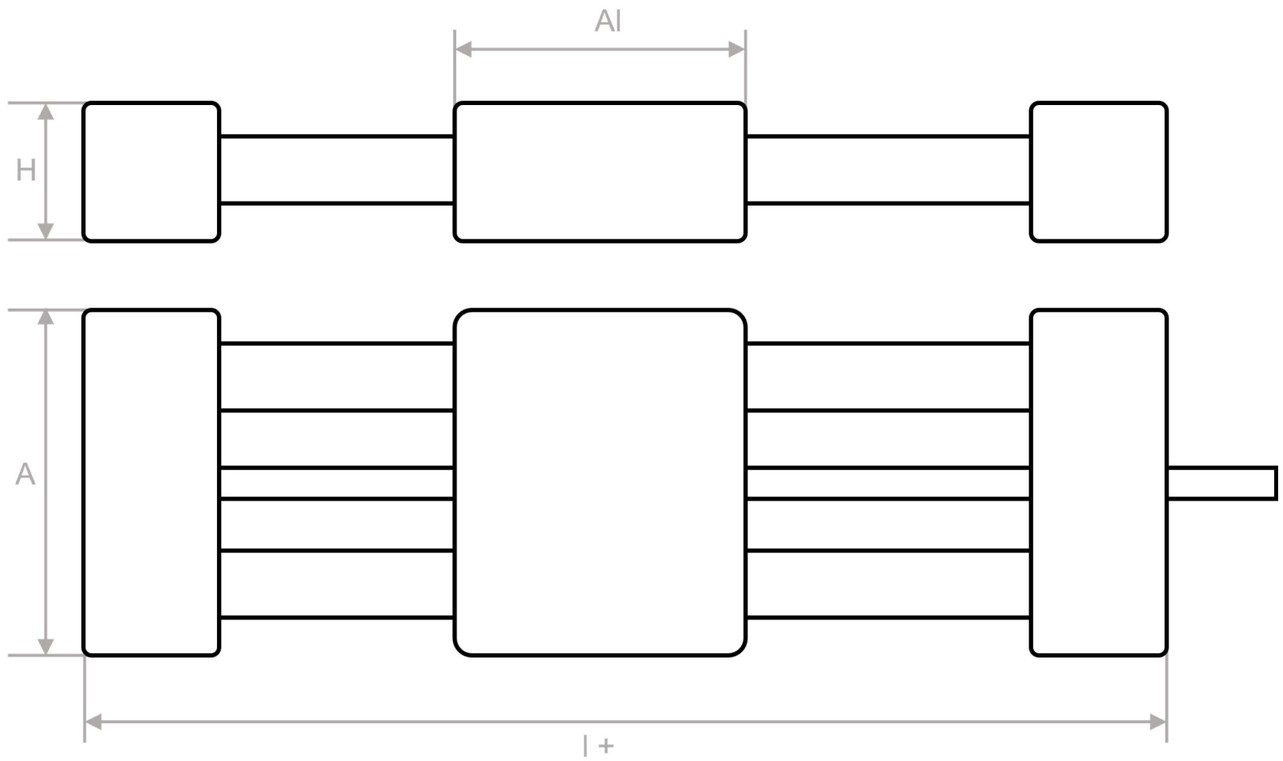
Data sheet drylin® drive technology

Content:



drawing without dimensions
exemplary illustration

Further information on travel speeds, accelerations, service life etc. can be found in the online tool: igus.eu/DDX

Linear Module SLW-2080
SLW-2080-DS18X4

Diagram 1: Stroke / speed

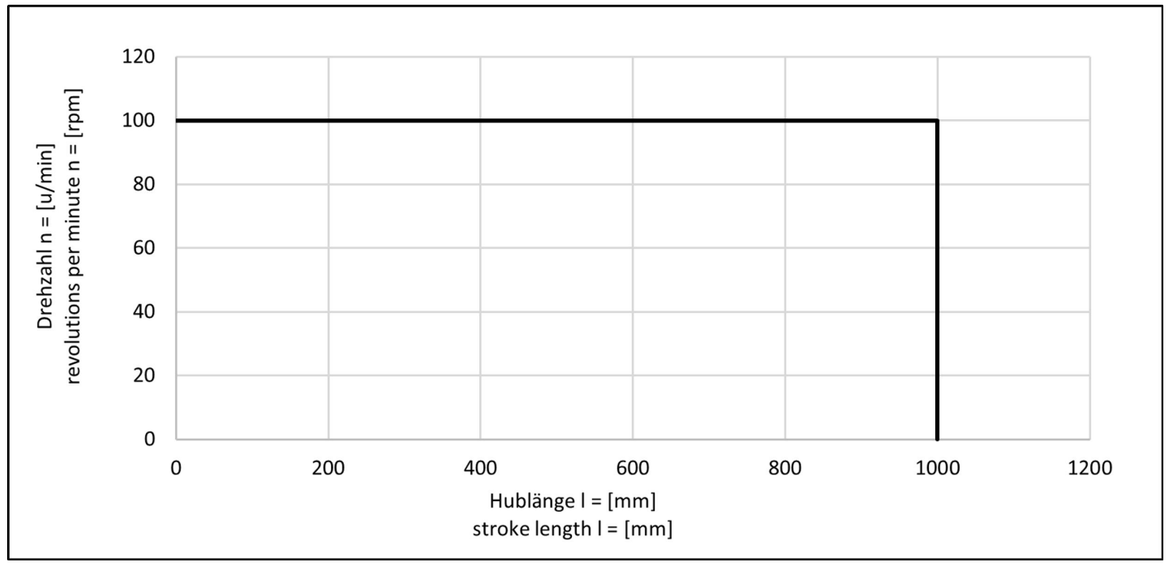
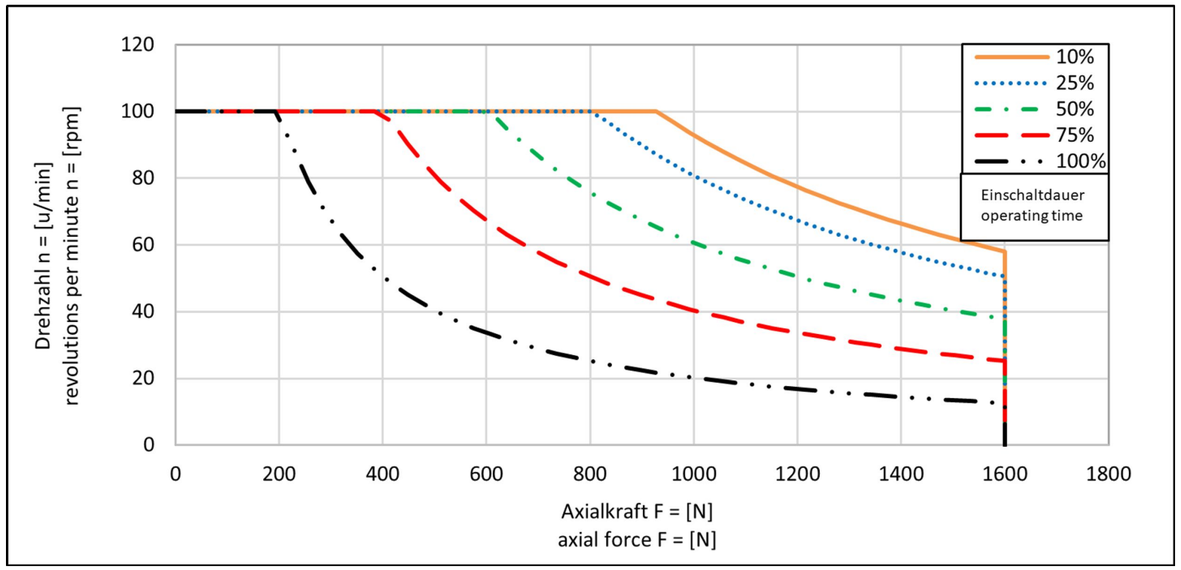


