

## ESP-05

SENSOR PAVER



### Key Features

Hydrostatic Transmission  
Engine Power 125hp @ 2200 rpm  
Laying Capacity 300 TPH  
Hopper Capacity 4.25 CM  
Paving Width 2.5 m to 5.5 m  
Weight 14,100 kg  
Four Wheels on Rear Axle  
MOBA (Germany) Make Electronic Sensor  
Double Operator Seat

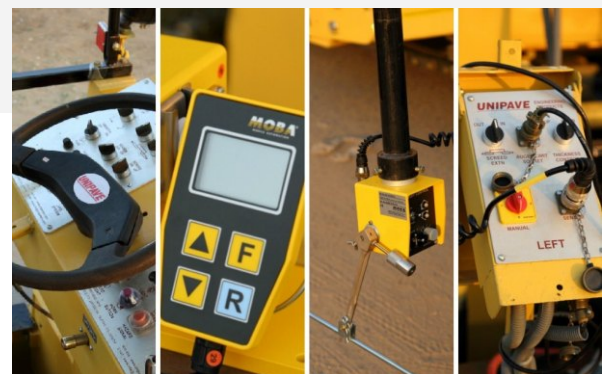
### Options Available

Paving Width Attachment Up to 6.0 m.  
Material Handling

- Bituminous Material Only
- Bituminous, Wet mix, GSB, DLC, DBM Material

### APPROVED BY ARAI

(Automotive Research Association of India)



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# ESP-05

## BS-III STANDARD ENGINE

### PRIME MOVER

ESP-05 is powered by Kirloskar engine model 6R 1080 TA1, generating 125 hp at 2200 rpm. Engine has sufficient space on all the sides for air draft and cooling of engine. Engine is easily accessible for daily maintenance like checking engine oil, coolant water level, engine suction filter etc. Engine starter, alternator can be easily removed for periodic maintenance. Gauges like engine temperature, oil pressure and ampere meter are on sliding panel and are easily visible from operator's seat.

### POWER DISTRIBUTION GEAR BOX

It is coupled with the engine for coupling 3 pump sets. The gears are in oil bath; all the gears are of proper alloy steel material and hardened for greater life. Bearings used in gearbox are of reputed make for greater life. Gearbox is provided with oil level indicator, air breather, oil drain plug for better operation and maintenance.

## HYDROSTATIC TRANSMISSION

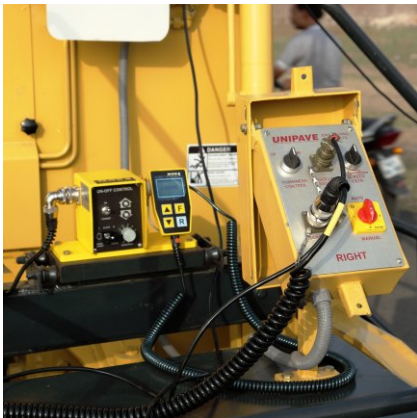
### SPEED REDUCTION GEAR BOX

ESP-05 is provided with speed reduction gearbox to achieve low speed for paving and high speed for traveling. All the gears are in oil bath and are of proper alloy steel material hardened to get greater life. Gearbox is provided with oil level indicator and oil drain plug for better operation and maintenance.

### HYDRAULICS

All hydraulic pumps, motors and hose pipes are of reputed make. Utmost care has been taken in selection of joints so as to minimize chances of hydraulic oil leakage. All 'O' rings, grooves are of proper match so that it gives greater life of 'O' ring. Maximum use of MS pipe is done as MS pipes occupy less space; they can be easily clamped and reduces chances of leakage.

## SENSOR



### THICKNESS AND LEVEL CONTROL

Auto and Manual mode compatible. In Auto mode, Electronic Sensors controls the grade and slope of laid surface. It can be accurately controlled as per job requirements. Electronic Sensor of MOBA, Germany (imported) is used. MOBA, Germany is a major supplier of sensors for paver all over the world. In manual mode, thickness can be controlled by switches provided on screed and control panel.

### BRAKES

The disc brakes can be operated by pushing pedals provided near both the operator's seat. The safety brakes are acting on the speed shaft, which are coupled to the drive wheels.

### FRONT BOGIE

Tandem bogie of solid rubber tyre, size 550 mm X 175 mm four nos. are mounted on equalizer beam to ensure maximum flotation and equal weight distribution. Hydraulic steering is fitted for effortless operation.

