

TRANSLATION OF THE ORIGINAL
USER MANUAL

NEUTRIX



Translation of the original EU statement of compliance

Producent: INELCO GRINDERS A/S
Industrivej 3, 9690 Fjerritslev, Denmark
Phone + 45 96 50 62 33, Fax. + 45 96 50 62 32
SE/VAT No: DK 32652964
E-mail: info@inelco-grinders.com

The machine: Tungsten electrode grinder
Type: NEUTRIX

is developed, designed and manufactured according to the above mentioned EEC directive and in accordance with the provisions of the Commission's Directive on harmonisation of national legislation's on machinery:

EU machine directive, 2006/42/EU
EU low voltage directive 2014/35/EU
EU-EMV direktivet, 2014/30/EU
RoHS2 direktiv 2011/65/EU
WEEE direktiv 2012/19/EU

Authorized to create the technical file: Anders Thy, Industrivej 3, DK-9690 Fjerritslev

Following harmonized norms have been used:

DIN EN ISO 12100:2011-03(2013-08)
DIN EN ISO 13857 (2020-04)
DIN EN ISO 62841-1 (2016-07)
DIN EN ISO 61000-6-1 to 4 (2019)

Titel: Managing Director
Name: Anders Thy
Date: 01.04.2021

Signature:



IMPORTANT SAFETY INSTRUCTIONS

It is important to follow the safety rules enclosed when installing and operating the machine. This instruction manual must be accessible at all times to the person engaged in the installation, operation and maintenance of the machine.

DISPOSAL



Do not dispose electrical equipment in your ordinary waste disposal. The European guideline 2012/19/EU on Electrical Equipment Waste and its implementation in national laws requires such used equipment to be separately collected and recycled in an environmentally friendly manner.

Serial No.: _____

Date: _____

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1. What is included:



Pos.	Item No.	Description
1	88896022	Neutrix Tungsten Grinder 230V-50Hz
2	44510050	Electrode holder NX
	44510164	Electrode Clamp NX/UT, Ø2.4 mm
3	44510440	Allen key 2 mm
	44510430	Allen key 4 mm
4	44510400	Key 13 & 17 mm
	44510410	Key 14 & 17 mm
5	44510162	Electrode Clamp NX/UT, Ø1.6 mm
	44510165	Electrode Clamp NX/UT, Ø3.2 mm
6	44510328	Wool brush
7	99140003	Plastic bag 120x180 mm
8	44510450	Grease FDA-G2
9	44510291	Suction disc
10	44510390	Case with foam NX

2. Manufacturers recommended use

Neutrix has been designed for the sole purpose of grinding tungsten electrodes. Any use, which is not described in this manual, is strictly prohibited.

It is very important that the user reads and understands the contents of this instruction manual.

Safety

- Check that the machine is undamaged.
- Do not use the machine without the filter.
- Change the filter in accordance with the instruction manual.
- Only turn on the machine when the electrode holder is in the grinding chamber.
- Do not remove the electrode holder before the motor has come to a complete stop.
- Repairs and maintenance must only be carried out by authorized personnel.
- Do not use the machine in humid places.
- Only use original replacement parts.
- Unplug the machine from the power supply before any maintenance work is undertaken.