Diagram 2: Axial force / speed



Thread size: DS18X4
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 30 mm

Technical data

Thread size	max. perm. speed [1/min]²	max. perm. drive torque [Nm]²	max. perm. radial load²	max. perm. axial force [N]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]	Wear limit nut [mm]
DS18x4	100	8.2	6400	1600	0.7	0.5	0.76

Dimensions and weight

Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]	Base weight full-stainless-steel [kg]	Additional weight stainless-steel [kg/100mm]
45	134 x 46 x 101	1000	1.71	0.53		
100	134 x 46 x 156	1000	2.64	0.53		
150	134 x 46 x 206	950	3.04	0.53	6.1	0.81
200	134 x 46 x 256	900	3.46	0.53		
250	134 x 46 x 306	850	3.88	0.53		

²Maximum values! These values are maximum values and apply only to one criterion. Combined load data can be found in the diagrams. In addition, these speed and load data only apply to the linear bearing and threaded nut material iglidur® J
³A deviating stroke length affects the load data

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Linear Module SLW-2080
SLW-2080-DS18X24

Diagram 1: Stroke / speed

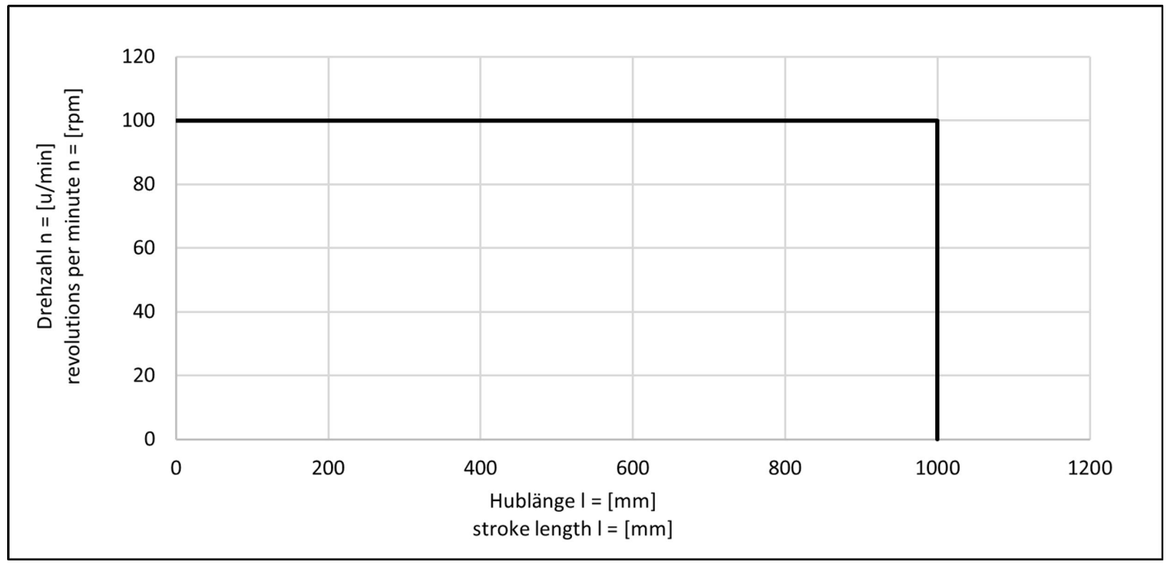
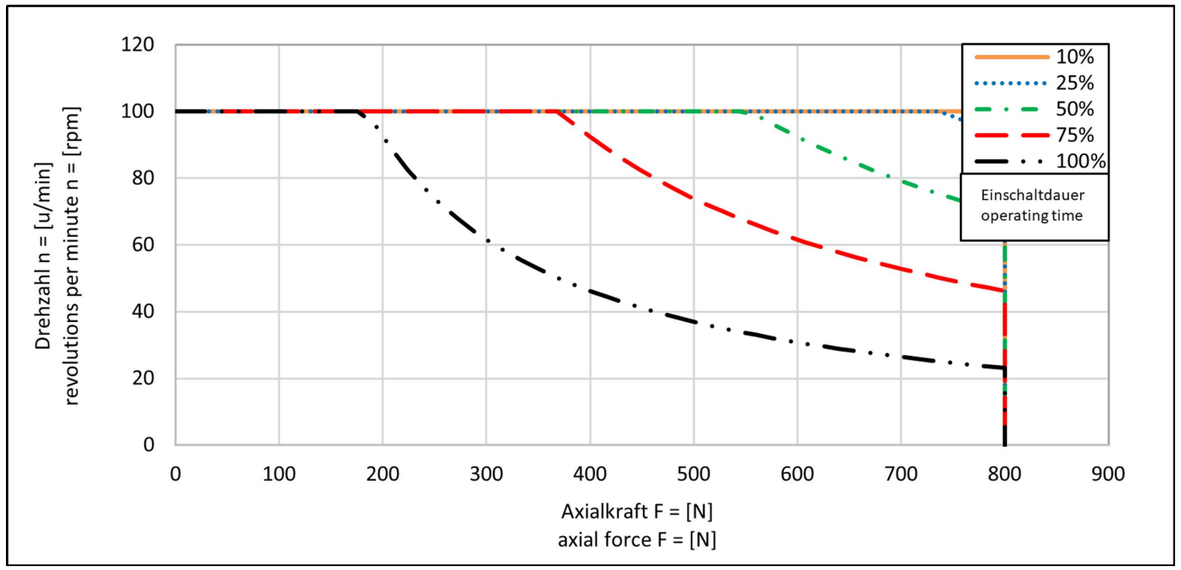


