



Industry

Current Transmission

Your partner in general industry

Make your industrial processes more efficient and profitable

Efficiency improvements and a high level of machine uptime are decisive success factors for reducing production and systems costs. As a development partner, we offer our customers comprehensive competence in the field of current-transmission equipment from the planning phase on, for integrating products which are custom designed for the application at hand into their systems.

Your best solution is our drive

Whenever the issue is the safe and reliable transmission of current for industrial systems, our components are the first choice and they are the first choice worldwide. As a technology and development partner, we offer all of our know-how to the industrial sector and develop customized solutions in close collaboration with our customers.

The results are technologically-advanced carbon brushes, brush-holder systems, grounding systems and contacts made of materials which meet the performance requirements. And with our products, our customers can always rely on the cost effectiveness, efficiency and durability of the products we develop.

Operational reliability starts with Schunk

With innumerable applications in the industrial sector, our solutions push back the frontiers of what is technologically feasible and provided added value through operational reliability in current transmission. For instance, we help you to avoid unplanned downtime and additionally to optimize your maintenance cycles and expenses.

▼ *Schunk is represented in numerous industries.*



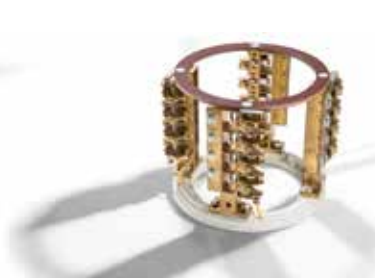


Reliable grounding systems for the motor shaft

Electrostatic charges, shaft currents and high switching frequency of motor controls cause vagrant current to the shaft. If these are not rerouted they can cause serious damage to bearings and gear boxes. Our high-quality grounding brushes and shaft-grounding devices reliably protect rolling bearings and gear components while preventing unplanned downtime and costly repairs.

Take advantage of these benefits:

- Customized carbon materials
- Outstanding protection for bearings and gear boxes
- Prevention of downtime



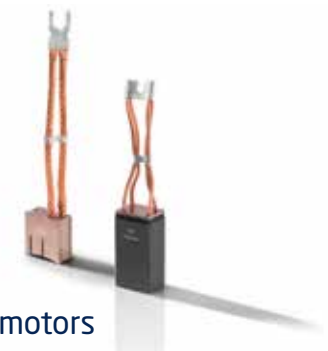
Brush rockers for DC motors

Schunk brush rockers for DC motors ensure a precise positioning of the brushes at all times and support the brush contact with a stable design of the holder in connection with a pressure perfectly matched to the system requirements.



Brush holder for slip-ring motors

Our holders are perfectly matched to our carbon brushes with respect to the brush guide and brush pressure and ensure exact positioning.



Carbon brushes for DC motors and slip-ring motors

Our graphite materials combine high electrical and thermal conductivity with outstanding wear resistance. Customized to your particular applications, they stand out for current slope in idle modes, in low-load operation and in aggressive media as well as in environments with high dust content and humidity.

Take advantage of these benefits:

- Customer-specific design to the respective application
- High degree of dependability and operational reliability
- Low (no) tendency to swell
- High stability for alternating loads

Physical values of our most important materials

Grade	Material type	Vol- tage Drop	Coefficient of friction	Test conditions	Resis- tivity $\mu\Omega\text{m}$	Rockwell		Bending strength N/mm ²	Bulk density g/cm ³	Metal content %
						HR10/40	HR5/40			
C20	Bronze-graphite	sn	n	5	0.1	95	–	80	5.60	90
C40Z3	Bronze-graphite	sn	n	6	0.2	100	–	55	4.20	75
C50	Bronze-graphite	sn	n	6	0.5	95	–	100	5.65	92
C60	Bronze-graphite	sn	n	5	0.6	100	–	80	5.70	92
C72	Bronze-graphite	n	n	7	6.5	85	–	25	2.30	27
C80X	Bronze-graphite	sn	n	6	0.70	100	–	30	3.10	50
K14Z3	Copper-graphite	sn	n	6	1.0	110	–	50	3.30	62
S11	Silver-graphite	sn	m	–	0.05	–	70	150	7.50	95
S13	Silver-graphite	sn	n	–	8.0	75	–	–	3.35	60
S14	Silver-graphite	sn	n	–	6.5	95	–	25	3.20	53
S15	Silver-graphite	sn	n	–	0.5	100	–	30	5.00	75
S20	Silver-graphite	sn	n	–	1.5	100	–	25	3.20	60
SI20	Silver-graphite	sn	m	7	20	70	–	20	1.65	5
HG2634	Graphite	m	n	4	15	–	–	10	1.30	–
HG6634	Graphite	m	n	4	18	–	–	10	1.32	–
F49	Resin-bonded graphite	h	n	3	350	105	–	30	1.68	–
F51	Resin-bonded graphite	h	n	3	300	100	–	25	1.70	–
F61	Resin-bonded graphite	h	n	3	250	100	–	30	1.70	–
F63	Resin-bonded graphite	h	n	3	250	75	–	12	1.60	–
E43	Electrographite	m	n	7	20	100	–	30	1.70	–
E46	Electrographite	m	m	1	22	70	–	10	1.50	–
E46X	Electrographite	m	m	1	22	90	–	17	1.60	–
E468	Electrographite	m	m	1	20	65	–	10	1.50	–
E49	Electrographite	h	n	1	55	–	90	18	1.60	–
E50	Electrographite	h	n	1	100	–	110	25	1.64	–
E55	Electrographite	m	n	1	20	–	85	25	1.70	–
E79X	Electrographite	m	m	1	35	90	–	16	1.65	–
E101	Electrographite	m	n	1	45	–	95	30	1.60	–
E104	Electrographite	m	m	4	28	–	–	5	1.40	–
E108	Electrographite	m	n	1	45	–	90	27	1.60	–
L300	Carbon-graphite	h	m	7	23	95	–	24	1.62	–
L310	Carbon-graphite	h	m	7	33	90	–	20	1.73	–

* The table shows a selection of commonly-used materials. For special applications a multitude of further materials can be supplied. For manufacturing our carbon and graphite materials, we exclusively use defined preparations or specified raw materials which are processed in accordance with precisely prescribed procedures. More information and details about the advantages and properties of our materials are available upon request.

Schunk - A worldwide success. Always at your side.

Schunk is a global leading force in the development, production and use of carbon, ceramic, quartz and sintered solutions. Like no other, Schunk combines innovative strength and technological know-how with an extraordinary service orientation to supply a range of performances unique to the market. Schunk is a partner who offers you all the technological possibilities of a globally active company and can implement your ideas pragmatically and tailor-made to your requirements - whether these are for industrial large-volume markets or highly specialized niche markets.

The Schunk Group

Empowering, idea-driven, collaborative - this is how the Schunk Group has made a name for itself as a globally-active technology group since 1913. Empowering, because we build bridges for our customers to help them develop better products and conquer new markets with innovative technologies. Idea-driven, because innovations are a significant aspect of our company culture. Collaborative, because every employee of the Schunk Group is focused on the customer.

The Schunk Group is a globally operating technology company with a global business unit structure. The company is a leading supplier of products made of high-tech materials - such as carbon, technical ceramics and sintered metal - as well as of machines and systems - from environmental simulation through air conditioning technology and ultrasonic welding to optical machines. The Schunk Group employs more than 9,100 people in 29 companies and made a turnover of € 1.35 billion in 2019.

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