

CRASH RATED TYRE KILLER – D100

Swaraj Secutech's tyre killer is a Third Generation tyre killer whose unique design combines a Fail-Safe Puncture tool and a metallurgy of hardened carbon steel which deflates even third generation run flat tyres (tube-less) effortlessly.

The Spikes have been designed to ensure that tyres of intruding vehicles are punctured irrespective of the direction of approach. It has been crash tested at Horiba, MIRA, U.K. wherein all 6 tyres of a 7.2-ton truck were deflated instantaneously.

Special care is taken to ensure that the design encompasses the provision of drainage so that accumulated dirt and water can drain out instead of blocking the tyre killer mechanism. Inbuilt hydraulic hand pump gives the flexibility to use the device manually incase of power failure and secure the entrance.

Crash test pictures at MIRA, UK




PRE-TEST



POST-TEST

All tyres deflated immediately


1218434-007

**Commercial in Confidence
Test Summary**

SWJ-TYRE KILLER D100

Manufacturer: Swaraj Secutech PVT LTD Survey No.427 RajpurJullasan Rd Ahmedabad 382705	MIRA Contact: MIRA Safety Development Dept HORIBA-MIRA Ltd Walling Street, Nuneaton Warwickshire, CV10 0TU	HSPI
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Amitava@swarajsecutech.com

Test Ref: W0002	Test Date(s): 10 th January 2019
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This test was Not UKAS Accredited and is not included in the UKAS Accreditation Schedule for this laboratory. Opinions and interpretations expressed herein are outside the scope of HORIBA MIRA Ltd HSPi Test Centre UKAS Accreditation

Item Reference	SWJ-TK Tyre Killer Model No-D100
Item description	Steel spiked hydraulic raising tyre killer
Item Height (mm)	150 (spikes above ground)
Item Length (mm)	4310
Foundation depth/Length (mm)	350/4912.5
Installation Date	20/12/2018
Concrete	34.7 N/mm ²
Vehicle	Iveco Eurocargo FJ09 ABN

Test Parameters	Driven Test Requirement	Measured Value
Test Vehicle	NZA	NZA
Test Mass (kg)	7200 ± 400	7240
Impact Speed (km/h)	32.0 ±3/-1	35*
Impact Angle (deg)	90.0 ± 2.0	Not Assessed
Alignment	Centerline	Not Assessed
Equipment orientation	90° From closed	90°

*Using Tacho calibrated speedometer

Test Results Summary
The Swaraj SWJ-Tyre Killer was tested at MIRA Ltd on 10th January 2019. The test was conducted at HORIBA-MIRA test location in the UK. The vehicle was driven at a speed of 35km/h over the installed system by a test engineer. The test was witnessed and filmed by HORIBA-MIRA. All tyres were punctured as intended and the vehicle brought to a controlled halt by the driver.

Prepared By: 	Approved By: 
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Dave Johnstone Consultant, HSPi	Rachael Kennedy Head of HSPi
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Date: 17th January 2019

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SPECIFICATION

MODEL NAME/NUMBER	D100H (HYDRAULIC)/D100M (ELECTRO-MECHANICAL)
SYSTEM TYPE	ACTIVE 2-WAY SPIKES
MECHANISM	ELECTRO-HYDRAULIC/ELECTRO-MECHANICAL
SPEED	3 SECOND (CUSTOMIZABLE)
HEIGHT OF SPIKE ABOVE GROUND	150 MM – 200 MM (CUSTOMIZABLE)
DISTANCE BETWEEN SPIKES	100 MM
BLOCKING ANGLE	90 DEGREE OR 60 DEGREE (CUSTOMIZABLE)
HOUSING	GALVANIZED MILD STEEL BODY WITH RAL COATING
SPIKE MATERIAL	HIGH TENSILE CARBON STEEL
VEHICLE LOAD	50 TON
SAFETY DEVICES	SAFETY AGAINST VEHICLE: LOOP DETECTOR SAFETY AGAINST HUMAN: PHOTO SENSOR
IP RATING	IP 66 (CUSTOMIZABLE)
MTBF	10 MILLION OPERATIONS
POWER SUPPLY	230 VAC, 50 Hz/415 VAC 50 Hz
DUTY CYCLE	100%
OPRATIVE MODES	PUSH BUTTON, ACCESS CONTROL, REMOTE CONTROL
OPERATING TEMPERATURE	-20 DEG CELSIUS TO +70 DEG CELSIUS
POWER FAILURE MODE	MANUAL OPRATION AVAILABLE
CERTIFICATIONS	CRASH REPORT FROM HORIBA MIRA, UK; ISO 9001 : 2015 ; CE

“PROUDLY MADE IN INDIA”