Diagram 2: Axial force / speed



Thread size: DS18X24
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 30 mm

Technical data

Thread size	max. perm. speed [1/min]²	max. perm. drive torque [Nm]²	max. perm. radial load²	max. perm. axial force [N]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]	Wear limit nut [mm]
DS18x24	100	7.2	3200	800	0.7	0.5	0.94

Dimensions and weight

Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]	Base weight full-stainless-steel [kg]	Additional weight stainless-steel [kg/100mm]
45	134 x 46 x 101	1000	1.71	0.53		
100	134 x 46 x 156	1000	2.64	0.53		
150	134 x 46 x 206	950	3.04	0.53	6.1	0.81
200	134 x 46 x 256	900	3.46	0.53		
250	134 x 46 x 306	850	3.88	0.53		

²Maximum values! These values are maximum values and apply only to one criterion. Combined load data can be found in the diagrams. In addition, these speed and load data only apply to the linear bearing and threaded nut material iglidur® J
³A deviating stroke length affects the load data

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Linear Module SLW-2080
SLW-2080-DS18X40

Diagram 1: Stroke / speed

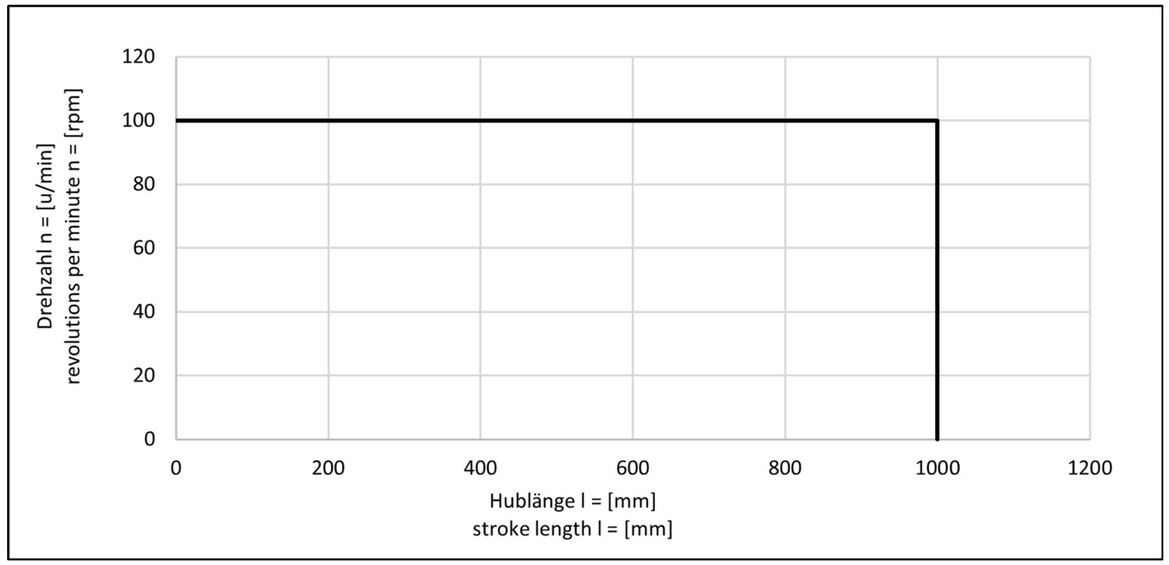
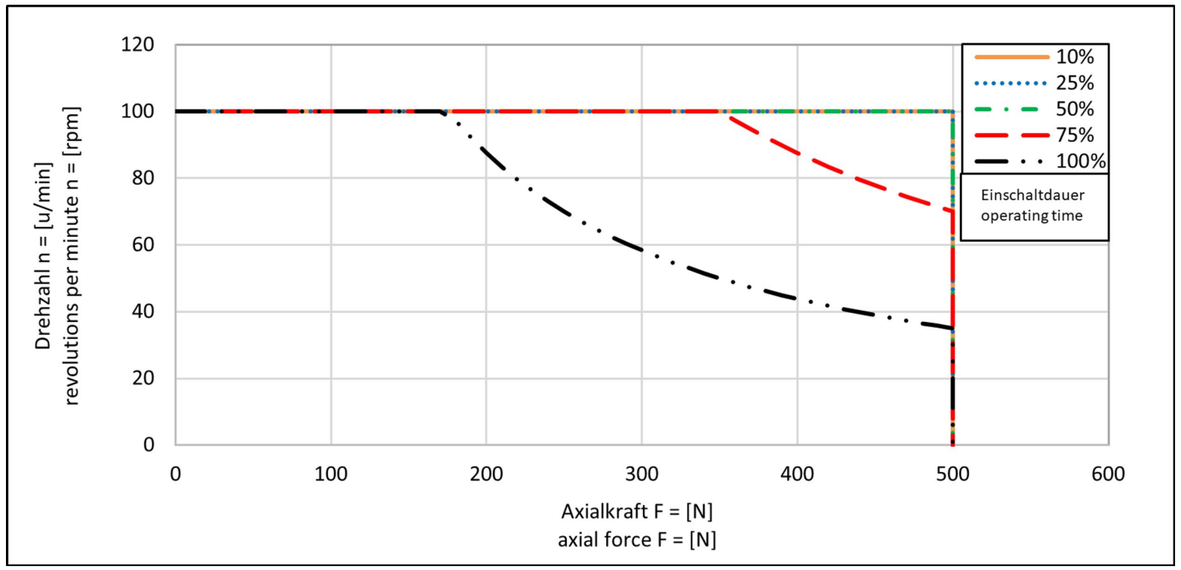


