

# SINGLE WINDOW AUTOMOTIVE CLEANING SOLUTIONS





**SOLUTION** 





#### **MANMACHINE GROUP**

Founded in 1987, with vision and determination as the only capital to change the face of Cleaning Industry. Beginning as a contract cleaning company, Manmachine evolved into a full-fledged mechanized cleaning solutions company by bringing to fore fresh concepts, global brands and latest technology as innovative solutions. Eventually expanding with Exppress Carwash, Manmachine Works, Themaids.in and Manmachine Solutions, it has set a new benchmark of excellence.



# MANMACHINE WORKS DRIVING THE CLEANING REVOLUTION

The name MANMACHINE WORKS is synonymous with advanced cleaning technology in India. Manmachine Works is bringing the latest and most innovative cleaning solutions for a fast changing and highly demanding automotive industry requirements. It offers not only a wide range of cleaning equipment from the world leaders but also complete cleaning solutions, starting from designing a car wash to promoting professional skills by introducing the first ever "CAR WASH COLLEGE" in India.



# PARTNERING WITH WORLD-CLASS TECHNOLOGY

#### **ANNOVI REVERBERI**

Since 1958, Annovi Reverberi is leading the international market with distinguished solutions. Counted among the leading manufacturers of pressure washers, piston pumps and diaphragm pumps, it's growing by consistently pursuing Quality and Performance. AR pumps can be found wherever quality, professionalism and service are required. Because every product that bears the AR name is the result of a modern, flexible corporate organization, that can put specific departments and expertise to work for each customer.

#### **ELSEA**

Founded by a group of young entrepreneurs in 2001, ELSEA's expanded range of products are internationally certified by ISO 9001:2008, TUV-GS, CTUVs & GOST with a widespread presence around the world.

#### **ISTOBAL**

Founded in 1950, the company commands presence in more than 62 countries with more than 500 employees and an impressive legacy of more than 65 years of manufacturing automatic car washing machines. With premium products like M'Start, the company has earned staunch credibility and recognition around the world.

#### **STEAMJET**

"STEAMJET prepares for a better future and a better environment." STEAMJET is NOT an ordinary steam generator. It is the product of 10 years of research, development and delicately patented design for superior steam car wash. STEAMJET is now sold worldwide gaining great reputations with its quality and performance. With a global network of 20 countries, the company is running a number of distributors and dealers around the world.

Manmachine cares about people and environment, and we are committed to bring globalization to the cleaning industry in India.

#### ZENTOOL

Founded in 1950,it's a leading company from Australia . It represents one of the latest advancements in machine polishing technology. with an orbit (throw) of 21mm, the dual action polishers has evolved to become a leader in efficient cutting power while still maintaining the safe operation expected from a DA polishers.

#### **BIEMMEDUE**

Biemmedue is headquartered in Cherasco, Piedmont (northwest Italy), at the Gates of the Langhe and Roero regions. In 25000m² of factory space where product are manufactured using innovative laser cutting systems, automatic shearing & punching lines, Robotized welding lines and Epoxy powder coat painting facility. Products are assembled on modern automatic assembly line.













# MANMACHINE MAKES YOU GAIN THE EDGE IN CUSTOMER SATISFACTION



#### IS YOUR CAR WASH BUSINESS FACING THESE PROBLEMS

Non-professionally designed bay wash area
Wastage of water, power and wash space
Unskilled labour

Lack of awareness on latest car wash technology and equipment

Wastage of time due to unsystematic wash process Hoses/Accessories and other equipment lying on floors

**Need to outsource washing** 

**Regular customer complaints** 

**Low CSI ratings** 

# IT'S TIME TO UPGRADE YOUR SERVICE AND EQUIPMENT TO WORLD-CLASS CAR WASH SOLUTIONS

Today, people have less time to spend on errands such as car wash. The educated customers are aware of their options and demand more value for money. So, the challenge is to provide customers with clean cars in minimal time and also the best possible quality of wash.

Let your customers experience how automated the process is, how quickly it gets done and how 'little work' is actually required to drive home a car shining as brand new.

Let your customers experience the Manmachine Difference - the one stop solutions provider in car wash with state-of-the-art machines, highly trained professionals and global car care products.

