

FUJITEC

elevators

escalators

autowalks

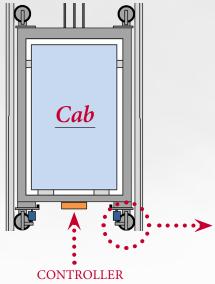
ARG
ACTIVE
ROLLER GUIDE

Pujitec continuously pursues technological improvements in ride safety, quality, performance and dependability. The addition of the Active Roller Guide (ARG) system effectively decreases the amount of vibration felt by passengers during transit. Ideal for high rise and high speed applications, smooth and fluid transportation reassures passengers perception of safety and comfort on a daily basis.

How it Works

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.

Construction



Analyzes vibration acceleration; provides voltage command to actuator.

ACTUATOR Creates force to absorb vibration ACCELERATION SENSOR Detects lateral vibration acceleration

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



CASE STUDY

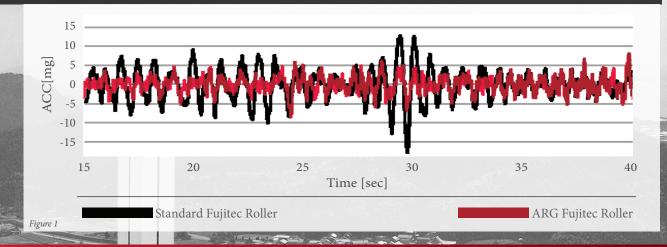
The following information was compiled while performing vibration reduction rate tests on three Fujitec global installs with similar applications.

(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 the "Fujitec ARG" was installed, with their results denoted in black and red.



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 USA 1600 ft/min	1600 ft/min	A	45%	
(CARNEGIE 57)	USA	1600 ft/min	▼	31%
CITIBANK	Hong Vong 1600 67	A	45.5%	
PLAZA	Hong Kong	1600 ft/min	▼	39.5%
GARDEN AIR TOWER Japan 1-4	1400 6/:.	A	40%	
	japan	1400 ft/min	▼	23.5%