Diagram 2: Axial force / speed



Thread size: DS18X40
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 30 mm

Technical data

Thread size	max. perm. speed [1/min]²	max. perm. drive torque [Nm]²	max. perm. radial load²	max. perm. axial force [N]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]	Wear limit nut [mm]
DS18x40	100	6.4	2000	500	0.7	0.5	0.94

Dimensions and weight

Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]	Base weight full-stainless-steel [kg]	Additional weight stainless-steel [kg/100mm]
45	134 x 46 x 101	1000	1.71	0.53		
100	134 x 46 x 156	1000	2.64	0.53		
150	134 x 46 x 206	950	3.04	0.53	6.1	0.81
200	134 x 46 x 256	900	3.46	0.53		
250	134 x 46 x 306	850	3.88	0.53		

²Maximum values! These values are maximum values and apply only to one criterion. Combined load data can be found in the diagrams. In addition, these speed and load data only apply to the linear bearing and threaded nut material iglidur® J
³A deviating stroke length affects the load data

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Linear Module SLW-2080
SLW-2080-DS18X80

Diagram 1: Stroke / speed

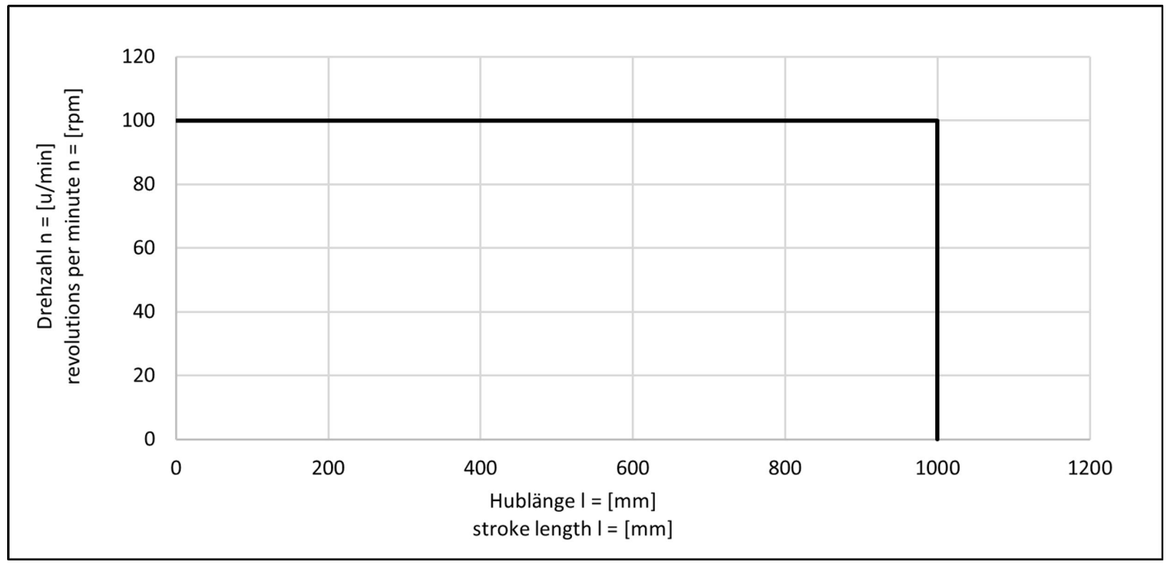
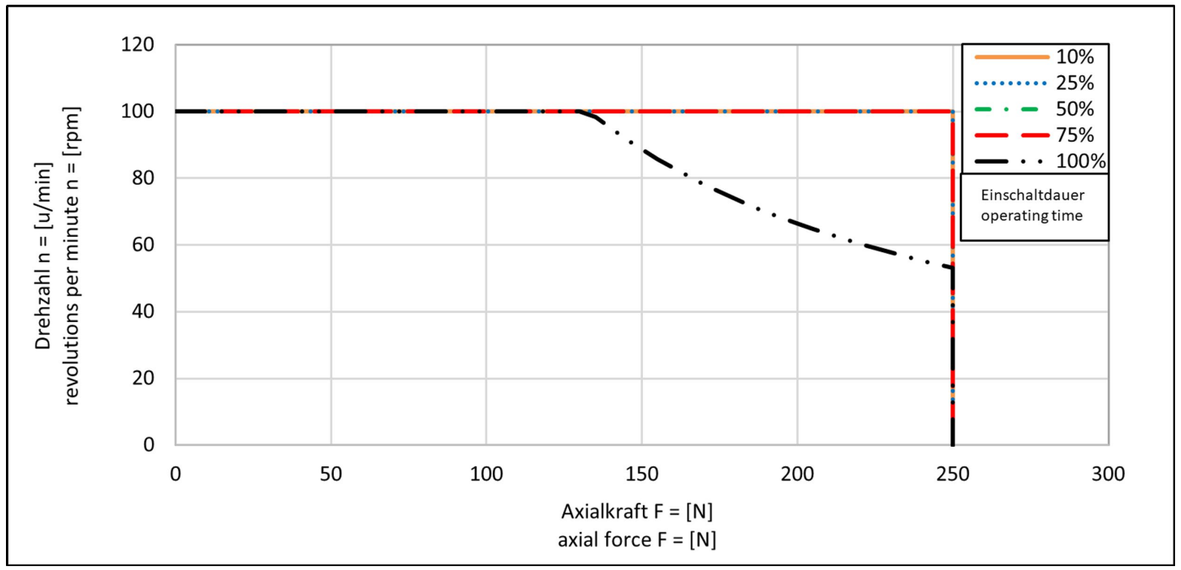


