



TEST FACILITIES

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TO IDENTIFICATION





V2i TEST FACILITIES

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SHAKERS

120kN Double Slip table

Technical Characteristics

Small Table Size [mm x mm]	600 x 6000
Large Table Size [mm x mm]	1200 x 1200
Frequency Range [Hz]	[5; 2300]
Max Force (sine & random) [kN]	120
Max Force (shocks) [kN]	240
Max acceleration [g] shaker	100
Max acceleration [g] shaker + head expander	48
Max acceleration [g] shaker + small table	84
Max acceleration [g] shaker + large table	43
Max Velocity [m/s]	2
Max displacement [mm] (0-peak)	38
Moving mass [kg]	72
Small slip table weight [kg]	71
Large Slip table weight [kg]	203
Admissible mass [kg]	1000



Figure 1 - 120kN Double slip table shaker : small table (left) & big table (right)

120kN Single Slip table ISO7 controlled environment

Shaker Technical Characteristics

Table Size [mm x mm]	1000 x 1000
Frequency Range [Hz]	[5; 2300]
Max Force (sine & random) [kN]	120
Max Force (shocks) [kN]	240
Max acceleration [g] shaker	100
Max acceleration [g] shaker + head expander	46
Max acceleration [g] shaker + table	48
Max Velocity [m/s]	2
Max displacement [mm] (0-peak)	38
Moving mass [kg]	72
Slip table weight [kg]	203
Admissible mass [kg]	1000

Clean Room Technical Characteristics

Clean Room Classification	ISO7
Miscellaneous	
Continuous Monitoring and Recording of Particles Count and Cleanroom Classification	
2 Tons Overhead Crane	



Figure 2 - 120kN single slip table shaker



Figure 3- 120kN single slip able shaker: overhead crane access

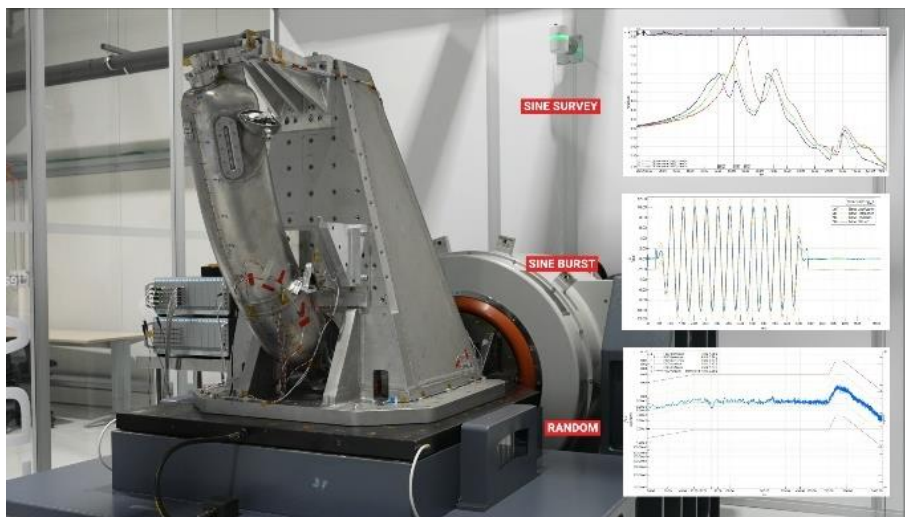


Figure 4 - 120kN single slip table shaker: inside clean room view (right)

35kN Single Slip table

Technical Characteristics

Table Size [mm x mm]	600 x 6000
Frequency Range [Hz]	[5; 2800]
Max Force (sine & random) [kN]	35
Max Force (shocks) [kN]	70
Max acceleration [g] shaker	130
Max acceleration [g] shaker + head expander	56
Max acceleration [g] shaker + table	44
Max Velocity [m/s]	2
Max displacement [mm] (0-peak)	38
Moving mass [kg]	25
Slip table weight [kg]	55
Admissible mass [kg]	300



Figure 5 - 35kN single slip table shaker

26kN Single Slip table

Shaker Technical Characteristics

Table Size [mm x mm]	400 x 400
Frequency Range [Hz]	[5; 3000]
Max Force (sine & random) [kN]	26
Max Force (shocks) [kN]	52
Max acceleration [g] shaker	120
Max acceleration [g] shaker + table	80
Max Velocity [m/s]	1,8
Max displacement [mm] (0-peak)	12,7
Moving mass [kg]	19,5
Slip table weight [kg]	9
Admissible mass [kg]	300

