

Lift Systems

Linear telescopic
lifting columns



- ▶ dynamic capacity up to 150 kN
- ▶ lift stroke up to 8 m
- ▶ high speed / high cycle systems

SERAPID
PUSHING AHEAD

SERAPID lift systems provide a mechanical solution to elevate heavy loads. Just like the horizontal motion systems, this is based on the locking and unlocking of connected, linked elements. When lifting a load, the specially shaped chain links interlock with each other, forming a rigid bar or column. When lowered, the links unlock, allowing it to bend to store into a compact package.

Linear telescopic lifting columns for industrial applications



Our rigid-chain technology combines the strengths of other transfer methods, such as hydraulics, belts or spindle screws, and at the same time it eliminates their weaknesses. This is especially true in the case of vertical motion.

The ChainLift and HD Lift were developed from our horizontal push-pull chain. The links and drive mechanics are reinforced, so the

system is ideally suited for lifting. The heavy-duty HD Lift features an oil bath for permanent lubrication. The LinkLift was developed exclusively for vertical load transfer. Its block-shaped links, with square cross-sections, ensure the centre of gravity is in the geometric centre of the chain, making a lifting column of extra high strength and rigidity.

Proven rigid-chain technology

ChainLift

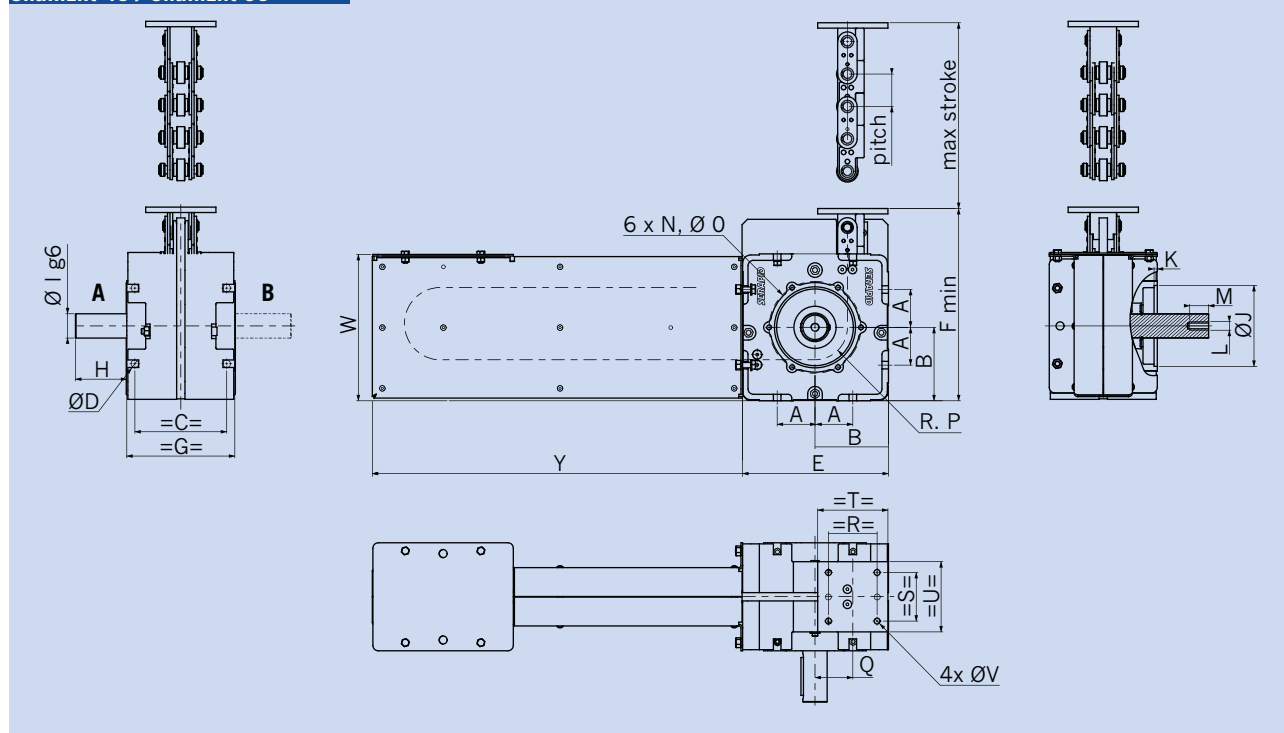
The ChainLift standard model range