Diagram 2: Axial force / speed



Thread size: DS18X80
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 30 mm

Technical data

Thread size	max. perm. speed [1/min]²	max. perm. drive torque [Nm]²	max. perm. radial load²	max. perm. axial force [N]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]	Wear limit nut [mm]
DS18x80	100	6.3	1000	250	0.7	0.5	0.94

Dimensions and weight

Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]	Base weight full-stainless-steel [kg]	Additional weight stainless-steel [kg/100mm]
45	134 x 46 x 101	1000	1.71	0.53		
100	134 x 46 x 156	1000	2.64	0.53		
150	134 x 46 x 206	950	3.04	0.53	6.1	0.81
200	134 x 46 x 256	900	3.46	0.53		
250	134 x 46 x 306	850	3.88	0.53		

²Maximum values! These values are maximum values and apply only to one criterion. Combined load data can be found in the diagrams. In addition, these speed and load data only apply to the linear bearing and threaded nut material iglidur® J
³A deviating stroke length affects the load data

Further information on travel speeds, accelerations, service life etc. can be found in the online tool: igus.eu/DDX

Linear Module SLW-2080
SLW-2080-DS18X100

Diagram 1: Stroke / speed

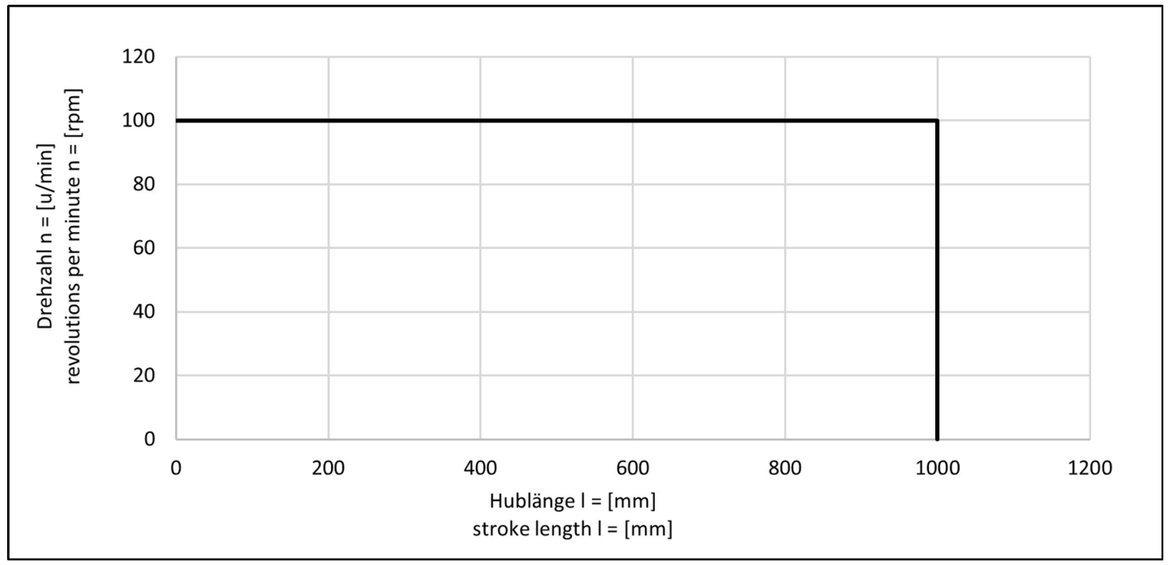
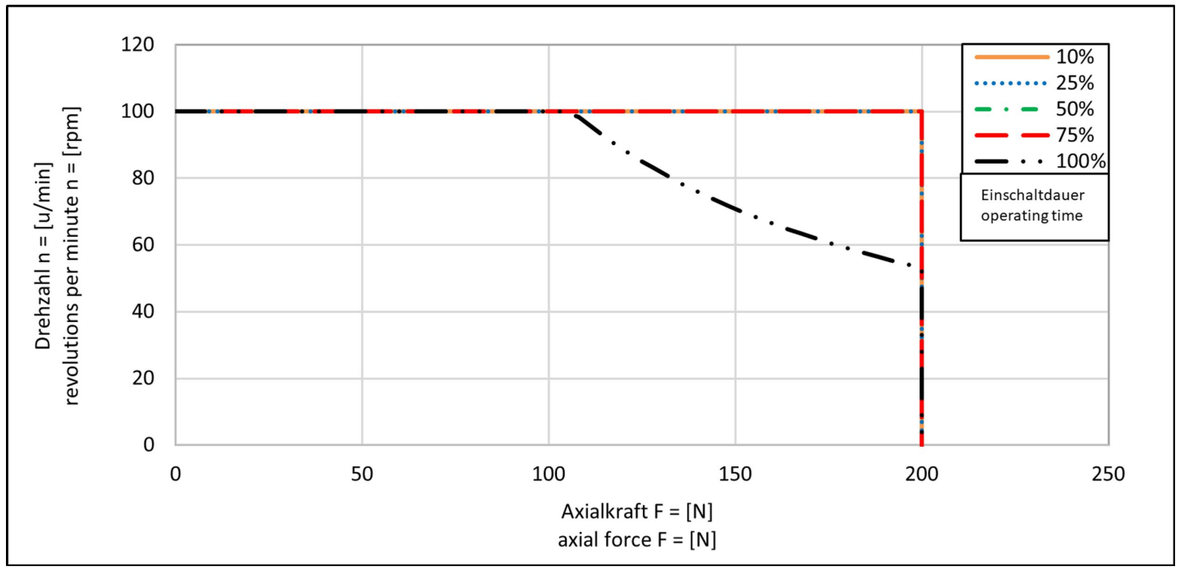


Diagram 2: Axial force / speed



Thread size: DS18X100
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 30 mm

Technical data

Thread size	max. perm. speed [1/min]²	max. perm. drive torque [Nm]²	max. perm. radial load²	max. perm. axial force [N]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]	Wear limit nut [mm]
DS18x100	100	6.6	800	200	0.7	0.5	0.94