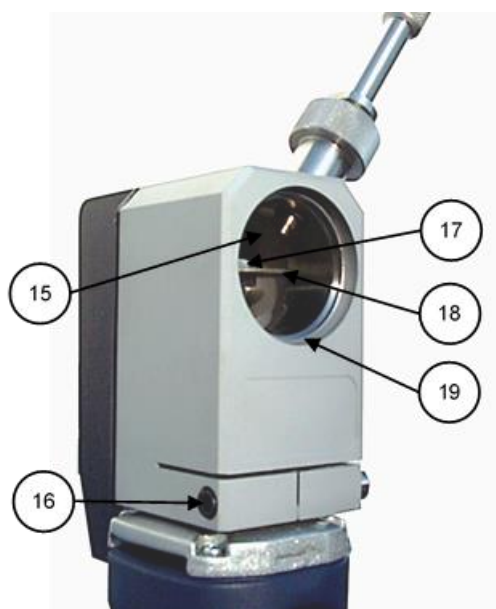
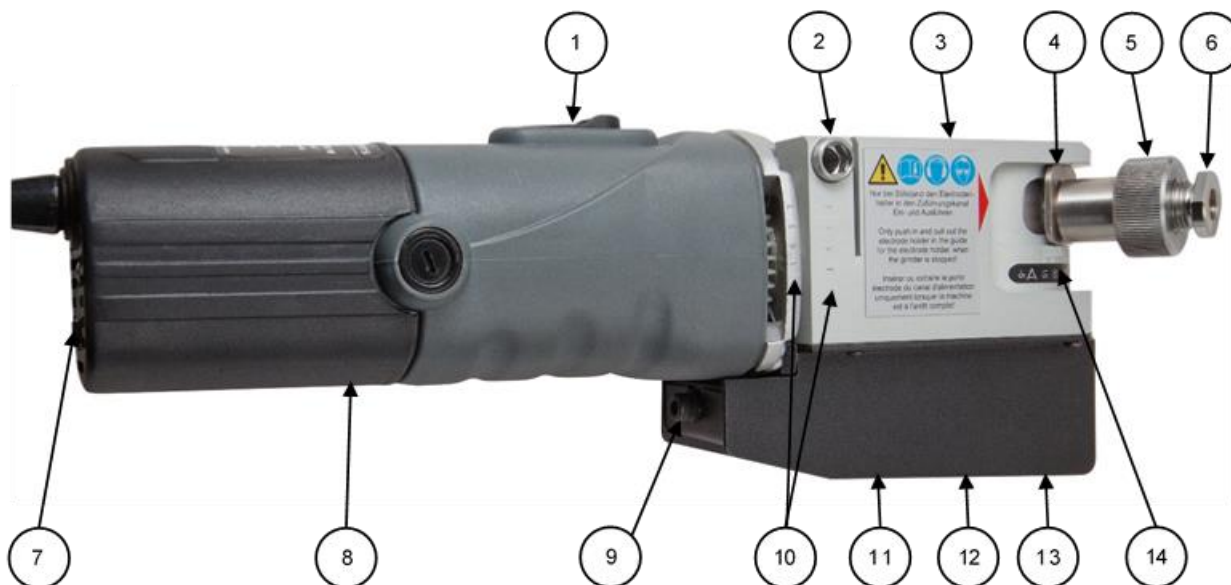


Neutrix Dry Grinder



Neutrix Dry Grinder
with Electrode Holder

3. Structure and description



Pos.	Item No.	Description
1	44510011	Switch NX - 850W
2	44510150	Allen screw for clamping of head NX
3	44510020	Grinding console NX
4	44510200	Eccentric plate NX
5	44510220	Tightening screw NX
6	44510140	Guide for electrode holder NX
7	44510025	Speed regulator Neutrix 850W
8	44510008	Motor Wag 40-850W 230V-50Hz
9	44510253	Allen screw M5x12
10	Machine no.	
11	44510260	Filter box NX
12	44510252	Filter grille NX
13	44510250	Filter house NX
14	44510360	Grinding angle
15	44510290	Inspection cover NX
16	44510190	Allen screw for stick-out CH M5x30
17	44510370	Counter nut M8 NX
18	44510030	Diamond disc Ø40 mm NX
19	44510100	Grinding chamber NX

4. Application

Neutrix is manufactured to offer the following options:

- Grinding of tungsten electrodes.
- Grinding electrodes with diameters from 0,8 – 4,0 mm.
- Variable angle adjustment from 15° to 180°.
- If it is necessary to grind electrodes shorter in length than 19 mm – a special electrode clamp can be supplied to grind down to 15 mm.
- Integrated filter to collect the grinding dust.
- To be able to grind tungsten electrodes on site.
- To achieve an exact and longitudinal ground tip.

5. Technical data & contents of standard package

Motor:	850 Watt.
Power:	230V/50Hz isolation according to EN 50144.
Rpm:	Adjustable from 8000 min ⁻¹ to 22000 min ⁻¹
Weight:	2,5 kg.
Filter:	Dust filter (one-time).
Diamond disc:	Ø40 mm.

