



Servoday Plants &  
Equipments Limited

Electrify Your Excavators & Loaders

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# ELECTRIC EXCAVATOR SYSTEM



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## UNRIVALLED SPECIALITIES!

### ROBUST PERFORMANCE

- Low-noise, low-vibration, environmentally-friendly, high-efficiency electric motor

### ECONOMICAL

- Lower yearly operational costs compared to diesel engine

### QUALITY AND DURABILITY SUPERIOR TO RIVAL MODELS

- Scalable electric control system
- Reinforcing post for structural rigidity
- PNCT cable
- Unique design and fabrication for optimum weight

### CUSTOMIZED SOLUTIONS

- Meets the full range of applications for which users intend to operate the machine.
- Meets the specific needs of the operating radius.
- Meets the specific needs of works which users intend to operate the machine.

### HIGHER DEGREE OF OPERATIONAL SAFETY

- Protected PNCT cable
- Double safety system prevents movement beyond the distance limit
- Slip ring of detachment prevention structure

### DIFFERENTIATED CUSTOMER SATISFACTION

- One-stop customer management system



## EQUIPPED WITH A ROBUST PERFORMANCE, HIGH-EFFICIENCY ELECTRIC MOTOR

- Low noise of 45-55dB compared to diesel-powered engines.
- Carbon-free, environmentally-friendly power source.



MODEL	FUEL CONSUMPTION	FUEL COST	ELECTRICITY COST	SAVINGS	MONTHLY BENEFIT	YEARLY BENEFIT
EX70	7 LPH	₹ 630	₹ 189	₹ 441	₹ 1,37,592	₹ 16,51,104
EX110	10 LPH	₹ 900	₹ 270	₹ 630	₹ 1,96,560	₹ 23,58,720
EX140	12 LPH	₹ 1,080	₹ 324	₹ 756	₹ 2,35,872	₹ 28,30,464
EX200	16 LPH	₹ 1,440	₹ 432	₹ 1,008	₹ 3,14,496	₹ 37,73,952
EX350	22 LPH	₹ 1,980	₹ 594	₹ 1,386	₹ 4,32,432	₹ 51,89,184
EX370	25 LPH	₹ 2,550	₹ 675	₹ 1,575	₹ 4,91,400	₹ 58,96,800

\* Per hour cost saving chart for TATA HITACHI Excavators, based on per day working approx. 10.5 hours. Fuel cost ₹90 per liter, electric cost ₹8 per unit.

## REDUCES OPERATING COSTS COMPARED TO DIESEL ENGINES

### POWERFUL, HIGH-EFFICIENCY, ECO-FRIENDLY ELECTRIC MOTOR

#### LOW NOISE / LOW VIBRATION

Reduced noise by the improvement of ventilation structure and FAN shape as well as increased stiffness via structural analysis.

Vibration reduced by reducing mechanical and electrical force.

#### OUTSTANDING MOTOR DURABILITY

Improve durability and environmental integrity.

Increase bearing life time with grease injection structure.

Increase life time of Motor coil with high quality material.

#### REDUCED OPERATING COSTS, ENVIRONMENTAL PROTECTION

Operating costs reduced by 60% compared to engine-operated excavators.

Powerful performance with greater economy.

No engine oil or oil filters required.

#### [EXAMPLE]

#### [COMPARISON] TOTAL OPERATING COST/YEAR

Working Condition: 8hrs/day x 300days/year



\* The above diesel vs. electricity price is based on the Indian market. It may vary in each country and working condition.

\* The above comparison may vary depending on the price of diesel/ electricity.



## SCALABLE ELECTRIC CONTROL SYSTEM

- Minimizes the motor load by means of SCR.
- Extends the pump's life cycle.
- Protects the motor by preventing over current, phase reversal, and low voltage.
- Vibration minimized during operation due to installation of the main electrical equipment on the outer parts of the excavator.
- Wired/wireless control of the control panel, joint box and controller allows the operator to immediately perceive the distance warning signal, swiveling warning signal, power break signal and emergency power breaking.
- Adoption of high-efficiency slip ring enables robust power transmission and enhances control signal transmission.



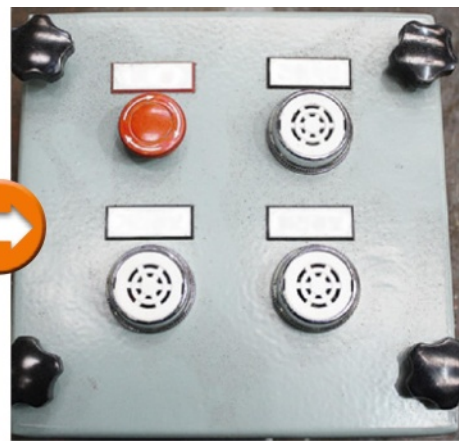
**CONTROL PANEL**

For main power supply



**JOINT BOX**

Equipped with wireless communication



**EXCAVATOR CONTROLLER**

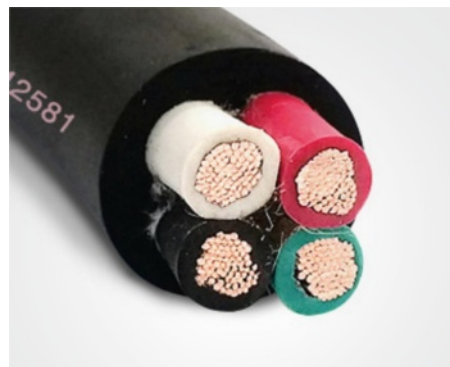
Displays warning, information and emergency power shutoff

## RELIABILITY GUARANTEED THROUGH RIGIDITY AND DURABILITY



**REINFORCING POST WITH HEXAGONAL STRUCTURE**

- Enhanced appearance based on structural analysis.
- Use of high-strength special steel.
- Equipped with an impact absorber.



