



ECO SPIN

State-of-the-art frequency-controlled hydraulic elevator



Benefits in contrast to conventional hydraulic drives:

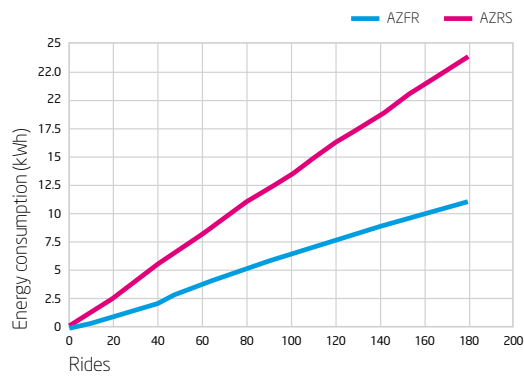
- » Reduced engine power
- » Elimination of the softstarter
- » Less heat development
- » Elimination of the oil cooler
- » Less noise emission
- » Lower oil quantities



Energy and heat balance

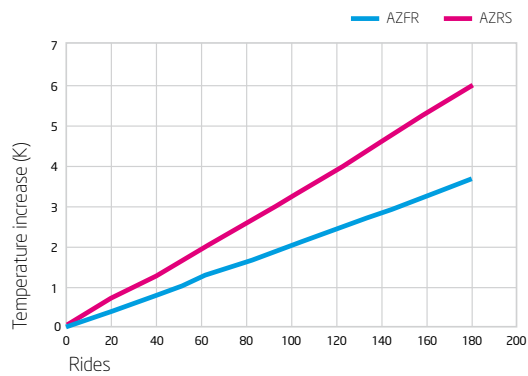
Our state-of-the-art frequency-controlled hydraulic drive sets new standards in terms of energy and heat efficiency. In comparison to conventional hydraulic drives, energy consumption has been reduced by up to 37%. Oil warming with hydraulic drive components is reduced by up to 54%.

Energy consumption



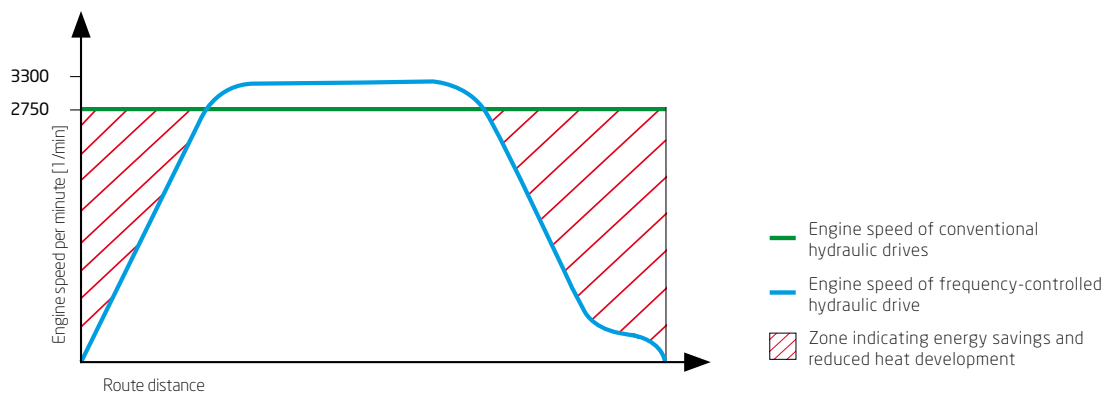
Reduction of energy consumption by 20% - 37%

Oil warming



Reduction of oil warming by up to 54%

Savings potential during acceleration and deceleration



The improvements in energy and heat efficiency can only be found in the acceleration and deceleration zones, as the engine speed range is variable between 200 und 3400 rpm.



ECO SPIN

State-of-the-art frequency-controlled hydraulic elevator

1. Engineered for constant speed during upward travel

The elevator retains the same speed despite various loads.

2. Engineered for constant power consumption during upward travel

The elevator moves a full nominal speed when empty. With increasing load, the upward travel speed is reduced and power consumption remains constant. Traveling downward, the elevator runs at full speed.

Comparison of drive types (with control valve / with frequency control)

	Control valve AZRS	Frequency control at constant speed	Frequency control at constant power input
Nominal speed DOWN:	0.6 m/s	0.6 m/s	0.6 m/s
Nominal speed UP empty:	0.6 m/s	0.6 m/s	0.6 m/s
Nominal speed UP (2 persons):	0.6 m/s	0.6 m/s	0.53 m/s *
Nominal power:	13 kW	11 kW	7,5 kW
Rated current:	29.3 A	35.9 A	22.72 A
Starting current softstarter:	41 A	-	-
Starting current converter:	-	<10 A	<6 A
Container size:	1	1	1
Pump size:	125 l/min	100 l/min	100 l/min
Max. ride without cooler:	54	180	>180
Heat to be dissipated at 120 rides/h:	1686 W	870 W	756 W
Cooler required:	yes	no	no
Noise emission UP:	64 dBA	59 dBA	59 dBA
Noise emission DOWN:	63 dBA	58 dBA	58 dBA

Elevator data:	Payload: 630 kg	Travelheight: 9000 mm	* Load-dependent lifting speed:
	Car weight: 820 kg	Cylinder arrangement: 1:1	4 persons: 0.47 m/s
	Speed: 0.6 m/s	Cylinder type: TAZ 33GL3	6 persons: 0.42 m/s
			8 persons: 0.38 m/s