	ChainLift 40	ChainLift 60
dyn / stat capacity [kN]	7.5	20
max. stroke [m]	1	2
max speed [mm/s]	200	200
pitch of link [mm]	40	60
primitive radius [mm]	40	60
weight of chain [kg/m]	7.8	10.5
weight of drive housing [kg]	15	45

The ChainLift is designed for applications with an average frequency of use (5 to 15 cycles per hour). It will be suitable, for example, for a workbench lift in automotive manufacturing. The nominal life time is 250 000 cycles. Lubrication maintenance is required every 13 000 cycles in the first year and then every 50 000 cycles (or every year).

For requirements outside of our specifications, please contact us.

ChainLift 40 / ChainLift 60



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
ChainLift 40	60	101	140	10	202	255	168	59	25	110	5	M10	20	M8	130	R40	49	70	70	100	100	10	198
ChainLift 60	70	136	170	14	272	350	200	95	45	150	6	M16	32	M10	170	R60	70	90	90	130	130	11	271

standard magazines, length (Y)

max stroke	500	1000	2000
ChainLift 40, Y =	396	646	
ChainLift 60, Y =		688.5	1188.5

All dimensions in mm.



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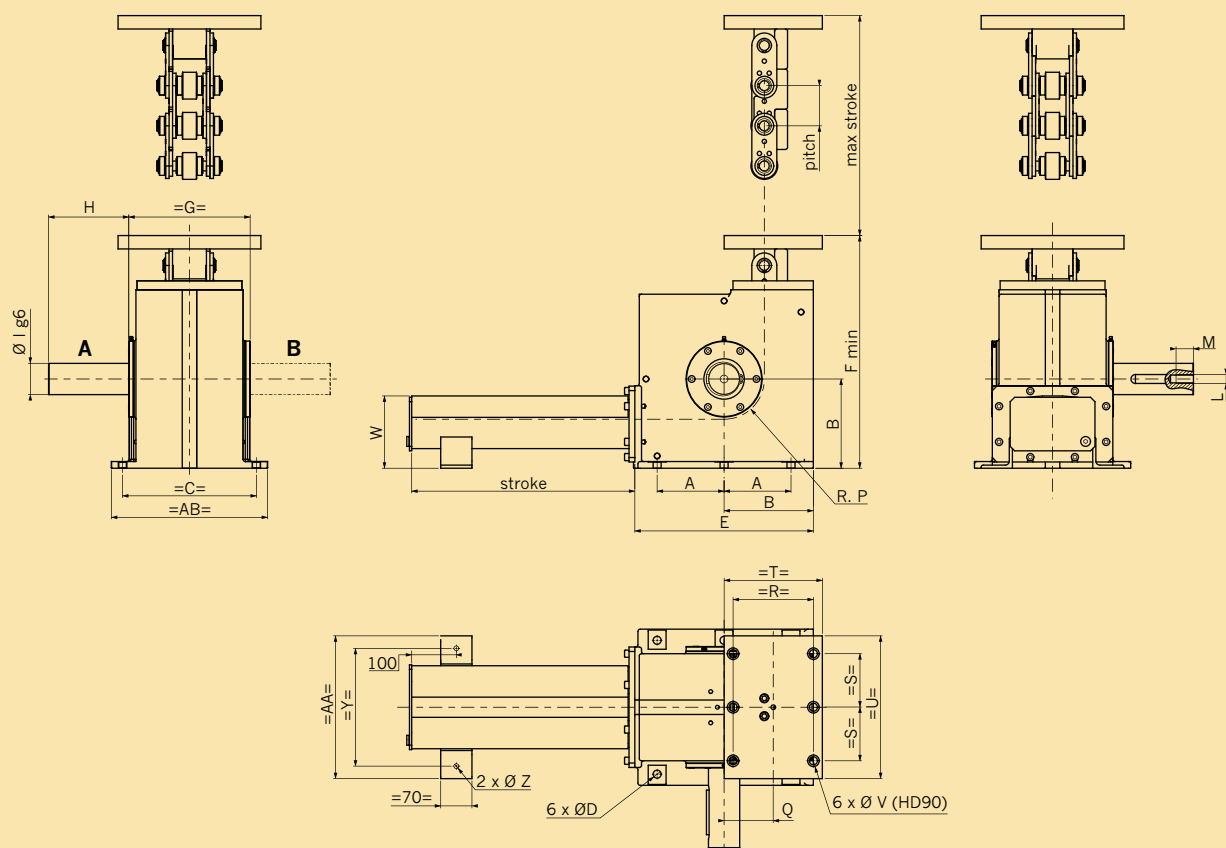
	HD Lift 40	HD Lift 60S	HD Lift 60D	HD Lift 90S	HD Lift 90D
dyn / stat capacity [kN]	6.5	12.5	19	40	50
max. stroke [m]	1	1.5	1.5	2	2.5
max speed [mm/s]	300	300	300	300	300
pitch of link [mm]	40	60	60	90	90
primitive radius [mm]	40	60	60	90	90
weight of chain [kg/m]	7.8	10.5	17	31	49