**PNCT CABLE OF YIELDING MATERIAL**

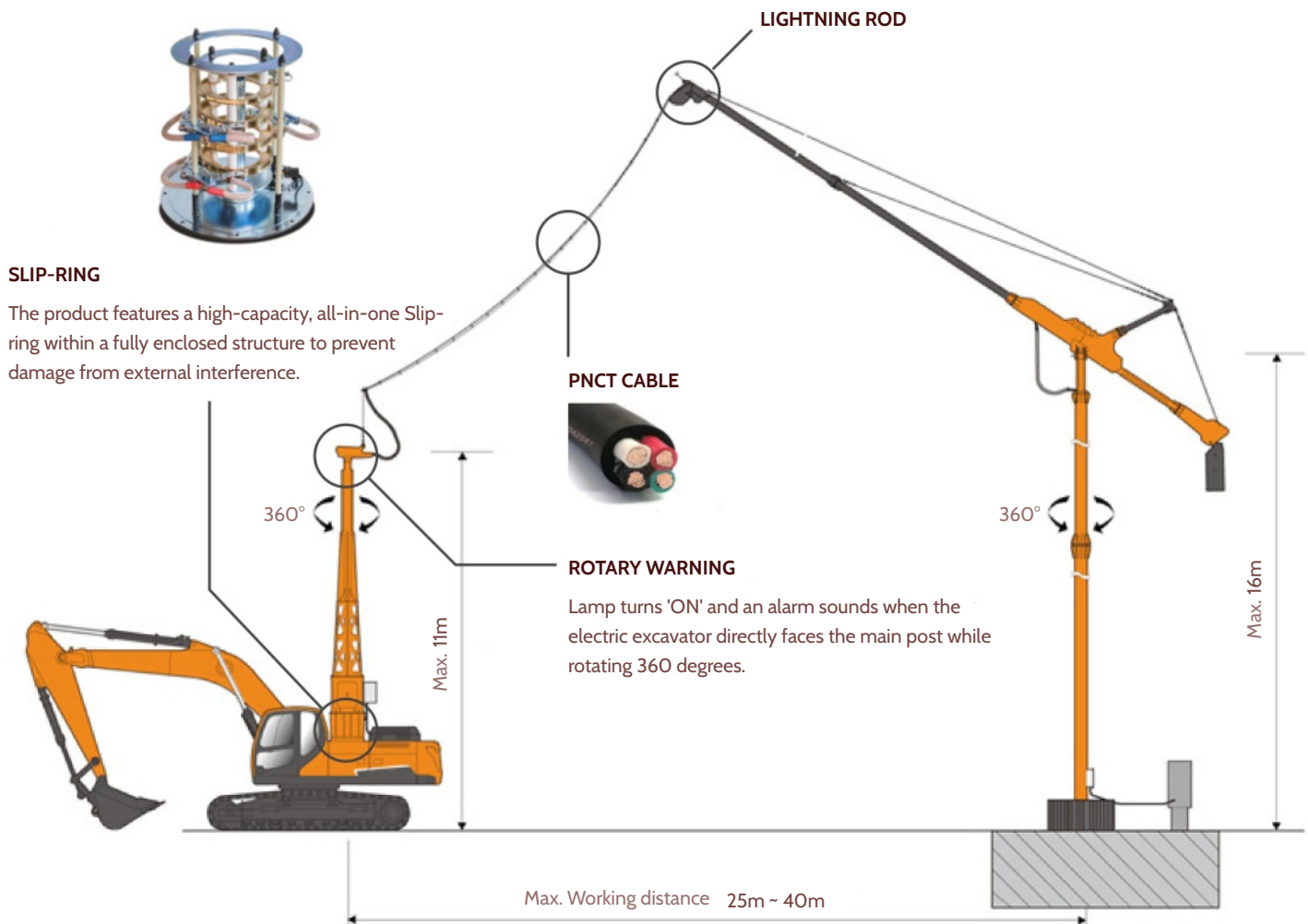
- Durability and safety enhanced by adoption of 4-wire PNCT cable and wireless communication.



**CHARGE-TYPE WEIGHT**

- The angle of the boom can be adjusted according to the operational radius of the excavator (i.e. twisting of the cable can be prevented by automatically adjusting the rising angle of 60 degrees).

## ELECTRIC EXCAVATOR SAFETY SYSTEM



### DISTANCE WARNING

The distance warning lamps turn 'ON' and a warning tones is emitted when the electric excavator moves beyond the main post to the danger distance.

