / 02 / 2015			
Photo of Vehicle			
Seal of Testing Station		Name of Testing Person	
Thank you for using MANATEC Diesel smoke meter			

Salient Features

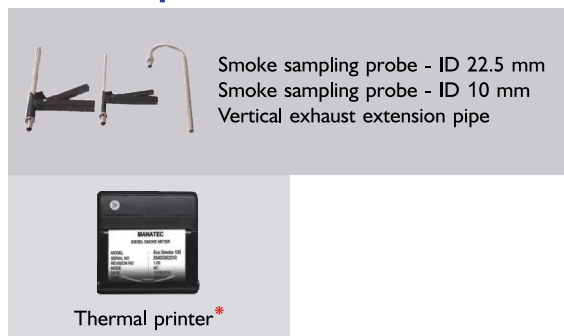
- Measures smoke opacity of diesel vehicles in % opacity and K value
- Measurement principle : Partial flow, optics based on folded geometry
- Suitable for free acceleration test
- Engine oil temperature measurement
- Operates on 230V AC (or) 12V DC power supply
- Portable, Compact & light weight design, suitable for "Road tests" using vehicle battery
- Low & High voltage indication for battery operation
- Automatic Zero and Span calibration
- Automatic Pressure regulation and moisture separation
- Handheld, Menu driven LCD remote control unit
- Compatible with VAHAN Online API software
- RS232C serial port for PC interface
- Conforms to IS : 14553 - derived from ISO 11614 : 1999

Ecosmoke 100 A	Ecosmoke 100 B	Ecosmoke 100 BA
Accelerometer based RPM measurement	Battery based RPM measurement	Battery & Accelerometer based RPM measurements

Standard Accessories



Optional Accessories



* To be ordered along with machine. Field implementation not possible.

Technical Specification

Measurement Parameters	Range	Resolution
Opacity	0 – 99.9 %	0.10 %
K-value	0 – 9.99 m ⁻¹	0.01 m ⁻¹
Linearity	± 0.1 m ⁻¹	
Repeatability	± 0.1 m ⁻¹	
Zero & Span drift	± 0.1 m ⁻¹	
Response time – Physical	< 0.4 seconds	
Response time – Electrical	< 1 millisecond	
Warm up time @ 25°C and above	< 7 minutes	
Engine RPM (Battery based)	400 - 9990 RPM	10 RPM
Oil Temperature	0 - 150° C	1° C
Operating Temperature	+ 5°C to + 50°C	
Smoke measuring cell length	215 mm (430 mm folded length)	
Power supply	12V DC ± 2V battery 100-265V AC, Single Phase, 50-60 Hz	
Power	300W AC / 100W DC (without heater)	

ENGINE RPM METER (Optional) for Ecosmoke 100 B



Salient Features :

- Accelerometer based RPM measurement
- Compatible for Diesel & Petrol vehicles
- The Engine RPM meter allows easy measurement of RPM
- Use of multiple acquisition systems

Technical Specification :

- RPM measurement range : 400 - 9990 RPM
- Resolution : 10 RPM
- Display : Four digit LED display

**Model : Rhino 4 HF 4 Ton
Floor Plate**



>> Electro Hydraulic <<

**Model : Rhino 4 HC 4 Ton
Clear Floor**



Salient Features

- Lifting of Cars, MUVs & SUVs by Electro-Hydraulic power
- Suitable for Lifting / Lowering of Vehicles upto 4 ton weight
- Dual Hydraulic cylinder to ensure steady Lifting & Lowering
- Symmetric Vertical posts for wider opening of Vehicle door
- Universal Telescopic Asymmetric Lifting arms with 2 deck to accommodate different kinds of vehicles
- Limit switch for automatic stopping at extreme upper positions
- Safety mechanism using Steel rope to provide synchronous movement of both lifting arms
- Automatic Locking / Releasing device for Lifting arms while Raising
- Mechanical safety locking system to lock vehicle at different heights while lifting
- Rubber pad in vertical columns for safe door opening
- Power pack on front side of the post for easy operation and installation at lesser bay width

