1 System configuration

Use following table to configurate your personal system:

1. # of lifting elements:
How many lifting elements do you need for your application?
(1 – 4)

2. Stroke length:
How much stroke length do you need?
(max. 300 or max. 400 mm) *(max. 12" or max. 16")*

3. ultimate load:
How much weight do you need to lift?
(max. 300 kg) *(660 lbs)*

> **NOTE**
> - Weight of table plate/frame must be included into calculation
> - Avoid uneven load distribution
> - No high impact loads allowed
> - No pulling forces allowed
> - Consider max. allowed side forces and bending moments

4. Lifting element type:
The table shows the correct type of lifting column, fitting your configuration.
   - For more information please check the data sheets and drawings

5. Lifting speed.:
The table shows the lifting speed of the system. All lifting columns drive synchronously.

6. ED On/Off:
When operating the system with max. load, the spindle nut and the control box will suffer from high heat exposure. For the components to be able to cool down, it is important to take enough operating breaks.
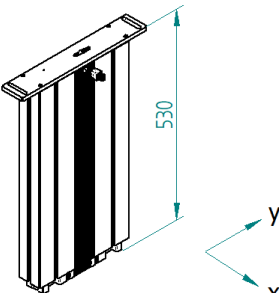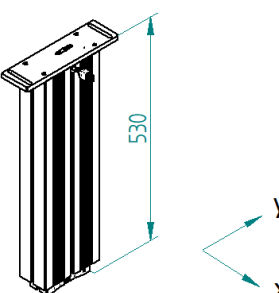
Duty cycle monitoring:
After a specific operating time «On», the control box will automatically pause «Off» for a while, before allowing the user to continue with operating.
(Cable remote control with display will show «E C9»).

2 Spindle Lifting System SL / SK / SM 14xx

# Lifting elements	Max. System load	Stroke length	Lifting element	Control type	# of cycles per load-percentage at full Battery charge ②			Lifting speed	Duty Cycle
	[kg] *(lbs)*	**[mm]** *(in)*	**Typ**	**24 V**	**100%**	**50%**	**0%**		**[On/Off]**
1	150 *(330)*	300 *(12")*	① 1430	Battery (V1991)	45	90	140	6 – 7.5 mm/s *(0.24 - 0.3 "/s)* Load dependent	1/9 min
		400 *(16")*	① 1440	Battery (V1990)	35	70	110		
2	300 *(660)*	300 *(12")*	① 1430	Battery (V1991)	30	50	80		
		400 *(16")*	① 1440	Battery (V1990)	25	40	60		

① Lifting column SL, SK or SM
② The maximum number of cycles depends on the status of the battery-lifespan

Lifting column SL / SK 14xx		Lifting column SM 14xx	
Max. pressure load:	1'500 N *(337 lbf)*	Max. pressure load:	1'500 N *(337 lbf)*
Max. tensile load:	Stat. 500 N *(112 lbf)* dyn. 50 N *(11 lbf)*	Max. tensile load:	Stat. 500 N *(112 lbf)* dyn. 50 N *(11 lbf)*
530	Mbx stat. 1'200 Nm *(885 lbf·ft)* Mby stat. 450 Nm *(332 lbf·ft)* Mbx dyn. 550 Nm *(406 lbf·ft)* Mby dyn. 200 Nm *(148 lbf·ft)*	530	Mbx stat. 900 Nm *(664 lbf·ft)* Mby stat. 350 Nm *(258 lbf·ft)* Mbx dyn. 450 Nm *(332 lbf·ft)* Mby dyn. 150 Nm *(111 lbf·ft)*

3 Spindle lifting system SLA.3 / SLG.3 / SE.3/ SQ.3

# Lifting elements	Max. System load	Stroke length	Lifting element	Control type	# of cycles per load-percentage at full Battery charge ②			Lifting speed	Duty Cycle
	[kg] *(lbs)*	[mm] *(in)*	Typ	24 V	100%	50%	0%		[On/Off]
1	125 *(275)*	300 *(12")*	① 1330	Battery (V1891)	100	200	400	6 - 8.5 mm/s *(0.24 - 0.33 "/s)* load dependent	1/9 min
		400 *(16")*	① 1340	Battery (V1890)	80	160	320		
2	250 *(550)*	300 *(12")*	① 1330	Battery (V1891)	65	130	260		
		400 *(16")*	① 1340	Battery (V1890)	50	100	200		
3	300 *(660)*	300 *(12")*	① 1330	Battery (V1891)	40	80	160		
		400 *(16")*	① 1340	Battery (V1890)	30	60	120		
4	300 *(660)*	300 *(12")*	① 1330	Battery (V1891)	30	60	120		
		400 *(16")*	① 1340	Battery (V1890)	25	50	100		

Lifting element type	pressure load	maximum tensile load
① 13xx	1'250 N *(281 lbf)*	1'250 N *(281 lbf)*

① Linear unit SLA.3, linear unit SLG.3, lifting column SE.3, lifting column SQ.3
② The maximum number of cycles depends on the status of the battery-lifespan

Linear unit type	Max. allowed bending moments ①
Linear unit SLA.3	Mb stat. 150 Nm *(111 lbf·ft)* Mb dyn. 50 Nm *(37 lbf·ft)*
Linear unit SLG.3	Mb stat. 200 Nm *(148 lbf·ft)* Mb dyn. 80 Nm *(59 lbf·ft)*
Lifting column SE.3	Mb stat. 300 Nm *(221 lbf·ft)* Mb dyn. 120 Nm *(89 lbf·ft)*
Lifting column SQ.3	Mb stat. 200 Nm *(148 lbf·ft)* Mb dyn. 80 Nm *(59 lbf·ft)*

① Mb stat. = static bending moment = max. allowed bending moment while standstill
   Mb dyn. = dynamic bending moment = max. allowed bending moment during lifting movement

4 General information

Control box SCT4 iSMPS 24V	Cable remote control SCT Memory T6
124.00265	124.00281

Exchangeable battery 10A	Holder for Exchangeable battery 10A	Charging station for Exchangeable battery 10A
124.00271	124.00272	124.00274 Charging time: 5 h

Battery:
The battery beeps when the charge is 25% or less. After that, it should not be discharged further.
Otherwise this will have an impact on the operating life.
The battery should be charged to 70-80% every 3 months.

Overload:
Low overload: overcurrent fault E60; Load can be removed and continued.
Higher overload: Everything turns black. After a short charge in the mains; the battery works again.

Other voltage source:
The control 24V has a sticker that it has to be operated with our battery.

It is possible to use another voltage source such as the battery from Ergoswiss AG.
However, the system battery with control must be recertified and the customer must make a safety assessment of the voltage source. If a major customer wants to connect its own voltage source, Ergoswiss AG can advise the major customer with the help of Vibradorm.
Ergoswiss AG assumes no liability when connecting an own voltage source.

Number of cycles of other battery:
When connecting another 24V battery, the number of cycles may vary.
This number of cycles is estimated by the capacity of the battery.

The replaceable battery of Ergoswiss AG has a capacity of 6Ah.
If a battery with a capacity of 2Ah is used, the battery can only drive 1/3 of the number of cycles.
If a battery with a capacity of 20 Ah is used, the battery can run more than three times the number of cycles.