HLA
High-performance linear actuator

Design features


Tr screw


Ball screw (Ku)

- **4 sizes**
  with maximum dynamic axial loads from
  HLA 10: 12.5 kN
  HLA 25: 25 kN
  HLA 50: 50 kN
  HLA 100: 100 kN
- **Standard stroke lengths:**
  HLA 10: 100/200/300/400 mm
  HLA 25: 100/200/300/400/500 mm
  HLA 50: 200/400/600/800/1000 mm
  HLA 100: 300/600/900/1200/1500 mm
- Self-locking trapezoidal screw
- Possible use in multi-screw lifting systems
- Several single drives can be synchronized
- Attachment options for any flange connection capable gear motor
- Optional short safety nut possible
- Low-maintenance from high-quality grease and encapsulated design
- Comprehensive accessories range
- **Possible usage according to directive 2014/34/EU (ATEX)**

HLA
Selection table

Selection table HLA

Size		10			25			50			100		
Max. tensile/compressive force	[kN]	10			25			50			100		
Screw		Tr 24x5	Ku 25x5	Ku 25x10	Tr 30x6	Ku 32x10	Ku 32x20	Tr 50x8	Ku 40x10	Ku 40x20	Tr 80x14	Ku 63x10	Ku 63x20
Ratio N		5:1			6:1			7:1			8:1		
Lift per revolution for ratio N	[mm/U]	1	1	2	1	1.67	3.33	1.14	1.43	2.86	1.75	1.25	2.5
Ratio L		20:1			24:1			28:1			32:1		
Lift per revolution for ratio L	[mm/U]	0.25	0.25	0.5	0.25	0.42	0.83	0.29	0.36	0.71	0.44	0.31	0.63
Max. drive capacity at 20 °C ambient temperature and 20 % duty cycle/h	[kW]	0.9			1.5			2.3			3.6		
Max. drive capacity at 20 °C ambient temperature and 10 % duty cycle/h	[kW]	1.5			2.6			4.0			6.3		
Screw torque at max. lifting power	[Nm]	19.4	8.7	16.7	60	42	82	186	86	165	616	179	338
Max. permissible torque on the input shaft	[Nm]	29.4			48.7			168			398		
Material gearbox housing		ALSi12			GGG50			GGG50			GGG50		
Basic weight	[kg]	on request			25			45			101		
Extra weight per 100 mm stroke	[kg]	on request			2.2			4.5			9.6		

Selection guide for high-performance linear actuator HLA

- Preselection of the size in relation to the maximum permissible tensile/compressive forces using the selection
- With a compressive load, check screw size by means of the buckling diagram
- Determining the size based on the performance tables with consideration of the lifting capacity and the desired lifting speed and duty cycle




HLA
Performance tables




Performance table HLA 10

Tr 24x5

	Speed n	Lifting speed	10 kN		8 kN		6 kN		4 kN		2 kN	
	[1/min]	[m/min]	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
Ratio N (5:1)	3000	3	5.1	1.6	4.1	1.3	3.1	1.0	2.0	0.6	1.0	0.3
	1500	1.5	5.3	0.8	4.2	0.7	3.2	0.5	2.1	0.3	1.1	0.2
	1000	1	5.4	0.6	4.3	0.5	3.2	0.3	2.2	0.2	1.1	0.1
	750	0.75	5.5	0.4	4.4	0.3	3.3	0.3	2.2	0.2	1.1	0.1
	500	0.5	5.6	0.3	4.5	0.2	3.4	0.2	2.2	0.1	1.1	0.1
	300	0.3	5.8	0.2	4.6	0.1	3.5	0.1	2.3	0.1	1.2	0.1
	100	0.1	6.0	0.1	4.8	0.1	3.6	0.1	2.4	0.1	1.2	0.1
Ratio L (20:1)	3000	0.75	1.7	0.5	1.3	0.4	1.0	0.3	0.7	0.2	0.3	0.1
	1500	0.38	1.8	0.3	1.4	0.2	1.1	0.2	0.7	0.1	0.4	0.1
	1000	0.25	1.9	0.2	1.5	0.2	1.1	0.1	0.8	0.1	0.4	0.1
	750	0.19	2.0	0.2	1.6	0.1	1.2	0.1	0.8	0.1	0.4	0.1
	500	0.13	2.1	0.1	1.7	0.1	1.3	0.1	0.8	0.1	0.4	0.1
	300	0.08	2.2	0.1	1.8	0.1	1.3	0.1	0.9	0.1	0.4	0.1
	100	0.03	2.4	0.1	1.9	0.1	1.4	0.1	1.0	0.1	0.5	0.1