Dimensions and weight

Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]	Base weight full-stainless-steel [kg]	Additional weight stainless-steel [kg/100mm]
45	134 x 46 x 101	1000	1.71	0.53		
100	134 x 46 x 156	1000	2.64	0.53		
150	134 x 46 x 206	950	3.04	0.53	6.1	0.81
200	134 x 46 x 256	900	3.46	0.53		
250	134 x 46 x 306	850	3.88	0.53		

²Maximum values! These values are maximum values and apply only to one criterion. Combined load data can be found in the diagrams. In addition, these speed and load data only apply to the linear bearing and threaded nut material iglidur® J
³A deviating stroke length affects the load data

Further information on travel speeds, accelerations, service life etc. can be found in the online tool: igus.eu/DDX

Linear Module SLW-2080
SLW-2080-TR18X4

Diagram 1: Stroke / speed

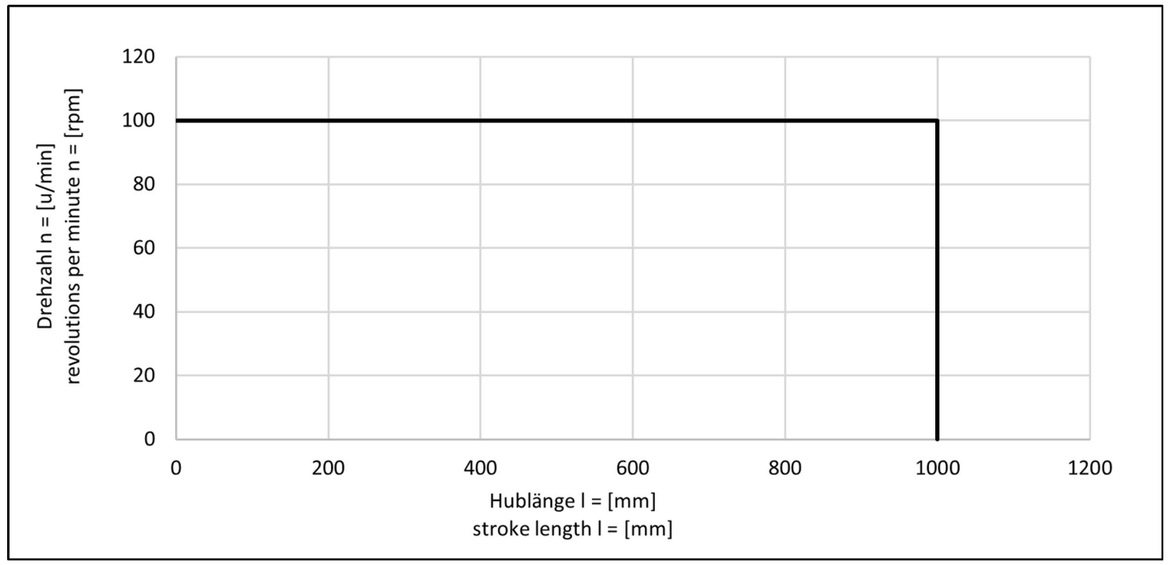
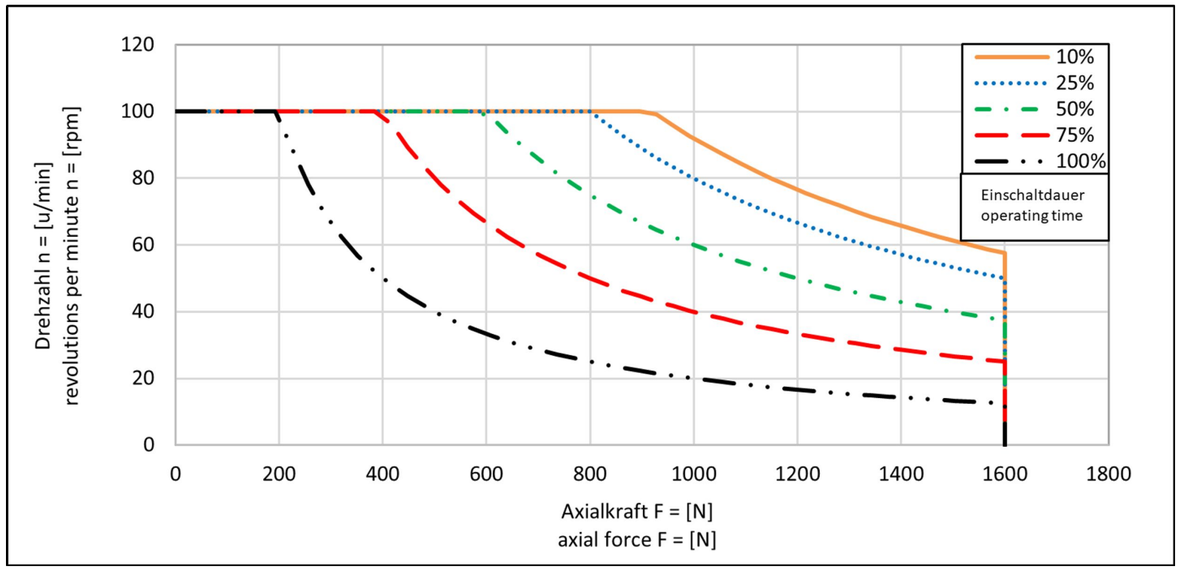


Diagram 2: Axial force / speed



Thread size: TR18X4
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 30 mm

Technical data

Thread size	max. perm. speed [1/min]²	max. perm. drive torque [Nm]²	max. perm. radial load²	max. perm. axial force [N]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]	Wear limit nut [mm]
TR18X4	100	8.2	6400	1600	0.7	0.5	0.67

Dimensions and weight

Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]	Base weight full-stainless-steel [kg]	Additional weight stainless-steel [kg/100mm]
45	134 x 46 x 101	1000	1.71	0.53		
100	134 x 46 x 156	1000	2.64	0.53		
150	134 x 46 x 206	950	3.04	0.53	6.1	0.81
200	134 x 46 x 256	900	3.46	0.53		
250	134 x 46 x 306	850	3.88	0.53		

²Maximum values! These values are maximum values and apply only to one criterion. Combined load data can be found in the diagrams. In addition, these speed and load data only apply to the linear bearing and threaded nut material iglidur® J
³A deviating stroke length affects the load data

