

Z2

Ball Screw Drive, Slide Guide

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General Specifications

Parameter	Z2
Profile size (w × h) [mm]	188 × 150
Type of screw	ball screw with single nut
Sealing system	none
Screw supports	none
Lubrication	lubrication of screw and slide surfaces
Included accessories	none

Performance Specifications

Parameter	Z2
Stroke length (S max), maximum [mm]	1500
Linear speed, maximum [m/s]	1,25
Acceleration, maximum [m/s ²]	8
Repeatability [± mm]	0,1
Input speed, maximum screw diameter/lead [mm] 25/10, 25/25 screw diameter/lead [mm] 32/20 [rpm]	3000 2500
Operation temperature limits [°C]	-20 – 70
Dynamic load (Fz), maximum screw diameter/lead [mm] 25/10, 25/25 screw diameter/lead [mm] 32/20 [N]	5000 7500
Dynamic load torque (Mx), maximum [Nm]	700 ¹
Dynamic load torque (My), maximum [Nm]	700 ¹
Dynamic load torque (Mz), maximum [Nm]	330 ¹
Drive shaft force (Frd), maximum screw diameter/lead [mm] 25/10, 25/25 screw diameter/lead [mm] 32/20 [N]	1000 1200
Drive shaft torque (Mta), maximum screw diameter/lead [mm] 25/10, 25/25 screw diameter/lead [mm] 32/20 [Nm]	45 93
Screw versions, diameter (do) / lead (p) [mm]	25/10, 25/25, 32/20
Weight [kg]	
of unit with zero stroke, ball screw ø 25 mm	19,00
of unit with zero stroke, ball screw ø 32 mm	23,64
of every 100 mm of stroke, ball screw ø 25 mm	2,50
of every 100 mm of stroke, ball screw ø 32 mm	2,80

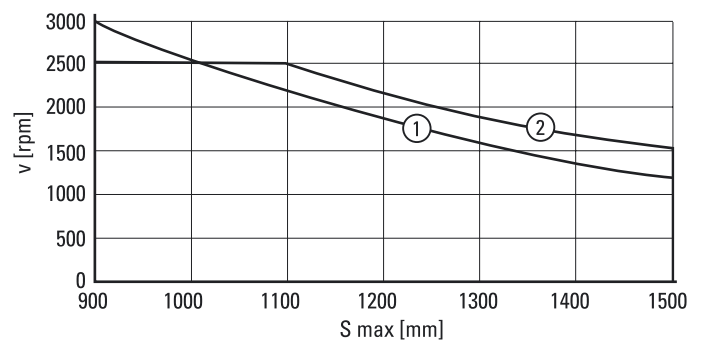
¹ Value for the complete unit

Idle Torque (M idle) [Nm]

Input speed [rpm]	Screw diameter/lead [mm]		
	do = 25 / p = 10	do = 25 / p = 25	do = 32 / p = 20
500	0,7	1,9	1,5

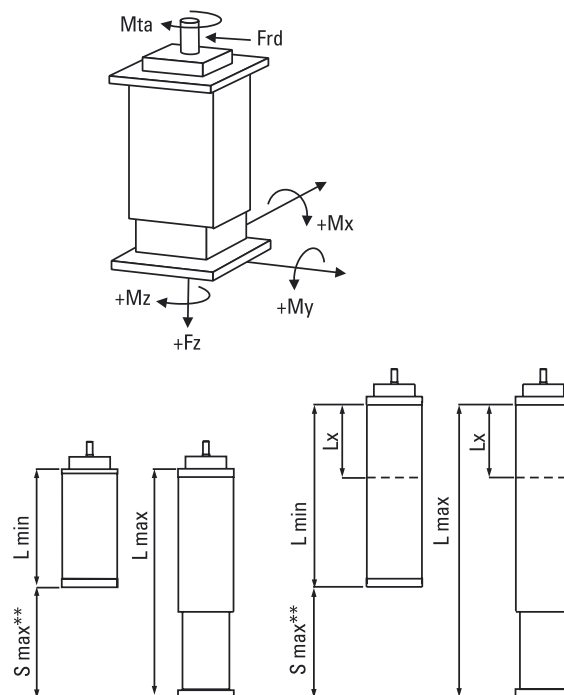
M idle = the input torque needed to move the lifting profiles without any load.