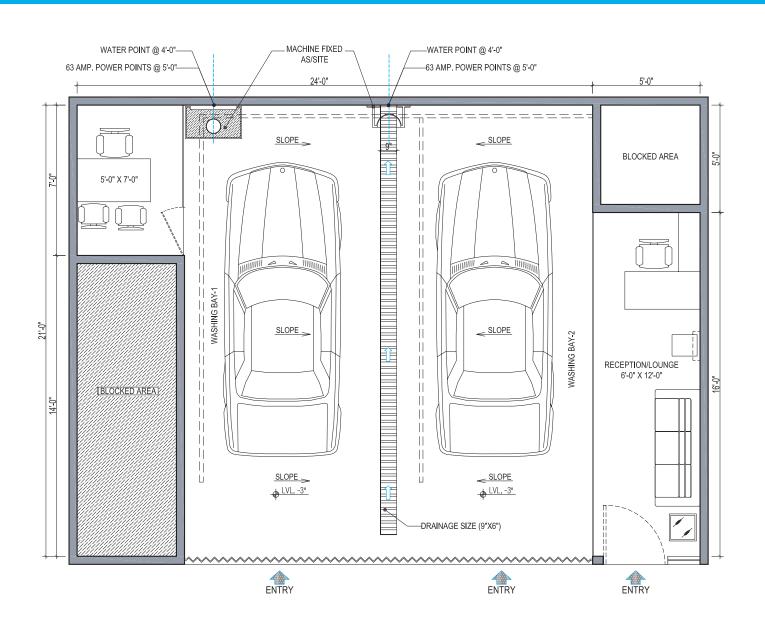




Car workshops and showrooms wash bay area needs scientific layout plan which is essential for efficient functioning and relaying of car wash services. Poor planning, shoddy arrangement and mismanagement is the primary cause for wastage of wash space, electricity and water resources. Manmachine addresses your workshop/showroom problems by first designing the washing bay area. Our in-house expert team of professionals plans the architecture of the bay area by understanding its capacity and processes.

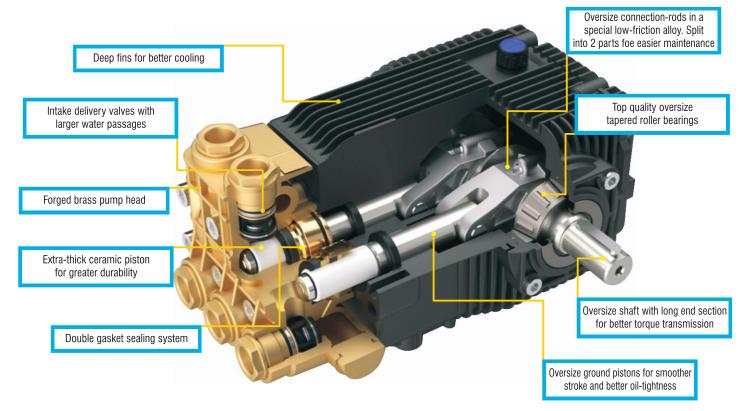
- Area required to accommodate the required number of cars.
- Water & electricity requirement of the machinery and equipment.
- Meticulous considerations such as slope of the bay area to make sure that no water accumulates on it and the operators have a clean bay to work upon.
- Proper drainage system to avoid blockage.
- Increase work efficiency and employee retention by putting right accessories in the right place.

# **TOTAL ARCHITECTURE & DESIGN CONSULTANCY**





# DELIVERING SMARTER AND RESOURCE EFFICIENT HIGH PRESSURE CAR WASHERS



Annovi Reverberi is a leading manufacturer of pumps for high- pressure washing and complete hot and cold water high pressure washers. Years of technological advancement, research and development has made it a prestigious leader brand in Italy and worldwide.

### **HRC & HRK PRO FEATURES**

3-piston alternating volumetric pumps for use on cleaning units and industrial systems.

- Pump body & cover in die-cast aluminum alloy.
- □ Side cover with incorporate oil sight glass.
- ☐ Rear cover with oil drain outlet.
- Pistons driven by crank-connecting rod mechanism.
- Pump shaft in pressed high-strength steel.
- Oversized friction bearings.
- Connecting rods in die-cast special lowfriction zinc aluminum alloy.

- One-piece ceramic pistons.
- Pump head in pressed brass.
- Double gasket sealing system.
- ☐ Intake and delivery valves have plugs for easier maintenance.
- □ Increase work efficiency and employee retention by putting right accessories in the right place.