Technical Specification

Specification	Rhino 4 HF		Rhino 4 HC
Lifting capacity	4 Ton		4 Ton
Overall height	2824 mm		3605 mm
Bay width	3172 mm		3426 mm
Inside column	2806 mm		2800 mm
Load distribution (Front : Rear)	2 : 3		2 : 3
Lifting time	50 seconds		< 45 seconds
Drive through clearance	2345 mm		2576 mm
Maximum lifting height	1800 mm		1850 mm
Minimum height	100 mm		110 mm
Lifting arm adjustments	Front	Rear	Front & Rear 745 mm - 1120 mm
	Minimum length	900 mm	
	Maximum length	1420 mm	
Power supply	230V AC, Single Phase, 50 Hz 380V AC, 3 Phase, 50 Hz		230V AC, Single Phase, 50 Hz 380V AC, 3 Phase, 50 Hz
Power	3.0 HP		3.0 HP

Standard Accessories



Optional Accessories



Full Rise Scissor Lift

Model : **FSL E35** 3.5 Ton

>> Electro Hydraulic <<



Salient Features

- Flush-Mount Scissors lift
- Easy for tyre and chassis maintenance
- Occupies smaller area
- Electro hydraulic operation
- Pneumatically controlled mechanical lock for safe operation
- Lifting power is higher due to double cylinder structure

Technical Specification

Lifting capacity	3.5 Ton
Max lifting height	2030 mm
Min lifting height	330 mm
Platform length	1440 - 1740 mm
Platform width	550 mm
Lifting speed	<55 seconds
Dropping speed	<55 seconds
Input air pressure	6-8 Kg/cm ²
Power supply	380V AC, 3 Phase, 50 Hz
Power	2.2 KW

Wheel Alignment Scissor Lift

Model : **WASL D40** 4.0 Ton

>> Electro Hydraulic <<



Double Scissor Lift

Salient Features

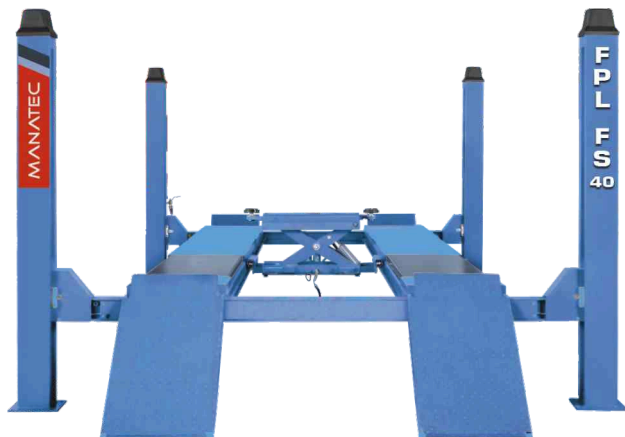
- Longer platform to perform Push Pull Runout
- Double-level platform scissor lift
- Double safety device : Hydraulic lock & Mechanical dual-gear safety-claw lock
- Oil-free nylon blocks for smooth scissor movement
- Pneumatic double-teeth self-locking system & anti-explosive PU hose
- Integrated base for easy '0' level adjustment for better accuracy of wheel alignment
- Limit switch for top safety height
- Safety Alarm during the final one feet down-movement
- Platform level sensor for monitoring uneven movement
- Ramps for on-ground Installations (**Optional**)

Technical Specification

Main machine Lifting capacity	4.0 Ton
Submachine Lifting capacity	2.0 Ton
Main machine max. Lifting height	1850 mm
Submachine Lifting height	450 mm
Main machine platform length	4500 mm
Submachine length	1400mm
Main machine platform width	620 mm
Overall length	5000 mm
Overall width	2040 mm
Lifting speed	<55 seconds
Dropping speed	<55 seconds
Power supply	380V AC, 3 Phase, 50 Hz
Power	2.2 KW

Four Post Lift

Model : **FPL FS40** 4.5 Ton



>> Electro Hydraulic <<

Salient Features

- Driven by hydraulic cylinder and wire-ropes for stable lifting & lowering
- Adjustable lock position at any level
- Wheel free jack 2 Ton capacity
- Imported electric components
- Adjustable platform for wider wheel track vehicles
- Ramps inbuilt with platform