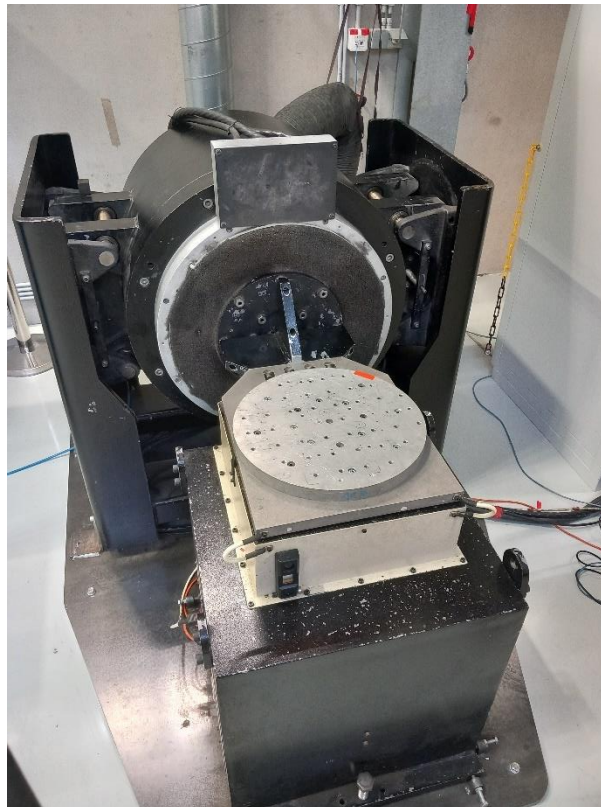


Figure 6 - 26kN single slip table shaker

26kN Large Single Slip table

Shaker Technical Characteristics

Table Size [mm x mm]	610 x 610
Frequency Range [Hz]	[5; 2000]
Max Force (sine & random) [kN]	26,6
Max Force (shocks) [kN]	53,4 (6ms) & 42,4 (11ms)
Max acceleration [g] shaker	40
Max acceleration [g] shaker + table	23,3
Max Velocity [m/s]	1,52
Max displacement [mm] (0-peak)	25,4
Moving mass [kg]	68,1
Slip table weight [kg]	48,2
Admissible mass [kg]	500



Figure 7 - 26kN large single slip table shaker

13kN vertical only

Shaker Technical Characteristics

Shaker Head Size [mm x mm]	Diameter 210
Frequency Range [Hz]	[5; 3000]
Max Force (sine & random) [kN]	13,3
Max Force (shocks) [kN]	26
Max acceleration [g] shaker	120
Max Velocity [m/s]	1,78
Max displacement [mm] (0-peak)	12,7
Moving mass [kg]	10,9
Admissible mass [kg]	75

Piezoelectric Shaker

Shaker Technical Characteristics

Head Size [mm]	Φ100
Frequency Range [kHz]	[2; 20]
Max Force (sine & random) [N]	10
Max acceleration [g]	1800
Max acceleration [g] shaker + 1kg	1200
Max acceleration [g] shaker + 10kg	270



Figure 8 – High frequency shaker

83kN Hydraulic Shaker

Shaker Technical Characteristics

Table Size [mm x mm]	1200 x 800
Frequency Range [Hz]	[0,1; 200]
Max Force (sine & random) [kN]	83
Max Velocity [m/s]	0,9
Max displacement [mm] (0-peak)	125
Slip table weight [kg]	276
Admissible mass [kg]	2000



Figure 9 - 26kN large single slip table shaker



SHAKER CONTROL

All shakers available are equipped with state of the art control systems capable of implementing most common types of vibration tests:

- Sine Sweep
- Tracked Sine Dwell
- Sine Burst (quasi static)
- Classical shocks (half-sine, saw tooth)
- SRS (shock response spectrum)
- Combined sine-on-random (sweep and tone)
- Combines random-on-random
- Throughput recording
- Amplitude Notching for Sine Sweep and Dwell
- Spectral & RMS limiting (notching) for Random

PYRO SHOCK SIMULATOR

Shock Table Technical Characteristics

Maxe in plane sample size [mm x mm]	600 x 600
Max Sample Weight [kg]	150
Max acceleration [g]	10 000

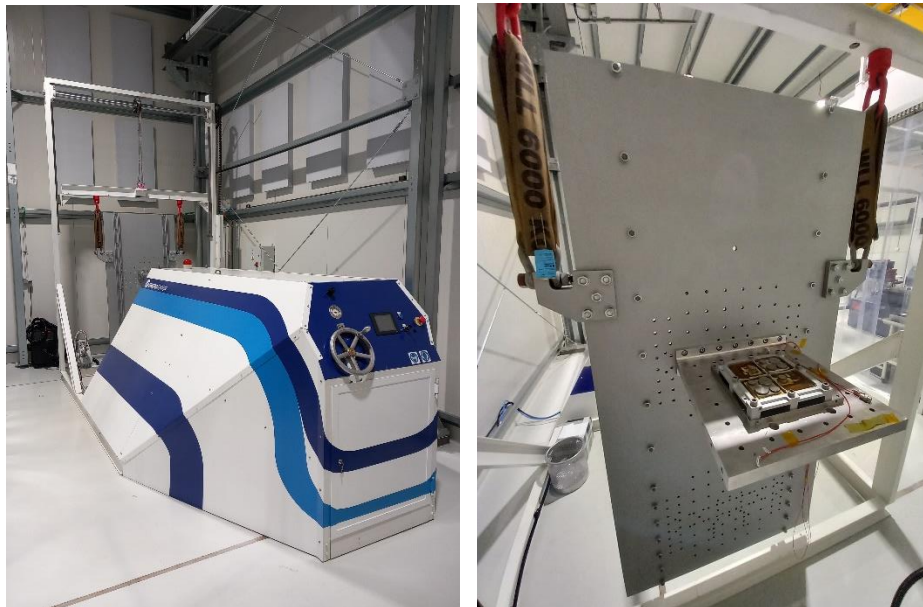


Figure 10 - Pyroshock simulator general view (left) & table (right)

INSTRUMENTATION

Data Acquisition Systems

Our facilities are equipped with multiple state of the art LMS SCADAS Lab acquisition systems totalling to 144 accelerometers acquisition channels and 16 strain gage channels.

For a single test, 2 systems can be coupled for a maximum of 64 accelerometers acquisition channels and 16 strain gage channels.

Accelerometers

A large panel of accelerometers are available in different types and sizes.

Among those, the most common ones can be listed:

Most common accelerometers

Mono-axis 10 mV/g	45 units
Mono-axis small size	18 units
Tri-axis 10mV/g	70 units
Tri-axis 100 mV/g	5 units

Strain-gauges

V2i provides a comprehensive range of services for strain-gauge applications, including selecting the appropriate gauge for your specific needs, professional installation by qualified technicians, and signal processing and data acquisition

Vibrometers

Additionally, V2i possesses 4 vibrometers for contactless applications.