

2-axis Vibration Test Systems

G-8 Series

Seismic

Transportation

Electric & Electronic Apparatus

Vehicles

Railway Vehicles

Others



G-8225-1LT-120

Easier Change of Vibration Directions with One-touch Switch Operation

SHINKEN 2-axis Vibration Test Systems can eliminate troublesome and time-consuming work for the specimen handling and changing vibration directions with one-touch switch operation, thus most suited to tests for large, heavy specimens.

Space-saving

SHINKEN 2-axis Vibration Generators(VGs) have a common table for both horizontal and vertical excitation, thus making the space needed for the VGs smaller than the conventional single-axis VGs which require two tables; especially VGs with large tables.

Cost-saving

As it is said that vertical and the so-called 'Major Horizontal' excitation can precipitate over 90% of the hidden flaws, 2-axis simultaneous excitation can be a cheaper solution.

2-axis Simultaneous VTs & 2-axis Sequential VTs Available

In addition to 2-axis Simultaneous VTs, 2-axis Sequential VTs, only capable of testing axis by axis with one-touch switch-over or optionally available automatic series tests (in order of Z→X) are also available.

G-8130-* **HB-020**

↳ 2 : 2-axis Simultaneous
1 : 2-axis Sequential



G-8220-1LB-080

LB-type

Also available are LB-type 2-axis Vibration Test Systems with the table size* changeable later, different from the HT- and LT-type. *But the size being limited with the VG's size.

- Air-cooled ■ Water-cooled ■ Hydro-static Bearing
- Axis Changeover Switch
- Automatic Changeover (with Series Test Unit)
- Combined Environmental Test Systems also Available