Critical Speed



1: screw diameter 25 mm
 2: screw diameter 32 mm

Definition of Forces and Stroke

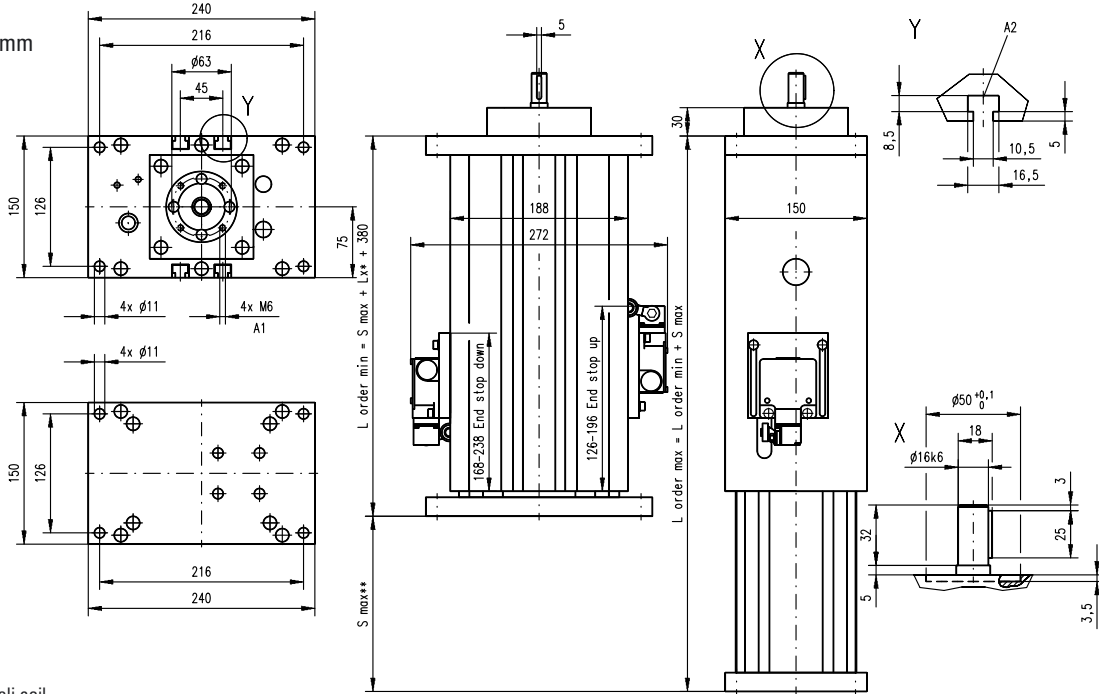


** S max = maximum stroke between the mechanical ends of the unit. The practical stroke is normally 100 mm shorter to avoid running into the ends of the unit.