Ku 25x5

	Speed n	Lifting speed	10 kN		8 kN		6 kN		4 kN		2 kN	
	[1/min]	[m/min]	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
Ratio N (5:1)	3000	3	2.3	0.7	1.8	0.6	1.4	0.4	0.9	0.3	0.5	0.1
	1500	1.5	2.4	0.4	1.9	0.3	1.4	0.2	0.9	0.1	0.5	0.1
	1000	1	2.4	0.3	1.9	0.2	1.5	0.2	1.0	0.1	0.5	0.1
	750	0.75	2.5	0.2	2.0	0.2	1.5	0.1	1.0	0.1	0.5	0.1
	500	0.5	2.5	0.1	2.0	0.1	1.5	0.1	1.0	0.1	0.5	0.1
	300	0.3	2.6	0.1	2.1	0.1	1.6	0.1	1.0	0.1	0.5	0.1
	100	0.1	2.7	0.1	2.1	0.1	1.6	0.1	1.1	0.1	0.5	0.1
Ratio L (20:1)	3000	0.75	0.8	0.2	0.6	0.2	0.5	0.1	0.3	0.1	0.2	0.1
	1500	0.38	0.8	0.1	0.6	0.1	0.5	0.1	0.3	0.1	0.2	0.1
	1000	0.25	0.9	0.1	0.7	0.1	0.5	0.1	0.3	0.1	0.2	0.1
	750	0.19	0.9	0.1	0.7	0.1	0.5	0.1	0.4	0.1	0.2	0.1
	500	0.13	0.9	0.1	0.8	0.1	0.6	0.1	0.4	0.1	0.2	0.1
	300	0.08	1.0	0.1	0.8	0.1	0.6	0.1	0.4	0.1	0.2	0.1
	100	0.03	1.1	0.1	0.9	0.1	0.6	0.1	0.4	0.1	0.2	0.1

Ku 25x10

	Speed n	Lifting speed	10 kN		8 kN		6 kN		4 kN		2 kN	
	[1/min]	[m/min]	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
Ratio N (5:1)	3000	6	4.4	1.4	3.5	1.1	2.6	0.8	1.8	0.6	0.9	0.3
	1500	3	4.5	0.7	3.6	0.6	2.7	0.4	1.8	0.3	0.9	0.1
	1000	2	4.6	0.5	3.7	0.4	2.8	0.3	1.9	0.2	0.9	0.1
	750	1.5	4.7	0.4	3.8	0.3	2.8	0.2	1.9	0.1	0.9	0.1
	500	1	4.8	0.3	3.9	0.2	2.9	0.2	1.9	0.1	1.0	0.1
	300	0.6	4.9	0.2	4.0	0.1	3.0	0.1	2.0	0.1	1.0	0.1
	100	0.2	5.1	0.1	4.1	0.1	3.1	0.1	2.1	0.1	1.0	0.1
Ratio L (20:1)	3000	1.5	1.4	0.5	1.1	0.4	0.9	0.3	0.6	0.2	0.3	0.1
	1500	0.75	1.5	0.2	1.2	0.2	0.9	0.1	0.6	0.1	0.3	0.1
	1000	0.5	1.6	0.2	1.3	0.1	1.0	0.1	0.7	0.1	0.3	0.1
	750	0.38	1.7	0.1	1.4	0.1	1.0	0.1	0.7	0.1	0.3	0.1
	500	0.25	1.8	0.1	1.4	0.1	1.1	0.1	0.7	0.1	0.4	0.1
	300	0.15	1.9	0.1	1.5	0.1	1.1	0.1	0.8	0.1	0.4	0.1
	100	0.05	2.1	0.1	1.6	0.1	1.2	0.1	0.8	0.1	0.4	0.1

Performance table HLA 25

Tr 30x6

	Speed n	Lifting speed	25 kN		20 kN		15 kN		10 kN		5 kN	
	[1/min]	[m/min]	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
Ratio N (6:1)	3000	3	12.8	4.0	10.3	3.2	7.7	2.4	5.1	1.6	2.6	0.8
	1500	1.5	13.2	2.1	10.5	1.7	7.9	1.2	5.3	0.8	2.6	0.4
	1000	1	13.4	1.4	10.7	1.1	8.0	0.8	5.4	0.6	2.7	0.3
	750	0.75	13.7	1.1	10.9	0.9	8.2	0.6	5.5	0.4	2.7	0.2
	500	0.5	14.0	0.7	11.2	0.6	8.4	0.4	5.6	0.3	2.8	0.1
	300	0.3	14.5	0.5	11.6	0.4	8.7	0.3	5.8	0.2	2.9	0.1
	100	0.1	15.3	0.2	12.2	0.1	9.2	0.1	6.1	0.1	3.1	0.1
Ratio L (24:1)	3000	0.75	4.1	1.3	3.3	1.0	2.4	0.8	1.6	0.5	0.8	0.3
	1500	0.38	4.4	0.7	3.5	0.5	2.6	0.4	1.7	0.3	0.9	0.1
	1000	0.25	4.6	0.5	3.7	0.4	2.8	0.3	1.8	0.2	0.9	0.1
	750	0.19	4.8	0.4	3.9	0.3	2.9	0.2	1.9	0.2	1.0	0.1
	500	0.13	5.1	0.3	4.1	0.2	3.1	0.2	2.1	0.1	1.0	0.1
	300	0.08	5.5	0.2	4.4	0.1	3.3	0.1	2.2	0.1	1.1	0.1
	100	0.03	6.2	0.1	5.0	0.1	3.7	0.1	2.5	0.1	1.2	0.1

Ku 32x10

	Speed n	Lifting speed	25 kN		20 kN		15 kN		10 kN		5 kN	
	[1/min]	[m/min]	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
Ratio N (6:1)	3000	5	9.1	2.8	7.2	2.3	5.4	1.7	3.6	1.1	1.8	0.6
	1500	2.5	9.3	1.5	7.4	1.2	5.6	0.9	3.7	0.6	1.9	0.3
	1000	1.67	9.5	1.0	7.6	0.8	5.7	0.6	3.8	0.4	1.9	0.2
	750	1.25	9.7	0.8	7.7	0.6	5.8	0.5	3.9	0.3	1.9	0.2
	500	0.83	9.9	0.5	7.9	0.4	5.9	0.3	4.0	0.2	2.0	0.1
	300	0.5	10.2	0.3	8.2	0.3	6.1	0.2	4.1	0.1	2.0	0.1
	100	0.17	10.8	0.1	8.6	0.1	6.5	0.1	4.3	0.1	2.2	0.1
Ratio L (24:1)	3000	1.25	2.9	0.9	2.3	0.7	1.7	0.5	1.1	0.4	0.6	0.2
	1500	0.63	3.1	0.5	2.5	0.4	1.8	0.3	1.2	0.2	0.6	0.1
	1000	0.42	3.3	0.3	2.6	0.3	2.0	0.2	1.3	0.1	0.7	0.1
	750	0.31	3.4	0.3	2.7	0.2	2.0	0.2	1.4	0.1	0.7	0.1
	500	0.21	3.6	0.2	2.9	0.2	2.2	0.1	1.5	0.1	0.7	0.1
	300	0.13	3.9	0.1	3.1	0.1	2.3	0.1	1.6	0.1	0.8	0.1
	100	0.04	4.4	0.1	3.5	0.1	2.6	0.1	1.8	0.1	0.9	0.1

Ku 32x20

	Speed n	Lifting speed	25 kN		20 kN		15 kN		10 kN		5 kN	
	[1/min]	[m/min]	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
Ratio N (6:1)	3000	10	17.6	5.5	14.1	4.4	10.6	3.3	7.0	2.2	3.5	1.1
	1500	5	18.1	2.8	14.4	2.3	10.8	1.7	7.2	1.1	3.6	0.6
	1000	3.33	18.4	1.9	14.7	1.5	11.0	1.2	7.4	0.8	3.7	0.4
	750	2.5	18.8	1.5	15.0	1.2	11.3	0.9	7.5	0.6	3.8	0.3
	500	1.67	19.3	1.0	15.4	0.8	11.6	0.6	7.7	0.4	3.9	0.2
	300	1	19.9	0.6	15.9	0.5	11.9	0.4	8.0	0.3	4.0	0.1
	100	0.33	21.0	0.2	16.8	0.2	12.6	0.1	8.4	0.1	4.2	0.1
Ratio L (24:1)	3000	2.5	5.6	1.8	4.5	1.4	3.3	1.1	2.2	0.7	1.1	0.4
	1500	1.25	6.0	0.9	4.8	0.8	3.6	0.6	2.4	0.4	1.2	0.2
	1000	0.83	6.3	0.7	5.1	0.5	3.8	0.4	2.5	0.3	1.3	0.1
	750	0.63	6.6	0.5	5.3	0.4	4.0	0.3	2.6	0.2	1.3	0.1
	500	0.42	7.1	0.4	5.7	0.3	4.2	0.2	2.8	0.1	1.4	0.1
	300	0.25	7.6	0.2	6.1	0.2	4.6	0.1	3.0	0.1	1.5	0.1
	100	0.08	8.5	0.1	6.8	0.1	5.1	0.1	3.4	0.1	1.7	0.1

Drive speed, drive torque and permissible lifting speed with ratio N and L.
All performance figures related to the dynamic lifting force and a duty cycle at 20 % / 1 h or at 30 % / 10 min. at 20 °C.

only static (dynamic not allowed)

10 % duty cycle / 1 h and ambient temperature 20 °C

HLA
Performance tables

Performance table HLA 50

Tr 50x8

	Speed n	Lifting speed	50 kN		40 kN		30 kN		20 kN		10 kN	
	[1/min]	[m/min]	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
Ratio N (7:1)	3000	3.43	33.7	10.6	27.0	8.5	20.2	6.4	13.5	4.2	6.7	2.1
	1500	1.71	34.6	5.4	27.7	4.3	20.7	3.3	13.8	2.2	6.9	1.1
	1000	1.14	35.4	3.7	28.3	3.0	21.2	2.2	14.1	1.5	7.1	0.7
	750	0.86	36.0	2.8	28.8	2.3	21.6	1.7	14.4	1.1	7.2	0.6
	500	0.57	37.1	1.9	29.7	1.6	22.3	1.2	14.8	0.8	7.4	0.4
	300	0.34	38.7	1.2	30.9	1.0	23.2	0.7	15.5	0.5	7.7	0.2
	100	0.11	41.7	0.4	33.3	0.3	25.0	0.3	16.7	0.2	8.3	0.1
Ratio L (28:1)	3000	0.86	11.0	3.5	8.8	2.8	6.6	2.1	4.4	1.4	2.2	0.7
	1500	0.43	11.6	1.8	9.3	1.5	6.9	1.1	4.6	0.7	2.3	0.4
	1000	0.29	12.3	1.3	9.8	1.0	7.4	0.8	4.9	0.5	2.5	0.3
	750	0.21	12.9	1.0	10.3	0.8	7.8	0.6	5.2	0.4	2.6	0.2
	500	0.14	13.9	0.7	11.1	0.6	8.4	0.4	5.6	0.3	2.8	0.1
	300	0.09	15.3	0.5	12.2	0.4	9.2	0.3	6.1	0.2	3.1	0.1
	100	0.03	17.8	0.2	14.2	0.1	10.7	0.1	7.1	0.1	3.6	0.1

Ku 40x10

	Speed n	Lifting speed	50 kN		40 kN		30 kN		20 kN		10 kN	
	[1/min]	[m/min]	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
Ratio N (7:1)	3000	4.29	15.6	4.9	12.5	3.9	9.3	2.9	6.2	2.0	3.1	1.0
	1500	2.14	16.0	2.5	12.8	2.0	9.6	1.5	6.4	1.0	3.2	0.5
	1000	1.43	16.3	1.7	13.1	1.4	9.8	1.0	6.5	0.7	3.3	0.3
	750	1.07	16.6	1.3	13.3	1.0	10.0	0.8	6.6	0.5	3.3	0.3
	500	0.71	17.1	0.9	13.7	0.7	10.3	0.5	6.9	0.4	3.4	0.2
	300	0.43	17.9	0.6	14.3	0.4	10.7	0.3	7.1	0.2	3.6	0.1
	100	0.14	19.3	0.2	15.4	0.2	11.6	0.1	7.7	0.1	3.9	0.1
Ratio L (28:1)	3000	1.07	5.1	1.6	4.1	1.3	3.1	1.0	2.0	0.6	1.0	0.3
	1500	0.54	5.4	0.8	4.3	0.7	3.2	0.5	2.1	0.3	1.1	0.2
	1000	0.36	5.7	0.6	4.5	0.5	3.4	0.4	2.3	0.2	1.1	0.1
	750	0.27	6.0	0.5	4.8	0.4	3.6	0.3	2.4	0.2	1.2	0.1
	500	0.18	6.4	0.3	5.1	0.3	3.9	0.2	2.6	0.1	1.3	0.1
	300	0.11	7.1	0.2	5.6	0.2	4.2	0.1	2.8	0.1	1.4	0.1
	100	0.04	8.2	0.1	6.6	0.1	4.9	0.1	3.3	0.1	1.6	0.1

Ku 40x20

	Speed n	Lifting speed	50 kN		40 kN		30 kN		20 kN		10 kN	
	[1/min]	[m/min]	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
Ratio N (7:1)	3000	8.57	30.0	9.4	24.0	7.6	18.0	5.7	12.0	3.8	6.0	1.9
	1500	4.29	30.8	4.8	24.7	3.9	18.5	2.9	12.3	1.9	6.2	1.0
	1000	2.86	31.5	3.3	25.2	2.6	18.9	2.0	12.6	1.3	6.3	0.7
	750	2.14	32.1	2.5	25.7	2.0	19.2	1.5	12.8	1.0	6.4	0.5
	500	1.43	33.1	1.7	26.5	1.4	19.8	1.0	13.2	0.7	6.6	0.3
	300	0.86	34.5	1.1	27.6	0.9	20.7	0.6	13.8	0.4	6.9	0.2
	100	0.29	37.1	0.4	29.7	0.3	22.3	0.2	14.9	0.2	7.4	0.1
Ratio L (28:1)	3000	2.14	9.8	3.1	7.9	2.5	5.9	1.9	3.9	1.2	2.0	0.6
	1500	1.07	10.3	1.6	8.3	1.3	6.2	1.0	4.1	0.6	2.1	0.3
	1000	0.71	10.9	1.1	8.8	0.9	6.6	0.7	4.4	0.5	2.2	0.2
	750	0.54	11.5	0.9	9.2	0.7	6.9	0.5	4.6	0.4	2.3	0.2
	500	0.36	12.4	0.6	9.9	0.5	7.4	0.4	5.0	0.3	2.5	0.1
	300	0.21	13.6	0.4	10.9	0.3	8.2	0.3	5.4	0.2	2.7	0.1
	100	0.07	15.9	0.2	12.7	0.1	9.5	0.1	6.3	0.1	3.2	0.1

Performance table HLA 100

Tr 80x14

	Speed n	Lifting speed	100 kN		80 kN		60 kN		40 kN		20 kN	
	[1/min]	[m/min]	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
Ratio N (8:1)	3000	5.25	95.9	30.1	76.7	24.1	57.5	18.1	38.4	12.1	19.2	6.0
	1500	2.63	97.8	15.4	78.2	12.3	58.7	9.2	39.1	6.1	19.6	3.1
	1000	1.75	99.9	10.5	79.9	8.4	59.9	6.3	39.9	4.2	20.0	2.1
	750	1.31	101.6	8.0	81.3	6.4	61.0	4.8	40.7	3.2	20.3	1.6
	500	0.88	104.8	5.5	83.8	4.4	62.9	3.3	41.9	2.2	21.0	1.1
	300	0.53	109.5	3.4	87.6	2.8	65.7	2.1	43.8	1.4	21.9	0.7
	100	0.18	120.1	1.3	96.1	1.0	72.0	0.8	48.0	0.5	24.0	0.3
Ratio L (32:1)	3000	1.31	30.5	9.6	24.4	7.7	18.3	5.8	12.2	3.8	6.1	1.9
	1500	0.66	32.3	5.1	25.8	4.1	19.4	3.0	12.9	2.0	6.5	1.0
	1000	0.44	34.1	3.6	27.3	2.9	20.5	2.1	13.7	1.4	6.8	0.7
	750	0.33	35.7	2.8	28.5	2.2	21.4	1.7	14.3	1.1	7.1	0.6
	500	0.22	38.7	2.0	30.9	1.6	23.2	1.2	15.5	0.8	7.7	0.4
	300	0.13	43.0	1.4	34.4	1.1	25.8	0.8	17.2	0.5	8.6	0.3
	100	0.04	52.2	0.5	41.8	0.4	31.3	0.3	20.9	0.2	10.4	0.1

Ku 63x10

	Speed n	Lifting speed	100 kN		80 kN		60 kN		40 kN		20 kN	
	[1/min]	[m/min]	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
Ratio N (8:1)	3000	3.75	28.0	8.8	22.4	7.0	16.8	5.3	11.2	3.5	5.6	1.8
	1500	1.88	28.6	4.5	22.9	3.6	17.1	2.7	11.4	1.8	5.7	0.9
	1000	1.25	29.2	3.1	23.4	2.4	17.5	1.8	11.7	1.2	5.8	0.6
	750	0.94	29.7	2.3	23.8	1.9	17.8	1.4	11.9	0.9	5.9	0.5
	500	0.63	30.6	1.6	24.5	1.3	18.4	1.0	12.3	0.6	6.1	0.3
	300	0.38	32.0	1.0	25.6	0.8	19.2	0.6	12.8	0.4	6.4	0.2
	100	0.13	35.1	0.4	28.1	0.3	21.1	0.2	14.0	0.1	7.0	0.1
Ratio L (32:1)	3000	0.94	8.9	2.8	7.1	2.2	5.4	1.7	3.6	1.1	1.8	0.6
	1500	0.47	9.4	1.5	7.6	1.2	5.7	0.9	3.8	0.6	1.9	0.3
	1000	0.31	10.0	1.0	8.0	0.8	6.0	0.6	4.0	0.4	2.0	0.2
	750	0.23	10.4	0.8	8.3	0.7	6.3	0.5	4.2	0.3	2.1	0.2
	500	0.16	11.3	0.6	9.0	0.5	6.8	0.4	4.5	0.2	2.3	0.1
	300	0.09	12.6	0.4	10.1	0.3	7.5	0.2	5.0	0.2	2.5	0.1
	100	0.03	15.3	0.2	12.2	0.1	9.2	0.1	6.1	0.1	3.1	0.1

Ku 63x20

	Speed n	Lifting speed	100 kN		80 kN		60 kN		40 kN		20 kN	
	[1/min]	[m/min]	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
Ratio N (8:1)	3000	7.5	53.0	16.7	42.4	13.3	31.8	10.0	21.2	6.7	10.6	3.3
	1500	3.75	54.1	8.5	43.3	6.8	32.4	5.1	21.6	3.4	10.8	1.7
	1000	2.5	55.2	5.8	44.2	4.6	33.1	3.5	22.1	2.3	11.0	1.2
	750	1.88	56.2	4.4	45.0	3.5	33.7	2.6	22.5	1.8	11.2	0.9
	500	1.25	58.0	3.0	46.4	2.4	34.8	1.8	23.2	1.2	11.6	0.6
	300	0.75	60.6	1.9	48.5	1.5	36.3	1.1	24.2	0.8	12.1	0.4
	100	0.25	66.4	0.7	53.1	0.6	39.8	0.4	26.6	0.3	13.3	0.1
Ratio L (32:1)	3000	1.88	16.9	5.3	13.5	4.2	10.1	3.2	6.8	2.1	3.4	1.1
	1500	0.94	17.9	2.8	14.3	2.2	10.7	1.7	7.1	1.1	3.6	0.6
	1000	0.63	18.9	2.0	15.1	1.6	11.3	1.2	7.5	0.8	3.8	0.4
	750	0.47	19.7	1.5	15.8	1.2	11.8	0.9	7.9	0.6	3.9	0.3
	500	0.31	21.4	1.1	17.1	0.9	12.8	0.7	8.6	0.4	4.3	0.2
	300	0.19	23.8	0.7	19.0	0.6	14.3	0.4	9.5	0.3	4.8	0.1
	100	0.06	28.9	0.3	23.1	0.2	17.3	0.2	11.5	0.1	5.8	0.1



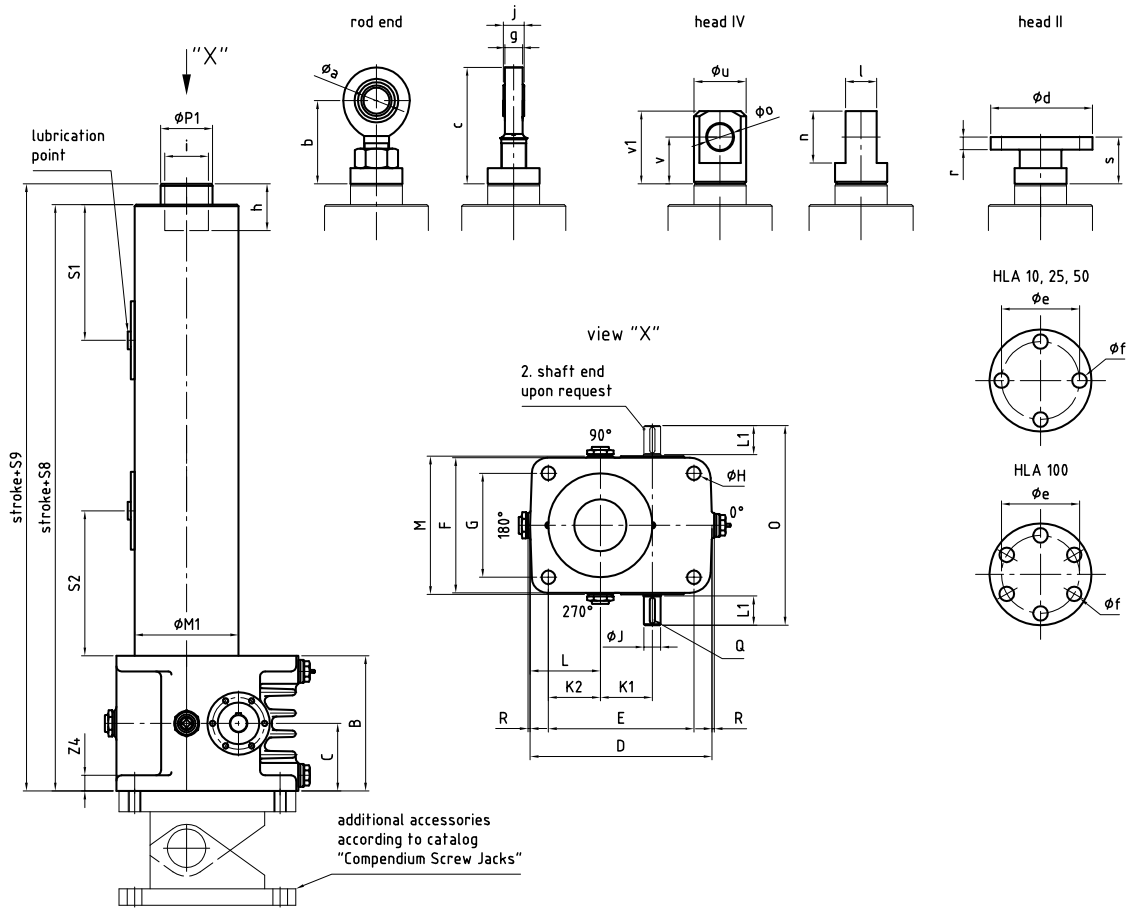

Drive speed, drive torque and permissible lifting speed with ratio N and L.
All performance figures related to the dynamic lifting force and a duty cycle at 20 % / 1 h or at 30 % / 10 min. at 20 °C.

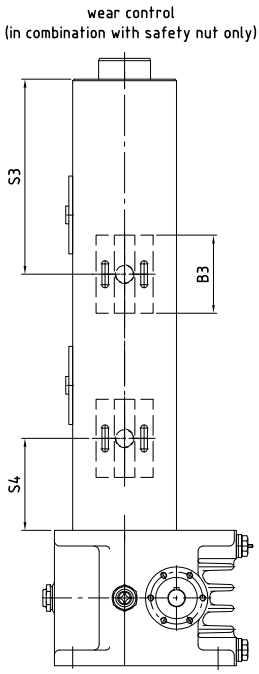
only static (dynamic not allowed)

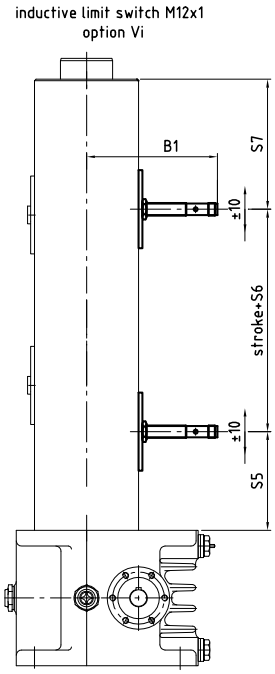
10 % duty cycle / 1 h and ambient temperature 20 °C

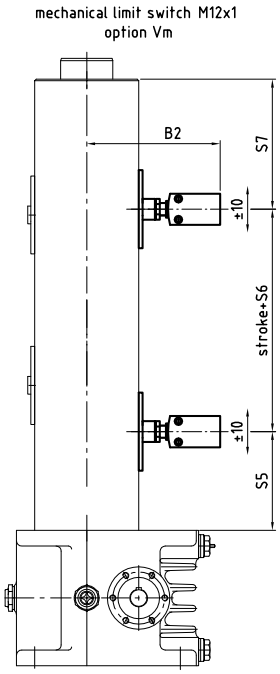
HLA
Technical drawings

Technical drawings









CAD & go

HLA
Dimensions

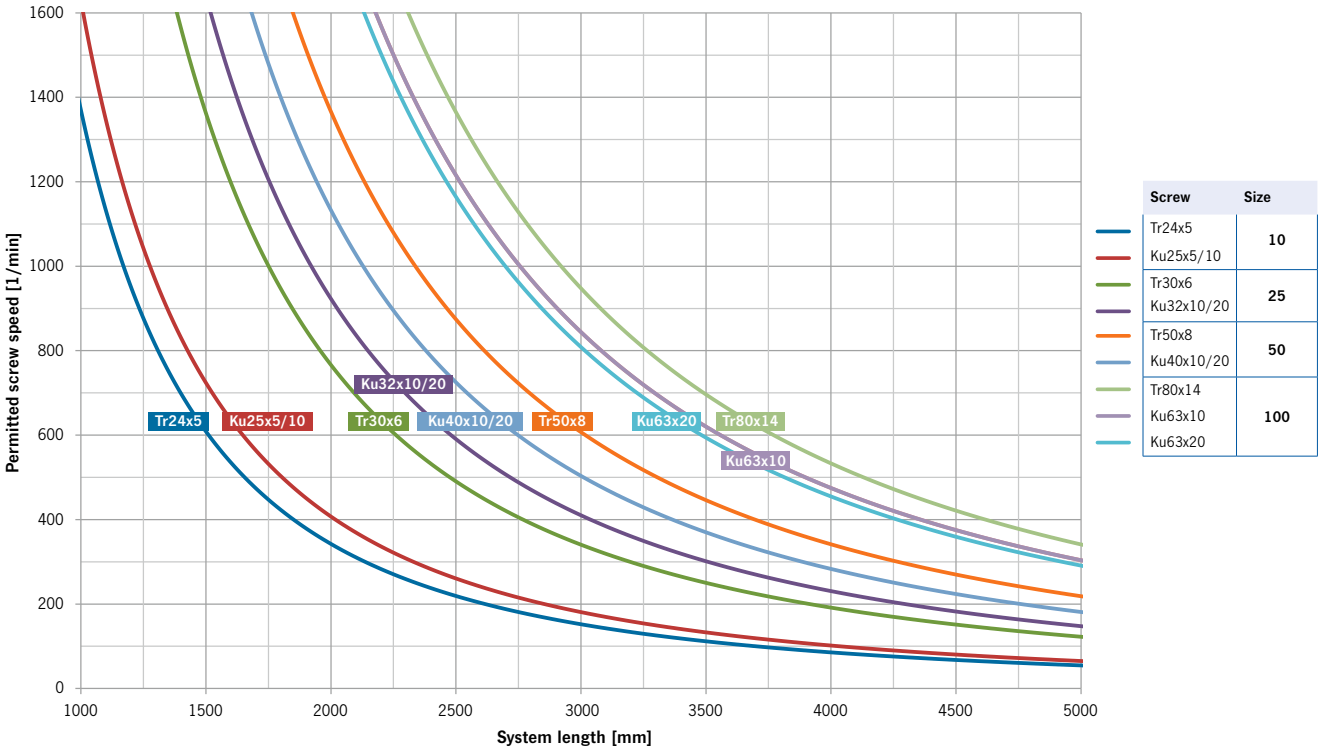
Dimensions HLA				
Size	HLA 10	HLA 25	HLA 50	HLA 100
Dimensions [mm]				
B	105	130	160	200
C	52.5	65	80	100
D	138	175	235	275
E	110	140	190	220
F	105	130	160	200
G	80	100	120	150
Ø H	9	13	17	21
h	20	45	63	54
i	M 33 x 2	M 42 x 2	M 60 x 2	M 95 x 3
Ø J k6	14	16	24	32
K 1	36	50	63	80
K 2	40	50	70	75
L	54	67.5	92.5	102.5
L 1	18	28	36	58
M	100	133	163	204
Ø M 1	70	100	130	170
O	140	192	238	322
Ø P 1	40	50	70	110
Q - DIN 6885 A	5 x 5 x 16	5 x 5 x 25	8 x 7 x 32	10 x 8 x 50
R	2	2	2	2
S 1 (Lubrication)	100	130.5	161.5	206
S 2 (Lubrication)	125	139.5	158.5	274
S 8	330	400	480	680
S 9	350	420	500	700
Z 4	12	15	20	25
Rod end				
Ø a H7	17	25	35	60
b	60	80	125	160
c	83	112	166	227.5
g	10.6	17	21	38
j	14	20	25	44
Head type IV				
l -0.2	25	30	40	75
n	40	50	70	120
Ø o H7	20	25	35	60
Ø u	40	50	65	110
v	40	45	65	90
v 1	60	70	100	150
Head type II				
Ø d / Ø e / Ø f	72 / 50 / 9	98 / 75 / 14	122 / 85 / 17	182 / 135 / 26
r / s	10 / 37	12 / 45	18 / 65	25 / 62
Wear control				
B 3	75	75	75	75
S 3 / S 4	142 / 83	187.5 / 88.5	232.5 / 87	322.5 / 157.5
Limit switch inductive/mechanical				
B 1 ± 1.5	111	126	138.5	156
B 2 ± 1.5	112	128	141	158.5
S 5 / S 6 / S 7	87.5 / 25 / 112.5	95 / 50 / 125	92 / 70 / 158	162.5 / 165 / 152.5




HLA
Diagrams

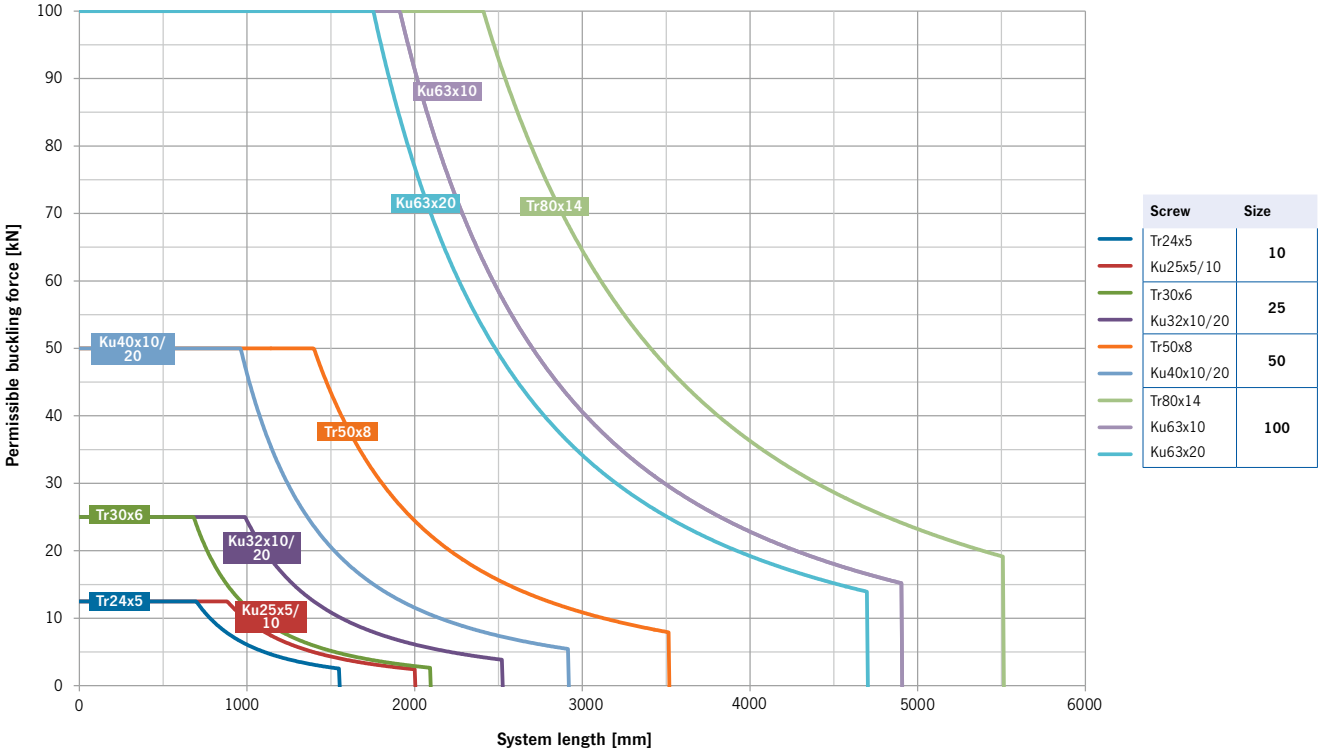



Critical screw speed HLA



Screw	Size
Tr24x5 Ku25x5/10	10
Tr30x6 Ku32x10/20	25
Tr50x8 Ku40x10/20	50
Tr80x14 Ku63x10 Ku63x20	100

Buckling HLA



Screw	Size
Tr24x5 Ku25x5/10	10
Tr30x6 Ku32x10/20	25
Tr50x8 Ku40x10/20	50
Tr80x14 Ku63x10 Ku63x20	100

HLA
Order code

H	L	A	–			–				–				–				–				x			–					–			–			–		
				1				2				3				4				5				6				7				8			9			10		

No.	Explanation	
1	**Series**	**HLA**
2	**Size**	**10 / 25 / 50 / 100**
3	**Mounting position**	**M1A / M1B / M2A / M2B / M3B / M4A** **M4B / M3A / M5A / M5B / M6A / M6B**
4	**Screw**	**Tr** = Trapezoidal screw **Ku** = Ball screw (Ku)
5	**Screw diameter in mm**	
6	**Pitch in mm**	
7	**Stroke length in mm**	
8	**Head**	**GK** = Rod end **II** = Head plate **IV** = Clevis
9	**Shaft drive**	**01** = Both sides **02** = Left side **03** = Right side
10	**Accessories**	**01** = Mechanical limit switch **02** = Swivel plate **03** = Inductive limit switch **04** = Anti-turn device