

प्रारंभिक व्यावसायिक परीक्षण रिपोर्ट
INITIAL COMMERCIAL TEST REPORT

संख्या/No. CSIR/CMERI/FMTTC/2025/009

माह/Month: FEBRUARY, 2025

THIS TEST REPORT VALID UP TO

:

31ST JANUARY, 2032



**MAA BAGALAMUKHI (MBAM-SP-18)
MANUAL CUM BATTERY SPRAYER**



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
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Name & Address of Applicant : MAA BAGALAMUKHI AGRO MACHINERIES PVT. LTD.
 Khata No. – 173, Plot No.-541/1495, SH 19, Gohira, Balasore, Odisha-756058

Name & Address of Manufacturer : MAA BAGALAMUKHI AGRO MACHINERIES PVT. LTD.
 Khata No. – 173, Plot No.-541/1495, SH 19, Gohira, Balasore, Odisha-756058

Type : Manual Cum Battery Sprayer

Make : MAA BAGALAMUKHI AGRO MACHINERIES PVT. LTD.

Model : MBAM -SP-18

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 January, 2032
 [vide DAC&FW OM No. 13-22/2020- M&T (I&P) dated 12.12.2023]



Report No.: CSIR/CMERI/FMTTC/2025/009 Month: February Year: 2025

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

Report prepared by

[Signature]

Report verified by

[Signature]

1. SPECIFICATIONS**1.1 General**

Type	: Manual Cum Battery Operated Sprayer – 18 liters Capacity
Make	: MAA BAGALAMUKHI AGRO MACHINERIES PVT. LTD.
Model	: MBAM -SP-18
Serial No.	: M-000577
Name of manufacturer	: MAA BAGALAMUKHI AGRO MACHINERIES PVT. LTD. Khata No. – 173, Plot No.-541/1495, SH19, Gohira, Balasore, Odisha- 756058
Year of manufacture	: 2024
Capacity of sprayer, l	: 18
Working pressure, kg/cm ²	: 1 to 7

1.2 Motor (As per Sticker)

Type	: D C Motor
No. of Motor	: 01
Make	: Not specified
Serial number	: Not specified
Motor operating voltage	: 12 V, DC
Motor power	: Not specified
Max. Current	: 2.6 A
Rated speed, rpm	: Not specified

1.3 Battery (As per Sticker)

Type	: Sealed, Lead-Acid Battery
Make	: Not Specified
Model	: 6-DFM-8.0
Serial number	: 202107A1ZS
Capacity & rating	: 12V, 8AH/ 20HR
Country of origin	: Not Specified
Location	: Below the chemical tank.

1.4 Battery Charger from AC Supply

Make	: Not Specified
Model	: Not Specified
Input voltage	: AC 220V 50/60 Hz
Output voltage	: DC 12 V
Output current	: 1 A
Country of origin	: Not Specified

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22. COMMENTS & RECOMMENDATIONS

- 22.1 The make, serial number, rated speed & power of motor is not specified. It should be specified.
- 22.2 The make & country of origin of battery is not specified. It should be specified.
- 22.3 The make, model & country of origin of battery charger is not specified. It should be specified.
- 22.4 The make, model, serial number & country of origin of pump is not specified. It should be specified.
- 22.5 The material used for pump inlet port end fitting does not meet the requirements of Indian standard. It must be looked into.
- 22.6 The material for nozzle disc, tip does not meet the requirements of Indian standard. It must be looked into.
- 22.7 The spray lance is not marked and designated. It must be marked and designated as per standard.
- 22.8 The nozzle is not marked and designated. It should be marked and designated as per standard.
- 22.9 The cut off device is not marked and designated. It should be marked and designated as Per standard.
- 22.10 During the pump chamber hydraulic test, the motor stopped beyond 6.0 kg/cm² pressure against the pressure requirement of 7.5 kg/cm². Thus the sprayer does not meet the requirement of Indian Standard.
- 22.11 The tank capacity does not meet the requirement of Indian standard. It must be looked into.
- 22.12 The discharge rate and spray angle of Nozzle at a pressure of 300 kPa has not been declared by the applicant. It must be declared.
- 22.13 The size of the strap cushion does not meet the requirements of Indian standard. It must be looked into.
- 22.14 The material and length of spray lance does not meet the requirements of Indian standard. It must be looked into.
- 22.15 The average size of the strainer in cut off device does not meet the requirements of Indian standard. It must be looked into.

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23. TECHNICAL LITERATURE

The operator, maintenance & parts manual of sprayer was not provided during the test. The manual should be submitted 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>Jaleb</i> 12/02/2025
Report Verified & Approved by	In-Charge, CSIR-CMERI Farm Machinery Testing Centre	<i>Sudhate h mardel</i> 12/2/2025
Report Approved for release by	Head, Business Development Unit, CSIR-CMERI, Durgapur	<i>h mardel</i> 12/2/2025

24. APPLICANT'S COMMENTS

Para No.	Our Reference	Applicant's Comments
24	22.1 to 22.15	We have gone through the Draft test report, we will take necessary steps with your recommendation in future production. Request you to please do the needful for the release of the Commercial test report.