Z2

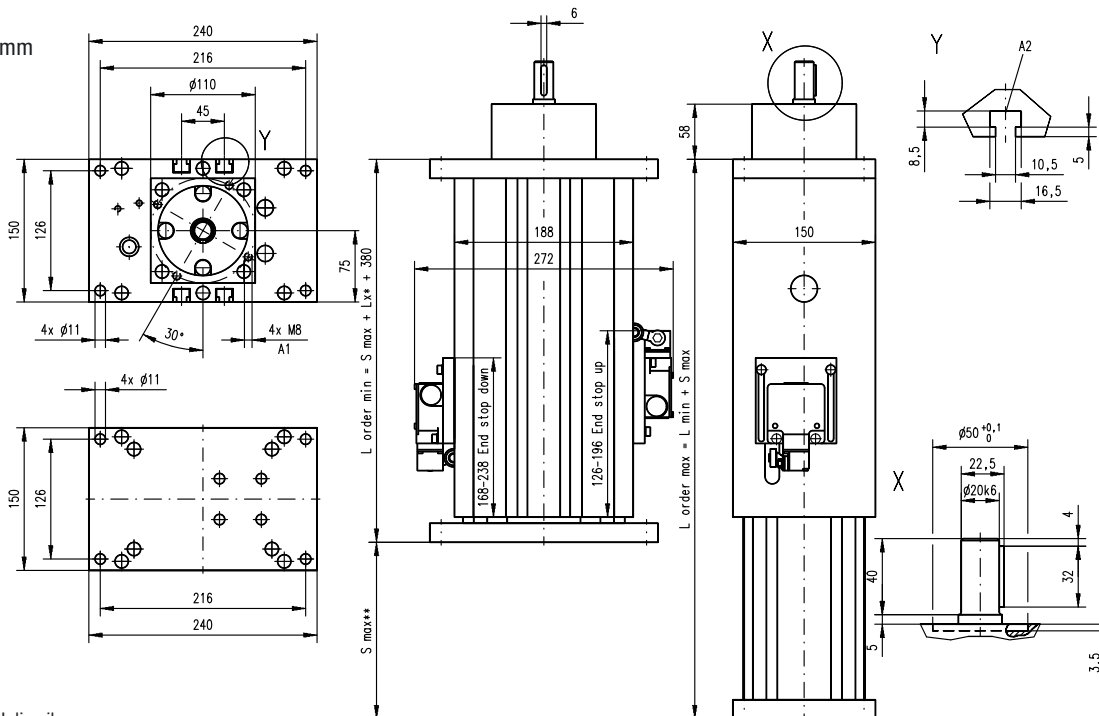
Ball Screw Drive, Slide Guide

MGZ2K25
screw $\varnothing 25$ mm



A1: depth 9, Heli coil
A2: T-slot

MGZ2K32
screw $\varnothing 32$ mm



A1: depth 12, Heli coil
A2: T-slot

Type of unit	Minimum retracted length (L min) [mm]	Maximum extended length (L max) [mm]
Standard	$L_{min} = S_{max} + 380$	$L_{max} = L_{min} + S_{max}$
Elongated*	$L_{min} = S_{max} + 380 + L_x$	$L_{max} = L_{min} + S_{max}$

* Elongated versions have an extra length

Z3

Ball Screw Drive, Slide Guide

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General Specifications

Parameter	Z3
Profile size (w × h) [mm]	188 × 150
Type of screw	ball screw with single nut
Sealing system	none
Screw supports	none
Lubrication	lubrication of screw and slide surfaces
Included accessories	none

Performance Specifications

Parameter	Z3
Stroke length (S max), maximum [mm]	1500
Linear speed, maximum [m/s]	1,25
Acceleration, maximum [m/s ²]	8
Repeatability [± mm]	0,1
Input speed, maximum screw diameter/lead [mm] 25/10, 25/25 screw diameter/lead [mm] 32/20 [rpm]	3000 2500
Operation temperature limits [°C]	-20 – 70
Dynamic load (Fz), maximum screw diameter/lead [mm] 25/10, 25/25 screw diameter/lead [mm] 32/20 [N]	5000 7500
Dynamic load torque (Mx), maximum [Nm]	2000 ¹
Dynamic load torque (My), maximum [Nm]	2000 ¹
Dynamic load torque (Mz), maximum [Nm]	330 ¹
Drive shaft force (Frd), maximum screw diameter/lead [mm] 25/10, 25/25 screw diameter/lead [mm] 32/20 [N]	1000 1200
Drive shaft torque (Mta), maximum screw diameter/lead [mm] 25/10, 25/25 screw diameter/lead [mm] 32/20 [Nm]	45 93
Screw versions, diameter (do) / lead (p) [mm]	25/10, 25/25, 32/20
Weight [kg]	
of unit with zero stroke, ball screw ø 25 mm	21,14
of unit with zero stroke, ball screw ø 32 mm	22,65
of every 100 mm of stroke, ball screw ø 25 mm	4,20
of every 100 mm of stroke, ball screw ø 32 mm	4,50

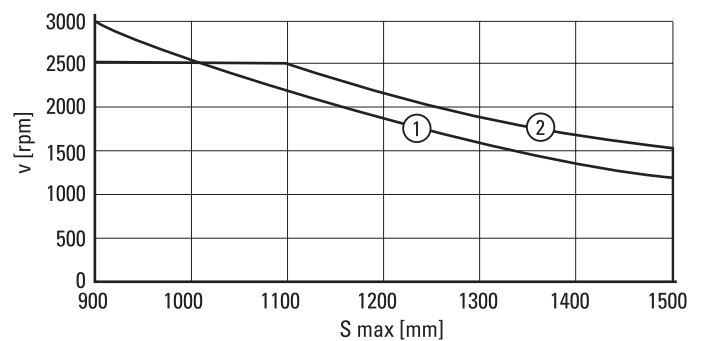
¹ Value for the complete unit

Idle Torque (M idle) [Nm]

Input speed [rpm]	Screw diameter/lead [mm]		
	do = 25 / p = 10	do = 25 / p = 25	do = 32 / p = 20
500	1,1	2,7	2,2