Further information on travel speeds, accelerations, service life etc. can be found in the online tool: igus.eu/DDX

Linear Module SLW-2080
SLW-2080-TR18X8

Diagram 1: Stroke / speed

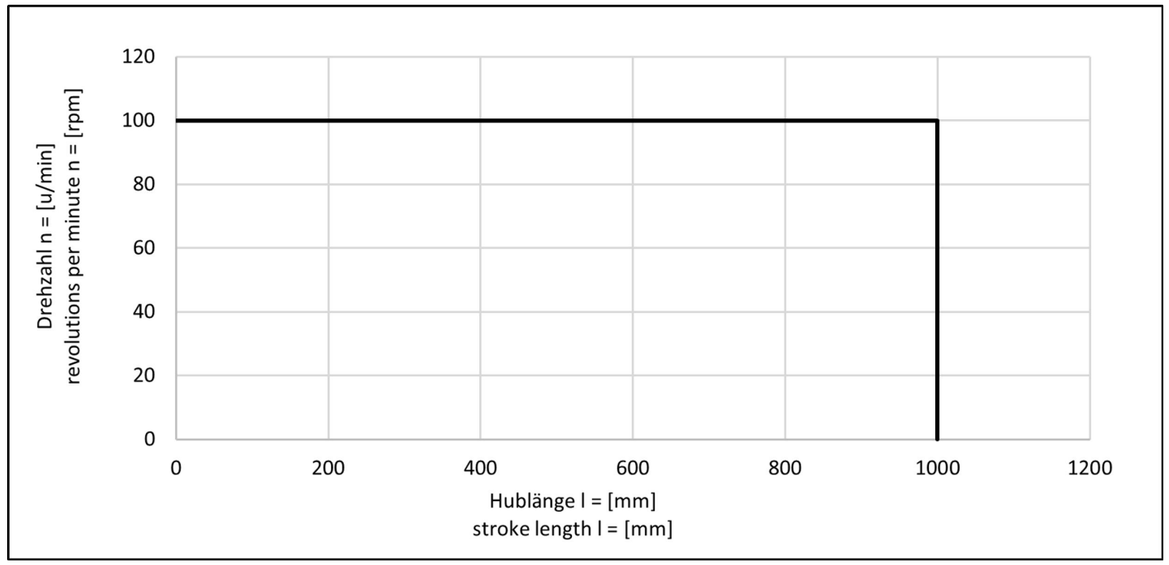
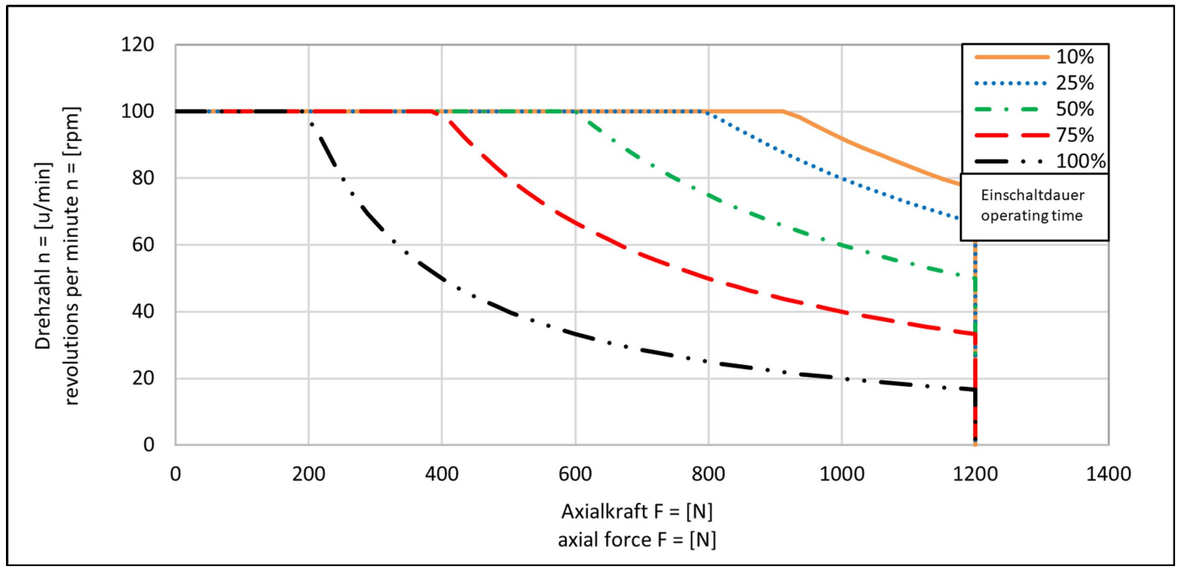


Diagram 2: Axial force / speed



Thread size: TR18X8
Stroke [mm]: 100; lead screw support: GL
Nut length [mm]: 30 mm

Technical data

Thread size	max. perm. speed [1/min]²	max. perm. drive torque [Nm]²	max. perm. radial load²	max. perm. axial force [N]²	Wear limit linear bearing [mm]	Wear limit linear axial bearing [mm]	Wear limit nut [mm]
TR18X8	100	7.1	4800	1200	0.7	0.5	0.67

Dimensions and weight

Carriage Length Al [mm]	Width (A) x Height (H) x Length (L+Stroke) [mm]	Maximum permissible stroke [mm]³	Base weight aluminium [kg]	Additional weight aluminium [kg/100mm]	Base weight full-stainless-steel [kg]	Additional weight stainless-steel [kg/100mm]
45	134 x 46 x 101	1000	1.71	0.53		
100	134 x 46 x 156	1000	2.64	0.53		
150	134 x 46 x 206	950	3.04	0.53	6.1	0.81
200	134 x 46 x 256	900	3.46	0.53		
250	134 x 46 x 306	850	3.88	0.53		

²Maximum values! These values are maximum values and apply only to one criterion. Combined load data can be found in the diagrams. In addition, these speed and load data only apply to the linear bearing and threaded nut material iglidur® J
³A deviating stroke length affects the load data

