



Date :- 05/09/2024

To,  
The Secretary,  
Listing Department  
National Stock Exchange of India Ltd.  
Exchange plaza, BKC, Bandra (E)  
Mumbai - MH 400051.

To,  
The Secretary,  
Corporate Relationship Department  
BSE Limited  
P. J. Towers, Dalal Street  
Mumbai- MH 400001.

**REF: -(ISIN- INE908D01010) SCRIP CODE BSE-531431, NSE Symbol -SHAKTIPUMP**

**Sub:-Announcement under Regulation 30 of SEBI (Listing Obligations and Disclosure Requirements) Regulation, 2015.**

Dear Sir/Madam,

Pursuant to regulation 30 of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 read with Schedule III thereof, we would like to inform you that the Company has received 15<sup>th</sup> Patent for "**Starting Direction Control Based Position Sensor less PMBLDC Motor Drive for Irrigation**" from the Patent Office, Government of India.

We hereby enclosed the Press Release in respect of receiving Patent for "**Starting Direction Control Based Position Sensor less PMBLDC Motor Drive for Irrigation**".

Kindly take the same on record and acknowledge the receipt of the same.

Thanking You,

Yours faithfully,  
**For Shakti Pumps (India) Limited**

**Ravi Patidar**  
**Company Secretary**

*Enclosure: As above*

**SHAKTI PUMPS (INDIA) LIMITED**



## **Shakti Pumps and IIT Delhi Secure Milestone Patent for Innovative Irrigation Technology**

### **Shakti Pumps Receives 15 Patent for Ground breaking Sensorless Motor Drive Technology**

**Indore, Madhya Pradesh, 5 Sept 2024**, Shakti Pumps (India) Limited, India's leading manufacturer of solar pumps and motors has received a patent for inventing "**STARTING DIRECTION CONTROL BASED POSITION SENSORLESS PMBLDC MOTOR DRIVE FOR IRRIGATION**" "This innovative advancement, developed in collaboration with IIT Delhi, represents a significant leap in motor and electrical control systems, enhancing performance and reliability, particularly for agricultural irrigation applications. The Patent Office, Government of India, has awarded Shakti Pumps this patent, fully adhering to the provisions set forth in the Patents Act of 1970. This patent is set to maintain its validity for duration of 20 years, commencing from the date of filing. This is the 15<sup>th</sup> Patent that the company has secured.

The novel starting technique developed by Shakti Pumps in collaboration with IIT Delhi introduces a unique method for initiating permanent magnet brushless DC (PMBLDC) motors without position sensors. This innovation achieves high starting torque, reducing costs and complexity while increasing reliability by minimizing component count. Ideal for long cable systems, this patented sensorless technology ensures high starting torque for motors, particularly useful in submersible pumps with significant cable distances. It enhances rotor position estimation accuracy, allowing smoother operation, and enables pumps to start at low solar irradiance levels, maximizing solar energy use. This universal technique is compatible with all Shakti Pumps' drive solutions, enhancing flexibility and applicability across various irrigation pumps.

**Dinesh Patidar, Chairman of Shakti Pumps, shared his excitement about this ground breaking achievement:** "This breakthrough highlights our commitment to advancing motor and control system technologies. Our innovative sensorless starting technique not only reduces costs and simplifies installation but also significantly enhances reliability and efficiency, particularly in long cable and low solar irradiance scenarios. By minimizing reliance on sensors, we provide farmers with more cost-effective and efficient irrigation solutions, ensuring optimal performance even under challenging conditions. This versatile technology reflects Shakti Pumps' commitment to providing state-of-the-art solutions for sustainable agriculture, ensuring our farmers have access to the most dependable and efficient irrigation systems."

#### **SHAKTI PUMPS (INDIA) LIMITED**



## About Shakti Pumps

SPIL founded in 1982 as a partnership firm and later converted to a public limited company in 1995, manufactures solar pumps, energy-efficient stainless-steel submersible pumps, pressure booster pumps, pump-motors, and other products. SPIL is the only company that manufactures a wide range of products for solar pump installation in-house, including Variable Frequency Drives, Structures, Motors, Invertors, and so on. Pithampur, Madhya Pradesh, is home to two manufacturing facilities with a combined capacity of 500,000 pumps and motors per year (India). Shakti Pumps is at the forefront of sustainable innovation and reliability in solar pumping solutions, while also being environmentally responsible. The company has been at the forefront of transforming the agriculture sector through solar pump technology. All Shakti submersible pumps are based on Stainless Steel (SS), which is a testimony to the latest technology and quality in manufacturing. Notably, Shakti Pumps has the distinction of being India's first 5-star rated pump manufacturer, supplying its products to more than 100 countries across the globe and manufacturing its own solar pumps, motors, structures, controllers & VFDs. Shakti Pumps is committed to helping India meet its energy goals.

For more details, please visit: <https://www.shaktipumps.com/>

**For further information, please contact:-**

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**Dinesh Patel, CFO**  
**Shakti Pumps (India) Limited**  
**E:** [dinesh.patel@shaktipumps.com](mailto:dinesh.patel@shaktipumps.com)  
**om**

**Vikash Verma / Rohit Anand / Riddhant Kapur**  
**Ernst & Young, LLP**  
**E:** [vikash.verma1@in.ey.com](mailto:vikash.verma1@in.ey.com) / [rohit.anand4@in.ey.com](mailto:rohit.anand4@in.ey.com)  
[com/Riddhant.kapur@in.ey.com](mailto:Riddhant.kapur@in.ey.com)

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## SHAKTI PUMPS (INDIA) LIMITED