[illegible]

All dimensions in mm.



HD Lift 90S / HD Lift 90D

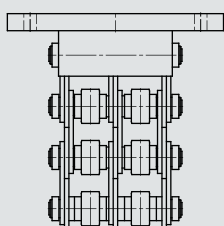


Model	A	B	C	D	E	F	G	H	I	L	M	P	Q	R	S	T	U	V	W	Y	Z	AA	AB
HD Lift 90S	150	200	300	18	400	500	272	142	70	M20	39	R90	110	180	120	220	320	18	162	264	11	320	350
HD Lift 90D	150	200	388	18	400	500	360	162	100	M24	48	R90	110	180	160	220	450	22	162	344	11	396	438

All dimensions in mm.



HD Lift 60D / 90D – duplex chain



Note: The models HD Lift 60D and 90D use our duplex-type chain, which features three rows of side plates and two rows of rollers, and provides higher load capacity.

The lifting chain

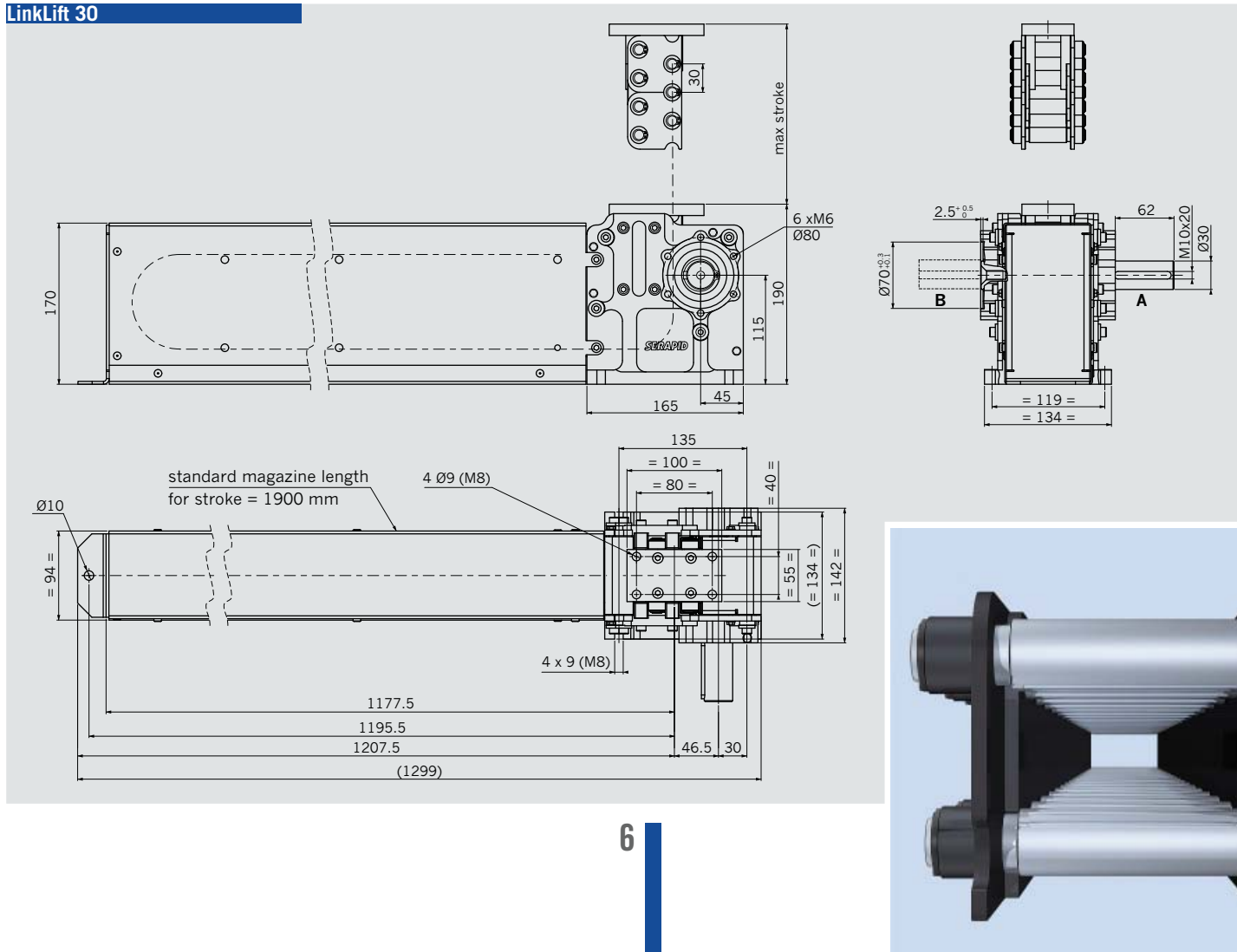
The LinkLift standard model range

	LL 30	LL 50	LL 50R	LL 80	LL 100	LL 100R
Static capacity per lifting column						
max. load [kN] : stroke limit [m]	20 : 1.9	50 : 2	70 : 1	100 : 3.5	130 : 6	200 : 3.5
load limit [kN] : max. stroke [m]	20 : 1.9	10 : 4	10 : 4	40 : 6.4	70 : 8	70 : 8
Dynamic capacity per lifting column						
max. load [kN] : stroke limit [m]	10 : 1.9	15 : 3.5	30 : 3	50 : 6	75 : 7.5	150 : 5
load limit [kN] : max. stroke [m]	10 : 1.9	10 : 4	10 : 4	40 : 6.4	70 : 8	70 : 8
Other specifications						
nominal speed up to [mm/s]	200	300	300	300	300	300
system efficiency rate [%]	80	80	80	80	80	80
chain pitch [mm]	30	50	50	80	100	100
primitive radius [mm]	30	50	50	80	100	100
minimum height [mm]	190	290.5	290.5	460	572	572
weight of chain [kg/m]	15	21	22	35	71	74
weight of drive housing [kg]	8	29	33	80	192	213

Note: Load capacity and stroke are given relative to each other – a lower stroke allows a higher load and vice versa. For example: “50 : 2” means the maximum **load** is 50 kN up to a stroke limit of 2 m; “10 : 4” means

the maximum **stroke** is 4 m up to a load limit of 10 kN. Please note maximum speed cannot be combined with maximum load or stroke. RWTÜV certified.

