

BOFORS TEST CENTER

WELCOME TO HELL



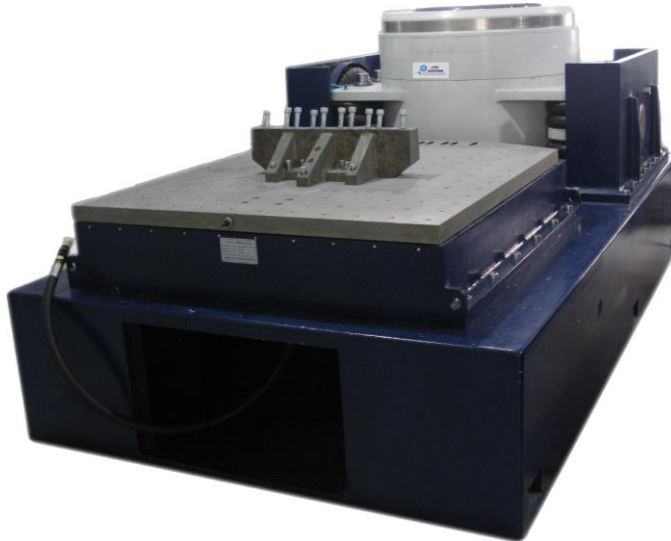
Environmental Test Laboratory

Saab Bofors Test Center AB
P.O. Box 418, 691 27 Karlskoga, Sweden
Tel: +46 (0)586 680 00. Fax: +46 (0)586 681 99. E-mail: info@testcenter.se
www.testcenter.se

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Mechanical Environment

Vibrator ETS Solutions H1248A



Max. force, vibration:	120 000 N
Max. force, shock:	235 000 N
Max. acceleration:	100 g
Max. displacement, continuous:	63 mm p-p
Max. displacement, shock:	76 mm
Frequency range:	5 – 2500 Hz
Table size:	Ø 480 mm
Hole profile:	Ø 200 mm, Ø 400 mm, M12
Expander table:	Ø 800 mm, 70 x 70 mm, M10
Platform:	1300 x 1000 mm, 70 x 70 mm, M10
Slip table, large:	1200 x 1200 mm, 70 x 70 mm, M10
Slip table, small:	800 x 800 mm, 70 x 70 mm, M10
Temperature range:	-46°C till +80°C

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Mechanical Environment

IMV Vibrator Test Systems A74/EM10HAM



Max. thrust:	74000 N
Max. acceleration:	200g
Max. stroke, sinusoidal:	±76,2 mm
Max. stroke, random and shock:	±82 mm
Frequency range:	5-2600Hz
Expander table:	Ø 812 mm, 70 x 70 mm, M10
Platform:	1200x 1000 mm, 70 x 70 mm, M10
Slip table:	1360 x 1120 mm, 70 x 70 mm, M10
Temperature range:	-46°C till +80°C

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Mechanical Environment

Vibrator Ling Dynamic System LDS 954 LS



Max. thrust:	40000 N
Max. acceleration:	98 g
Max. stroke, sinusoidal:	±19 mm
Max. stroke, random and shock:	±25 mm
Frequency range:	5 – 3000 Hz
Table size:	Ø 336 mm
Hole profile:	Ø 152.4 mm, Ø 304.8 mm, M10
Expander table:	Ø 585 mm, 70 x 70 mm, M10
Platform:	1070 x 700 mm, 70 x 70 mm, M10
Slip table:	1265 x 1216 mm, 70 x 70 mm, M10
Temperature range:	-46°C till +80°C

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Mechanical Environment

Shock test machine AVEX SM 110 MP



Max. load:	90 kg
Velocity at impact	
without load:	10 m/s
70 kg load:	7 m/s
Max. acceleration:	3000 g
With shock amplifier:	30000 g
Pulse duration:	0.1 – 24 ms
Pulse form:	Half sine
Table size:	405 x 405 mm
Hole spacing:	70 x 70 mm, M10
Max. stroke:	430 mm