Technical Specification

Lifting capacity	4.5 Ton
Max lifting height	1750 mm
Min lifting height	250 mm
Platform length	4650 mm
Platform width	530 mm
Lifting speed	<45 seconds
Dropping speed	<30 seconds
Power supply	380V AC, 3 Phase, 50 Hz
Power	2.2 KW

Hydraulic Washing Lift

Model : **WL 4T**



Model : **WL 4T SA**



Spider Arm

Salient Features

- Hydro pneumatic
- Standard model at 4 ton capacity
- Separate model with Spider Arm design for 4 ton capacity
- Plunger finish - Hard chrome plated to 20 microns
- Heavy duty rigid ramps accommodate a wide range of vehicles of varying size and type

Technical Specification

Specification	ME - WL 4T	ME - WL 4T SA
Capacity	4 Ton	4 Ton
No. of posts	1 No.	1 No.
Plunger diameter	270 mm	270 mm
Operating pressure	9 to 12 Kg/cm ²	9 to 12 Kg/cm ²
Lifting height	1500 mm	1500 mm
Ramp length	4500 mm	—
Spider arm	—	Inclusive
Tyre rest platform	Optional	—
Oil fill capacity	150 Itrs.	150 Itrs.

Electric Vehicle Battery Lifter Automatic

Model : **EVBL - 1A**



Salient Features

- Electro hydraulic
- Safety locking system
- Top platform sliding
- Wired hand held Remote operation

Technical Specification

Capacity	1 Ton
Lifting height	1800 mm
Closed height	550 mm
Platform size	1550 x 600 mm
No of cylinder	1
Scissors	2
Lifting time	≤ 55s
Lowering time	≤ 55s
Power supply	220V AC, Single Phase, 50 Hz

Electric Vehicle Battery Lifter Manual

Model : **EVBL - 1M**



Salient Features

- Dual cylinder and scissors
- Stable and durable performance
- Caster wheel for portability
- Occupies lesser area
- Manual operation

Technical Specification

Capacity	1 Ton
Lifting height	1700 mm
Closed height	500 mm
Platform size	1200 mm
Scissors	2

Model : **PB 700 Eco**



Model : **PB 700 Eco (WB)**



Model : **PB 700 Eco Plus**



Model : **PB 700 Eco IR**



5 meters floor & 2 meter inside ramp
(no external ramp)

Salient Features

- EPS (Expanded Polystyrene) sandwich panels, no Thermo transfers between inside and outside of the booth
- 8 ceiling light boxes (each with 3x16 Watts) LED bulbs
- Metal base (300 mm height)
- Standard Paint Booth includes the thermic unit
- Single turbo fan 5.5 kw (intake)
- Diesel burner
- Thermostat for safety

Control Box with :

- a) Digital temperature controller 0-70°C max.
- b) Electric wiring cable
- c) Fan motor start / stop
- d) Burner start / stop
- e) Emergency stop
- f) Digital temperature setting
- g) Timer adjustment
- h) Operating hour counter

Additional features for Water Borne models**

- Water-borne paint system on both sides of ceiling.
- 2 sets of 1.5 KW double-intake centrifugal fans,
- two rows of stainless nozzles - total 36 pcs.

Additional features for Plus models (Extractor unit)***

- Exhaust motor 5.5kw
- Air capacity - 18000m³/h

Also available as optional for all Eco models

Model : PB 700 Eco IRH**Salient Features**

- EPS (Expanded Polystyrene) sandwich panels, no Thermo transfers between inside and outside of the booth
- 8 ceiling light boxes (each with 4x16 Watts) LED bulbs
- Metal base (280 mm height)
- Turbo fan 2x3 kw (intake)
- 10 sets of 3 kw infra-red lamp (single door)
- Thermostat for safety

Intelligent Control Box with :

- a) Digital temperature controller 0-80°C max.
- b) Emergency stop
- c) Digital temperature setting
- d) Timer adjustment
- e) Operating hour counter
- f) Failure indication

