

**Declaration of manufacturer
Mechanical Gears**

Series	421F5..mit AB-L_421F553
Test Lab / Client	Gerhard Geiger GmbH & Co.KG., Schleifmühle 6, 74321 Bietigheim-Bissingen, Germany
Standard	DIN EN 14203 (D) July 2004, Blinds and Shutters – Capability for use of gears with crank handle – Requirements and test methods

Test data

Family of products	rolling shutters (EN 13659)		
Gear type	worm gear	Reduction ratio i	5,33:1
Torque M_S [Nm]	7,5	Efficiency η (M_S)	0,41

Test results

Forced operation test	carried		
Test effort P_F [N]	60 (10,8 Nm) (Working radius 0,18m)		
Cycles	50	Passed	Yes


Number of achieved cycles	10.000 (endurance class 3)
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This gear series is in conformity with the requirements of the directive DIN EN 14203 dated July 2004.

Divergence from the norm:

Due to the strong thermal load at the test rig, the outflow of tiny amounts of lubricants is unavoidable.

Bietigheim-Bissingen, 27.04.2015


Hans Michael Dangel (General Management)