

# DE525-3B Van de Graaff generator II

## Manual for assembly



## Purchased parts package:

- 1 Ground plate with driving motor and support pipe
- 2 Crank wheel with suspension
- 3 Conductor ball with isolating rod and grounding cable
- 4 Support for support tube
- 5 Pulley
- 6 Crank pin
- 7 Metal clamp
- 8 Support rod for metal hollow ball
- 9 Metal hollow ball
- 10 Fixed-voltage power supply



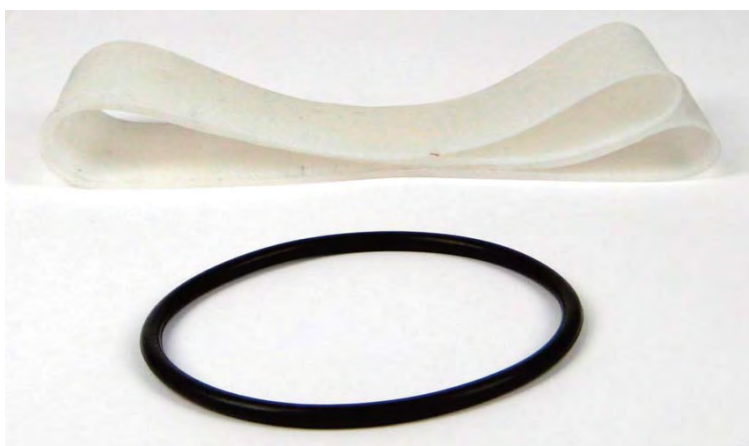
## Accessories:

- Foil
- Pointed wheel
- Supporting bar with tip for pointed



## Replacements:

- Driving belt, black
- Silicone belt



## Please follow the instructions of this manual step by step!

1. Pull the silicone belt including the roller upwards with a little bit of force. Make sure to hold the device firmly while doing this. Afterwards bend the silicone belt including roller over the edge of the tube and fix it with the help of the supplied clamp.



2. Push the support for the support tube over the silicone belt.



3. Fix the axis of the pulley into the slits of the support for the supporting tube



4. Remove the metal clamp and attach the support onto the upper end.



5. The first phase of the set-up is now finished.



6. Attach the support tube in the middle of the support.



7. Fix the tube with a pincer.



8. Attach the metal hollow ball to the support tube.



9. Fix the metal hollow ball with the screw nut.  
This screw nut should also be fixed with a pincer.



10. The second phase of the set-up is now finished.



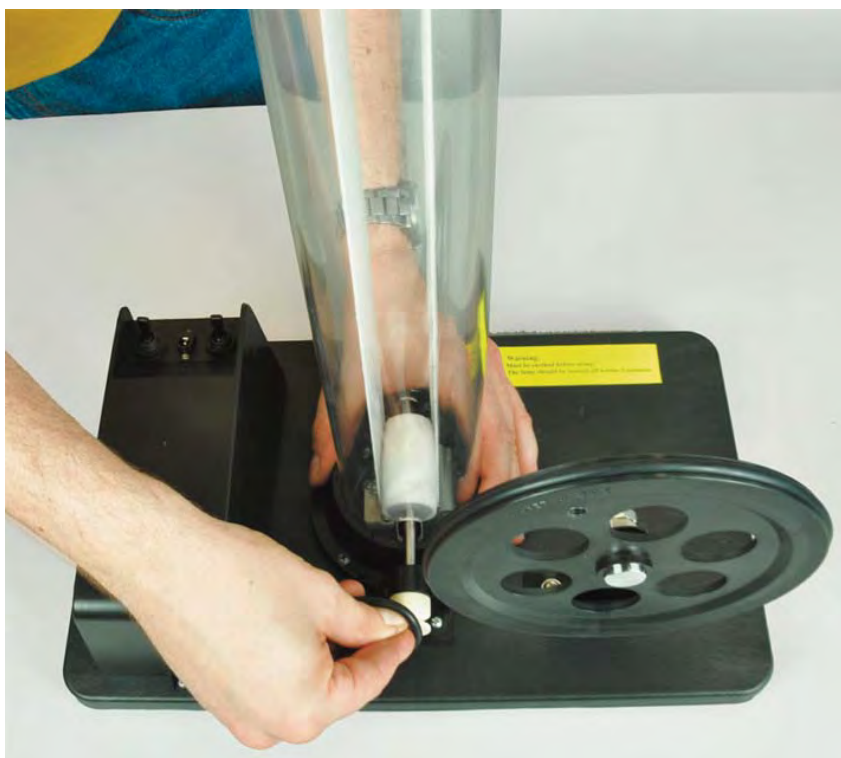
11. Attach the conductor ball to the isolating support.