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Mechanical Environment

Drop test equipment

Drop tower

Max. drop height: 12 m

Free fall and sledge

Impact surfaces: Concrete

Steel

Wood



Drop test machine

Drop heights: 0.3 – 2.7 m

Impact surfaces: Concrete

Steel

Wood



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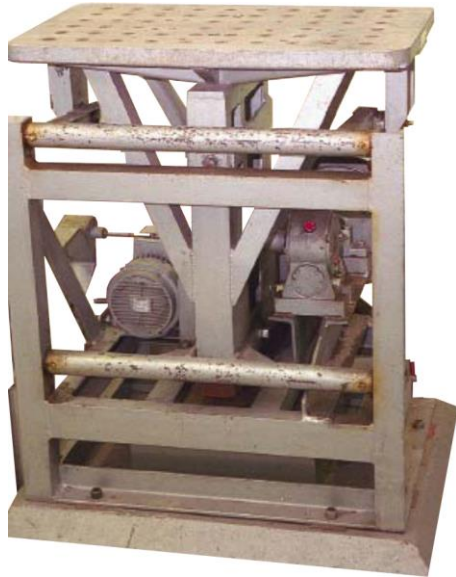
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Mechanical Environment

Bump test machine Blomstedt HB 65

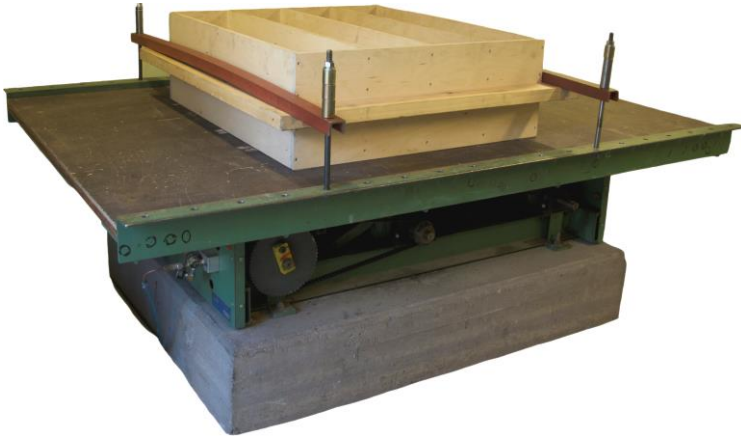


Max. load:	150 kg
Max. acceleration	
150 kg load:	70 g
25 kg load:	100 g
Pulse duration:	4 - 7 ms
Pulse form:	Half sine
Strokes/minute:	25 – 40 with rebound
Table size:	800 x 480 mm
Hole spacing:	70 x 70 mm, M10

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Mechanical Environment

Bounce test machine (Loose cargo) L.A.B. 2000, 2 units



Max. load:	880 kg
Acceleration	1.25 g
Amplitude:	± 12.2 mm
Frequency range:	2.5 – 5 Hz
Table size	
Machine 1:	2430 x 1530 mm
Machine 2:	1520 x 1520 mm
Movement:	Circular synchronous 30° angled synchronous Vertical linear Non-synchronous

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Mechanical Environment

Contant acceleration test equipment

Centrifuge Genisko 1220

Max. Load:	68 kg
Max. constant acc:	250 g
Max. rpm:	600 rpm
Max. radius:	600 mm
Test table:	455 x 455 mm
Hole spacing:	70 x 70 mm M10
Slip rings:	16



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Mechanical Environment

Industrial CT

Nikon XT H 225 ST 2x

X-ray source:	225kV Microfocus Reflection Target
X-ray spot size:	3 μ m
Manipulator:	5 axes (X, Y, Z, Tilt & Rotation)
Max. sample weight:	15kg
Cabinet dimensions:	L:1830mm W: 875mm H: 1987mm
Method:	X-ray (2D) and CT (3D)



Nikon XT H 225 ST 2x

X-ray source:	225kV Microfocus Reflection Target
X-ray spot size:	3 μ m
Manipulator:	5 axes (X, Y, Z, Tilt & Rotation)
Max. sample weight:	15kg
Cabinet dimensions:	L:1830mm W: 875mm H: 1987mm
Method:	X-ray (2D) and CT (3D)



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Climatic Environment CL1 & CL2

Climatic chamber Heraeus Vötsch VC³ 7150, 2 units



Max. temperature:	+180°C
Min. temperature:	-75°C
Max. Rh:	98 %
Min. Rh:	10 %
Temperature change rate:	3°C/min
Internal dimensions:	D = 1450 mm
	W = 1070 mm
	H = 940 mm

