



# Schunk Products for the Cement Industry



**Schunk Kohlenstofftechnik GmbH**  
**Schunk Bahn- und Industrietechnik GmbH**



# Schunk Products for the Cement Industry



*Rotary Kiln with DC-Motors*



*Graphite Lubrication Stick*



*Induction Motors e.g. for fans, mills etc.*

# Products for the Cement Industry

## Powerful Motor Performance with Schunk Carbon Brushes and Holders



*Schunk Carbon Brushes – all grades in different designs available*



*Schunk Brush Holders – e.g. Single Holder or Double Clamp Holders*

### Schunk Products for the Cement Industry:

- Carbon brushes for
  - DC-Motors (kiln drive)
  - Induction Motors (mill, fan...)
  - Auxiliary Motors
- Brush holders for DC & Induction motors
- Systems to control brush wear
- Contacts, flexible current connectors
- Graphite sticks for lubrication

### Common Problems:

- Harsh environment
- Heavy dust influence
- Stuck brushes
- Low load conditions

### Our Solution:

- Adapted carbon brush grades with
  - Improved film control characteristic
  - Special after-treatment
- Low load resistant carbon brush grades
- Adapted carbon brush designs
- Appropriate brush holders



# Grade Recommendations – Cement Industry

## DC-Motors

Grade	Opt. perm. current density		Max. permanent speed		Remarks
	A/in <sup>2</sup>	A/cm <sup>2</sup>	ft/s	m/s	
E101	78	12	131	40	Standard grade, rotary kiln
E108	78	12	131	40	Standard grade, polluted environment
E46X	78	12	131	40	For high starting loads
E55	78	12	131	40	Excellent for high humidity
F63	52	8	131	40	Low Load resistant
F49	52	8	131	40	Low Load resistant, polluted environment

## Induction Motors

Grade	Opt. perm. current density		Max. permanent speed		Metal content %	Remarks
	A/in <sup>2</sup>	A/cm <sup>2</sup>	ft/s	m/s		
E43/E43Z3	77	12	131	40	0	For extreme low loads
A24	98	15	115	35	40	Low load resistant
A20	98	15	115	35	50	Low load resistant
C80	98	15	115	35	53	Optimal on brass or bronze rings
K14Z3	116	18	98	30	62	For closed machines, low humidity resistant
A12S	116	18	98	30	70	Standard grade
C40Z3	129	20	98	30	75	For closed machines, for higher loads
U1762	98	15	131	40	10	Special applications

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