Technical Specification

Specifications	PB 700 Eco / PB 700 Eco IR** / PB 700 Eco Plus***	PB 700 Eco (WB) **	PB 700 Eco IRH
Outside dimensions	7000 x 5360 x 3400 mm	7000 x 5350 x 3400 mm	7000 x 5200 x 3400 mm
Inside dimensions	6900 x 4000 x 2650 mm	6900 x 4000 x 2650 mm	6900 x 3900 x 2650 mm
Main door dimensions	3000 x 2600 mm	3000 x 2600 mm	3000 x 2600 mm
Service door dimensions	800 x 2000 mm	800 x 2000 mm	650 x 2000 mm
Flow Rate	18000 m ³ /h	27000 m ³ /h	20000 m ³ /h
Working temperature	Max. 70 °C	Max. 70 °C	Max. 80°C
Lighting intensity	650 - 700 Lux	<800 Lux	650 - 700 Lux
Sound level	<80 dBA	<80 dBA	<80 dBA
Applicable vehicle	Passenger car	Passenger car	Passenger car
Power supply	380V AC, 3 Phase, 50 Hz	380V AC, 3 Phase, 50 Hz	380V AC, 3 Phase, 50 Hz
Power	6.5 KW	8 KW	37 KW

Waterborne Paint Booth Retrofit**Technical Specification**

Air displacement	5000 m ³ /h of each blower
Air spray adjustable jets	18 No.
Inlet Filter	2 Nos.
Air Blower	Centrifugal
Electric Motor Power	1.5 Kw, 2 No.

Mig Mag Welder

Model : **Mig / Mag 250 XL**



Salient Features

- The inductor system ensures excellent welding characteristics on very thin materials
- Equipment can weld MS sheets
- Compatible with all welders
- Suitable for automobile and manufacturing sector
- High quality and robust design
- Automatic wire speed selection
- Time selection for spot welding
- High quality german made torch
- User-friendly control panel

Technical Specification

Fuse	1 amp for pcb
Open circuit voltage	15 - 35 V
Voltage positions	7
Duty cycle 100%	90 A
Duty cycle 60%	110 A
Duty cycle 30%	135 A
Current range	40 - 250 A
Wire reel weight	5 - 15 kg
Wire speed	2 - 15 m/min
Power supply	400V AC, 3 Phase, 50 Hz

Plasma Cutter

Model : **PC 40**



Technical Specification

Rated input current	9.4 A (Max. 13 A)
No load voltage	230 V
Output current regulation	20 - 40 A
Duty cycle	60 %
Efficiency	85 %
Power factor	0.8
Protection class	IP23
Cutting thickness	1 - 10 mm
Power supply	230V AC \pm 10%, Single Phase, 50-60 Hz
Power	4.9 kVA

- Inverter technology for compact design and better efficiency
- Adjustable Cutting current for different sheet thickness
- Able to cut Mild steel, Stainless steel, Aluminum, Copper etc.

Model : **DP 3500**

Salient Features

- Designed for metal panels
- A truly amazing design
- Special tip for Shrinking
- High output transformer
- A whole package for all tinkering needs

Technical Specification

Number of modes	2 (Dent and Shrink)
Triggering	Automatic
Triggering Input	230V AC - 50 Hz
Output	3500A I max
Output kVA nominal	11.5 kVA
Output voltage	7 V
Input cable	2.5 mm ² 3 core x 6 mtr
Output cable +	70 mm ² x 2 mtr
Output cable -	50 mm ² x 2 mtr
Protection	IP21

Inverter Spot Welder

Model : **ISW13KA**

Standard Accessories

- Pair of water-cooled cables
- Adjustable height trolley with tray and arms holder
- Pair of water-cooled arms
- Water cooling electric group 2LP
- Compressed air filter-regulator
- Suspension arm
- Spring balancer

Salient Features

- The inverter technology that allows constant and high welding current not influenced by the variation of the supply voltages and by the secondary circuit conditions, the quality of the spot is improved also on galvanized sheets.
- The high current value allows to reduce welding time resulting in a longer electrodes life.
- The reduced absorption balanced on the three phases reduces the connecting and consumption costs.
- Allow simultaneous connection of two tools with automatic recall of the relevant memorized welding program, enabling to save time, avoid errors so to have a simple and safe working process.