## EQUALIZER BEAM



### REAR BOGIE

Tandem bogie of pneumatic tyres size 10.00 X 20 four nos. are mounted on equalizer beam to ensure maximum flotation and equal weight distribution. Even when driving on a base with large irregularities such as gully cover, speed breaker, all wheels are in continuous contact with the ground.



### HOPPER

Movement of the two hoppers is obtained by means of hydraulic cylinder operated independently by simple switches on control panel. Hopper Capacity: 4.25 CM.

## HYDRAULIC CONVEYOR DRIVE

### FEEDING SYSTEM

Two pallet conveyors with hardened steel chain provide the material to two sets of augers which spreads material on both sides. Hydraulic drive for conveyor and auger. Each of the pallet conveyors can be controlled independently from the operator's seat.

### THRUST ROLLERS

Two thrust rollers are fixed on heavy oscillating beam provided on front part of the machine.

### WORM ASSEMBLY

Worm spreads material in front of screed in total width of pavement. Hydraulic drive for conveyor and auger. Properly sealed bearings are used for greater life as they are always covered with the laying material while paving. Special arrangement for greasing is provided as greasing is required daily for greater life of bearing. Worm is of Ni-Hard steel material, properly heat treated for greater service life. Proper covers for chain are provided for greater service life of chain.



### SCREED

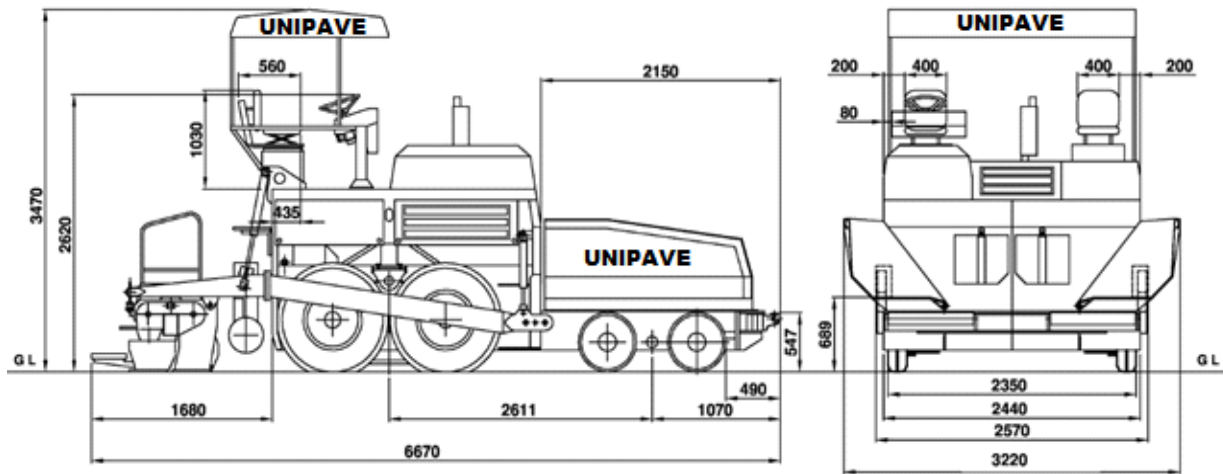
Basic screed width of 2.5 meter, hydraulically extendable up to 4.5 meter and further extendable up to 5.5 / 6.0 meter by bolt on extension. Main screed is pivoted at the center point of the machine to assure a constant flatness or work on uneven grounds. Lateral mobile plates are hydraulically operated, sliding on chromium plated telescopic cylindrical guides for wear resistance to achieve paving width up to extendable limit. Screed plate has provision for heating by 8 LPG burners two on each mobile plate and four nos. on main screed plate. Vibration is provided for complete width of screed with infinitely variable frequency from zero to 3000 rpm (50 Hz). Tamping is provided for complete width of screed with infinitely variable frequency from zero to 2000 rpm (33.3 Hz). The adjustment of the laying mat thickness can be controlled by electronic sensor so as to allow easy modification of grade and slope according to the job requirements.

## QUICK MAINTENANCE

### MAINTENANCE

Shutters are provided on three side of machine which can be easily opened for inspection and maintenance of the machine. Special care has been taken to keep maintenance parts on left side of machine so that maintenance on road can be safe. Filters are kept on outer side of machine for maintenance.





\* All dimensions are in mm.

## POWER UNIT

<b>Engine</b>	Kirloskar make water-cooled electric start diesel engine, Model 6R 1080 TA1, 125 hp (93 kW) @ 2200 rpm or equivalent
<b>Electrical System</b>	12 V DC
<b>Emission Standard</b>	BS-III
<b>Speed Reduction Gearbox</b>	Speed reduction gearbox to achieve low speed for paving and high speed for traveling.