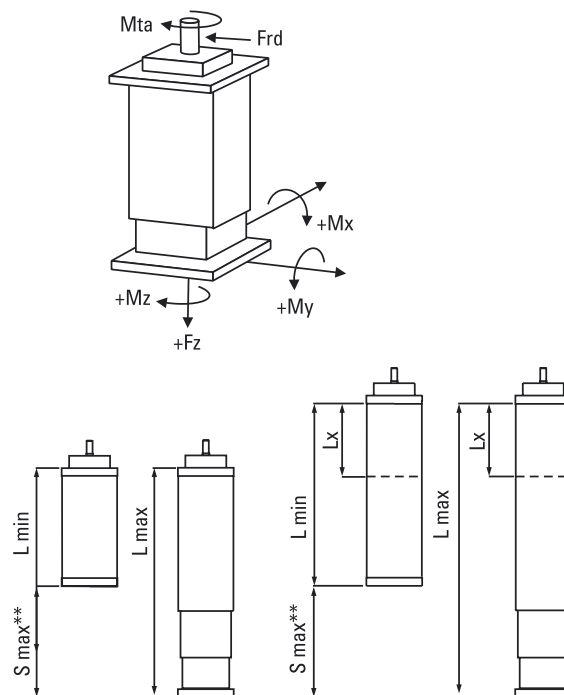
M idle = the input torque needed to move the lifting profiles without any load.

Critical Speed



1: screw diameter 25 mm
 2: screw diameter 32 mm

Definition of Forces and Stroke

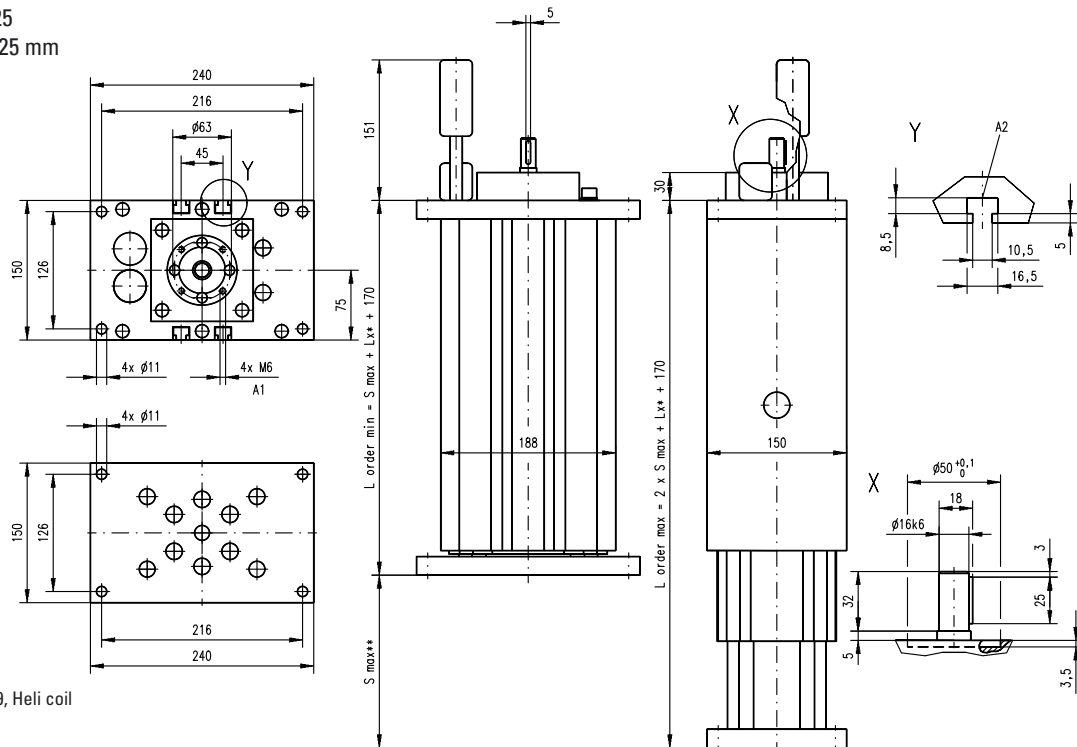


** S max = maximum stroke between the mechanical ends of the unit. The practical stroke is normally 100 mm shorter to avoid running into the ends of the unit.

