



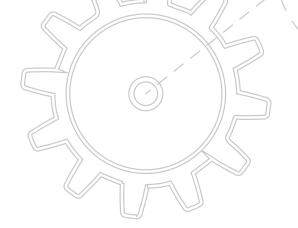
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# ACTIVE ROLLER GUIDE SYSTEM

elevators escalators autowalks

**ACTIVE ROLLER GUIDE** 

**SYSTEM** 





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Fujitec's ACTIVE ROLLER GUIDE (ARG) includes a sensor that detects lateral vibration as the elevator moves through the hoistway. When detected, the ARG engages the rail guides to counteract the vibration, delivering a smooth and refined ride when compared to conventional roller guides.

#### **Expected Reduction Rate**

VIBRATION ACCELERATION [mg]	REDUCTION RATE %		
less than 5	10 - 20		
greater than 5 less than 8	20 - 30		
greater than 8 less than 12	30 - 40		
greater than 12	40 - 50		

### Construction Active Roller Guide **ACTUATOR** Creates force to absorb vibration **CAB** 'ACCELERATION SENSOR Detects lateral vibration acceleration CONTROLLER

Analyses vibration acceleration; provides voltage command to actuator. The following information was compiled while performing vibration reduction rate tests on three Fujitec global installations with similar applications.

[NOTE: An expected vibration variance/ tolerance level with standard Fujitec roller guides is between 4 - 20 mg compared with the Fujitec ARG which is between 3.5 - 12 mg.]

#### **Vibration Data**

The data in Figure 1 includes actual side-to-side vibration readings from ONE 57 (CARNEGIE 57) in New York City. These readings were collected before and after Fujitec's ARG was installed, with their results denoted in black and red.

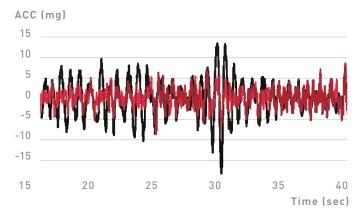


Figure 1 Standard Fujitec Roller Fujitec ARG

#### **Vibration Results**

Results of the case study in Figure 2, include the front-to-back and side-to-side vibration results of the cab while ascending and descending. The VIBRATION REDUCTION percentages are an average of these two variables.

PROJECT	LOCATION	SPEED	CAB DIRECTION	VIBRATION REDUCTION
One 57 (Carnegie 57)	USA	1600 ft/ min	<b>A</b>	45%
			•	31%
Citibank Plaza	Hong Kong	1600 ft/ min	<b>A</b>	45.5%
			•	39.5%
Garden Air tower	Japan	1400 ft/ min	<b>A</b>	40%
			▼	23.5%

Figure 2

### ZEXIA REXIA

GS ESCALATOR 8000-NX

**GS8000-HV** 

GS AUTOWALK 8100



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