System Model	Max. Force Output		Max. Acceleration	Max. Velocity	Max. Displacement	Upper Frequency*		Table Size	Movable Mass	Max. Payload	Model Number		Power Required	Cooling System			
	Sine kN (kgf)	Random rms kNrms (kgfrms)	m/s ² (G)	m/s	mm p-p	Sine Hz	Random Hz	mm	kg	kg	Vibration Generator	2ch Power Amplifier	kVA	[m ³ /min] [L/min]			
G-8130-2HB-020	3 (306)	1.8 (183)	85 (8.7)	1	26	1500	2000	200×200	35	50	G72-150-020	G14-003-2	17	Air (16)			
G-8150-2HB-020	5 (510)	3.5 (357)	142 (14)	1	26	1500	2000	200×200	35	50	G72-150-020	G14-005-2	24	Air (16)			
G-8150-2HT-040			62 (6.3)			1000	1500	400×400	80	100	G70-150-040						
G-8150-2HT-060			41 (4.2)			800	1000	600×600	120	100	G70-150-060						
G-8150-2HT-080		3 (306)	27 (2.8)		51	500	700	800×800	180	200	G74-150-080						
G-8150-2LT-110			20 (2.1)			350	500	1000×1000	240	200	G74-150-110						
G-8150-1LB-050			62 (6.3)			100	700	500×500	80	100	G76-150-050						
G-8150-1LB-060		3.5 (357)	50 (5.1)		30	100	500	600×600	100	100	G76-150-060						
G-8150-1LB-080			40 (4)			100	400	800×800	125	200	G76-150-080						
G-8150-1LB-110			31 (3.1)			100	300	1000×1000	160	200	G76-150-110						
G-8210-2HB-026	10 (1020)	7 (714)	285 (29)	1.2	26	1350	2000	260×260	35	100	G72-210-026	G14-010-2	36	Air (16)			
G-8210-2HT-040			125 (12)			1000	1500	400×400	80	100	G70-210-040						
G-8210-2HT-060			83 (8.5)			800	1200	600×600	120	100	G70-210-060						
G-8210-2HT-080		5 (510)	55 (5.6)		51	700	1000	800×800	180	200	G70-210-080						
G-8210-2LT-110			41 (4.2)			350	500	1000×1000	240	200	G74-210-110						
G-8210-2LT-112			33 (3.4)			300	500	1200×1200	300	300	G74-210-112						
G-8210-1LB-060		7 (714)	83 (8.5)		1.2	51	100	500	600×600	120	200	G76-210-060	G14-010-1		25	Air (16)	
G-8210-1LB-080			58 (6)				100	400	800×800	170	200	G76-210-080					
G-8210-1LB-110			50 (5.1)				100	300	1000×1000	200	300	G76-210-110					
G-8210-1LB-112	37 (3.7)	100	200	1200×1200	270	300	G76-210-112										
G-8220-2HB-032	20 (2040)	14 (1428)	333 (34)	1	26	1200	2000	320×320	60	200	G72-220-032	G14-021-2	73	Air (44)			
G-8220-2HT-050			148 (15)			800	1200	500×500	135	200	G70-220-050						
G-8220-2HT-080			105 (10)			500	1000	800×800	190	300	G70-220-080						
G-8220-2LT-110		10 (1020)	68 (7)		0.9	51	350	500	1000×1000	290	500	G74-220-110	G14-021-1		40		Air (44)
G-8220-2LT-112			53 (5.4)				300	350	1200×1200	375	500	G74-220-112					
G-8220-2LT-115			35 (3.6)				250	350	1500×1500	565	500	G74-220-115					
G-8220-1LB-080		14 (1428)	102 (10)		0.9	51	100	400	800×800	195	300	G76-220-080	G14-021-1		40	Air (44)	
G-8220-1LB-110			66 (6.8)				100	300	1000×1000	300	300	G76-220-110					
G-8220-1LB-112			50 (5.1)				100	300	1200×1200	400	500	G76-220-112					
G-8220-1LB-115	29 (3)	100	100	1500×1500	670	500	G76-220-115										
G-8230-2HB-032	30 (3061)	21 (2142)	500 (51)	1.1	26	1200	2000	320×320	60	200	G72-230-032	G14-030-2	98	Air (50)			
G-8230-2HT-050			222 (22)			800	1200	500×500	135	200	G70-230-050						
G-8230-2HT-080			153 (15)			500	1000	800×800	195	300	G70-230-080						
G-8230-2LT-110		15 (1530)	103 (10)		0.9	51	350	500	1000×1000	290	500	G74-230-110	G14-030-2		98		Air (50)
G-8230-2LT-112			80 (8.1)				300	350	1200×1200	375	500	G74-230-112					
G-8230-2LT-115			53 (5.4)				250	350	1500×1500	565	500	G75-230-115					
G-8250-2HT-050	49 (5000)	34 (3500)	392 (40)	1.3	51	800	1200	500×500	125	300	G70-250-050	G14-050-2	170	Water (470)			
G-8250-2HT-080			245 (25)			700	1000	800×800	200	300	G70-250-080						
G-8250-2LT-110			181 (18)			350	500	1000×1000	270	500	G74-250-110						
G-8250-2LT-115		24.5 (2500)	79 (8)		0.9	250	350	1500×1500	620	700	G74-250-115						
G-8250-2LT-118			70 (7.1)			200	350	1800×1800	700	1000	G74-250-118						
G-8265-2HT-050	65 (6632)	45.5 (4642)	520 (53)	1.4	51	800	1200	500×500	125	300	G70-265-050	G14-065-2	200	Water (560)			
G-8265-2HT-080			325 (33)			700	1000	800×800	200	300	G70-265-080						
G-8265-2LT-110			240 (24)			350	500	1000×1000	270	500	G74-265-110						
G-8265-2LT-115		32.5 (3316)	103 (10)		1	250	350	1500×1500	630	700	G74-265-115						
G-8265-2LT-118			74 (7.6)			200	350	1800×1800	870	1000	G74-265-118						

- The upper frequency for sine is a frequency up to which the max. force output can be achieved, while that for random is a frequency up to which a PSD random pattern having a -6dB/oct or steeper roll-off over the upper frequency for sine(or lower) can be controlled. The lower frequencies for control and for excitation are 2Hz and 0.5Hz, respectively unless especially requested.
- All the Power Amplifiers are of an air cooling type.
- The HT and LT type systems having a max. force output of 3kN(306kgf), 7kN(714kgf) or 20kN(2,040kgf) are also available.
- With the employment of the 1-ch Power Amplifiers instead of the 2-ch Power Amplifier, the 2-axis (Automatic) Sequential Vibration Test Systems are also available, which can be upgraded into the Triaxial Simultaneous Vibration Test Systems in the future by adding 1-ch Power Amplifiers and necessary controllers.
- Vibration Generators with other table sizes than shown above are also available upon request.
- Power required is 3-phase 200/220/380/415V, 50/60Hz.
- For better acceleration distribution on the table, the movable weight will be heavier by 10 to 30kg for addition of proper balance weights.
- For the G-8230 (30kN), air-cooled systems are available upon request.
- For the air-cooled systems, it is recommended that the hot air from the cooling blower be sent to outside.
- A System having a bigger force output and/or larger displacement than shown above is also available upon request.