

प्रारंभिक व्यावसायिक परीक्षण रिपोर्ट

INITIAL COMMERCIAL TEST REPORT

THIS TEST REPORT VALID UP TO

संख्या/No. CSIR/CMERI/FMTTC/2024/011

माह/Month: April, 2024

: 31st MARCH, 2031



**GREENFARM MACHINERIES GF-16
BATTERY OPERATED KNAPSACK SPRAYER**



सत्यमेव जयते
Government Of India



कृषि मशीनरी प्रशिक्षण और परीक्षण केंद्र

Farm Machinery Training and Testing Centre

सीएसआईआर- केन्द्रीय यांत्रिक अभियांत्रिकी अनुसंधान संस्थान

CSIR - Central Mechanical Engineering Research Institute

महात्मा गांधी एवेन्यू, दुर्गापुर

Mahatma Gandhi Avenue, Durgapur

पश्चिम बंगाल - 713209

West Bengal - 713209

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Name & Address of Applicant : Greenfarm Machineries Pvt. Ltd.
(A Group company of Sanatan Merchants Pvt. Ltd.)
16 Strand Road, Diamond Heritage, 9th Floor, Unit
No. 901 Kolkata – 700001.

Name & Address of Manufacturer : Greenfarm Machineries Pvt. Ltd.
16 Strand Road, Diamond Heritage, 9th Floor, Unit
No. 901 Kolkata – 700001.

Type : Knapsack Sprayer (Battery Operated)

Make : Greenfarm Machineries Pvt. Ltd.

Model : GF-16

Test Conducted at : Farm Machinery Training and Testing Centre
CSIR- Central Mechanical Engineering Research
Institute, M G Avenue, Durgapur, Pin – 713209,
West Bengal.

THIS TEST REPORT IS VALID UP TO: 31st March, 2031
[vide DAC&FW OM No. 13-22/2020- M&T (I&P) dated 12.12.2023]



सत्यमेव जयते
Government Of India



Report No.: CSIR/CMERI/FMTTC/2024/011

Month: April

Year: 2024

**CSIR - Central Mechanical Engineering Research Institute,
Durgapur - 713209
(W.B.), INDIA**

Report prepared by

Report verified by

Type of Test : Initial Commercial Test

Test Code/Procedure : IS: 3906:1995, IS: 10134:1994
IS: 3652:1995 & IS: 11313:2007

Period of Test : February 2024 – March 2024

Test Report No. : **CSIR/CMERI/FMTTC/2024/011**

Month and Year : April 2024



- i) The results reported in this report are observed values and no corrections have been applied for atmospheric and site conditions.
- ii) The data given in this report pertain to the particular machine submitted by the applicant for test.
- iii) The results presented in this report do not in any way attribute to durability of the machine.
- iv) The report should not be reproduced in part or full without prior permission of the Director, CSIR- Central Mechanical Engineering Research Institute, Durgapur -713209 (West Bengal)
- v) **This test report is not covered under BIS certification. Therefore, the manufacturers cannot market the sprayer with ISI mark, only on the strength of this report.**
- vi) This report cannot be used for legal purposes.

SELECTED CONVERSIONS

| | | | |
|-----------|------------------------|---|------------------------------------|
| 1. | <u>Force</u> | | |
| | 1 kgf | = | 9.80665 N |
| | | = | 2.20462 lbf |
| 2. | <u>Power</u> | | |
| | 1 HP | = | 1.01387 Metric HP (Ps) |
| | | = | 745.7 W |
| | 1 Ps | = | 735.5 W |
| 3. | <u>Pressure</u> | | |
| | 1 psi | = | 6.895 kPa |
| | 1 kgf/sq.cm | = | 98.067 kPa = 735.56 mm of Hg |
| | 1 bar | = | 100 kPa = 10 N/sq.cm. |
| | 1 mm of Hg | = | 1.3333 m-bar |
| 4. | <u>Area</u> | | |
| | 1 ha | = | 10000 m ² = 2.471 Acres |

Report prepared by

[Signature]

Report verified by

[Signature]

16. CONFORMITY TO INDIAN STANDARDS

- | | | |
|------|---|----------------------------|
| i) | IS 11313:2007* Hydraulic power sprayers- specification | : Does not conform in toto |
| ii) | IS 10134:1994* Method of test for manually operated sprayer | : Does not conform in toto |
| iii) | Spray nozzle and spray gun as per IS:3652-1995* (Reaffirmed 2011) | : Does not conform in toto |
| iv) | IS: 3906:1995* (Reaffirmed 2001) Crop protection equipment – Hand-operated Knapsack Sprayer, Piston type - specification | : Does not conform in toto |
| v) | IS: 2643-2005* Pipe threads where pressure-tight joints are not made on the threads-dimensions, tolerance and designation | : Does not conform in toto |

**This is battery operated Knapsak Sprayer and the above mentioned standards are not the correct standard for the certain test.*



Report prepared by

[Signature]

Report verified by

[Signature]

18. TECHNICAL LITERATURE

The operator, maintenance & parts manual of sprayer was provided during the test which found adequate, however, the manual should be updated as per IS: 8132:1999, with the inclusion of safety instructions regarding handling poisonous agrochemical and first aid.

TESTING AUTHORITY

| | | |
|-----------------------------------|---|----------------------------------|
| Report Prepared by | Sr. Technical Officer, CSIR-CMERI Farm Machinery Testing Centre | <i>[Signature]</i> 09/04/2024 |
| Report Verified & Approved by | In-Charge, CSIR-CMERI Farm Machinery Testing Centre | <i>[Signature]</i> 09/04/2024 |
| Report Approved for release by | Head, Business Development Unit, CSIR-CMERI, Durgapur | <i>[Signature]</i> 09/4/24 |

19. APPLICANT'S COMMENTS

| Para No. | Our Reference | Applicant's Comments |
|----------|---------------|---|
| 19 | 17.1 to 17.14 | As soon as possible we will comply with all your recommendation as stated in the DTR. |