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Climatic Environment CL3

Climatic chamber Heraeus Vötsch VCS 7130-15



Max. temperature:	+180°C
Min. temperature:	-70°C
Max. Rh:	95 %
Min. Rh:	10 %
Temperature change rate:	15°C/min
Internal dimensions:	D = 1300 mm
	W = 1100 mm
	H = 1120 mm

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Climatic Environment CL4

Climatic chamber Heraeus Vötsch VCZ 60014/S Walk-in



Max. temperature:	+75°C
Min. temperature:	-55°C
Max. Rh:	95 %
Min. Rh:	10 %
Temperature change rate:	1°C/min
Internal dimensions:	D = 3500 mm
	W = 2000 mm
	H = 2000 mm

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Climatic Environment CL5

Climatic chamber & Solar Radiation CCK-40/1000TG



Max. temperature:	+150°C
Min. temperature:	-40°C
Max. Rh:	98 %
Min. Rh:	10 %
Temperature change rate:	Cooling = 2,5°C/min, Heating = 4°C/min
Solar radiation:	10-1200W/m ²
Internal dimensions:	D = 1100 mm
	W = 1000 mm
	H = 920 mm

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Climatic Environment CL6

Climatic chamber Heraeus Vötsch VEKZ 06/140/S Walk-in



Max. temperature:	+80°C
Min. temperature:	-70°C
Max. Rh:	95 %
Min. Rh:	10 %
Temperature change rate:	0.6°C/min
Internal dimensions:	D = 3500 mm
	W = 2000 mm
	H = 2000 mm

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Climatic Environment CL7

Climatic chamber Arctest ARCR-14 Walk-in



Max. temperature:	+80°C
Min. temperature:	-70°C
Max. Rh:	98 %
Min. Rh:	10 %
Temperature change rate:	0.6°C/min
Internal dimensions:	D = 3000 mm
	W = 2060 mm
	H = 1890 mm

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Climatic Environment

Temperature chambers

Cold chamber 1

Min. temperature: -54°C
Internal dimensions:
D = 1200 mm
W = 1500 mm
H = 2000 mm



Cold chamber 2

Min. temperature: -54°C
Internal dimensions:
D = 1280 mm
W = 1500 mm
H = 1890 mm



Hot chamber 1

Max. temperature: +73°C
Internal dimensions:
D = 980 mm
W = 1000 mm
H = 1820 mm



Hot chamber 2

Max. temperature: +73°C
Internal dimensions:
D = 1280 mm
W = 1500 mm
H = 1890 mm



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Climatic Environment

Temperature shock chamber Vötsch VMS



Max. temperature:	+200°C
Intermediate temperature:	+10°C to +90°C
Min. temperature:	-70°C
Max. load:	10 kg
Internal dimensions:	D = 640 mm
	W = 480 mm
	H = 400 mm

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Climatic Environment

Salt fog chamber Heraeus Vötsch VSC/KWT



Max. temperature:	+50°C
Min. temperature:	+20°C
Max. Rh:	>98 %
Max. load:	150 kg
Internal dimensions:	D = 570 mm
	W = 1650 mm
	H = 740 mm
	Height with hood = 1190 mm

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Climatic Environment

Bofors sand and dust chamber



Wind speed:	1.5 – 20 m/s
Temperature range:	+23°C to +55°C
Raised wind speed:	30 m/s max.
Temperature at raised wind speed:	raised with approx. 0.5°C/min
Dust concentration:	10 ± 7 g/m ³
Internal dimensions:	D = 950 mm W = 2000 mm H = 950 mm
Door dimensions:	D = 800 mm W = 1500 mm H = 800 mm

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Climatic Environment

Pressure chambers

High pressure chamber

Max. pressure: 2000 kPa

Internal dimensions H = 800 mm

Ø = 600 mm



Low pressure chamber

Min. pressure: 18 kPa

Internal dimensions D = 670 mm

W = 2650 mm

H = 570 mm



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Climatic Environment

Water test equipment

Rain simulator

Rain rate: 20-200 mm/h

Target area: 1 x 1 m max.

Water temperature: +15 to +60°C

Immersion basin

Max. depth: 1.5m

Water temperature: +15 to +60°C

Internal dimensions, $\leq 1\text{m}$:

L = 2400 mm

W = 1500 mm

D = 1400 mm

Internal dimensions, 1.5m:

L = 610 mm

W = 1080 mm

D = 2000 mm

