

Engineering English

Technology in Use: Technical Advantages

What is a technical advantage?

Give some examples of technology that you are familiar with.

OTIS Unique Flat Belt



The key to Otis's patented drive to technoloy

At the heart of the Gen2 elevator system is a flat belt (developed by and unique to Otis). It is just 3 mm thick. Yet, it is stronger than conventional steel cables. It lasts up to three times longer. And it has enabled Otis to completely re-invent the elevator. The flat, coated-steel belt totally eliminates the metal-to-metal effect of conventional systems. Coupled with a smooth surface crowned machine sheave (roller), the result is exceptionally quiet operation and superior ride comfort. Furthermore, the flexible flat belt enables a more compact; engergyefficient machine, which can be contained in the hoistway (elevator shaft). This **enhanced** technology **reduces** building and system operation costs, and frees up valuable space.

Match the words (1-6) to the synonyms (a-f)

1	conventional	a	decreases
2	eliminates	b	better / the best
3	superior	C	improved
4	energy-efficient	- d	standard, usual
	enhanced	е	gets rid of
6	reduces	f	has low energy consumption

- Who are Otis?
- What is a Gen2 system?
- What advantages does it have?
- Discuss durability, wear, noise, space, cleanliness, efficiency, automation, maintenance and cost.

Underline the correct emphasizing word.

- 1 We've come up with a completely/significantly unique profile.
- 2 It completely/dramatically reduces vibration.
- 3 Machines like these can never be entirely/highly free from vibration.
- 4 The new design runs dramatically/extremely smoothly.
- 5 Another advantage of the new profile is that it's considerably/entirely lighter.
- 6 So compared with our previous range, it's highly/totally efficient.
- 7 Trials so far suggest the design is completely/exceptionally durable.
- 8 We expect it to be entirely/significantly more reliable than rival units.

Adverbs for adding emphasis

Match the words to the synonyms

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considerably dramatically entirely exceptionally highly totally

1 ______ = completely

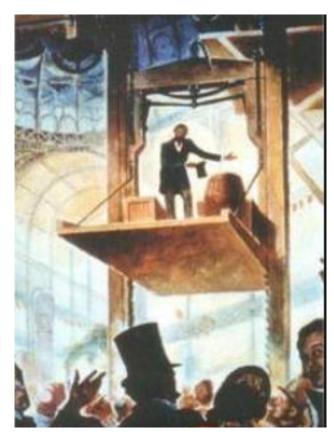
2 _____ / ___ = significantly

3 _____ / ___ = extremely
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Activity: You are Otis engineers back in the 1850s, when elevators were new.

With your group, prepare a <u>short talk</u> to brief your sales colleagues on the advantages of the elevators for lifting people and goods.

Remember people at the time were skeptical about this technology



Present to class

Elevators in the 1850s were......

- Safe reliable breaking system; no danger of a car falling if a cable fails
- Simple controlled from the car; easy to operate
- Convenient easier on the legs than the taking the stairs
- Valuable enhance the value of the land;
 allow taller buildings on smaller areas

Summary

- This session reflects on the importance of constant technical improvement and innovation in a commercially competitive environment, a concept which is at the heart of all branches of engineering.
- The underlying aim is to help emphasise technical advantages, and to sell ideas, whether to clients, superiors or colleagues.
- The Otis lift technology provides both modern and historic interest in terms of promoting technological progress.

Lifts: Creating progress through technology

Secret life of lifts series:

http://www.youtube.com/watch?v=LblD4i2Dq4w

http://www.youtube.com/watch?v=DkWkgoeLZzU&feature=related

http://www.youtube.com/watch?v=wOacMrrieh4&feature=related