

High Quality Aviation Brushes from Helwig



Helwig Carbon manufactures a variety of carbon brushes used on aviation and military applications. Our brushes and special grades are designed to handle the stringent requirements, certifications and high altitude common with these critical applications.

Valued Source for Aircraft Parts

Helwig has extensive experience supplying the aerospace industry and has thousands of aviation brushes to choose from. No quantity is too large or too small.

You will enjoy superior customer service and have access to unmatched technical expertise.

We work diligently with engineers and field technicians to troubleshoot problems and find effective, lasting solutions.

Reliability

Failure is not an option for critical applications and correct brush design and carbon grades are crucial for optimal performance. Helwig has the experience and resources you can depend on.

Popular Helwig Grades for Aerospace Applications:

| Grade Name | K254 | K175 | H4399 | K018 | H4375 | H94 | H4333 |
|----------------------|--------|---------|--------|--------|--------|--------|---------|
| Resistivity (Ohm-in) | 0.0009 | 0.00016 | 0.0008 | 0.0007 | 0.0003 | 0.0009 | 0.00015 |
| Hardness (Shore) | 40 | 45 | 45 | 40 | 23 | 55 | 23 |
| Strength (PSI) | 3500 | 5000 | 4000 | 3000 | 3000 | 4300 | 4000 |
| Type* | G | CG | EG | G | CG | EG | CG |

*G = Graphite, CG = Copper Graphite, EG = Electro-Graphite

*Only a few grades can function properly at high altitudes due to low humidity, high current densities (up to 250 Amps/sq. in.) and high speeds up to 30,000 rpm.



www.helwigcarbon.com



American Owned and Made

Common Applications

Helwig brushes are used on most major aircrafts in a wide variety of applications:

- Starter/Generators
- Fan & Blower Motors
- Control Motors
 - Autopilot Mechanisms
 - Lift Actuator Systems
 - Navigation Devices
- De-Icing Systems
- Actuators & Valve Assemblies
- Windshield Wiper Motors
- Fuel Pump & Flap Motors



- Carbon grade production and manufacturing - **Made in USA**
- Custom grades for demanding applications with no quantity limits.
- High altitude treatments, inserts and ingredients for superior performance and longer life.
- Precision, automated fabrication in a specialty Aviation production area.
- Superior manufacturing quality and marking capabilities.
- Experienced work force highly trained on critical, aircraft-specific brushes.
- In-house application analysis and design recommendations from material and chemical engineers.
- In-house testing resources for grade and design validation.
- ISO 9001 Certified.

Call us today at **800.962.4851** for more information, or visit our website at www.helwigcarbon.com