Z3

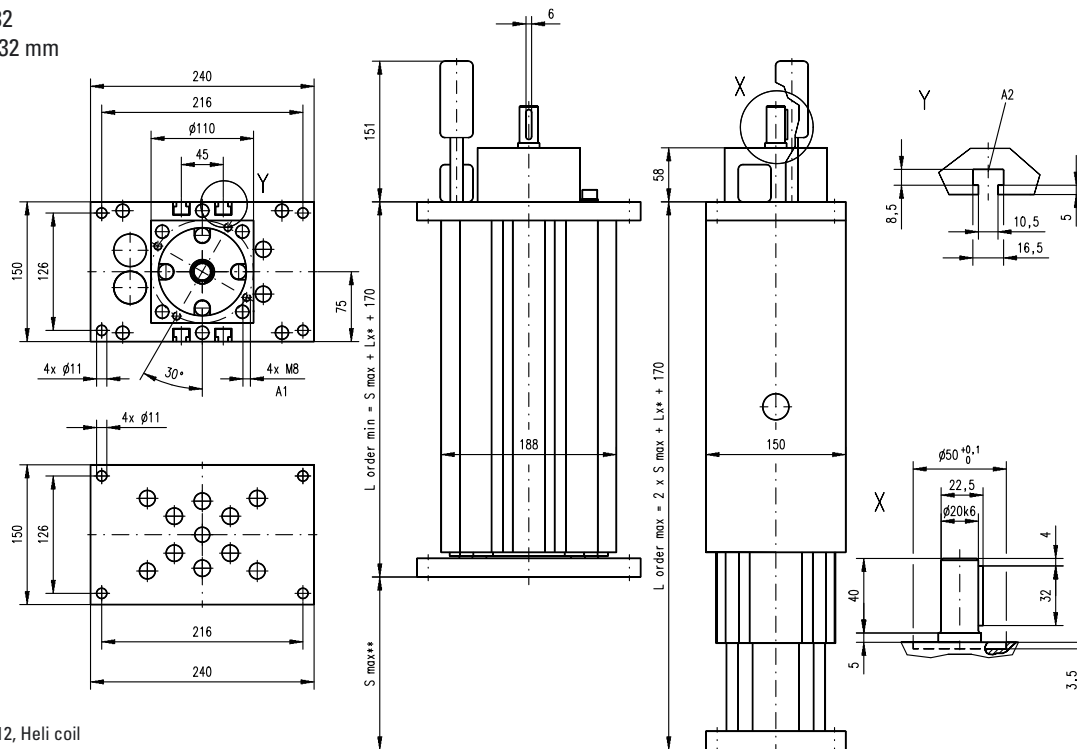
Ball Screw Drive, Slide Guide

MGZ3K25
screw $\varnothing 25$ mm



A1: depth 9, Heli coil
A2: T-slot

MGZ3K32
screw $\varnothing 32$ mm



A1: depth 12, Heli coil
A2: T-slot

Type of unit	Minimum retracted length (L min) [mm]	Maximum extended length (L max) [mm]
Standard	$L_{min} = S_{max} + 170$	$L_{max} = L_{min} + S_{max}$
Elongated*	$L_{min} = S_{max} + 170 + L_x$	$L_{max} = L_{min} + S_{max}$

* Elongated versions have an extra length

ZB

Belt Drive, Ball Guide

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General Specifications

Parameter	ZB
Profile size (w × h) [mm]	88 × 88
Type of belt	50 AT 10
Carriage sealing system	none
Adjustable belt tensioning	the belt can be retensioned by the customer if necessary
Lubrication	lubrication of drive station in two points
Included accessories	none

Performance Specifications

Parameter		ZB
Stroke length (S max), maximum	[mm]	2500
Linear speed, maximum	[m/s]	3,0
Acceleration, maximum	[m/s ²]	40
Repeatability	[± mm]	0,1
Input speed, maximum	[rpm]	900
Operation temperature limits	[°C]	-20 – 70
Dynamic load (Fz), maximum	[N]	500
Dynamic load torque (Mx), maximum	[Nm]	445 ¹ / 3340 ²
Dynamic load torque (My), maximum	[Nm]	445 ¹ / 3340 ²
Dynamic load torque (Mz), maximum	[Nm]	35 ¹ / 262 ²
Drive shaft force (Frd), maximum	[N]	600
Drive shaft torque (Mta), maximum	[Nm]	34
Pulley diameter	[mm]	63,66
Stroke per shaft revolution	[mm]	200
Weight of unit with zero stroke	[kg]	15,50
of every 100 mm of stroke		0,86
of the drive station box		16,20

