News on a classic: Mechanical linear drive unit WIESEL BASELine





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WIESEL BASELine A classic is rediscovered.

The new mechanical linear drive units.



and low-maintenance technology, the new WIESEL BASELine is well on its way to becoming a classic product at an extremely attractive price.

Easy to replace

The special model WBE40/WBE60 now makes it extremely easy to change from Model W00/W02 to the new WIESEL BASELine. A new design is not necessary as the outside dimensions are the same and the power bridge has been matched. (Data sheet on request)

WBE40/60

WIESEL BASELine WB40

with ball screw drive or trapezoidal screw drive and sliding guide



Technical data

- Linear speed:
- Repeatability:
- Accelearation:
- Rotational speed:
- Drive element:

Diameter: Lead:

- Stroke length:
- Power bridge:
- Geometrical moment of intertia:
- Weights: Base without stroke: 100 mm stroke: Power bridge:
- Provided :

 \pm 0.05 mm max. 5 m/s² max. 3 000 rpm Ball screw drive with low-backlash single nut or trapezoidal screw drive 12 mm KGT 5 mm TGT 8 mm 30 up to 1000 mm 128 mm ly = 1.04 \cdot 10⁵ mm⁴ lz = 1.29 \cdot 10⁵ mm⁴

max. 0.25 m/s

Theoretical critical rotational speed



Dynamic load and load moments



Load	dynam. [N] ¹⁾			
Fx drive KGT 1205	200			
Fx drive TGT 12x8	500			
Fy	200			
±Fz	250			
Load moment	dynam. [Nm]			
Mx	6			
Му	15			
Mz	10			

¹⁾ Max. total load of the system linear drive unit

$IZ = 1.29 \cdot 10^3 \text{ mm}^4$
1.07 kg
0.3 kg
0.45 kg
with 4 pieces KAO mounting brackets

Idle torques [Nm]

Rotational speed [rpm]	Lead P [mm]		
	KGT 5	TGT 8	
150	0.02	*	
1500	0.35	*	
3000	0.5	*	

* Values in determination

WIESEL BASELine WB60

with ball screw drive or trapezoidal screw drive and sliding guide





Technical data

Linear speed

- Repeatability:
- Accelearation:
- Rotational speed:
- Drive element:

Diameter: Lead:

- Stroke length:
- Stroke length:
 Power bridge:
- Geometrical moment
- of intertia:
- Weights:
 Base without stroke:
 100 mm stroke:
- Power bridge: Provide :

SA-diagram



Dynamic load and load moments



Load	dynam. [N] ¹⁾	
Ex drive KGT 2005	2500	
Ex drive KGT 2000	1500	
Fx drive TGT 20x8	2500	
	500	
Fy ±Fz	650	
ΣFZ	000	
Load moment	dynam. [Nm]	
Mx	30	
My	70	
Mz	50	

¹⁾ Max. total load of the system linear drive unit

Idle torques [Nm]

Rotational speed [rpm]	KGT 5	Lead P [mm] KGT 20	TGT 8
150	0.50	0.70	*
1500	1.00	1.35	*
3000	1.50	1.80	*

max. 1 m/s

± 0.05 mm

max. 5 m/s²

20 mm

max. 3 000 rpm

KGT 5, 20 mm

40 up to 5200 mm

TGT 8 mm

210 mm

3.63 kg

0.72 kg

1.17 kg

6.1 · 10⁵ mm⁴ 7.,0 · 10⁵ mm⁴

Ball screw drive with low-backlash

single nut or trapezoidal screw drive

with 4 pieces KAO mounting brackets

* Values in determination

Proven technology that simply excels.

Guide system

With its low-maintenance sliding rail, the WIESEL *BASELine* offers a strong and reliable guide system that can even be easily replaced by the user.



Cross section WB60

The rigid aluminium section is fastened directly to the machine frame by mounting brackets. This makes alignment simple and guarantees direct power transmission. The flat power bridge allows the use of all kinds of different fastening methods.

Screw support

Even for great strokes, the integrated screw supports are very dynamic and reliable and they run smoothly.



Lubrication

Maintenance is extremely easy: The ball screw is easily lubricated through a lubricating nipple on the power bridge. The trapezoidal screw drive and the fixed and movable bearings are maintenance-free.



Sealing strip

The proven sealing strip protects the drive reliably from dirt and dust, thus guaranteeing reliability.



Drive system

At the core of the WIESEL BASELine there is either a high-precision ball screw drive with a low-backlash single nut or a trapezoidal screw drive from our own production.

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