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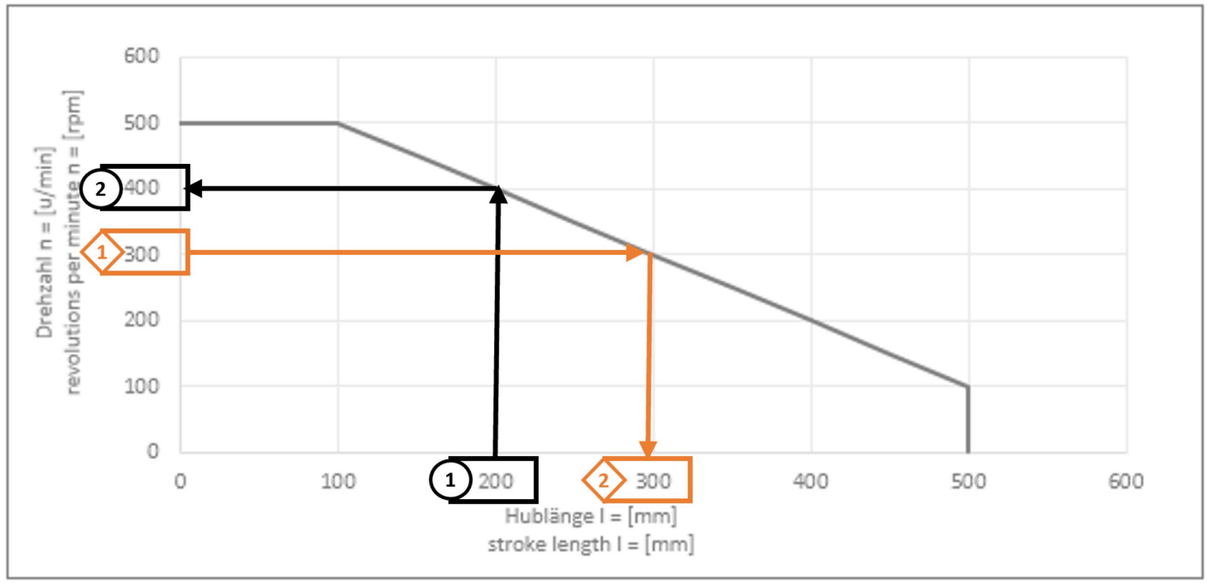
Reading example
Linear Module SLW-2080

Reading example diagram 1: Stroke / speed



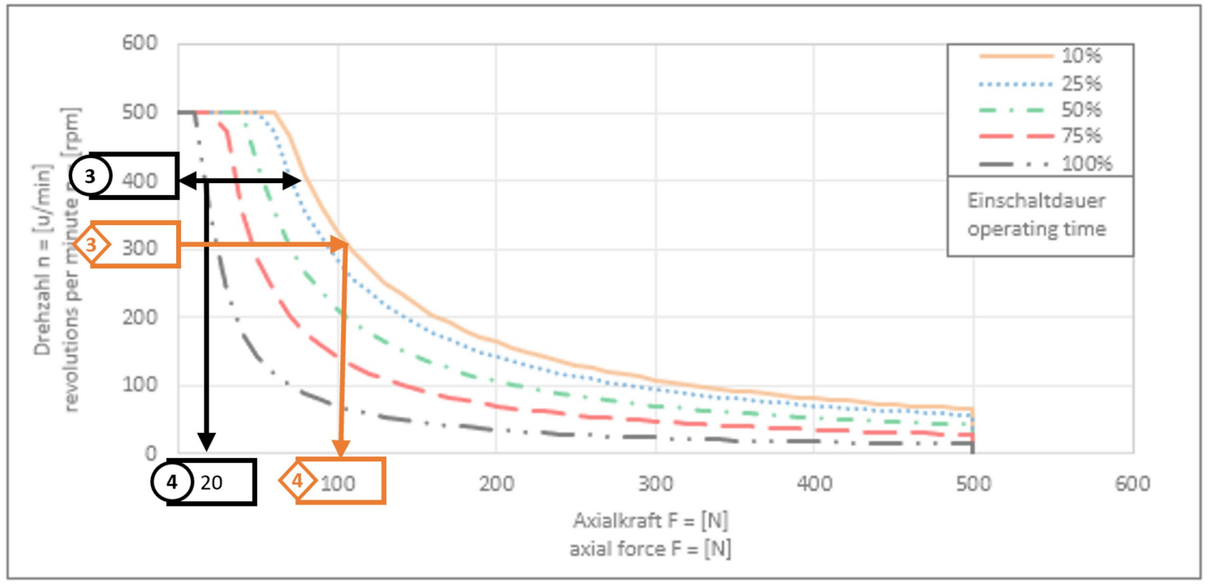
Example 1 (black): available stroke = 200 mm

Based on the existing stroke length (1) the permissible speed can be determined. (2)

At **200** mm stroke (1) a permissible speed of **400** U/min (2) can be determined.

Based on the permissible rotational speed (3), the permissible axial force (4) can be read as a function of the duty cycle (diagram legend). abgelesen werden. With a duty cycle of 100% and a speed of **400** U/min (3) a permissible axial force of **20 N** (4) can be determined.

Reading example diagram 2: Axial force / speed



Example 2 (orange): rotational speed = **300** rpm

Dependent on the required speed ◇1 the permissible stroke ◇2 can be determined. At a speed of **300** rpm ◇1 a permissible stroke length of **300** mm ◇2 can be determined.

Based on the speed ◇3 the permissible axial force ◇4 can be read as a function of the duty cycle (diagram legend). With a duty cycle of 10% and a speed of **300** rpm ◇3 a permissible axial force of **100 N** ◇4 can be determined.

Hint!

The diagram 2: Axial force / speed only refers to stroke lengths ≤ 100mm. For stroke lengths > 100mm, the max. permissible axial force can be increased with a correction factor. The limit values from the table of technical data must not be exceeded.

$$F_k = F_{zul} * (0.008 * \text{stroke length} + 0.2)$$

Calculation example:

$$F_k = 20\ N * (0.008 * 200 + 0.2) = 36\ N$$

The corrected force can be used with the previously determined stroke-dependent speed.

Disclaimer