

### **Advantages of a Cable Elevator without Machine-Room compared with a Hydraulic Elevator**

Below we will compare a conventional hydraulic elevator and one of our newly developed energy-saving and frequency-regulated cable elevators without machine room, featuring:

1. Much lower noise levels and more comfortable elevating behaviour.
2. No need for guide sockets and lubrication in the cage guide rails, because ballbearing supported roller-type guides coated with Vulkolan are used.
3. The cage is suspended according to its centre of gravity, so there is no rucksack effect as there is with hydraulic elevators.
4. Gentle starting, smooth acceleration and braking right up to standstill, all monitored and ensured by the electronic frequency regulation. Few parts are subject to wear because cable deflector rollers are not needed, and there is no odour of oil in the elevator shaft.
5. No step formation when people enter the lift (oil compression) due to regulation. No oil-proof paint needed in the shaft well and machine room (cost saving).
6. Space saved because a machine room is not needed (only opening in the wall for the controls).
7. Much higher number of journeys possible (240 j/h instead of 90 j/h) without additional oil cooler, therefore further electricity savings.
8. Not temperature-sensitive due to oil gelling at temperatures below 10°C, so there is no need for an oil heating system. Also, less maintenance is required because no hydraulics have to be adjusted.
9. Increased speed of travel (from 0.6 to 1.00 m/s) by 66%, providing greater conveying performance and shorter waiting times, speed of elevation is independent of load. and the same starting acceleration is possible independent of elevator load.. No run-in path required because the elevator brakes smoothly from high speed to standstill (electrical stop).
10. Increasing the elevating height with additional stops is much easier since it is not necessary to replace the entire hydraulic cylinder with the corresponding length and strength, or the base.
11. Reduction of the electrical connected value and therefore savings in supply costs and electricity consumption of approx. DM 2,000.00 – 3,000.00 per annum, depending on frequency of journeys (for a 630 kg with 1.00 m/sec elevator), so that the additional price of DM 8,400.00 is recouped within a few years.