# SINGLE PHASE HIGH PRESSURE CAPACITY UPTO 10 CARS

#### **BC-780**



### **Description**

- □ A two wheels trolley mounted unit with detergent tank, handle
- □ Triplex pump with ceramic plungers, connecting rod system
- Brass pump head
- Automatic by-pass valve
- □ Pressure adjustment
- Pressure gauge
- Built-in detergent suction w/ adjustement
- Single phase heavy duty motor w/thermal protector
- □ TSS remote control for total shut-down of high pressure cleaner
- Power supply cord length 5m Water filter
- Detergent tank capacity 2I
- H.P. type hose gun and lance
- Adjustable high/low pressureand fan/pencil jet spray head

#### **TECHNICAL SPECIFICATIONS**

Details	Value
Series	SERIES 7
Model	780
Code	22429
Max Pressure (bar)	130
Max pressure (psi)	1900
Water flow Lt/h	720
Water flow gph	190
Max inlet water termperature °C	60
Max inlet water termperature °F	140
Power consumption (kW)	3,1
RPM	1450
Frequency (Hz)	1~50
Volt (V)	230

### **HRC PRO**

#### CAR WASH CAPACITY OF 15-20 CAR IN 1 DAY / SINGLE PHASE ALSO AVAILABLE



#### STANDARD ACCESSORIES

- Hose Pipe 10m
- Gun with quick connect system
- Lance 500 mm
- 100 Micron Filter
- 10 Micron Filter (Only By MMW)
- Nozzle 25°

#### **TECHNICAL SPECIFICATIONS**

HRC 1450 rpm									
	Output		Pres	sure	Pov	ver	RPM	3 ~ 50 Hz	Weight
Pump	I/min g	ıpm	bar	psi	hp	kw	N° giri/1'	volt	kg
HRC 12.13 ET	12 3	3.20	130	1900	4	3	1450	230/400	29

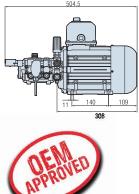
#### HRK PRO CAR WASH CAPCITY OF 25 - 30 CARS IN A DAY

#### STANDARD ACCESSORIES

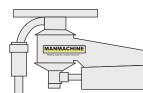
- Hose Pipe 10 m
- Gun with quick connect system
- Lance 500 mm
- □ 100 Micron Filter
- 10 Micron Filter (Only By MMW)
- Nozzle 25°







HRK 1450 rpm						
	Output	Pressure	Power	RPM	3 ~ 50 Hz	Weight
Pump	I/min gpm	bar psi	hp kw	N° giri/1'	volt	kg
HRK 11.14 ET	11 2.90	140 2000	5.5 4	1450	230/400	33





# POWERFUL & EFFORTLESS HIGH PRESSURE CLEANER ACCESSORIES

- The system comprises of machines that are placed in a machine room with hoses stretching out of it through stainless steel pipes directly to the boom.
- The arrangement leads to no possibility of hoses being laid on the floor as large area of washing is done with the help of Boom Technology.
- Special rubber coated hoses stay immune to punctures and don't leave any mark or scratches on the car.
- Saves time with a quick connect system

provided on lances, guns and foam bottle.

- Saves water and electricity with plunger pump technology. No maintenance with thermal cut off System. 3kw power produces 140 bar pressure.
- Provides better car quality, takes less man hours and the usage of foam bottle gives faster coverage.
- Fast and consistent working and zero breakdowns due to parking accessories for all the attachments.



#### **FOAM BOTTLE**

- □ Sleek & smooth modern design
- □ Sight window indicates level of soap remaining
- □ Refillable bottle reduces environmental waste
- Vented large screw cap for easy refilling
- □ Comes with a QUICK CONNECT for easy attachment
- Spray pattern easily adjustable



#### QUICK CONNECT SYSTEM

- Without threads that may bind or only partially connect
- Automatic locking system facilitates faster access
- Suitable for confined areas
- Non-drip interface
- Minimizes unexpected downtime
- Standard with Manmachine pumps

Hose Pipe

Spray Gun

Moulded Lance



**Rotating Boom** 

#### **ROTATING SS Z - SHAPED BOOM**

- water inlet for easy installation
- □ 360° /180° continuous rotation for □ Extremely durable the car wash
- Insulated high pressure hose
- □ Swivelling adapter with side and top □ Hose guard with integrated tension release feature

  - Improves the maintenance of pumps and pressure hose

#### **UNDERBODY LANCE**

- □ A right angle wash that helps clean difficult-to-reach areas
- Easily removes mud and debris from the underbody
- □ Underbody wash with out gantry/lift
- Avoids tyres alignment and balancing problem
- ☐ Made with high grade stainless steel for long life
- □ Task is done in less than 3 mins.