LinkLift 30

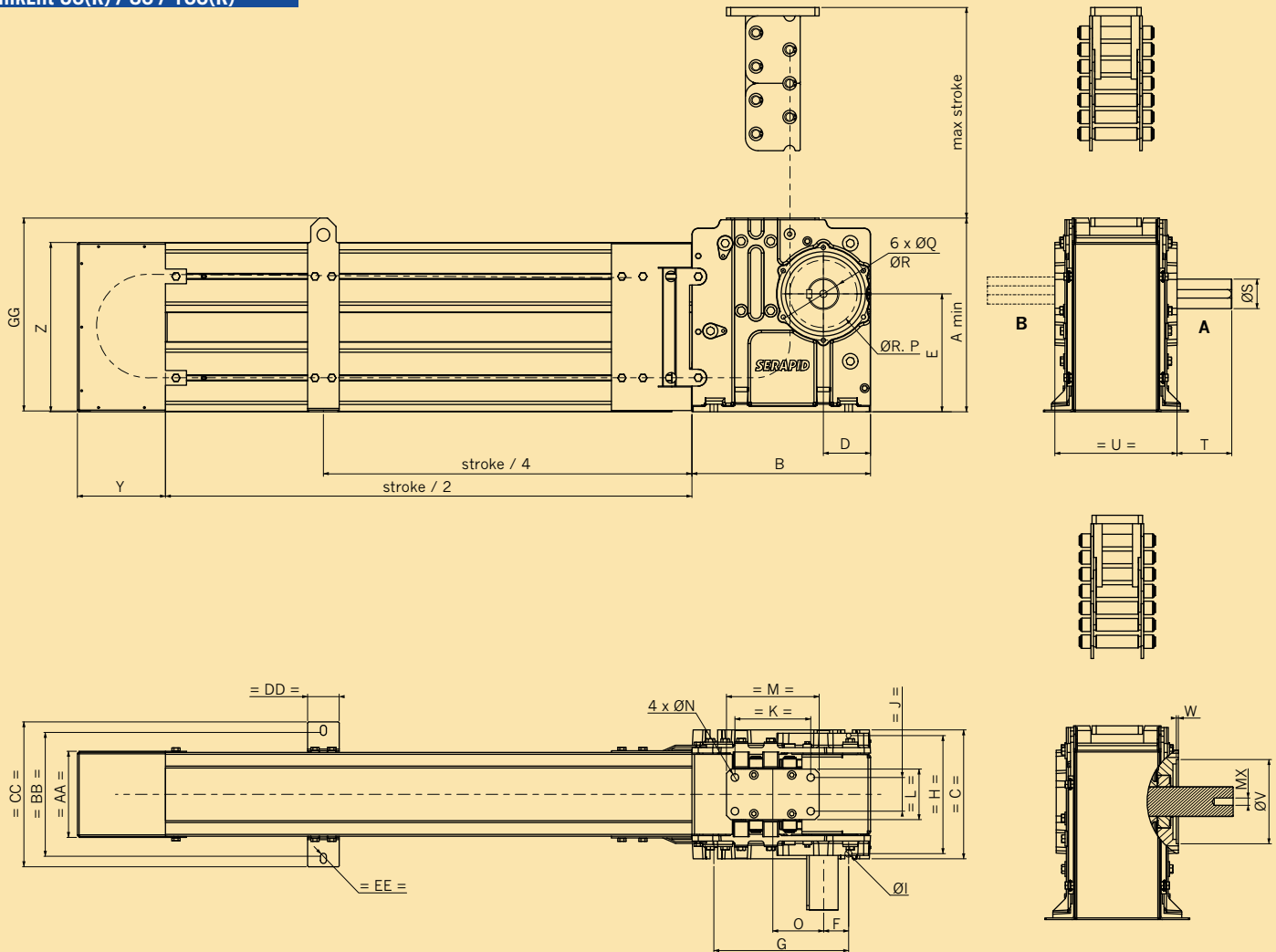


The LinkLift is specifically designed for heavy loads and significant lifting heights. It is suitable for low frequency applications (< 5 cycles/hour), for example for lifting manufacturing platforms. The nominal lifetime is 50 000 cycles. Maintenance is required every 2000

cycles in the first year and then every 10 000 cycles (or every year).

For requirements outside of our specifications, please contact us.

