

Creep-Feed Grinding



powerLine

Experience the powerLine

The powerLine technology machines are specifically geared towards creep-feed grinding applications. Their mono-base design allows grinding widths (Z-axis) of up to 700 mm with a maximum spindle power of 105 kW.

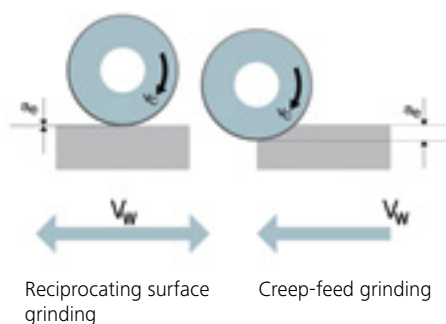


The compact, steel base designed powerLine model is equipped with linear guides in all three axes.

All three axes (X, Y, Z) are driven by servo motors via ball screws (KGT).

The standard version of the multiLine comes with high-precision linear scales for positioning of the vertical axis. The direct drive of the grinding spindle from 26 kW guarantees optimal torque transfer.

Different measuring devices and CD (continuous dressing) units are examples of a wide variety of available options making it easy to customize the powerLine to your individual requirements.



Typical dressing units for creep-feed grinding

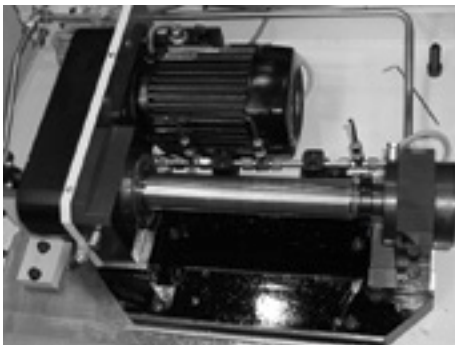
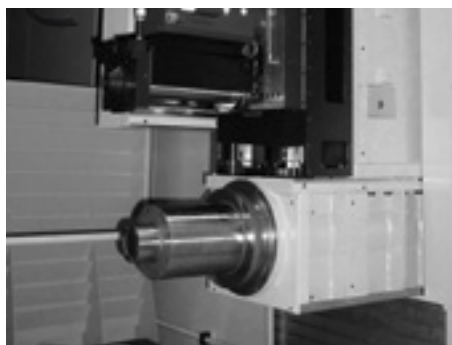


Table-mounted profile roll dressing unit



Head-mounted CD unit

Benefit Overview

- Spindle power up to 105 kW
- Grinding spindle with pre-loaded precision bearings
- Capable to handle very high table loads
- Large variety of options available



Comparison between Reciprocating and Creep-Feed Grinding

Criterion	Reciprocating	Creep-Feed
Surface Roughness	greater	lower
Average Grinding Temp.	lower	higher
Shape Variance	lower	greater
Profile Variance	greater	lower
Grinding Forces	lower	greater
Edge Wear	greater	lower

Design Characteristics

- Welded and tempered steel construction
- Linear guideways in all axes
- Full machine enclosure
- All axes with ball screws

Machine Concept

- Traveling table design
- Z-axis via traveling headstock
- Sinumerik 840D CNC controls

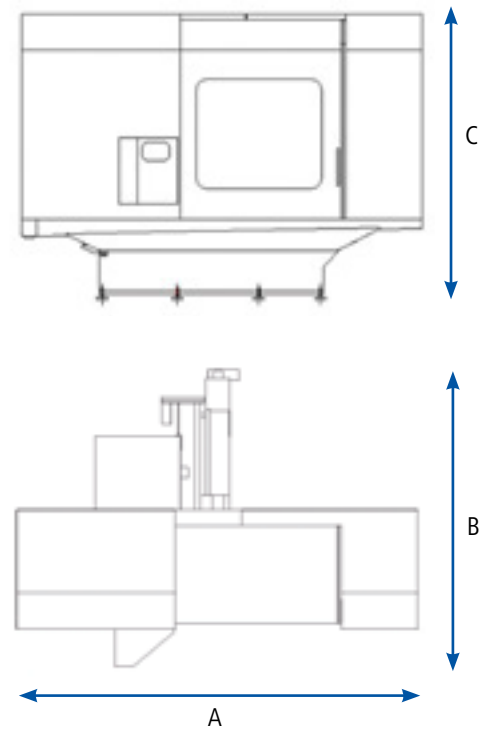


Examples of creep-feed applications

powerLine	1.000	1.500	2.000	3.000
Table Drive			KGT	
Grinding Width (mm)			700	
Grinding Length (mm)	1,000	1,500	2,000	3,000
Distance Spindle Center to Table (mm)			700/900	
Spindle Power (kW)			48/70/90/105	
Grinding Wheel (mm)	400 x 60 x 127			500 x 100 x 203

Dimensions / Weight				
Length A (mm)	4,600	5,600	6,600	8,600
Width B (mm)	4,100	4,100	4,100	4,100
Height C (mm)	3,000/3,450	3,000/3,450	3,000/3,450	3,000/3,450
Weight (kg)	11,000	14,000	16,000	24,000

All values are approximated and may change depending on selected options.
All information is subject to change.



Contact

aba Grinding Technologies GmbH

Bollenwaldstraße 116
63743 Aschaffenburg
GERMANY
T +49 6028 408-0
F +49 6028 408-509
info@autania-gt.de
www.autania-gt.de

A company of Autania AG, Germany

**Grinding Applications
for a Global Market**