The transport case consisting of:

Neutrix:

- Motor Type VAG 40.
- Grinding head with filter housing and filter.
- Diamond disc Ø 40 mm.
- Electrode holder.
- Electrode clamps 1.6, 2.4, 3.2 mm.

Tools:

- Allen key 4 mm.
- Allen key 2 mm.
- Key 13/17 mm.
- Key 14 mm.
- Suction disc
- Brush for cleaning guide for electrode holder.
- Grease for grinding chamber.
- Plastic bag for disposal of the filter.

6. Before use

Selection of electrode diameter

There are 3 different electrode clamps (1.6, 2.4, 3.2 mm) supplied with the grinder. Unscrew the electrode clamp from the electrode holder and replace with the required size.



Selection of angle

- Loosen slightly the tightening screw (5).
- Place the angle indicator of the guide (4) at the selected angle.
- Tighten the tightening screw (5).

Note:

15° is the smallest included angle of the electrode, that can be ground.

180° position makes a flat on the electrode point.

(1 step = 5°)

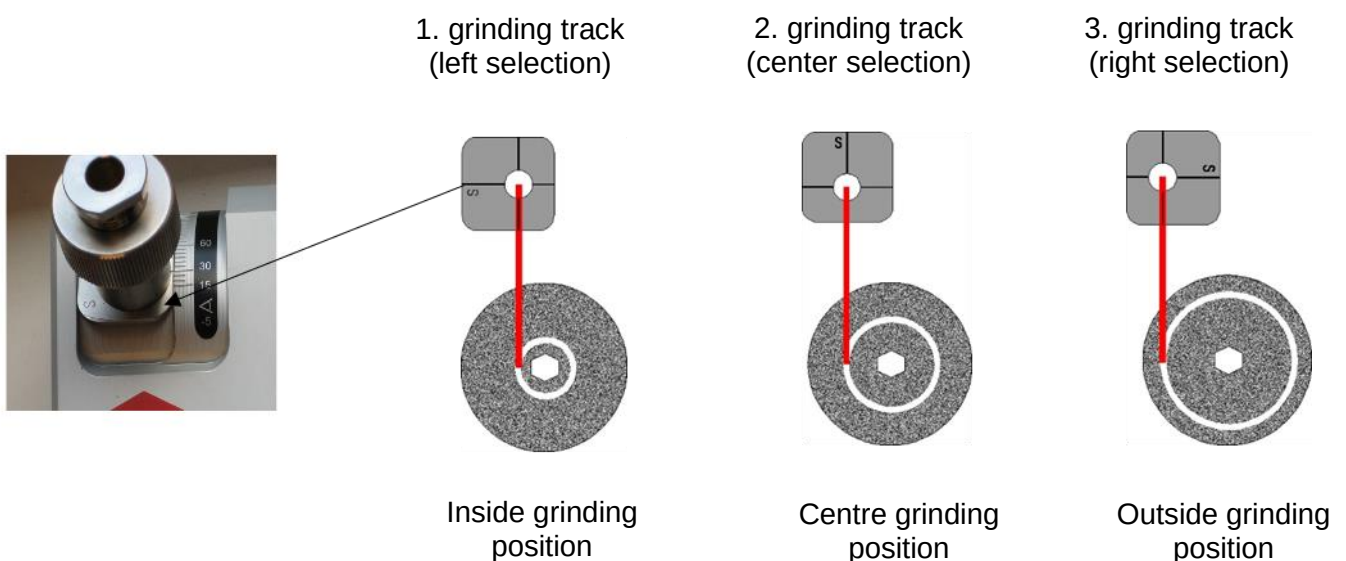
How to select grinding position on the grinding disc.

With the Neutrix it is possible to select 3 different grinding positions on the grinding disc.

- Unscrew the tightening screw (5)
- Lift the eccentric plate (4) and turn through 90° to the next position, place the eccentric plate back in the slide of the angle adjustment.
- Tighten the tightening screw (5)

It is recommended to change the dust filter every time you change the position on the grinding disc.