STORAGE TRAY



**FOAM BOTTLE HOLDER** 

Rotating Underbody



# **VACUUM CLEANERS**

The multi-purpose range of vacuum cleaners are ideal for interiors of the car, workshops, garages and outside areas. An intelligent machine design that's energy efficient and optimized for maximum performance in all applications. The state-of-the-art accessories enhance its suction power and versatility.



### **ARES 37/1**

Wet & Dry Vacuum Cleaner with double stage motor reaches upto 1400w of maximum power.







TECHNICAL SPECIFICATIONS					
Number Motors	1				
Stage	double				
Volt (V)	220-240				
Frequency	50/60				
Cooling	by pass				
P max (W)	1400				
P min(W)	1200				
Waterlift (mm H <sub>2</sub> O)	2400				
Air flow (m <sup>3</sup> /h)	215				
LpA sonorus 3mt (dB(A))	60				
Total tank capacity (It)	37				
Weight (kg)	12-6/13-7				

TECHNICAL SPECI	FICATIONS
Number Motors	2
Stage	double
Volt (V)	220-240
Frequency	50/60
Cooling	by pass
P max (W)	2600
P min(W)	2300
Waterlift (mm H <sub>2</sub> O)	2400
Air flow (m <sup>3</sup> /h)	430
LpA sonorus 3mt (dB(A))	67
Total tank capacity (It)	77/76
Weight (Kg)	22-4/24-0



### **EXCEL M - 77/2**

Ideal for professional cleaning, with two double stage motors reaching upto 2600w of maximum power.









#### **STANDARD ACCESSORIES**





**Dash Board Tool** 



**Crevice Tool** 



**Polyester Ring Filter** 



Hose pipe



**Sponge Filter** 



# **TH - STATIONARY INDUSTRIAL VACUUM CLEANERS**



- Stationary vacuum units for continous work
- Suitable for the removal of dust and solid matter from work surfaces
- Normally installed aboard production machines
- Can also be easily transported and moved thanks to optional wheels with brakes
- Powerful maintenance-free motor/turbine group permit uninterrupted work
- Mannual filter shaking mechanism (automatic filter shaking mechanisms optional)
- Various filters available for different applications

#### **TECHNICAL SPECIFICATIONS**

		TH 75 P
code		008.068
max. absorbed power	[ W ]	5000 W - 7,5 HP
power supply	[ V - ph - Hz ]	400-3-50
motor type		TR-2st
water lift	mm H2O	3.600
air flow	m <sup>3</sup> h	620
TR- Turbine		

#### STANDARD ACCESSORIES



**Polyester Filter** 



Crevice tool diam 40 mm



**Cartridge Filter** 



Same Diameter Y-cuff in steel



Flexible Hose diam 40 mm complete



Wheel Kit







### **SPRAY EXTRACTION / CAR INTERIOR CLEANER**

A comprehensive new age range of spray extraction machines that are compact, powerful and manageable. Equipped with a strong suction power and inbuilt detergent tank, they are miraculous performers in wet cleaning, dry cleaning, armchair wash and floor wash.

TECHNICAL SPECI	FICATIONS
Number Motors	1
Stage	double
Volt (V)	220-240
Frequency	50/60
Cooling	by pass
P max (W)	1400
P min(W)	1200
Waterlift (mm H <sub>2</sub> O)	2400
Air flow (m <sup>3</sup> /h)	215
LpA sonorus 3mt (dB(A))	60
Total tank capacity (It)	37
Capacity pump	0-8
Lift pump (bar)	2
Pump (W)	48
Detergent tank (It)	8
Weight (kg)	17-6/18-7



#### **ESTRO-125**

An extractor with double stage motor that's ideal for applications such a cleaning of car interiors & upholstery. The model is designed with an innovative 8 ltrs. detergent tank to be assimilated to the trolley and completely residual liquids tank.











#### **ESTRO-250**

An extractor with double stage motor that's ideal for applications such as cleaning of car interiors & upholstery. The model is designed with an innovative 20 ltrs. detergent tank to be assimilated to the trolley and completely residual liquids tank.