Technical Specification

Mains protection (delayed)	50 A - delayed
Clamping force	550 daN
Nominal Power 50% ED	25 kVA
Maximum welding power	190 kVA
Maximum secondary current	13000 A
Thermal current 100%	1.25 kA
No load secondary voltage	16 V
Weld time	0.01 ÷ 2s
Power supply	400V AC, 3 Phase, 50 Hz

Automatic Car Washer

Model : Touchless Automatic Car Washer



Technical Specification

Construction material	Stainless Steel (SS-304)
Required space (LxWxH)	7000 mm x 4250 mm x 3700 mm
Overall dimension(LxWxH)	5500 mm x 3950 mm x 3080 mm
Maximum washable dimension of car (LxWxH)	4750 mm x 1900 mm x 1900 mm
Water consumption	125 ltr / Car (depends on car length)
Shampoo consumption	20 ml / Car
Electrical consumption	0.5 unit / Car
Water pressure	22 - 24 Bar
Number of nozzle	16 + 14 Nos.
Cycle time	3 min /car
Total connected load	7 kW
Power consumption	0.6 units /car (depends on car length)
Pump type & capacity	Centrifugal multistage pump (7.5 HP)
Length detecting sensors	Available
Site requirements	<ul style="list-style-type: none">♦ 3 Phase, 415V Electricity supply♦ Overhead water tank♦ 6 Bar compressed Air connection up-to control panel

Optional Accessories

- Auto dryer unit
- Ultra sonic sensor

Model : Touchless Automatic Under Chassis Car Washer



Technical Specification

Construction material	Stainless Steel (SS-304)
Required space (LxWxH)	7000 mm x 4250 mm x 3700 mm
Pit dimension (LxWxH)	5500 mm x 850 mm x 325 mm
Number of cycles to clean	1 (2 pass)
Operating pressure (water)	24 Bar
Water consumption	40 ltr /car (depends on car length)
Time consuming for one cycle	40 sec /car (depends on car length)
Number of nozzle	18 Nos.
Input Power supply	415V AC, 3 Phase, 50 Hz
Power consumption	0.07 units /car
Total connected load	6 kW

Optional Accessories

- Ultra sonic sensor

High Pressure Car Washer

Model : **HPCW 120 / HPCW 120M / HPCW 120A**



Salient Features

- Triple plunger pump
- Foam Gun with male coupler
- High Pressure heavy duty hose 3/8" - 10m
- Suction hose - 3m
- Pressure gauge
- Electric motor (Branded)
- Movable front wheels (for HPCW 120M)
- Comes with ANNOVI REVERBERI - Italian pump (for HPCW 120A)

Technical Specification

Type	Coupled
Plunger	3 No.
Speed(RPM)	1450
Crankcase oil capacity	1250 ml
Hose and Gun	1 No. each
Working pressure	120 Kg/cm ²
Output (LPM)	11
Hose length	10 mtrs.
Power supply	230V AC, Single Phase, 50 Hz 380V AC, 3 Phase, 50 Hz
Power	3 HP

Vacuum Cleaner

Model : **VC 70**



Technical Specification

Application	Wet & Dry
Motor	2 Nos.
Water lift	2300 mm H ₂ O
Air flow	270 m ³ /h
Tank capacity	70 Ltrs.
Motor power supply	1500 W (each)
Power supply	230V AC, Single Phase, 50 Hz

Standard Accessories

- Suction hose
- Short connector
- Long connector
- Telescopic Pipe
- Floor Nozzle
- Crevice tool
- Dust brush
- Handle

Models : i COOL 100
i COOL Pro 100 D
i COOL Pro 100



- LCD Monochrome display
- Suitable for Cars & LCV cabins
- Fully Automatic machine (Recovery, Recycling, Vacuum, Leak test & Recharging, Oil drain & integration)
- Option to perform above functions individually
- Dedicated gauge for Inlet pressure
- Filter in recovery line to eliminate humidity & acidity
- Manual air purge from refrigerant tank
(for i Cool 100 & i Cool Pro 100 D models)
- Electronically controlled Automatic air purge system from refrigerant tank (for i Cool Pro 100 models)
- Tank pressure digital display (for i Cool Pro 100 models)
- Spark free Compressor and Vacuum pump (for i Cool Pro 100 models)
- Automatic Oil injection PAG oil with separate electronic scales
- Automatic High pressure protection for Compressor
- Audible indication / alarm
- Caution & error message / prompt
- Display of Pressure in “psi” / “bar” / “kPa” & Weight in “kg” / “lbs”
- Self diagnosis for checking the fitness of the machine
- Vehicle data base (up to 500 vehicles)
- Vehicle database with User entry provision
- Software update through USB interface
- Vehicle data update through USB interface
- Shock proof protection for load cells