12. **If motor-drive**, put the driving belt for the moment onto the axis of the motor.



13. Afterwards pull the driving belt up on the driving unit of the generator.



14. Supply the motor of the generator with a fixed-voltage power supply.



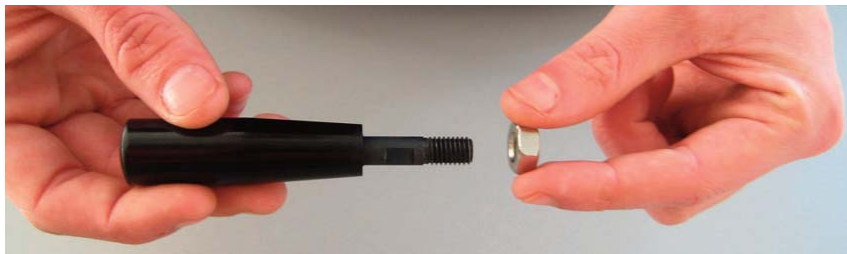
15. Set-up for the crank for **hand-driven experiment**.  
Fix the crank wheel to the ground plate.  
For this action, a screw driver is required.



16. Connect the crank wheel and the pulley with the driving belt.



17. Fix the screw nut at the end of the thread of the crank pin.



18a. Attach the crank pin to the thread of the crank wheel.



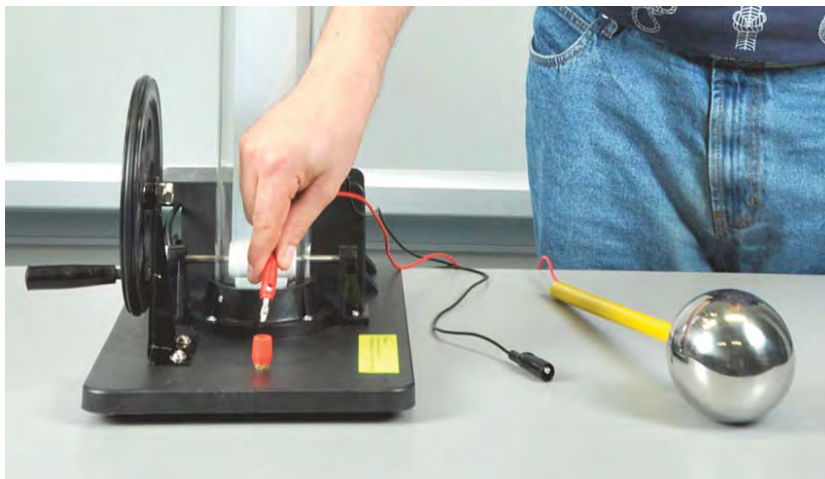
18b. The crank pin should be attached like shown on the picture below.



18c. Fix the crank pin with the screw nut.



**Attaching the conductor ball:** Put the red plug of the conductor ball to the red bush on the ground plate.



20. Attach the black, isolated crocodile clip to a grounding bush in the near area (e.g electrical socket).



**The Van de Graaff generator II is now ready for operation**