TECHNICAL SPECI	FICATIONS
Number motors	2
Stage	double
Volt (V)	220-240
Frequency	50/60
Cooling	by pass
P max (W)	2600
P min(W)	2300
Waterlift (mm H <sub>2</sub> O)	2400
Air flow (m <sup>3</sup> /h)	430
LpA sonorus 3mt (dB(A))	67
Total tank capacity (It)	77/76
Capacity pump	0,8
Lift pump (bar)	2
Pump (W)	48
Detergent tank (It)	16
Weight (kg)	25,5/27,5











# **ROBOTIC UNDERBODY WASH**



$\mathbf{r}$	L SPECIFICATIONS
 IXIII - AI	SPELIEILATIUMS

PARAMETER	9 NOZZLE U.B	3 NOZZLE U.B
High Pressure Triple Ceramic Plunger Pump	40 LPM.	21 LPM.
Pressure	100 bar	150 bar
Power Requirement	10 HP/7.5 kw	7.5 HP/5.5 kw
Power Consumption	0.3 Unit	0.2 Unit
Water Consumption Per vehicle for Under	35-40 ltrs	16-21 ltrs
Total time for undercarriage	1 min	1 min
Maximum washing Length	5.8 mtr.	5.8 mtr.
Maximum Washing width	2.2 mtr.	2.2 mtr.



- 1. The system is provided with Robotic Under carriage wash gantry with nine Oscillating nozzles on a moving gantry covering every corner of the under carriage of vehicle. It takes not more than a minuts to wash the under carriage and achieves good cleaning in the dirtiest of vehicle.
- 2. Complete system is provided with Relay Logic control and sensors for locating the vehicle and also selecting the vehicle length with easy operating remote panel.
- 3. The plants is in Rugged steel construction with powder Coating/Hot Dip Galvanizing for corrosion resistance and long life. Pump is Possitive Displacement High Pressure pump of Annoviv Reverberi Origin. This ensures faster, efficient cleaning with low water consumption. Plant also has vehicle Guide rail for secure placement of vehicle pressure

COMPARISON SHEET				
Parameters	<u>Manmachine</u> <u>Robotic</u> <u>Underbody Wash</u>	Fixed nozzle system	Two -Nozzle with roofing system	
Pressure	80 to 100bar	10 to 20 bar	40bar	
Min. Usage of Water Per Car Max. Usage of	35 ltrs	150 ltrs	120ltrs	
WaterPer Car	45 Itrs	200 Itrs	150ltrs	
Time Per Cycle Max.	1 min 1.5 min	4 Min 5 Min	3min 4min	
Nozzle Types	-	Used Fix System	nozzles	
Automation Type	Fully auto Panel with vehicle length selection	Full drive system	Auto panel	
Wastage of water	5%	40%	30%	
Under wash profile coverage	Different angel & diffrent degree nozzle achieve 100% under wash profile coverage	One type of nozzles achieve 40% profile	Movable nozzles achieve 60% profile	
Water proof standard	IP65	Not Maintain	Not Maintain	

# **SUSETTE - 180/13**



#### PROFESSIONAL HOT & COLD WATER HIGH PRESSURE CLEANERS







Secure Joint (Red Ring)

- ACDS (Advanced Control with Delayed Stop Mechanism)
- Automatic shutdown if idle for more than 20 mins with micro leakage control.
- Warning LED 'machine ready' and malfuctioning'.
- Hour counting device with service alert warning LED(after 400/800 inform customer that is time to make service)
- Control of lime scale prevention system adjustable from 35 to 270 mm/h.
- Motor /pump coupling protection with special lubricant retention system.
- □ Triplex plunger RK pump with 3 ceramic pistons, brass pump head with 1450 rpm motor for high efficiency & low maintenance from Annovi Reverberi.
- □ Pressure regulation from lance with detergent injection system .
- On board 3 litre detergent tank and built in water tank with floating valve.
- Water filter accessible for inspection from the outside of the machine.
- Diesel filter with fuel stop system for easy devices.
- Pre ventilated boiler with over 89% efficiency.
- Motor and engine thermal protection.
- Two rigid rear wheels and two front swivel casters with brake.
- Control board protection from dust with translucent cover.