Additional features for i Cool Pro 100 D / i Cool Pro 100 models

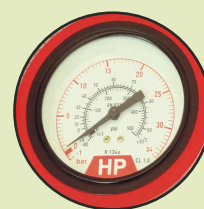
- Automatic Oil injection POE oils with separate electronic scales
- Electric / Hybrid vehicles compatibility
- Hose purge system with separate flush input connectors

Recharge your Car Air Conditioning with Innovative & **Fully Automatic iCOOL**

LCD Display



Printout



HP Gauge

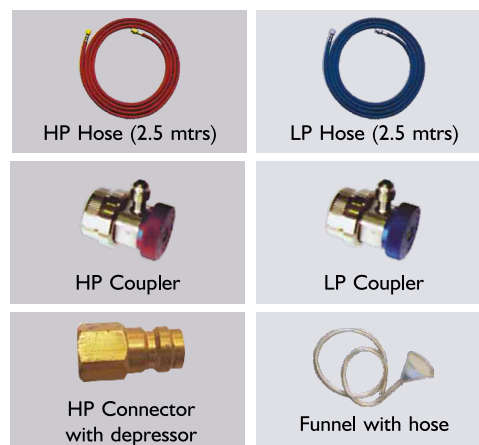


LP Gauge

Technical Specification

Specification	i Cool 100 i Cool Pro 100 D	i Cool Pro 100
Type of refrigerant	R134a	R1234yf (or) R134a (Pre defined)
Service procedure	Automatic / Manual	
Display	LCD Monochrome 20x4	
Vacuum Pump	4.5 CFM, ½ hp, 128 Lit/Min. (for 230V AC) 5.0 CFM, ¾ hp, 141 Lit/Min. (for 110V AC)	
Compressor	9.1 cc (for 230V AC) 11.4 cc (for 110V AC)	12 cc (for 230V AC) 11.4 cc (for 110V AC)
Refrigerant bottle capacity	12 kgs	
Power Supply	110 / 230V AC, ±10%, 1φ, 60/50Hz, +N +PE	
Power consumption	900 W	

Standard Accessories



Pneumatic Waste Oil Extractor Collector

Model : **POEC 80**



Salient Features

- Superior design and technology
- Portable with handle
- Extraction & Ejection of waste oils
- Dedicated brake fluid extraction port
- 16L Collection tray (Height adjustable)
- 10 L Modular cylinder with level indicator
- 80 L tank with level indicator
- Waste oil collection
- Residue oil collection using vacuum principle
- Anti explosion cap
- Holder for keeping probes
- Tools tray

Technical Specification

Air consumption	200 L/min.
Air Inlet pressure (for vacuum)	87 - 116 PSI / 6 - 8 Bar
Oil ejection pressure	10 - 14 PSI / 0.7 - 1 Bar
Vacuum degree	0 - 14 PSI / 0 - 1 Bar
Height about	1460 mm - 1705 mm
Working temperature	40 - 60 °C (for engine oil)

Pneumatic Jack with Trolley



Salient Features

- Lifting capacity 4 Ton
- Pneumatic pit jack to lift the Cars & LCV
- Trolley with wheels give access to move the jack from front to end of the pit

