



Schweisskraft
EG 1

Why grind electrodes?

To prevent ignition issues and erratic arc behaviour during direct current TIG welding (DC), the electrodes should be ground to a point facing the direction of the current flow. When AC TIG welding with electrodes measuring 1.6 mm or more in diameter, one phase must be grounded in the direction of current flow to achieve a narrow arc!

The EG 1 can regrind electrodes up to 200 times, with lengths ranging from 15 mm to Ø 4.0 mm.

ELECTRODE GRINDING DEVICES



EG 1

Electrode grinder ensures the best welding results thanks to optimally ground electrodes

- ▶ Optimised for use in the workshop and during assembly
- ▶ Minimal material abrasion on the electrode of only 0.3 mm via built-in setting gauge
- ▶ The electrode can therefore be reground up to 200 times instead of just 50-100 times
- ▶ Does not anneal during the sanding process
- ▶ Integrated extraction system with P3 dust filter, providing optimum protection for the user
- ▶ Precise guidance of the electrode in a clamp holder
- ▶ Integrated suction with disposable filter element
- ▶ Infinitely variable speed regulation via adjusting wheel
- ▶ A simple adjustment allows 3 grinding levels of the diamond disc can be used, therefore three times the service life of the disc
- ▶ Electrodes with metal drops can also be ground directly, which saves time and the cancellation of the electrode
- ▶ Powerful motor with 850 watts
- ▶ Also for grinding short electrodes (up to 15 mm), e.g. for orbital welding systems



Stepless angle adjustment from 15°-180



Integrated viewing window



SCOPE OF DELIVERY:

- Drive motor
- Grinding head with filter housing and filter
- Electrode holder
- Diamond disc Ø 40mm
- Collets for electrodes 1.6/2.4/3.2 mm
- Operating tool,
- 2 x Allen keys 2/4 mm,
- 2 x open-end wrench 13-17/13-14
- Disposal bag for disposable filters
- Plastic case



Scope of delivery with case

Model	EG 1	
Art. no.	1690100	

Technical data		
Electrode Ø	mm	1.0 - 4.0
Grinding angle stepless	°	15° - 180°
Electrode length min.	mm	22
Infinitely variable speed	min ⁻¹	8000 - 22000
Diamond disc	mm	Ø 40
Motor power	W	850
Electrical connection ~50 Hz	V	230
Weight approx.	kg	3.8

ACCESSORIES

Accessories	Art. no.
Diamond disc 40 mm	1690102
Electrode holder	1690103
Collet 1.0 mm	1690105
Collet 1.6 mm	1690106
Collet 2.0 mm	1690107
Collet 2.4 mm	1690108
Collet 3.2 mm	1690109
Collet 4.0 mm	1690110
Filter cassette	1690117
Disposal bag	1690121
Switches	1690131

EG 4

Electrode grinding device for the perfect grinding of tungsten electrodes with a diameter of 1.0 to 4.0 mm

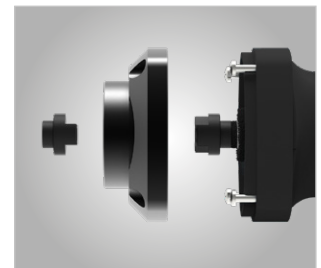
- ▶ Easy handling thanks to pre-set grinding angles and diameters
- ▶ Grinding angle 15°, 18°, 22.5° and 30° selectable
- ▶ Handy device, ideal for use in the workshop or during assembly
- ▶ Integrated 5-stage speed control via rotary wheel
- ▶ Easy to change grinding disc



Grinding and cutting options for different electrode diameters



5-stage speed control



Easy to change grinding disc

SCOPE OF DELIVERY:

- Grinding disc
- Transport case

Model		EG 4
Art. no.		1692004
Electrode diameter	mm	1.0 – 4.0
Electrode length min.	mm	30
Grinding angle	°	15 – 30
Speed	min ⁻¹	0 – 11000
Speed control		5-level
Diamond disc Ø	mm	33.5
Motor power	W	750
Electrical connection ~50 Hz	V	230
Dimensions (L x W x H) approx.	mm	340 x 76 x 76
Weight approx.	kg	1.6

ACCESSORIES



Accessories	Art. no.
① Cover cap	1692080
② Angle display	1692081
③ Grinding disc	1692082
④ Pair of carbon brushes	1692083
⑤ Switches	1692084
⑥ Transport case	1692085
⑦ Grinding wheel	1692086
⑧ Cross coupling EG4	1692087
⑨ Rotor EG	1692088

Electrode grinding device

EG 5

Electrode grinding device. Best welding results thanks to optimally ground tungsten electrodes

- ▶ For perfect grinding of tungsten electrodes with a diameter of 1.6 to 5 mm
- ▶ Grinding angle infinitely adjustable from 0 to 60 degrees

- ▶ Stop for setting the correct sanding length integrated in the device
- ▶ Precise grinding in longitudinal direction, resulting in better ignition properties, stable arc and longer service life

- ▶ Problem-free grinding even with a length of only 50 mm, spherical caps or metal drops
- ▶ Clamping also possible with work gloves thanks to smooth-running knurled screw
- ▶ Grinding dust can be easily removed via a drawer



Stop for setting the correct sanding length integrated in the device



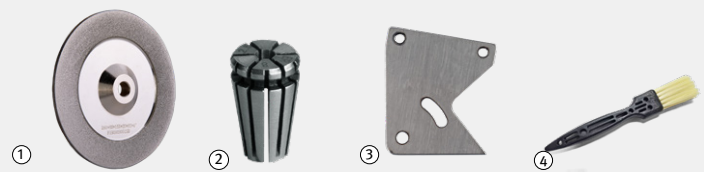
SCOPE OF DELIVERY:

- Diamond disc Ø 90mm
- One collet each 1.6 / 2.0 / 2.4 / 3.2 / 4.0 mm

Model		EG 5
Art. no.		1692005

Technical data		
Electrode diameter	mm	1.6 – 5.0
Electrode length min.	mm	35
Grinding angle	°	15 – 60
Speed	min ⁻¹	6500
Diamond disc Ø	mm	90
Motor power	kW	0.07
Electrical connection ~50 Hz	V	230
Dimensions (L x W x H) approx.	mm	225 x 150 x 195
Weight approx.	kg	4
Grain size		180

ACCESSORIES



Accessories	Art. no.
①Diamond disc K180	1692050
① Diamond disc K320	1692065
Electrode holder	1692051
Collet 1.6 mm	1692052
Collet 2.0 mm	1692053
②Collet 2.4 mm	1692054
Collet 3.2 mm	1692055
Collet 4.0 mm	1692056
Collet 5.0 mm	1692057
Protective glass	1692058
Main switch	1692059
Rubber foot set	1692060
Gasket	1692061
Fastening screw	1692062
Spacer disc	1692063
Adjusting nut	1692064
③Indicator	1692066
④ Cleaning brush	1692067

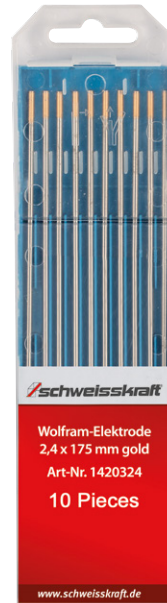
Tungsten electrodes

Tungsten electrodes - to be used for tungsten inert gas welding (TIG), plasma fusion cutting and related processes

Tungsten electrodes "WC 20" grey (thorium-free)

- ▶ Environmental compatibility: the optimum radiation-free alternative to thoriated electrodes
- ▶ Preferred use: TIG welding, plasma welding, plasma cutting, plasma spraying
- ▶ Current type: Direct current/alternating current
- ▶ recommended base materials: Rust-, acid- and heat-resistant steels, nickel and nickel alloys, refractory metals such as molybdenum, tantalum, niobium and their copper, bronze, titanium and titanium alloys, silicon-bronze alloys, silicon-bronze alloys and titanium alloys.

Size	Art. no.	PU ⁽¹⁾
1.0 x 175 mm	1420110	10
1.6 x 175 mm	1420116	10
2.4 x 175 mm	1420124	10
3.2 x 175 mm	1420132	10
4.0 x 175 mm	1420140	10



Tungsten electrodes "W" green (pure)

- ▶ Preferred use: TIG welding
- ▶ Current type: Alternating current
- ▶ recommended base materials: Aluminium and aluminium alloys, aluminium-bronze, magnesium and magnesium alloys, nickel and nickel alloys

Size	Art. no.	PU ⁽¹⁾
1.0 x 175 mm	1420210	10
1.6 x 175 mm	1420216	10
2.4 x 175 mm	1420224	10
3.2 x 175 mm	1420232	10
4.0 x 175 mm	1420240	10



Tungsten electrodes "WR 2" turquoise (mixed oxides, thorium-free)

- ▶ Special feature: Radiation-free universal electrode with excellent ignition behaviour and best load capacity values
- ▶ Current type: Direct current/alternating current
- ▶ Recommended base materials: Suitable for all base materials

Size	Art. no.	PU ⁽¹⁾
1.0 x 175 mm	1420410	10
1.6 x 175 mm	1420416	10
2.4 x 175 mm	1420424	10
3.2 x 175 mm	1420432	10
4.0 x 175 mm	1420440	10

Tungsten electrodes "WL 15" gold (1.5% lanthanum LaO₂)

- ▶ Special feature: Very good ignition properties and maximum service life
- ▶ Current type: Direct current/alternating current
- ▶ Recommended base materials: suitable for all base materials

Size	Art. no.	PU ⁽¹⁾
1.0 x 175 mm	1420310	10
1.6 x 175 mm	1420316	10
2.4 x 175 mm	1420324	10
3.2 x 175 mm	1420332	10
4.0 x 175 mm	1420340	10

(1) PU = quantity in pieces per packaging unit. Purchase only possible in PUs

Equipment familiarisation & expert training

We recommend that our customers have their welding machine commissioned and receive on-site training from our specialists.

The device familiarisation includes:

- Connection of the device supply installed at the workstation, such as mains cable, gas or compressed air (depending on device type) and individual supply, connection of torch and earth cables.
- Assembly of modular systems (e.g. power source, water cooling unit and trolley)
- Inserting the filler metal (MIG/MAG)

- Adjustment of working voltage and welding wire feed speed (MIG/MAG)
- Setting the shielding gas quantity (MIG/MAG/TIG)
- Notes on maintenance and care
- Instruction in the functions and setting options
- Duration: approx. 60 min.

The expert training programme includes

- **MIG/MAG, TIG**, manual electric or plasma cutting
- Comprehensive training on all device functions incl. practice welding
- Customised application benefits and their implementation on a sample component that you provide directly from your production facility.
- **Duration:** By individual agreement

We will be happy to assist you with any queries you may have! Our product consultants will support you with technical information. Our customers can contact us via a telephone hotline or an information email address for expert advice and solutions.

Contact:
email: beratung@schweisskraft.de
 Or simply give us a call on : +49 (0) 951 96 555 - 501

Type	Art. no.
Device familiarisation	EINWSCHWEIBT
Expert training	SCHULUNGSCHEIBT



Ask us for advice and a personalised quote!