Model		Susette 180/13
Max. Pressure	[bar]	30-180
Max. Flow rate	[lt/h]	400-780
Pump		AR-RK
Stop System		ACDS
Pump Speed	[rpm]	1,450
Max. absorbed Power	[kw]	4.7 kw
Supply Voltage	[V-ph-Hz]	420-3-50
Max. Temperature	[°C]	140
Fuel Tank	[it]	35
Cleaning agent Tank	[it]	3
Weight		123 kg
Packaging Dimension		1015x660x110



#### STANDARD ACCESSORIES







Hose Connector



Steam Nozzle



Tap Adaptor



10 Micron Filter

#### **OPTIONAL ACCESSORIES**

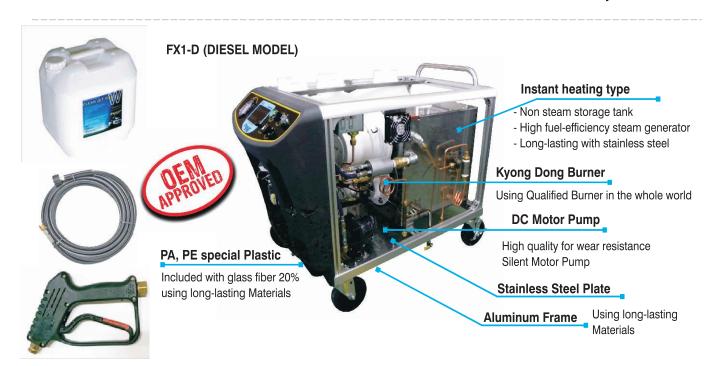




# STEAM JET CAR CLEANING & WAX SYSTEM

#### **ADVANTAGES OF STEAMJET CARWASH**

- ☐ High- pressure steam using only 400cc (130z) water per minute, generating NO wastewater, NO sewage.
- System consumes less than 200-watt power and minimum fuel.
- □ Commercial grade equipment that runs all day non-stop.
- Stainless steel and rust proof structure.
- □ CPU controlled with 8 different phases of automatic safety features.
- 28 levels of steam moisture control in a well-modulated system.



#### **TECHNICAL SPECIFICATIONS**

- □ Dimension :540 x 909 x 750 (mm) (W x L x H)21.3 x 35.6 x 29.5 (inch) (W x L x H)
- Hose Length: 10 meters
- Weight: 67 kg (147.7lbs)
- Water tank capacity: 21 liters (5.5gal)
- Wax tank capacity: 6.5 liters (1.7gal)
- □ Diesel fuel tank capacity: 6.5 liters (1.7 gal)
- □ Electric power rate: 110~220V (SO/60hz)
- □ Electric power consumption: 200W

- Steam generator: Open (instant) type (patent) (non boiler type)
- Steam pressure: 6~8 Bar / 116-145psi
- Steam temperature: 80~90 C (176~203 'F)
- Preheating time: 1 minute
- Water consumption: 650~950cc/min (users can adjust)
- Materials: stainless steel, aluminum, PA, PE, ABS
- Automatic wax mixing device: (on/off function)



# AUTOMATIC CAR WASH SYSTEMS

'M START' and M1 is a rollover designed for wash facilities with a capacity of 1000 to 1500 vehicles a month and the perfect machine for those wishing to start off in the vehicle business in the most profitable way.

- European Quality with the capacity to do a full Car wash in 4 minutes
- Structure is made using hot deep galvanized Steel and assembled using clinching process Which makes it strong and also environment Friendly
- □ LCD screen control panel which can store up To 30 program
- Brushes and dryer are driven by drive motors leading to better Cleaning and drying effects
- Maintenance free machine
- □ Frequency invertors are provided on the Brushes and dryer leading to optimum use of Chemical and very less electricity









#### **TECHNICAL SPECIFICATIONS**

WASH DIMENSIONS			
WASH HEIGHT	2,300	2,500	2,700
WASH WIDTH	2,400	2,400	2,400
LENGTH OF RAILS	9,000	9,000	10,000
MINIMUM MACHINE WIDTH*	3,800	3,800	3,800
MAXIMUM MACHINE WIDTH**	4,212	4,212	4,212
TOTAL MACHINE HEIGHT	3,083	3,313	3,513

All measurements in mm.



Manmachine brings you a superior range of speacialized cleaning agents and treatments that are eco-friendly and safe for vehicles, car. equipments and human hands.