Eccentric plate to select the grinding position



7. Using the Neutrix

Adjustment of the electrode:

- To perform an accurate grinding, the stick-out of the electrode must be adjusted.
- Insert the electrode into the electrode holder and let the electrode protrude about 35 mm.
- Insert the electrode holder into the hole to determine the stick-out until the clamp is fully inserted in the stick-out bolt. Turn the electrode holder clockwise to tighten the electrode.



Grinding a tungsten electrode:

- Guide the electrode holder through the grinding bushing until the electrode is close to the diamond disc. This can be followed through the inspection glass.
- Connect to the power supply.
- Set the speed (7) see table 1 below.
- Start the grinder.
- During rotation, the electrode holder is slightly pushed down towards the diamond disc, so that the tungsten electrode does not glow or make sparks. This can be followed through the inspection glass.
- When the electrode holder reaches the stop, turn the electrode holder a few more turns to ensure the best possible grinding result.
- The grinding is now complete, and the electrode holder is pulled back a little, so that the electrode does not touch the grinding disc.
- Turn off the grinder and let the motor stop completely.
- Pull the electrode holder completely out of the grinder.
- Insert the electrode holder in the stick-out bolt.
- Turn the electrode holder counterclockwise to loosen the electrode and remove the electrode from the holder.
- BE AWARE that the electrode may be hot.



Recommended turning speed

Diam. of the electrode	1,0 mm	1,6 mm	2,0 mm	2,4 mm	3,2 mm	4,0 mm
Speed adjustment	1	1	2	2	3	3

Note:

It is important to avoid excessive pressure with the electrode holder, this means an increased wear of the diamond disc and the electrode may be damaged.

Before starting the machine, the electrode holder must always be placed in the electrode holder guide, and it must not be removed until the engine is stopped. If this is not followed, dust may be blown out through the guide.

8. Maintenance

Remove the plug from the power supply before carrying out any maintenance or repairs.

Replacing the filter.

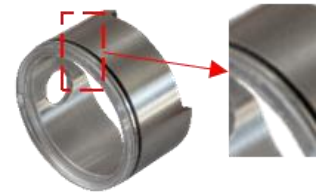
The filter must be changed, when the amount of dust makes it difficult to watch the grinding process through the inspection cover (15). Or when changing the position on the grinding disc (see section 6).

1. Loosen the allen screw (9) at the filter housing (13).
2. Remove the filter cover (12).
3. Remove the filter cassette (11) and put it into the plastic bag for disposal.
4. Insert a new filter cassette, so that the rubber seal is sitting tight to the grinding head (3).
5. Mount the filter cover and tighten the screw (9).