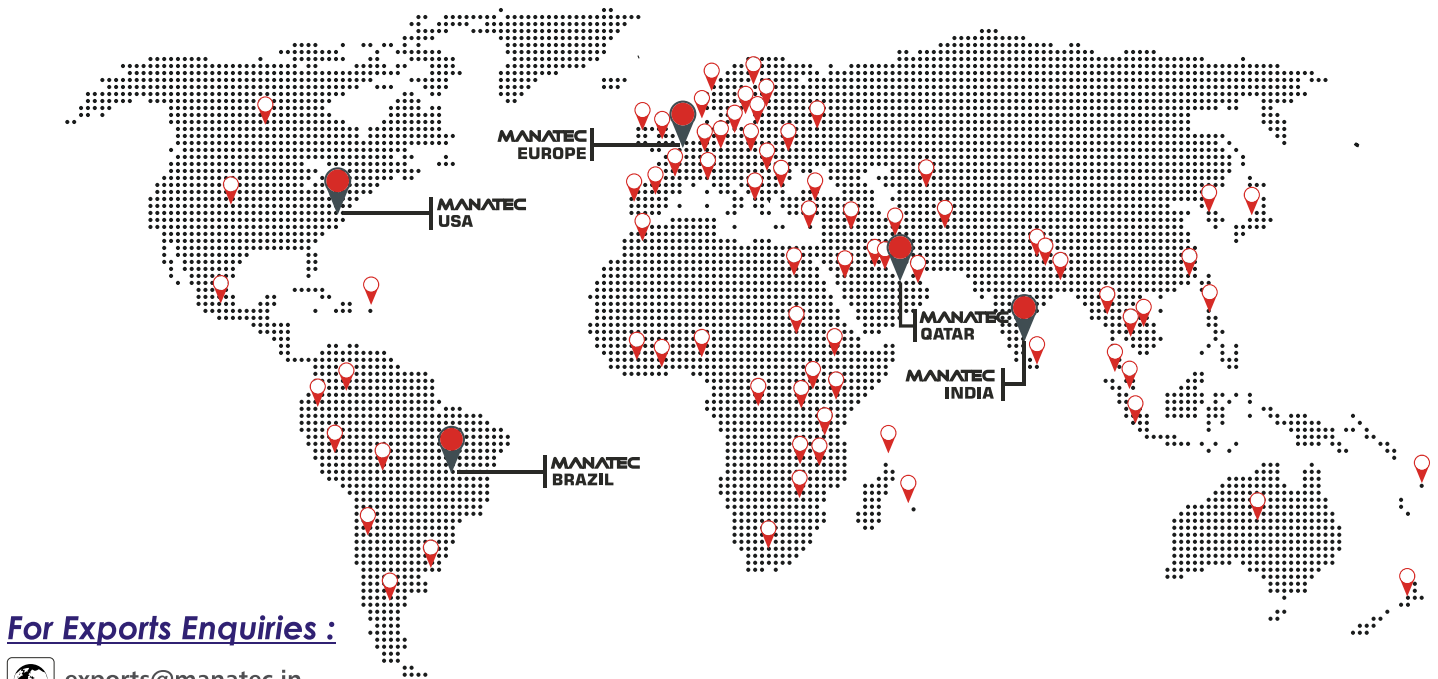
Impact Wrench



Salient Features

- 1/2" **Impact Wrench** to remove wheel nut in PCVs & SUVs
- Capacity bolt size - 19 mm
- Working torque : 525 Nm
- Free speed 7400 RPM

Global Presence



For Exports Enquiries :



exports@manatec.in

All India Sales & Service Network



CORPORATE OFFICE

C-22 & 23, Industrial Estate,
Thattanchavady,
Puducherry - 605 009.
Phone : +91 413 3502000
E-mail : sales@manatec.in

REGISTERED OFFICE

19A, Abhinav kailash
(Ground Floor),
Velachery Road, Little Mount,
Saidapet, Chennai - 600 015.
Phone : 044 - 42036407
E-mail : ro_chn@manatec.in

FACTORY

Bahour Main Road,
Karikalampakkam,
Puducherry - 605 007.
Phone : +91 413 3502000
E-mail : sales@manatec.in

For Sales Enquiries :



sales@manatec.in

For Service Enquiries :



customersupport@manatec.in



ISO 9001 : 2015



MANATEC

C-22 & 23, Industrial Estate, Thattanchavady,
Puducherry - 605 009. INDIA.
Ph : +91 413 3502000
Email : sales@manatec.in
exports@manatec.in



Distributor :