LinkLift 50(R) / 80 / 100(R)



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
LL 50(R)	290.5	270	199	70	177	35	200	173	4xØ12	56	106	80	130	Ø13	75	50	M8x25	120	Ø45 ¹
LL 80	460	424	306	112	280	60	320	270	4xØ18	80	180	120	220	Ø18	120	80	M12x25	220	Ø70
LL 100(R)	572	530	387	140	348	75	200+200	347	6xØ18	110	220	150	280	Ø21	150	100	M12x30	250	Ø80 ²

Model	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	GG
LL 50(R)	100	175	100	4	M16x32	154	255	137	237	277	50	Ø14	310
LL 80	130	290	200	5	M20x40	209	402	205	304	344	75	Ø14	460
LL 100(R)	163 ²	368	220	6	M20x40	272	497	255	345	395	100	Ø18	570

Notes:

¹ LL 50R: S = Ø60

² LL 100R: S = B 80x74 e9

DIN 5482, T = 111

All dimensions in mm.

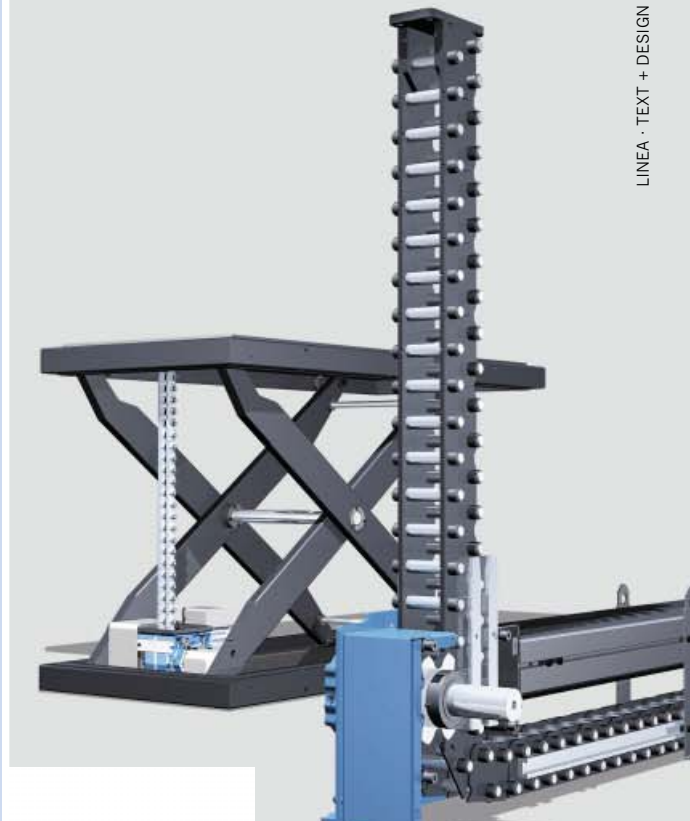
Lift Systems

SERAPID rigid-chain technology offers many benefits, especially for vertical motion:

- ▶ repeatable positioning in the millimetre range, even at high speed
- ▶ standard speed up to 300 mm/s, higher speeds available
- ▶ high stability and rigidity of the lifting column
- ▶ completely smooth motion and uniform speed
- ▶ maintains position with no drift
- ▶ up to 150 kN dynamic load per lifting column, stroke up to 8 m (depending on load)
- ▶ simple configuration, flexibility in system design, space-saving storage of chain return
- ▶ universally applicable, proven in a broad range of installations
- ▶ designed for low vibration and noise, ideal for medical equipment
- ▶ entirely mechanical and therefore environment-friendly, also suitable for clean-room conditions
- ▶ long life and low maintenance
- ▶ cost-effective motorisation thanks to high system efficiency
- ▶ custom designs, system engineering and turn-key solutions

The ChainLift, HD Lift and LinkLift are also ideal for scissors-type lifting tables:

- ▶ simple, light-weight design
- ▶ constant force and lifting speed
- ▶ low load on scissors bearings



LINEA · TEXT + DESIGN



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