

**CONFIDENTIAL
COPY NO.:****Report No.: FMCE/3100015707(22-23)/SS/548(22-23)****Date:27.02.2023****TEST REPORT OF
IMPACT TEST ON MACHINE GUARDS**

- 1.0 NAME OF THE PARTY** : SWIZA SAFETECH LLP,
Ground Floor, Plot No. 12. Gat Np. 1087 to 1089
M. No. 3735, Trimurti Nagar, Opp Sakal Printing Press
Wadki Timber Market, Pune Saswad Road
Wadki Gaon, Haveli, Pune, Maharashtra 412308
- 2.0 REFERENCES** : Email Dated 4th Feb 2023
- 3.0 TEST COMPONENTS** : Machine Guard identified as FMCE/3100015707/01
Detail mentioned as below

Sr. No.	Description	Details
01	Title	Machine Guards (Weld Mesh Panels)
02	Type	SWIZA MACHINE GUARD 40 X 60 SERIES
03	Size	2050mm x 1000 mm along with post 2200 mm

- 4.0 OBJECTIVE** :
- 4.1 To conduct the impact test on SWIZA MACHINE GUARD 40 X 60 SERIES panel as per customers guidelines and with reference to standard ISO 14120.
- 5.0 TEST REQUIREMENTS** :
- 5.1 To stimulate impact energy of 1600 J on SWIZA MACHINE GUARD 40 X 60 SERIES (weld mesh panels) as per customer guidelines and with reference to standard ISO-14120.
- 6.0 TEST EQUIPMENT USED** :
- 6.1 Dead weight: 100Kg
- 7.0 TEST PROCEDURE** :
- 7.1 03 SWIZA MACHINE GUARD 40 X 60 SERIES were fixed with each other and complete assembly was done by Swiza Safetech LLP and handed over to ARAI for impact testing.
- 7.2 Assembly of Machine guards were fixed rigidly on base plate. Pendulum of 100 kg was fixed at height of 1631 mm from initial position of pendulum, so as to achieve impact energy of 1600 J (by using $E = m.g.h$ formula). Refer Annexure-I, Figure 01.
- 7.3 Pendulum was released from above mentioned height and effect due to impact was logged.

8.0 Test Observations :

- 8.1 This test was conducted on 17th Feb 2023 in presence of representative from Swiza Safetech LLP.
- 8.2 Post-test, deflection recorded at centre panel was 150 mm. (refer figure 02 of Annexure - I)
- 8.3 With reference to standard IS 14120 following points were observed:
- 8.3.1 No any loosening of wire mesh was observed.
- 8.3.2 Machine guard support was intact with base plate and no any loosening observed for respective fasteners.
- 8.3.3 pendulum had not penetrated trough machine guard.

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Annexure I



Figure 01 : Test Setup



Figure 01 : Post Test Measurement