### AUTO POWER CUT-OFF

The power shutoff lamp turns 'ON' and a warning sound is emitted when the electric excavator moves beyond the set safety distance at the main post.

# CUSTOMER SATISFACTION

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## 100% COMMITMENT TO CUSTOMER SATISFACTION



### ONE-STOP CUSTOMER MANAGEMENT SYSTEM

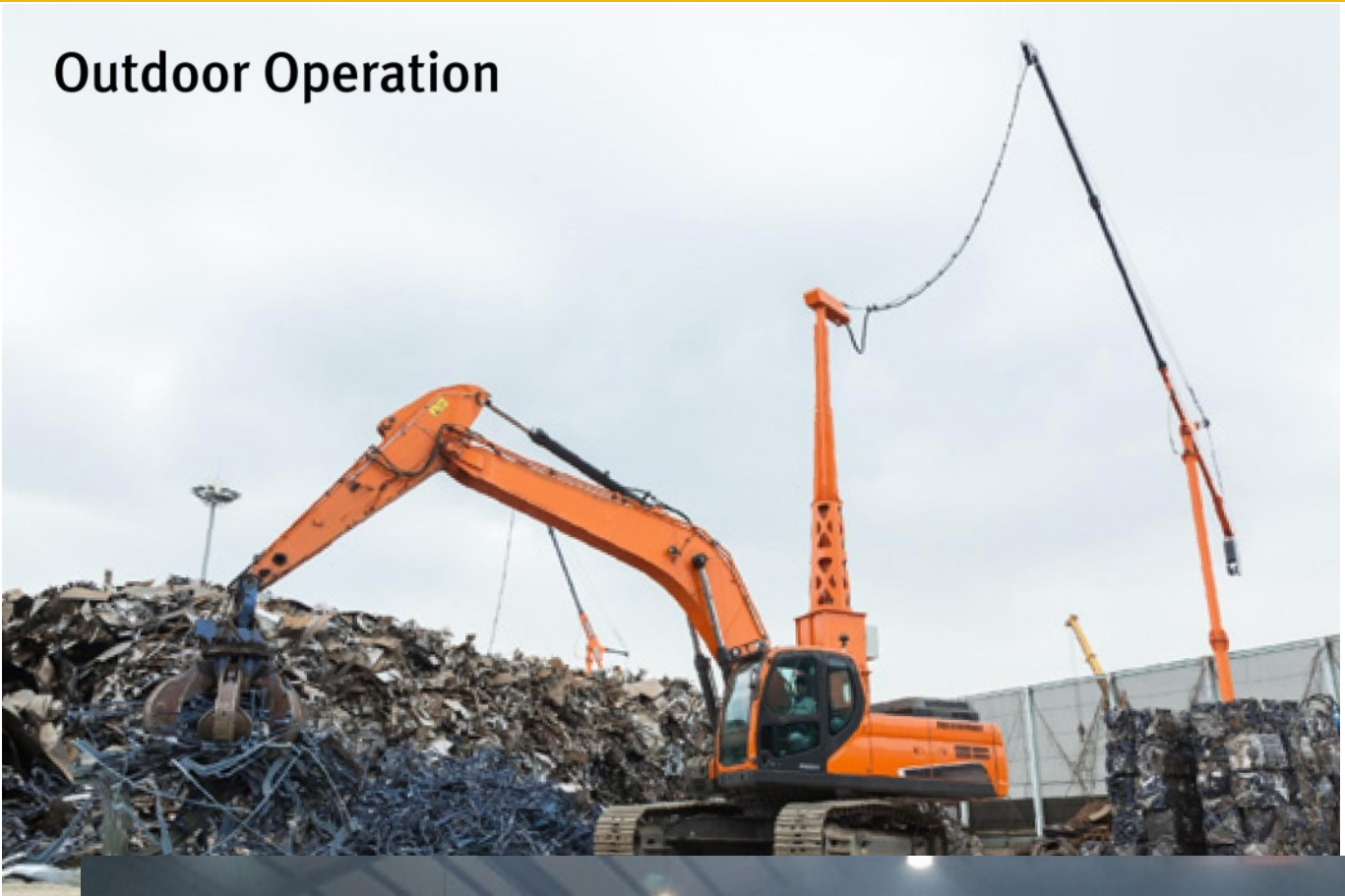
- Conversion: Conversion and installation can be performed in the shortest possible time through modularization.
- Site installation: Power supplies can be developed to meet the site conditions (i.e. 20m, 30m, 40m or for indoor use). An installation manual and technical support are available.
- Legal requirements: Support can be provided to satisfy the legal requirements for electric excavator conversion/installation.
- A/S: Differentiated technical support can be provided to facilitate A/S, including providing a supply package consisting of conversion-related electrical parts, equipment, conversion system, and additional devices.

### VARIOUS ATTACHMENTS





## Outdoor Operation



## Indoor Operation







## WATCH VIDEOS

Electric  
Excavator



Bulk Loading  
Grab



Biomass Pellet  
Plant



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Materials and Specifications in the catalogue are subject to change without notice.