# COMPLETE LINE OF CAR WASH CHEMICALS AND DETAILING SERVICES

- Foam
- □ Paint Protection
- □ Colored Foam
- Rubbing & Waxing
- Self-drying Wax
- Underbody Coating

□ Upholstery Cleaning Chemical

- Shampoo
- Glass Coating
- □ Dash Board Polish

- □ Fabric Protection
- Leather Conditioning
- Silencer Coating
- Engine Coating
- ☐ Flush Micro Fiber Cloth



## ZENTOOL DUAL ACTION POLISHERS

□ The Zentool Dual Action Polishers represents one of the latest advancements in machine polishing technology. With an orbits (throw) of 21mm, the dual action polishers has evolved to become a leader in efficient cutting power while still maintaining the safe operation expected from a DA polishers. Compared to rotary polishers this machine achieves a far superior finish with no holograms. Rotary polishers can cut easily but leaves too many pain defects. Painters use compounds containing fillers to mask these defects.



■ The Zentool is powered by a 900w motor and even with the massive 21mm orbits still operate smother than traditional dual action polishers. The backing plates feature ventilated cooling channels to help reduce heat transfer. Due to the large orbits diameter, buffing pad weight plays a major role in maintaining a smooth operating machine. Ideal pad weight for the Zentool is up 27g. Dual action Polishers comes with 6 months warranty.





# **BEST-IN -CLASS SERVICE WITH EXPERT SUPPORT & TRAINING**

Highly focused towards 100% customer satisfaction, our nationwide network of service centers provide support throughout the complete product lifecycle ensuring high performance and reliability.

Car Wash College is an initiative to provide professional training to the operators and keep them abreast on latest techniques through programs conducted regularly.

Through a collaborative learning environment, the operators are trained for proficiently handling all aspects of machinery and generate the combined force of man and machine.

Knowledge of chemicals, new treatments and their usage.

To achieve minimum costs per car wash through optimum usage of cleaning agents and other specialized treatments.

"We don't sell equipment

Step by step car wash process.

Delivering the car on a 20 point checklist to achieve the desirable customer satisfaction index(CSI).

Preventive measure for long life maintenance of machines.

Just 5 days of training upgrades their skills in complete car cleaning and care.



# Working today for a cleaner tomorrow ®

# MANMACHINE PRESENCE IN INDIA







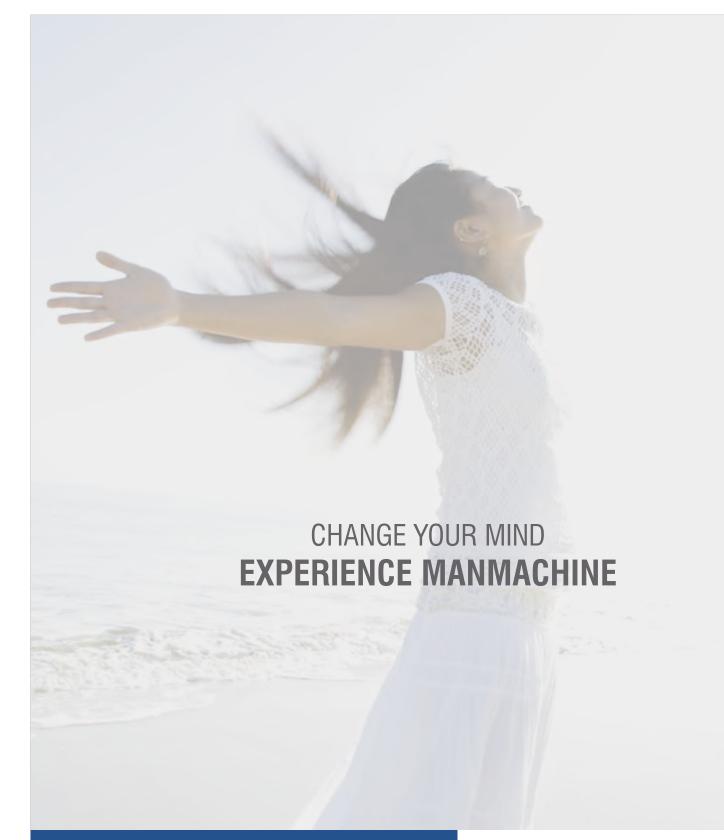












#### MANMACHINE GROUP

Corporate Office: E - 98, Sector 6, Noida - 201 301

Ph: 0120 - 4256161 / 4256262

E-mail: info@manmachineworks.com | www.manmachineworks.com

DEALER: