

PHOENIX

Telescopic lifting column

Design features

Functions

- Absorbing high compressive and tensile forces up to 25 kN
- Integrated linear guide
- Closed and low-maintenance design
- Eccentric load application permitted
- Self-locking on standstill (with single-stage trapezoidal thread)*
- Duty cycle of 20%/h or 15%/10 min

Basic equipment

- Short safety nut (for trapezoidal and AGS threads)
- End position limit
 - Inductive limit switches (single-stage lifting columns)
 - Gear limit switches (multi-stage lifting columns)

Options

- Shaft encoder
- Special head or foot plate
- Direct attachment of IEC motors
- Ball screws (single-stage columns)
- Multi-start screws
- Specific models also in special design with a safety nut that can be deactivated electrically
- Special customer wishes

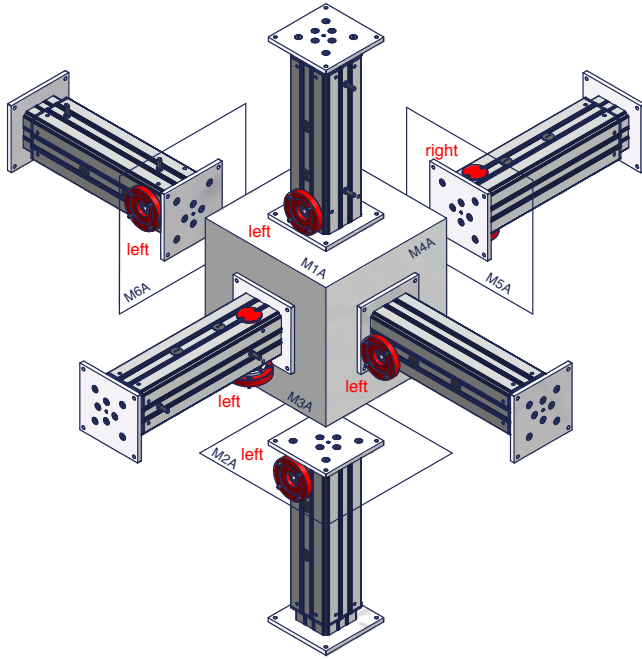


*Vibrations, sliding conditions can influence self-locking.
We also recommend use of a brake motor.

PHOENIX

Mounting positions and schematic diagrams

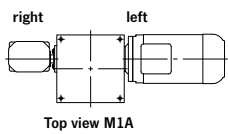
Mounting positions



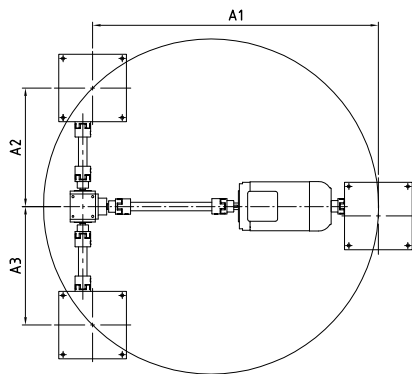
Schematic diagram

Lifting column, mechanically synchronized

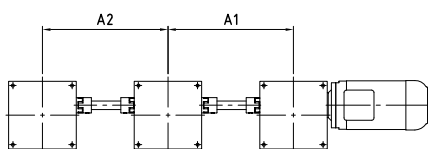
Schematic view 1.1



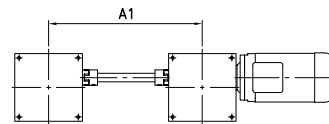
Schematic view 3.1



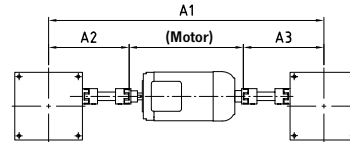
Schematic view 3.2



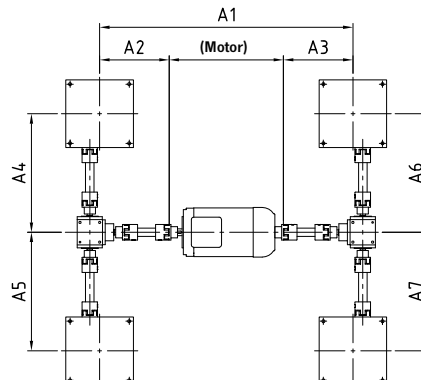
Schematic view 2.1











Schematic view 2.2



Schematic view 4.1



-  Lifting column
-  Connecting shaft
-  Coupling
-  Standard motor
-  Pillow block
-  Bevel gear box
-  IEC flange
-  Gear limit switch

PHOENIX

Selection table

Selection table PHOENIX						
Series	Single-stage				Multi-stage	
	PH34 M1	PH45 M2	PH56 M3	PH56 G15	PH46 M3	PH 36 M3
Gearbox type	M	M	M	G	M	M
Number of levels	single-stage	single-stage	single-stage	single-stage	two-stage	three-stage
F _{dyn} [kN]	5	10	25	15	10	8
F _{stat} [kN]	5	10	25	15	25	25
Standard screw	T24x5	T30x6	T36x6	T30x6	A30x32	A30x32
Ball screw (Ku)	K20x20	K25x25	K40x40	K32x20	-	-
Ratio N	4	4	6	2	6	6
Ratio L	16	16	24	3	24	24
Max. power 20 % at ambient temperature 20 °C [kW]	0.2	0.3	0.5	1	0.5	0.5
Max. power 10 % at ambient temperature 20 °C [kW]	0.42	0.6	1.1	1.3	1.1	1.1
Overall efficiency N	0.29	0.28	0.24	See diagram efficiency, page 41	0.43	0.38
Overall efficiency L	0.22	0.2	0.17		0.3	0.27
Max. torque on the input shaft [Nm]	3.4	7.1	18	50/19*	18	18
Max. speed [1/min]	1500	1500	1500	3000	1500	1500
Weight empty [kg]	14	18	26	30	31	35
Weight per 100 mm stroke [kg]	2.6	3.4	4	3.6	3	2.8

* Ratio N/L

Gearbox

M: Worm gear

High ratio possible

Low noise

High load capacity

Economical

G: Bevel gear

Permanently resilient

Multiple drives can be implemented

Good efficiency

Low wear

Nearly unchanged twist play

Screw types

T: Trapezoidal screw (Tr)

Self-locking*

Economical

K: Ball screw (Ku)

High efficiency

A: AGS screw (AGS)

Special thread for use in multi-stage screw jacks element



Tr screw



Ball screw (Ku)



AGS screw

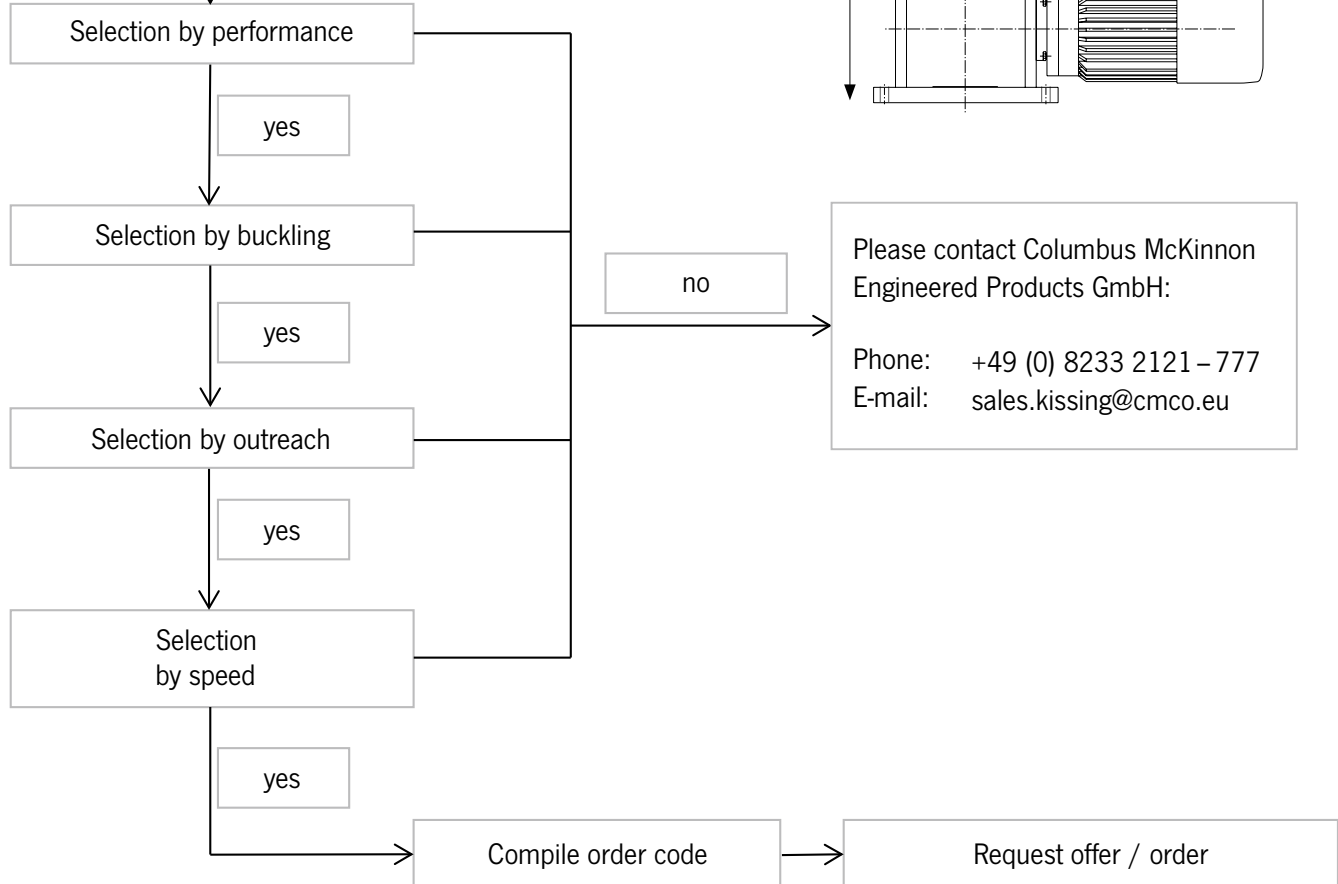
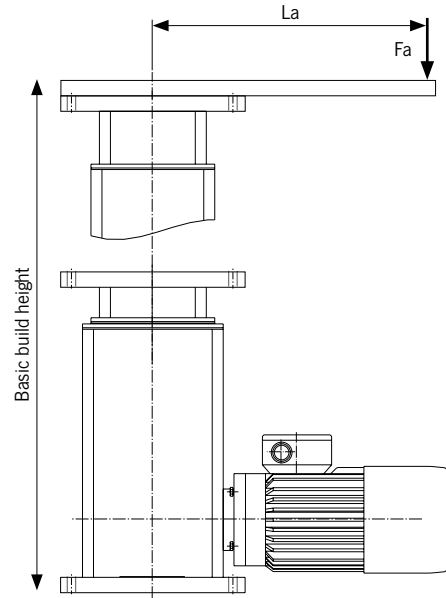
PHOENIX

Flow chart

Flow chart

Specified values:

- F_{dyn} : Lifting load [kN]
- F_{stat} : Static load [kN]
- v : Desired speed [m/min]
- ED: Duty cycle [%]
- GBH: Basic build height [mm]
(height in the retracted condition)
- La : Outreach [mm]
(Distance of the load center of gravity from the middle of the column)



PHOENIX

Performance tables SINGLE-STAGE – trapezoidal screw

Performance table PHOENIX PH34 M1, Tr 24x5

Speed n	Lifting speed		5 kN		4 kN		3 kN		2.5 kN		2 kN		1.5 kN		1 kN		
	N	L	N	L	N	L	N	L	N	L	N	L	N	L	N	L	
			4 Nm	1 Nm	3 Nm	1 Nm	2 Nm	1 Nm	2 Nm	1 Nm	2 Nm	1 Nm	1 Nm	1 Nm	1 Nm	0 Nm	
[1/min]	[m/min]		P [kW]														
1500	1.88	0.47	0.6	0.2	0.5	0.2	0.4	0.1	0.3	0.1	0.3	0.1	0.2	0.1	0.2	0.1	
1000	1.25	0.31	0.4	0.1	0.3	0.1	0.3	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	
750	0.94	0.23	0.3	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
600	0.75	0.19	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
500	0.63	0.16	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
300	0.38	0.09	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
100	0.13	0.03	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
50	0.06	0.02	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	

Performance table PHOENIX PH45 M2, Tr 30x6

Speed n	Lifting speed		10 kN		8 kN		6 kN		4 kN		3 kN		2 kN		1 kN		
	N	L	N	L	N	L	N	L	N	L	N	L	N	L	N	L	
			9 Nm	3 Nm	7 Nm	3 Nm	6 Nm	2 Nm	4 Nm	1 Nm	3 Nm	1 Nm	2 Nm	1 Nm	1 Nm	1 Nm	
[1/min]	[m/min]		P [kW]														
1500	2.25	0.56	1.4	0.5	1.1	0.4	0.9	0.3	0.6	0.2	0.5	0.2	0.3	0.1	0.2	0.1	
1000	1.5	0.38	0.9	0.3	0.8	0.3	0.6	0.2	0.4	0.1	0.3	0.1	0.2	0.1	0.1	0.1	
750	1.13	0.28	0.7	0.2	0.6	0.2	0.4	0.1	0.3	0.1	0.2	0.1	0.2	0.1	0.1	0.1	
600	0.9	0.23	0.6	0.2	0.5	0.2	0.3	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	
500	0.75	0.19	0.5	0.2	0.4	0.1	0.3	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	
300	0.45	0.11	0.3	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
100	0.15	0.04	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
50	0.08	0.02	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	

Performance table PHOENIX PH56 M3, Tr 36x6

Speed n	Lifting speed		25 kN		20 kN		15 kN		10 kN		5 kN		2.5 kN		1 kN		
	N	L	N	L	N	L	N	L	N	L	N	L	N	L	N	L	
			17 Nm	6 Nm	13 Nm	5 Nm	10 Nm	4 Nm	7 Nm	3 Nm	4 Nm	1 Nm	2 Nm	1 Nm	1 Nm	0 Nm	
[1/min]	[m/min]		P [kW]														
1500	1.5	0.38	2.6	0.9	2.1	0.8	1.6	0.6	1.1	0.4	0.6	0.2	0.3	0.1	0.2	0.1	
1000	1	0.25	1.7	0.6	1.4	0.5	1.1	0.4	0.7	0.3	0.4	0.1	0.2	0.1	0.1	0.1	
750	0.75	0.19	1.3	0.5	1.1	0.4	0.8	0.3	0.5	0.2	0.3	0.1	0.2	0.1	0.1	0.1	
600	0.6	0.15	1	0.4	0.8	0.3	0.6	0.2	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	
500	0.5	0.13	0.9	0.3	0.7	0.3	0.5	0.2	0.4	0.1	0.2	0.1	0.1	0.1	0.1	0.1	
300	0.3	0.08	0.5	0.2	0.4	0.2	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
100	0.1	0.03	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
50	0.05	0.01	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	

Performance table PHOENIX PH56 G15, Tr 30x6

Speed n	Lifting speed		15 kN		12.5 kN		10 kN		7.5 kN		5 kN		2.5 kN		1 kN	
	N	L	N	L	N	L	N	L	N	L	N	L	N	L	N	L
			20 Nm	13 Nm	16 Nm	11 Nm	13 Nm	9 Nm	10 Nm	7 Nm	7 Nm	5 Nm	4 Nm	3 Nm	2 Nm	1 Nm
[1/min]	[m/min]		P [kW]													
3000	9	6	6.6	4.6	5.6	3.9	4.6	3.2	3.6	2.6	2.6	1.9	1.7	1.3	1.1	0.9
2250	6.75	4.5	5	3.4	4.2	2.9	3.5	2.4	2.7	1.9	2	1.4	1.2	0.9	0.8	0.7
1500	4.5	3	3.3	2.3	2.8	1.9	2.3	1.6	1.8	1.3	1.3	1	0.8	0.6	0.5	0.4
1000	3	2	2.2	1.5	1.9	1.3	1.5	1.1	1.2	0.9	0.9	0.6	0.6	0.4	0.4	0.3
750	2.25	1.5	1.7	1.1	1.4	1	1.2	0.8	0.9	0.6	0.7	0.5	0.4	0.3	0.3	0.2
500	1.5	1	1.1	0.8	0.9	0.6	0.8	0.5	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.1
300	0.9	0.6	0.7	0.5	0.6	0.4	0.5	0.3	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1
100	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Max. duty cycle at 20 °C ambient temperature: Operating mode S3 20% – 60 min. Operating mode S3 10% – 60 min. static only (dynamic not allowed)

PHOENIX

Performance tables MULTI-STAGE – AGS screw

Performance table PHOENIX PH46 M3, AGS32

Speed n	Lifting speed		10 kN		8 kN		6 kN		4 kN		3 kN		2 kN		1 kN	
	N	L	N	L	N	L	N	L	N	L	N	L	N	L	N	L
			21 Nm	8 Nm	17 Nm	6 Nm	13 Nm	5 Nm	9 Nm	3 Nm	7 Nm	3 Nm	5 Nm	2 Nm	3 Nm	1 Nm
[1/min]	[m/min]		P [kW]													
1500	8	2	3.3	1.2	2.6	0.9	2	0.7	1.4	0.5	1.1	0.4	0.8	0.3	0.5	0.2
1000	5.33	1.33	2.2	0.8	1.8	0.6	1.3	0.5	0.9	0.3	0.7	0.3	0.5	0.2	0.3	0.1
750	4	1	1.6	0.6	1.3	0.5	1	0.4	0.7	0.3	0.5	0.2	0.4	0.1	0.2	0.1
600	3.2	0.8	1.3	0.5	1.1	0.4	0.8	0.3	0.6	0.2	0.4	0.2	0.3	0.1	0.2	0.1
500	2.67	0.67	1.1	0.4	0.9	0.3	0.7	0.2	0.5	0.2	0.4	0.1	0.3	0.1	0.2	0.1
300	1.6	0.4	0.7	0.2	0.5	0.2	0.4	0.1	0.3	0.1	0.2	0.1	0.2	0.1	0.1	0.1
100	0.53	0.13	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
50	0.27	0.07	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Performance table PHOENIX PH36 M3, AGS32

Speed n	Lifting speed		8 kN		7 kN		6 kN		5 kN		4 kN		2 kN		1 kN	
	N	L	N	L	N	L	N	L	N	L	N	L	N	L	N	L
			19 Nm	7 Nm	17 Nm	6 Nm	15 Nm	5 Nm	12 Nm	4 Nm	10 Nm	4 Nm	6 Nm	2 Nm	3 Nm	1 Nm
[1/min]	[m/min]		P [kW]													
1500	8	2	3	1.1	2.6	0.9	2.3	0.8	1.9	0.7	1.6	0.6	0.9	0.3	0.5	0.2
1000	5.33	1.33	2	0.7	1.7	0.6	1.5	0.5	1.3	0.5	1	0.4	0.6	0.2	0.3	0.1
750	4	1	1.5	0.5	1.3	0.5	1.1	0.4	1	0.3	0.8	0.3	0.4	0.2	0.3	0.1
600	3.2	0.8	1.2	0.4	1	0.4	0.9	0.3	0.8	0.3	0.6	0.2	0.3	0.1	0.2	0.1
500	2.67	0.67	1	0.4	0.9	0.3	0.8	0.3	0.6	0.2	0.5	0.2	0.3	0.1	0.2	0.1
300	1.6	0.4	0.6	0.2	0.5	0.2	0.5	0.2	0.4	0.1	0.3	0.1	0.2	0.1	0.1	0.1
100	0.53	0.13	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
50	0.27	0.07	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Max. duty cycle at 20 °C ambient temperature: Operating mode S3 20% – 60 min. Operating mode S3 10% – 60 min. static only (dynamic not allowed)



PHOENIX

Performance tables SINGLE-STAGE – ball screw (Ku)

Performance table PHOENIX PH34 M1, Ku20x20

Speed n	Lifting speed		5 kN		4 kN		3 kN		2.5 kN		2 kN		1.5 kN		1 kN	
	N	L	N	L	N	L	N	L	N	L	N	L	N	L	N	L
			7 Nm	2 Nm	6 Nm	2 Nm	5 Nm	2 Nm	4 Nm	1 Nm	3 Nm	1 Nm	3 Nm	1 Nm	2 Nm	1 Nm
[1/min]	[m/min]		P [kW]													
1500	7.5	1.88	1.1	0.4	0.9	0.3	0.7	0.2	0.6	0.2	0.5	0.2	0.4	0.1	0.3	0.1
1000	5	1.25	0.8	0.2	0.6	0.2	0.5	0.2	0.4	0.1	0.3	0.1	0.3	0.1	0.2	0.1
750	3.75	0.94	0.6	0.2	0.5	0.2	0.4	0.1	0.3	0.1	0.3	0.1	0.2	0.1	0.2	0.1
600	3	0.75	0.5	0.1	0.4	0.1	0.3	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1
500	2.5	0.63	0.4	0.1	0.3	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1
300	1.5	0.38	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
100	0.5	0.13	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
50	0.25	0.06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Performance table PHOENIX PH45 M2, Ku25x25

Speed n	Lifting speed		10 kN		8 kN		6 kN		4 kN		3 kN		2 kN		1 kN	
	N	L	N	L	N	L	N	L	N	L	N	L	N	L	N	L
			18 Nm	6 Nm	14 Nm	5 Nm	11 Nm	4 Nm	8 Nm	3 Nm	6 Nm	2 Nm	4 Nm	2 Nm	3 Nm	1 Nm
[1/min]	[m/min]		P [kW]													
1500	9.38	2.34	2.8	0.9	2.2	0.8	1.7	0.6	1.2	0.4	0.9	0.3	0.7	0.2	0.4	0.1
1000	6.25	1.56	1.8	0.6	1.5	0.5	1.1	0.4	0.8	0.3	0.6	0.2	0.4	0.2	0.3	0.1
750	4.69	1.17	1.4	0.5	1.1	0.4	0.9	0.3	0.6	0.2	0.5	0.2	0.3	0.1	0.2	0.1
600	3.75	0.94	1.1	0.4	0.9	0.3	0.7	0.2	0.5	0.2	0.4	0.1	0.3	0.1	0.2	0.1
500	3.13	0.78	0.9	0.3	0.7	0.3	0.6	0.2	0.4	0.1	0.3	0.1	0.2	0.1	0.1	0.1
300	1.88	0.47	0.6	0.2	0.4	0.2	0.3	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1
100	0.63	0.16	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
50	0.31	0.08	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Performance table PHOENIX PH56 M3, Ku40x40

Speed n	Lifting speed		25 kN		20 kN		15 kN		10 kN		5 kN		2.5 kN		1 kN	
	N	L	N	L	N	L	N	L	N	L	N	L	N	L	N	L
			46 Nm	17 Nm	37 Nm	13 Nm	28 Nm	10 Nm	19 Nm	7 Nm	10 Nm	4 Nm	6 Nm	2 Nm	3 Nm	1 Nm
[1/min]	[m/min]		P [kW]													
1500	10	2.5	7.2	2.6	5.8	2.1	4.4	1.6	3	1.1	1.6	0.6	0.9	0.3	0.4	0.2
1000	6.67	1.67	4.8	1.7	3.9	1.4	2.9	1.1	2	0.7	1	0.4	0.6	0.2	0.3	0.1
750	5	1.25	3.6	1.3	2.9	1	2.2	0.8	1.5	0.5	0.8	0.3	0.4	0.2	0.2	0.1
600	4	1	2.9	1	2.3	0.8	1.8	0.6	1.2	0.4	0.6	0.2	0.3	0.1	0.2	0.1
500	3.33	0.83	2.4	0.9	1.9	0.7	1.5	0.5	1	0.4	0.5	0.2	0.3	0.1	0.1	0.1
300	2	0.5	1.4	0.5	1.2	0.4	0.9	0.3	0.6	0.2	0.3	0.1	0.2	0.1	0.1	0.1
100	0.67	0.17	0.5	0.2	0.4	0.1	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
50	0.33	0.08	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

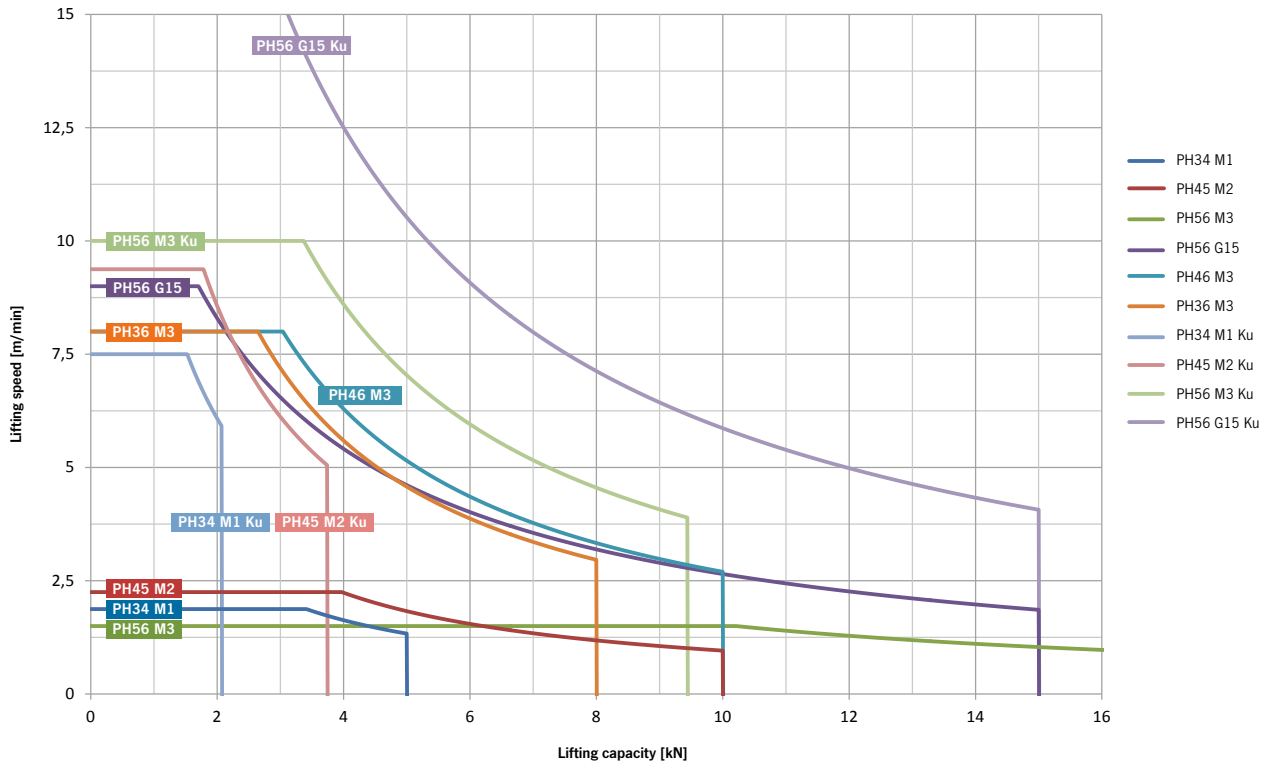
Performance table PHOENIX PH56 G15, Ku32x20

Speed n	Lifting speed		15 kN		12.5 kN		10 kN		7.5 kN		5 kN		2.5 kN		1 kN	
	N	L	N	L	N	L	N	L	N	L	N	L	N	L	N	L
			31 Nm	20 Nm	26 Nm	17 Nm	21 Nm	14 Nm	16 Nm	11 Nm	11 Nm	7 Nm	6 Nm	4 Nm	3 Nm	2 Nm
[1/min]	[m/min]		P [kW]													
2250		15		5.2		4.4		3.6		2.8		2.1		1.3		0.8
1500	15	10	5	3.4	4.3	2.9	3.5	2.4	2.7	1.9	1.9	1.4	1.2	0.9	0.7	0.5
1000	10	6.67	3.4	2.3	2.8	1.9	2.3	1.6	1.8	1.3	1.3	0.9	0.8	0.6	0.5	0.4
750	7.5	5	2.5	1.7	2.1	1.5	1.7	1.2	1.4	0.9	1	0.7	0.6	0.4	0.4	0.3
500	5	3.33	1.7	1.1	1.4	1	1.2	0.8	0.9	0.6	0.6	0.5	0.4	0.3	0.2	0.2
300	3	2	1	0.7	0.9	0.6	0.7	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.1	0.1
100	1	0.67	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1

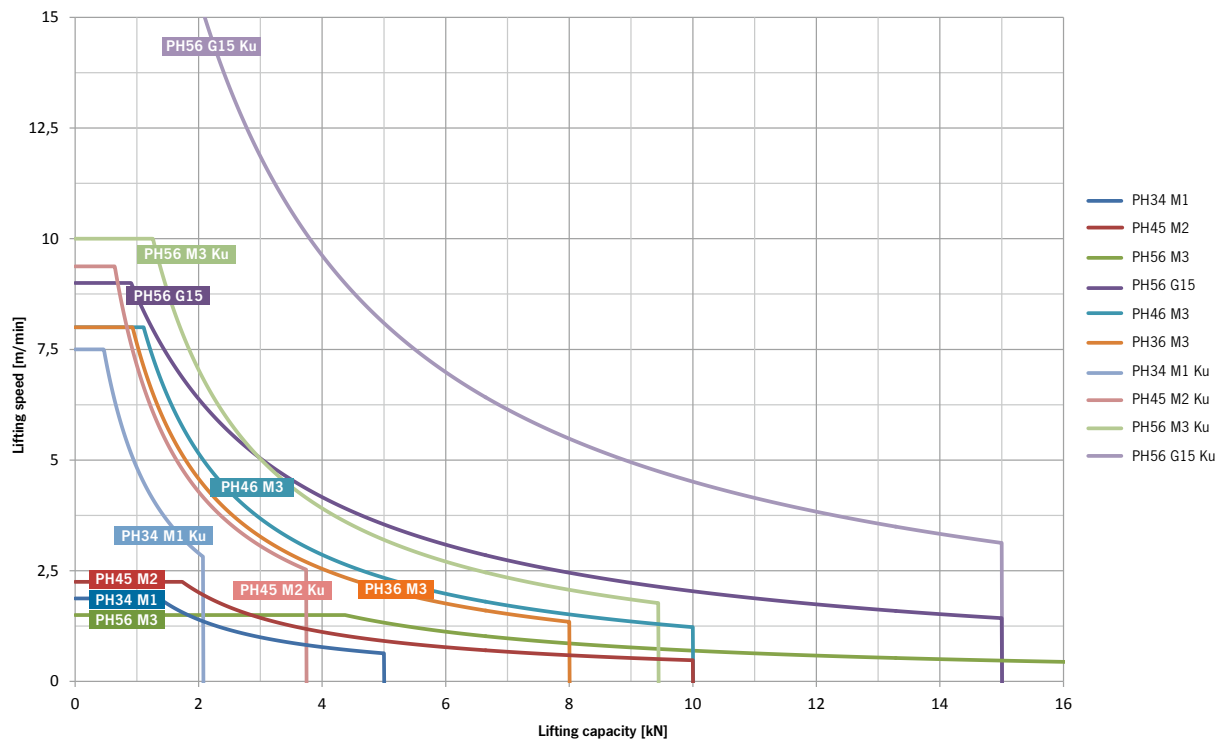
Max. duty cycle at 20 °C ambient temperature: Operating mode S3 20% – 60 min. Operating mode S3 10% – 60 min. static only (dynamic not allowed)

PHOENIX Diagrams

Performance diagram – duty cycle 10%

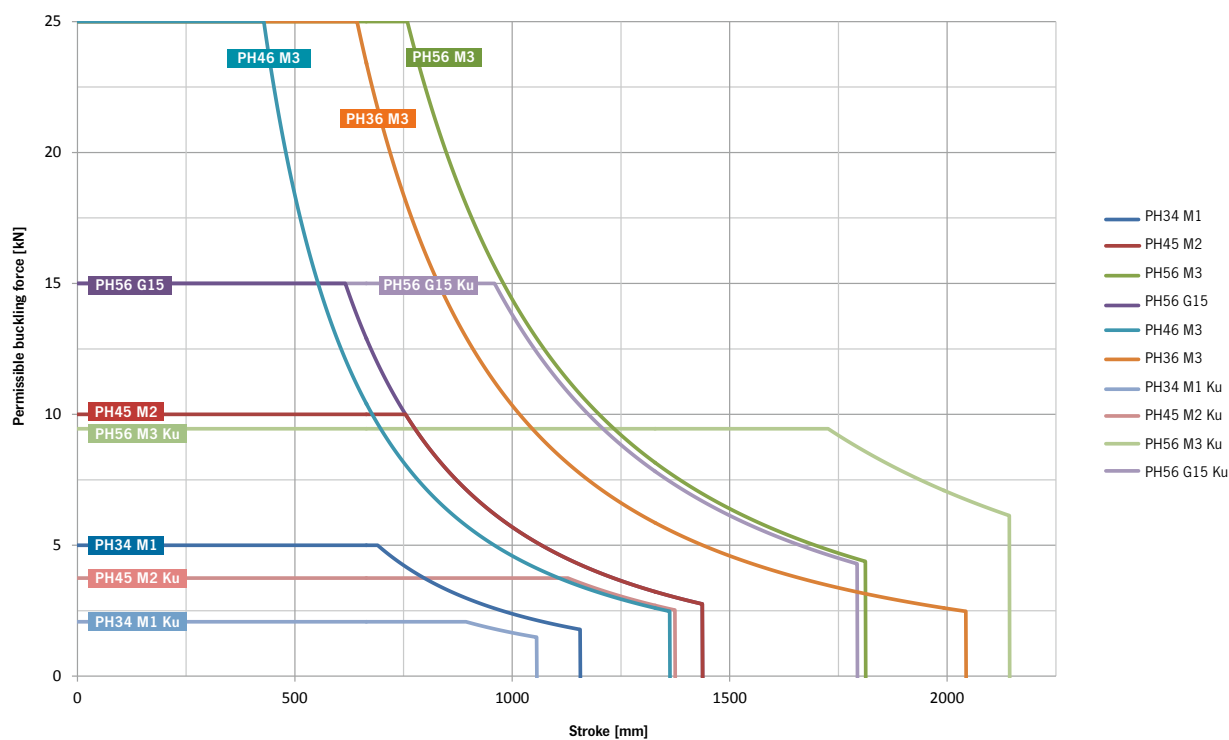


Performance diagram - duty cycle 20%

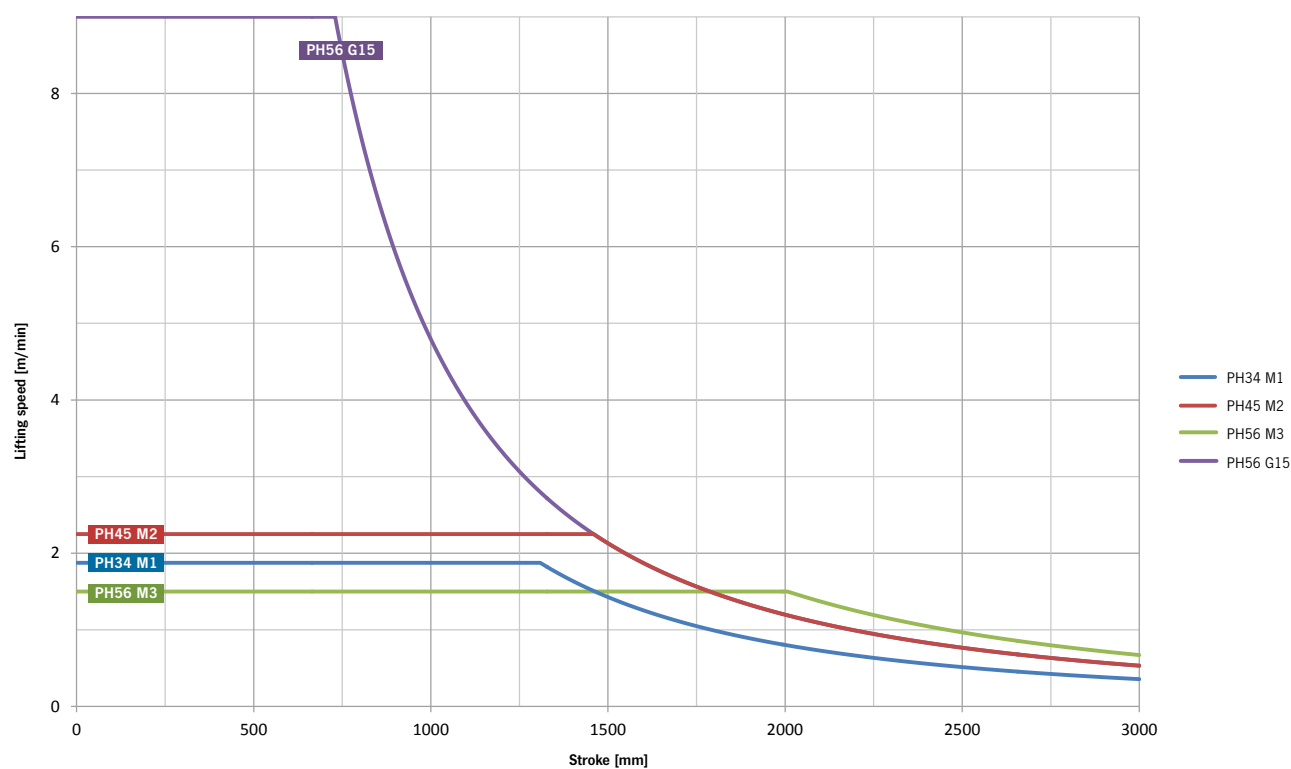


PHOENIX Diagrams

PHOENIX Buckling

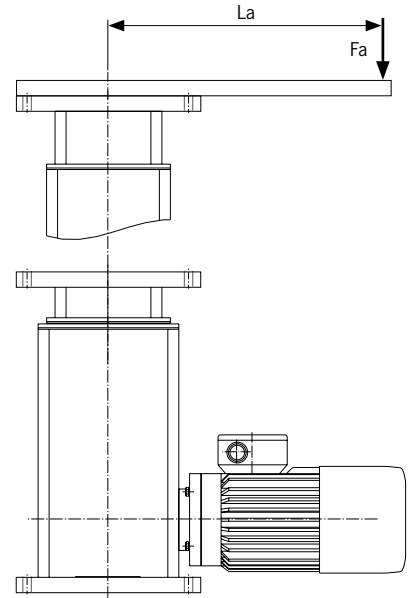
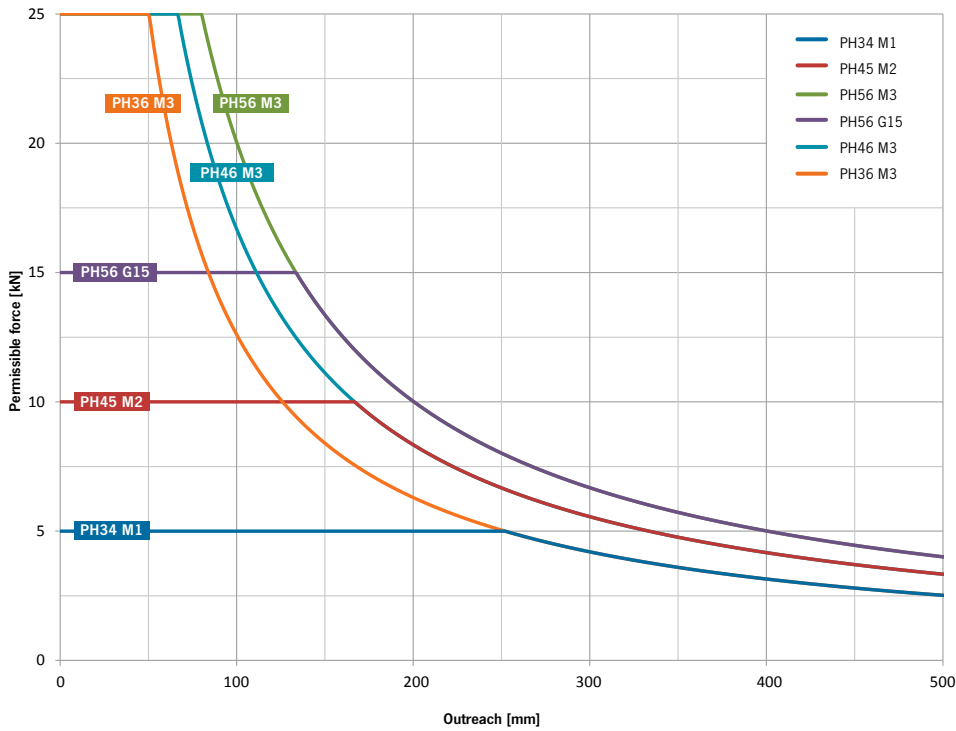


Critical speed (trapezoidal screw)

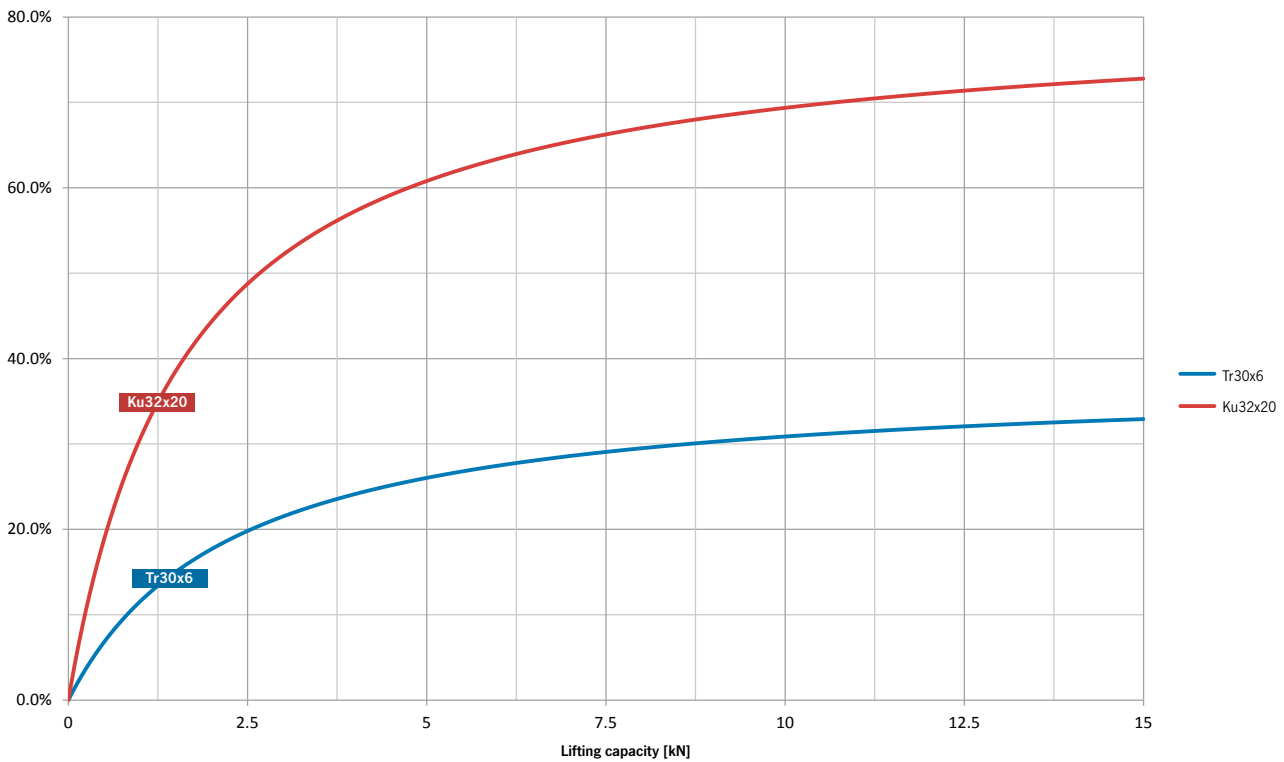


PHOENIX Diagrams

PHOENIX Off-center load



Efficiency G15

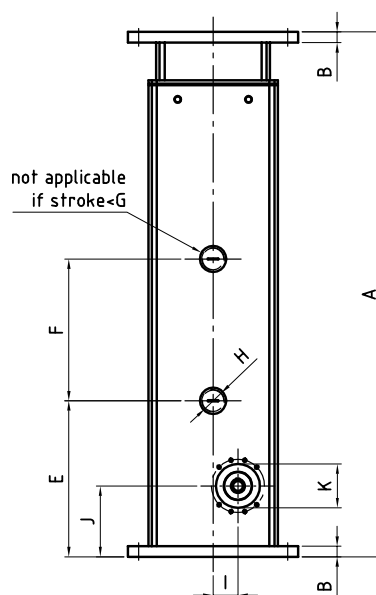
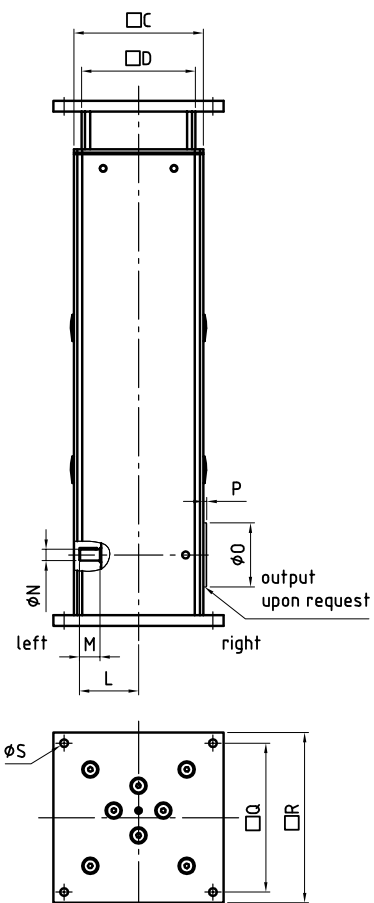


PHOENIX

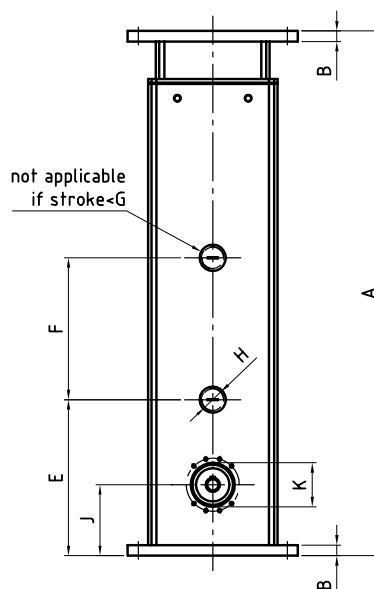
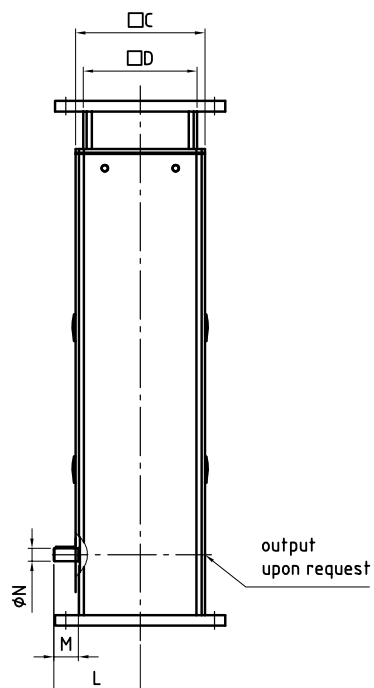
Technical drawings

Technical drawings

with gear type M



with gear type G



CAD & go



PHOENIX

Dimensions

Dimensions PHOENIX						
Size Dimensions [mm]	Single-stage				Multi-stage	
	PH34 M1	PH45 M2	PH56 M3	PH56 G15	PH46 M3	PH 36 M3
A	260 + stroke + VL	300 + stroke + VL	340 + stroke + VL	369 + stroke + VL	375 + 1/2 stroke + VL	360 + 1/3 stroke + VL
B	15	15	15	15	15	15
□C	138.6	160.6	182.6	182.6	182.6	182.6
□D	116.6	138.6	160.6	160.6	138.6	116.6
E	170	195	220	249	220	199
F	1/2 stroke	1/2 stroke	1/2 stroke	1/2 stroke	-	-
G	300	350	400	400	-	-
H	M32x1.5	M32x1.5	M32x1.5	M32x1.5	M32x1.5	M32x1.5
I	15	22	35	-	35	45
J	80	90	100	100	100	90
Ø K H8	52	52	62	68	62	62
L	60	70	83.5	122	83.5	83.5
M	22.5	25.5	29	35	29	29
Ø N	10 k6	14 k6	16 k6	12j6 (i=2)* 18j6 (i=3)*	16 k6	16 k6
Ø O	75	75	90	-	90	90
P	5	5	5	-	5	5
□Q ±0.3	210	210	210	210	210	210
□R	240	240	240	240	240	240
Ø S	11	11	11	11	11	11

* i = Ratio

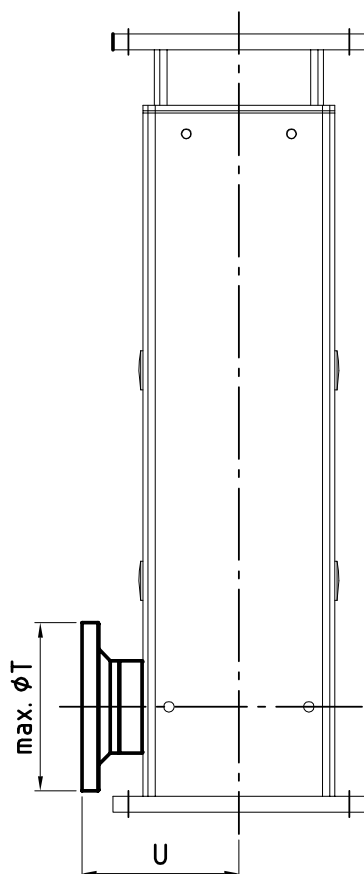


PHOENIX

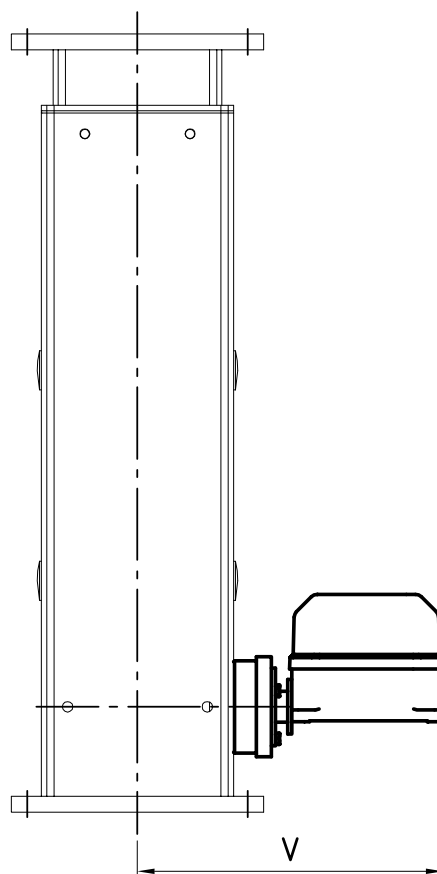
Technical drawings

Technical drawings

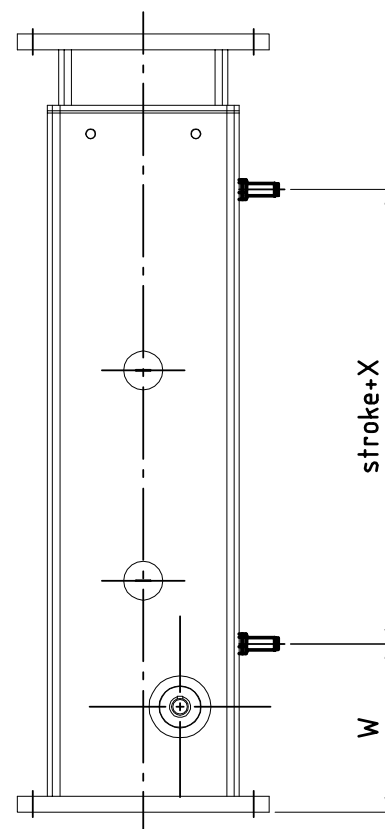
Motor mounting flange



Gear limit switch



Inductive limit switch



CAD & go



PHOENIX

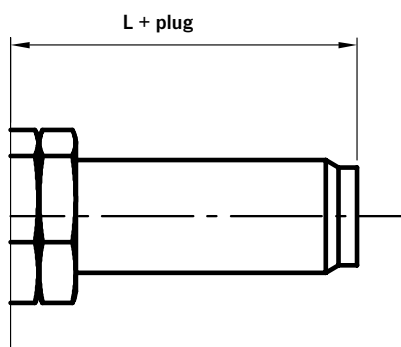
Dimensions and accessories

Dimensions PHOENIX						
Size	Single-stage				Multi-stage	
Dimensions [mm]	PH34 M1	PH45 M2	PH56 M3	PH56 G15	PH46 M3	PH 36 M3
Accessories						
Motor mounting flange						
Ø T	120	140	160	160	160	140
U	Dimensions according to offer or customer request					
Gear limit switch						
V	269	277	291	329	291	291
Inductive limit switch						
W	125	145	165	194	-	-
X	22	22	22	22	-	-

Accessories

Inductive limit switch (only single-stage column)

	Standard
Supply voltage	10-30V DC*
Connection	M12
	4 pins
	Three-core
Attachment	M12x1
Output	NC
Switching current	≤ 200 mA
Length	41 mm



*AC optionally selectable, and with control from Columbus McKinnon Engineered Products GmbH

Gear limit switch



Hand drive



- Necessary for multi-stage lifting columns
- Optional for single-stage lifting columns
- Mounting on output shaft end
- Up to 8 switching points