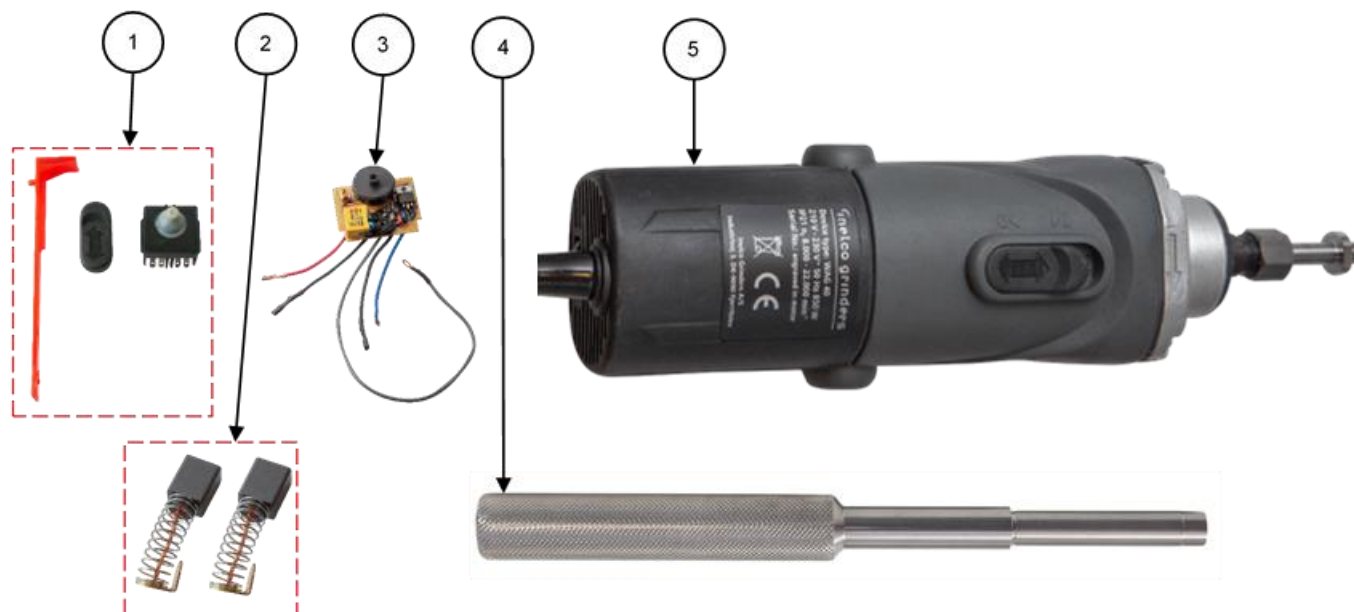


Replacing the diamond disc

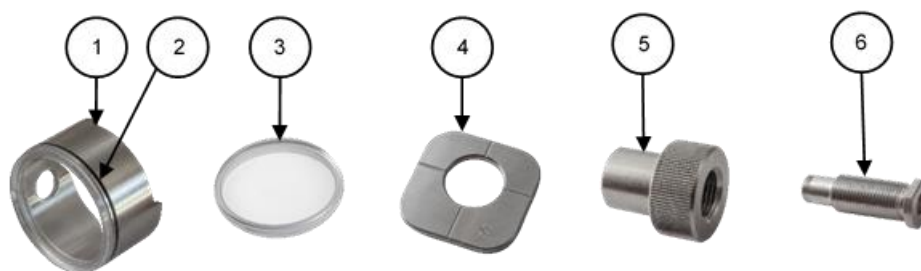
1. Remove the electrode holder.
2. Loosen the tightening screw (5).
3. Unscrew the guide for the electrode holder (19) using the 17 mm key. Remove the grinding chamber (19) including the inspection cover (15). Use the suction disc from the toolbox.
4. Unscrew the nut retaining the diamond disc, using the 14 mm key to fix the drive shaft and use the 13 mm key to demount the nut (17) Remove the diamond disc.
5. Insert a new diamond disc (18) and mount the retaining nut.
6. Clean the grinding chamber (19) with a dry cloth and apply grease on the outer side.
7. Mount the grinding chamber (19) and inspection cover (15). Beware that the O-ring are in the right place.
8. Mount the electrode holder guide.
9. If the grinding chamber is too dirty it can be cleaned with an alkalized solution and rinsed with water. When doing so, remember to remove the filter first.
10. Make a short test run of the grinder.