## PERFORMANCE

<b>Laying suitability</b>	Option 1: Bituminous material Option 2: Bituminous, Wet mix, GSB, DLC, DBM material (Dual Purpose)
<b>Laying Capacity</b>	300 TPH
<b>Laying Thickness</b>	300 mm (Max) to 10 mm (Min) 12" (Max) to 3/8" (Min)
<b>Transmission</b>	Hydrostatic
<b>Working Speed</b>	0 to 30 m/min (Max.)
<b>Travelling Speed</b>	0 to 16 km/hr (Max)
<b>Weight</b>	14,100 kg (31,085 lb) approx.
<b>Slope &amp; Grade Control</b>	MOBA, Germany make electronic sensor (Auto & Manual mode available)
<b>Maintenance Shutters</b>	On three side of machine
<b>Traction &amp; Conveyor Pump - Motor</b>	Sauer Danfoss, Germany or equivalent

## SCREED

<b>Screed width</b>	2.5 m (8' 2 1/2") basic width, Hydraulically extendable up to 4.5 m (14' 9 1/8"), bolt on extension up to 5.5 m (18' 1/2") Option: Attachment up to 6.0m (19' 8 3/4")
<b>Crown (Manual)</b>	-1° / +4°
<b>Screed Heating</b>	Yes, with 8 LPG burner facility
<b>Screed Vibration</b>	Yes, infinitely variable (0 to 50.00 Hz)
<b>Screed Tamping</b>	Yes, infinitely variable (0 to 33.33 Hz)

## UNDER CARRIAGE

<b>Rear Wheel</b>	Four no. Pneumatic Tyre Size: 10.00 x 20
<b>Front Wheel</b>	Four no. Solid Rubber Tyre 550 Dia. x 175 mm wide

## REFILL CAPACITIES

<b>Fuel</b>	145 L
<b>Hydraulic Oil</b>	260 L
<b>Cooling System</b>	6.5 L
<b>Engine Oil</b>	14 L

## OPERATOR STATION

<b>Control Panel Type</b>	Sliding
<b>Operator Seat</b>	Double Operator Seat
<b>Travelling Function</b>	Left & Right side
<b>Operating Function</b>	Left & Right side
<b>Steering</b>	Hydraulic
<b>Brake</b>	Caliper disc brake on both the sides

## CONVEYOR & AUGER SYSTEM

<b>Conveyor &amp; Auger</b>	2 Sets, one on each side
<b>Drive</b>	Hydraulic
<b>Control</b>	On / off switch function
<b>Auger Screw Size</b>	Dia 350 mm
<b>Auger Material</b>	Ni-Hard Steel Material

## HOPPER & FEEDING SYSTEM

<b>Hopper Operation</b>	Hydraulic
<b>Hopper Capacity</b>	4.25 m <sup>3</sup> (150 ft <sup>3</sup> )
<b>Hopper Width</b>	Working: 3.22 m (10' 6 3/4") Closed: 2.44 m (8')
<b>Feed Tunnel Width</b>	1.268 m (4' 1 5/8")

## DIMENSIONS

<b>Operating Height</b>	3.47 m (11' 4 5/8")
<b>Shipping Height (canopy tilted)</b>	2.90 m (9' 6 1/4")
<b>(w/o canopy &amp; exhaust)</b>	2.68 m (8' 9 1/2")
<b>Shipping Width</b>	2.57 m (8' 5 1/4")
<b>Length (Tractor unit + screed)</b>	6.67 m (21' 10 1/2")
<b>Wheel Base</b>	2.61 m (8' 6 7/8")
<b>Dump Height</b>	0.70 m (2' 3 1/2")
<b>Thrust Roller Height</b>	0.54 m (1' 9 1/4")

## MACHINERY ACCESSORIES

Canvas Canopy; Working & Traveling Lights; Tool Kit with Jack; Horn

## OTHER FEATURES

All operating levers including panel switch board are handy and within easy reach; All gears and shafts of gear box are made from alloy steel and are hardened and ground for efficient working; Screed is vibrated with hydraulic motor to compact laid layer; All jacks are having same kind of seal kit (Piston seal and rod seal of PU material).

(Note: Specification / description / dimensions are indicative and subject to change without notice due to modification alteration or custom engineering.)

\* Maximum parameters may not be obtained simultaneously.

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