¹ Value for the complete unit

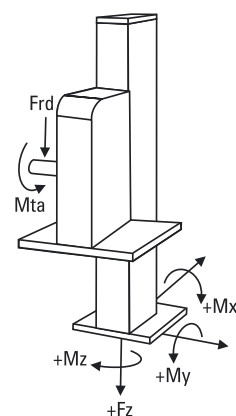
² Value for the ball guide only

Idle Torque, (M idle) [Nm]

Input speed [rpm]	Idle torque [Nm]
500	6,4

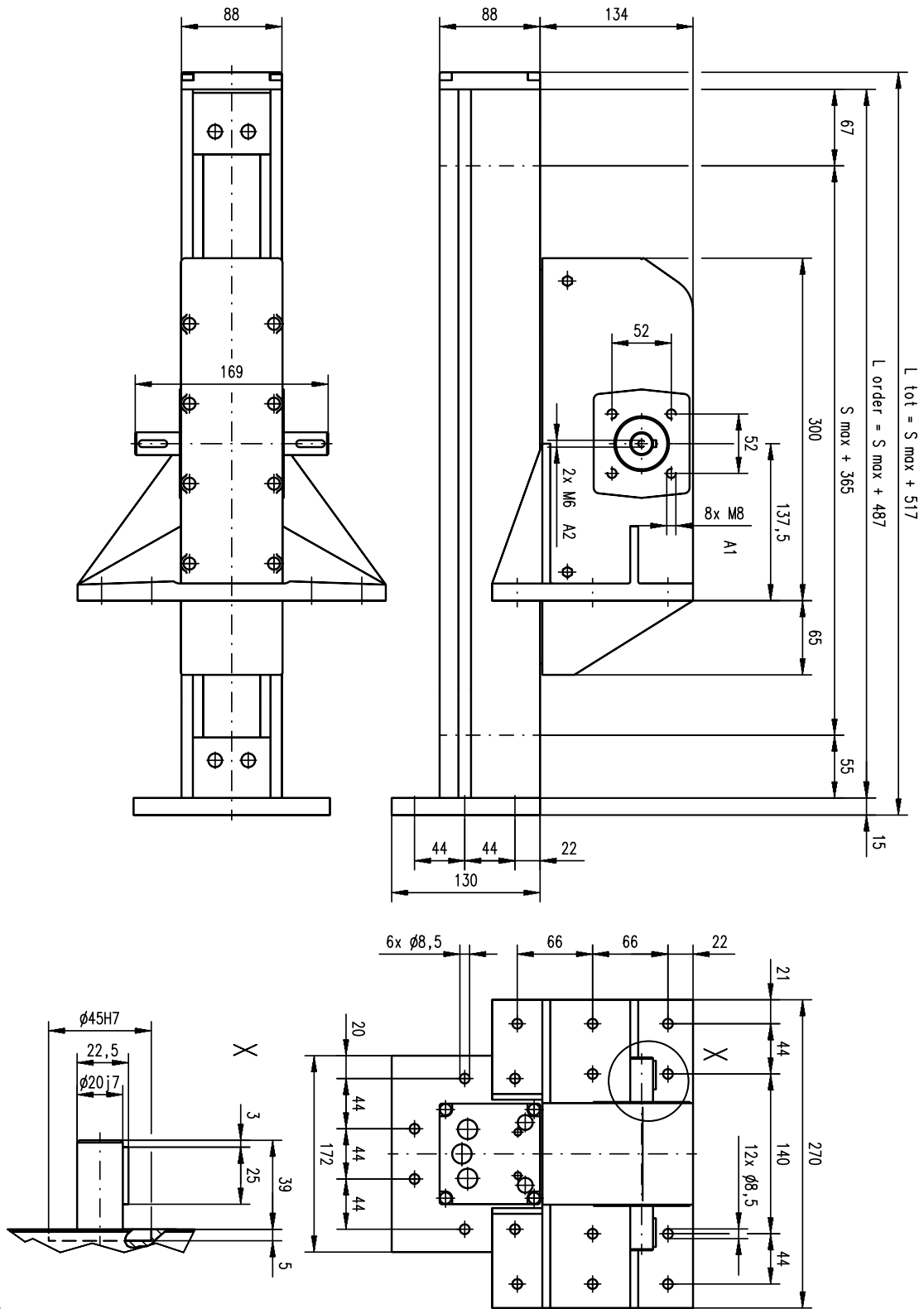
M idle = the input torque needed to move the lifting profile with no load on it.

Definition of Forces



ZB

Belt Drive, Ball Guide



A1: depth 17
A2: depth 20