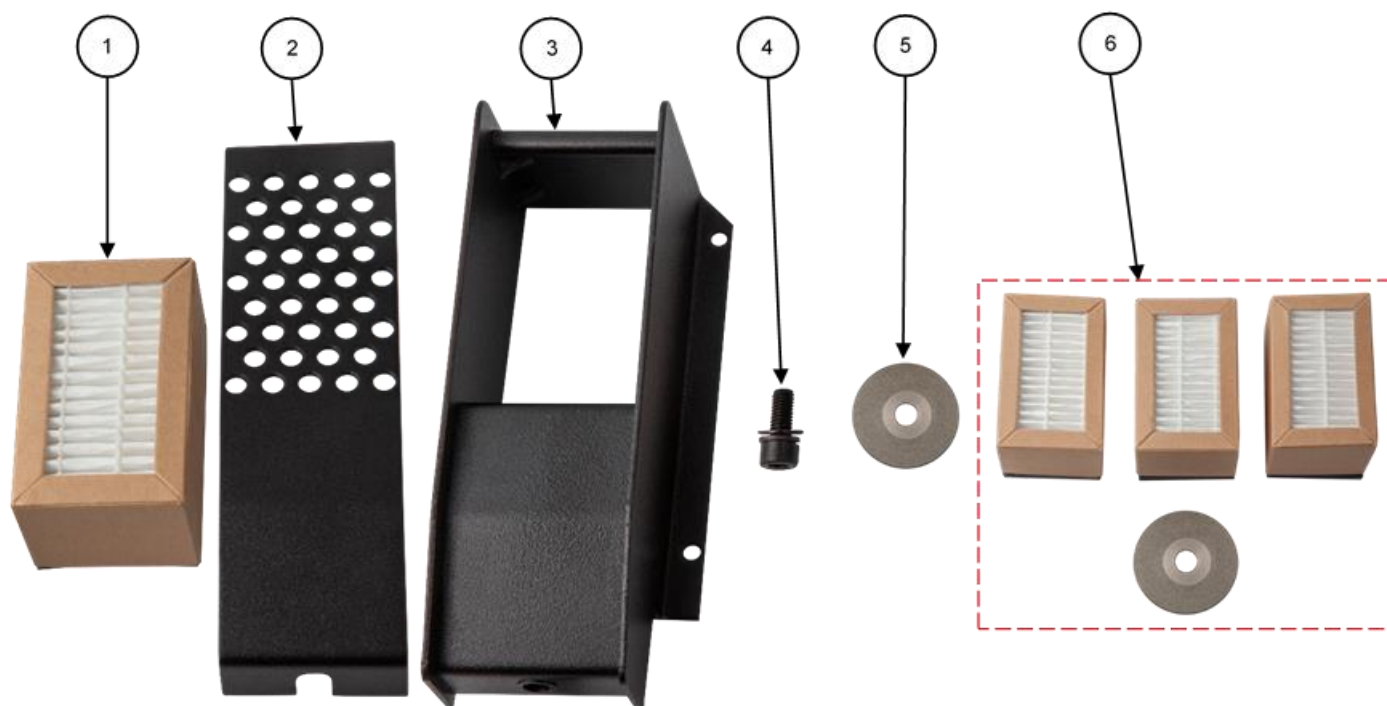
9. Spare parts



Pos.	Item No.	Description
1	44510011	Switch NX - 850W
2	44510019	Coal (2 pcs.) for Neutrix (850W) 2014
3	44510025	Speed regulator Neutrix 850W
4	44510050	Electrode holder NX
5	44510008	Motor Wag 40-850W 230V-50Hz



Pos.	Item No.	Description
1	44510100	Grinding chamber NX
2	44510481	O-Ring Ø48x1 mm
3	44510290	Inspection cover NX
4	44510200	Eccentric plate NX
5	44510220	Tightening screw NX
6	44510140	Guide for electrode holder NX



Pos.	Item No.	Description
1	44510260	Filter box NX
2	44510252	Filter grille NX
3	44510250	Filter house NX
4	44510253	Allen screw M5x12
5	44510030	Diamond disc Ø40 mm NX
6	75505110	Grinding disc kit Neutrix



Pos.	Item No.	Description
1	44510280	Wall mount NX
2	44510275	Table mount w/toolholder NX
3	44510270	Table mount NX

10. Accessories

Item No.	Electrode Clamps 	Item No.	For short electrodes 
44510158	Electrode clamp, Diameter 0,8 mm	44511171	Electrode clamp, Diameter 1,0 mm
44510171	Electrode clamp, Diameter 1,0 mm	44511162	Electrode clamp, Diameter 1,6 mm
44510161	Electrode clamp, Diameter 1,2 mm	44511172	Electrode clamp, Diameter 2,0 mm
44510163	Electrode clamp, Diameter 1,5 mm	44511164	Electrode clamp, Diameter 2,4 mm
44510162	Electrode clamp, Diameter 1,6 mm	44511173	Electrode clamp, Diameter 3,0 mm
44510172	Electrode clamp, Diameter 2,0 mm	44511165	Electrode clamp, Diameter 3,2 mm
44510164	Electrode clamp, Diameter 2,4 mm	44511174	Electrode clamp, Diameter 4,0 mm
44510173	Electrode clamp, Diameter 3,0 mm		
44510165	Electrode clamp, Diameter 3,2 mm		
44510174	Electrode clamp, Diameter 4,0 mm		

